

**University of Stuttgart**  
Germany



# Analytische Qualitätssicherung Baden-Württemberg

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## Proficiency Test 3/24

- PAH in ground water, raw water and  
drinking water -

naphthalene, acenaphthene, fluorene, phenanthrene, anthracene,  
fluoranthene, pyrene, benzo[a]anthracene, chrysene,  
benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, di-  
benz[ah]anthracene, benzo[ghi]perylene, indeno[1,2,3-cd]pyrene

## Final report

provided by

AQS Baden-Württemberg at

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**AQS** Baden-  
Württemberg

on behalf of the Ministry of the Environment, Climate Protection  
and the Energy Sector Baden-Württemberg

Stuttgart, in January 2025

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<b>Release of the report:</b>	Dr.-Ing. Frank Baumeister      on 10.01.2025
<b>Version of the report</b>	1

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## 1. General

In the frame of the waste water PT scheme, the PTs are based on the requirements of the German Working Group on water issues of the Federal States and the Federal Government (LAWA), which fixed the way of doing PTs in the regulated environmental sector in its AQS-leaflet A-3 for the analysis of water, waste water and sludge. The PTs are conducted together with several PT providers nationwide in Germany in a harmonised way.

The drinking water PTs are executed according to the recommendations of the German Federal Environment Agency from December 2003. These recommendations “for the execution of PTs for the measurement of chemical parameter and indicator parameter for the external quality control of drinking water laboratories” (Bundesgesundheitsblatt 46 **12**, 1094-1095) require, that drinking water laboratories must demonstrate their competence for all parameters they are accredited for or they want to be accredited for by a successful participation in a PT round within a cycle of 2-3 years.

In this round the laboratories from Germany could participate within the waste water PT scheme or/and the drinking water scheme under the respective rules.

Following parameters were offered:

- napthalene
- acenaphthene
- fluorene
- phenanthrene
- anthracene
- fluoranthene
- pyrene
- benzo[a]anthracene
- chrysene
- benzo[b]fluoranthene
- benzo[k]fluoranthene
- benzo[a]pyrene
- dibenz[ah]anthracene
- benzo[ghi]perylene
- indeno[1,2,3-cd]pyrene

The PT was conducted together with the “Institut für Hygiene, Behörde für Gesundheits- und Verbraucherschutz Hamburg.

The PT was executed and evaluated according to the requirements of DIN 38402-A45 and ISO/TS 20612.

## 2. PT design

Each participant received the following samples:

- 3 x 2 samples in 1000-ml-glass bottles (brown) with ground glass plug for the determination of naphtalene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benz[ah]anthracene, benzo[ghi]perylene, indeno[1,2,3-cd]pyrene. The samples were preserved by cooling.

9 different concentration levels/batches were produced. The concentration levels were randomly allocated to the participants. It was ensured that each participant received one concentration level from the concentration level 1–3, 4–6 and 7–9.

## 3. Sample preparation

The samples were based on a real ground water. For the preparation of the samples, the ground water was filtered by using 5 µm and 1 µm filter cartridges to eliminate particles. To reduce germs, the ground water was irradiated with ultraviolet light and was pasteurised at 80 °C in a stainless steel tank overnight. During pasteurisation the matrix was aerated with a mixture of nitrogen and carbon dioxide to prevent de-gassing of carbon dioxide followed by precipitation of calcium carbonate.

For the preparation of the samples, the matrices were spiked with stock solutions. Each bottle was spiked. The concentrations covered ground , raw and drinking water relevant ranges.

The samples were cooled directly after preparation. The samples were dispatched with freezer packs added to the packages. The participants were informed to extract the samples 24 hours after receipt of the samples at the latest.

## 4. Sample distribution

The samples were dispatched on 23 April 2024 by express service (GoExpress).

## 5. Analytical methods

The participants were restricted to use one analytical method according to the requirements of the “Technical Module Water” from the German Working group on water issues of the Federal States and the Federal Government (LAWA):

Parameter	Method	Standard
PAH (15 PAH according to EPA)	1. GC/MS (Module water, section 6)  2. HPLC (Module water, section 7)	DIN 38407-F 39: 2011-09 DIN ISO 28540: 2014-05 (F 40) DIN EN 16691: 2015-12 (F 50)  DIN EN ISO 17993: 2004-03 (F18)

Under the rules of the drinking water PT the laboratories were free to choose any method.

A limit of quantification of 0.005 µg/l was required for all parameters.

The samples had to be analysed in duplicate over the complete method (sample preparation and measurement). The participants were asked to submit the results as average values in µg/l with three significant digits.

## 6. Submission of the results

The deadline for the submission of results was on 27 May 2024.

## 7. Basic principle of evaluation and assessment

The basic principle of the evaluation and assessment of the PTs from AQS Baden-Württemberg are described in the document „Evaluation of the PTs and information for the report“, which can be downloaded from [www.aqsbw.de/pdf/ausw\\_berichte\\_v1\\_en.pdf](http://www.aqsbw.de/pdf/ausw_berichte_v1_en.pdf).

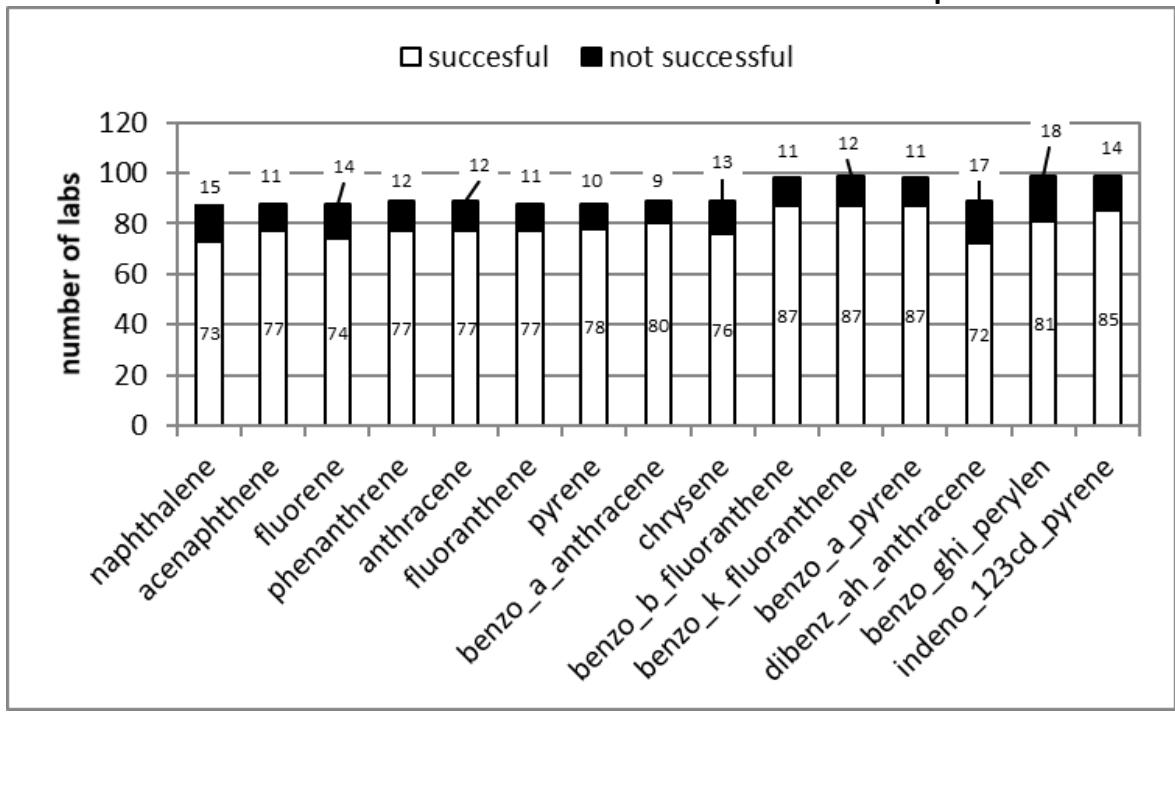
This PT was evaluated as follows:

<b>Assigned value <math>x_{pt}</math>:</b>	Consensus value (Hampel estimator)
<b>Standard deviation for proficiency assessment <math>\sigma_{pt}</math>:</b>	Q method Variance function
<b>Upper limit of <math>\sigma_{pt}</math>:</b>	25%
<b>Lower limit of <math>\sigma_{pt}</math>:</b>	5%
<b>Assessment:</b>	$z_u$ -Score
<b>Classification of the single results:</b>	$ z_u  \leq 2,0$ successful $2,0 <  z_u  < 3,0$ questionable $ z_u  \geq 3,0$ unsatisfactory
<b>Parameter assessment:</b>	A parameter was assessed as successful, if more than half of the values were correctly determined (2 out of 3 values are within the tolerance limits).

## 8. Evaluation

<b>Number of participants:</b>	101
<b>Number of reported values</b>	4099
<b>Number of accepted values:</b>	3597 (87,75%)

### Illustration of the successful and not successful laboratories for each parameter



## 9. Explanation for the appendices

The explanations for the appendices can be found in the document „Evaluation of the PTs and information for the report“ which can be downloaded from [www.aqsbw.de/pdf/ausw\\_berichte\\_v1\\_en.pdf](http://www.aqsbw.de/pdf/ausw_berichte_v1_en.pdf).

## 10. Measurement uncertainty

### General:

Number of labs with valid values	96
Number of labs with valid values and reported measurement uncertainties	55 (57,3 %)
Number of valid values	3993
Number of valid values with measurement uncertainties	2296 (57,5 %)

### Measurement uncertainties against the accreditation status

Accreditation status of the values	Number of values	Number of values with measurement uncertainty
accredited	3462	2094 (60,5 %)
not accredited	531	202 (38 %)

### Interpretation of the reported measurement uncertainties:

If measurement uncertainties are underestimated values assessed as “satisfactory” in the PT ( $|z_U| \leq 2$ ), will have a large  $\zeta$ -score.  $|\zeta| > 2$  means that the “own” requirements (defined in terms of estimated uncertainty) are not fulfilled.

<b>Number of values with reported measurement uncertainty having a <math> z_U  \leq 2,0</math></b>	2076
<b>Number of values with a magnitude of <math>\zeta</math>-scores <math>&gt; 2</math></b> The own requirements of the laboratory are not fulfilled and the estimation of the measurement uncertainty is too low	299 (14,4 %)

### 11. Traceable reference values

The explanations about traceable reference values can be found in the document „Evaluation of the PTs and information for the report“, which can be downloaded from [www.aqsbw.de/pdf/ausw\\_berichte\\_v1.pdf](http://www.aqsbw.de/pdf/ausw_berichte_v1.pdf).

### 12. Internet

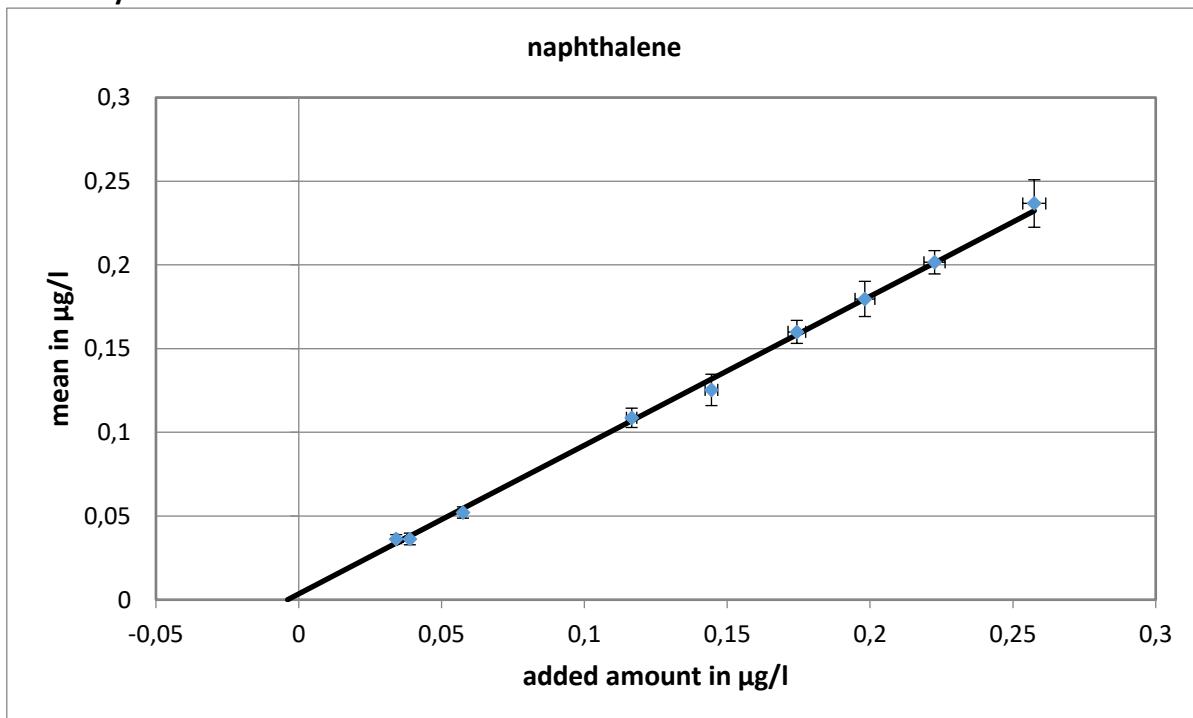
The report is available on the following webpage:

[http://www.aqsbw.de/pdf/304/report\\_304.pdf](http://www.aqsbw.de/pdf/304/report_304.pdf)

# naphthalene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]	
1	0,0363	9,61	0,0076	0,0063	0,0063	17,43	0,0503	0,0246	38,45	-32,32	30	3	3	20,0	
2	0,0362	7,43	0,0057	0,0063	0,0063	17,44	0,0501	0,0245	38,49	-32,35	28	2	3	17,9	
3	0,0521	6,44	0,0071	0,0081	0,0081	15,62	0,0698	0,0369	34,08	-29,16	28	3	3	21,4	
4	0,1087	5,31	0,0126	0,0136	0,0136	12,50	0,1377	0,0830	26,76	-23,62	30	2	1	10,0	
5	0,1253	7,48	0,0198	0,0150	0,0150	11,97	0,1574	0,0969	25,55	-22,67	28	4	0	14,3	
6	0,1600	4,30	0,0145	0,0178	0,0178	11,11	0,1978	0,1262	23,61	-21,13	28	3	1	14,3	
7	0,1797	5,85	0,0218	0,0193	0,0193	10,73	0,2205	0,1430	22,74	-20,43	27	2	1	11,1	
8	0,2016	3,46	0,0153	0,0209	0,0209	10,36	0,2458	0,1617	21,91	-19,76	30	5	0	16,1	
9	0,2367	5,99	0,0300	0,0234	0,0234	9,87	0,2860	0,1921	20,81	-18,86	28	6	1	25,0	
											sum	257	30	13	16,7

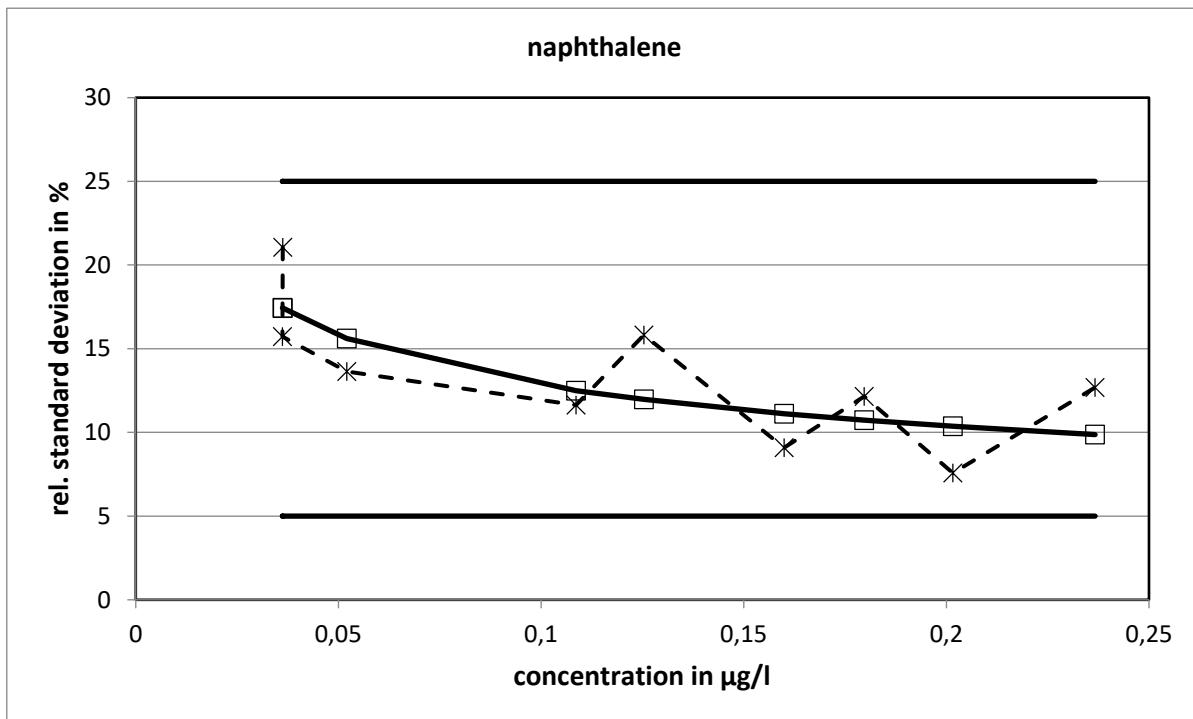
## Recovery and matrix content



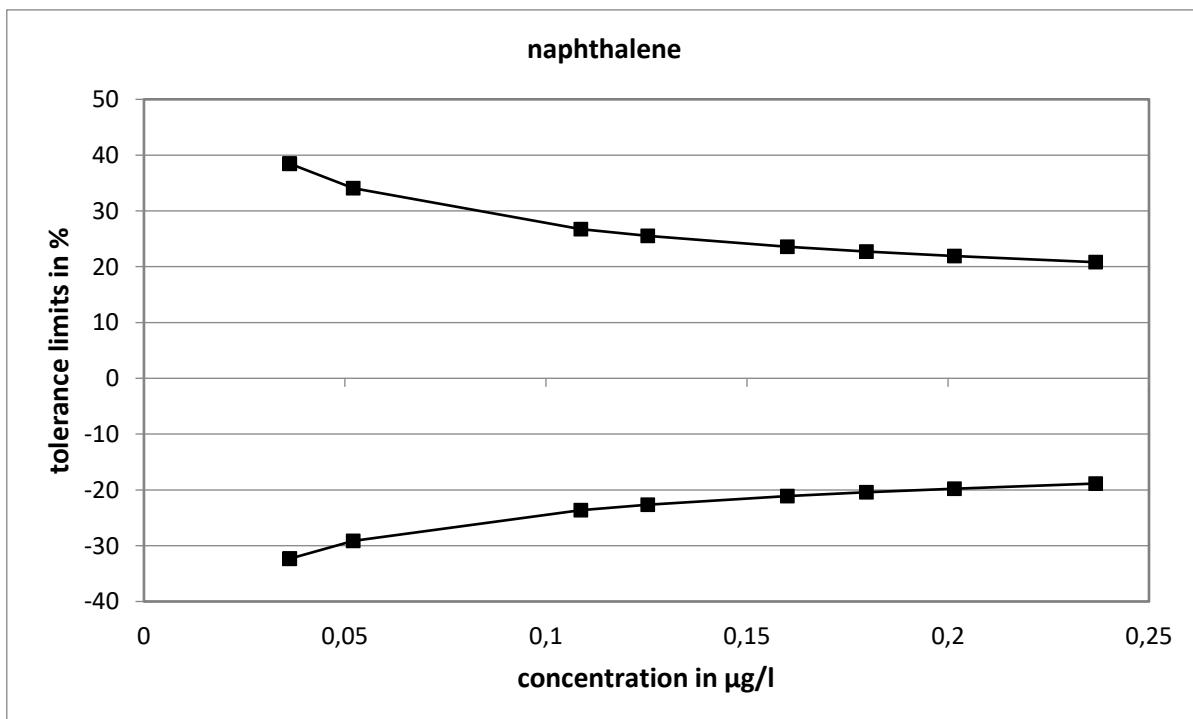
slope of the regression: 0,889; recovery rate: 88,9 %

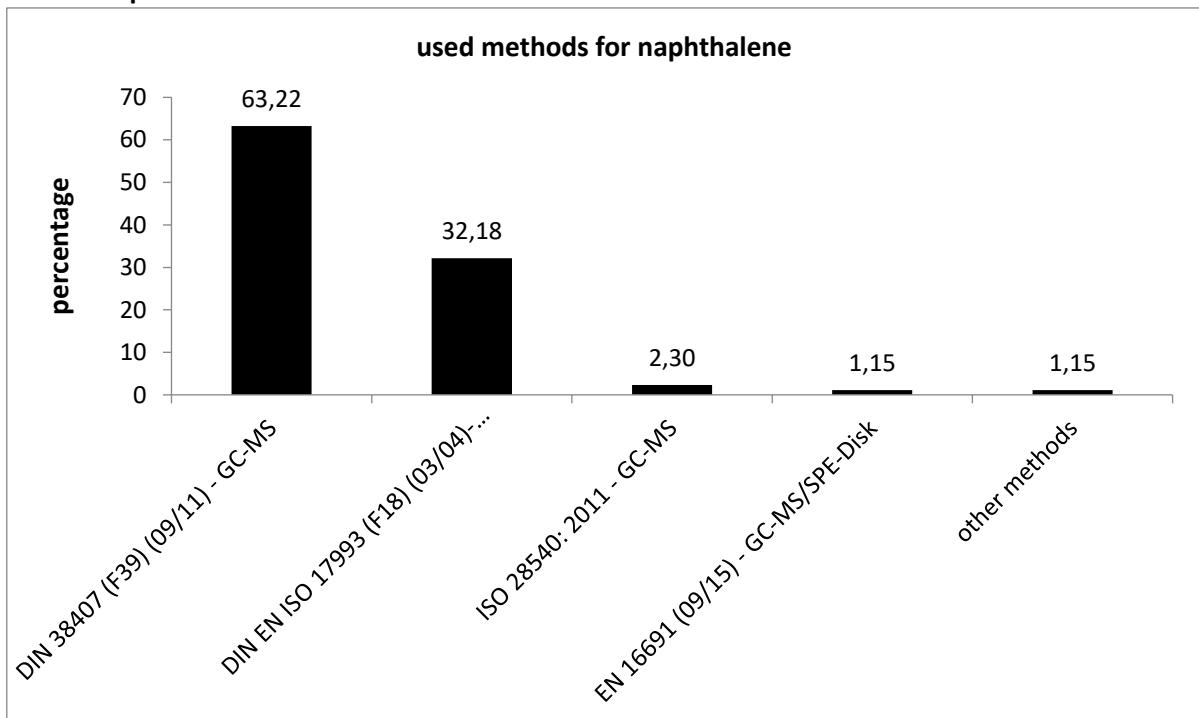
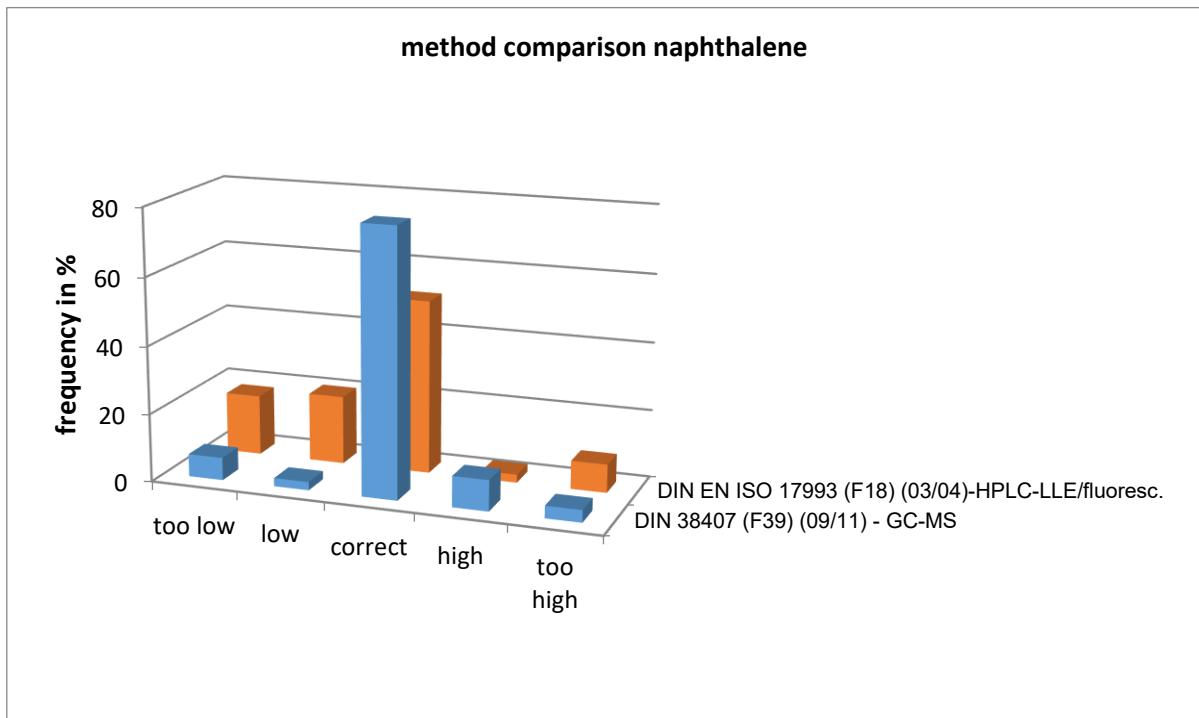
neg. x-intercept corresponds to the matrix content: 0,0039  $\mu\text{g/l}$

expand uncertainty of the matrix content: 0,0030  $\mu\text{g/l}$  = 76,9 %

**Relative standard deviation and tolerance limits**

The relative standard deviations calculated from the variance function did not reach the limits.



**Method specific evaluation****method comparison naphthalene**

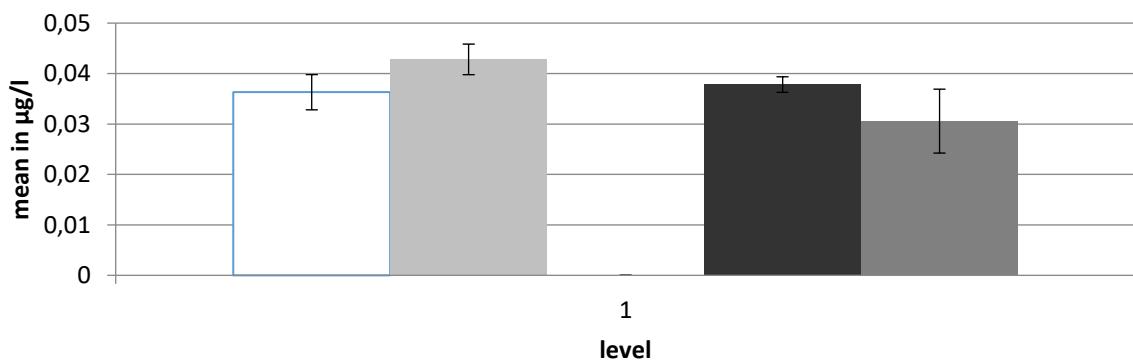
The values determined with GC-MS showed the closest statistical distribution.

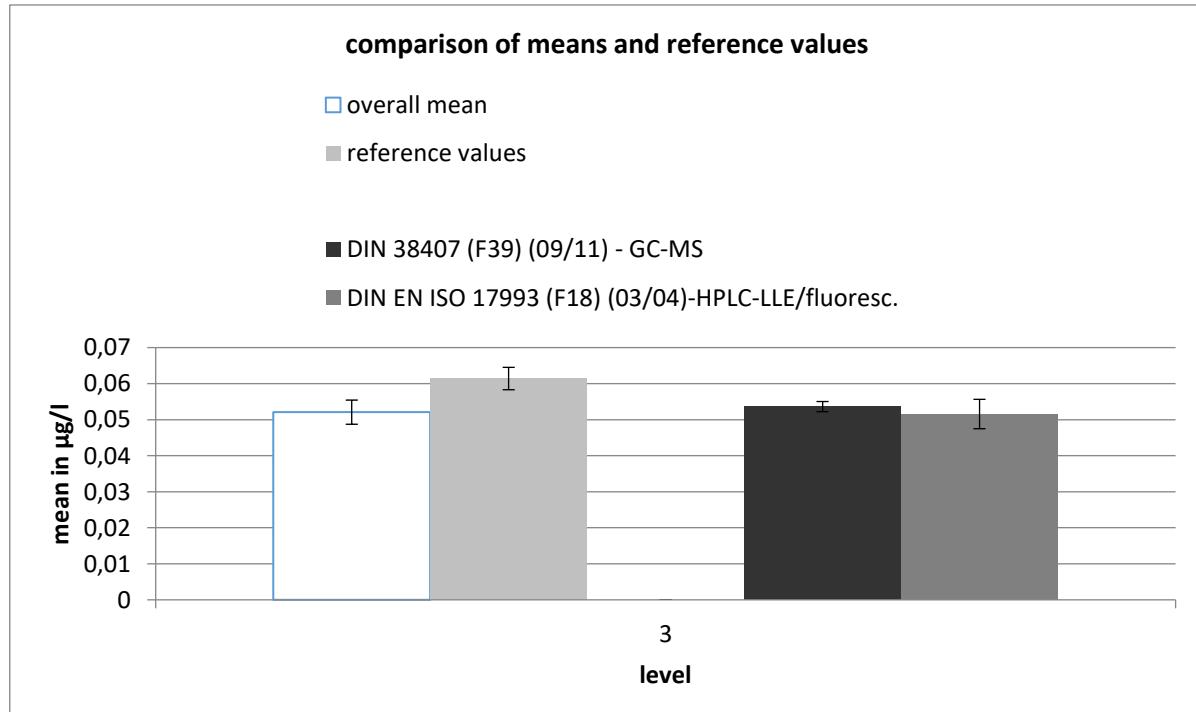
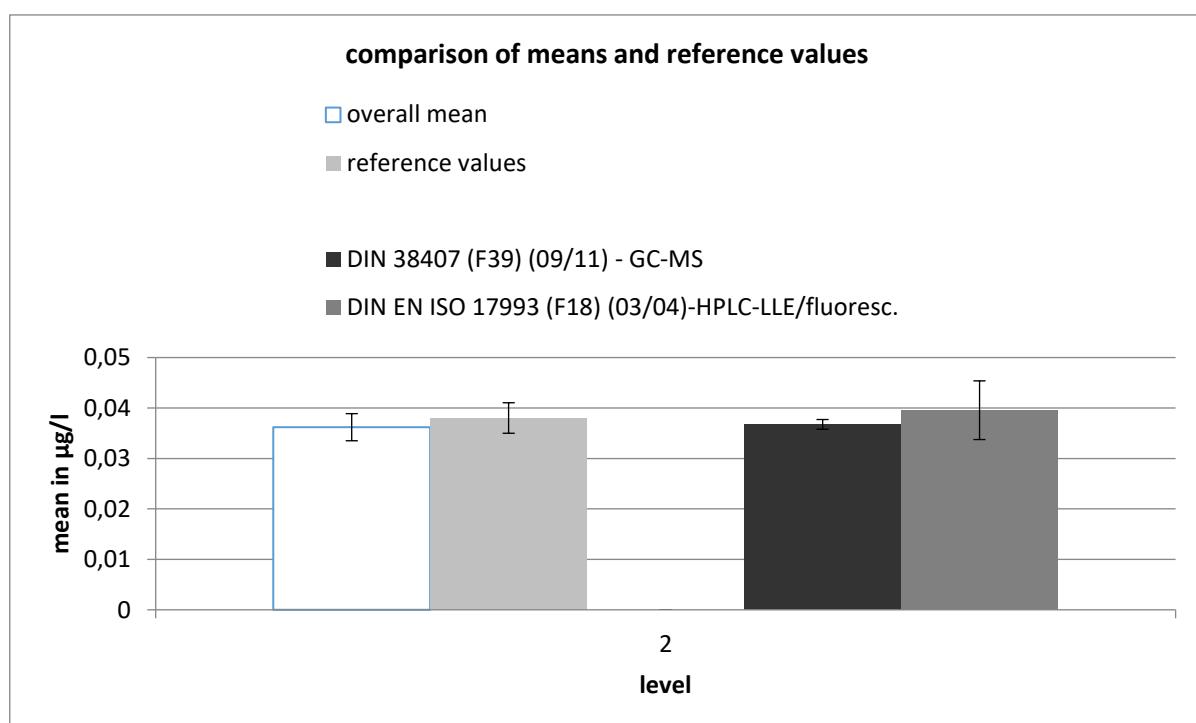
**Comparison of means and reference values**

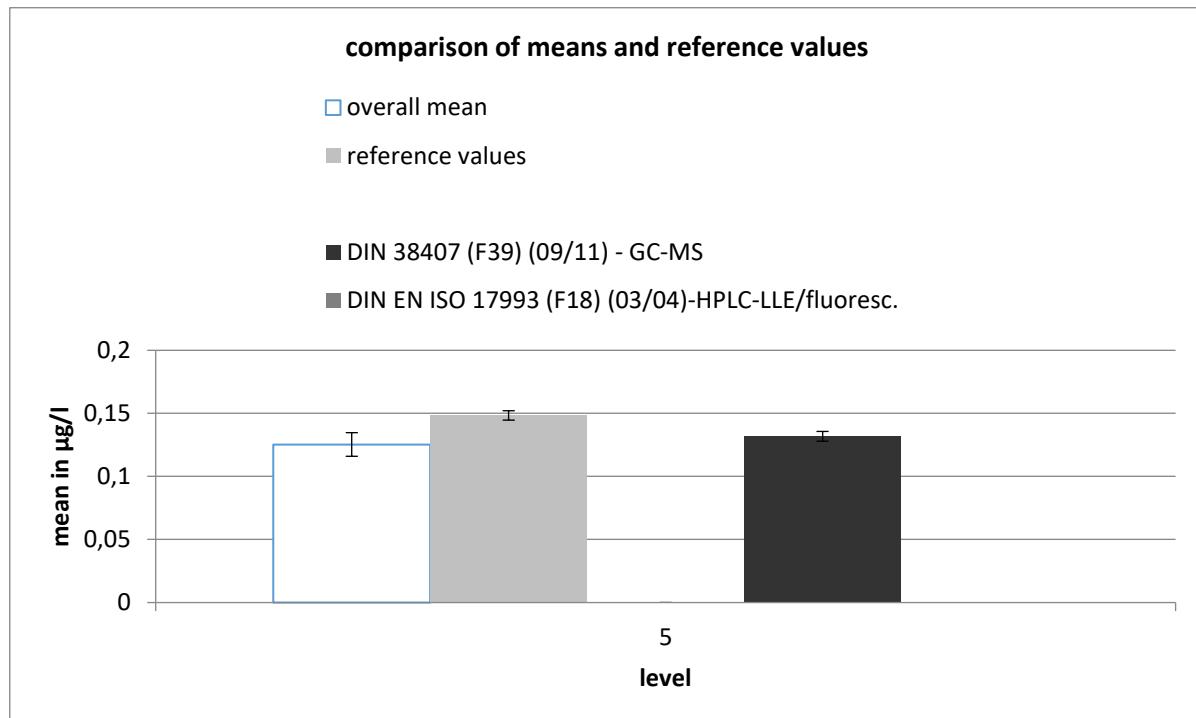
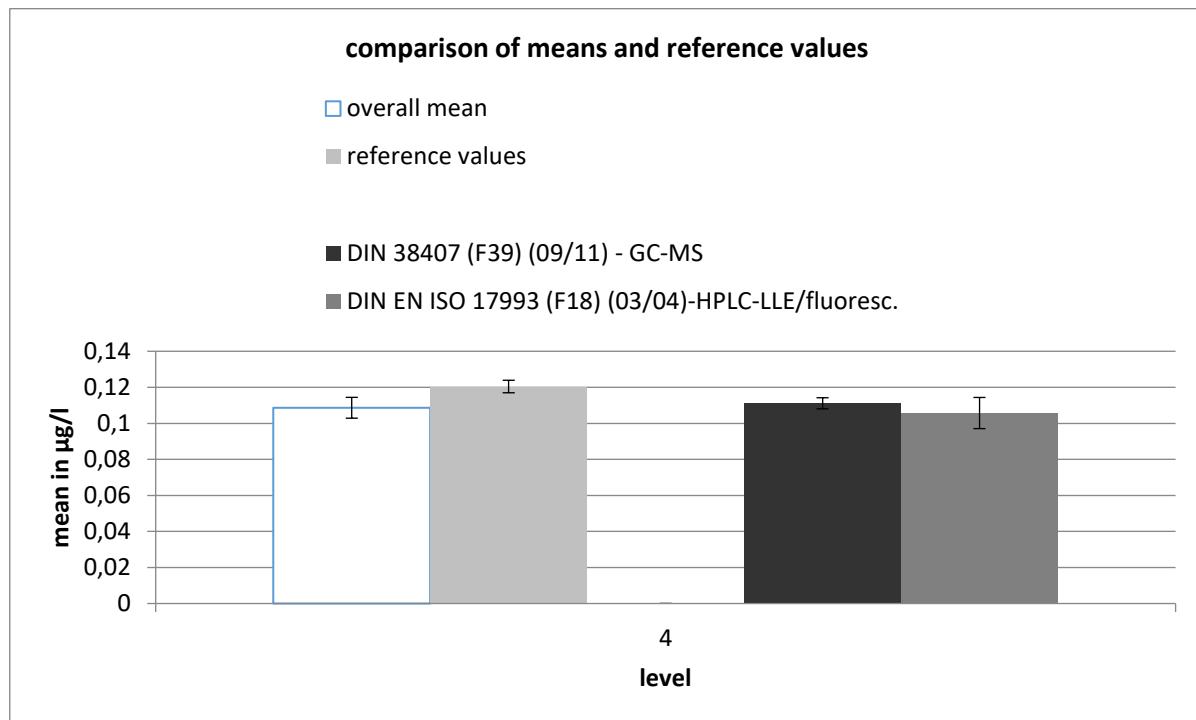
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0363	0,0035	9,6	0,0428	0,0030	7,1
2	0,0362	0,0027	7,4	0,0380	0,0030	7,9
3	0,0521	0,0034	6,4	0,0614	0,0031	5,1
4	0,1087	0,0058	5,3	0,1204	0,0035	2,9
5	0,1253	0,0094	7,5	0,1484	0,0037	2,5
6	0,1600	0,0069	4,3	0,1783	0,0043	2,4
7	0,1797	0,0105	5,8	0,2021	0,0046	2,3
8	0,2016	0,0070	3,5	0,2265	0,0047	2,1
9	0,2367	0,0142	6,0	0,2614	0,0050	1,9

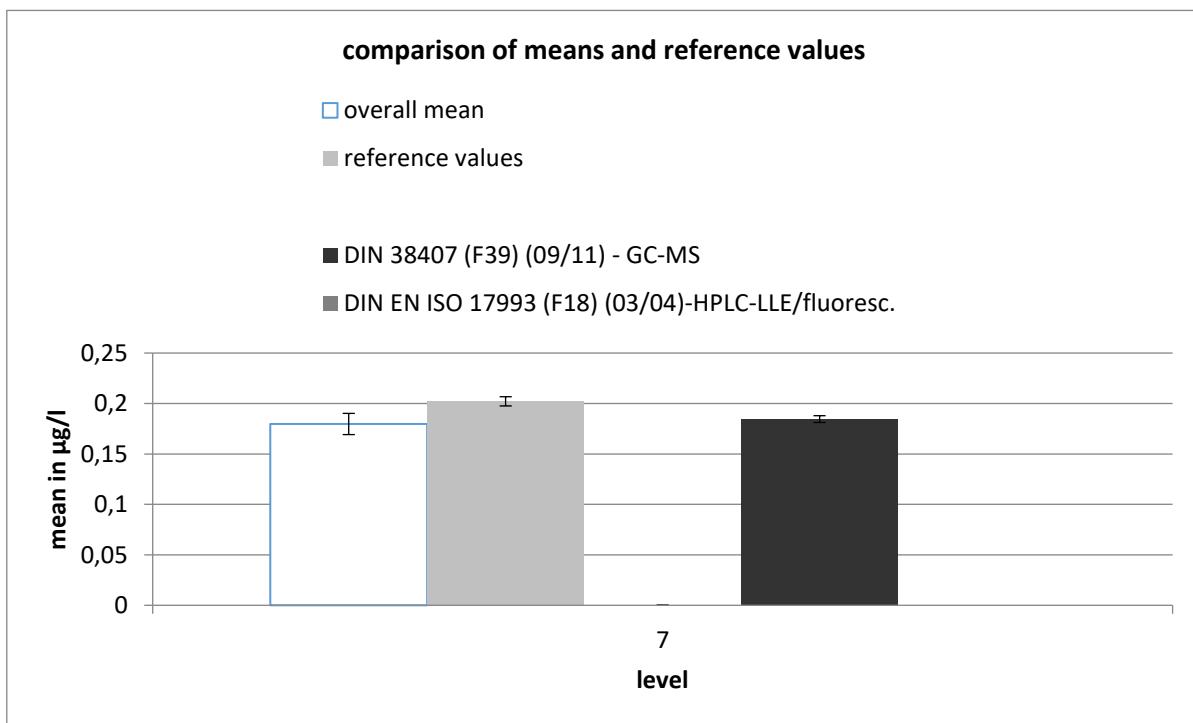
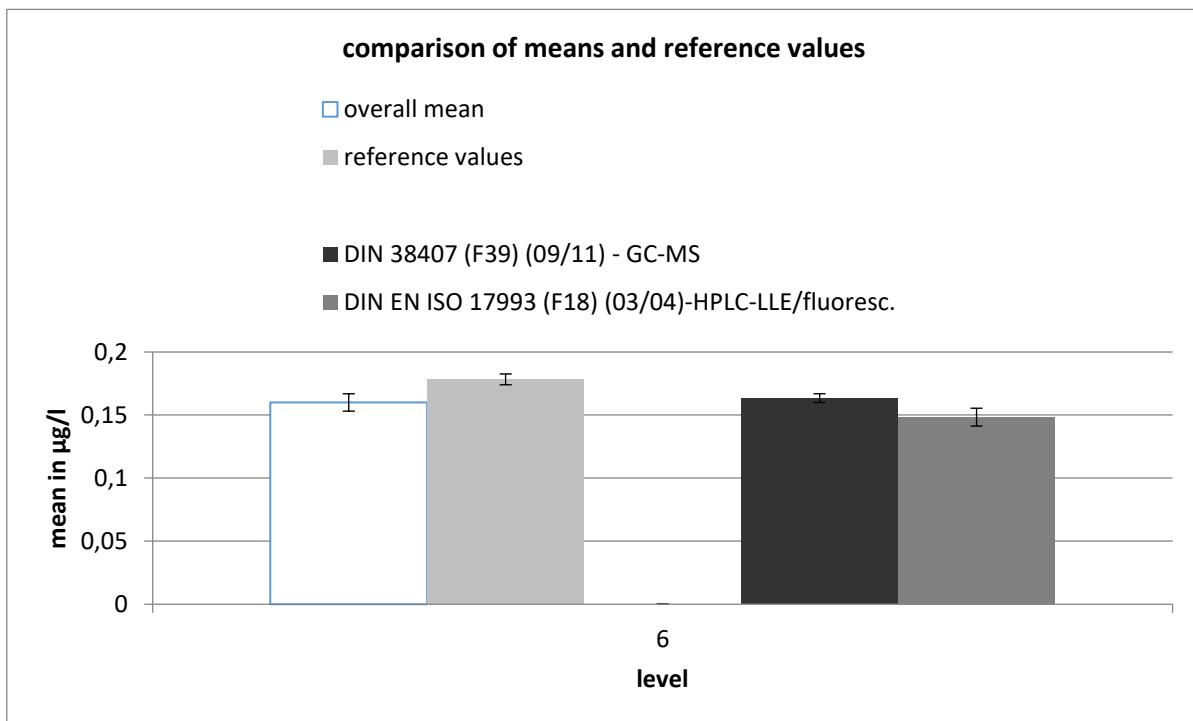
**comparison of means and reference values**

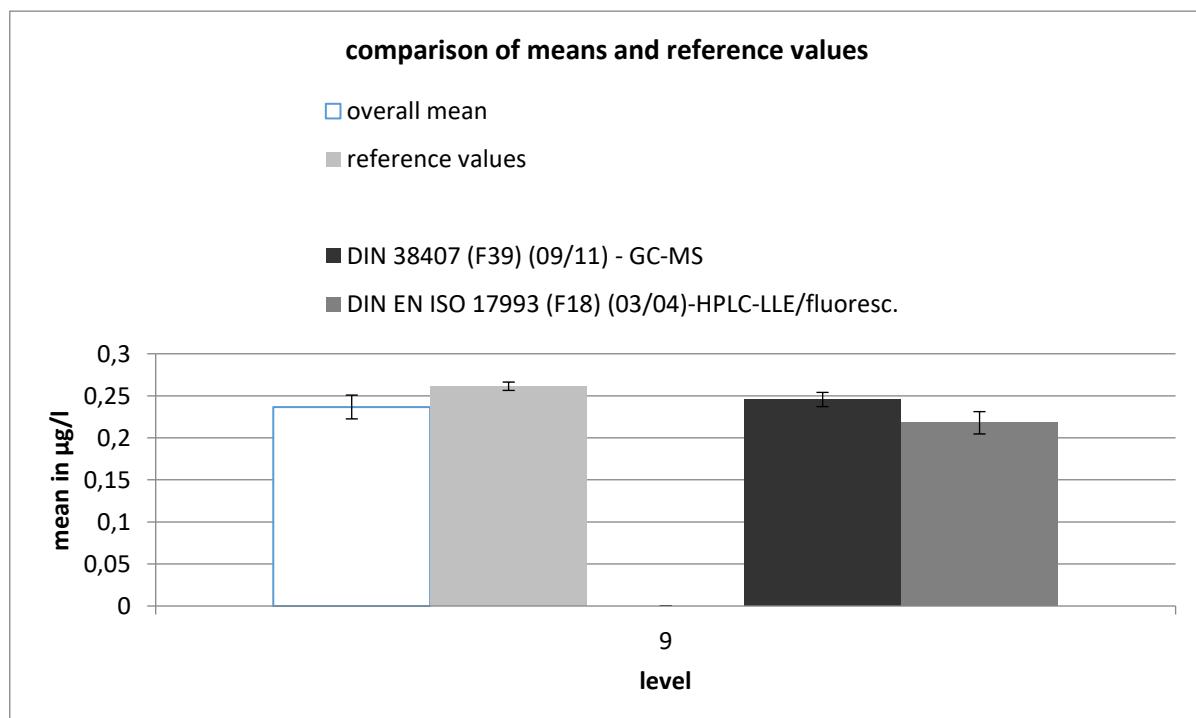
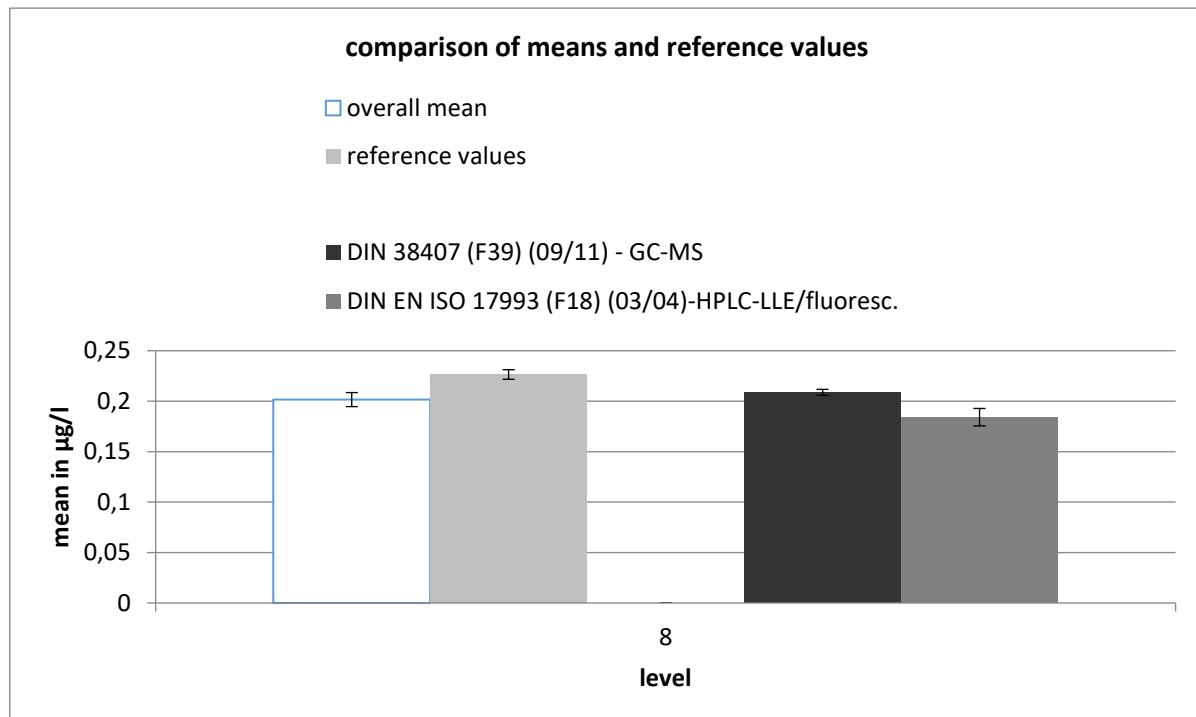
□ overall mean  
■ reference values  
■ DIN 38407 (F39) (09/11) - GC-MS  
■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

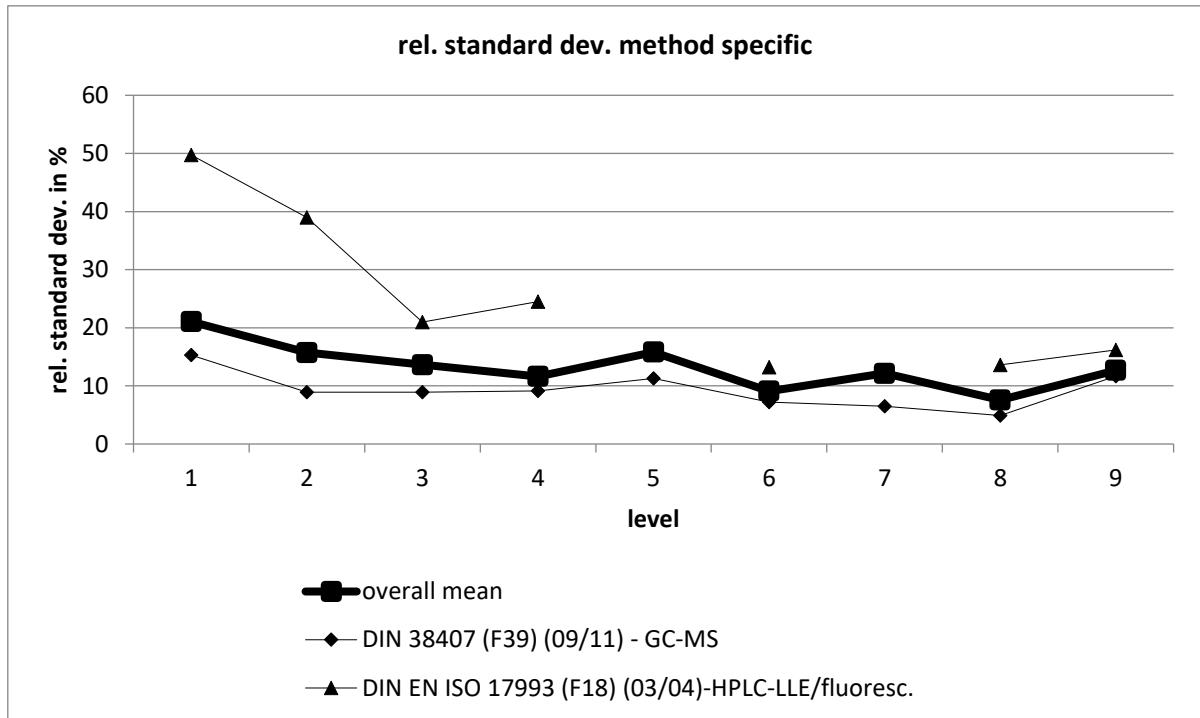












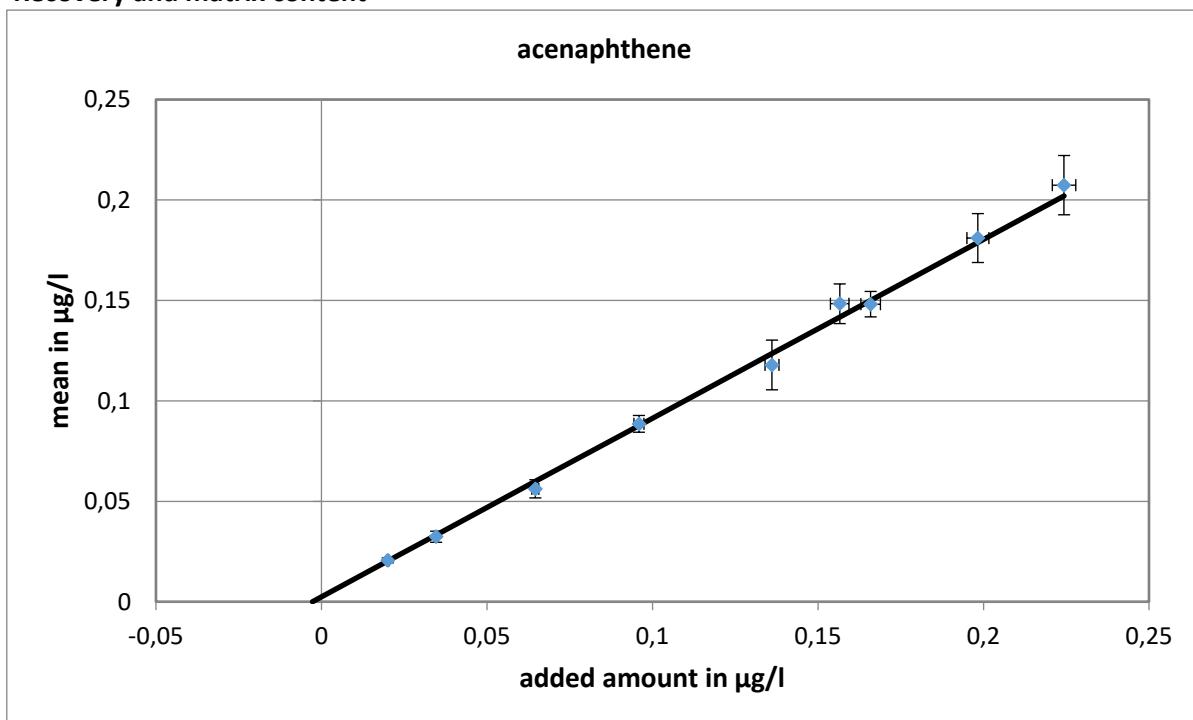
DIN 38407 (F39) (09/11) - GC-MS									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0378	0,0015	4,0749	0,0058	15,29	22	1	3	18,18
2	0,0368	0,001	2,6277	0,0033	8,9188	18	1	0	5,556
3	0,0536	0,0014	2,6338	0,0048	8,9395	18	3	1	22,22
4	0,1111	0,0031	2,7662	0,0101	9,1242	17	2	0	11,76
5	0,1318	0,0039	2,9363	0,0149	11,266	23	5	0	21,74
6	0,1634	0,0035	2,1317	0,0118	7,2353	18	0	1	5,556
7	0,1845	0,0034	1,8166	0,012	6,4993	20	1	0	5
8	0,2088	0,0029	1,4059	0,0102	4,9027	19	4	0	21,05
9	0,2456	0,0084	3,4376	0,0287	11,668	18	3	1	22,22

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0306	0,0063	20,716	0,0152	49,718	9	0	1	11,11
2	0,0396	0,0058	14,694	0,0154	38,986	11	0	1	9,091
3	0,0516	0,0041	7,9081	0,0108	20,983	11	0	2	18,18
4	0,1057	0,0087	8,1817	0,0259	24,491	14	0	1	7,143
6	0,1484	0,0071	4,7677	0,0196	13,213	12	2	0	16,67
8	0,1841	0,0087	4,722	0,0251	13,62	13	2	0	15,38
9	0,2179	0,0133	6,1027	0,0353	16,192	11	3	0	27,27

# acenaphthene

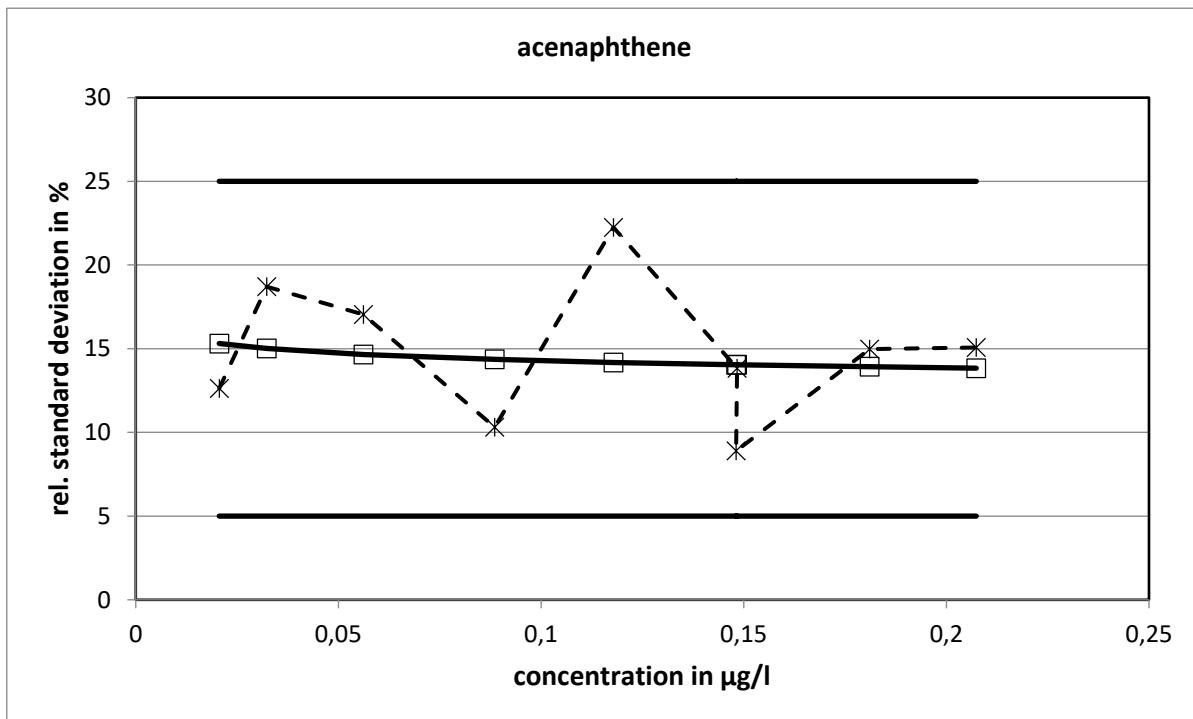
level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]	
1	0,0206	5,96	0,0026	0,0032	0,0032	15,31	0,0275	0,0147	33,34	-28,62	28	2	0	7,1	
2	0,0323	8,54	0,0060	0,0049	0,0049	15,01	0,0429	0,0233	32,63	-28,09	30	3	4	23,3	
3	0,0562	8,06	0,0096	0,0082	0,0082	14,65	0,0740	0,0408	31,78	-27,46	28	1	1	7,1	
4	0,0886	4,71	0,0091	0,0127	0,0127	14,36	0,1161	0,0647	31,10	-26,95	30	1	0	3,3	
5	0,1179	10,51	0,0262	0,0167	0,0167	14,18	0,1540	0,0865	30,68	-26,63	28	4	1	17,9	
6	0,1483	6,65	0,0205	0,0208	0,0208	14,04	0,1933	0,1092	30,35	-26,38	27	1	0	3,7	
7	0,1481	4,28	0,0132	0,0208	0,0208	14,04	0,1931	0,1091	30,35	-26,38	27	2	0	7,4	
8	0,1810	6,72	0,0271	0,0252	0,0252	13,92	0,2355	0,1337	30,06	-26,16	31	4	0	12,9	
9	0,2074	7,12	0,0313	0,0287	0,0287	13,84	0,2693	0,1534	29,87	-26,02	28	3	1	14,3	
											sum	257	21	7	10,9

## Recovery and matrix content

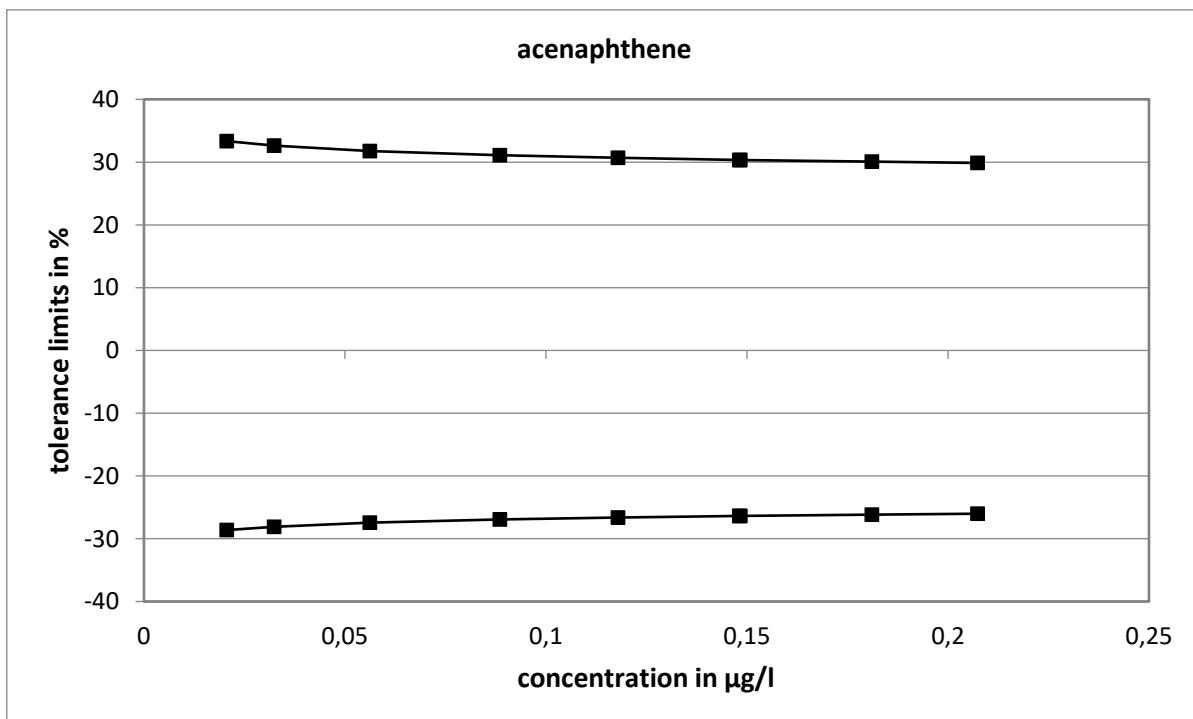


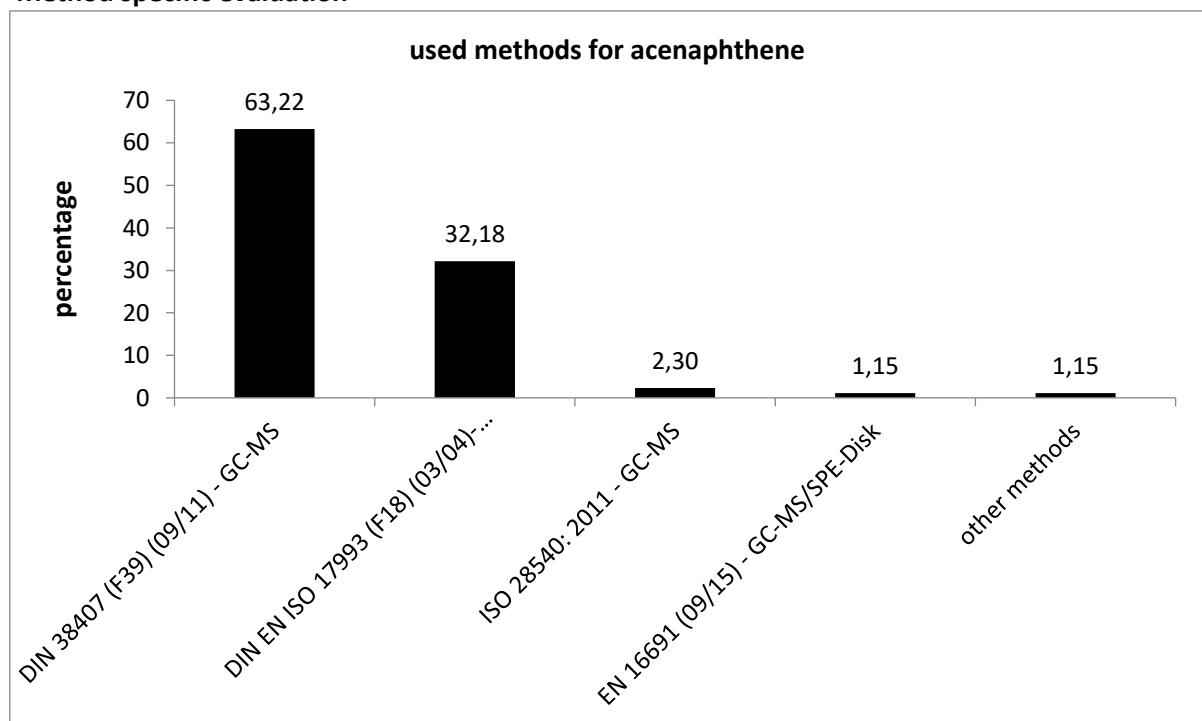
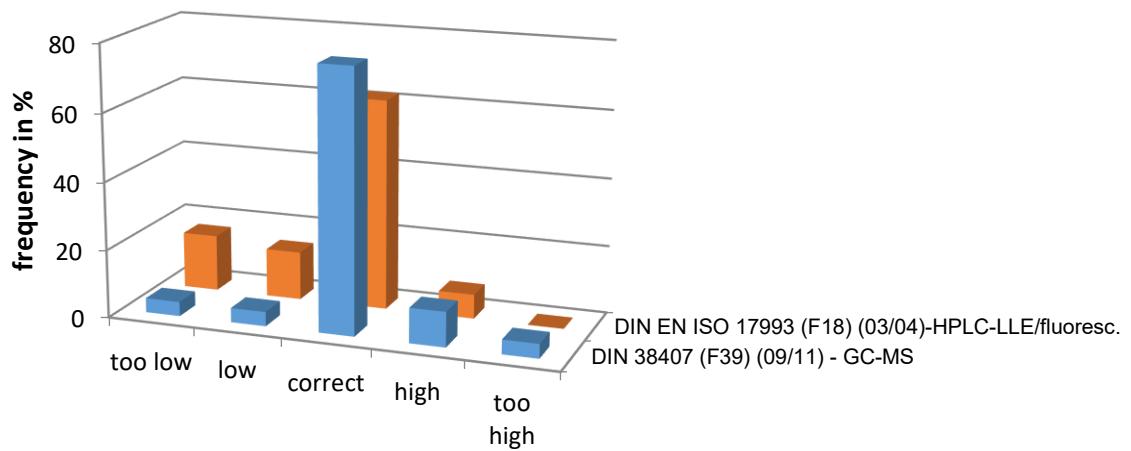
slope of the regression: 0,889; recovery rate: 88,9 %  
neg. x-intercept corresponds to the matrix content: 0,0027  $\mu\text{g/l}$   
expand uncertainty of the matrix content: 0,0017  $\mu\text{g/l}$  = 63 %

**Relative standard deviation and tolerance limits**



The relative standard deviations calculated from the variance function did not reach the limits.



**Method specific evaluation****method comparison acenaphthene**

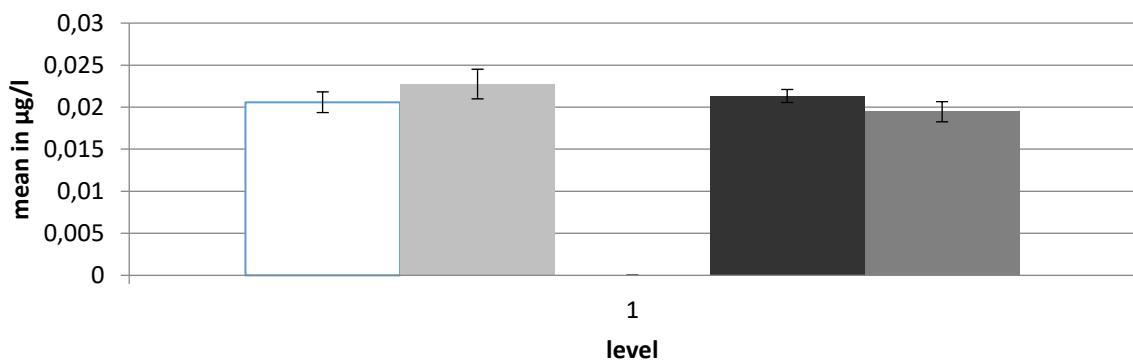
The values determined with GC-MS showed the closest statistical distribution.

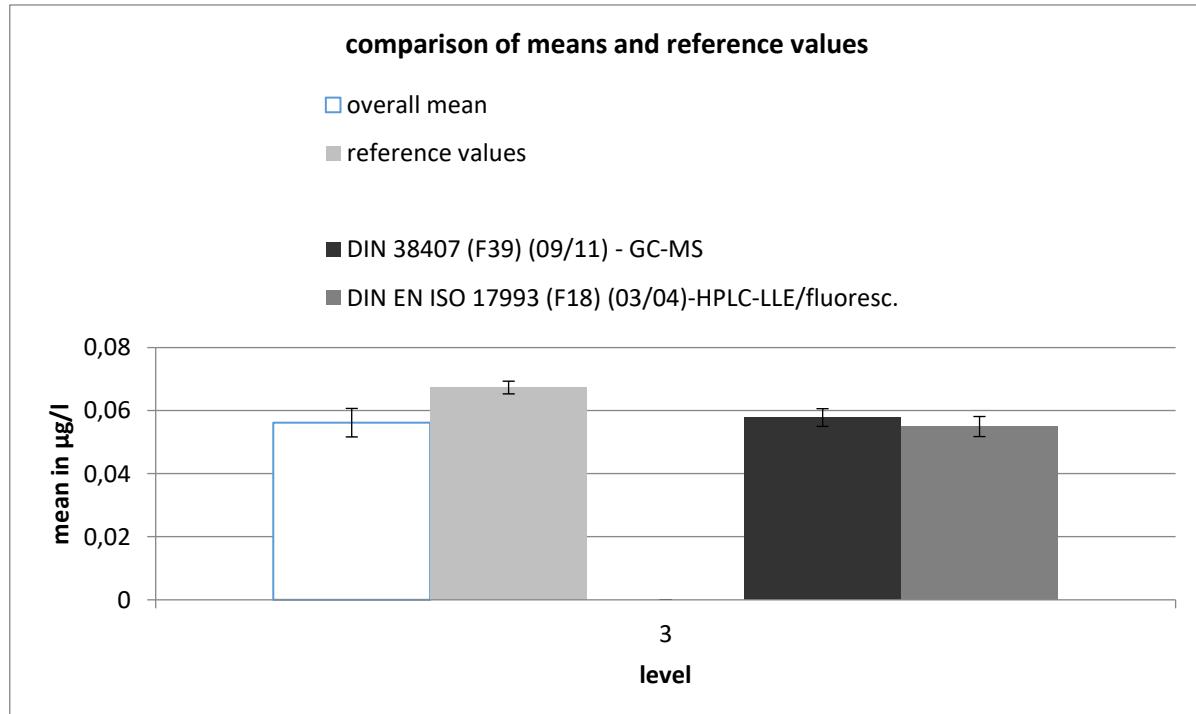
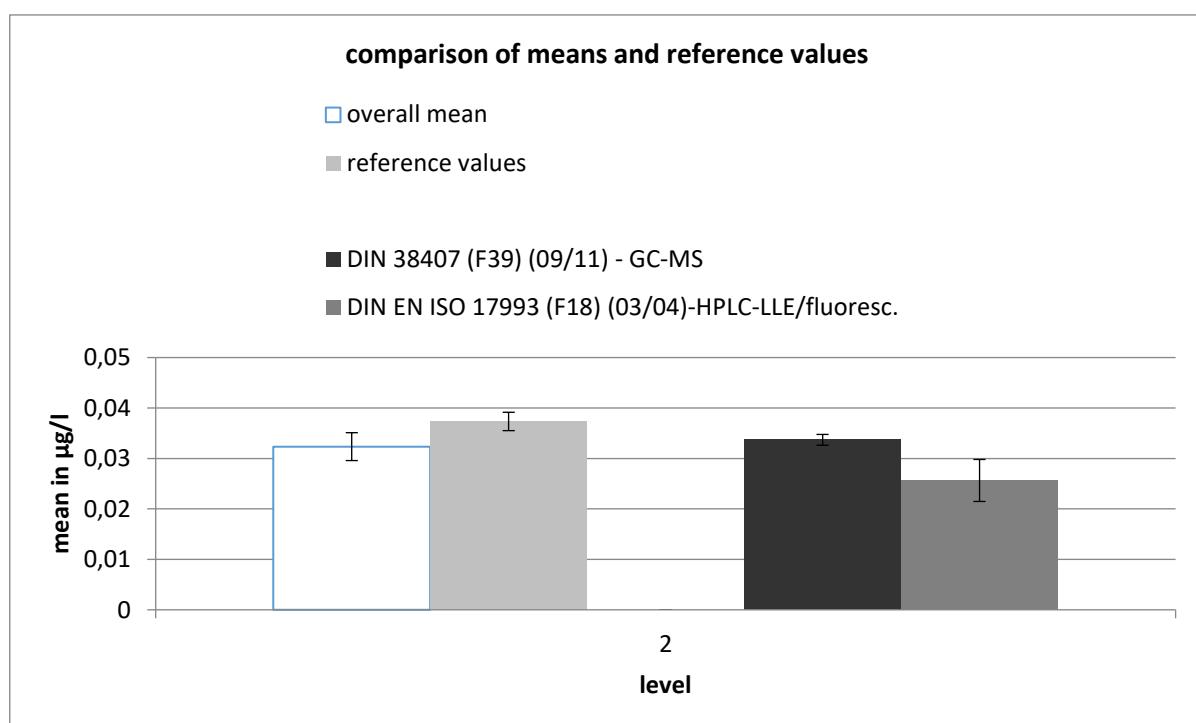
**Comparison of means and reference values**

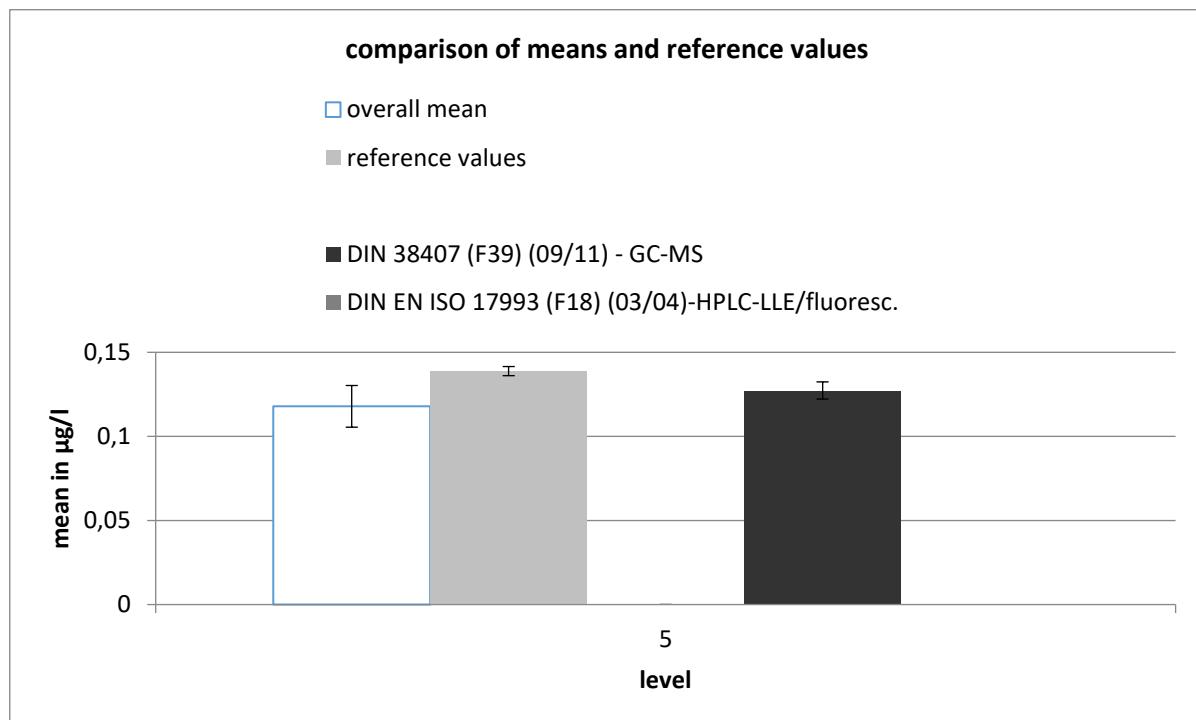
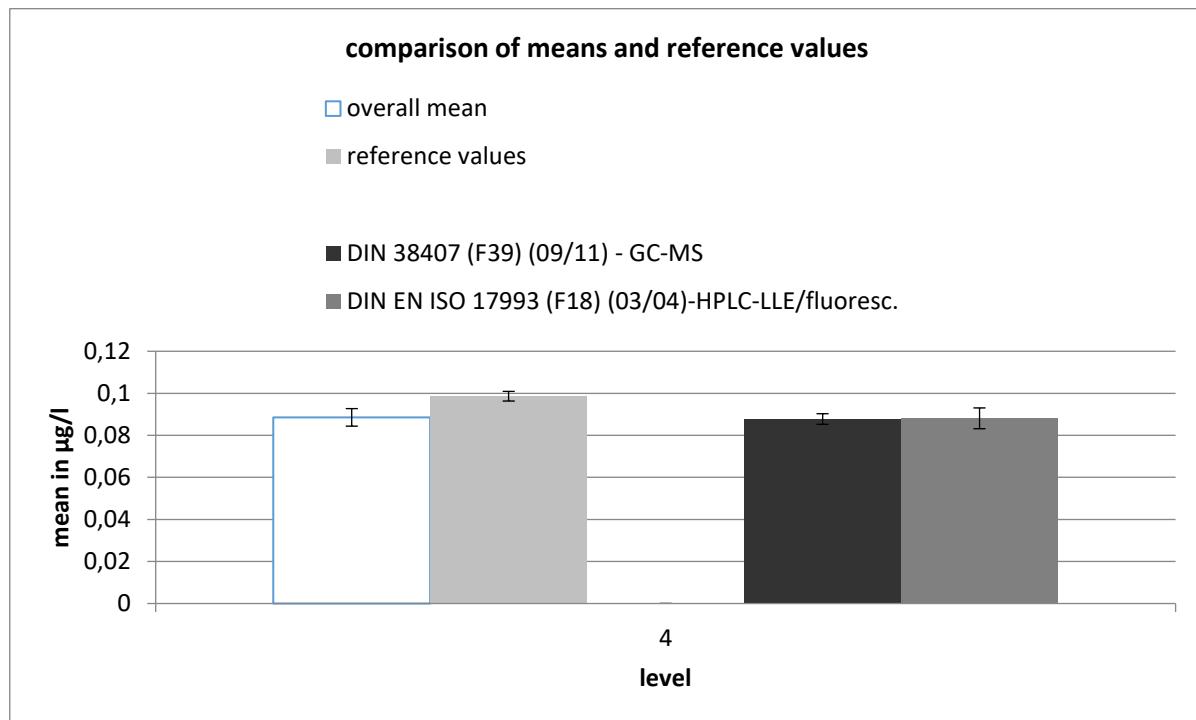
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0206	0,0012	6,0	0,0228	0,0018	7,7
2	0,0323	0,0028	8,5	0,0373	0,0018	4,9
3	0,0562	0,0045	8,1	0,0673	0,0020	3,0
4	0,0886	0,0042	4,7	0,0986	0,0023	2,3
5	0,1179	0,0124	10,5	0,1388	0,0027	2,0
6	0,1483	0,0099	6,7	0,1593	0,0033	2,1
7	0,1481	0,0063	4,3	0,1686	0,0034	2,0
8	0,1810	0,0122	6,7	0,2010	0,0037	1,9
9	0,2074	0,0148	7,1	0,2271	0,0039	1,7

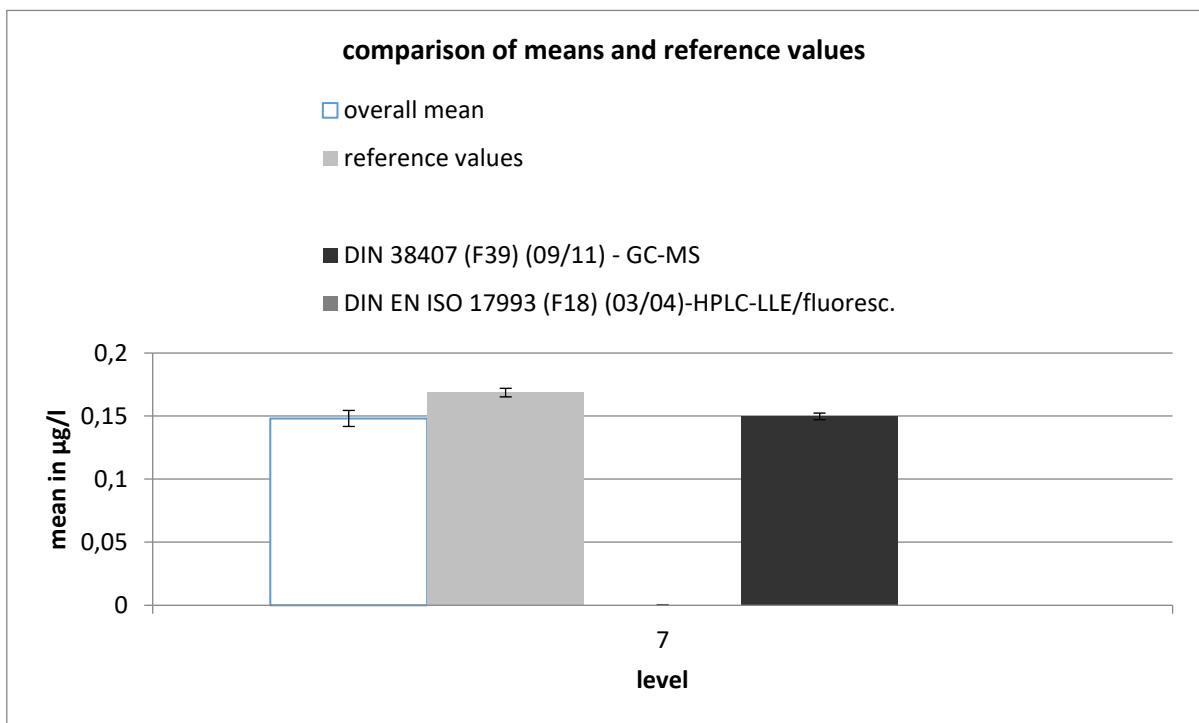
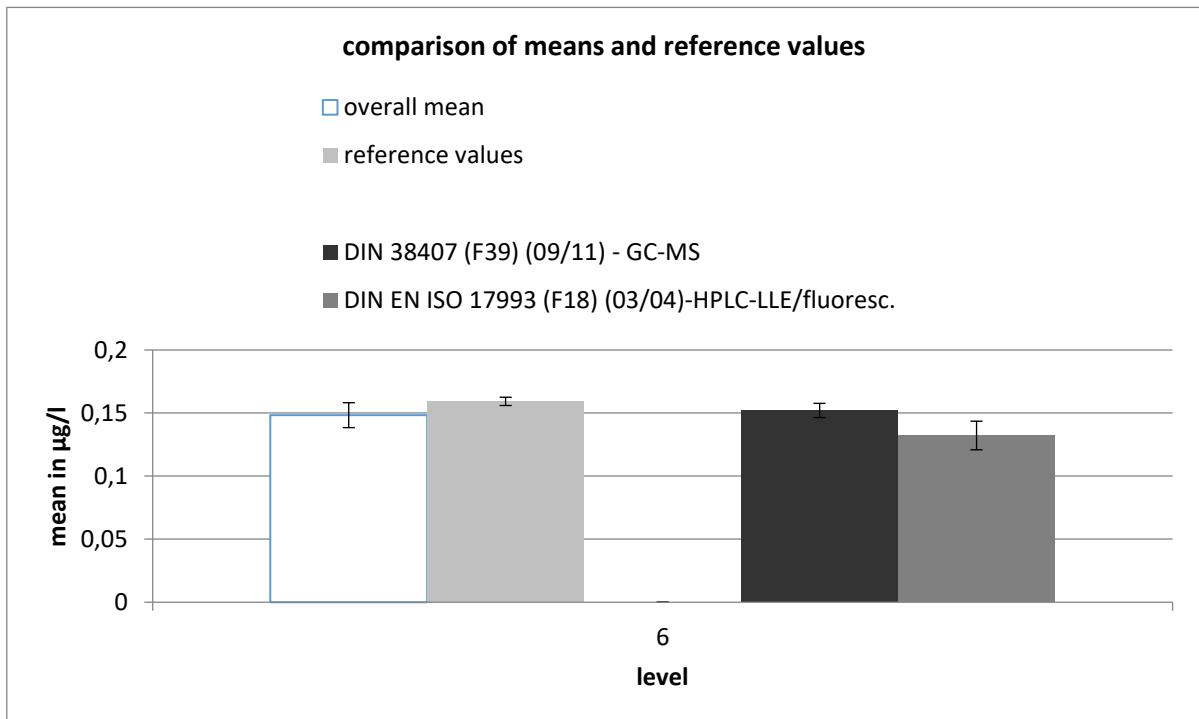
**comparison of means and reference values**

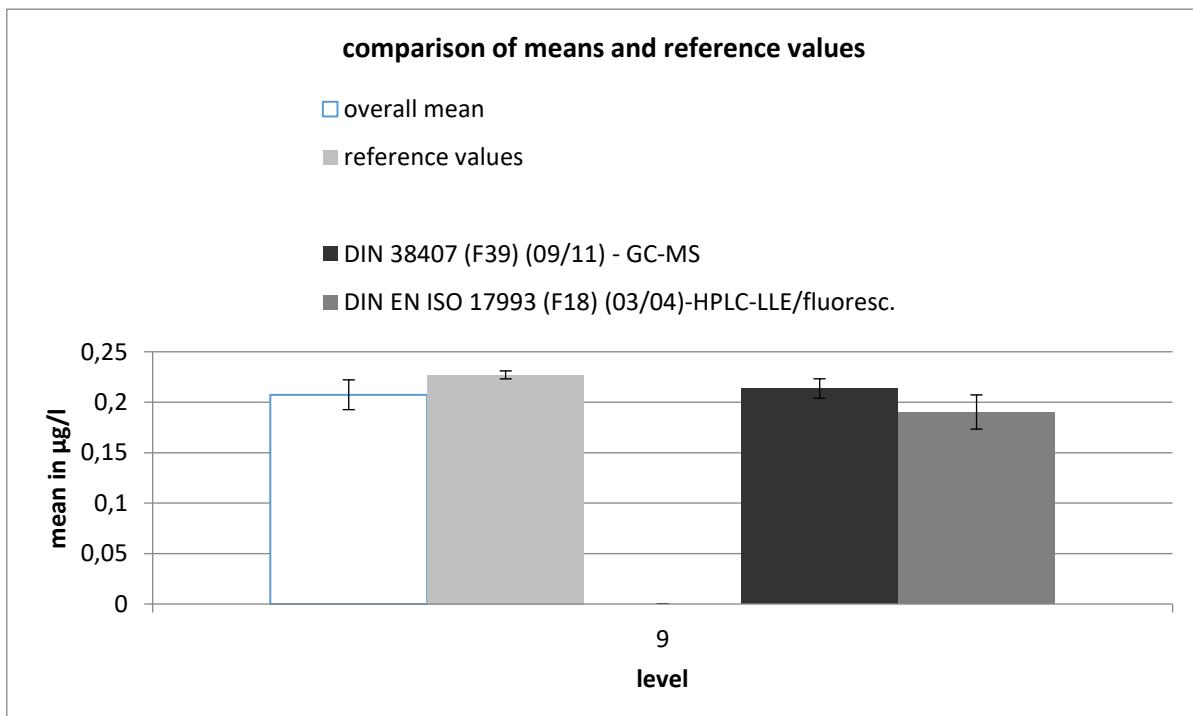
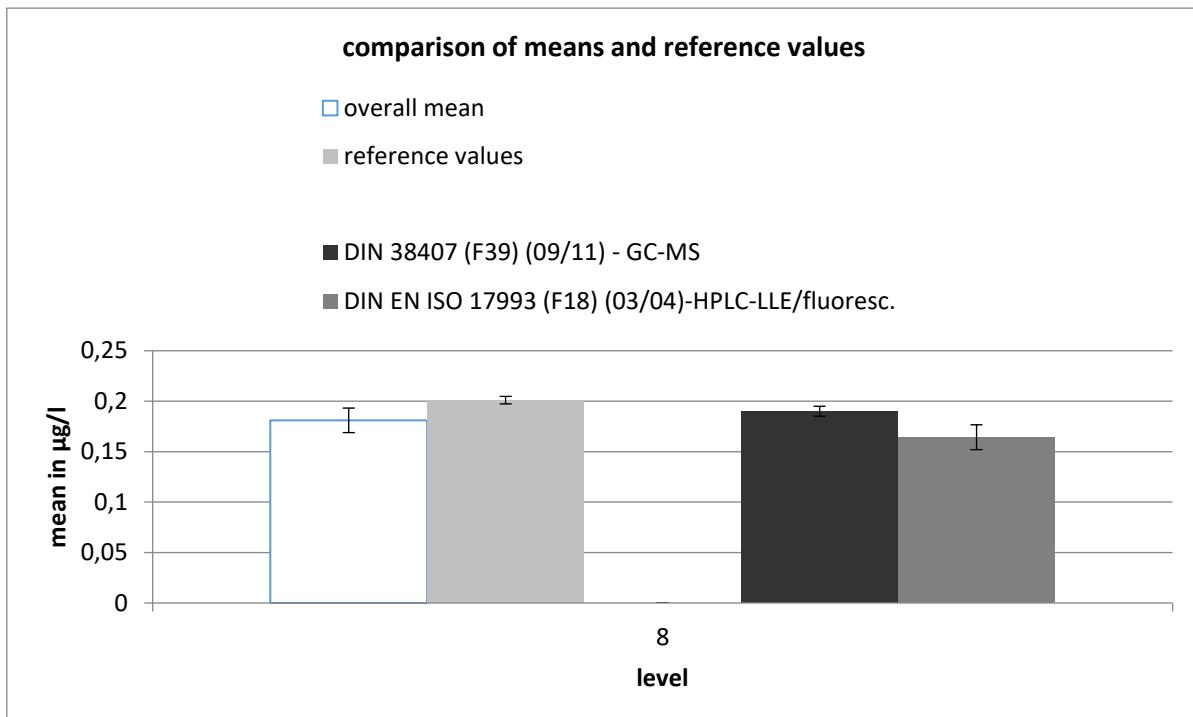
- overall mean
- reference values
  
- DIN 38407 (F39) (09/11) - GC-MS
- DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

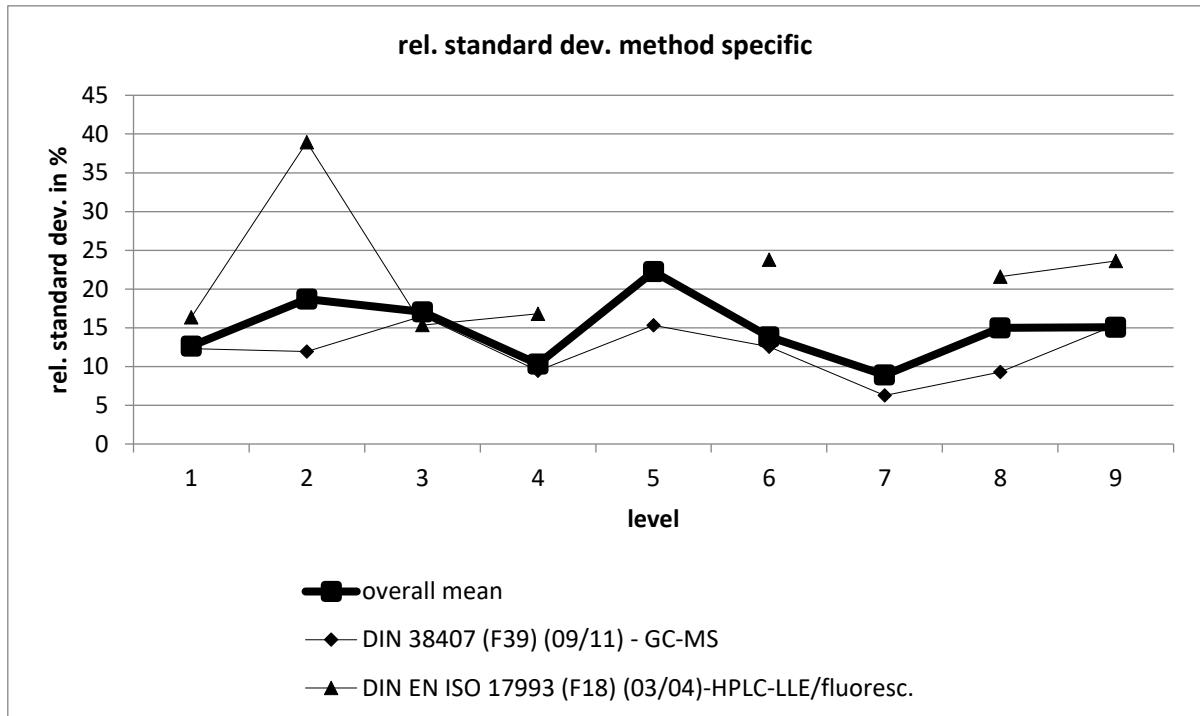












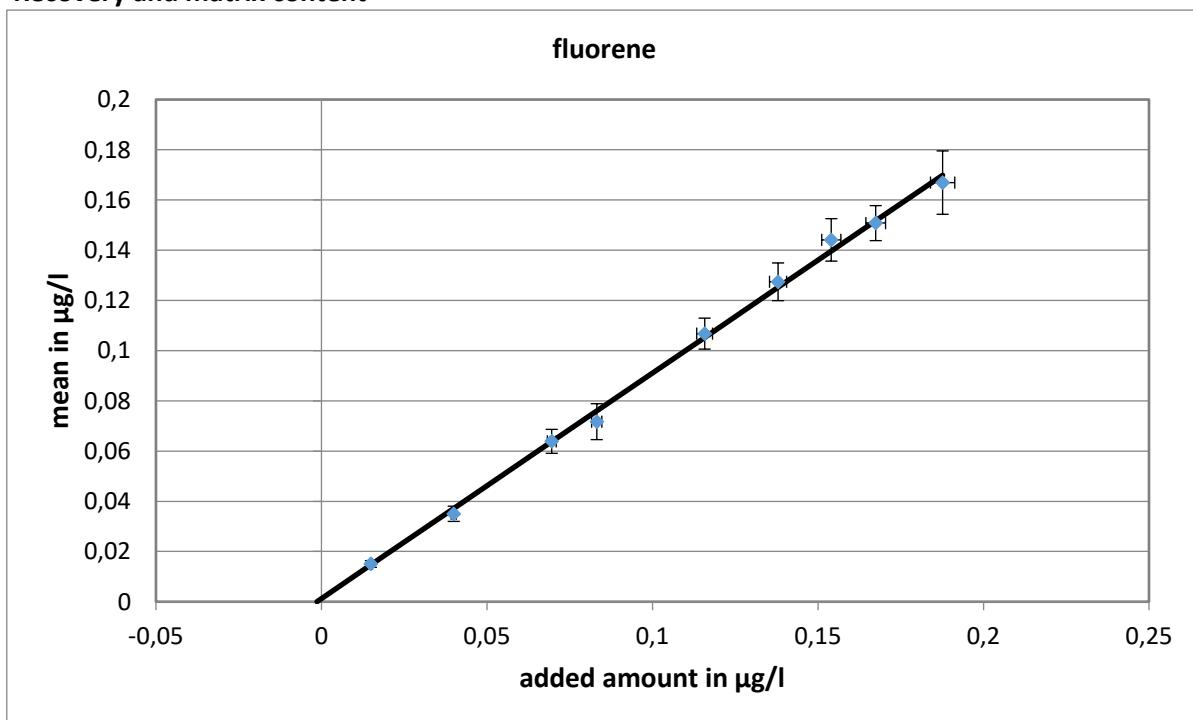
DIN 38407 (F39) (09/11) - GC-MS										
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]	
1	0,0213	0,0008	3,6299	0,0026	12,32	18	1	1	11,11	
2	0,0337	0,0011	3,1786	0,004	11,927	22	0	5	22,73	
3	0,0578	0,0028	4,863	0,0095	16,506	18	2	1	16,67	
4	0,0878	0,0025	2,864	0,0083	9,4469	17	1	0	5,882	
5	0,1273	0,0051	3,9899	0,0195	15,308	23	3	1	17,39	
6	0,1521	0,0056	3,7046	0,0191	12,574	18	0	0	0	
7	0,1498	0,0026	1,7508	0,0094	6,2639	20	1	1	10	
8	0,19	0,0049	2,6023	0,0177	9,3102	20	3	0	15	
9	0,2136	0,0097	4,5272	0,0328	15,366	18	1	0	5,556	

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0195	0,0012	6,164	0,0032	16,355	11	1	1	18,18
2	0,0256	0,0042	16,23	0,01	38,951	9	0	0	0
3	0,055	0,0032	5,7827	0,0084	15,343	11	0	1	9,091
4	0,0881	0,0049	5,6105	0,0148	16,794	14	1	1	14,29
6	0,1322	0,0113	8,5796	0,0314	23,777	12	1	0	8,333
8	0,1643	0,0123	7,4915	0,0355	21,609	13	1	0	7,692
9	0,1903	0,0169	8,9012	0,0449	23,617	11	0	0	0

# fluorene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]	
1	0,0150	8,86	0,0028	0,0031	0,0031	20,83	0,0221	0,0093	46,97	-38,17	28	1	0	3,6	
2	0,0350	8,66	0,0064	0,0062	0,0062	17,63	0,0486	0,0236	38,94	-32,67	28	2	1	10,7	
3	0,0639	7,48	0,0105	0,0100	0,0100	15,65	0,0857	0,0452	34,16	-29,22	30	2	4	20,0	
4	0,0717	9,97	0,0151	0,0110	0,0110	15,30	0,0956	0,0512	33,31	-28,60	28	4	1	17,9	
5	0,1068	5,78	0,0128	0,0151	0,0151	14,14	0,1394	0,0784	30,58	-26,56	27	1	2	11,1	
6	0,1274	5,89	0,0164	0,0174	0,0174	13,66	0,1649	0,0947	29,45	-25,70	30	1	2	10,0	
7	0,1441	5,86	0,0179	0,0192	0,0192	13,33	0,1854	0,1079	28,68	-25,11	28	2	0	7,1	
8	0,1508	4,62	0,0145	0,0199	0,0199	13,21	0,1936	0,1132	28,41	-24,90	27	2	2	14,8	
9	0,1669	7,55	0,0281	0,0216	0,0216	12,95	0,2133	0,1261	27,80	-24,43	31	4	2	19,4	
											sum	257	19	14	12,8

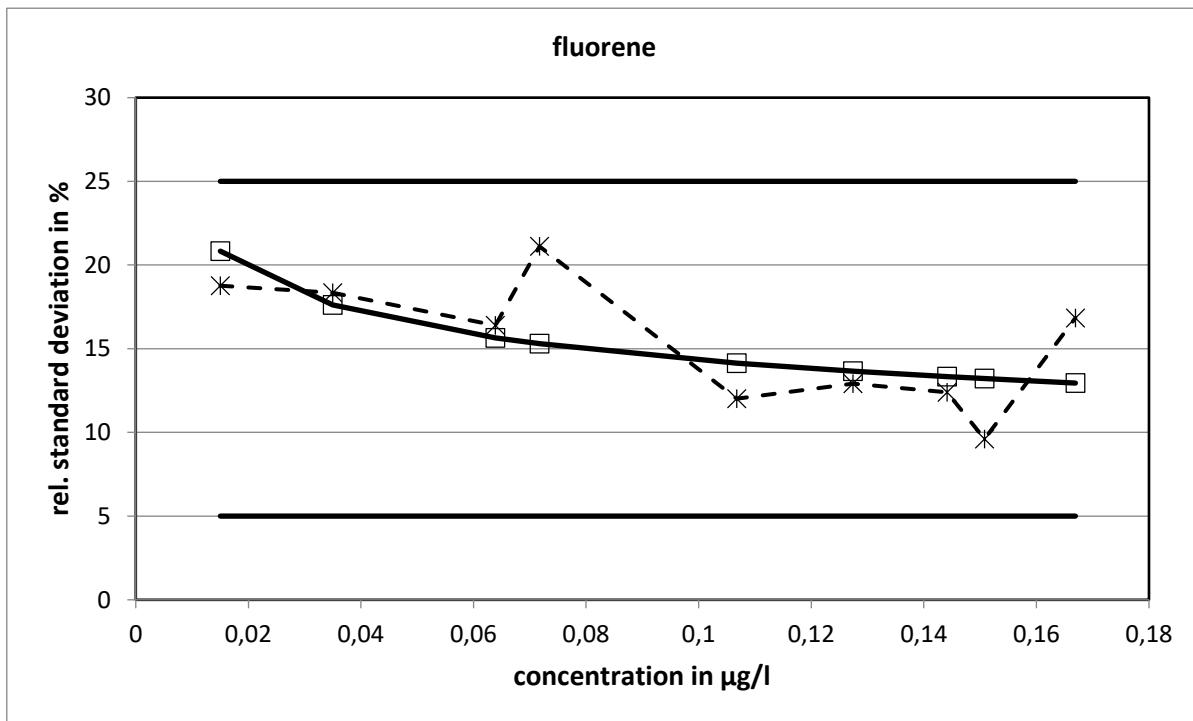
## Recovery and matrix content



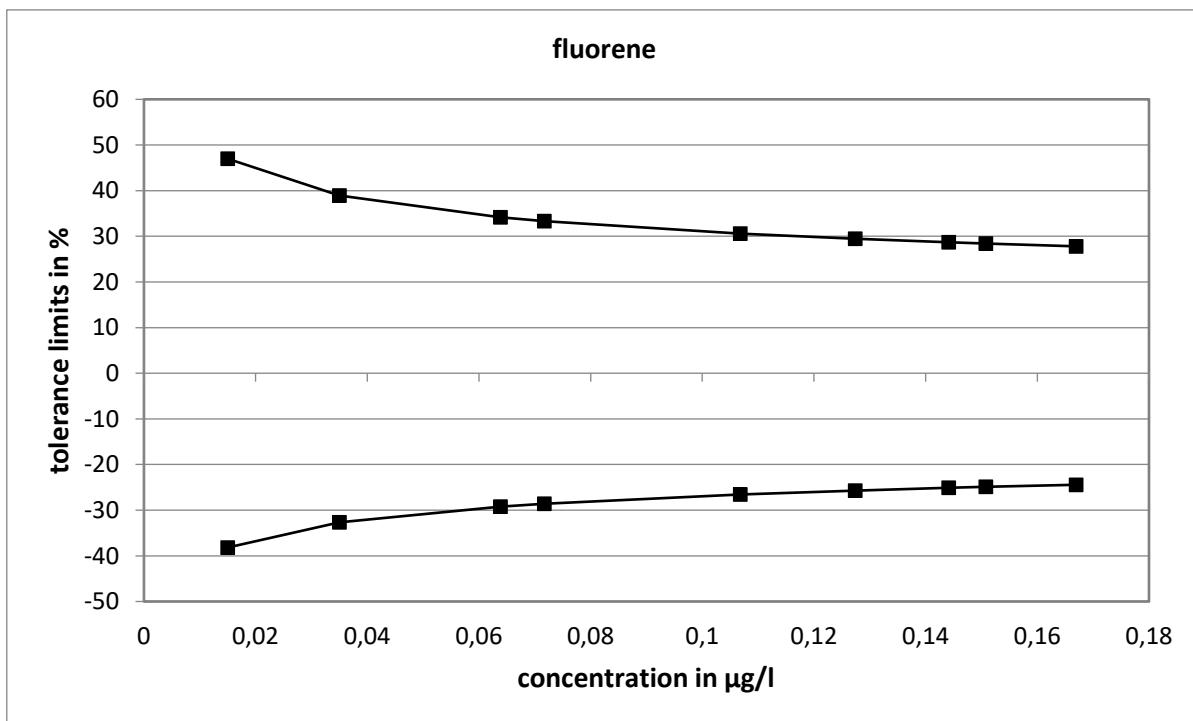
slope of the regression: 0,899; recovery rate: 89,9 %

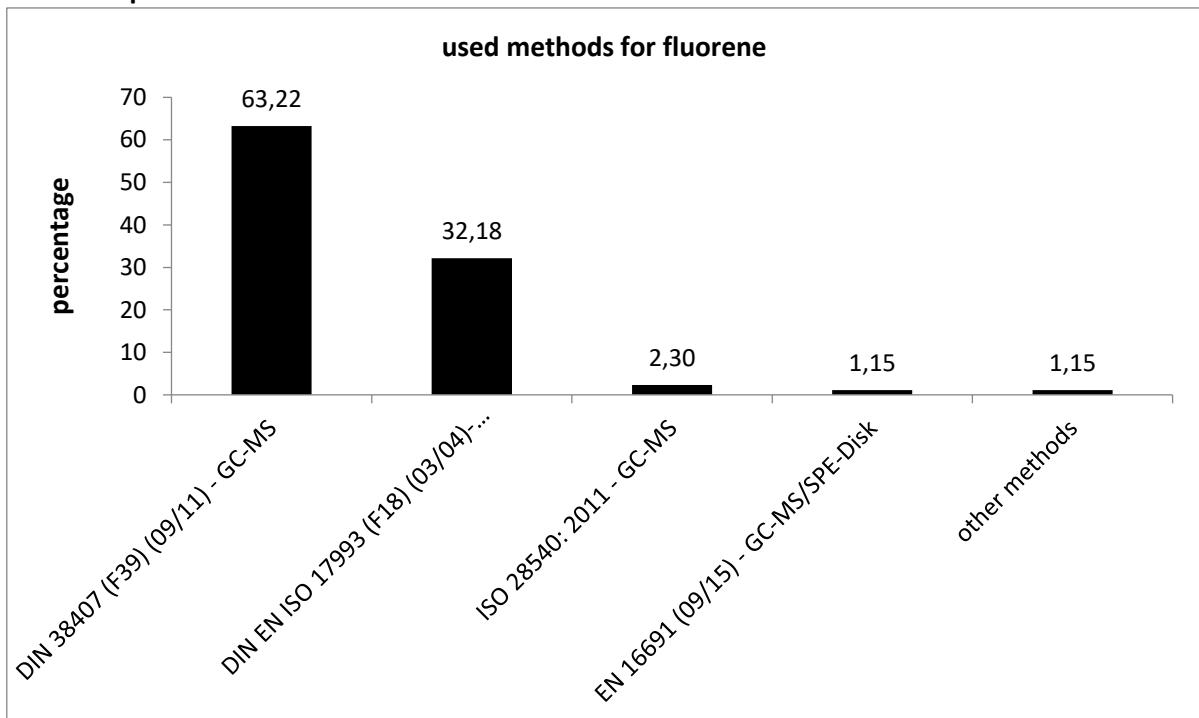
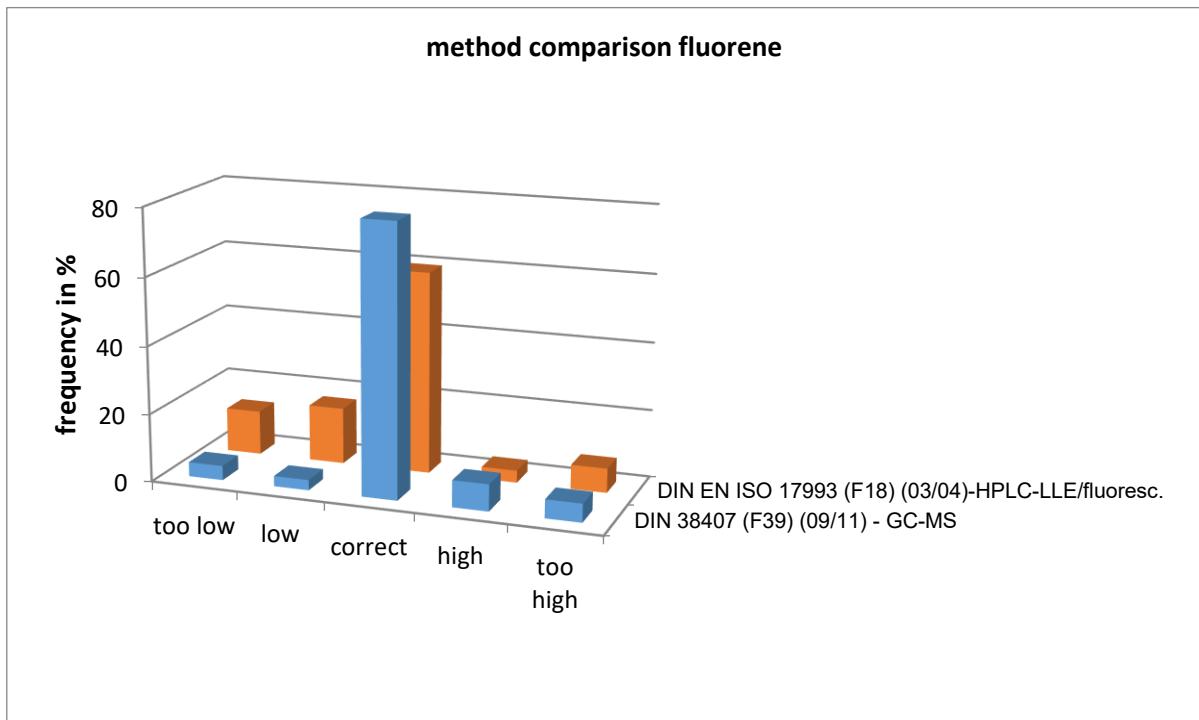
neg. x-intercept corresponds to the matrix content: 0,0014  $\mu\text{g/l}$

expand uncertainty of the matrix content: 0,0014  $\mu\text{g/l}$  = 100 %

**Relative standard deviation and tolerance limits**

The relative standard deviations calculated from the variance function did not reach the limits.



**Method specific evaluation****method comparison fluorene**

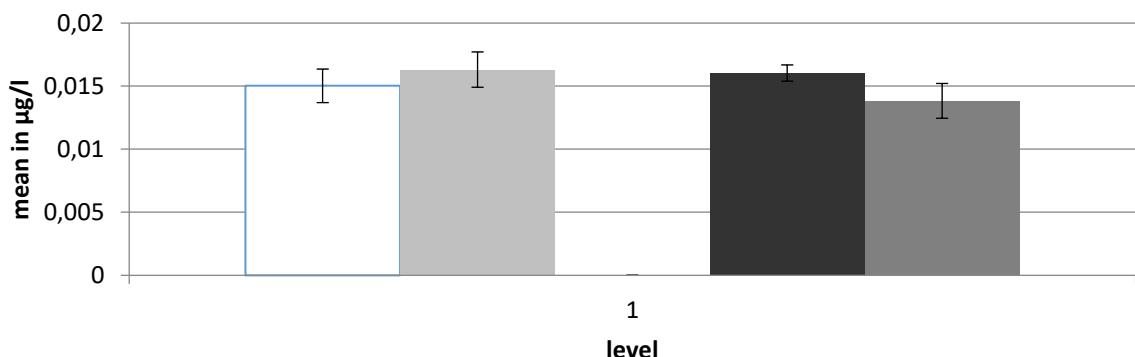
The values determined with GC-MS showed the closest statistical distribution.

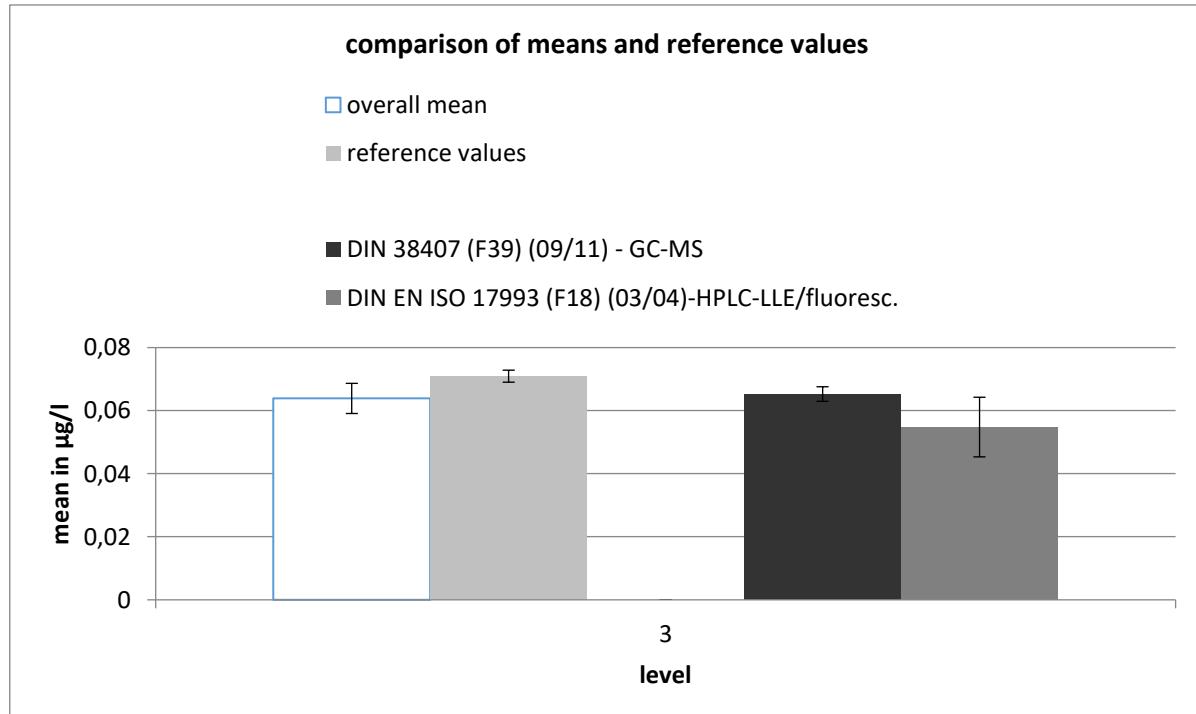
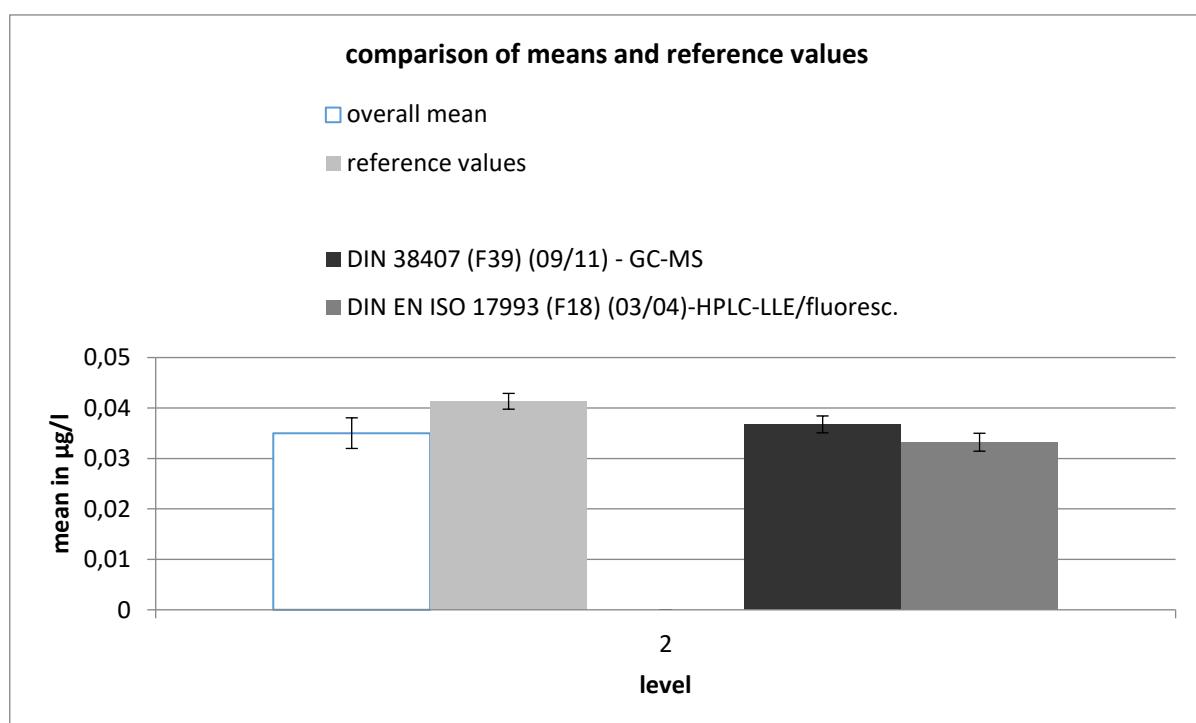
**Comparison of means and reference values**

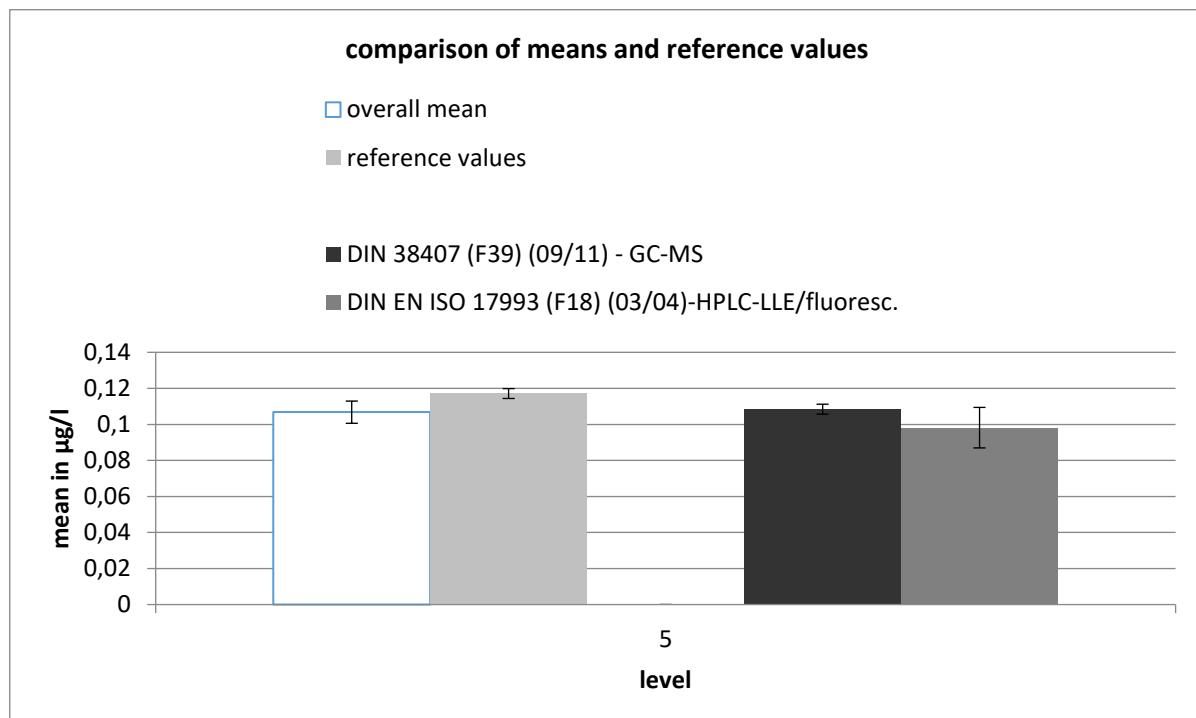
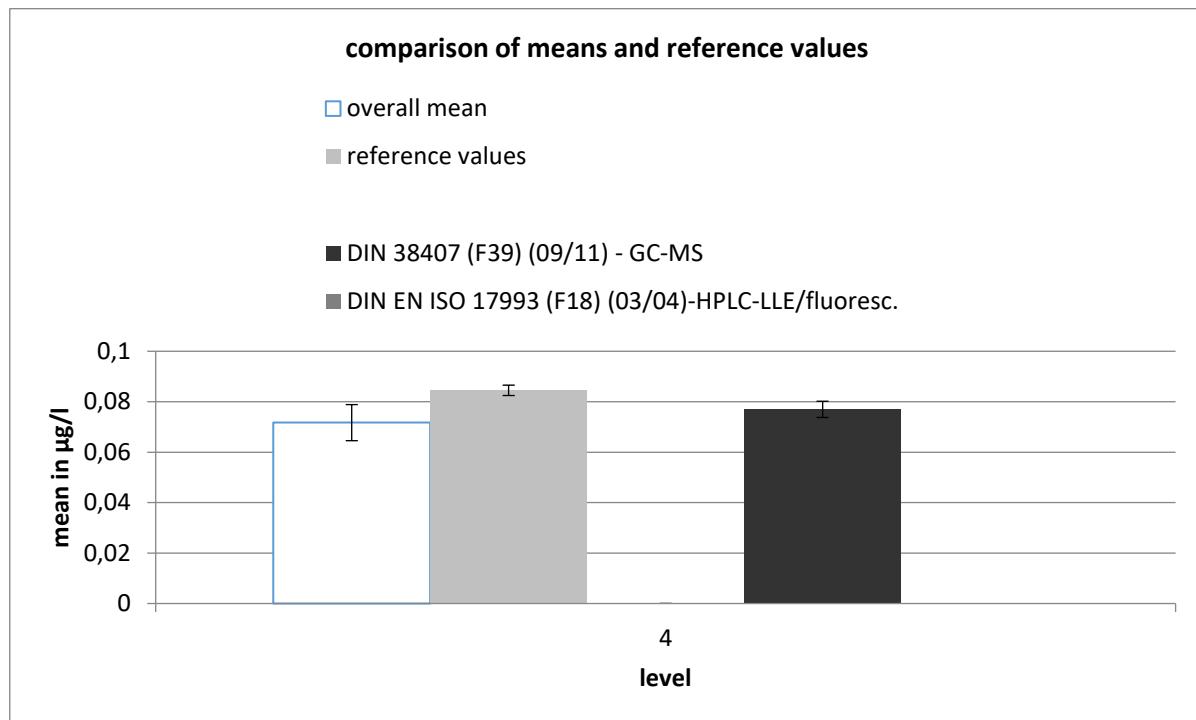
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0150	0,0013	8,9	0,0163	0,0014	8,6
2	0,0350	0,0030	8,7	0,0413	0,0016	3,8
3	0,0639	0,0048	7,5	0,0709	0,0019	2,7
4	0,0717	0,0072	10,0	0,0845	0,0021	2,4
5	0,1068	0,0062	5,8	0,1171	0,0027	2,3
6	0,1274	0,0075	5,9	0,1393	0,0029	2,1
7	0,1441	0,0084	5,9	0,1554	0,0032	2,1
8	0,1508	0,0070	4,6	0,1688	0,0033	1,9
9	0,1669	0,0126	7,6	0,1890	0,0039	2,1

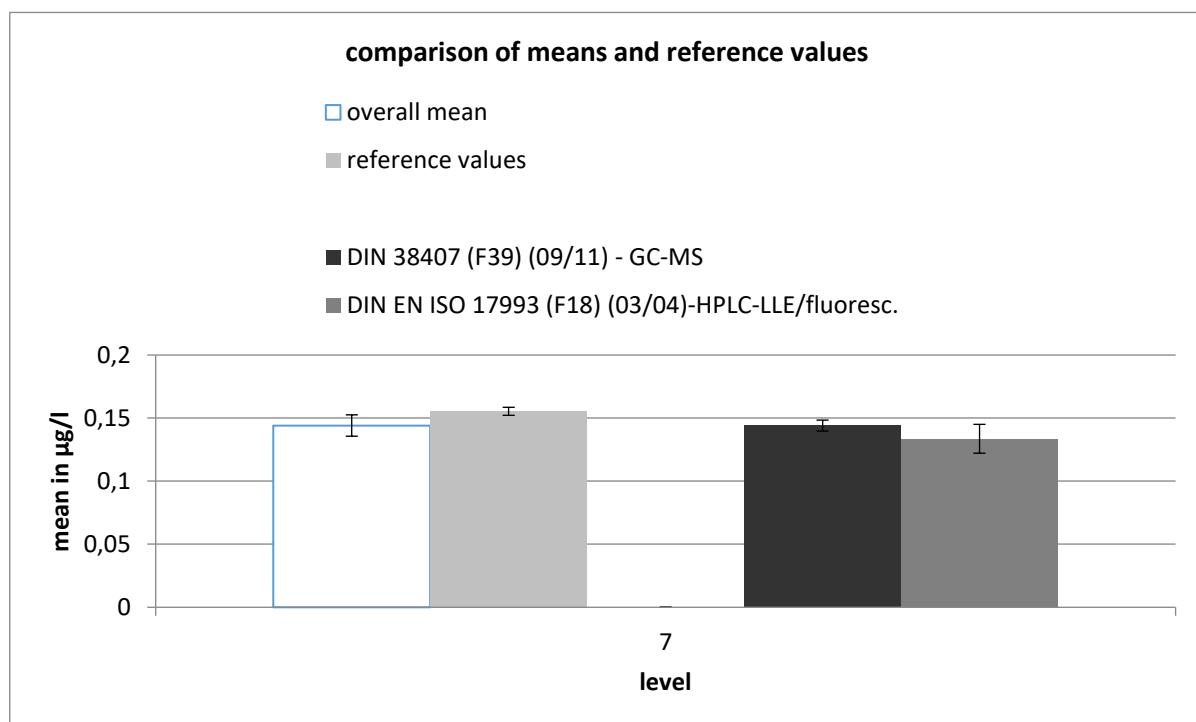
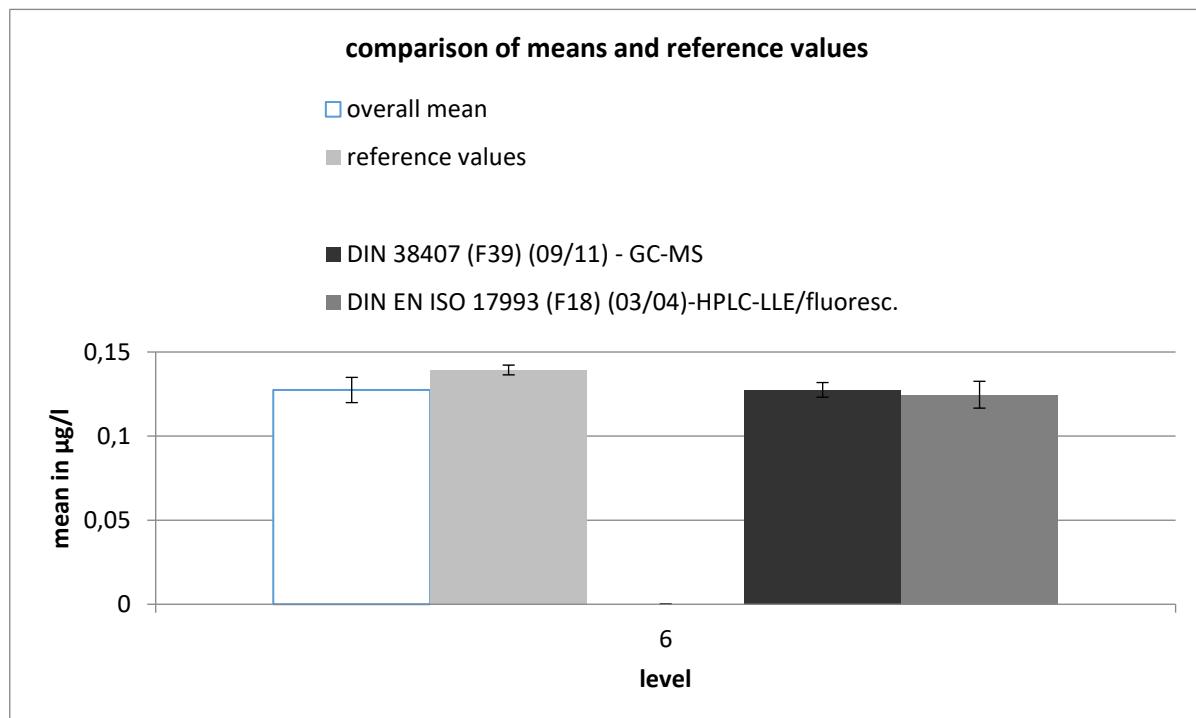
**comparison of means and reference values**

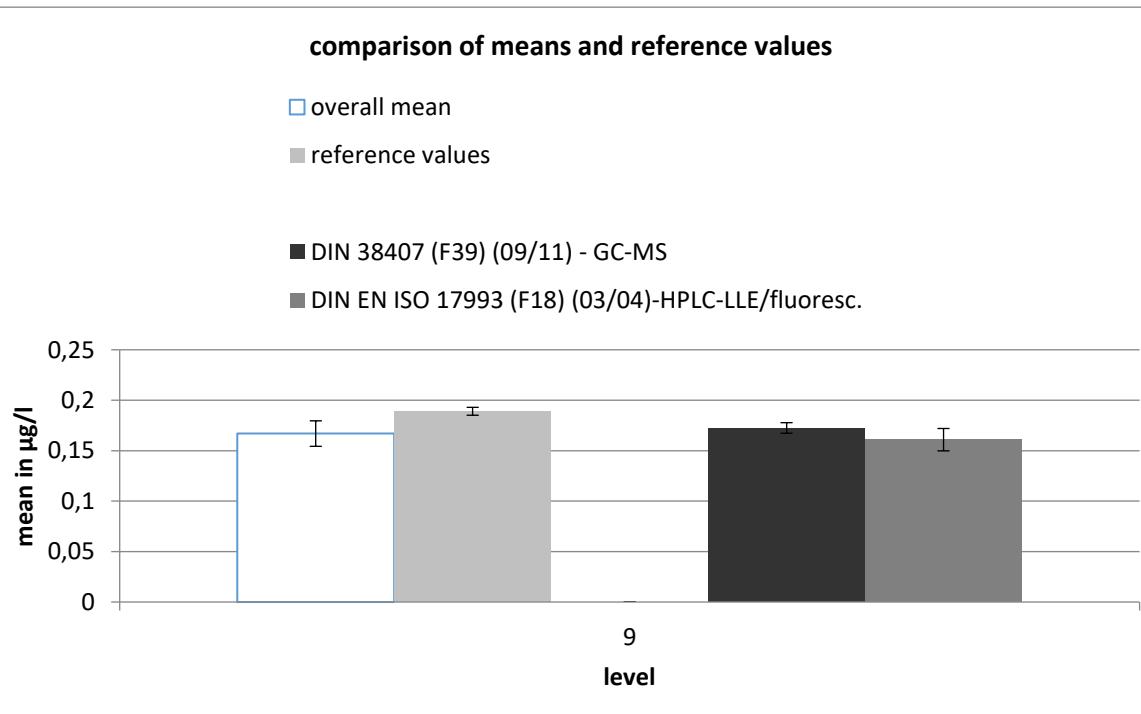
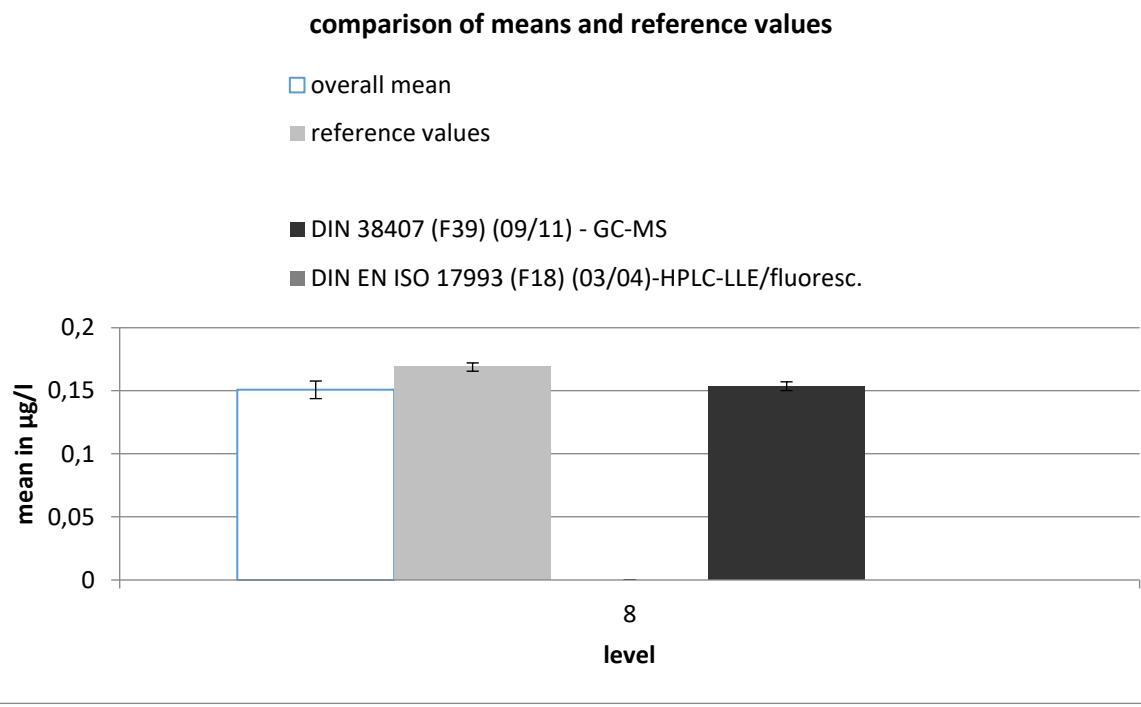
□ overall mean  
■ reference values  
■ DIN 38407 (F39) (09/11) - GC-MS  
■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

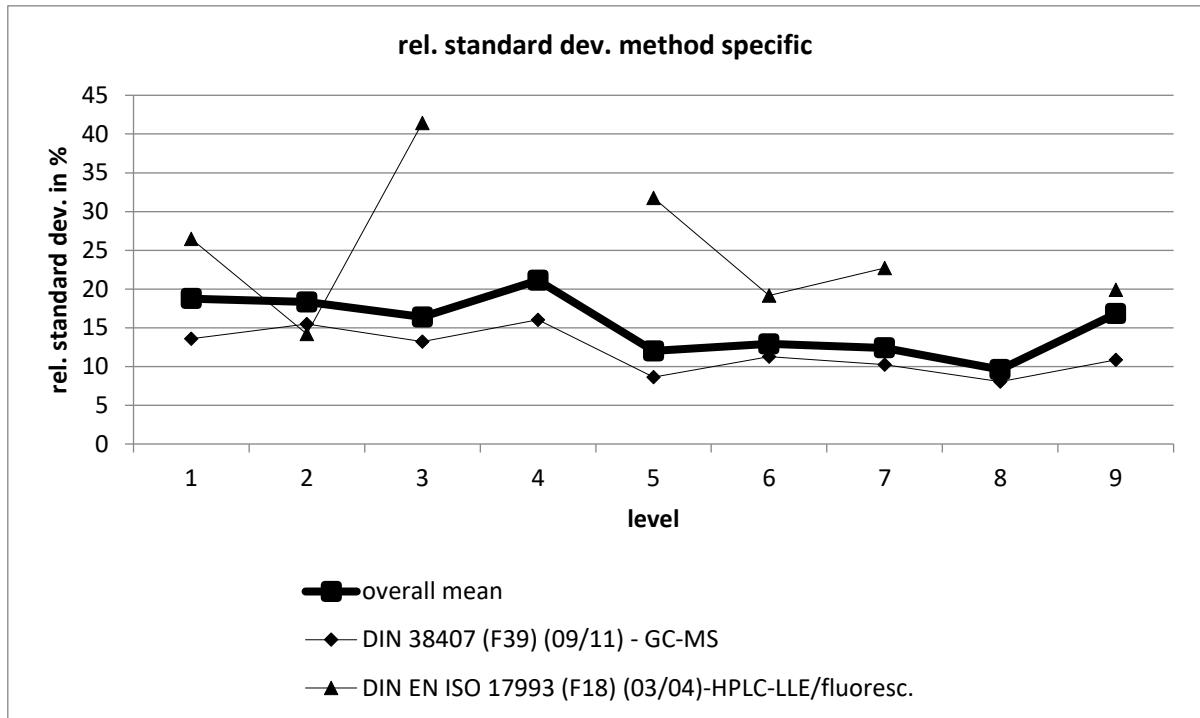












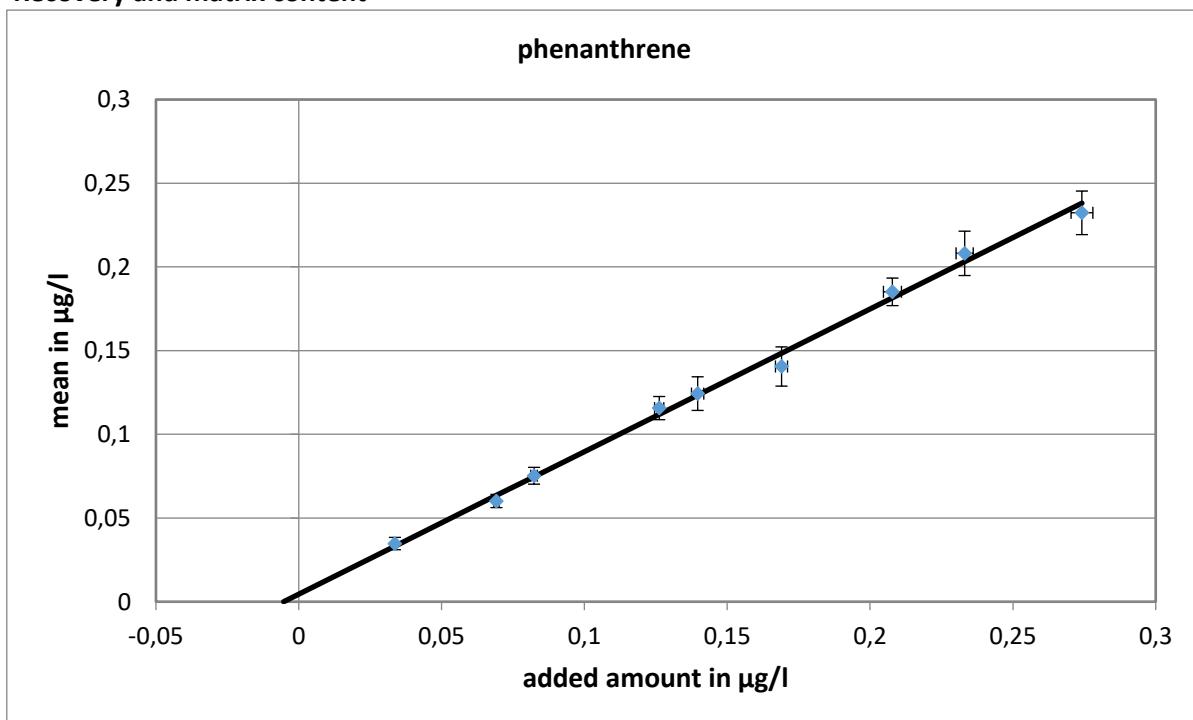
DIN 38407 (F39) (09/11) - GC-MS										
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]	
1	0,016	0,0006	4,0034	0,0022	13,588	18	1	1	11,11	
2	0,0367	0,0017	4,5606	0,0057	15,479	18	2	2	22,22	
3	0,0653	0,0023	3,5266	0,0086	13,233	22	0	4	18,18	
4	0,077	0,0032	4,1798	0,0123	16,037	23	3	1	17,39	
5	0,1084	0,0028	2,5367	0,0093	8,6098	18	1	1	11,11	
6	0,1275	0,0044	3,4148	0,0144	11,264	17	0	1	5,882	
7	0,1441	0,0043	3,0125	0,0147	10,225	18	2	0	11,11	
8	0,1537	0,0035	2,2489	0,0124	8,0457	20	1	2	15	
9	0,1725	0,0052	3,0369	0,0187	10,865	20	3	0	15	

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0138	0,0014	9,975	0,0037	26,467	11	0	1	9,091
2	0,0332	0,0018	5,3502	0,0047	14,196	11	0	2	18,18
3	0,0548	0,0095	17,268	0,0227	41,444	9	0	0	0
5	0,0982	0,0113	11,46	0,0312	31,758	12	0	0	0
6	0,1246	0,008	6,3953	0,0239	19,143	14	1	1	14,29
7	0,1336	0,0114	8,554	0,0303	22,696	11	1	0	9,091
9	0,1609	0,0111	6,9073	0,0321	19,924	13	1	0	7,692

# phenanthrene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]	
1	0,0347	10,62	0,0081	0,0069	0,0069	19,88	0,0502	0,0220	44,57	-36,55	30	2	3	16,7	
2	0,0602	6,57	0,0084	0,0103	0,0103	17,20	0,0830	0,0410	37,89	-31,92	28	3	0	10,7	
3	0,0753	6,67	0,0108	0,0122	0,0122	16,21	0,1020	0,0525	35,49	-30,20	29	2	0	6,9	
4	0,1157	5,98	0,0152	0,0167	0,0167	14,47	0,1519	0,0843	31,35	-27,13	30	3	0	10,0	
5	0,1243	8,07	0,0209	0,0176	0,0176	14,19	0,1625	0,0912	30,70	-26,65	27	1	1	7,4	
6	0,1405	8,33	0,0252	0,0193	0,0193	13,74	0,1822	0,1042	29,64	-25,85	29	4	1	17,2	
7	0,1851	4,45	0,0171	0,0237	0,0237	12,78	0,2359	0,1405	27,40	-24,12	27	2	0	7,4	
8	0,2081	6,37	0,0286	0,0258	0,0258	12,39	0,2633	0,1594	26,51	-23,43	29	3	0	10,3	
9	0,2323	5,61	0,0290	0,0280	0,0280	12,03	0,2920	0,1794	25,69	-22,79	31	3	0	9,7	
											sum	260	23	5	10,8

## Recovery and matrix content

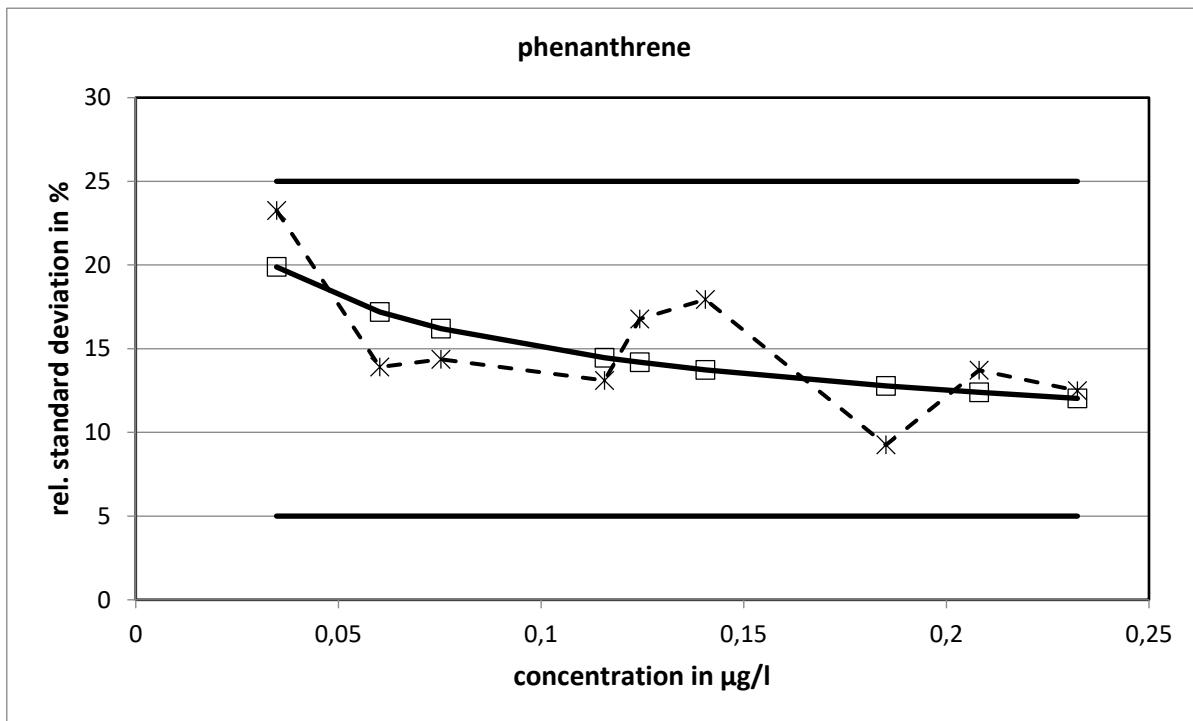


slope of the regression: 0,852; recovery rate: 85,2 %

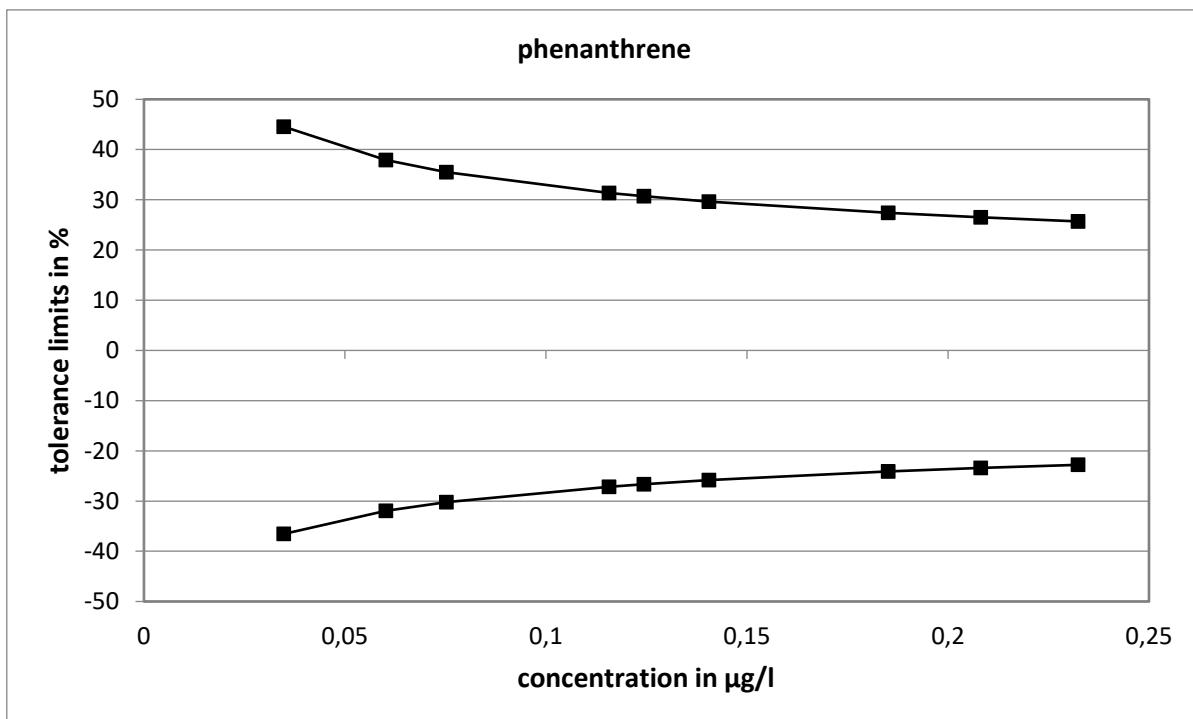
neg. x-intercept corresponds to the matrix content: 0,0053  $\mu\text{g/l}$

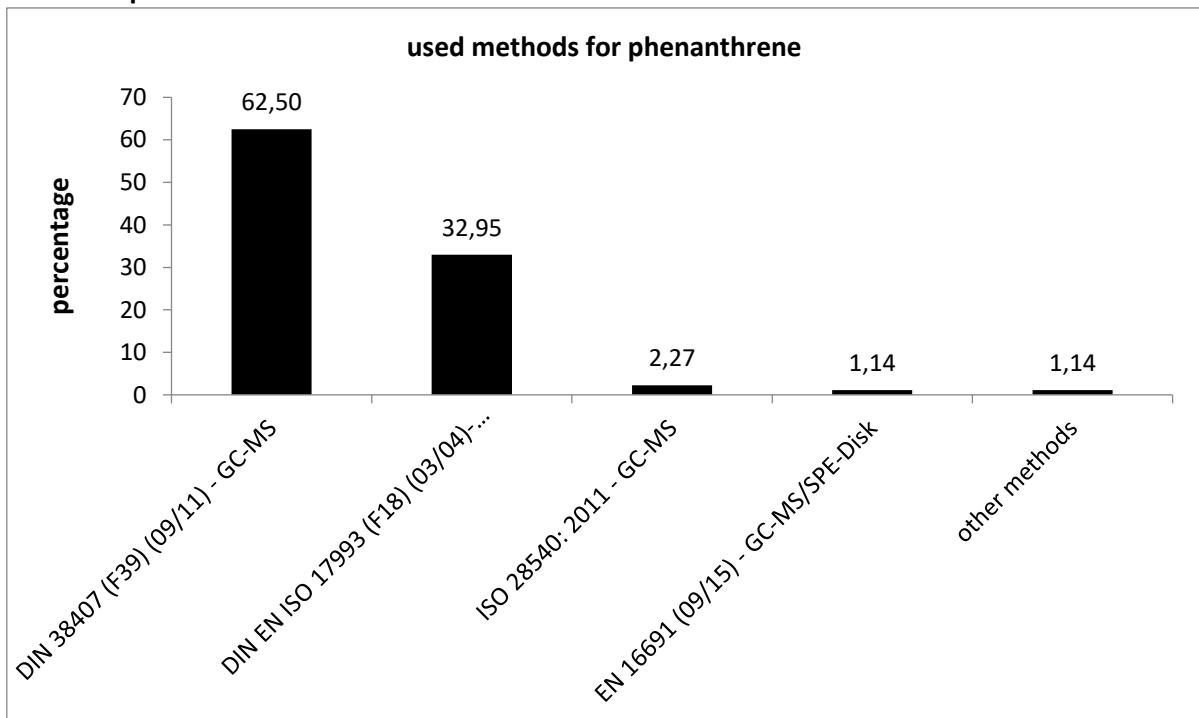
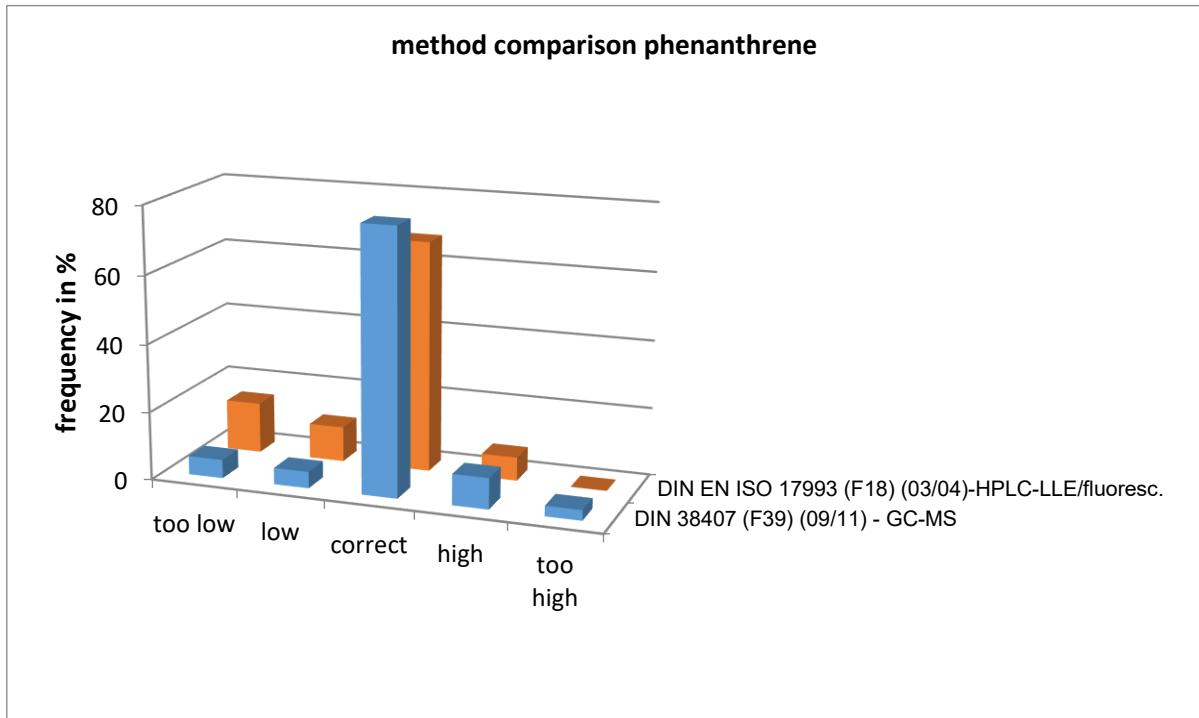
expand uncertainty of the matrix content: 0,0045  $\mu\text{g/l}$  = 84,9 %

**Relative standard deviation and tolerance limits**



The relative standard deviations calculated from the variance function did not reach the limits.



**Method specific evaluation****method comparison phenanthrene**

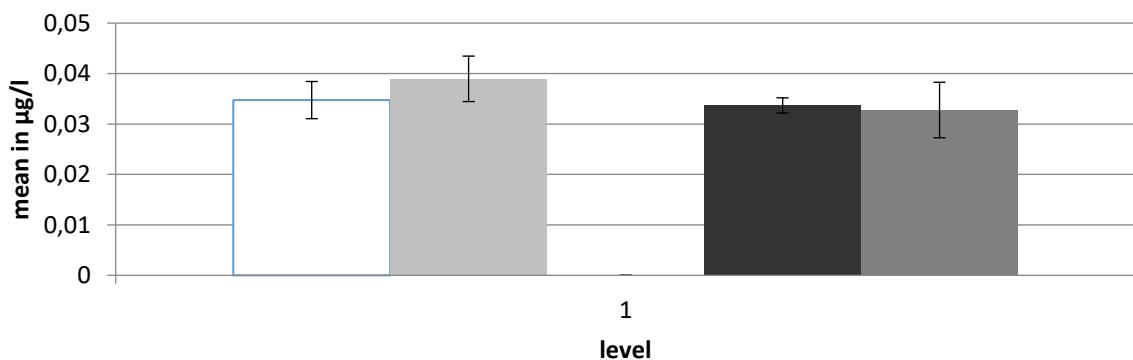
The values determined with GC-MS showed the closest statistical distribution.

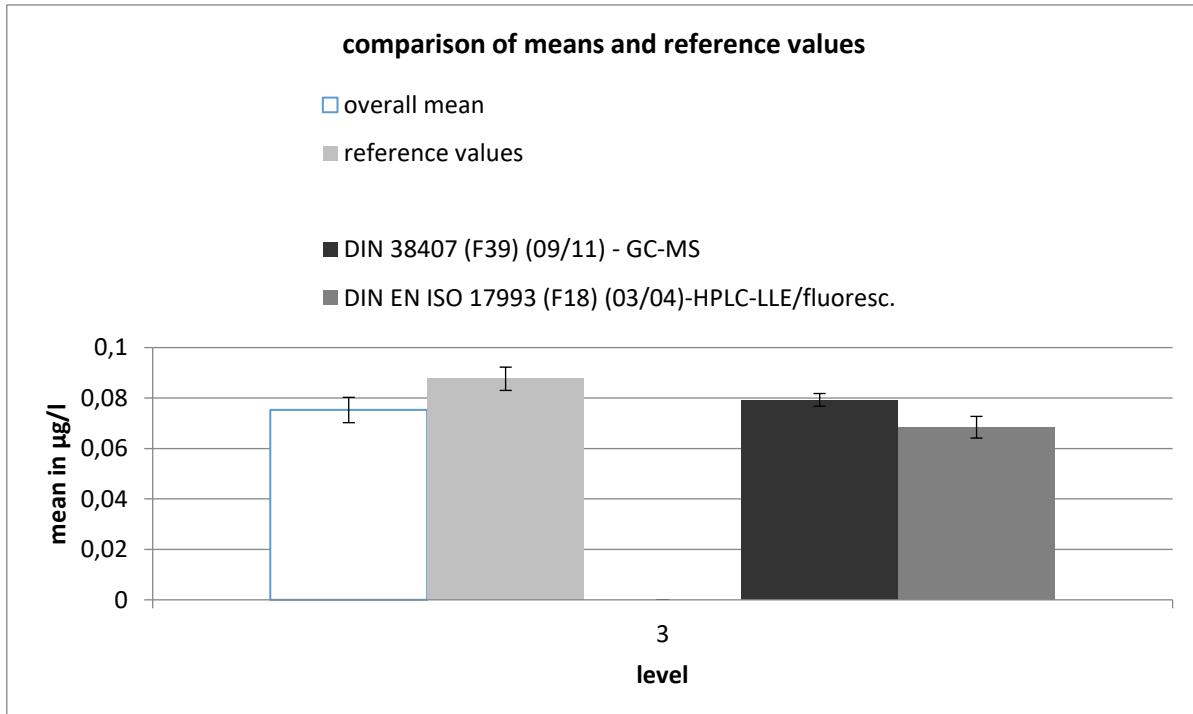
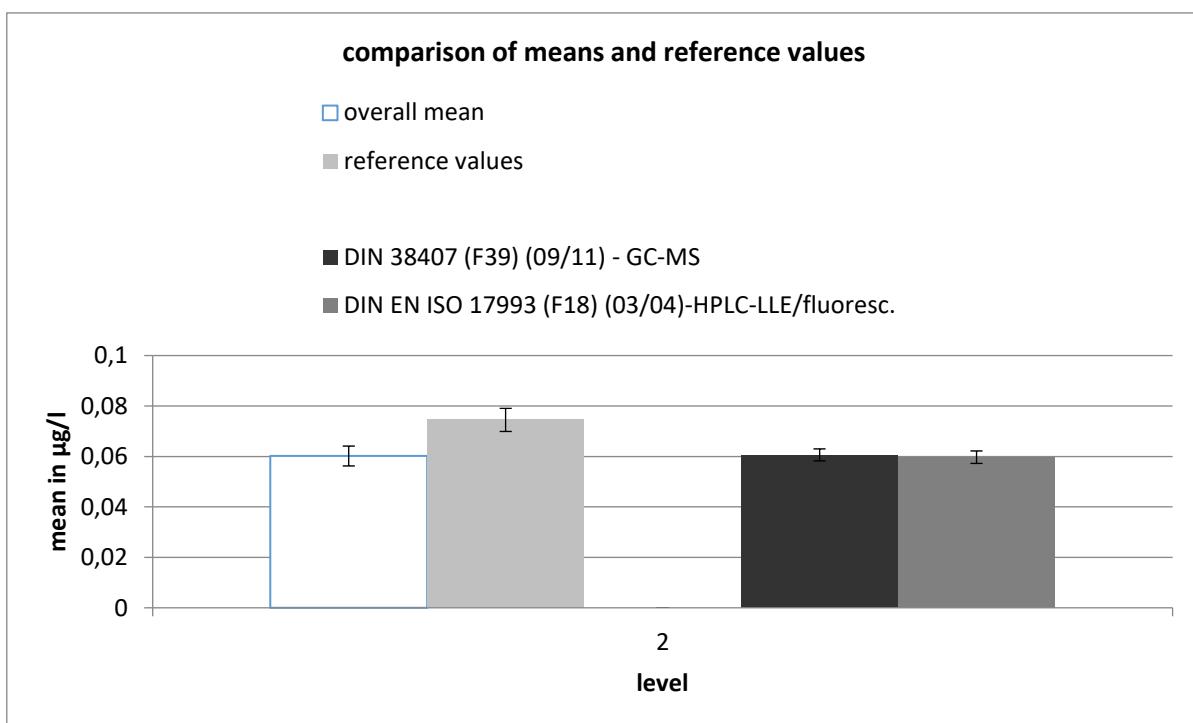
**Comparison of means and reference values**

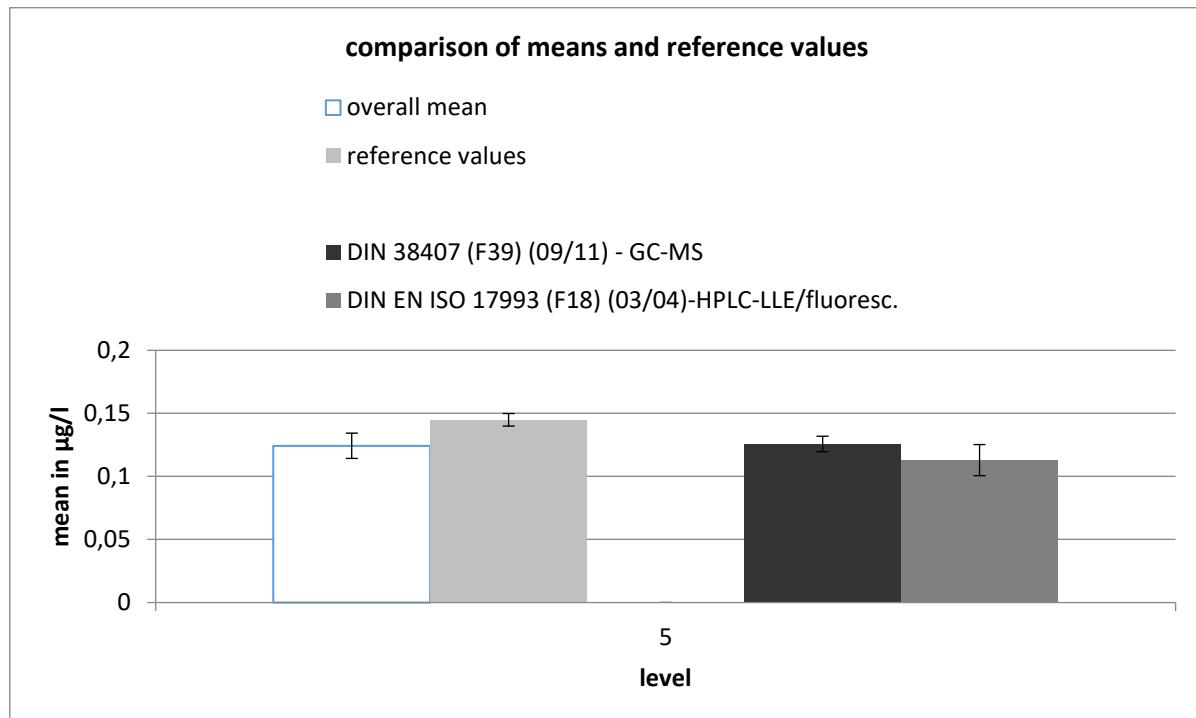
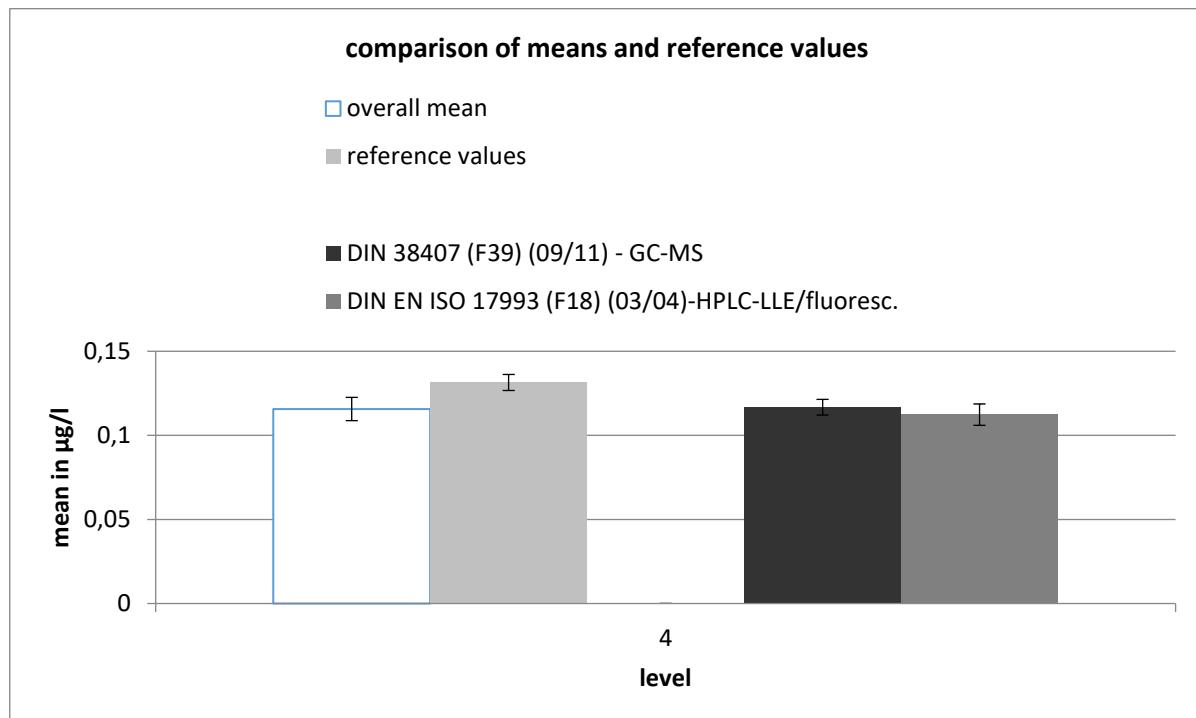
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0347	0,0037	10,6	0,0390	0,0045	11,6
2	0,0602	0,0040	6,6	0,0745	0,0046	6,1
3	0,0753	0,0050	6,7	0,0876	0,0046	5,3
4	0,1157	0,0069	6,0	0,1315	0,0048	3,6
5	0,1243	0,0100	8,1	0,1449	0,0050	3,4
6	0,1405	0,0117	8,3	0,1743	0,0050	2,8
7	0,1851	0,0082	4,5	0,2131	0,0055	2,6
8	0,2081	0,0133	6,4	0,2384	0,0054	2,3
9	0,2323	0,0130	5,6	0,2795	0,0059	2,1

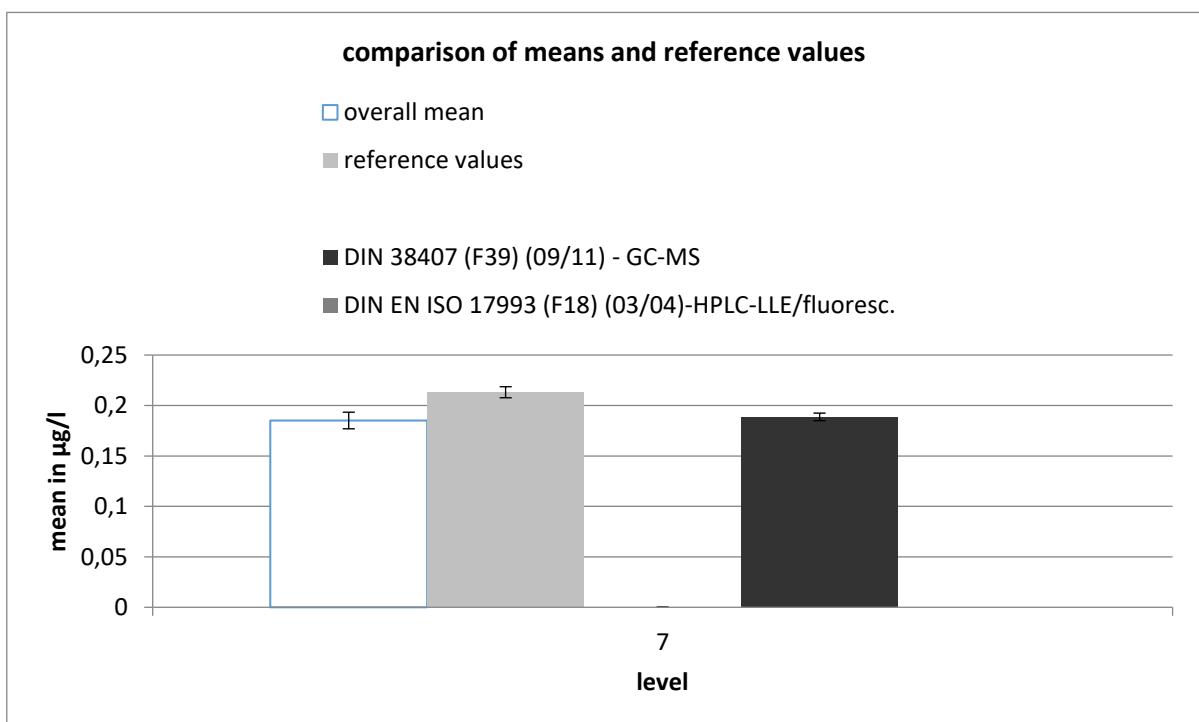
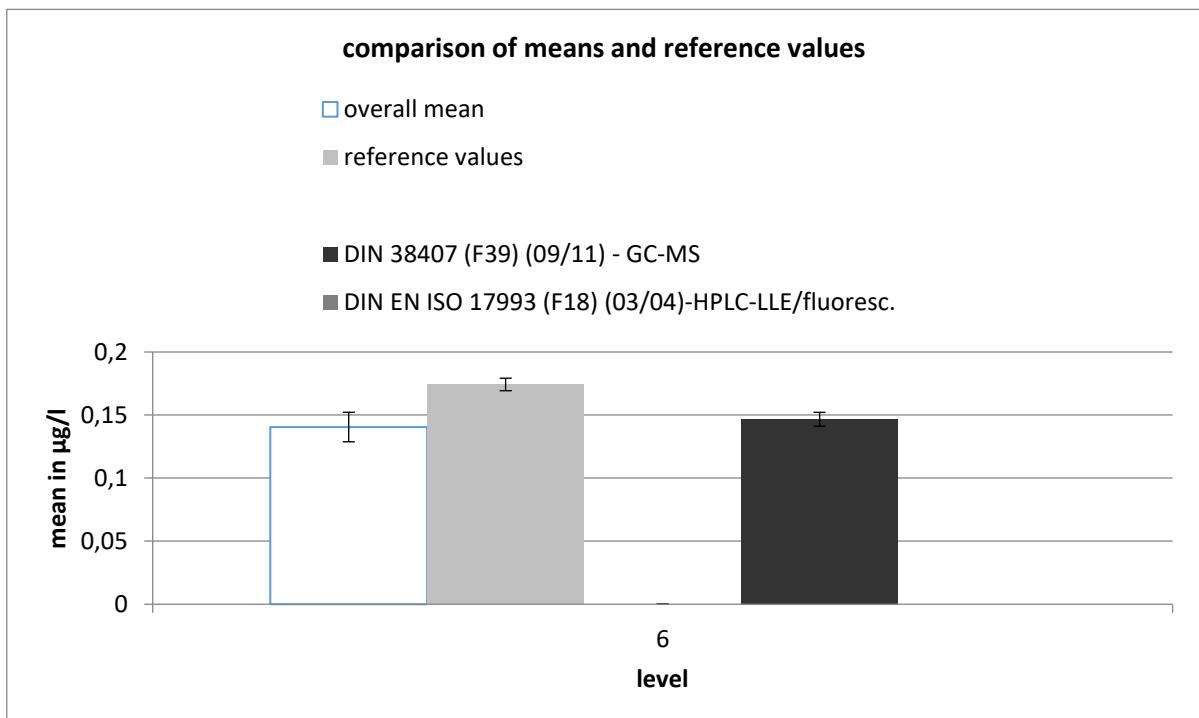
**comparison of means and reference values**

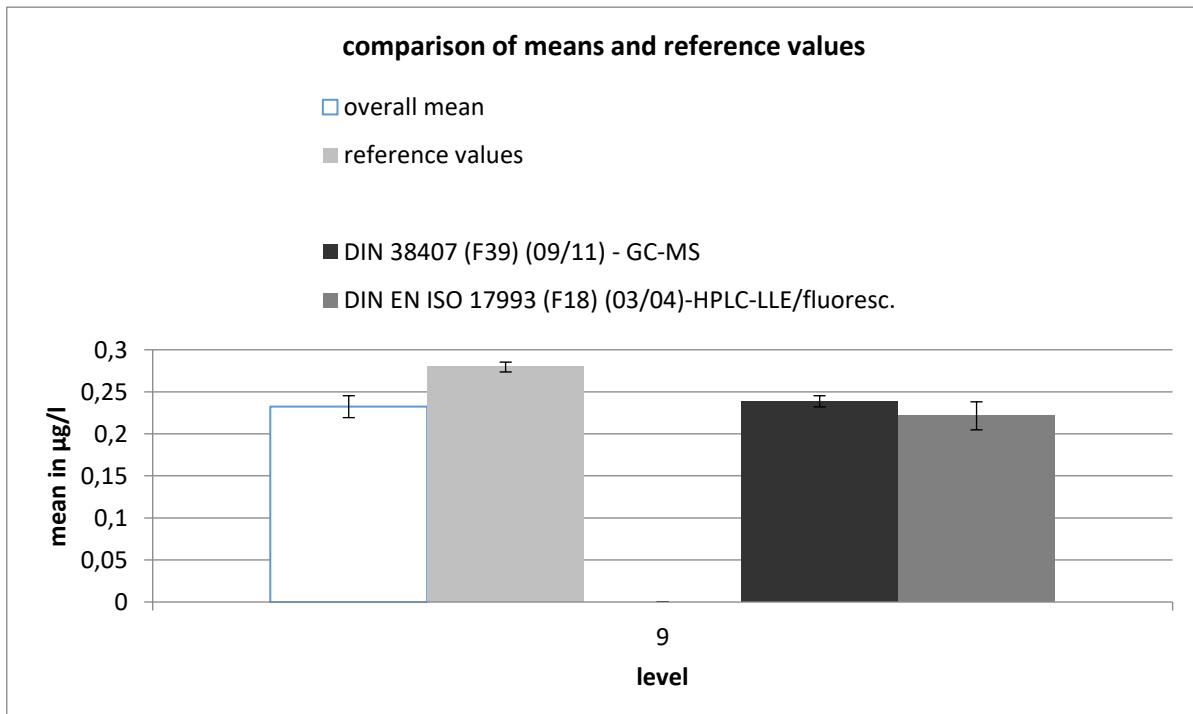
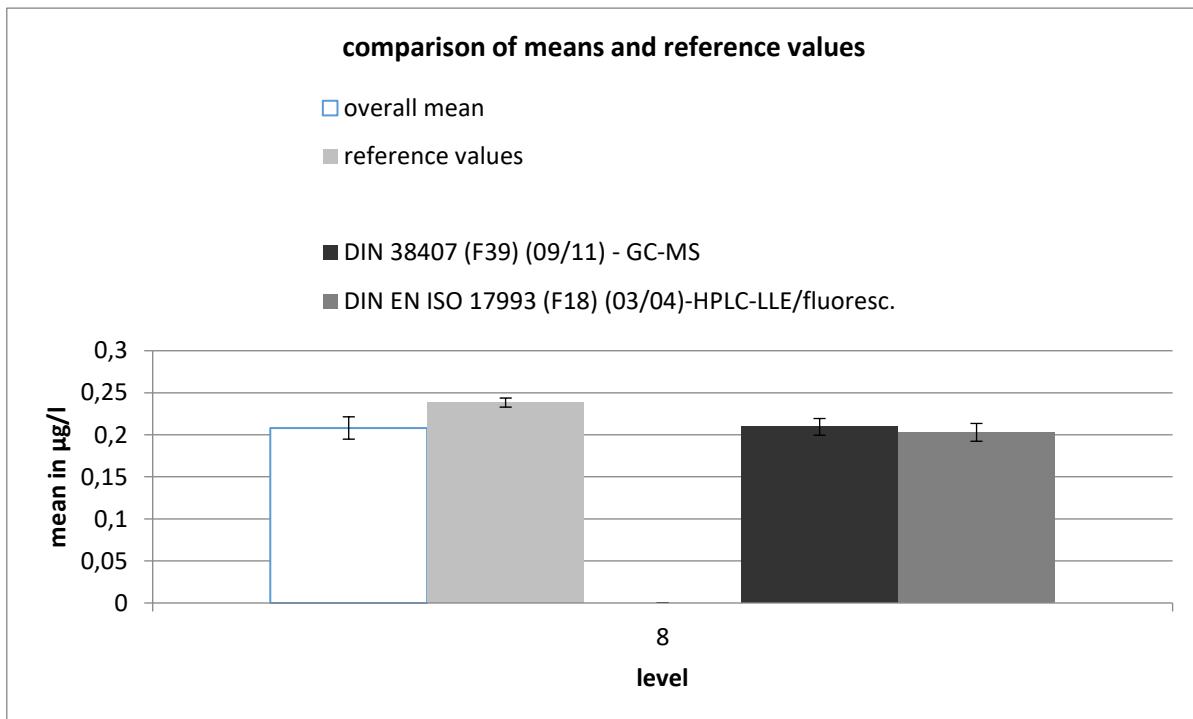
□ overall mean  
■ reference values  
■ DIN 38407 (F39) (09/11) - GC-MS  
■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

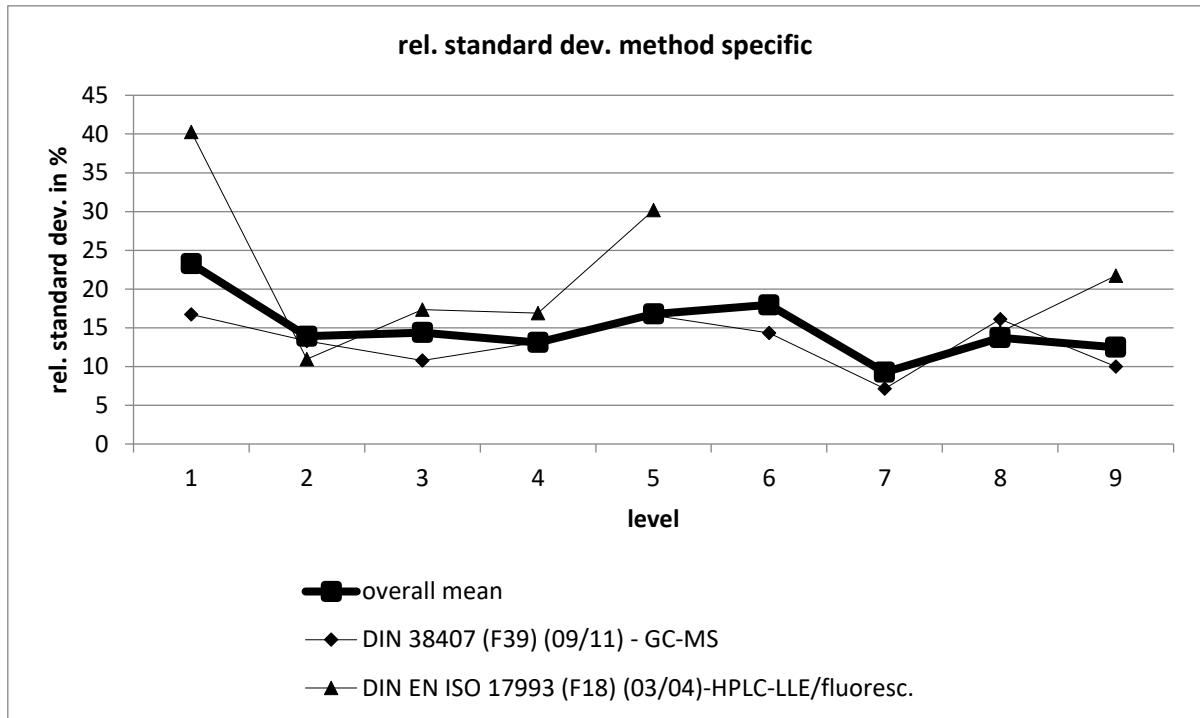












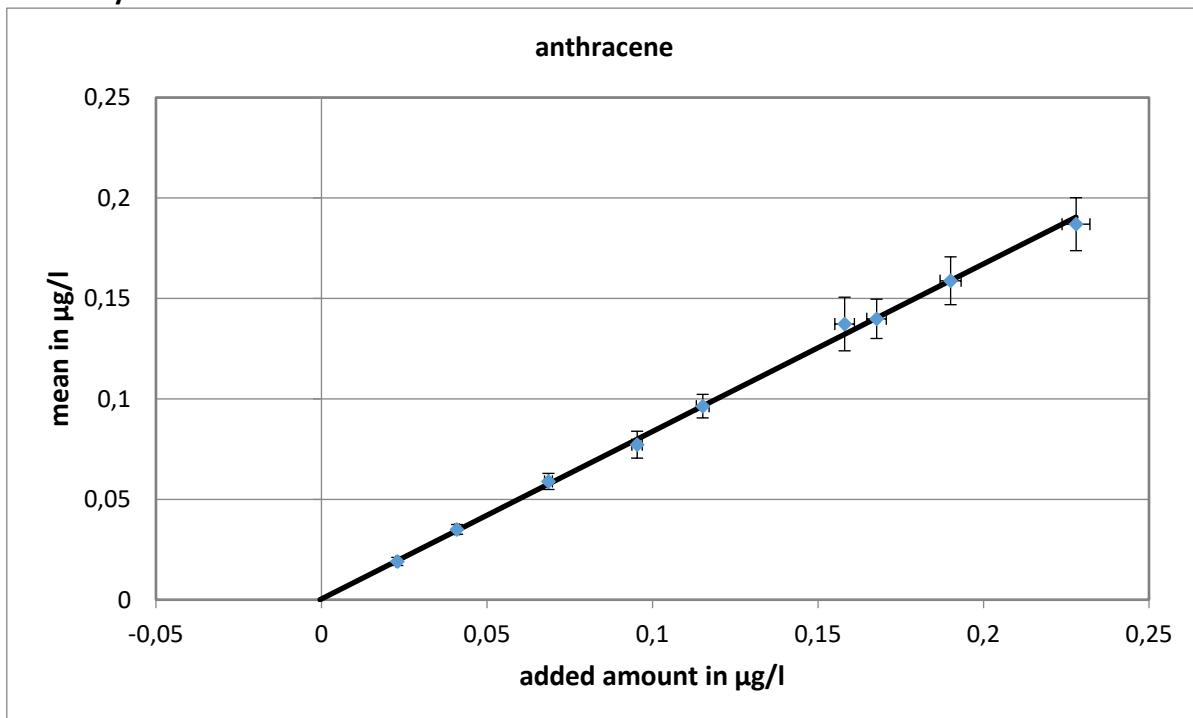
DIN 38407 (F39) (09/11) - GC-MS									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0337	0,0015	4,4558	0,0056	16,72	22	0	4	18,18
2	0,0606	0,0024	3,9199	0,0081	13,304	18	4	0	22,22
3	0,0793	0,0025	3,1753	0,0085	10,777	18	2	0	11,11
4	0,1168	0,0046	3,9826	0,0153	13,136	17	2	0	11,76
5	0,1258	0,0061	4,8856	0,0209	16,582	18	1	1	11,11
6	0,1467	0,0055	3,7351	0,021	14,33	23	3	1	17,39
7	0,1887	0,0038	1,9958	0,0135	7,1404	20	1	0	5
8	0,2094	0,0099	4,745	0,0337	16,105	18	1	0	5,556
9	0,2387	0,0067	2,7907	0,0238	9,9842	20	3	0	15

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0328	0,0055	16,786	0,0132	40,287	9	0	1	11,11
2	0,0597	0,0025	4,1273	0,0065	10,951	11	0	1	9,091
3	0,0684	0,0043	6,2596	0,0119	17,347	12	0	1	8,333
4	0,1123	0,0063	5,6496	0,019	16,911	14	1	1	14,29
5	0,113	0,0123	10,899	0,0341	30,205	12	1	0	8,333
8	0,2029	0,0106	5,2085	0,0293	14,434	12	3	0	25
9	0,2214	0,0167	7,5285	0,0481	21,715	13	1	0	7,692

# anthracene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]	
1	0,0191	10,59	0,0043	0,0036	0,0036	18,77	0,0270	0,0125	41,78	-34,65	28	2	2	14,3	
2	0,0350	6,91	0,0053	0,0062	0,0062	17,75	0,0488	0,0235	39,25	-32,88	30	2	3	16,7	
3	0,0589	6,80	0,0086	0,0100	0,0100	16,92	0,0808	0,0404	37,22	-31,44	29	2	0	6,9	
4	0,0772	8,68	0,0144	0,0127	0,0127	16,51	0,1051	0,0535	36,21	-30,72	29	3	1	13,8	
5	0,0964	6,09	0,0129	0,0156	0,0156	16,17	0,1305	0,0673	35,41	-30,14	30	3	0	10,0	
6	0,1373	9,73	0,0278	0,0215	0,0215	15,66	0,1842	0,0971	34,16	-29,23	27	1	2	11,1	
7	0,1398	7,00	0,0215	0,0219	0,0219	15,63	0,1875	0,0990	34,10	-29,18	30	3	0	9,7	
8	0,1588	7,50	0,0256	0,0245	0,0245	15,45	0,2122	0,1130	33,67	-28,86	29	1	1	6,9	
9	0,1870	7,05	0,0269	0,0284	0,0284	15,22	0,2489	0,1338	33,12	-28,46	26	2	1	11,5	
											sum	258	19	10	11,2

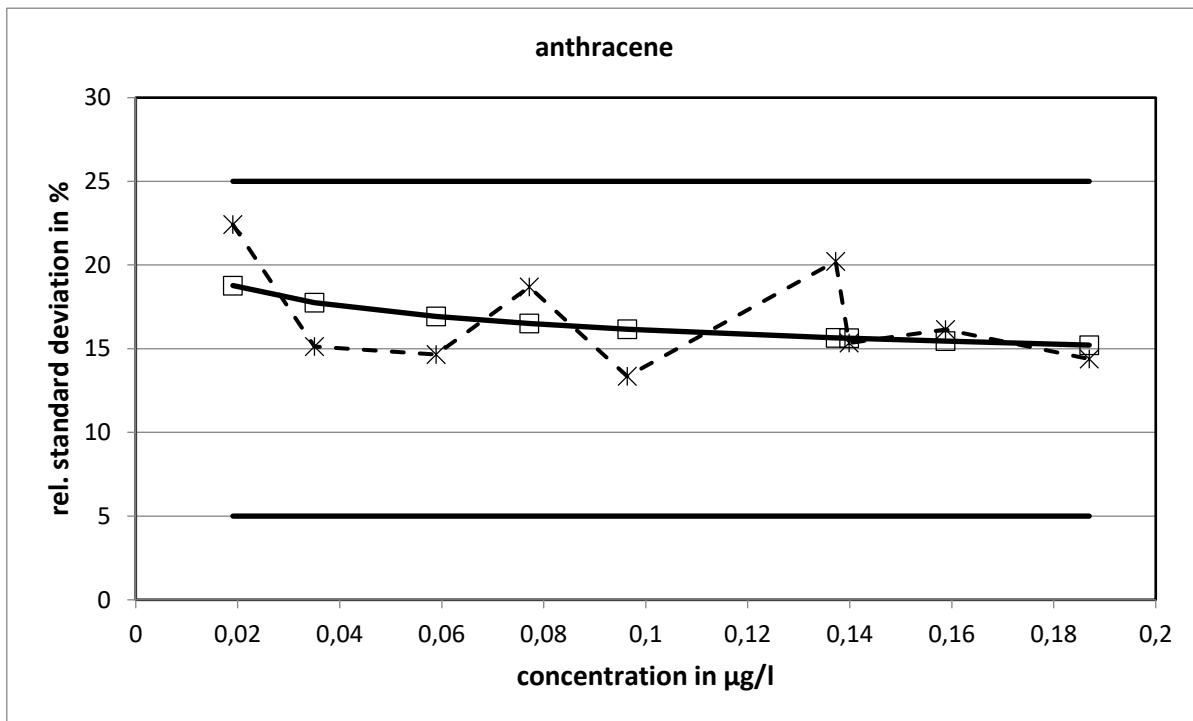
## Recovery and matrix content



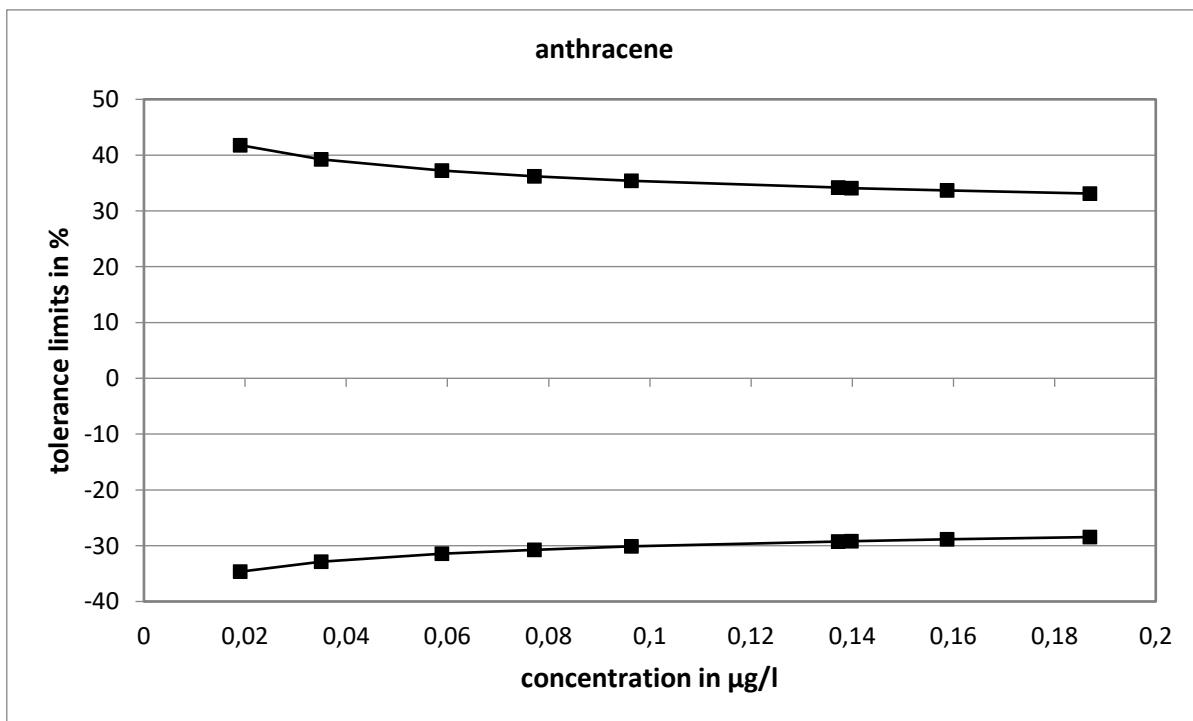
slope of the regression: 0,834; recovery rate: 83,4 %

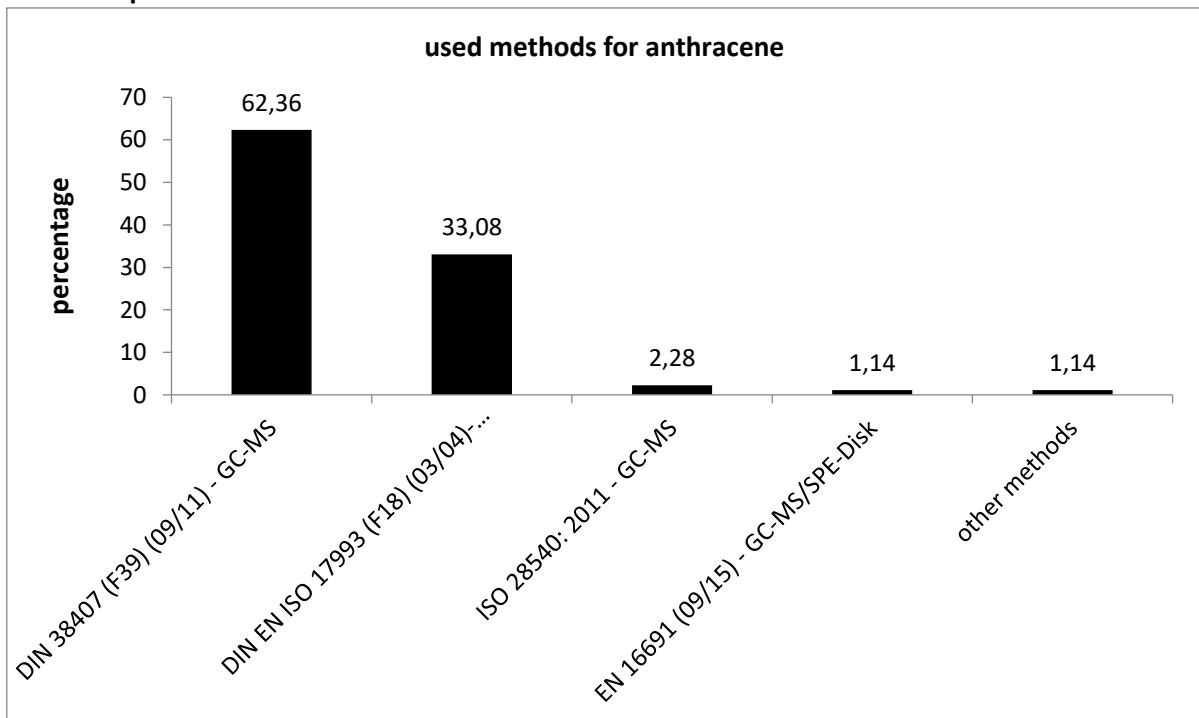
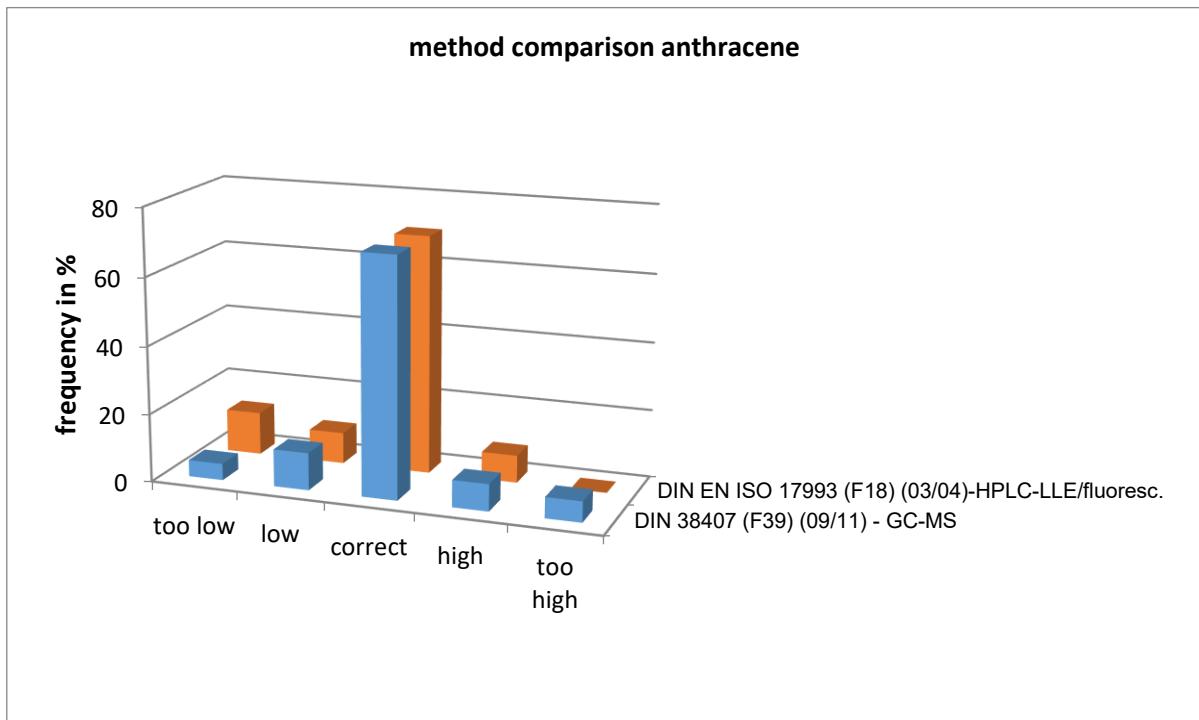
neg. x-intercept corresponds to the matrix content: 0,0005  $\mu\text{g/l}$

expand uncertainty of the matrix content: 0,0005  $\mu\text{g/l}$  = 100 %

**Relative standard deviation and tolerance limits**

The relative standard deviations calculated from the variance function did not reach the limits.



**Method specific evaluation****method comparison anthracene**

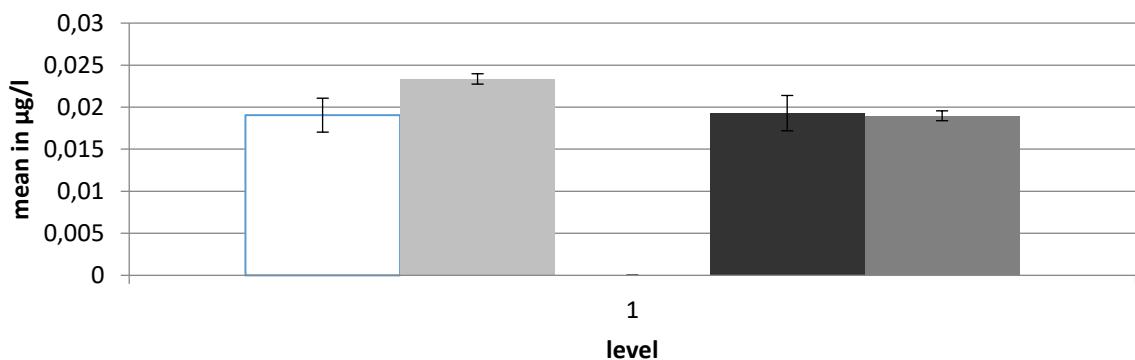
The differences between the methods were not significant.

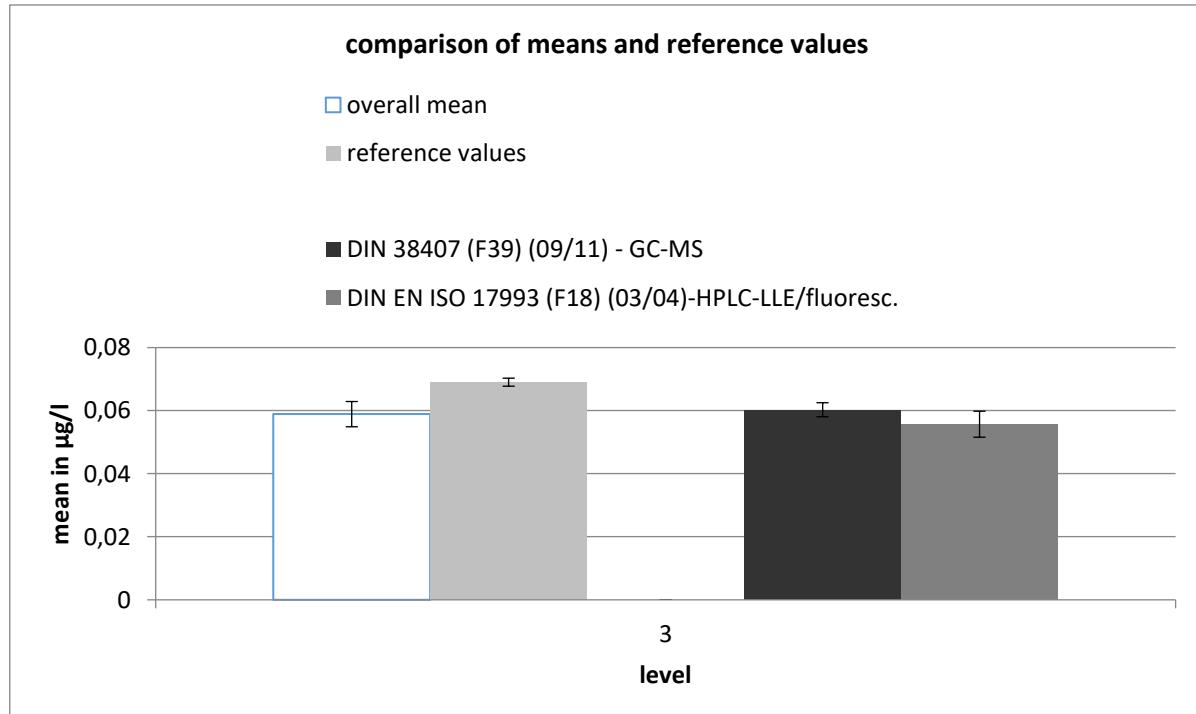
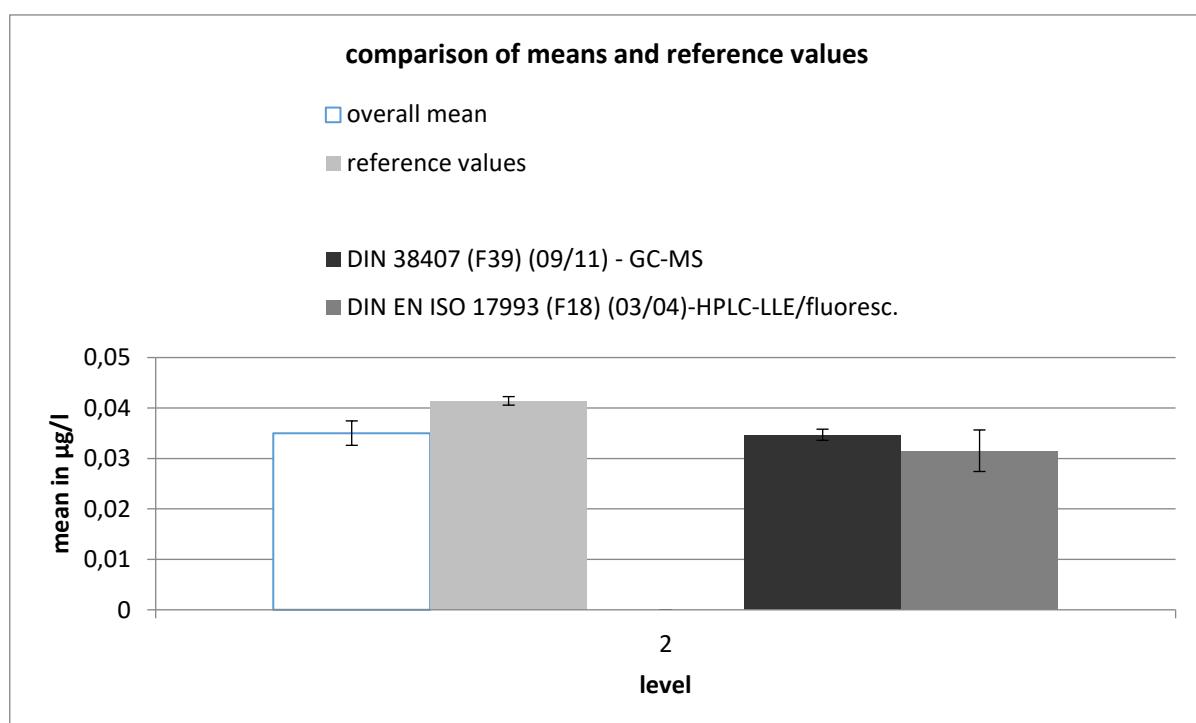
**Comparison of means and reference values**

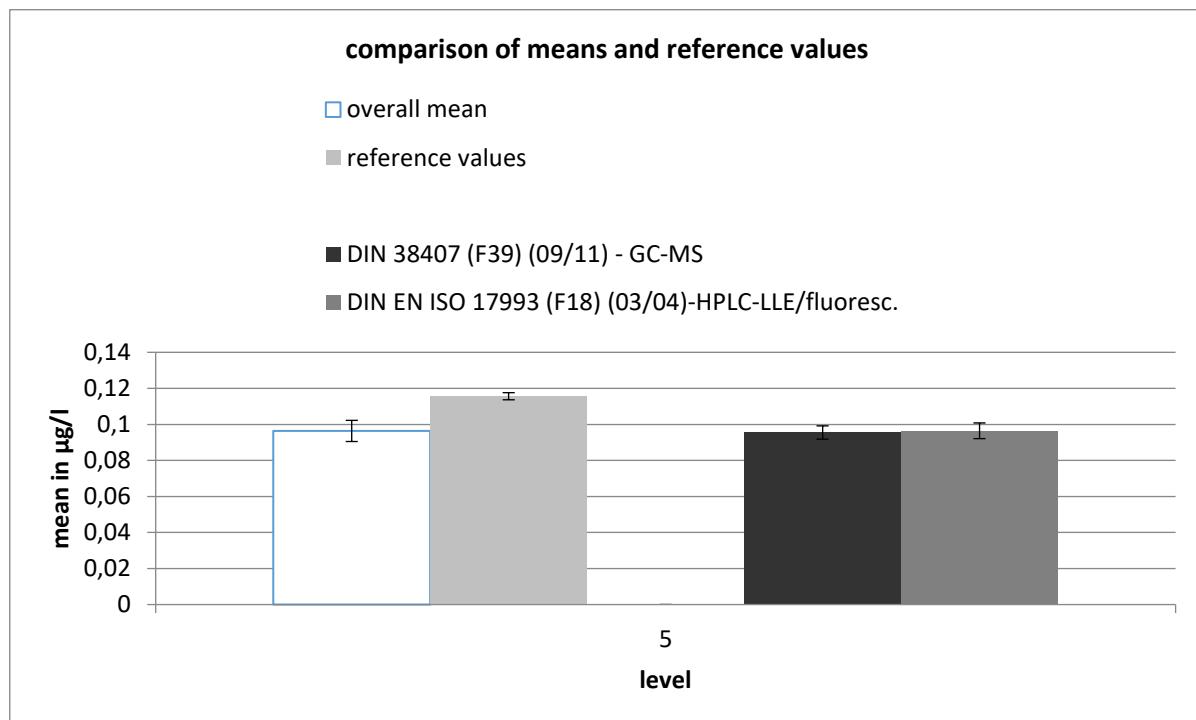
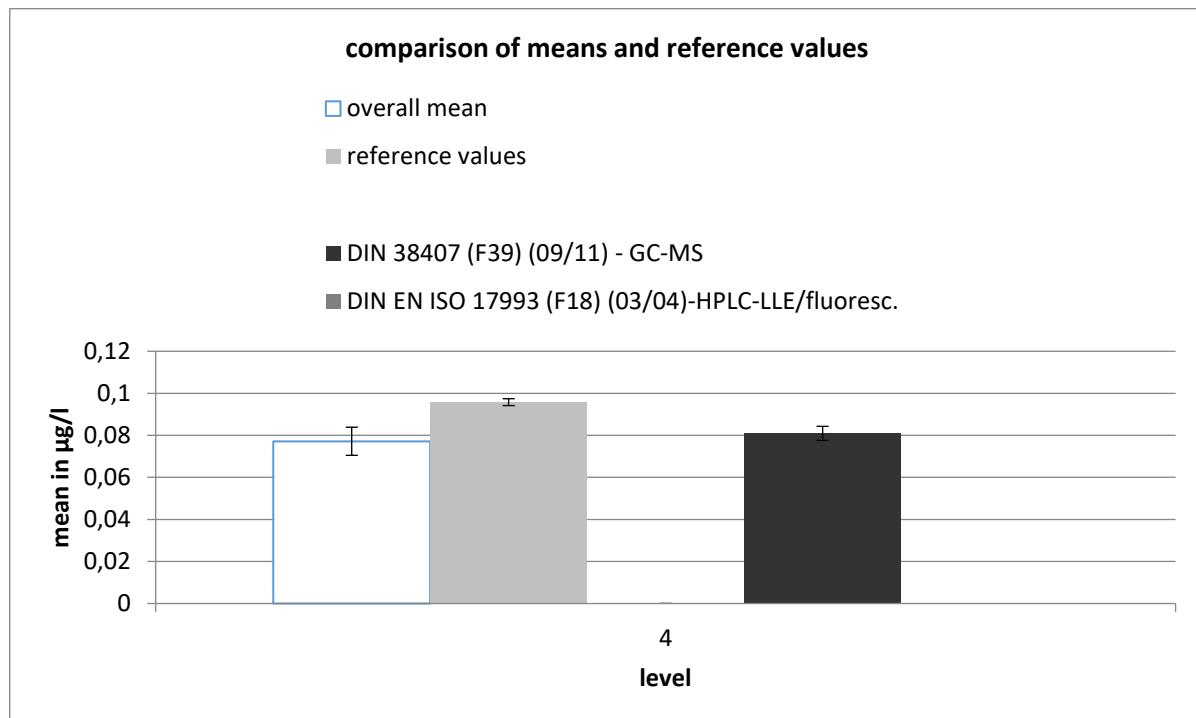
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0191	0,0020	10,6	0,0234	0,0006	2,6
2	0,0350	0,0024	6,9	0,0414	0,0008	2,0
3	0,0589	0,0040	6,8	0,0690	0,0013	1,8
4	0,0772	0,0067	8,7	0,0958	0,0016	1,7
5	0,0964	0,0059	6,1	0,1156	0,0020	1,7
6	0,1373	0,0134	9,7	0,1585	0,0030	1,9
7	0,1398	0,0098	7,0	0,1681	0,0030	1,8
8	0,1588	0,0119	7,5	0,1905	0,0032	1,7
9	0,1870	0,0132	7,1	0,2284	0,0042	1,9

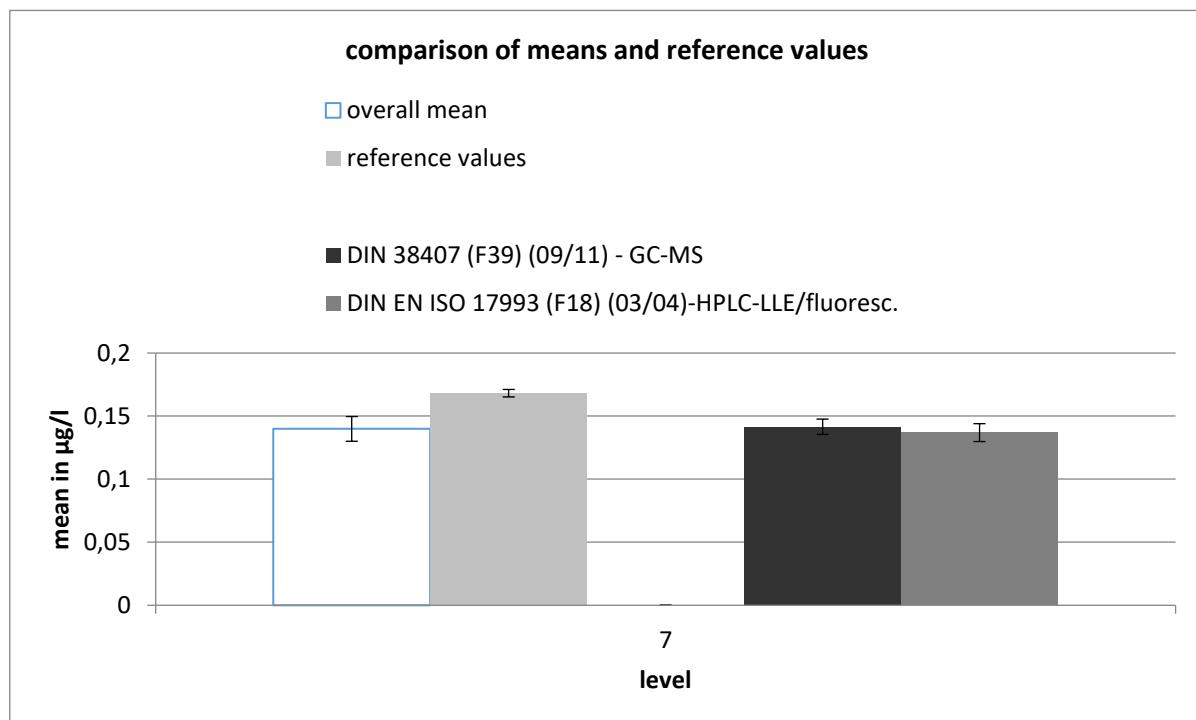
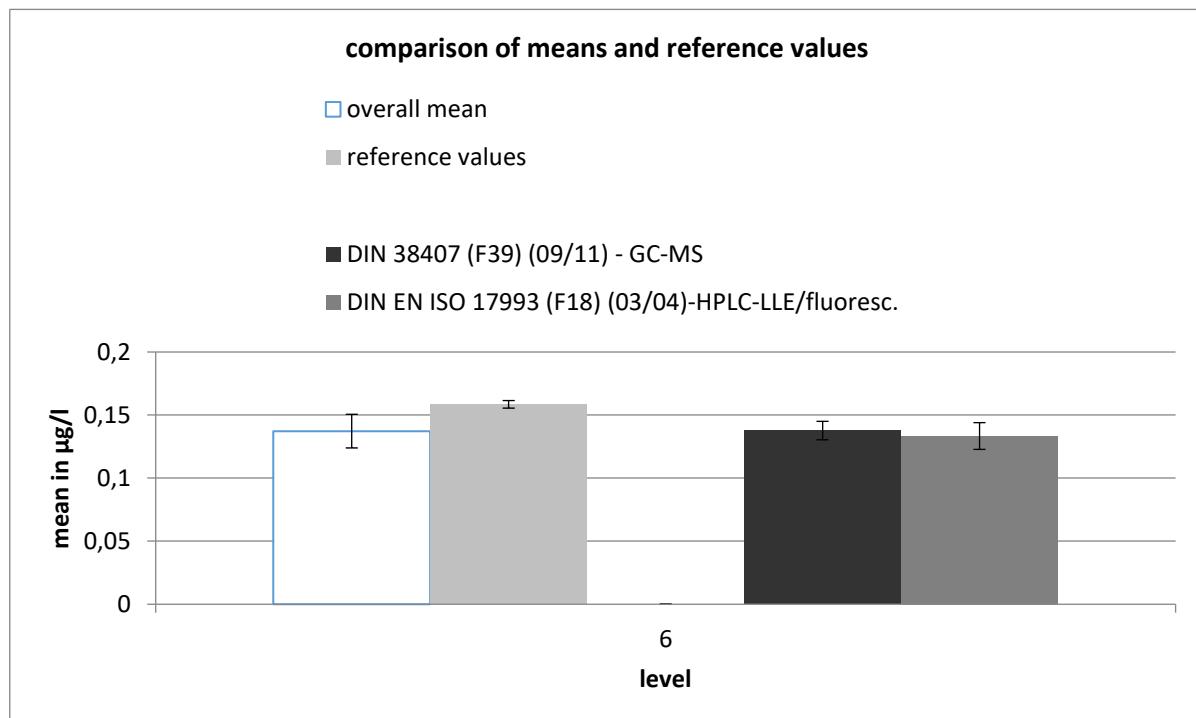
**comparison of means and reference values**

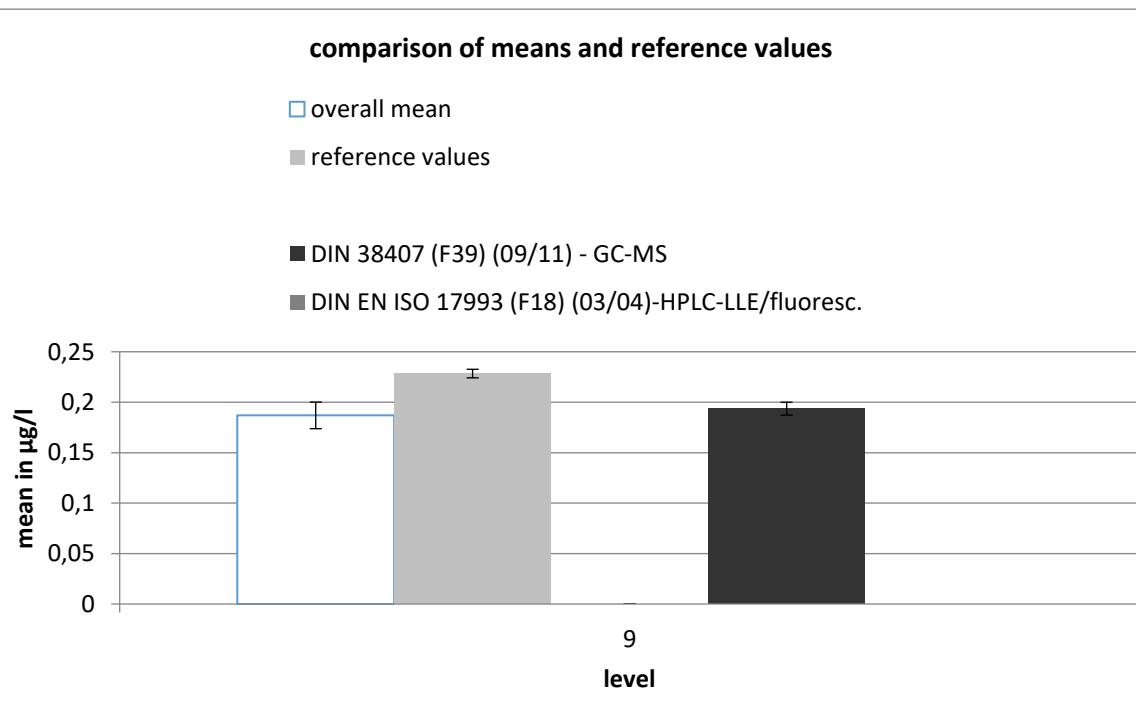
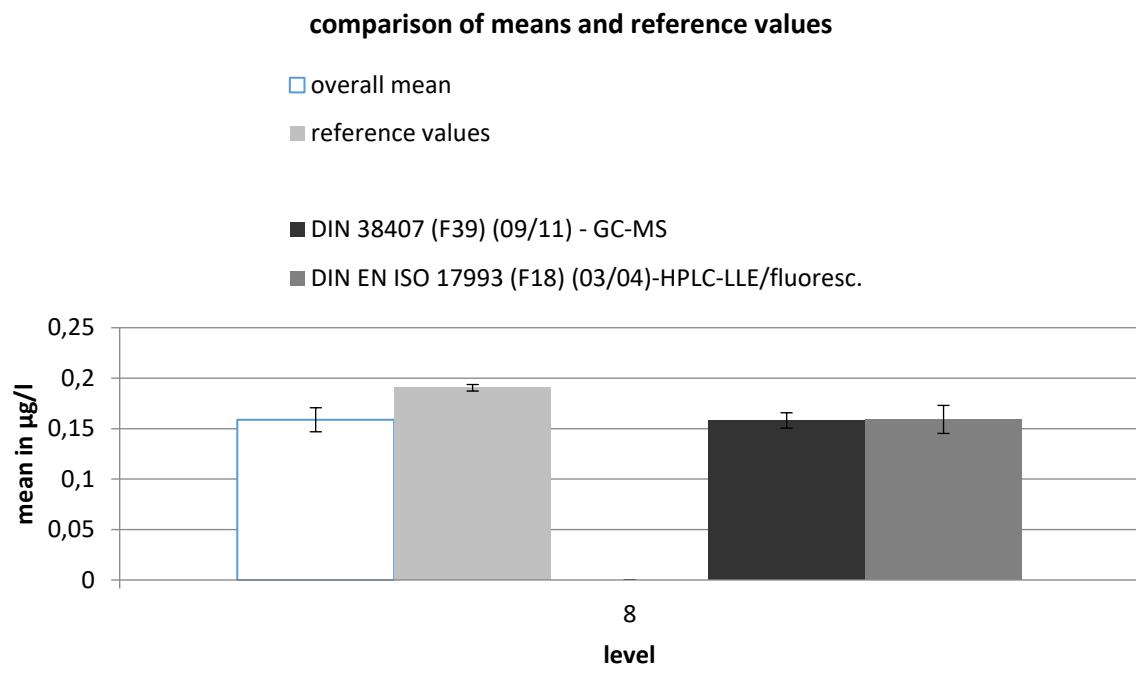
- overall mean
- reference values
- DIN 38407 (F39) (09/11) - GC-MS
- DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

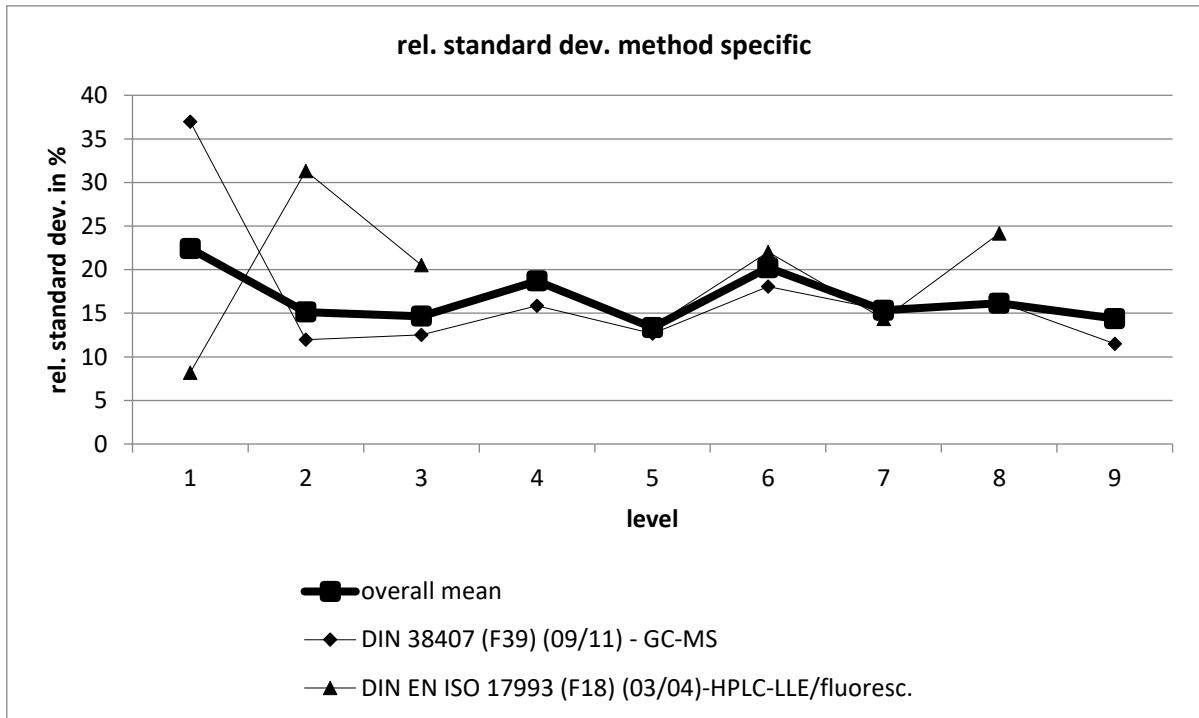












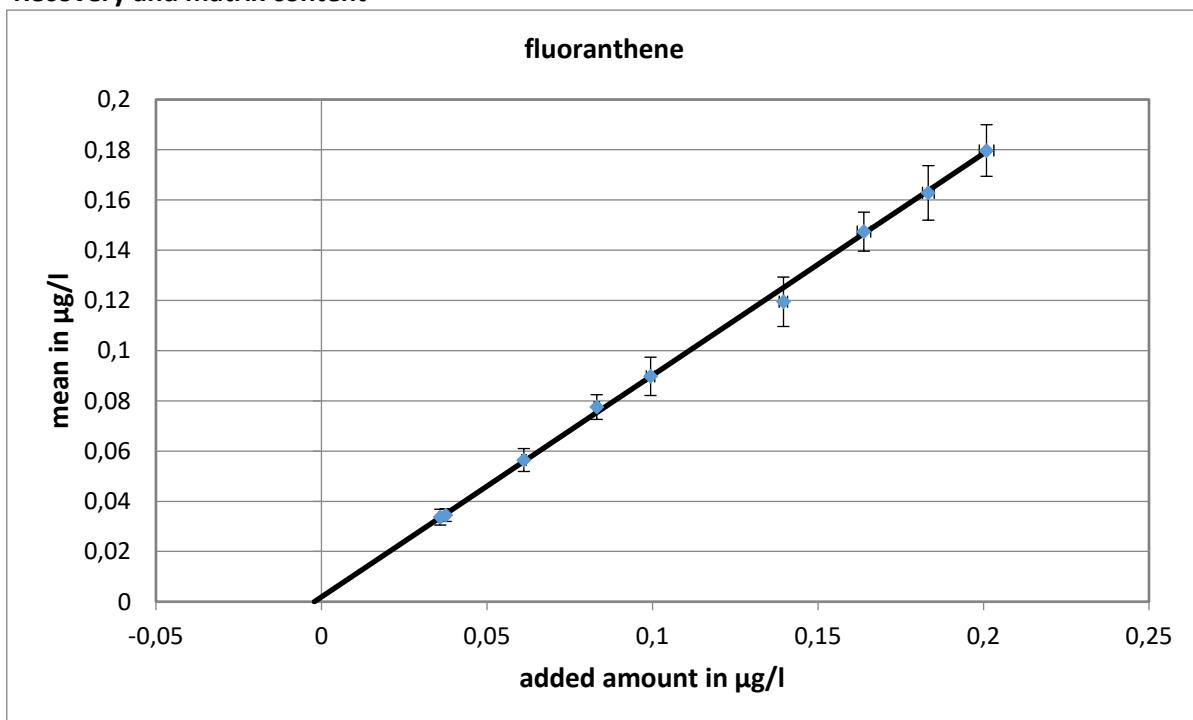
DIN 38407 (F39) (09/11) - GC-MS										
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]	
1	0,0193	0,0021	10,892	0,0071	36,97	18	1	2	16,67	
2	0,0347	0,0011	3,1869	0,0041	11,958	22	1	4	22,73	
3	0,0603	0,0022	3,687	0,0075	12,514	18	2	0	11,11	
4	0,081	0,0033	4,1322	0,0128	15,854	23	3	1	17,39	
5	0,0955	0,0037	3,8401	0,0121	12,666	17	2	0	11,76	
6	0,1377	0,0073	5,3178	0,0249	18,049	18	0	0	0	
7	0,1416	0,0061	4,3032	0,0218	15,396	20	3	0	15	
8	0,1581	0,0076	4,7963	0,0257	16,279	18	0	1	5,556	
9	0,1936	0,0064	3,2984	0,0223	11,502	19	2	1	15,79	

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,019	0,0006	3,0918	0,0016	8,2035	11	1	1	18,18
2	0,0315	0,0041	13,051	0,0099	31,323	9	1	0	11,11
3	0,0557	0,0041	7,4028	0,0114	20,515	12	1	1	16,67
5	0,0964	0,0043	4,5039	0,013	13,482	14	2	1	21,43
6	0,1334	0,0106	7,9543	0,0294	22,044	12	1	0	8,333
7	0,1369	0,0071	5,1739	0,0196	14,338	12	1	0	8,333
8	0,1591	0,0139	8,7224	0,0385	24,172	12	1	0	8,333

# fluoranthene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]	
1	0,0337	9,33	0,0069	0,0062	0,0062	18,40	0,0474	0,0222	40,86	-34,01	30	2	4	20,0	
2	0,0345	7,35	0,0054	0,0063	0,0063	18,31	0,0485	0,0228	40,64	-33,86	28	2	2	14,3	
3	0,0564	8,08	0,0097	0,0094	0,0094	16,57	0,0770	0,0390	36,36	-30,83	28	1	1	7,1	
4	0,0775	6,35	0,0106	0,0120	0,0120	15,53	0,1038	0,0550	33,87	-29,01	29	1	2	10,3	
5	0,0898	8,51	0,0159	0,0135	0,0135	15,08	0,1192	0,0644	32,78	-28,21	27	1	2	11,1	
6	0,1195	8,24	0,0208	0,0170	0,0170	14,22	0,1562	0,0876	30,77	-26,70	28	3	1	14,3	
7	0,1474	5,27	0,0158	0,0201	0,0201	13,63	0,1907	0,1096	29,38	-25,64	26	2	1	11,5	
8	0,1628	6,66	0,0234	0,0217	0,0217	13,35	0,2096	0,1219	28,74	-25,16	29	2	0	6,9	
9	0,1797	5,72	0,0221	0,0235	0,0235	13,09	0,2302	0,1354	28,12	-24,68	29	3	1	13,8	
											sum	254	17	14	12,2

## Recovery and matrix content

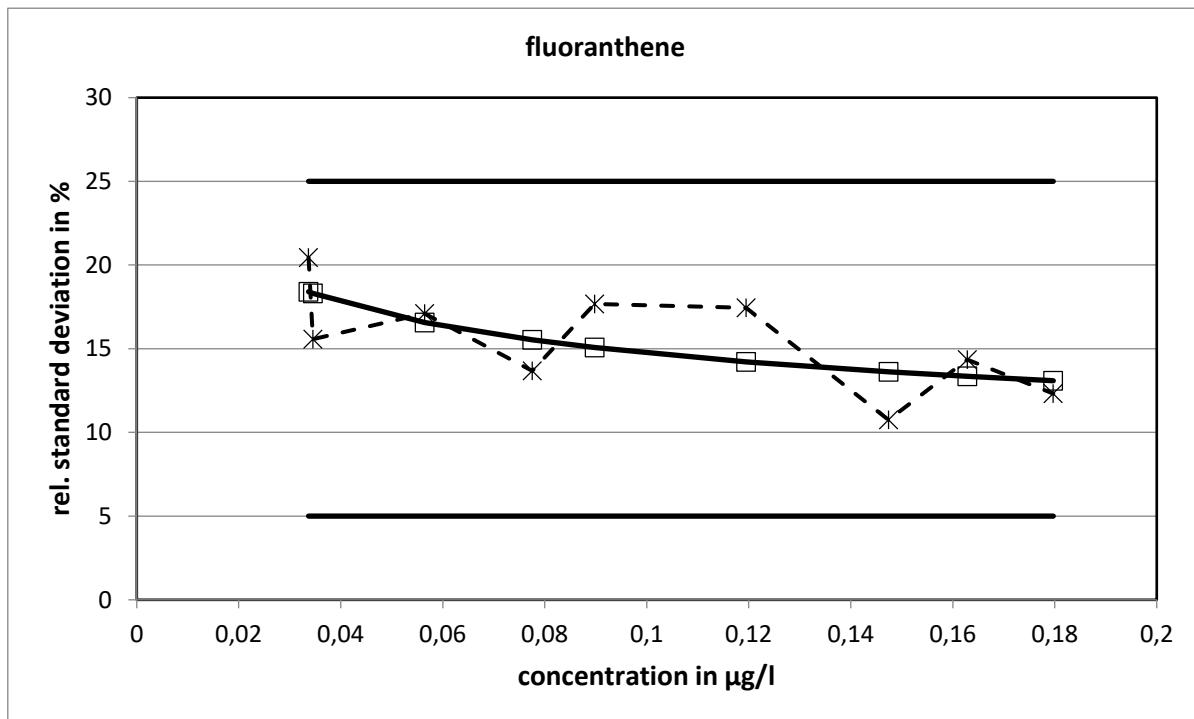


slope of the regression: 0,883; recovery rate: 88,3 %

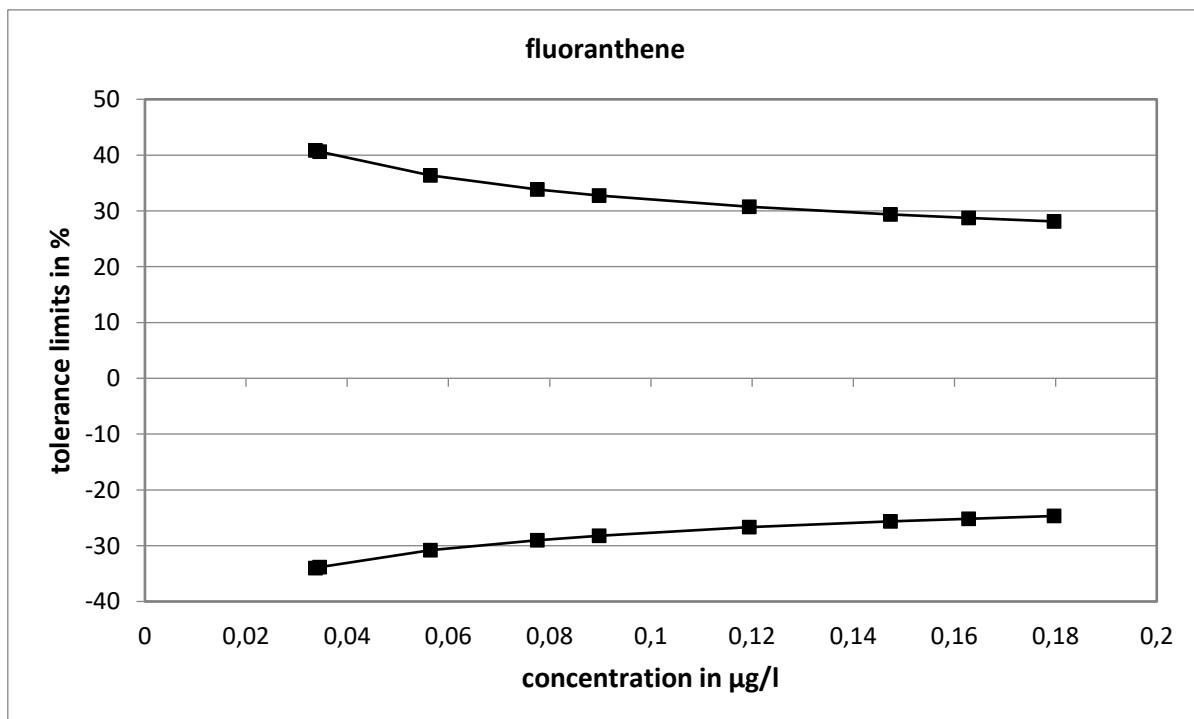
neg. x-intercept corresponds to the matrix content: 0,0021  $\mu\text{g/l}$

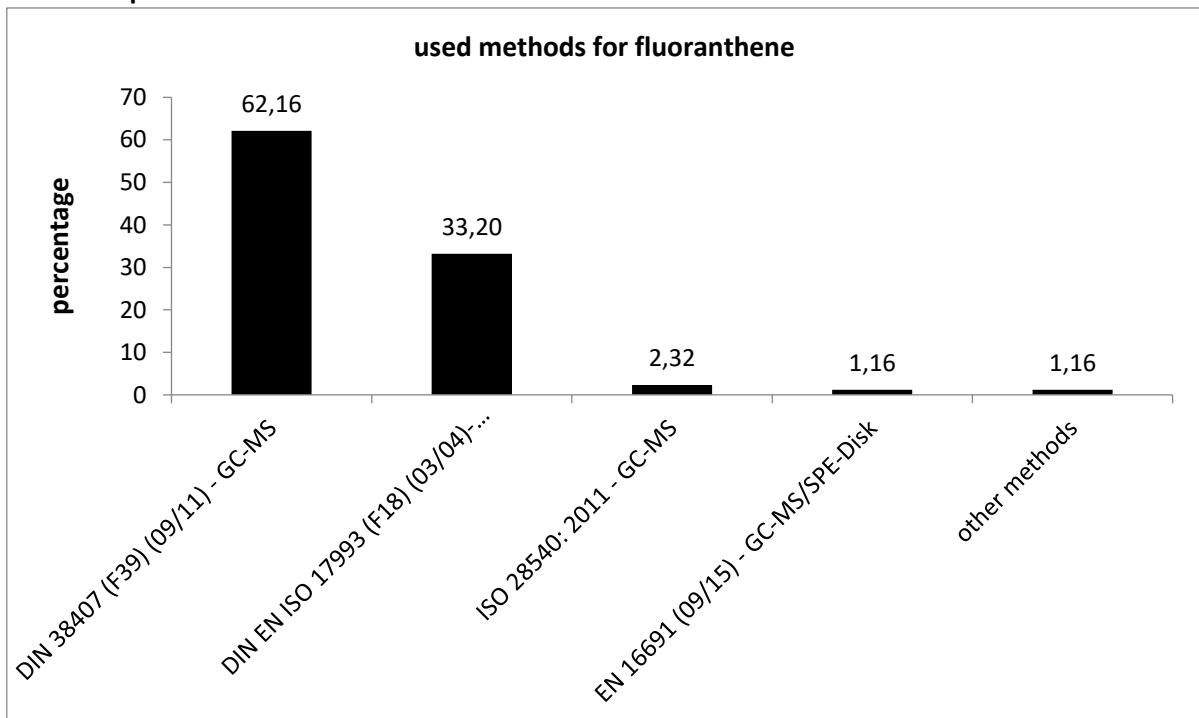
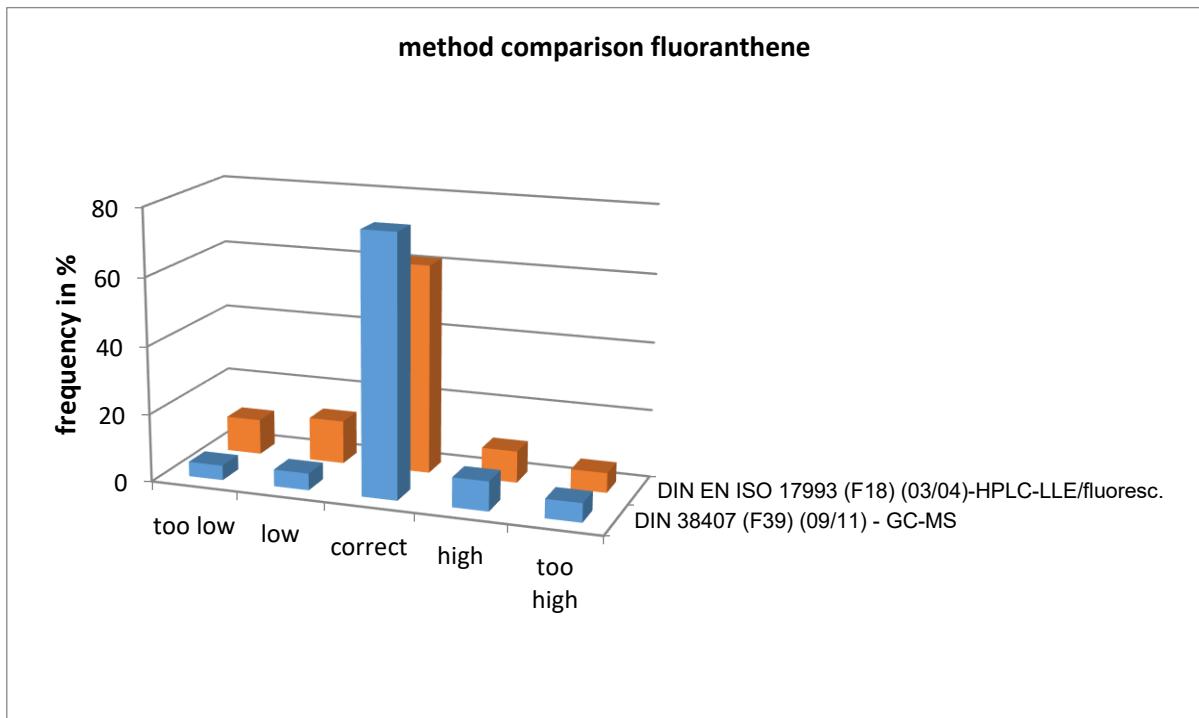
expand uncertainty of the matrix content: 0,0021  $\mu\text{g/l}$  = 100 %

**Relative standard deviation and tolerance limits**



The relative standard deviations calculated from the variance function did not reach the limits.



**Method specific evaluation****method comparison fluoranthene**

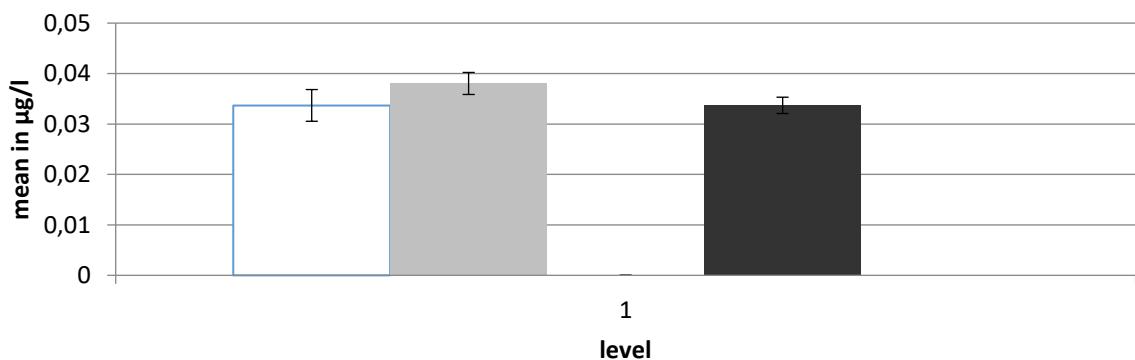
The values determined with GC-MS showed the closest statistical distribution.

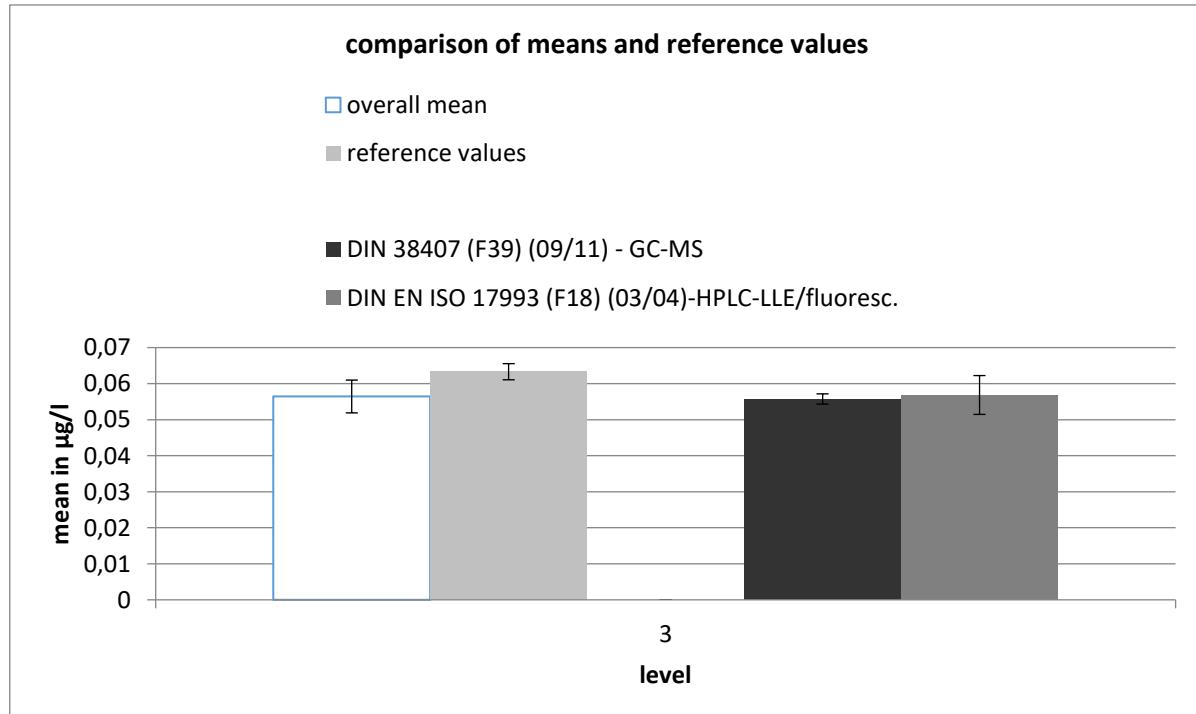
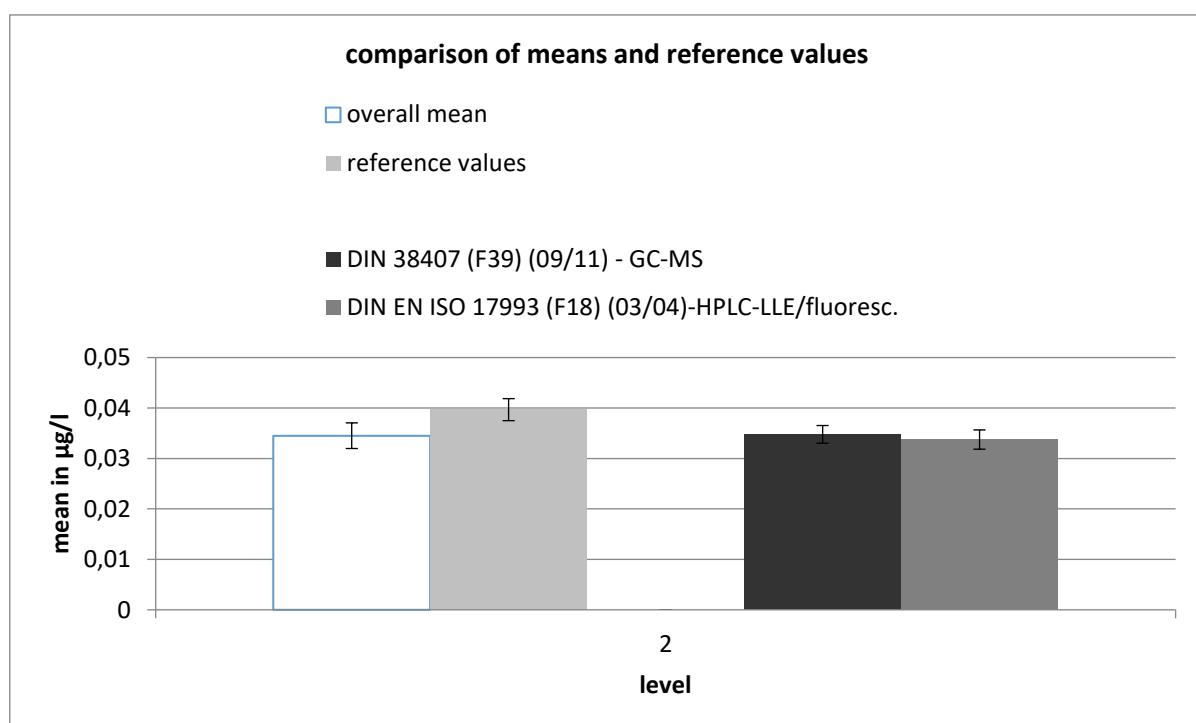
**Comparison of means and reference values**

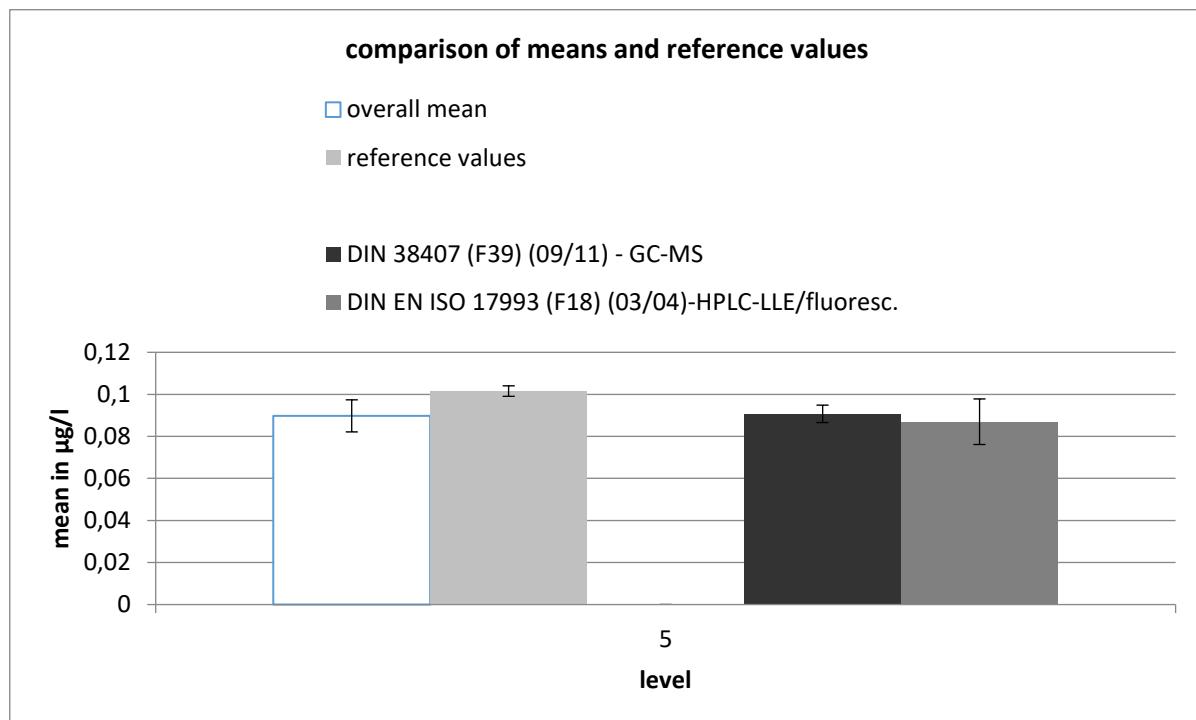
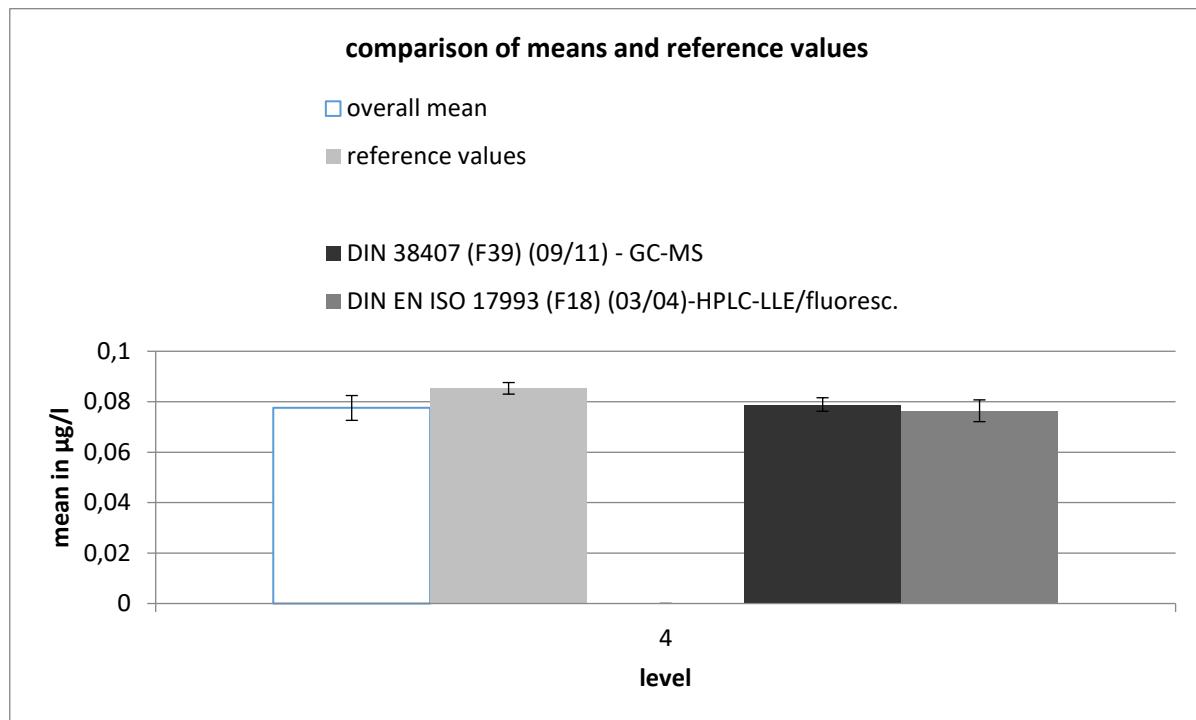
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0337	0,0031	9,3	0,0380	0,0022	5,7
2	0,0345	0,0025	7,4	0,0397	0,0022	5,5
3	0,0564	0,0046	8,1	0,0633	0,0022	3,5
4	0,0775	0,0049	6,4	0,0853	0,0023	2,7
5	0,0898	0,0076	8,5	0,1016	0,0025	2,5
6	0,1195	0,0098	8,2	0,1417	0,0025	1,8
7	0,1474	0,0078	5,3	0,1660	0,0030	1,8
8	0,1628	0,0109	6,7	0,1855	0,0028	1,5
9	0,1797	0,0103	5,7	0,2031	0,0031	1,5

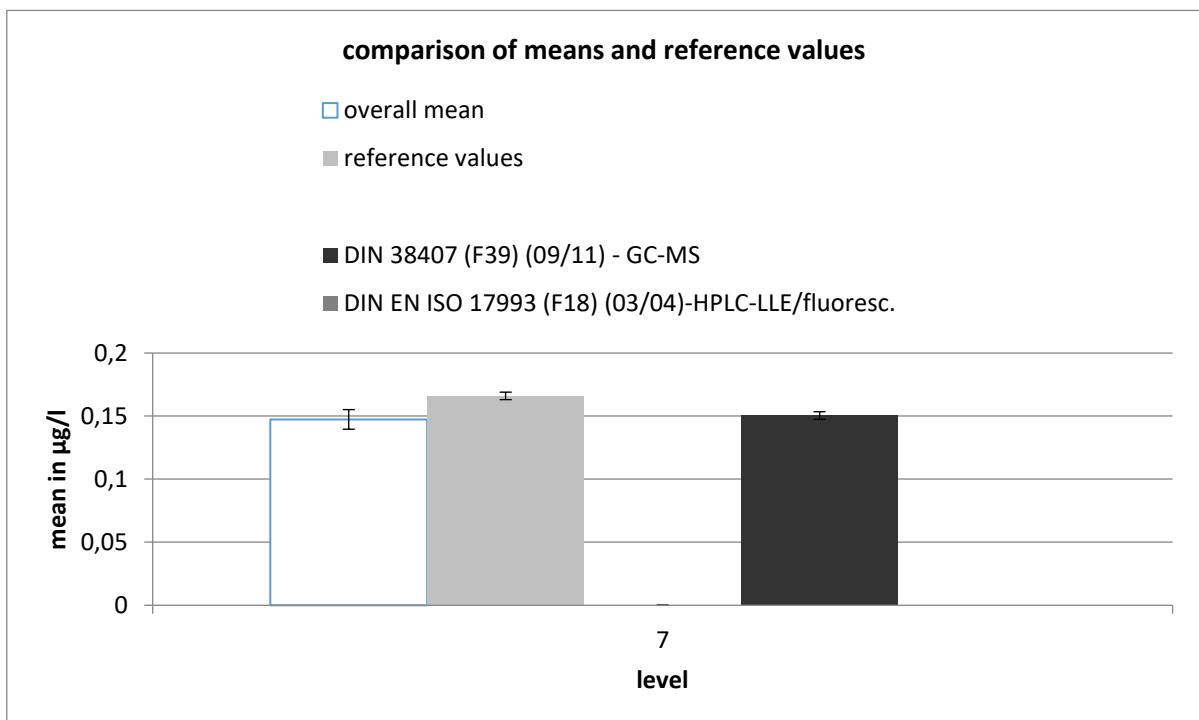
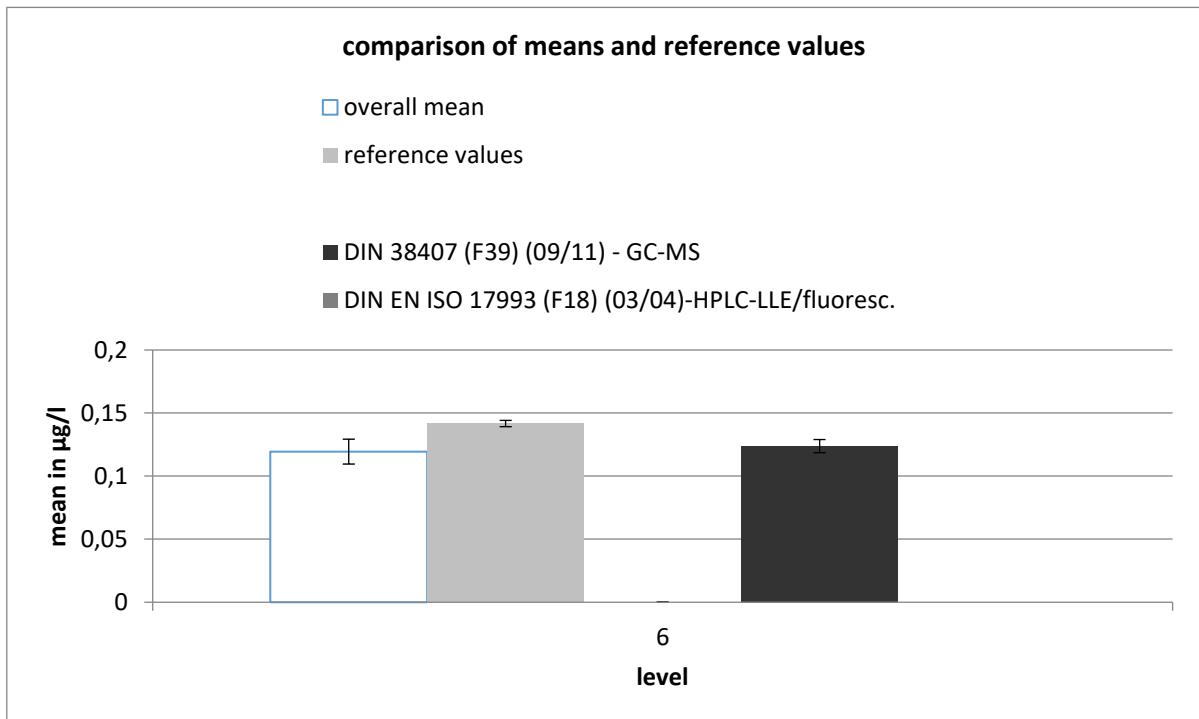
**comparison of means and reference values**

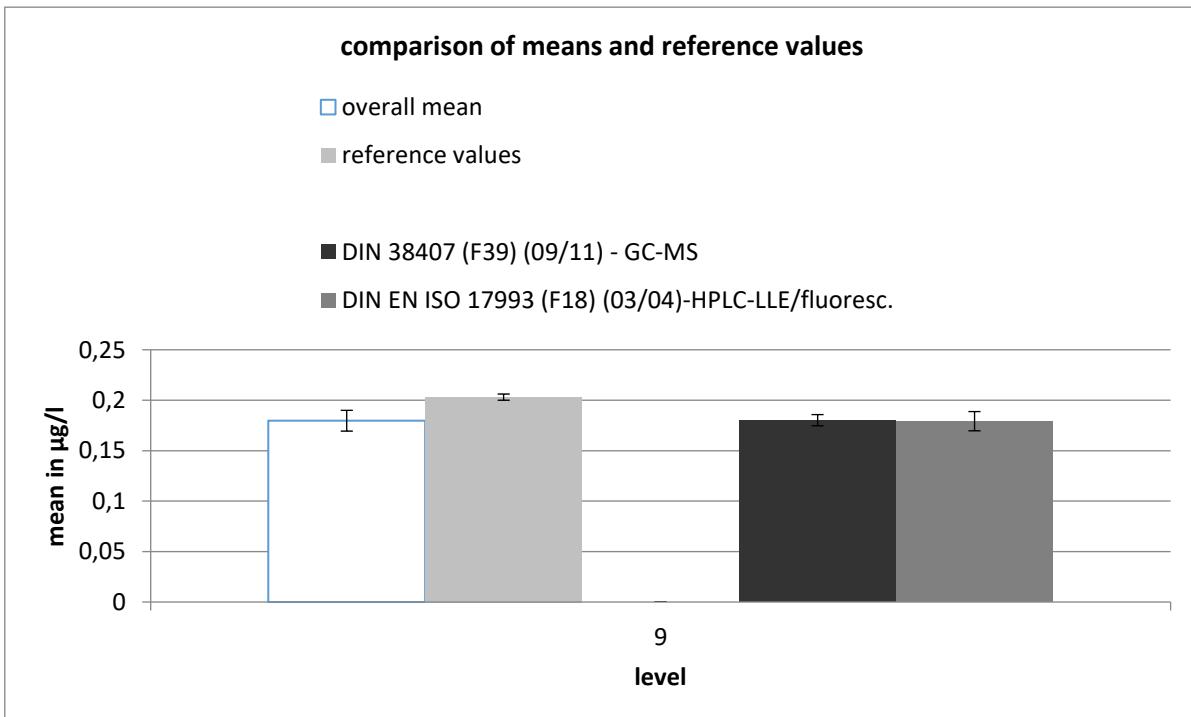
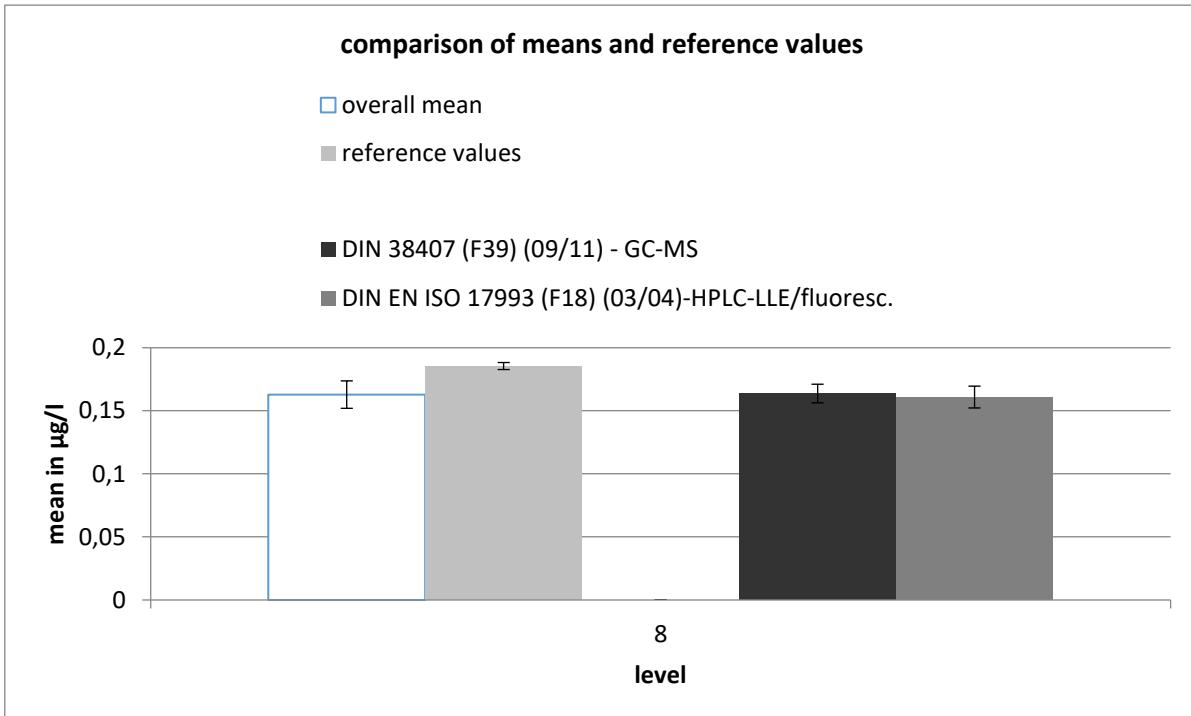
□ overall mean  
■ reference values  
■ DIN 38407 (F39) (09/11) - GC-MS  
■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

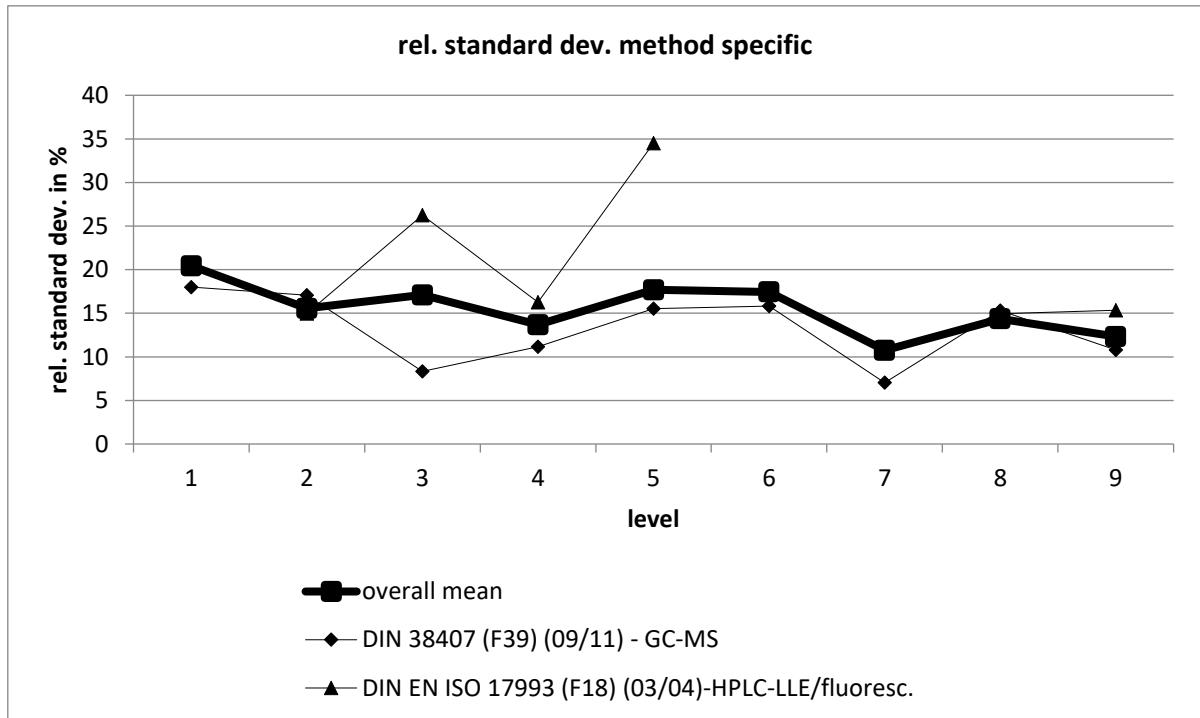












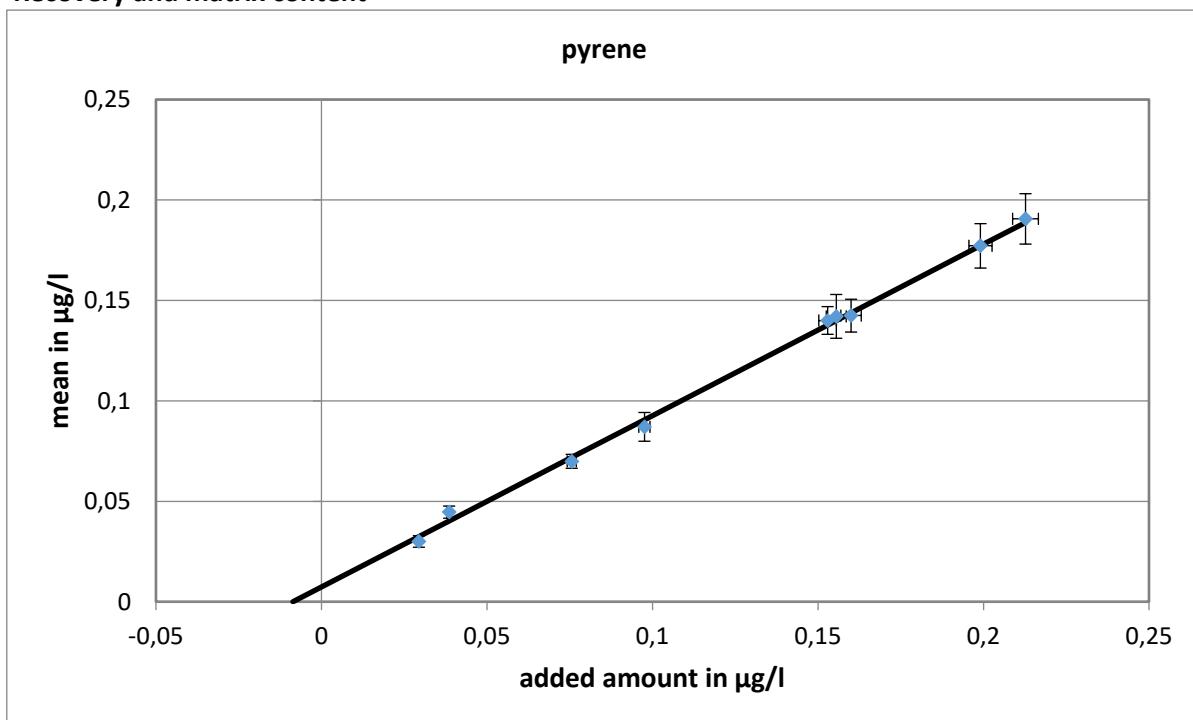
DIN 38407 (F39) (09/11) - GC-MS									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0337	0,0016	4,7977	0,0061	18,003	22	0	5	22,73
2	0,0348	0,0018	5,0337	0,0059	17,085	18	2	2	22,22
3	0,0557	0,0014	2,5296	0,0047	8,3439	17	2	3	29,41
4	0,0789	0,0027	3,3821	0,0088	11,156	17	2	0	11,76
5	0,0907	0,0042	4,576	0,0141	15,531	18	1	1	11,11
6	0,1238	0,0052	4,2133	0,0196	15,81	22	1	1	9,091
7	0,1504	0,003	2,0162	0,0106	7,0306	19	1	0	5,263
8	0,1637	0,0074	4,514	0,0251	15,321	18	1	0	5,556
9	0,1802	0,0056	3,0897	0,0194	10,774	19	3	1	21,05

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
2	0,0337	0,0019	5,6392	0,005	14,962	11	0	1	9,091
3	0,0568	0,0054	9,4733	0,0149	26,253	12	0	1	8,333
4	0,0764	0,0043	5,6381	0,0124	16,263	13	0	3	23,08
5	0,087	0,0108	12,452	0,03	34,508	12	0	0	0
8	0,1609	0,0087	5,3919	0,024	14,942	12	2	0	16,67
9	0,1792	0,0095	5,3234	0,0275	15,355	13	1	0	7,692

# pyrene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]
1	0,0300	9,54	0,0063	0,0051	0,0051	17,04	0,0412	0,0205	37,51	-31,65	30	2	3	16,7
2	0,0446	6,82	0,0063	0,0071	0,0071	15,99	0,0602	0,0313	34,96	-29,81	27	3	2	17,9
3	0,0699	4,97	0,0074	0,0104	0,0104	14,87	0,0925	0,0504	32,30	-27,85	28	1	0	3,6
4	0,0871	8,23	0,0152	0,0125	0,0125	14,36	0,1141	0,0636	31,08	-26,94	28	2	0	7,1
5	0,1400	4,93	0,0151	0,0186	0,0186	13,30	0,1801	0,1049	28,61	-25,06	30	2	1	10,0
6	0,1421	7,68	0,0231	0,0189	0,0189	13,27	0,1826	0,1065	28,54	-25,01	28	1	1	7,1
7	0,1424	5,73	0,0167	0,0189	0,0189	13,26	0,1831	0,1068	28,53	-25,00	26	2	0	7,7
8	0,1772	6,23	0,0238	0,0227	0,0227	12,81	0,2258	0,1343	27,47	-24,18	29	3	1	13,8
9	0,1906	6,58	0,0275	0,0241	0,0241	12,66	0,2423	0,1450	27,12	-23,91	30	3	1	13,3
											sum	256	19	9 10,9

## Recovery and matrix content

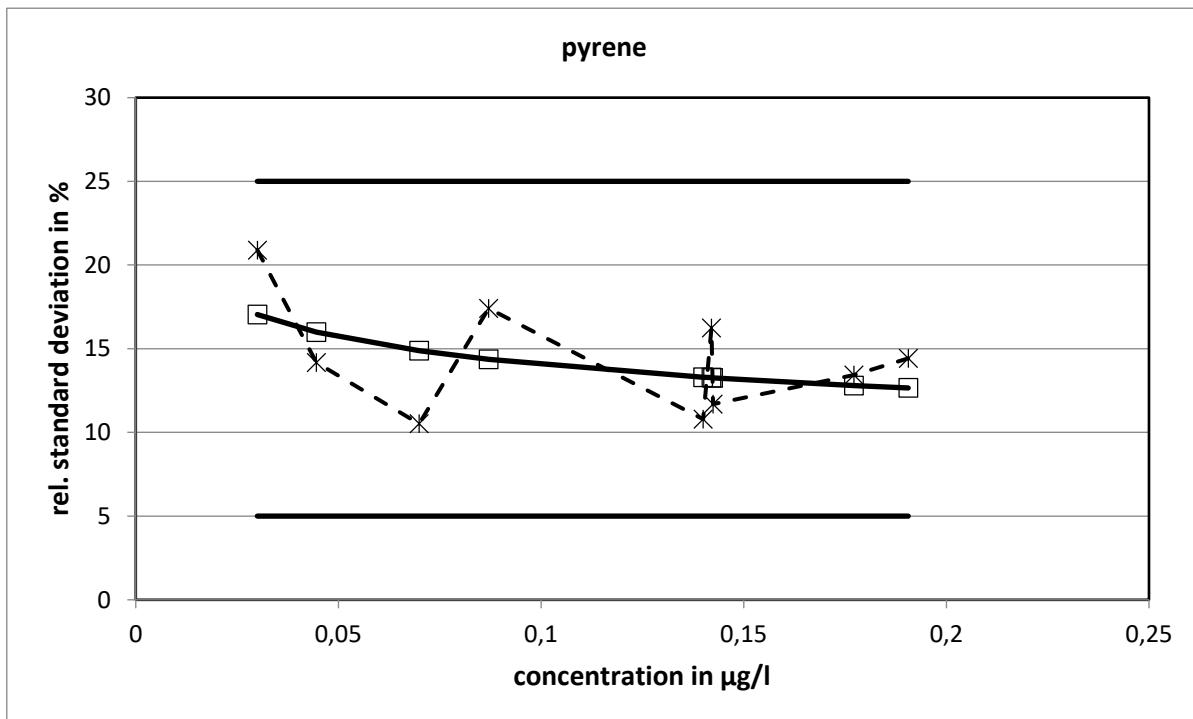


slope of the regression: 0,853; recovery rate: 85,3 %

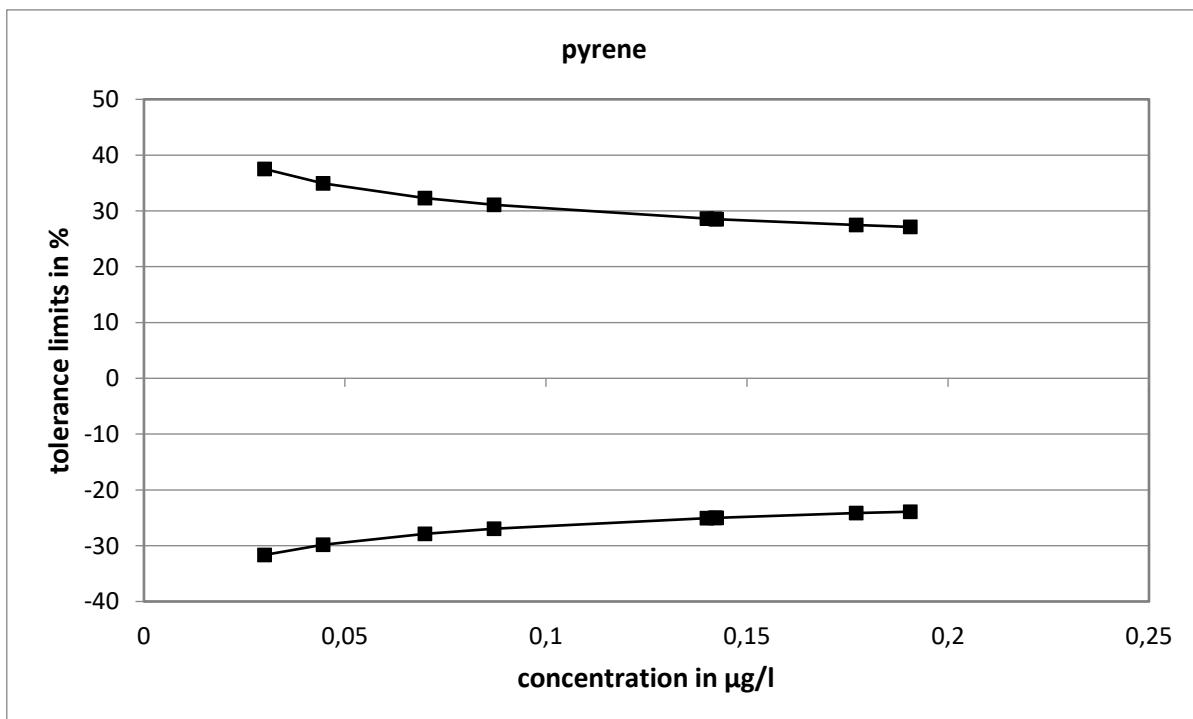
neg. x-intercept corresponds to the matrix content: 0,0086  $\mu\text{g/l}$

expand uncertainty of the matrix content: 0,0035  $\mu\text{g/l}$  = 40,7 %

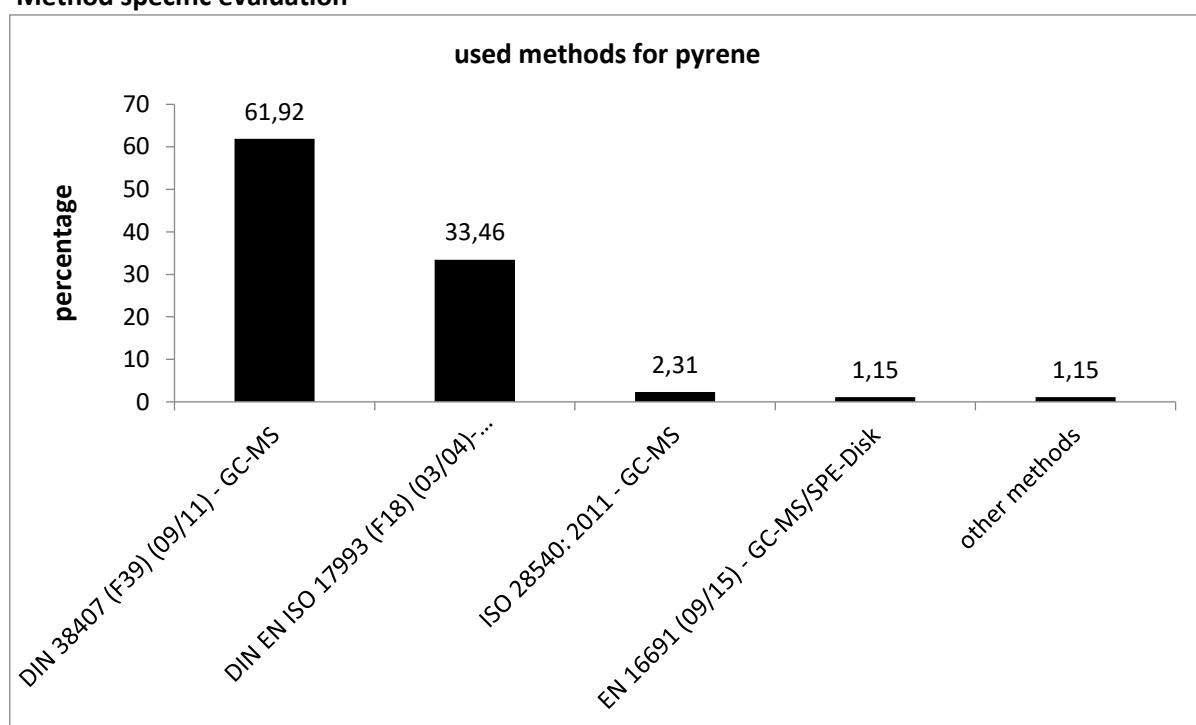
**Relative standard deviation and tolerance limits**



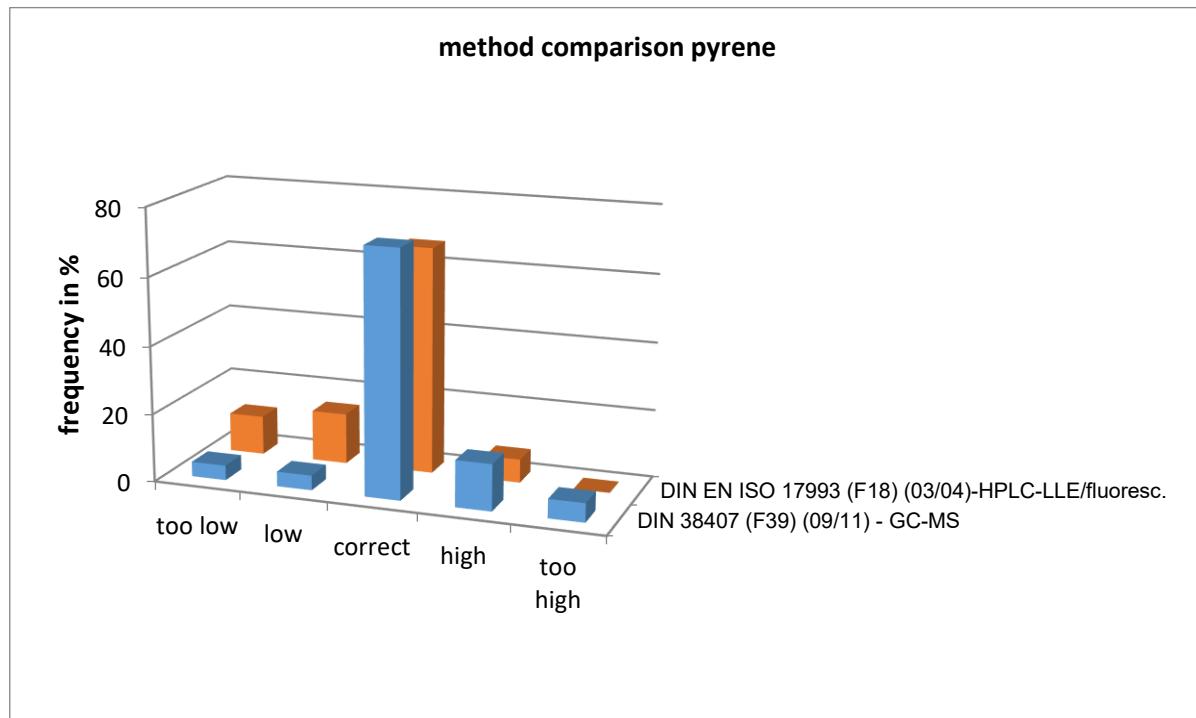
The relative standard deviations calculated from the variance function did not reach the limits.



### Method specific evaluation



### method comparison pyrene



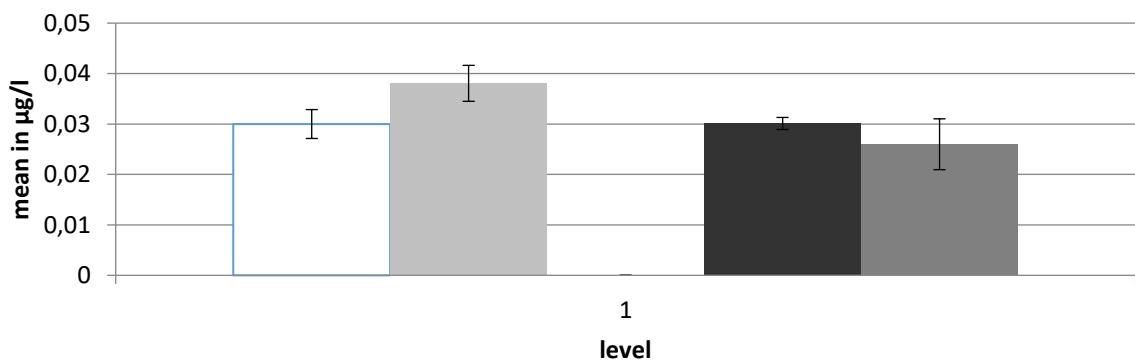
The differences between the methods were not significant.

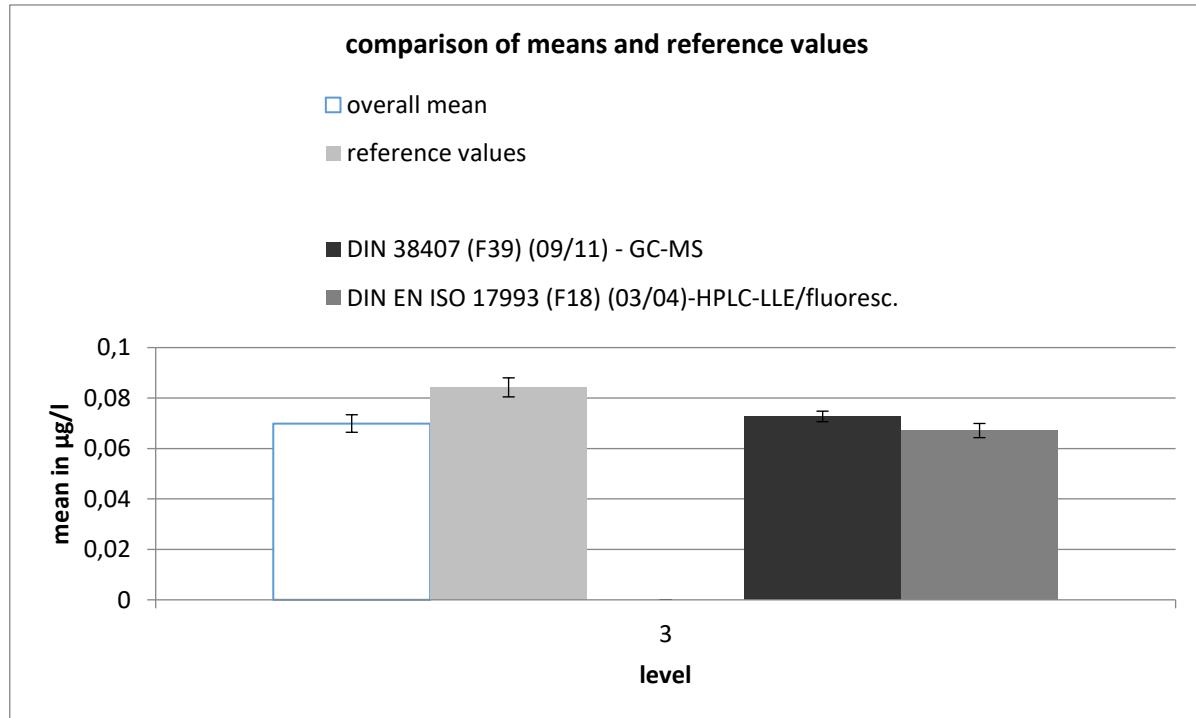
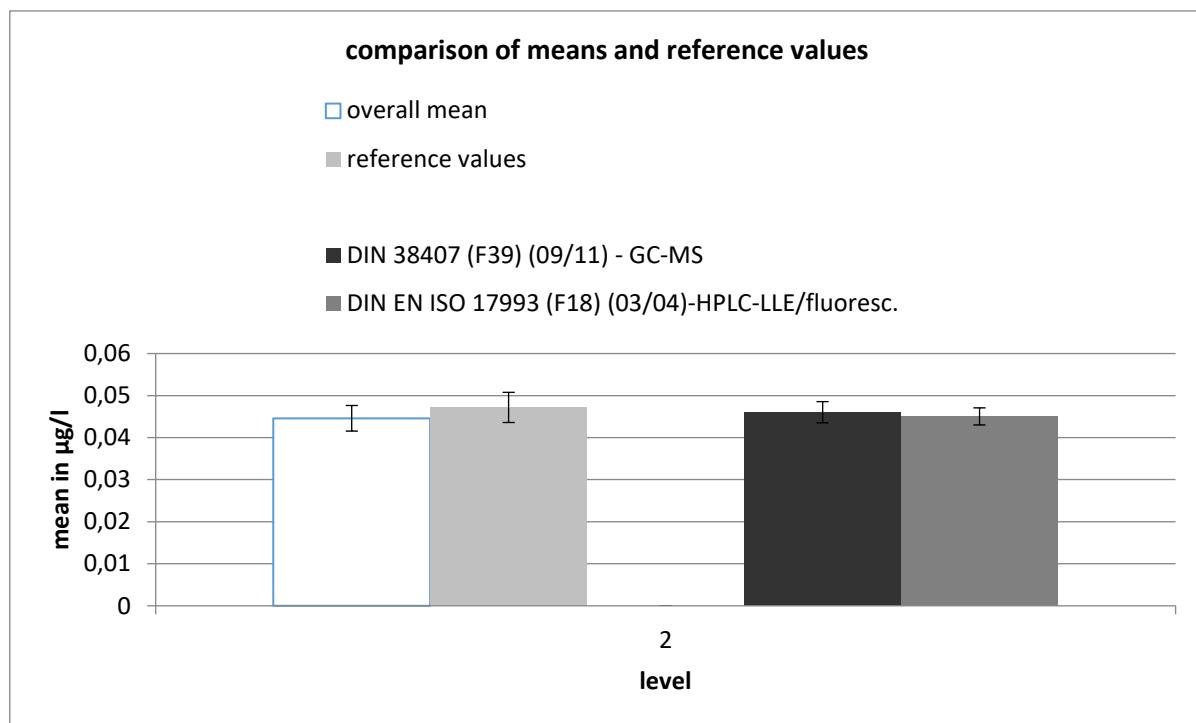
**Comparison of means and reference values**

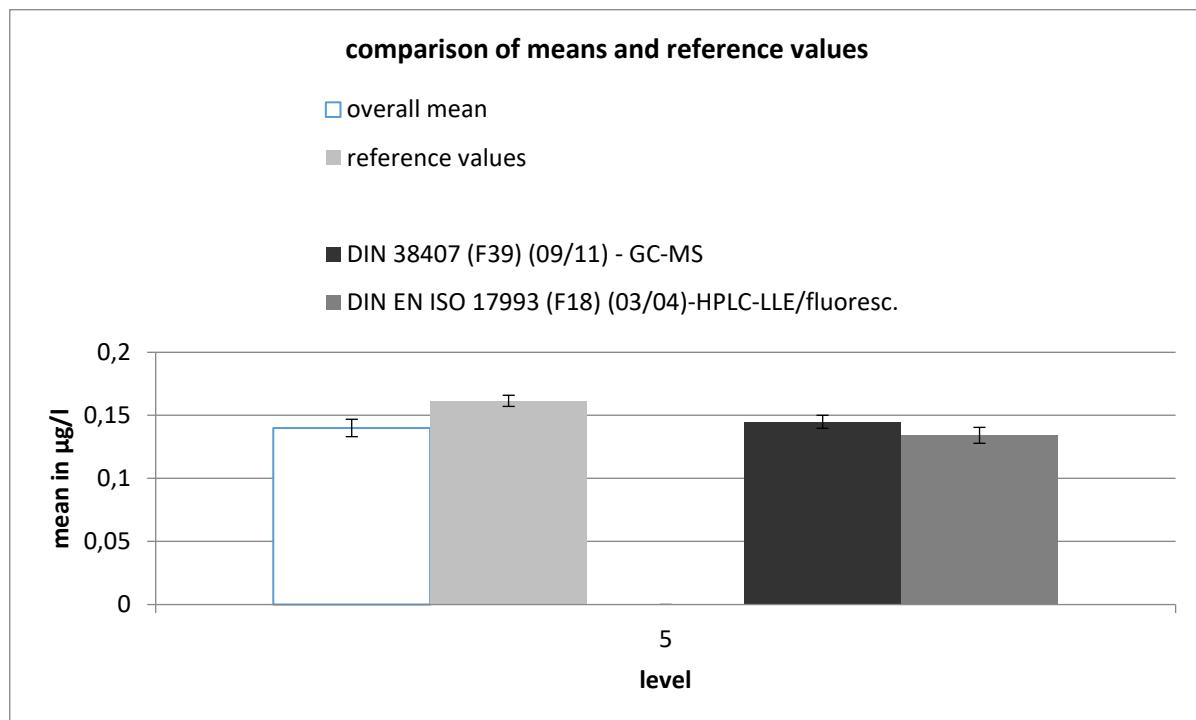
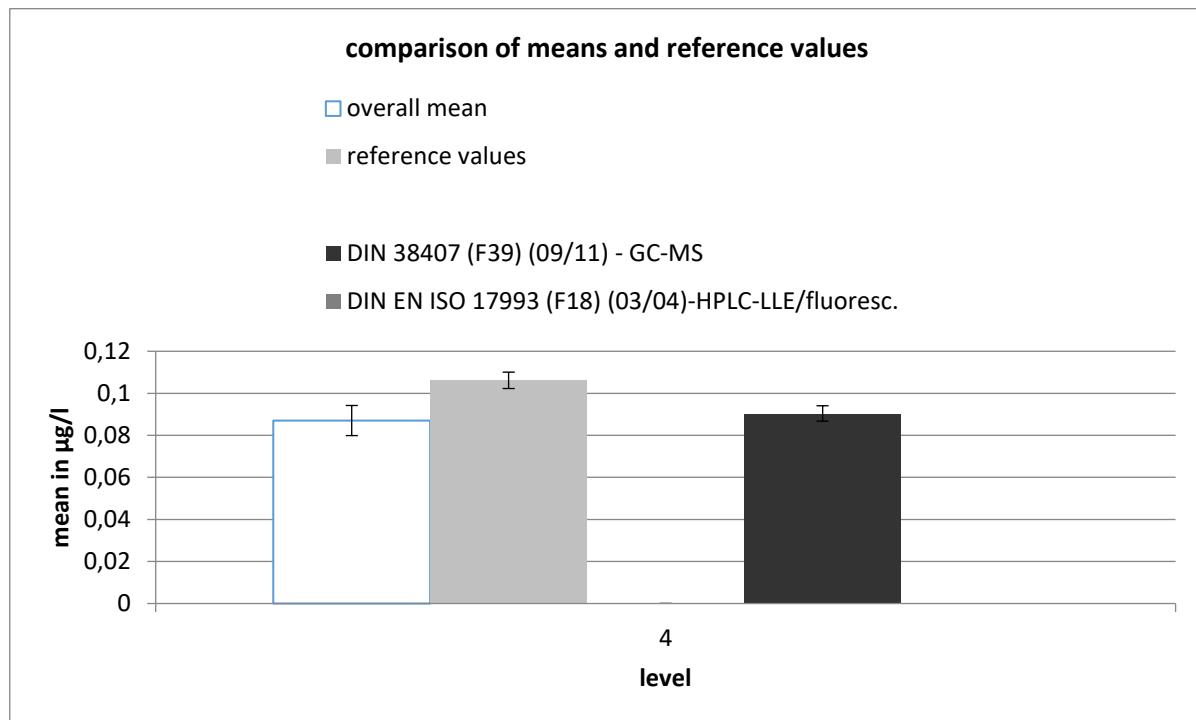
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0300	0,0029	9,5	0,0381	0,0036	9,4
2	0,0446	0,0030	6,8	0,0472	0,0036	7,6
3	0,0699	0,0035	5,0	0,0842	0,0038	4,5
4	0,0871	0,0072	8,2	0,1062	0,0039	3,7
5	0,1400	0,0069	4,9	0,1615	0,0044	2,7
6	0,1421	0,0109	7,7	0,1641	0,0046	2,8
7	0,1424	0,0082	5,7	0,1686	0,0047	2,8
8	0,1772	0,0110	6,2	0,2077	0,0050	2,4
9	0,1906	0,0125	6,6	0,2213	0,0052	2,4

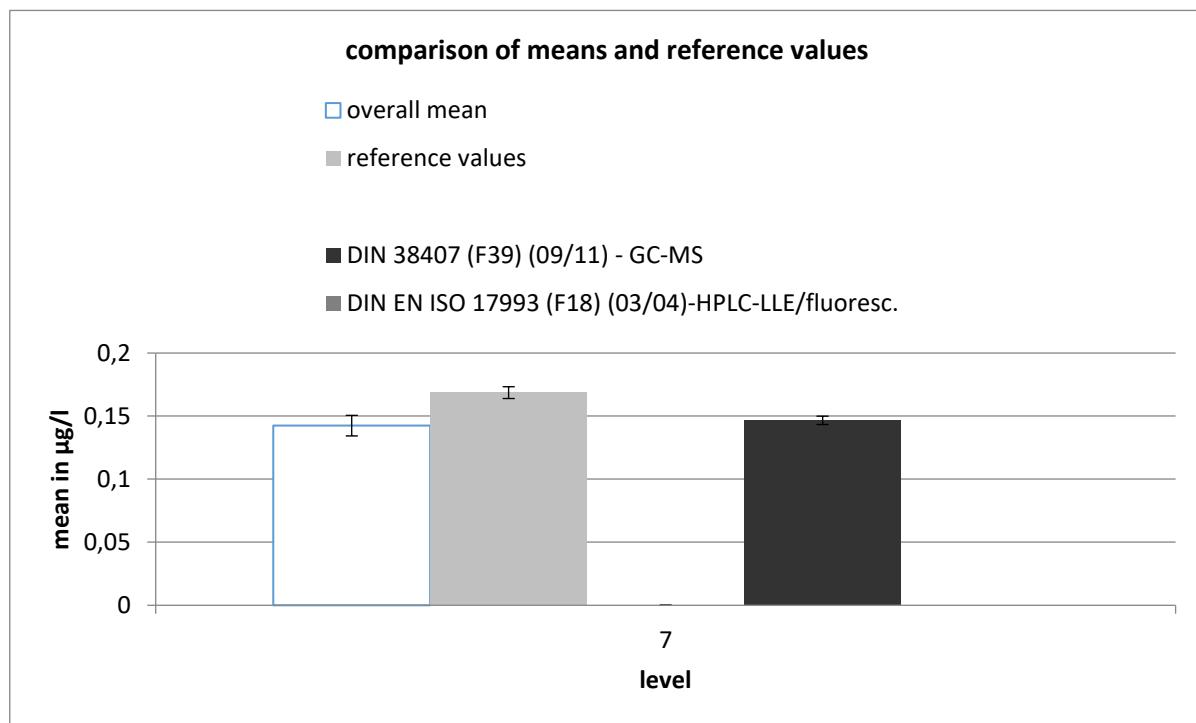
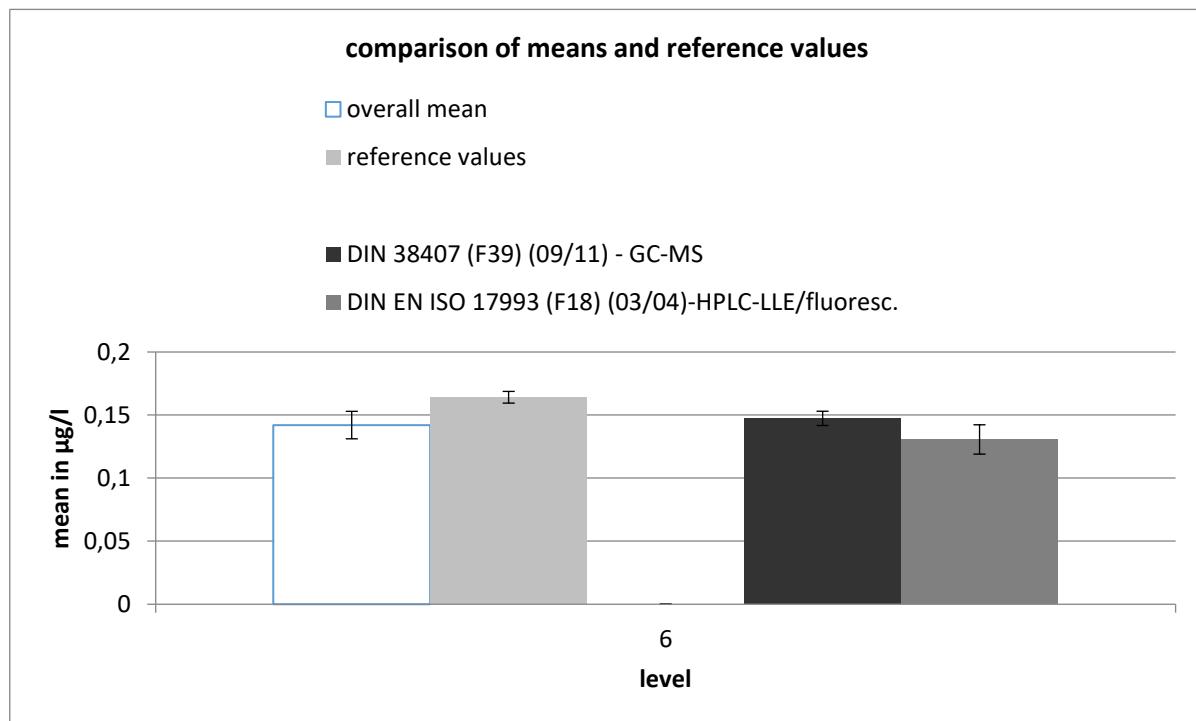
**comparison of means and reference values**

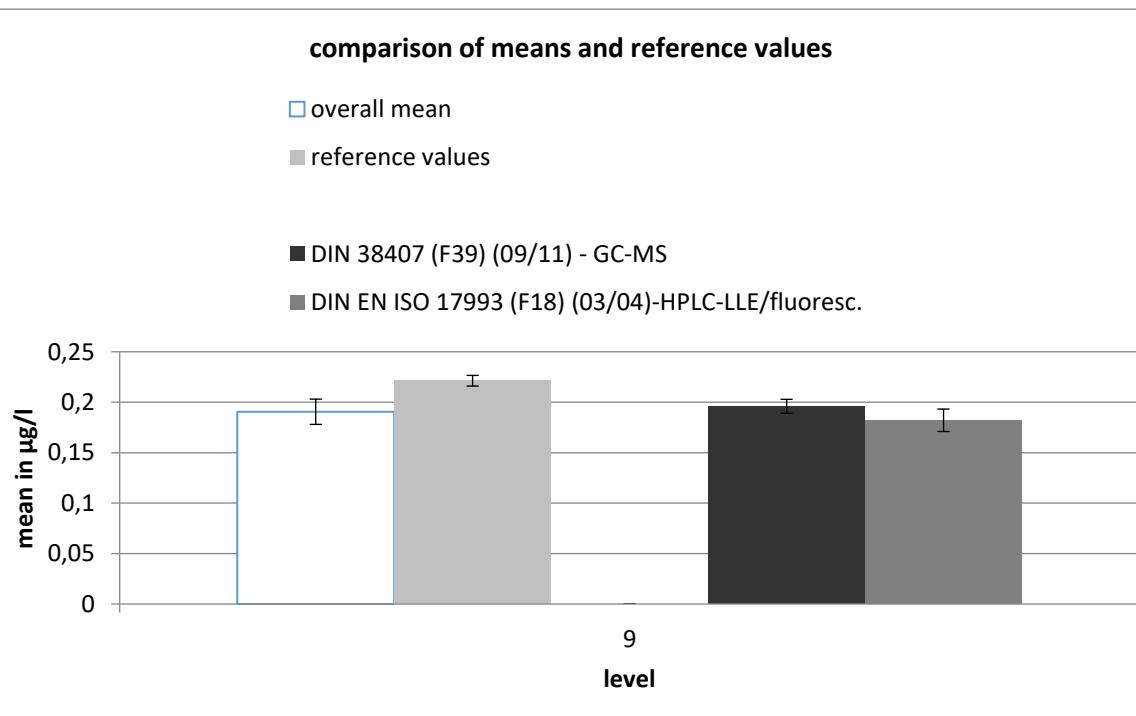
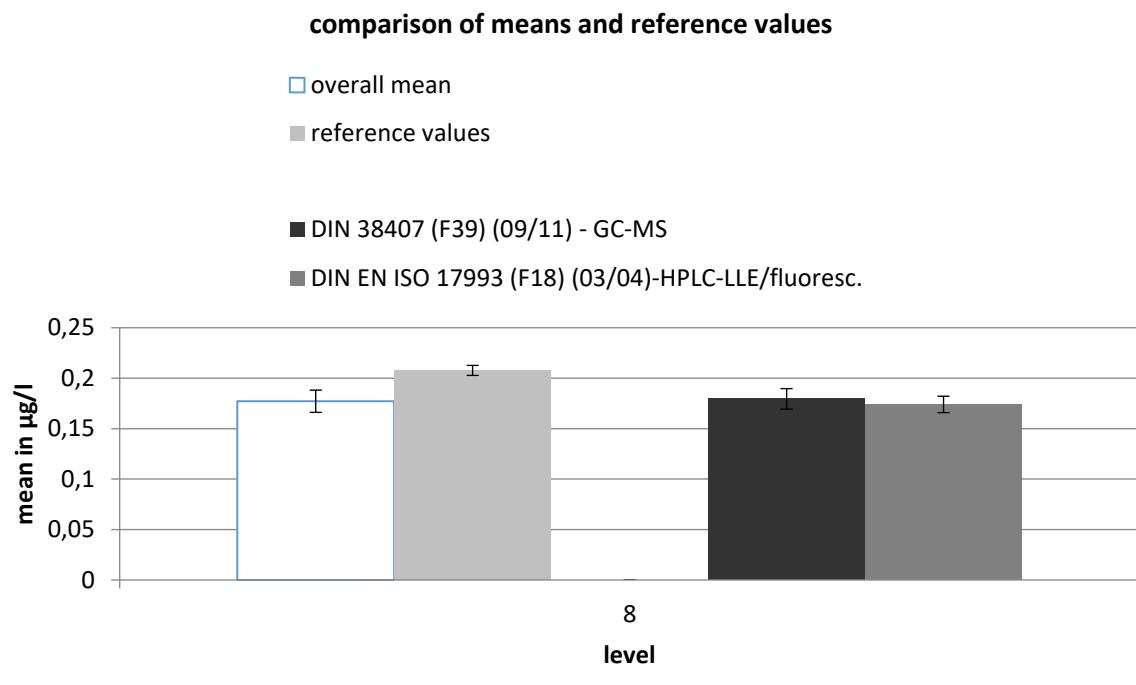
□ overall mean  
 reference values  
  
■ DIN 38407 (F39) (09/11) - GC-MS  
■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

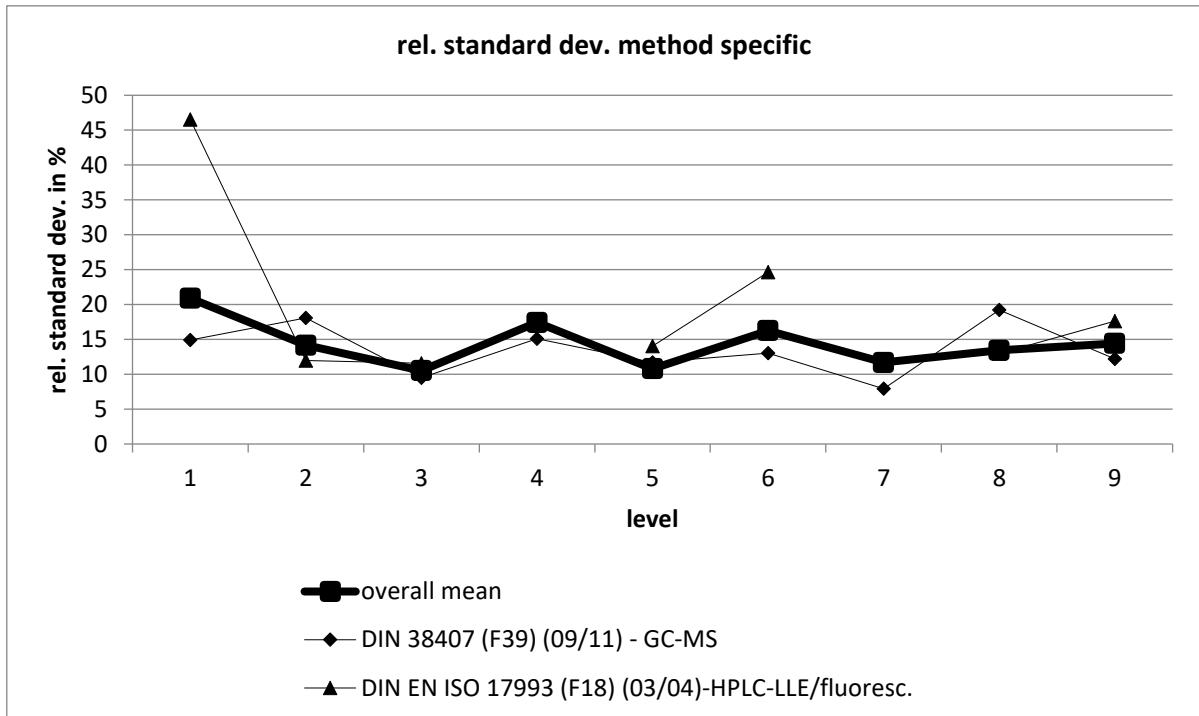












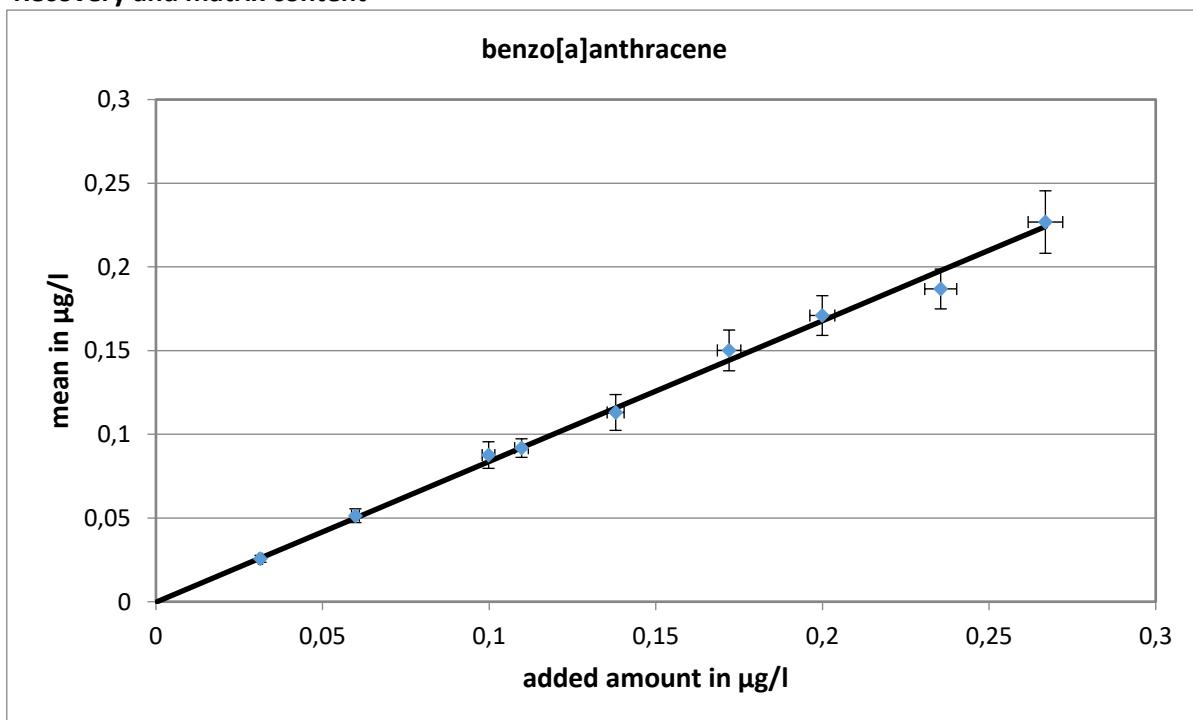
<b>DIN 38407 (F39) (09/11) - GC-MS</b>									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0301	0,0012	3,9686	0,0045	14,891	22	0	4	18,18
2	0,046	0,0025	5,4793	0,0083	18,073	17	2	2	23,53
3	0,0727	0,0021	2,8771	0,0069	9,4902	17	2	0	11,76
4	0,0904	0,0036	4,028	0,0137	15,115	22	1	0	4,545
5	0,1449	0,0051	3,5518	0,017	11,715	17	2	1	17,65
6	0,1474	0,0057	3,8379	0,0192	13,026	18	2	0	11,11
7	0,1466	0,0033	2,2725	0,0116	7,9245	19	1	0	5,263
8	0,1795	0,0102	5,662	0,0345	19,218	18	0	0	0
9	0,196	0,0069	3,5028	0,0239	12,215	19	3	1	21,05

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,026	0,005	19,391	0,0121	46,539	9	0	1	11,11
2	0,045	0,002	4,5155	0,0054	11,981	11	0	1	9,091
3	0,0671	0,0028	4,1784	0,0078	11,58	12	1	1	16,67
5	0,1342	0,0063	4,6962	0,0189	14,057	14	0	1	7,143
6	0,1307	0,0116	8,8856	0,0322	24,624	12	1	0	8,333
8	0,174	0,0082	4,6835	0,0226	12,979	12	3	0	25
9	0,1821	0,0111	6,1124	0,0321	17,631	13	1	0	7,692

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level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]	
1	0,0256	8,00	0,0043	0,0045	0,0045	17,43	0,0355	0,0173	38,45	-32,32	28	2	1	10,7	
2	0,0514	8,00	0,0087	0,0087	0,0087	17,02	0,0706	0,0351	37,45	-31,61	28	1	1	7,1	
3	0,0876	9,06	0,0177	0,0146	0,0146	16,71	0,1198	0,0604	36,70	-31,07	31	2	2	12,9	
4	0,0918	6,04	0,0123	0,0153	0,0153	16,68	0,1254	0,0633	36,63	-31,02	31	1	1	6,5	
5	0,1131	9,46	0,0226	0,0187	0,0187	16,56	0,1542	0,0782	36,34	-30,81	28	4	0	14,3	
6	0,1501	8,12	0,0258	0,0246	0,0246	16,40	0,2041	0,1043	35,96	-30,53	28	1	1	7,1	
7	0,1710	6,94	0,0256	0,0279	0,0279	16,33	0,2321	0,1190	35,78	-30,41	29	2	0	6,9	
8	0,1868	6,38	0,0248	0,0304	0,0304	16,28	0,2534	0,1302	35,66	-30,32	27	2	0	7,4	
9	0,2268	8,23	0,0409	0,0367	0,0367	16,17	0,3071	0,1585	35,40	-30,13	30	3	0	10,0	
											sum	260	18	6	9,2

## Recovery and matrix content

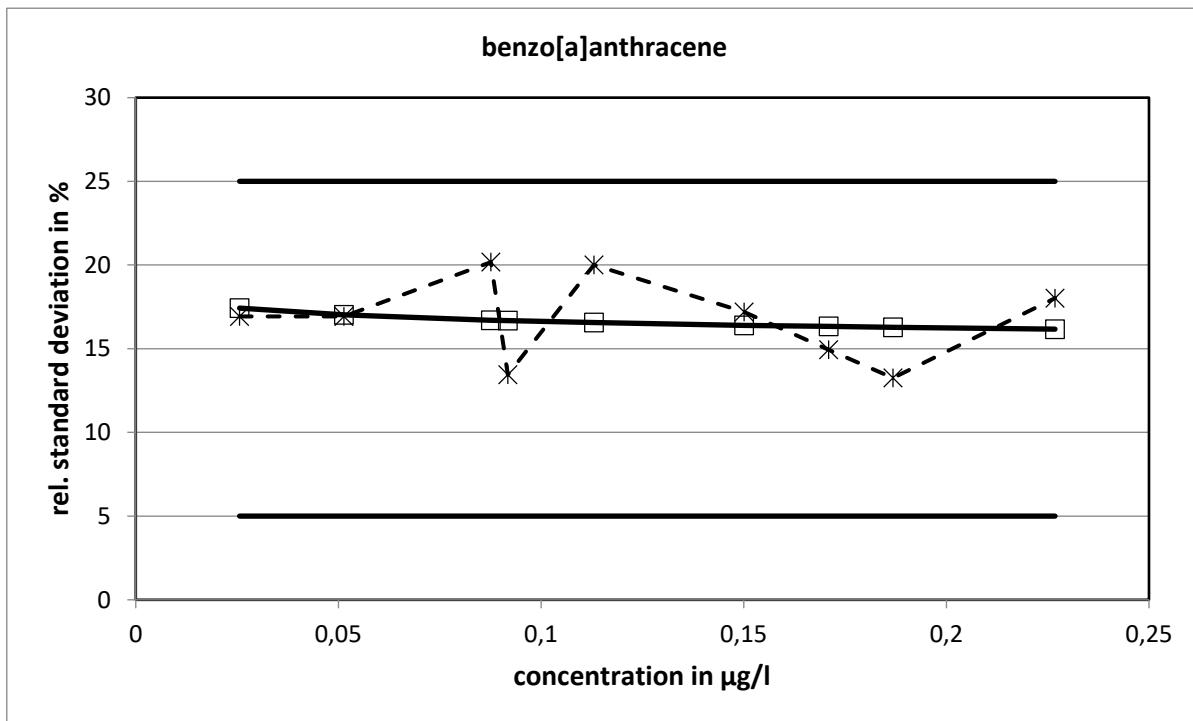


slope of the regression: 0,841; recovery rate: 84,1 %

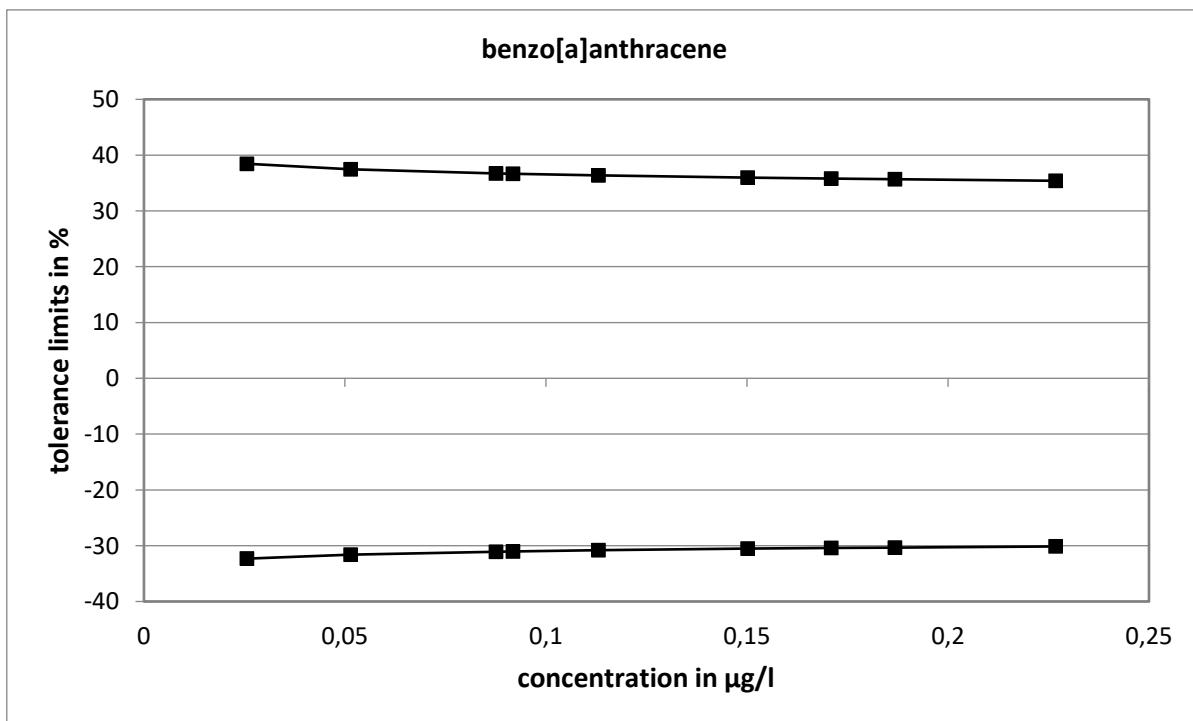
neg. x-intercept corresponds to the matrix content: 0  $\mu\text{g/l}$

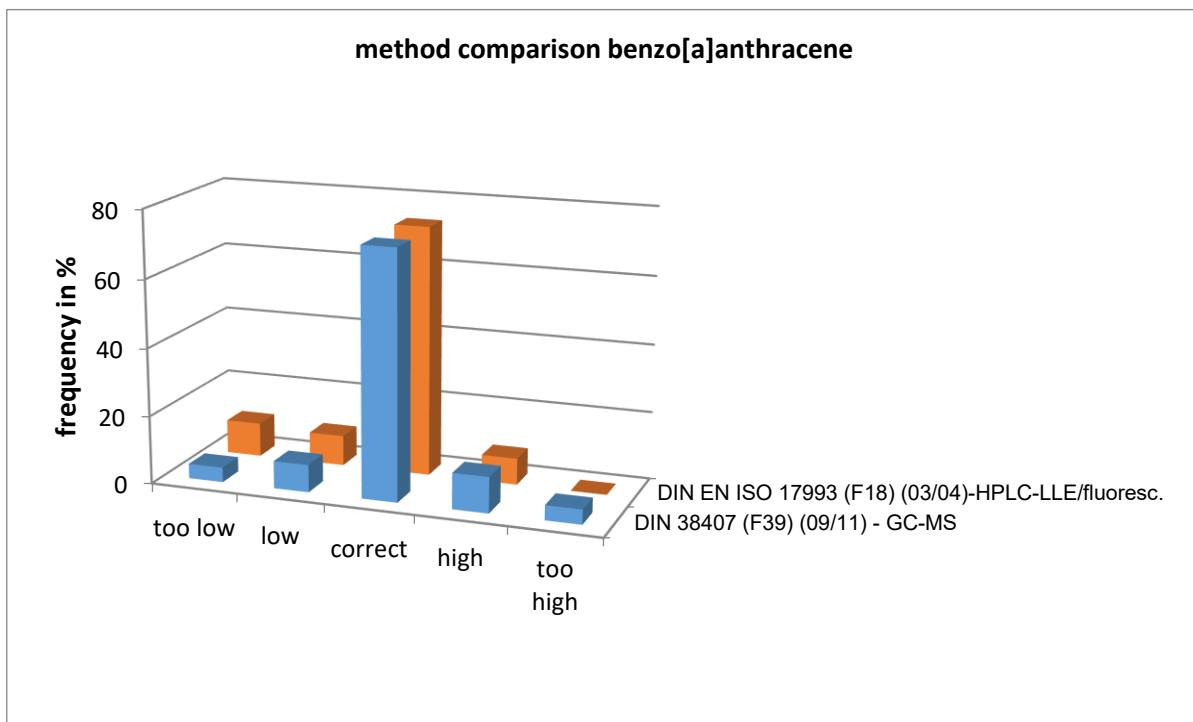
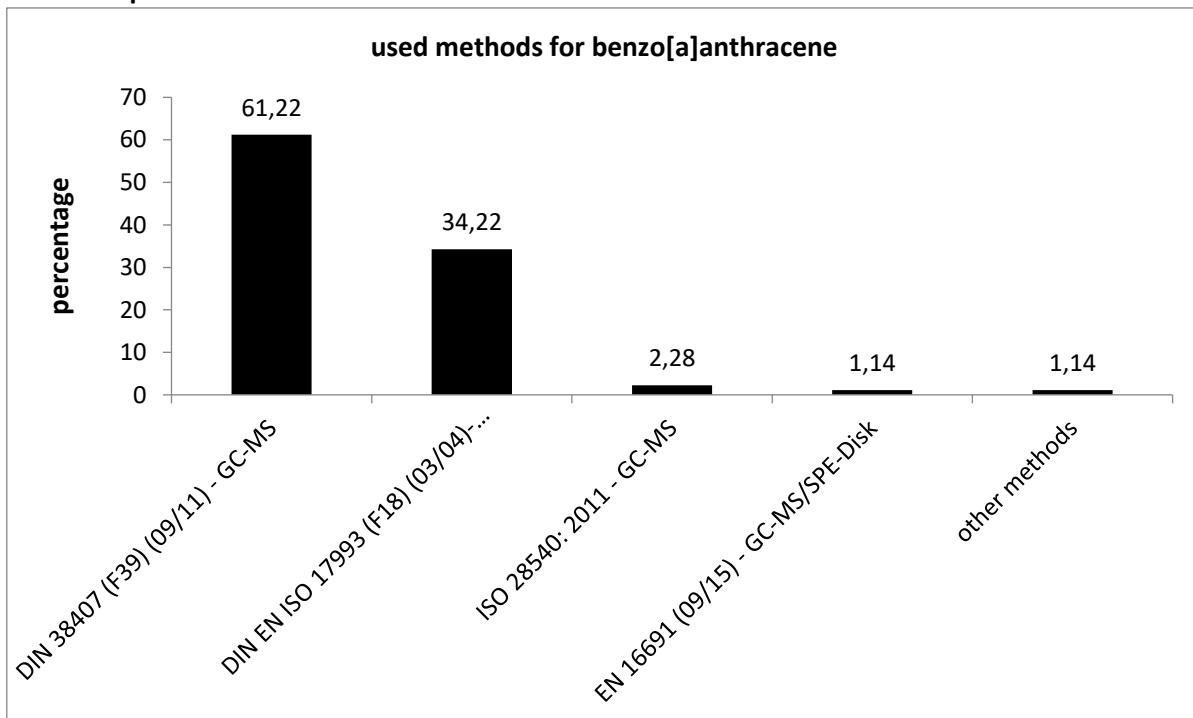
expand uncertainty of the matrix content: 0,003  $\mu\text{g/l}$  = 0 %

**Relative standard deviation and tolerance limits**



The relative standard deviations calculated from the variance function did not reach the limits.



**Method specific evaluation**

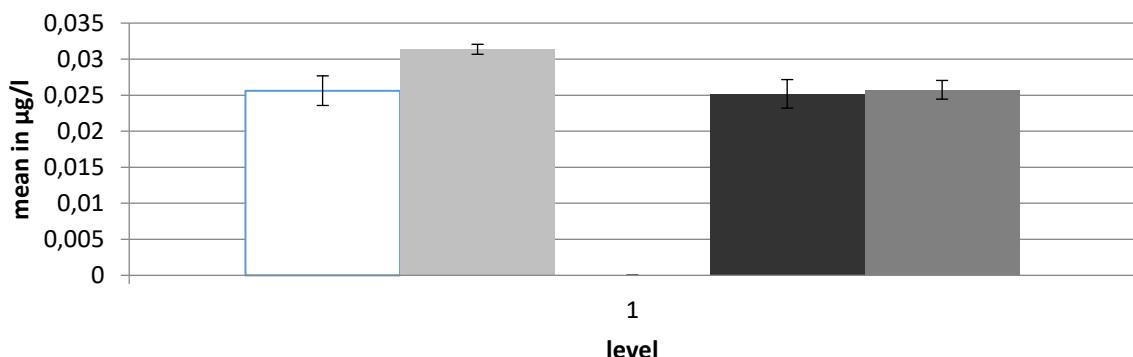
The differences between the methods were not significant.

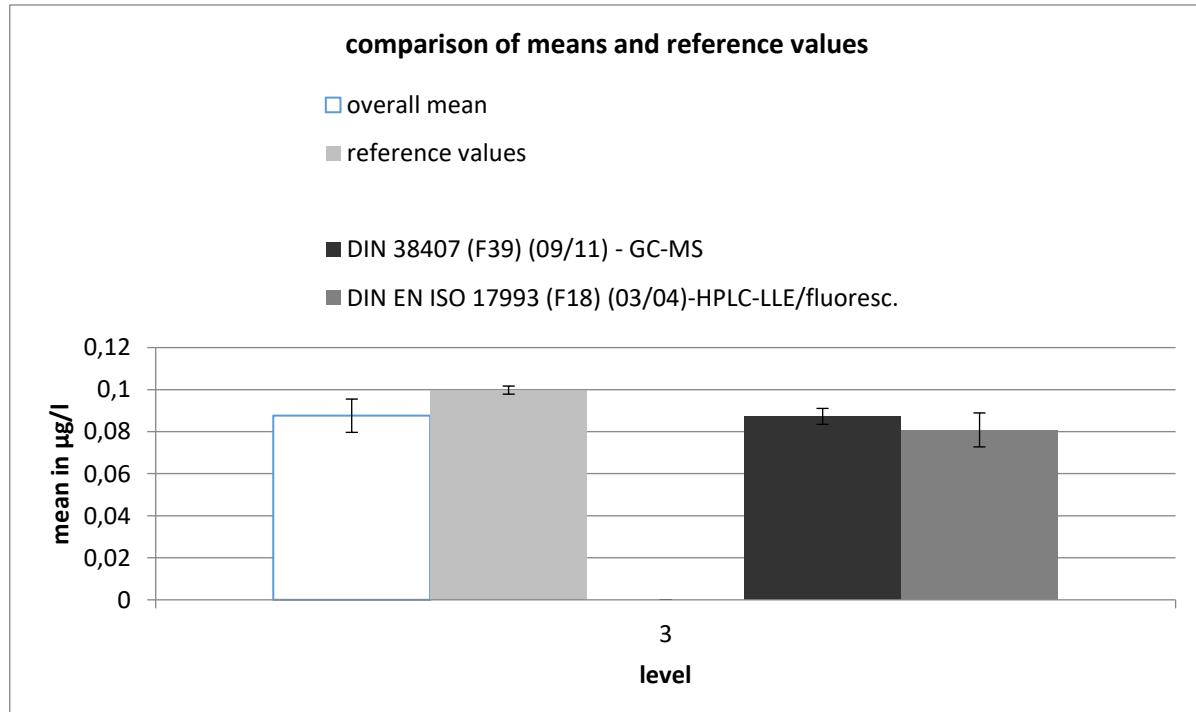
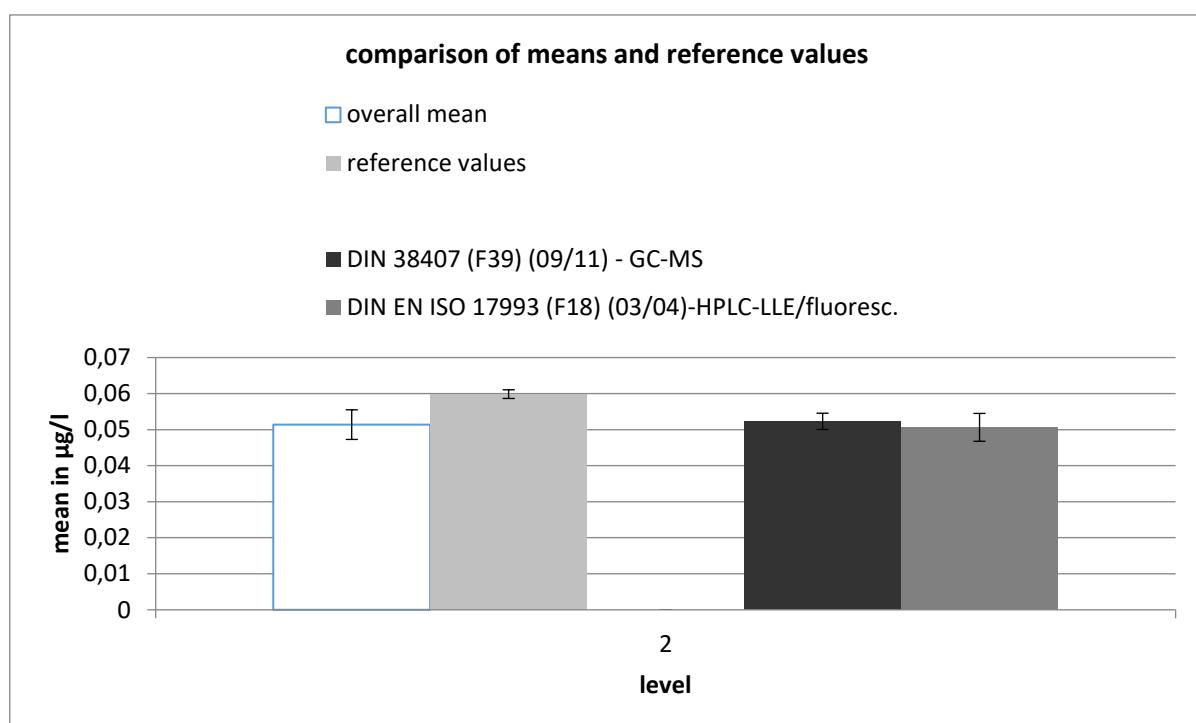
**Comparison of means and reference values**

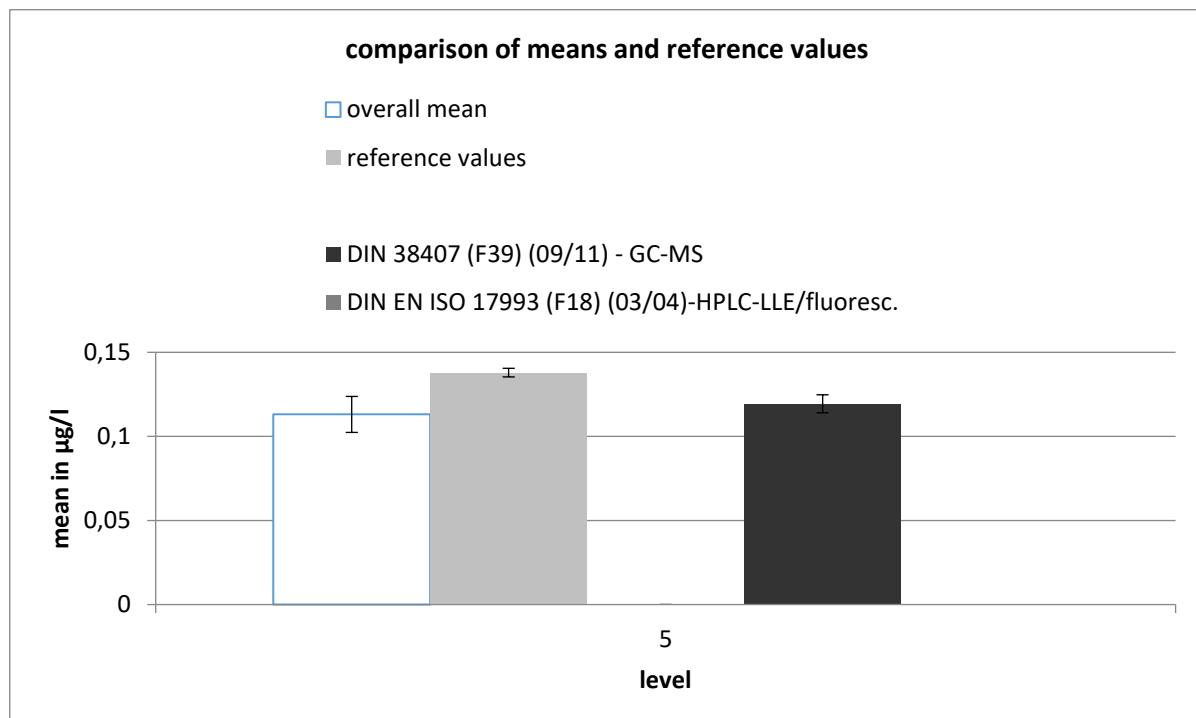
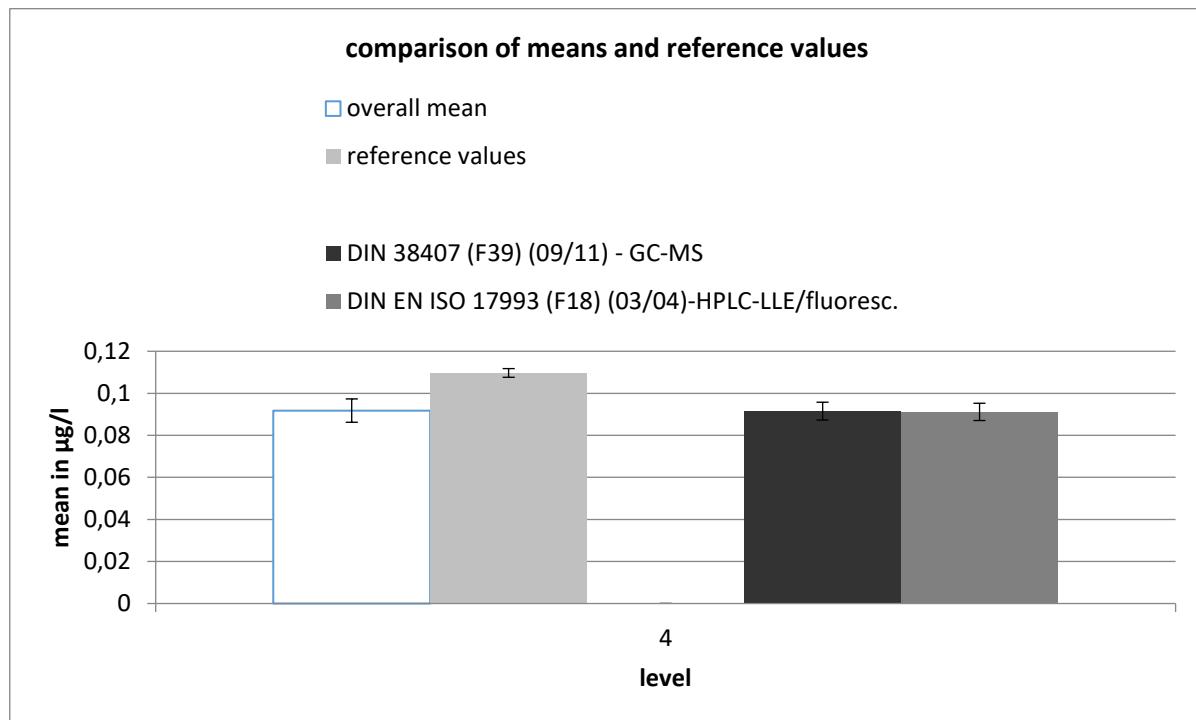
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0256	0,0021	8,0	0,0314	0,0007	2,2
2	0,0514	0,0041	8,0	0,0598	0,0012	2,0
3	0,0876	0,0079	9,1	0,0998	0,0019	1,9
4	0,0918	0,0055	6,0	0,1097	0,0021	1,9
5	0,1131	0,0107	9,5	0,1379	0,0026	1,9
6	0,1501	0,0122	8,1	0,1720	0,0035	2,1
7	0,1710	0,0119	6,9	0,2000	0,0038	1,9
8	0,1868	0,0119	6,4	0,2355	0,0048	2,0
9	0,2268	0,0187	8,2	0,2669	0,0052	2,0

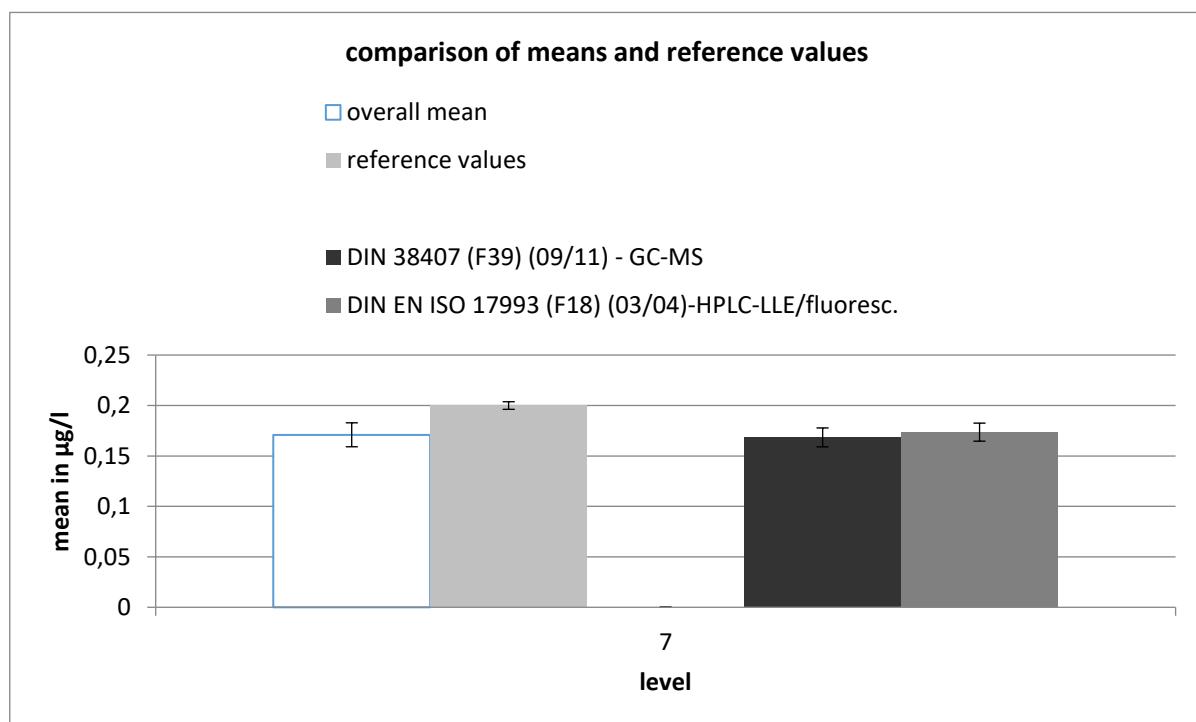
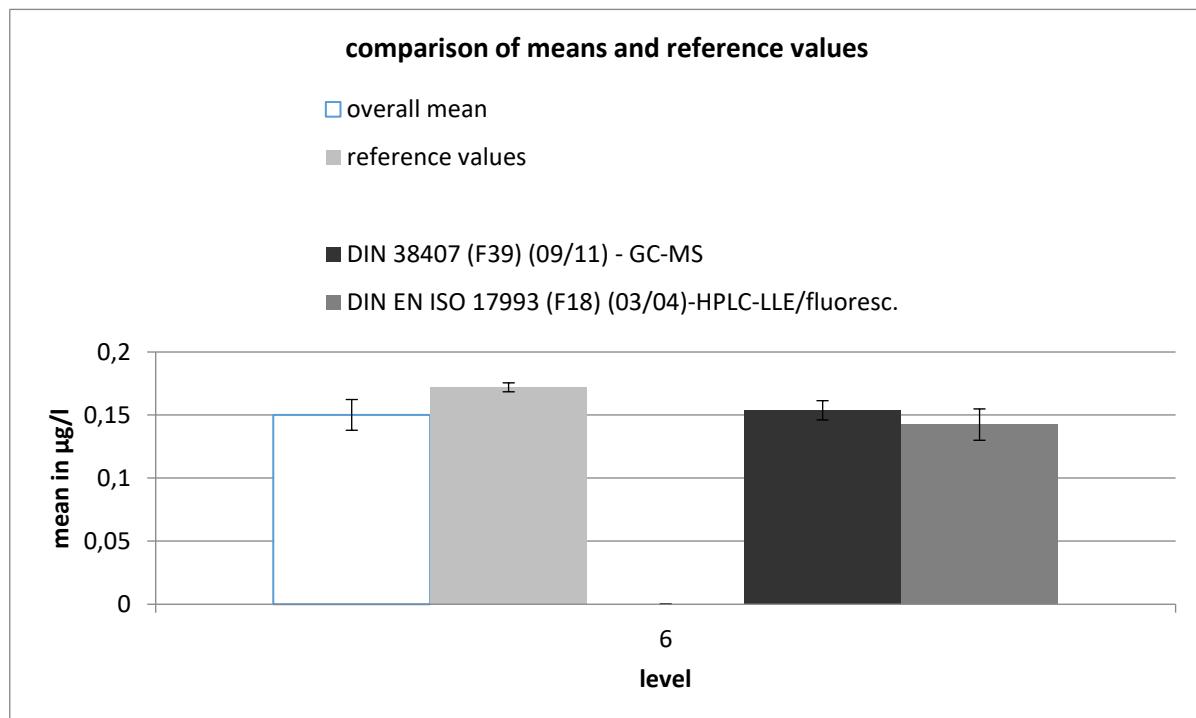
**comparison of means and reference values**

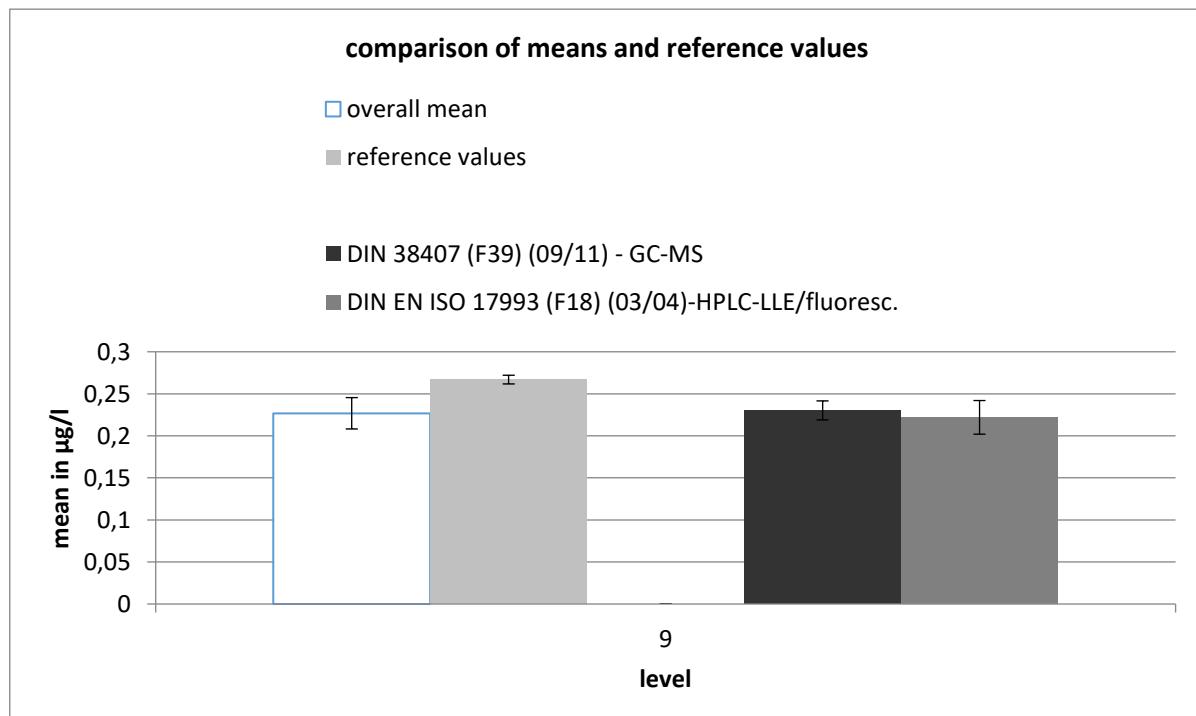
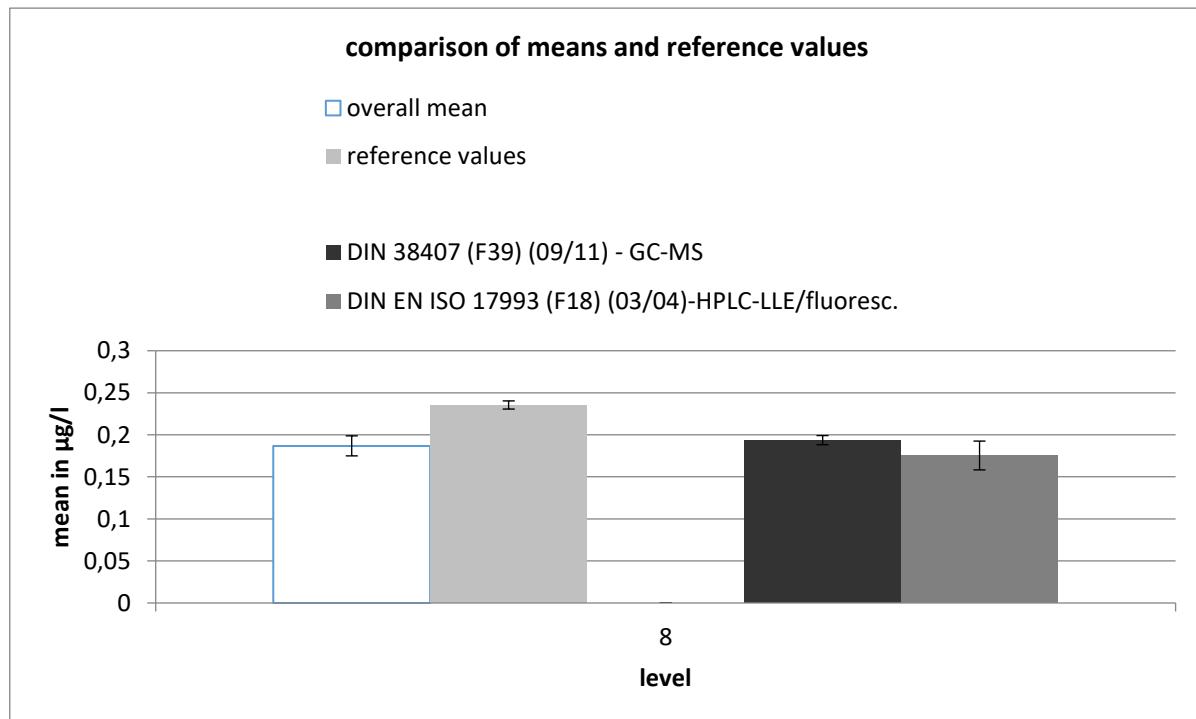
- overall mean
- reference values
- DIN 38407 (F39) (09/11) - GC-MS
- DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

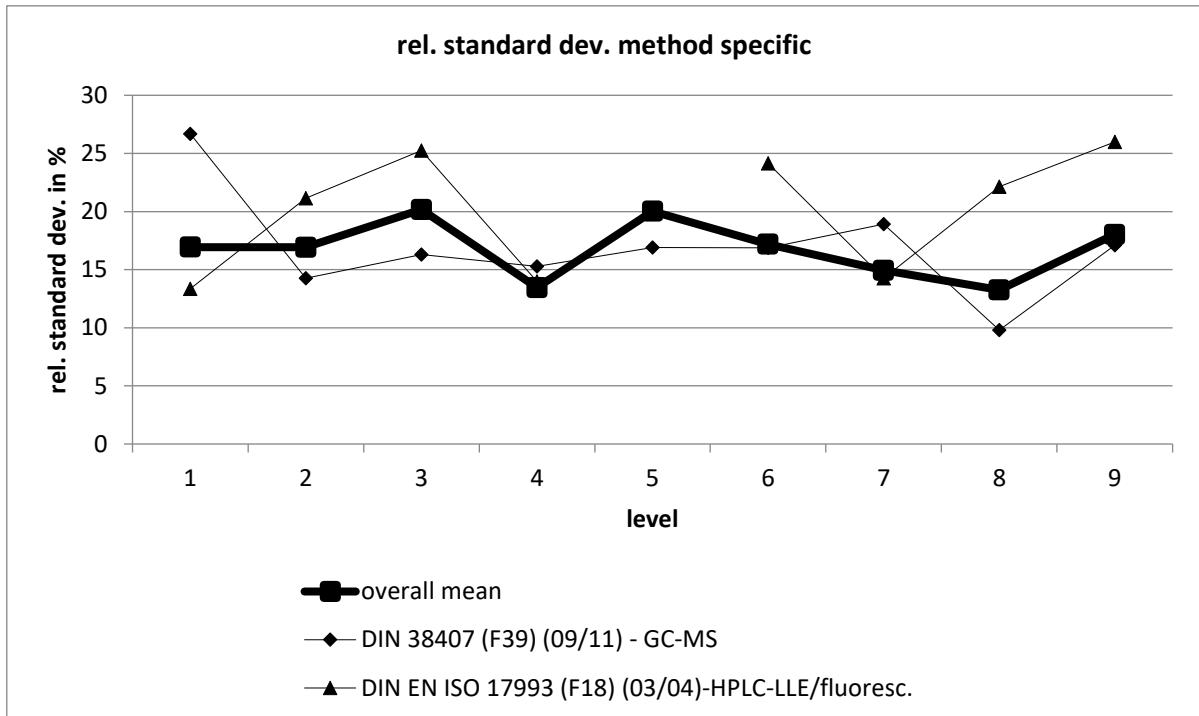












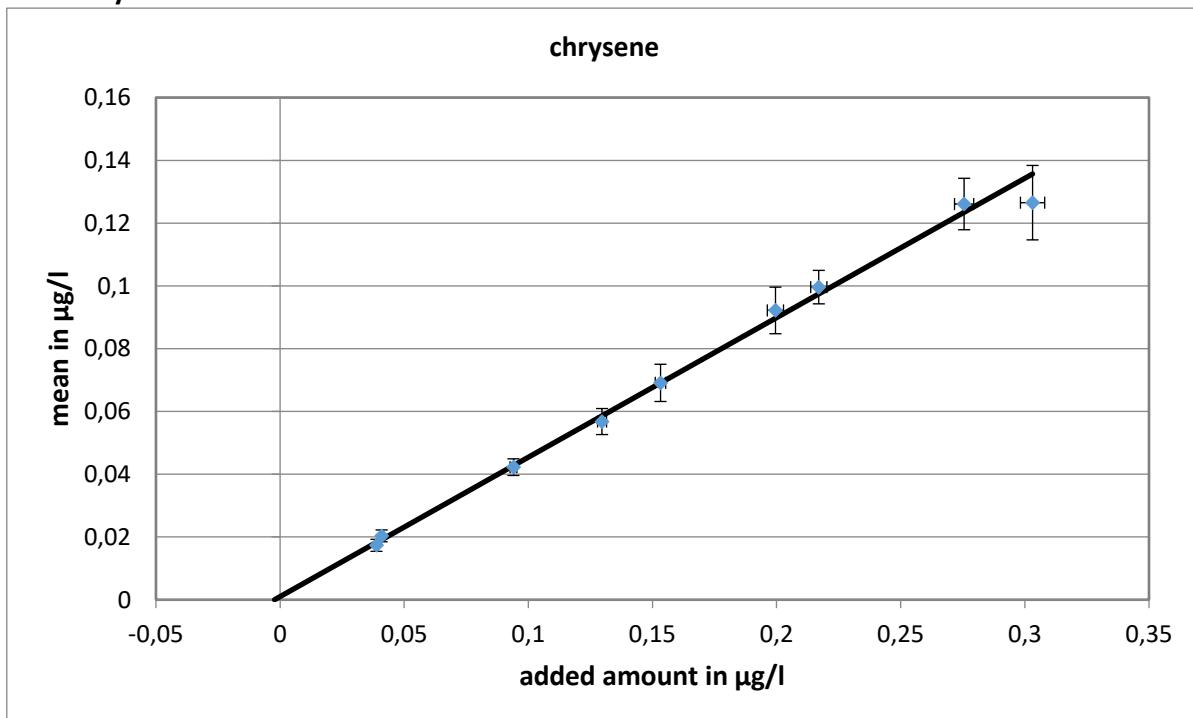
<b>DIN 38407 (F39) (09/11) - GC-MS</b>									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0252	0,002	7,8618	0,0067	26,684	18	1	1	11,11
2	0,0523	0,0023	4,3261	0,0075	14,27	17	1	1	11,76
3	0,0873	0,0038	4,3404	0,0142	16,287	22	0	2	9,091
4	0,0915	0,0042	4,6301	0,014	15,272	17	1	1	11,76
5	0,1194	0,0054	4,5079	0,0202	16,915	22	1	0	4,545
6	0,1538	0,0076	4,9698	0,0259	16,868	18	0	1	5,556
7	0,1683	0,0094	5,571	0,0318	18,909	18	1	0	5,556
8	0,1937	0,0054	2,8108	0,019	9,8016	19	2	0	10,53
9	0,2302	0,0113	4,9062	0,0394	17,108	19	3	0	15,79

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0258	0,0013	5,0345	0,0034	13,358	11	0	1	9,091
2	0,0506	0,0039	7,6306	0,0107	21,147	12	0	1	8,333
3	0,0808	0,0081	9,9852	0,0204	25,261	10	2	0	20
4	0,0912	0,0041	4,5122	0,0127	13,981	15	0	1	6,667
6	0,1424	0,0124	8,7086	0,0344	24,134	12	1	0	8,333
7	0,1736	0,0089	5,1512	0,0248	14,275	12	2	0	16,67
8	0,1754	0,0172	9,7834	0,0388	22,137	8	0	0	0
9	0,222	0,02	9,0101	0,0577	25,989	13	1	0	7,692

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level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]
1	0,0203	9,29	0,0042	0,0040	0,0040	19,90	0,0294	0,0129	44,61	-36,58	31	2	4	19,4
2	0,0173	11,05	0,0040	0,0035	0,0035	20,44	0,0253	0,0108	45,98	-37,51	27	2	1	10,7
3	0,0422	6,27	0,0056	0,0074	0,0074	17,60	0,0586	0,0285	38,87	-32,61	28	1	0	3,6
4	0,0568	7,31	0,0092	0,0095	0,0095	16,74	0,0777	0,0391	36,78	-31,13	31	1	0	3,2
5	0,0691	8,58	0,0126	0,0112	0,0112	16,20	0,0936	0,0482	35,46	-30,18	28	3	2	17,9
6	0,0922	8,06	0,0157	0,0142	0,0142	15,43	0,1232	0,0656	33,62	-28,83	28	2	3	17,9
7	0,0996	5,35	0,0115	0,0152	0,0152	15,23	0,1326	0,0712	33,15	-28,48	29	3	0	10,3
8	0,1261	6,50	0,0177	0,0185	0,0185	14,64	0,1661	0,0915	31,74	-27,43	29	2	1	10,3
9	0,1265	9,38	0,0247	0,0185	0,0185	14,63	0,1666	0,0918	31,72	-27,42	27	3	2	18,5
									sum	258	19	13	12,4	

## Recovery and matrix content

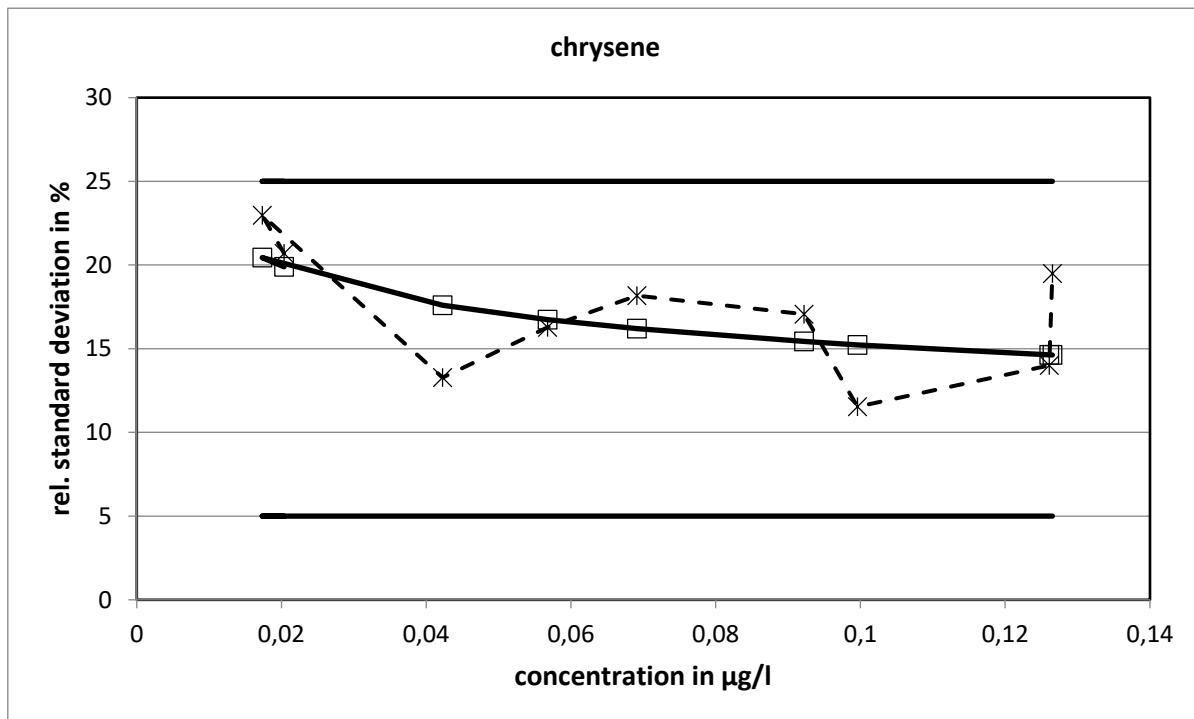


slope of the regression: 0,444; recovery rate: 44,4 %

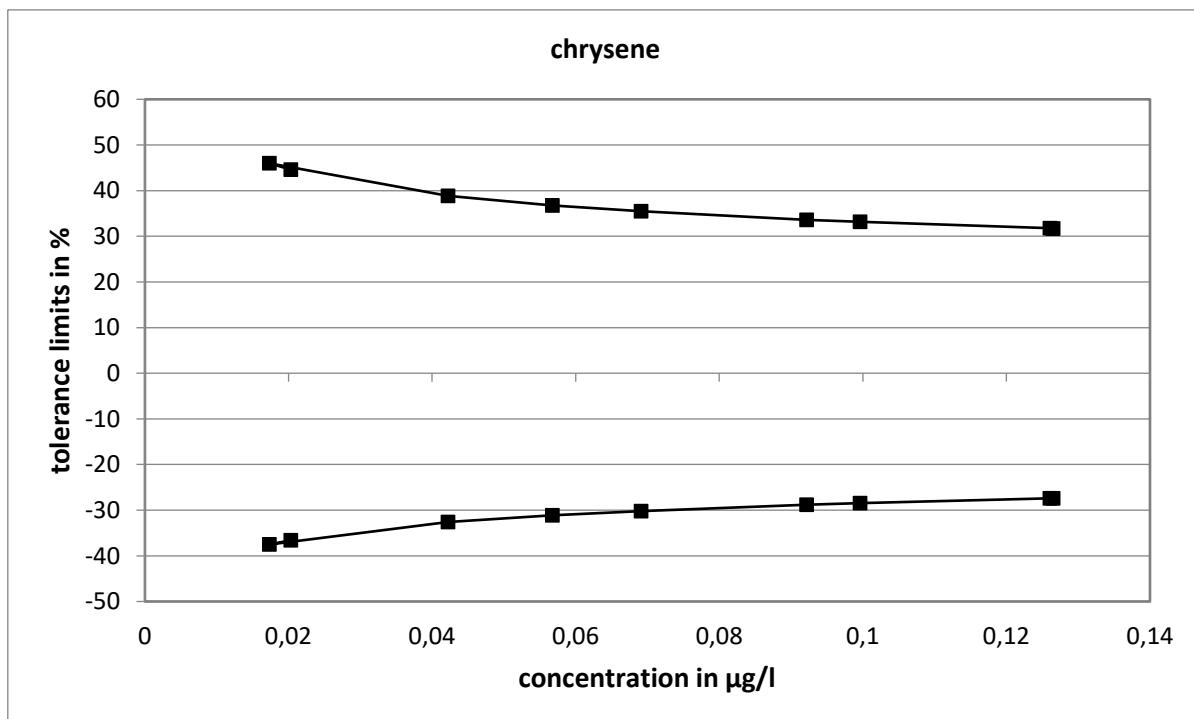
neg. x-intercept corresponds to the matrix content: 0,0022  $\mu\text{g/l}$

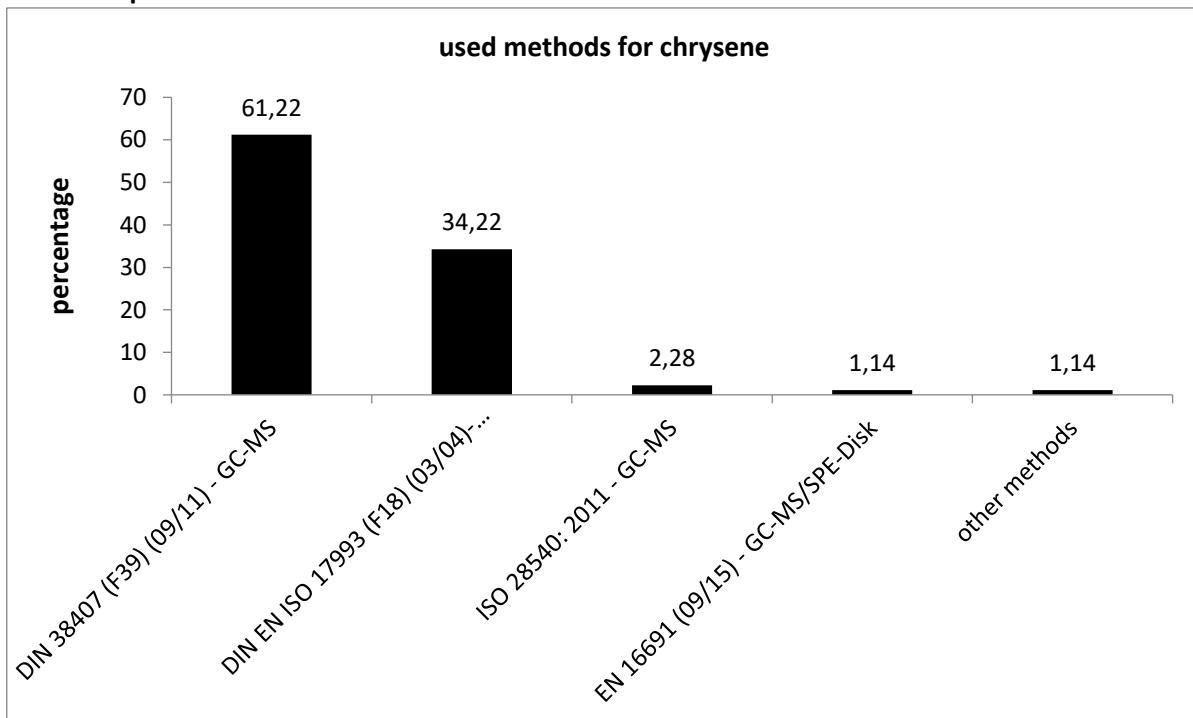
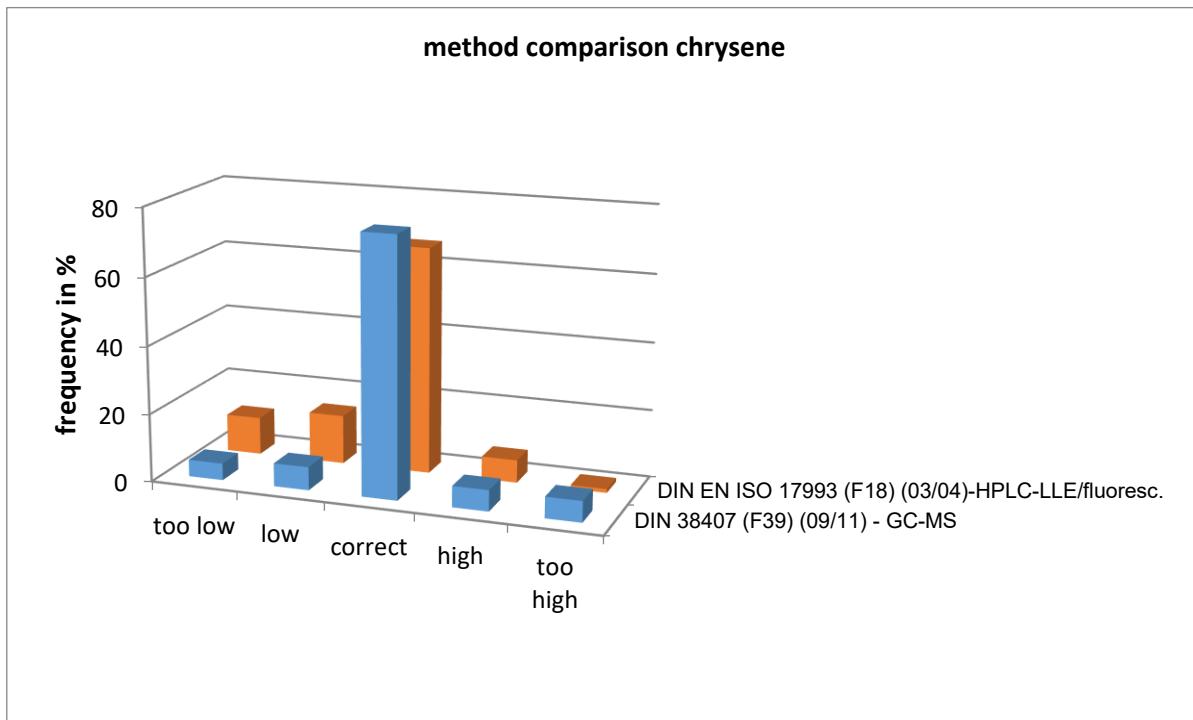
expand uncertainty of the matrix content: 0,0022  $\mu\text{g/l}$  = 100 %

**Relative standard deviation and tolerance limits**



The relative standard deviations calculated from the variance function did not reach the limits.



**Method specific evaluation****method comparison chrysene**

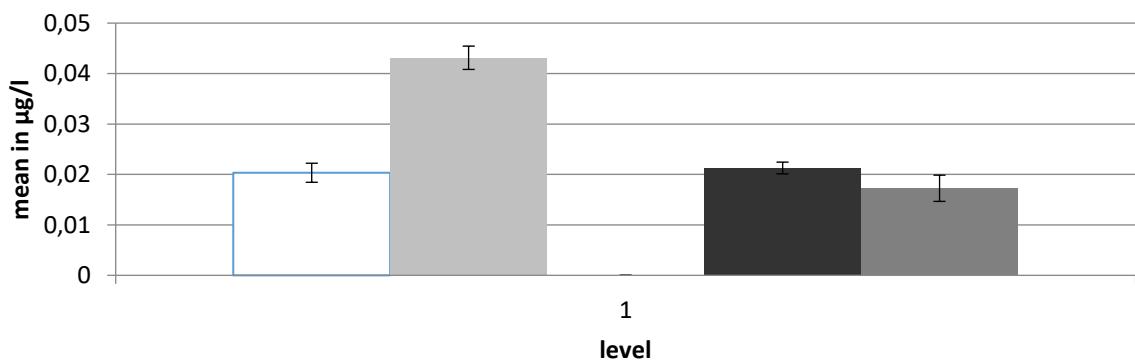
The values determined with GC-MS showed the closest statistical distribution.

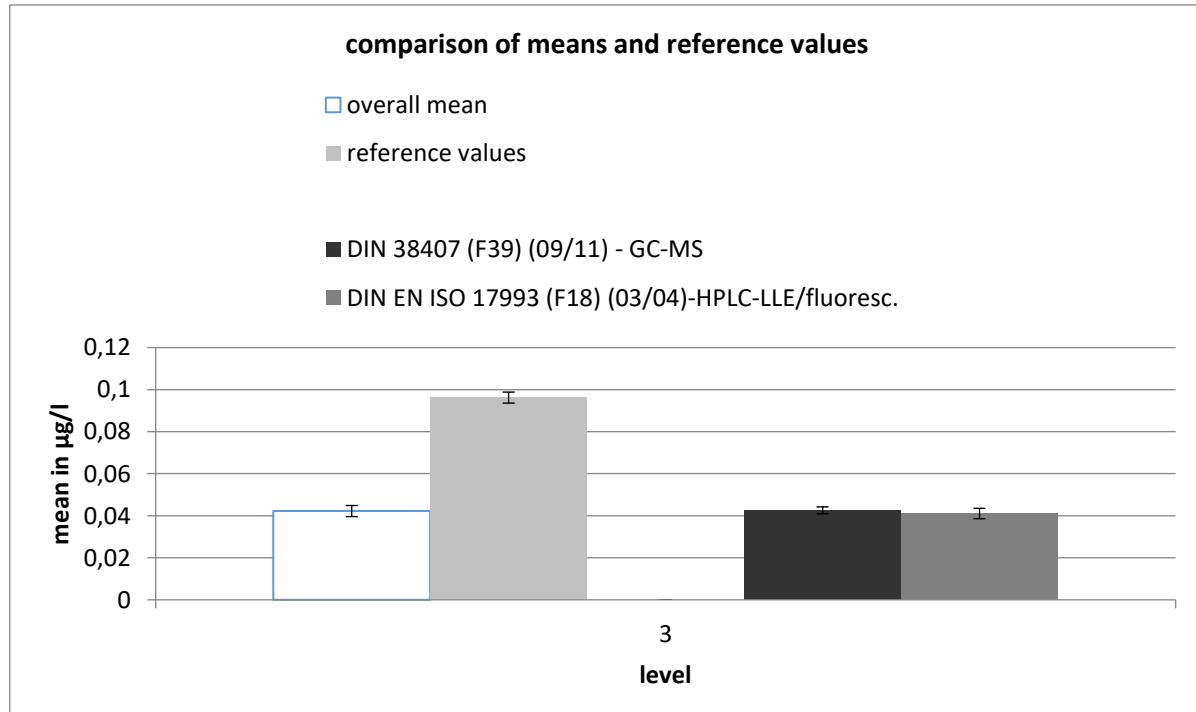
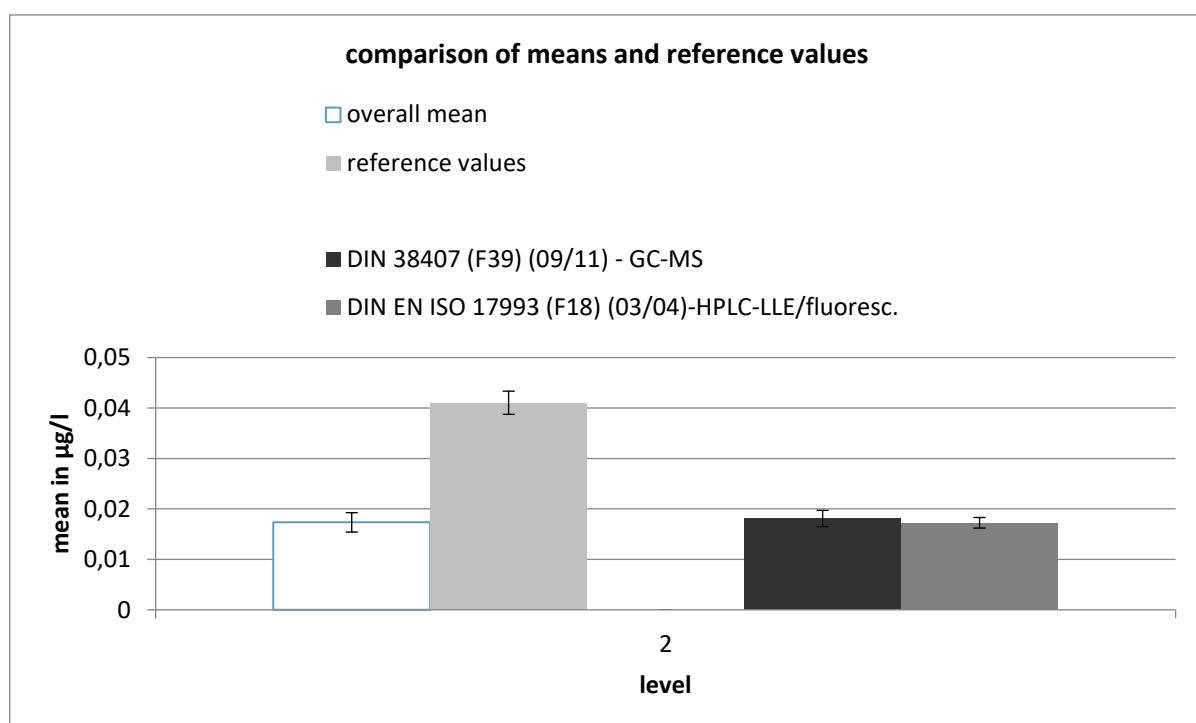
**Comparison of means and reference values**

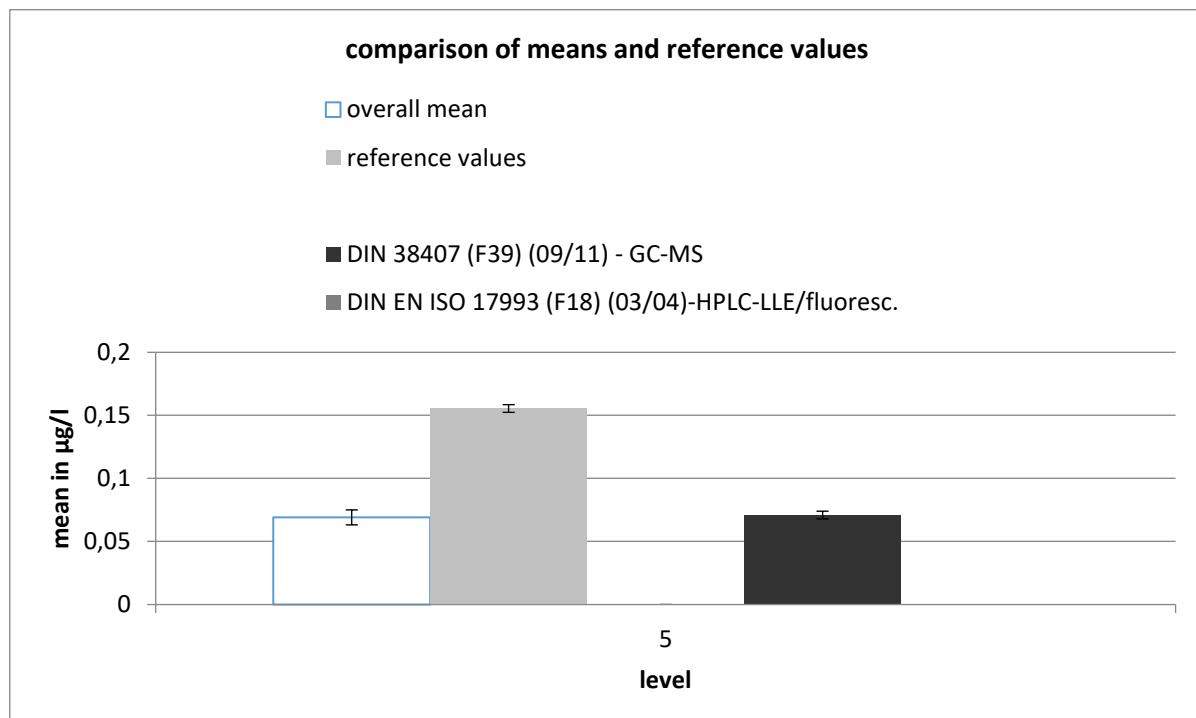
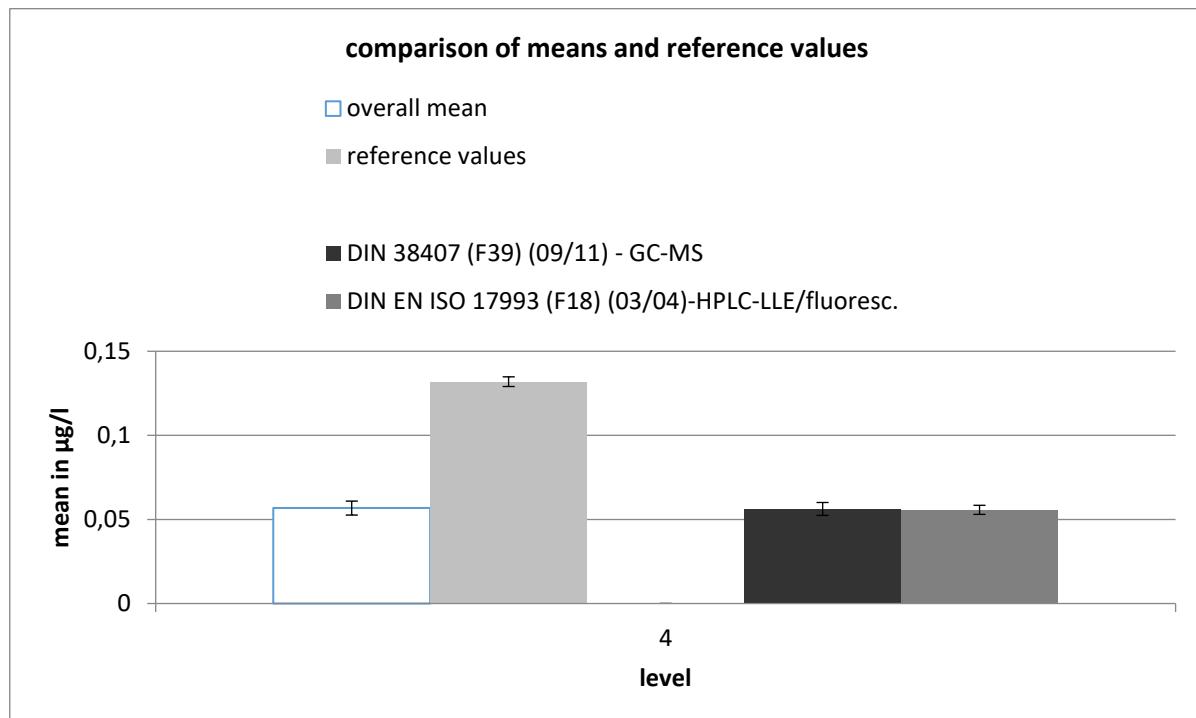
level	mean [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0203	0,0019	9,3	0,0431	0,0023
2	0,0173	0,0019	11,1	0,0410	0,0023
3	0,0422	0,0026	6,3	0,0962	0,0026
4	0,0568	0,0041	7,3	0,1319	0,0029
5	0,0691	0,0059	8,6	0,1555	0,0031
6	0,0922	0,0074	8,1	0,2017	0,0039
7	0,0996	0,0053	5,4	0,2192	0,0039
8	0,1261	0,0082	6,5	0,2778	0,0045
9	0,1265	0,0119	9,4	0,3053	0,0054

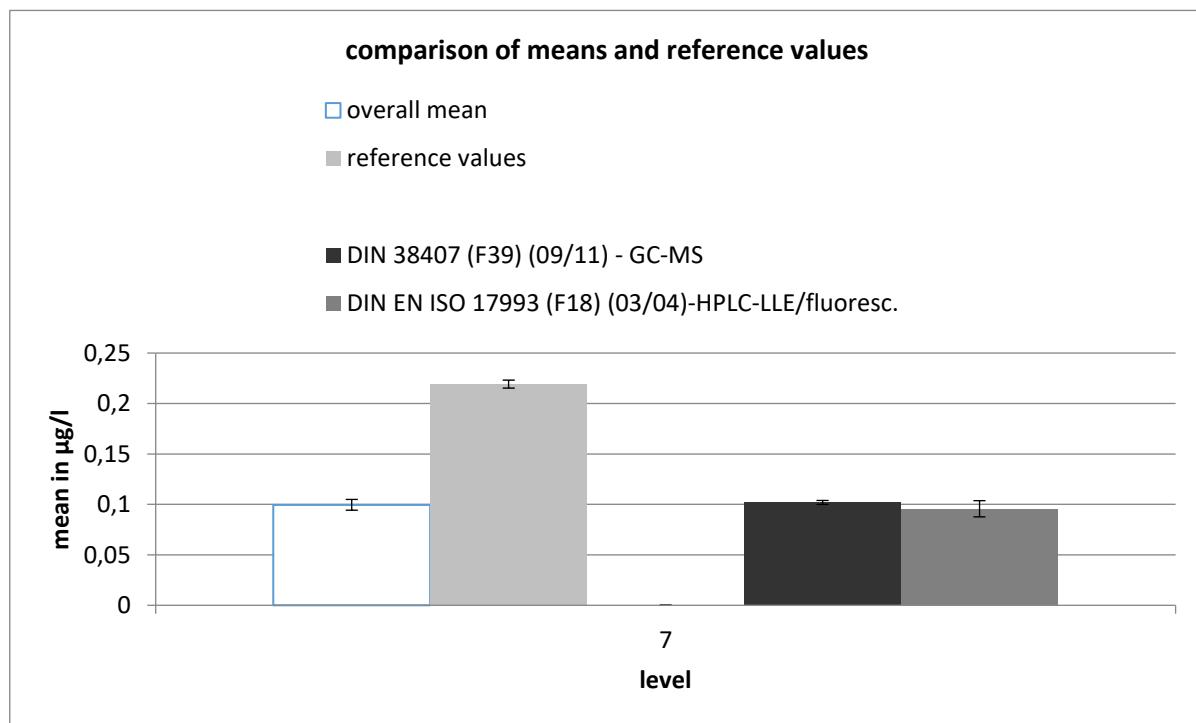
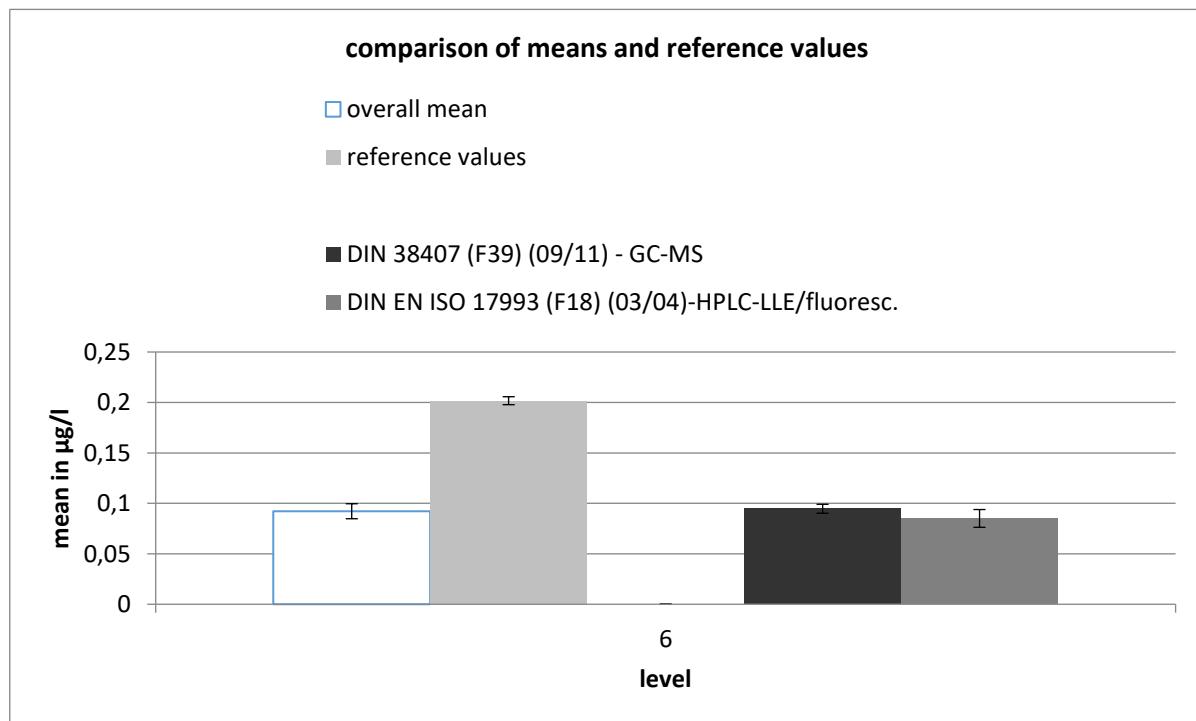
**comparison of means and reference values**

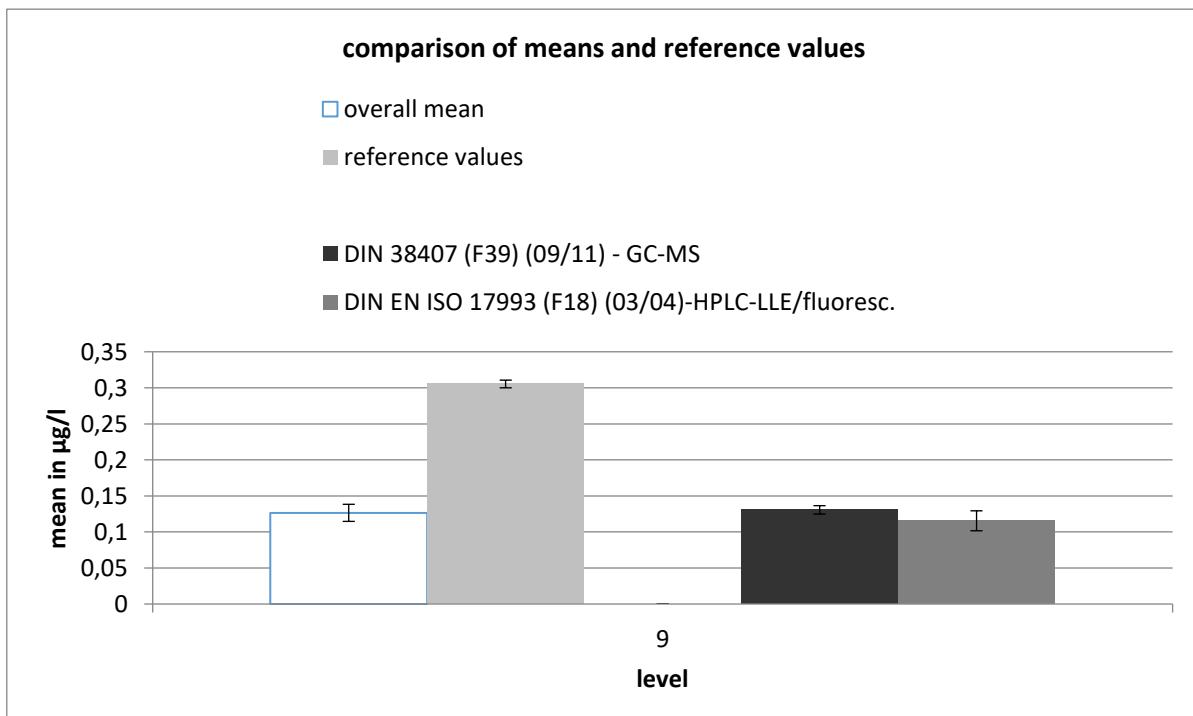
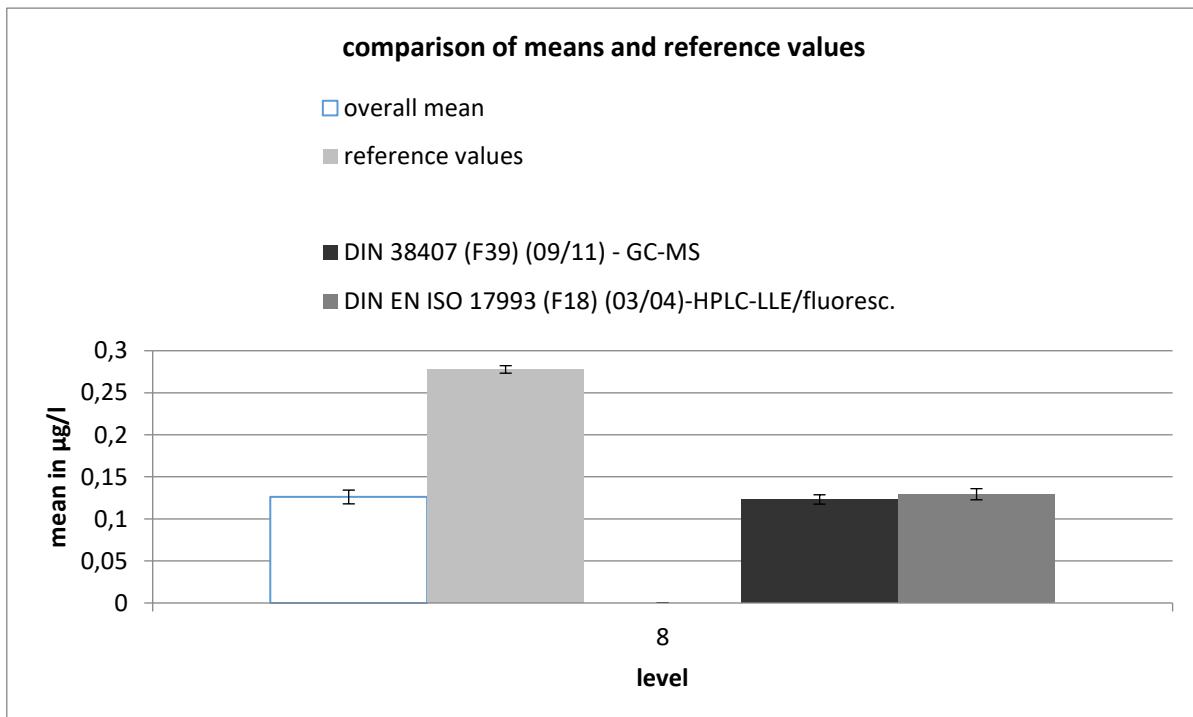
□ overall mean  
■ reference values  
■ DIN 38407 (F39) (09/11) - GC-MS  
■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

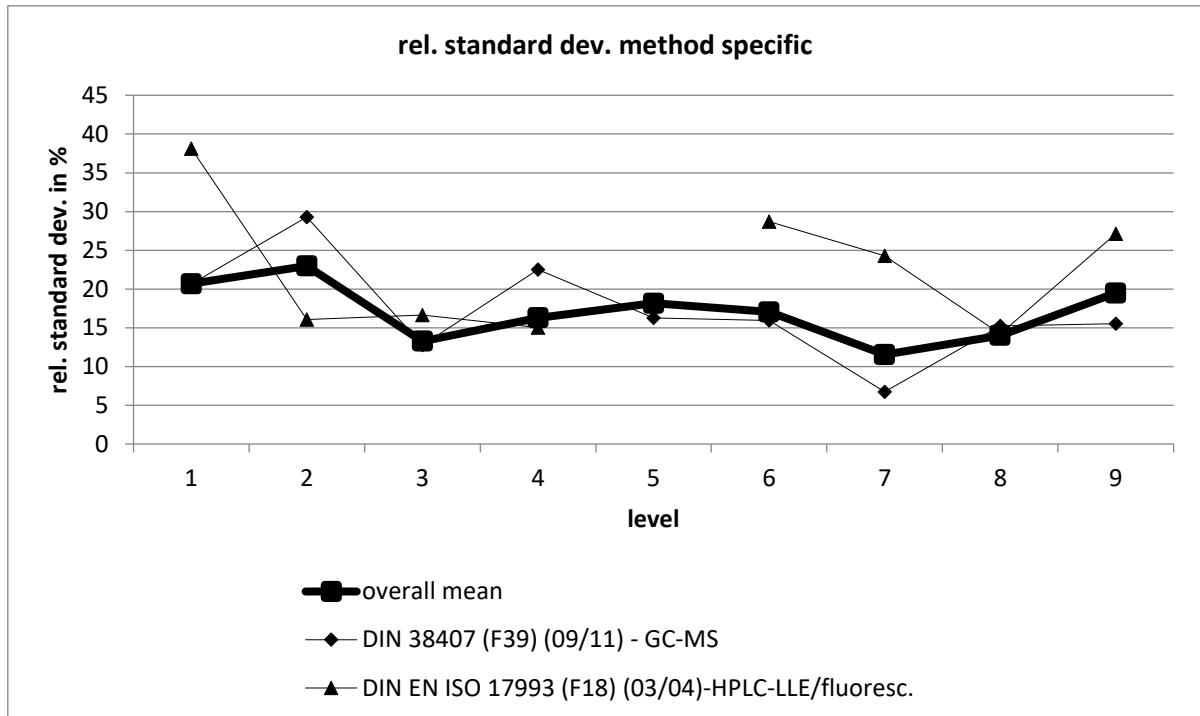












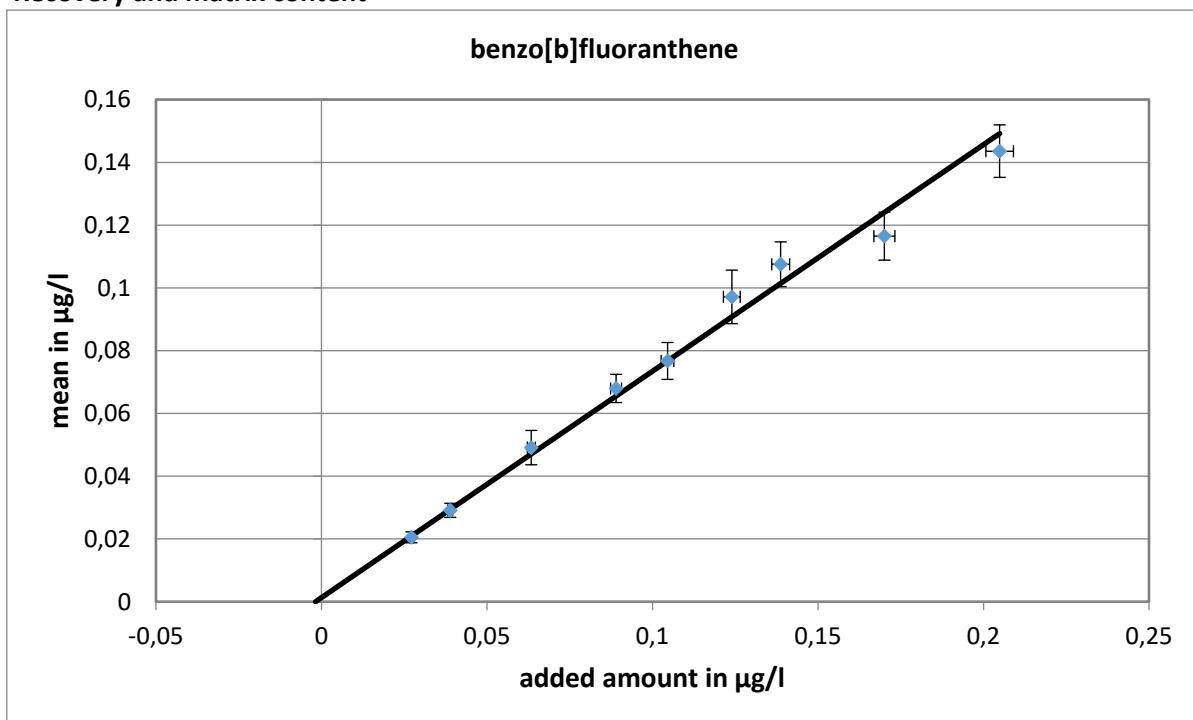
DIN 38407 (F39) (09/11) - GC-MS									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0213	0,0012	5,5031	0,0044	20,65	22	0	4	18,18
2	0,0181	0,0016	8,8795	0,0053	29,289	17	1	1	11,76
3	0,0426	0,0016	3,8667	0,0054	12,754	17	1	1	11,76
4	0,0562	0,0038	6,8206	0,0127	22,498	17	2	0	11,76
5	0,071	0,0031	4,3313	0,0115	16,253	22	2	1	13,64
6	0,0947	0,0044	4,6962	0,0151	15,94	18	0	2	11,11
7	0,102	0,002	1,9334	0,0069	6,7422	19	4	0	21,05
8	0,1231	0,0055	4,4953	0,0188	15,258	18	1	1	11,11
9	0,1307	0,0058	4,4528	0,0203	15,528	19	1	1	10,53

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0173	0,0026	15,076	0,0066	38,139	10	0	1	10
2	0,0173	0,001	6,0602	0,0028	16,08	11	0	1	9,091
3	0,0411	0,0025	6,0127	0,0068	16,663	12	1	1	16,67
4	0,0557	0,0027	4,8479	0,0084	15,021	15	0	1	6,667
6	0,0851	0,0088	10,353	0,0244	28,692	12	1	0	8,333
7	0,0957	0,0081	8,4173	0,0232	24,279	13	1	0	7,692
8	0,1293	0,0066	5,1278	0,0184	14,211	12	1	0	8,333
9	0,1155	0,0139	11,997	0,0313	27,146	8	0	0	0

# benzo[b]fluoranthene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]	
1	0,0205	8,48	0,0038	0,0042	0,0042	20,49	0,0300	0,0128	46,12	-37,60	30	1	0	3,3	
2	0,0291	7,71	0,0049	0,0056	0,0056	19,36	0,0417	0,0187	43,24	-35,65	30	2	0	6,5	
3	0,0491	11,14	0,0126	0,0087	0,0087	17,77	0,0684	0,0329	39,30	-32,92	33	3	3	18,2	
4	0,0680	6,62	0,0103	0,0115	0,0115	16,86	0,0931	0,0467	37,06	-31,33	33	1	1	5,9	
5	0,0767	7,66	0,0131	0,0127	0,0127	16,53	0,1045	0,0531	36,26	-30,75	31	4	1	16,1	
6	0,0971	8,79	0,0184	0,0154	0,0154	15,90	0,1309	0,0683	34,76	-29,66	29	2	1	10,3	
7	0,1075	6,64	0,0159	0,0168	0,0168	15,64	0,1442	0,0761	34,13	-29,20	31	3	1	12,9	
8	0,1165	6,57	0,0173	0,0180	0,0180	15,44	0,1557	0,0829	33,64	-28,85	32	1	0	3,1	
9	0,1436	5,82	0,0183	0,0214	0,0214	14,92	0,1901	0,1035	32,41	-27,93	30	3	0	10,0	
											sum	279	20	7	9,7

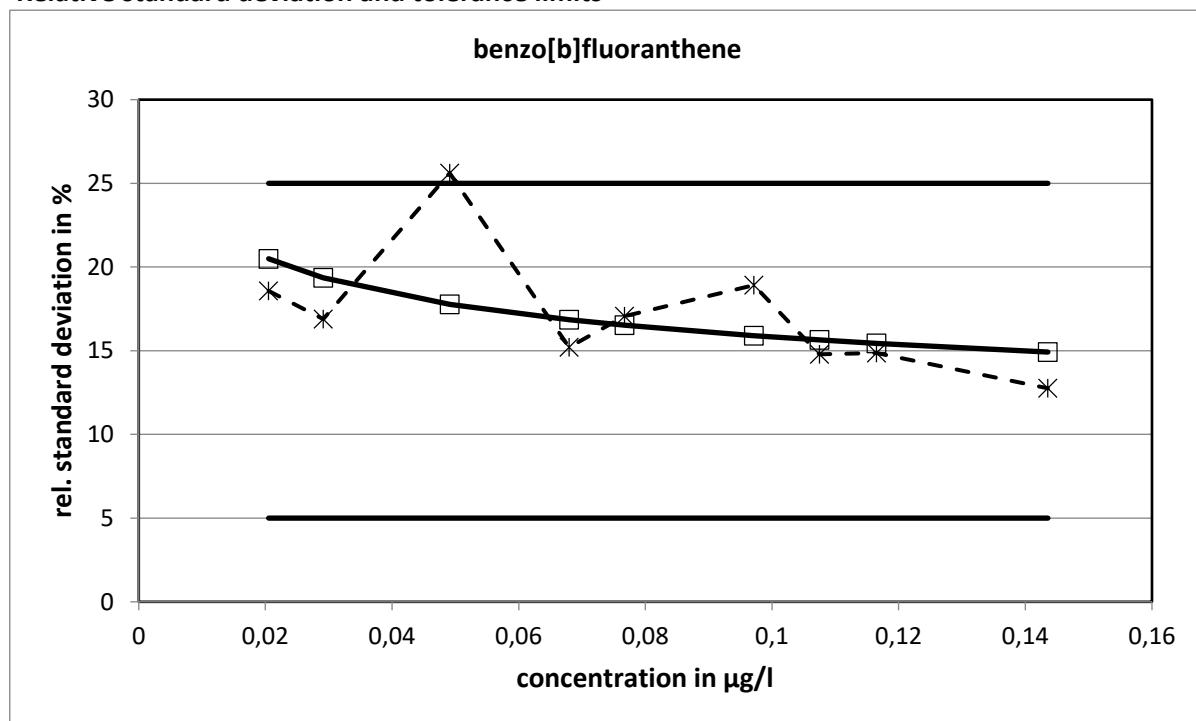
## Recovery and matrix content



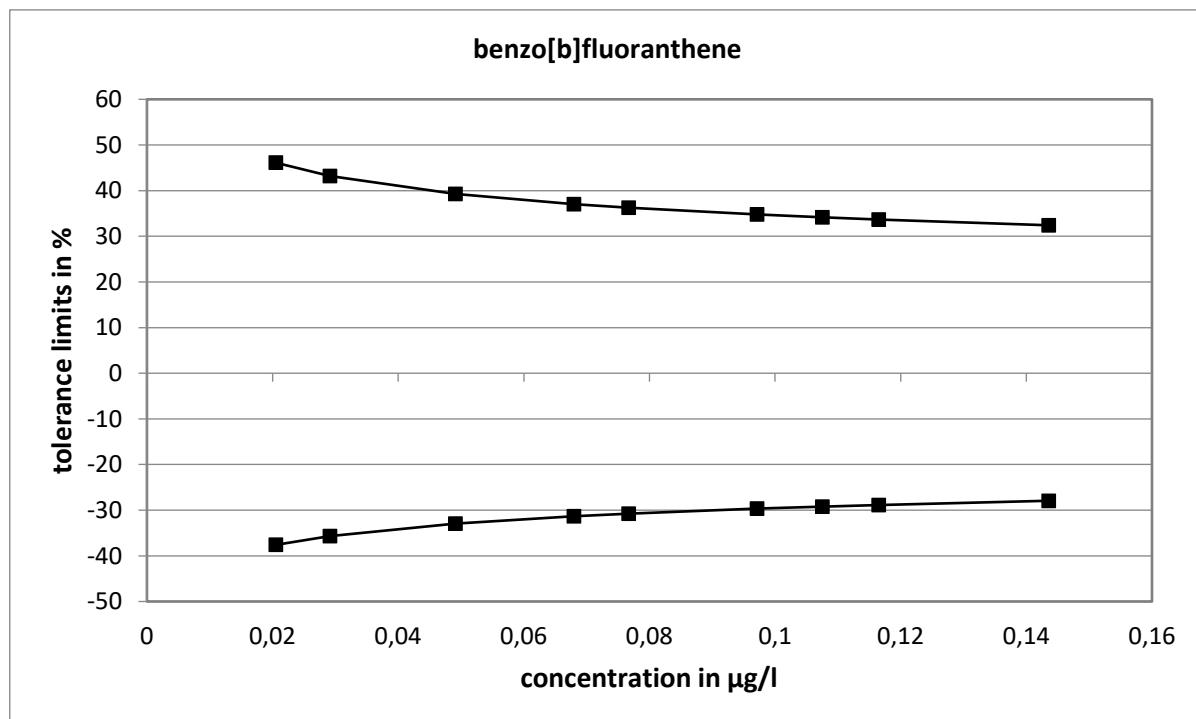
slope of the regression: 0,722; recovery rate: 72,2 %

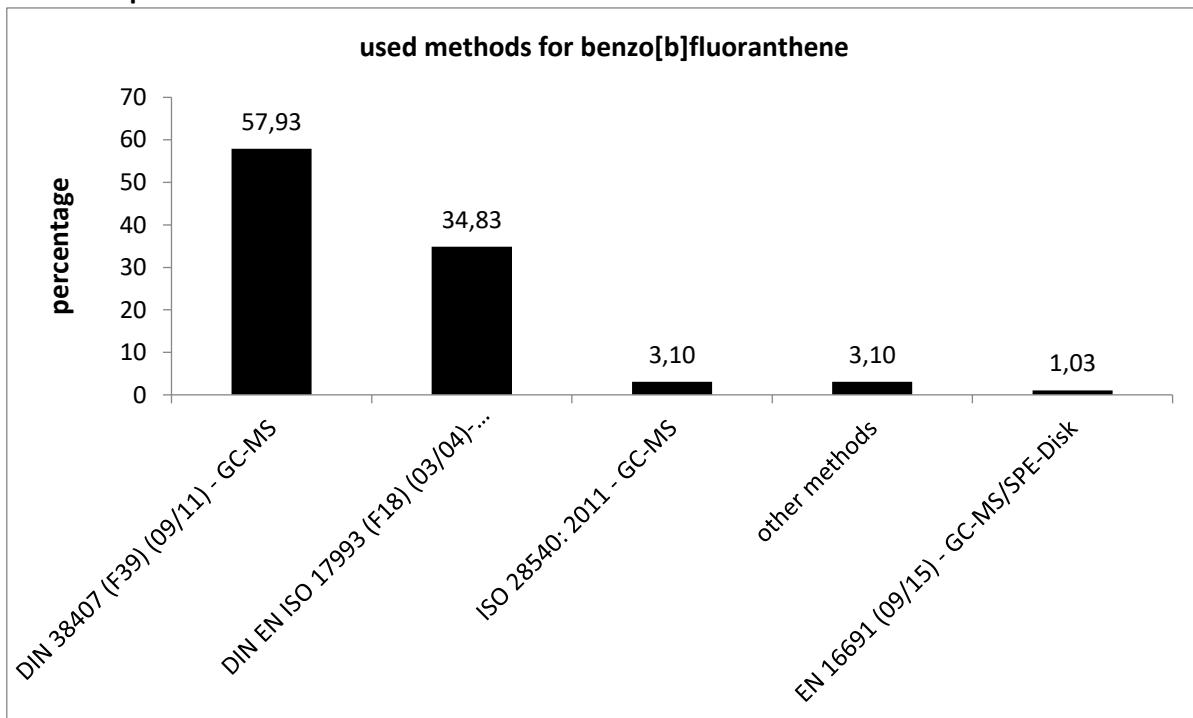
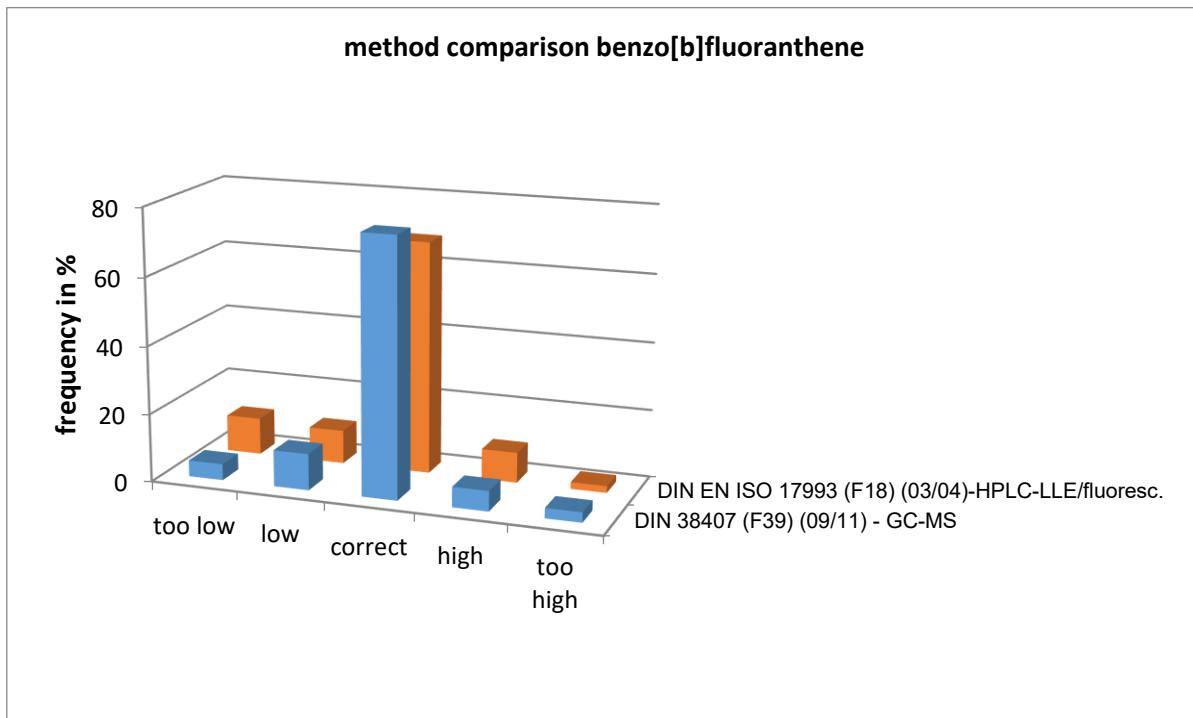
neg. x-intercept corresponds to the matrix content: 0,0018  $\mu\text{g/l}$

expand uncertainty of the matrix content: 0,0018  $\mu\text{g/l}$  = 100 %

**Relative standard deviation and tolerance limits**

The relative standard deviations calculated from the variance function did not reach the limits.



**Method specific evaluation****method comparison benzo[b]fluoranthene**

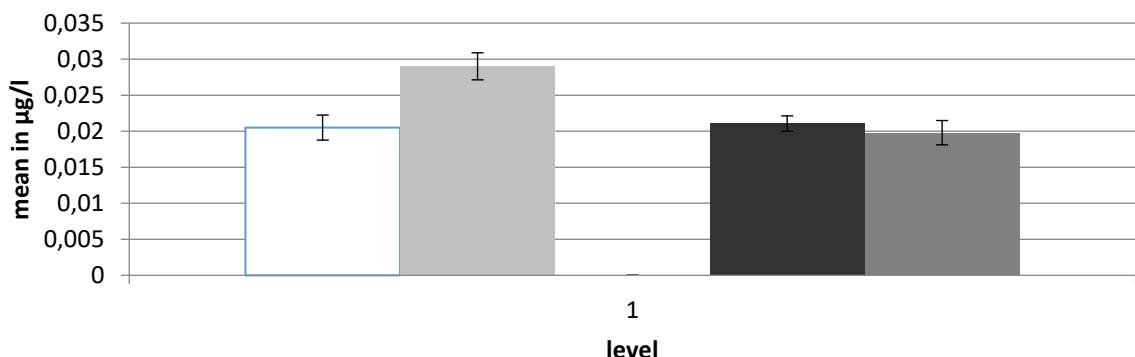
The differences between the methods were not significant.

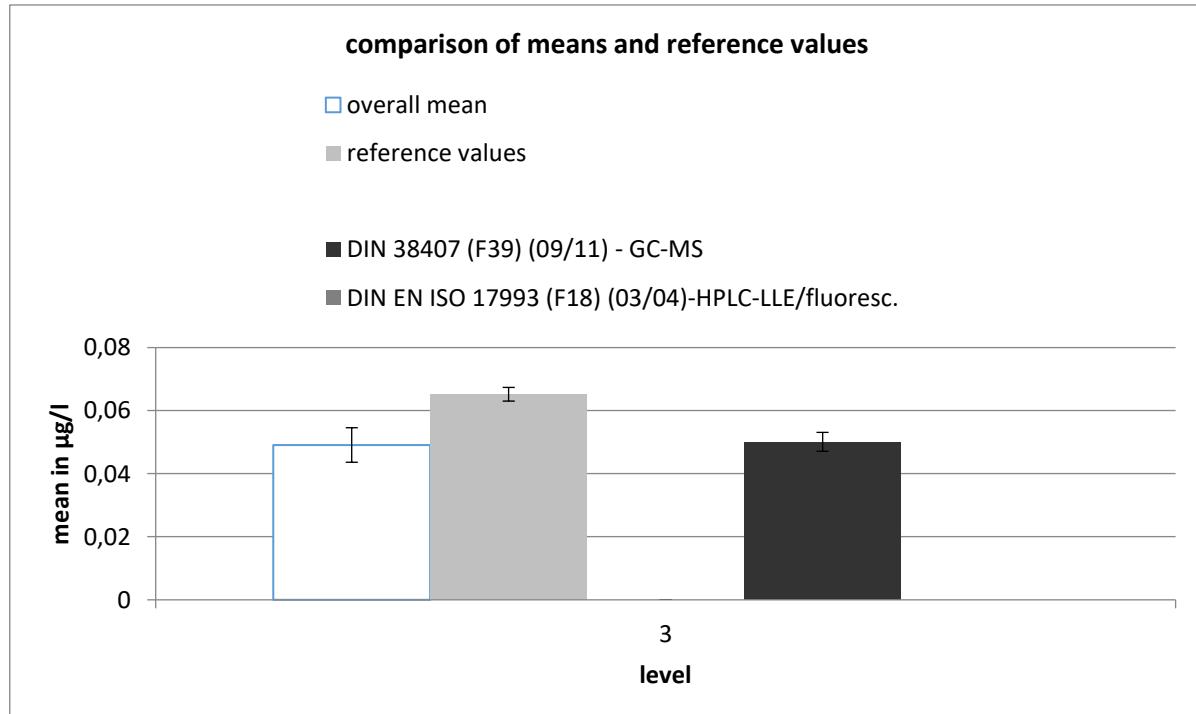
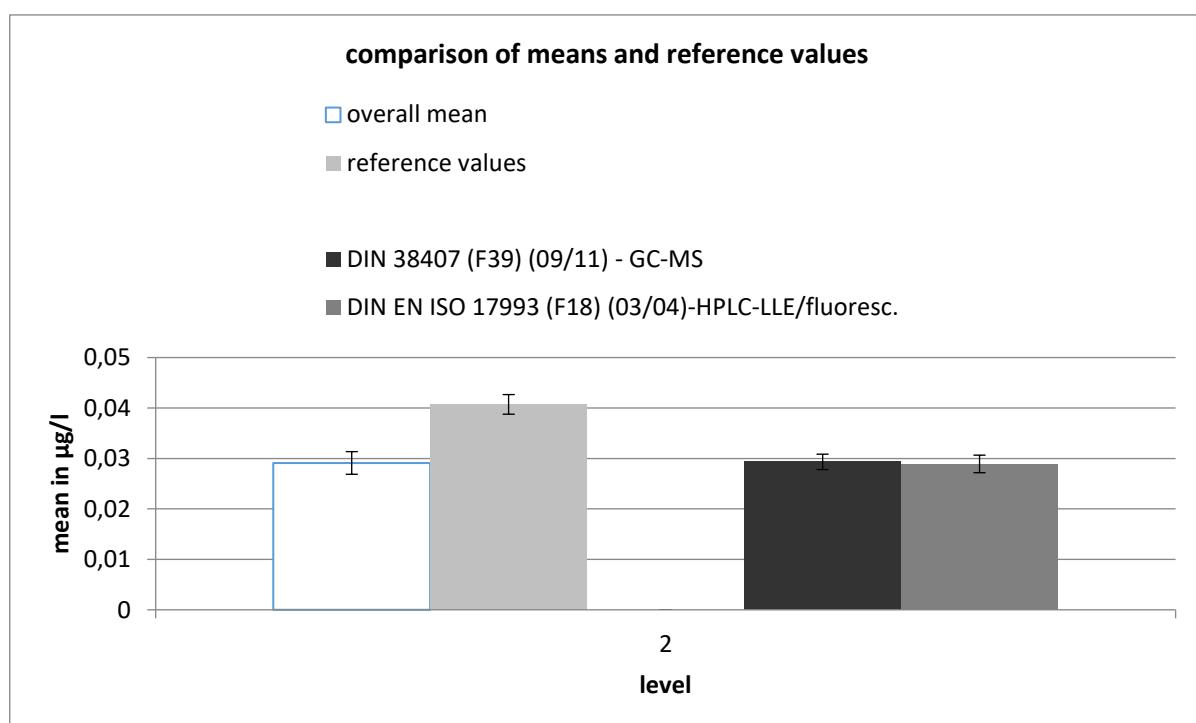
**Comparison of means and reference values**

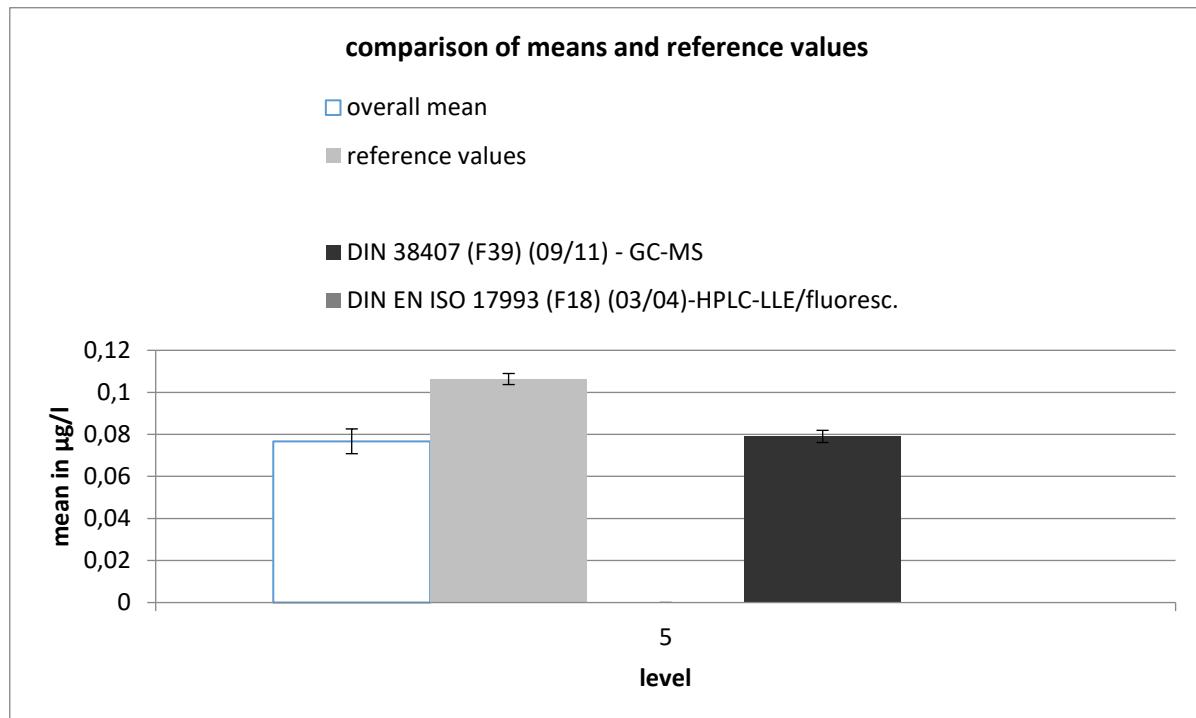
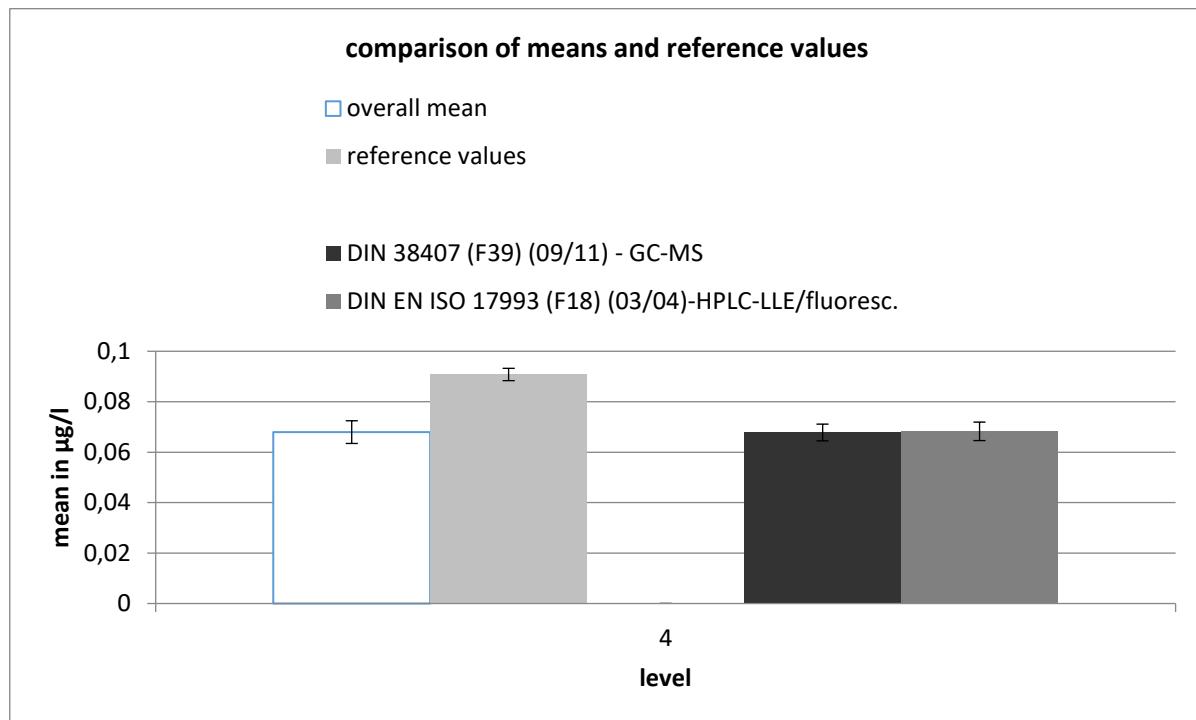
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0205	0,0017	8,5	0,0290	0,0019	6,5
2	0,0291	0,0022	7,7	0,0407	0,0019	4,8
3	0,0491	0,0055	11,1	0,0652	0,0022	3,3
4	0,0680	0,0045	6,6	0,0908	0,0024	2,7
5	0,0767	0,0059	7,7	0,1063	0,0026	2,5
6	0,0971	0,0085	8,8	0,1258	0,0031	2,5
7	0,1075	0,0071	6,6	0,1405	0,0032	2,3
8	0,1165	0,0077	6,6	0,1719	0,0036	2,1
9	0,1436	0,0084	5,8	0,2067	0,0045	2,2

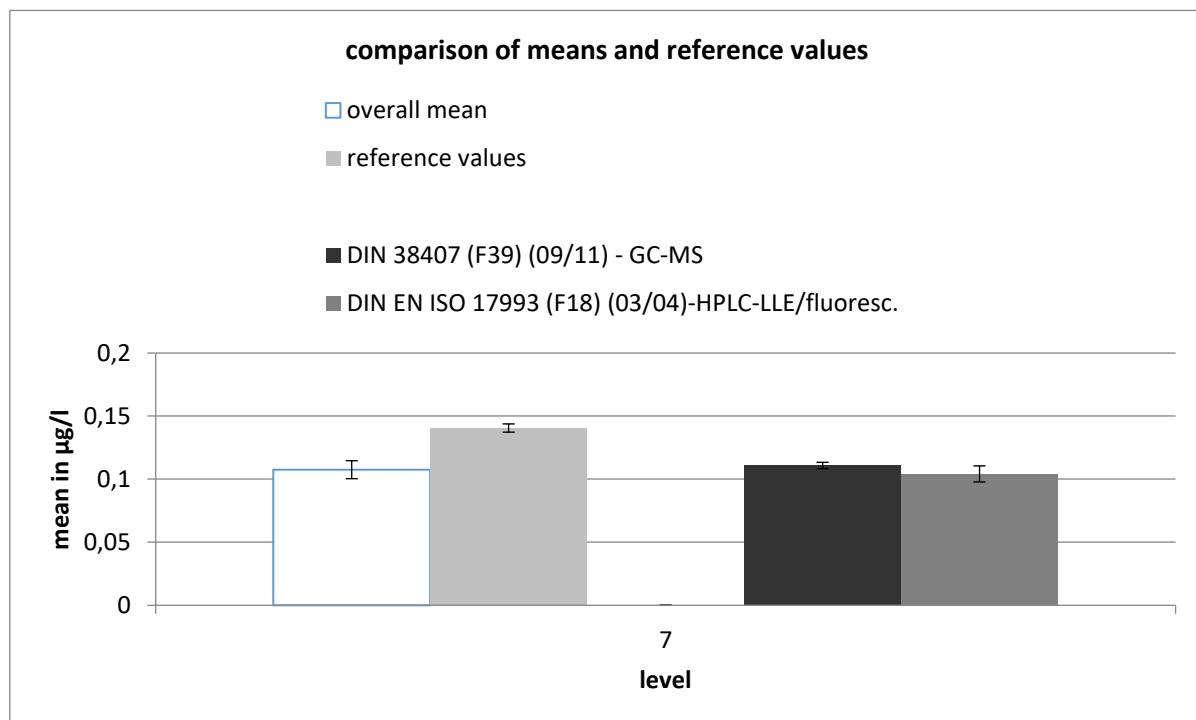
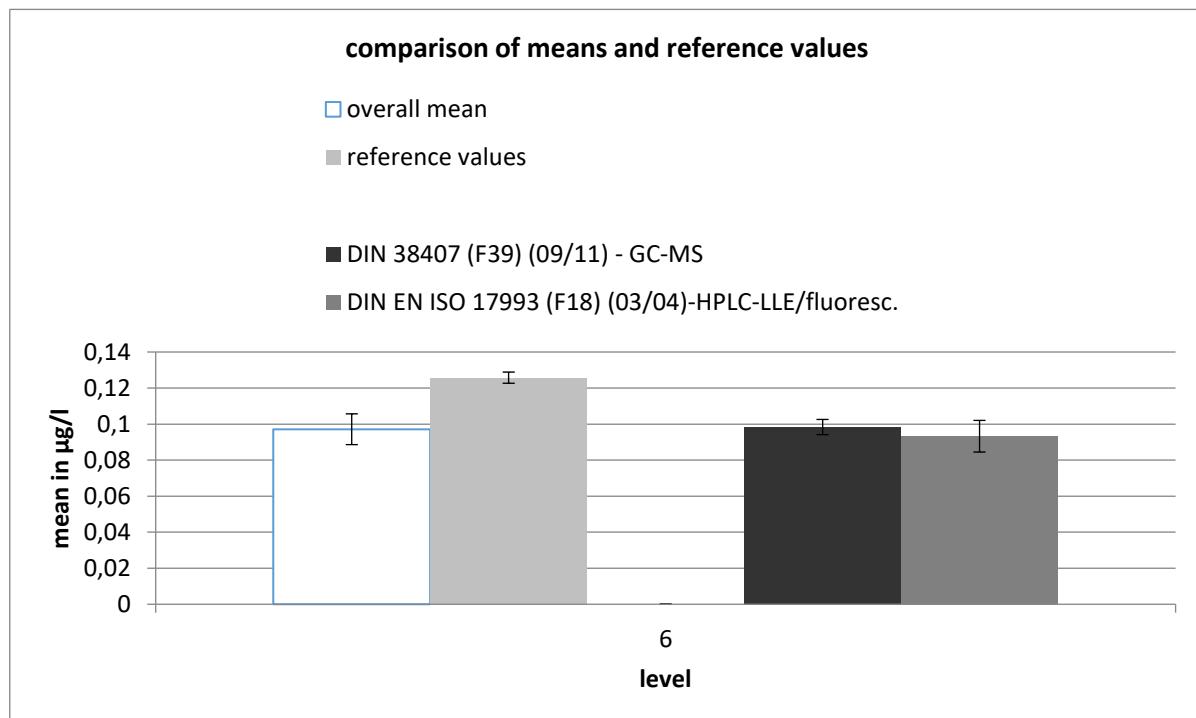
**comparison of means and reference values**

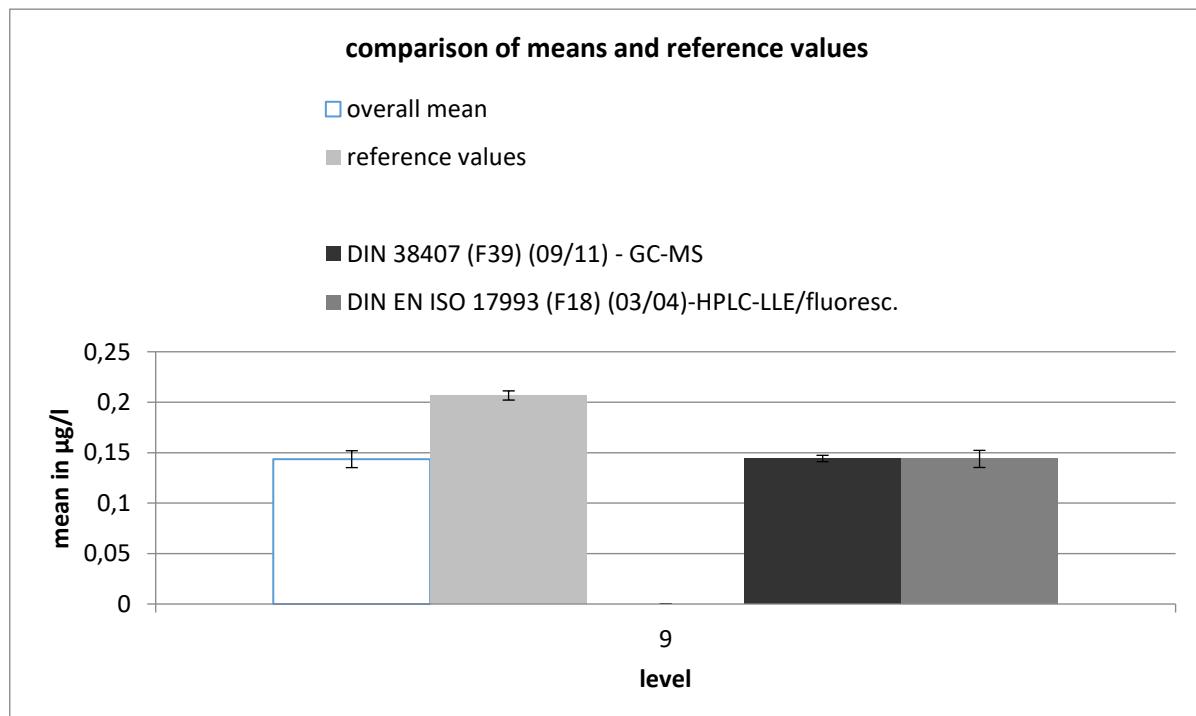
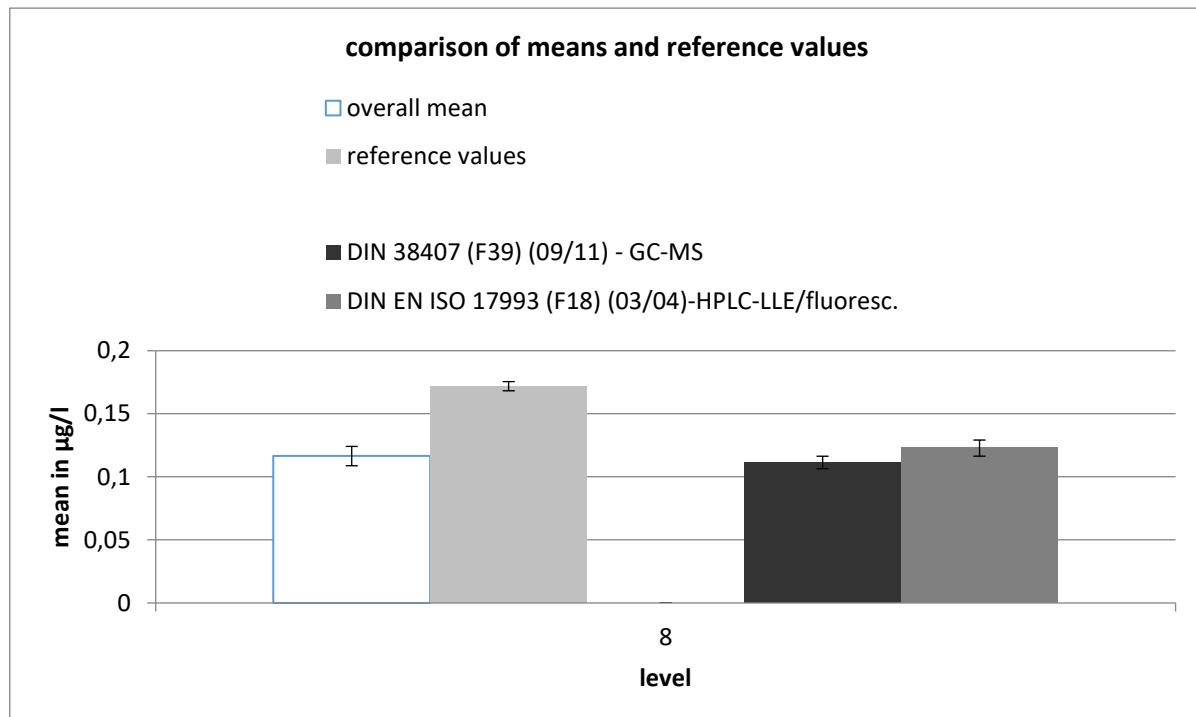
□ overall mean  
 reference values  
 DIN 38407 (F39) (09/11) - GC-MS  
 DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

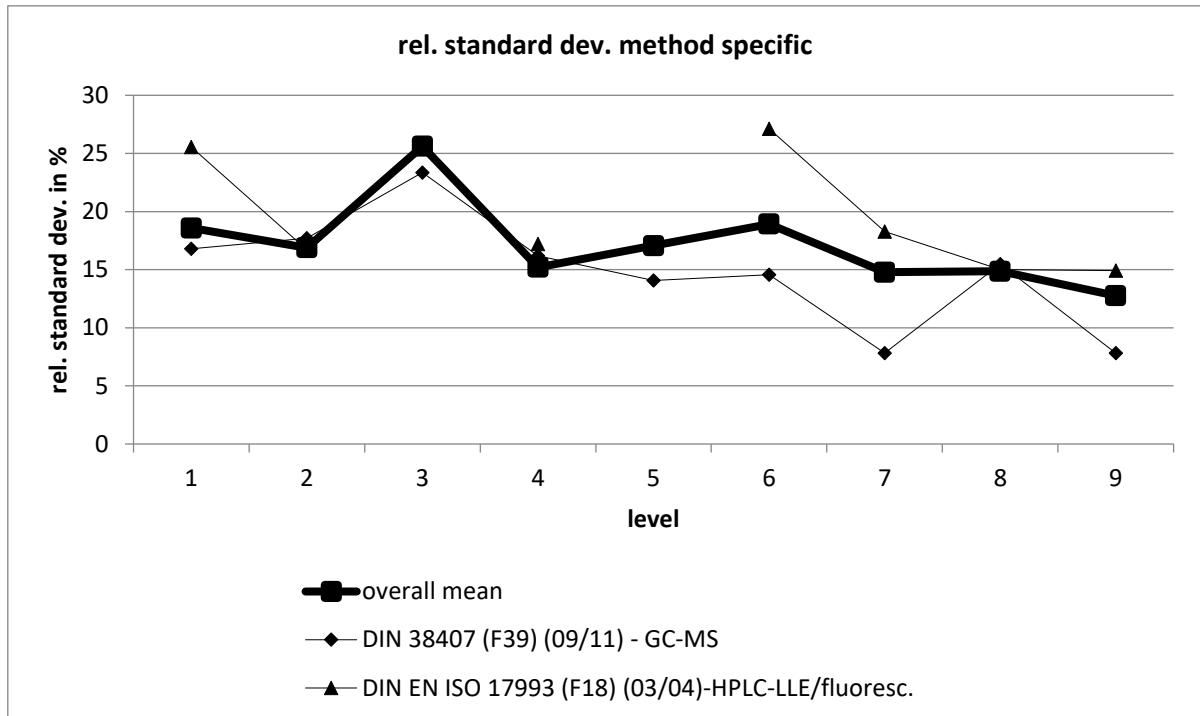












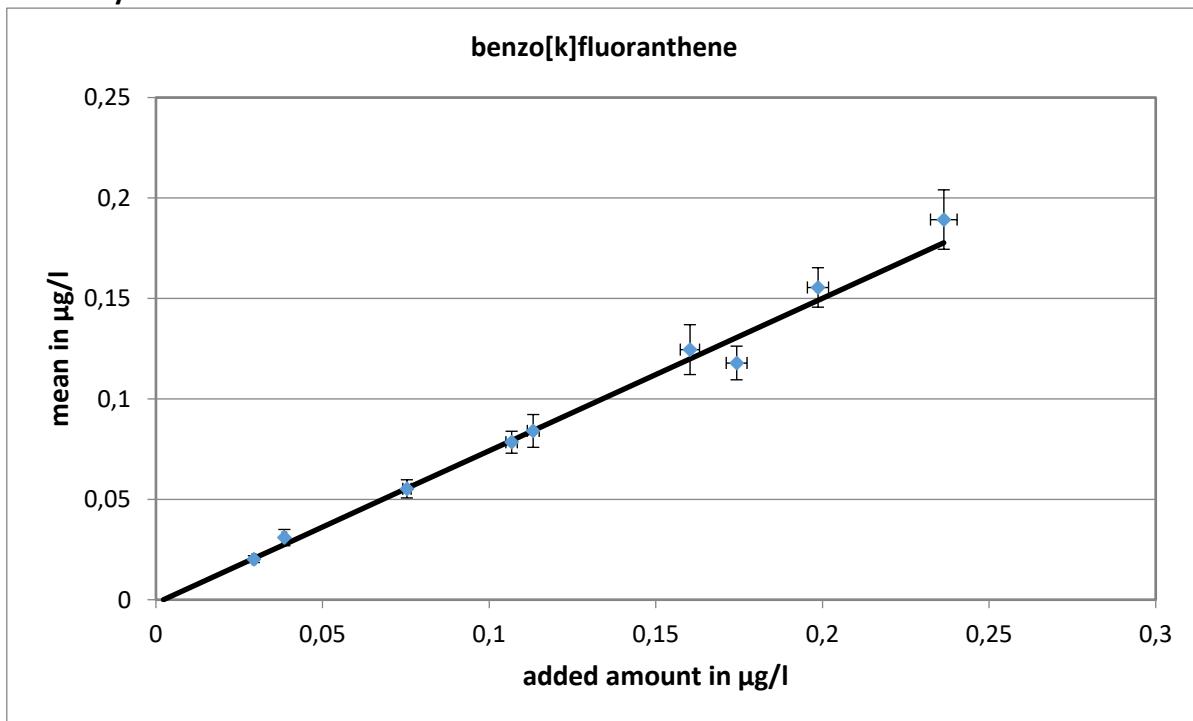
DIN 38407 (F39) (09/11) - GC-MS									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0211	0,0011	5,0952	0,0035	16,807	17	0	1	5,882
2	0,0293	0,0015	5,2178	0,0052	17,71	18	1	1	11,11
3	0,0501	0,003	5,9597	0,0117	23,357	24	1	2	12,5
4	0,0678	0,0033	4,9119	0,011	16,202	17	0	1	5,882
5	0,079	0,0029	3,6688	0,0111	14,076	23	4	1	21,74
6	0,0984	0,0042	4,2878	0,0143	14,553	18	0	0	0
7	0,1109	0,0025	2,245	0,0087	7,8286	19	5	1	31,58
8	0,1114	0,0049	4,4404	0,0173	15,484	19	1	0	5,263
9	0,1442	0,0032	2,1889	0,0113	7,8313	20	1	0	5

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0198	0,0017	8,5401	0,0051	25,563	14	0	1	7,143
2	0,0289	0,0017	6,0283	0,0048	16,706	12	1	0	8,333
4	0,0683	0,0037	5,3772	0,0117	17,207	16	0	1	6,25
6	0,0933	0,0088	9,4034	0,0253	27,124	13	1	0	7,692
7	0,1041	0,0064	6,1108	0,019	18,292	14	1	0	7,143
8	0,1228	0,0064	5,2038	0,0184	15,01	13	1	0	7,692
9	0,1438	0,0085	5,8965	0,0215	14,917	10	2	0	20

# benzo[k]fluoranthene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]	
1	0,0202	8,33	0,0037	0,0047	0,0047	23,13	0,0309	0,0117	52,98	-42,07	31	1	0	3,2	
2	0,0309	13,12	0,0093	0,0067	0,0067	21,68	0,0461	0,0187	49,16	-39,61	33	3	3	18,2	
3	0,0552	8,21	0,0099	0,0110	0,0110	19,84	0,0797	0,0351	44,46	-36,48	30	2	0	6,5	
4	0,0784	6,96	0,0125	0,0147	0,0147	18,80	0,1112	0,0512	41,86	-34,70	33	1	0	2,9	
5	0,0840	9,72	0,0182	0,0156	0,0156	18,61	0,1188	0,0552	41,36	-34,36	31	4	1	16,1	
6	0,1245	9,98	0,0272	0,0218	0,0218	17,52	0,1727	0,0841	38,69	-32,49	30	3	1	13,3	
7	0,1179	7,12	0,0187	0,0208	0,0208	17,67	0,1639	0,0793	39,05	-32,74	31	3	0	9,7	
8	0,1555	6,31	0,0222	0,0263	0,0263	16,94	0,2134	0,1065	37,26	-31,47	32	2	0	6,3	
9	0,1893	7,81	0,0329	0,0311	0,0311	16,44	0,2575	0,1313	36,04	-30,60	31	3	1	12,9	
											sum	282	22	6	9,9

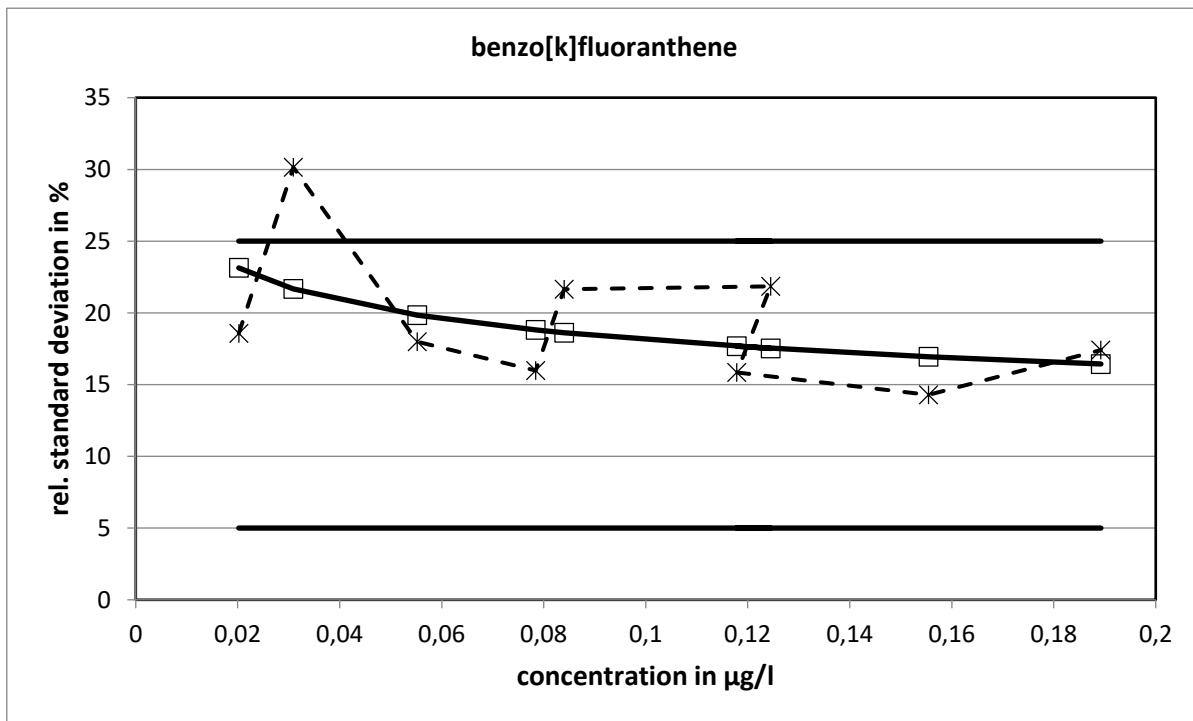
## Recovery and matrix content



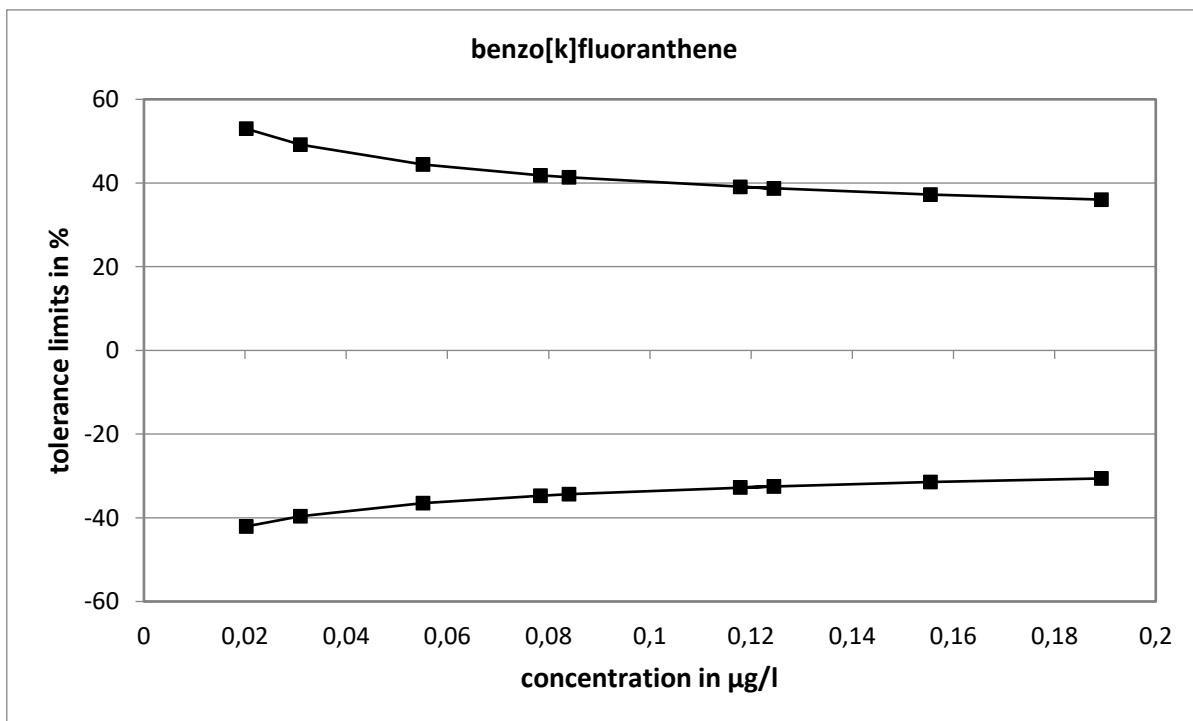
slope of the regression: 0,759; recovery rate: 75,9 %

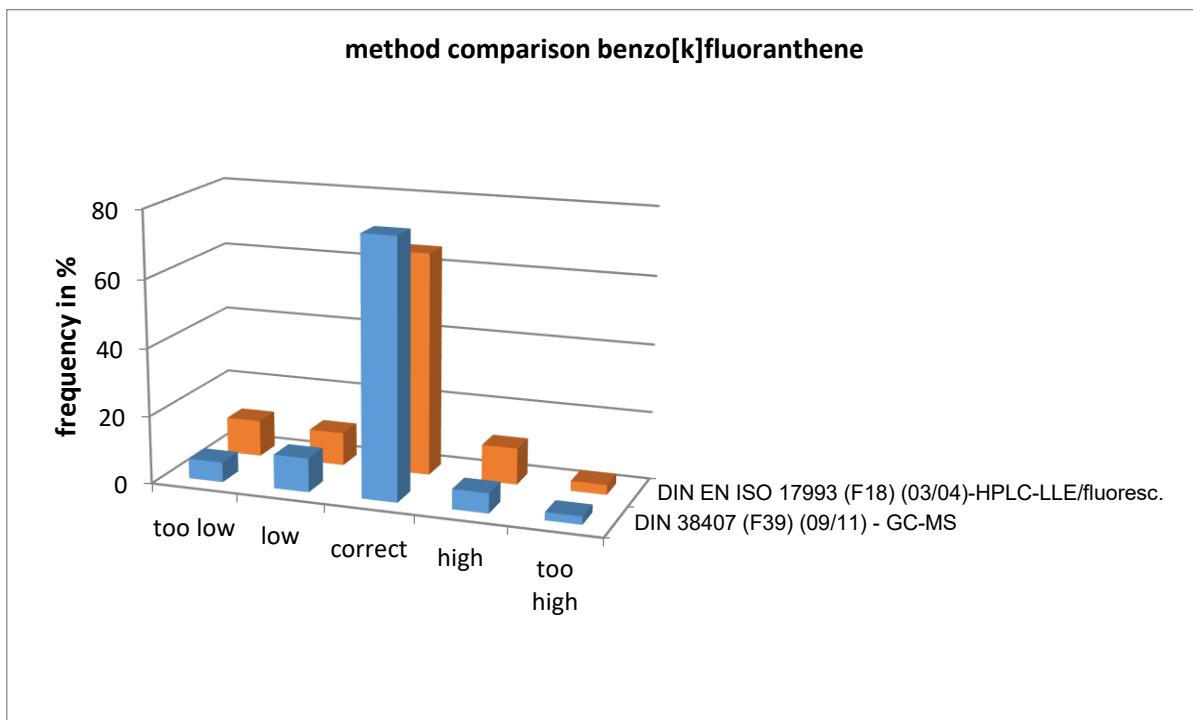
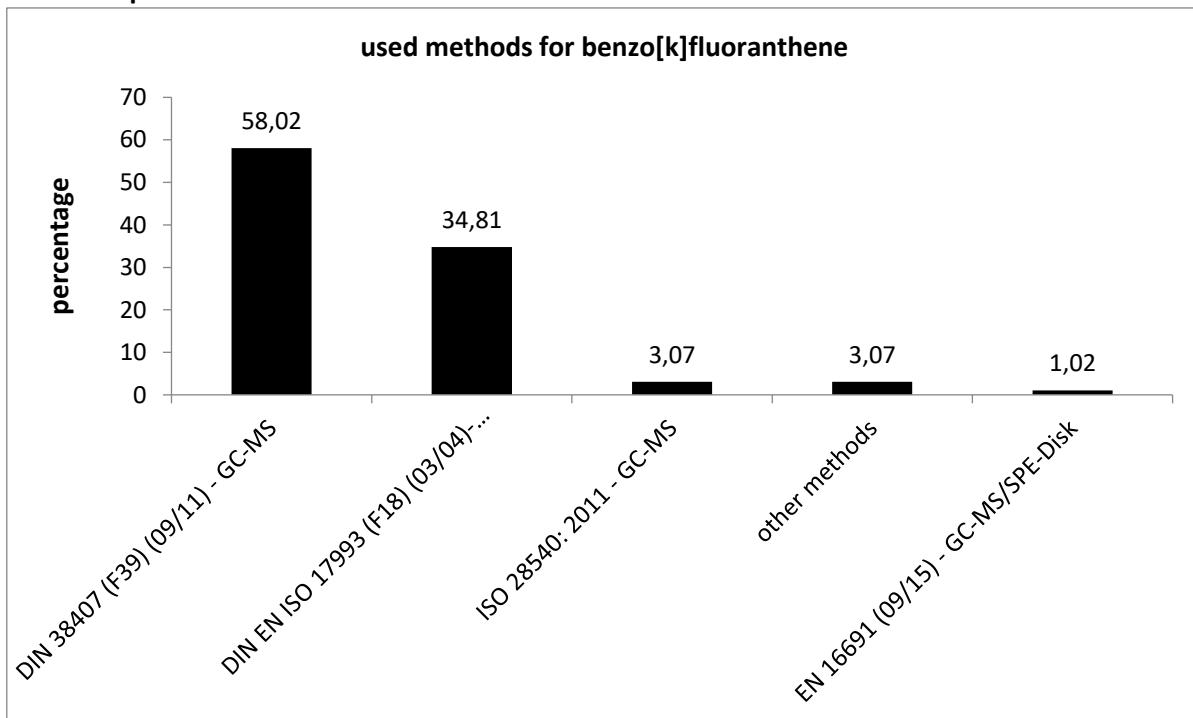
neg. x-intercept corresponds to the matrix content: 0  $\mu\text{g/l}$

expand uncertainty of the matrix content: 0,0023  $\mu\text{g/l}$  = 0 %

**Relative standard deviation and tolerance limits**

The relative standard deviations calculated from the variance function did not reach the limits.



**Method specific evaluation**

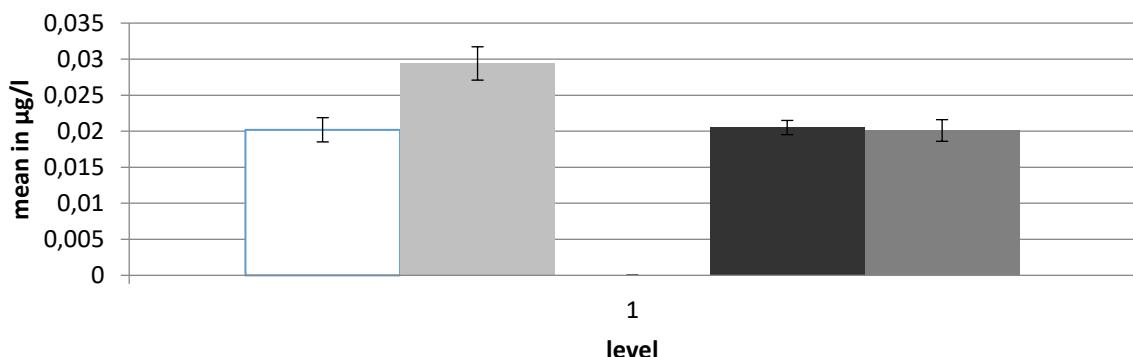
The differences between the methods were not significant.

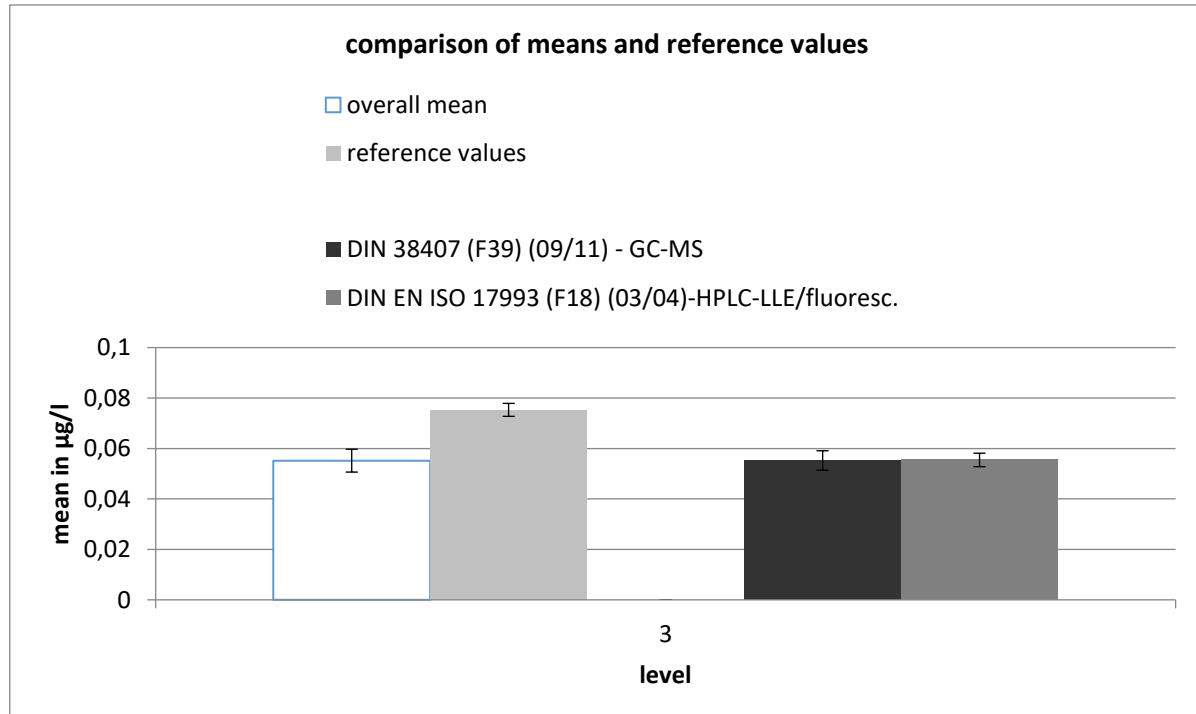
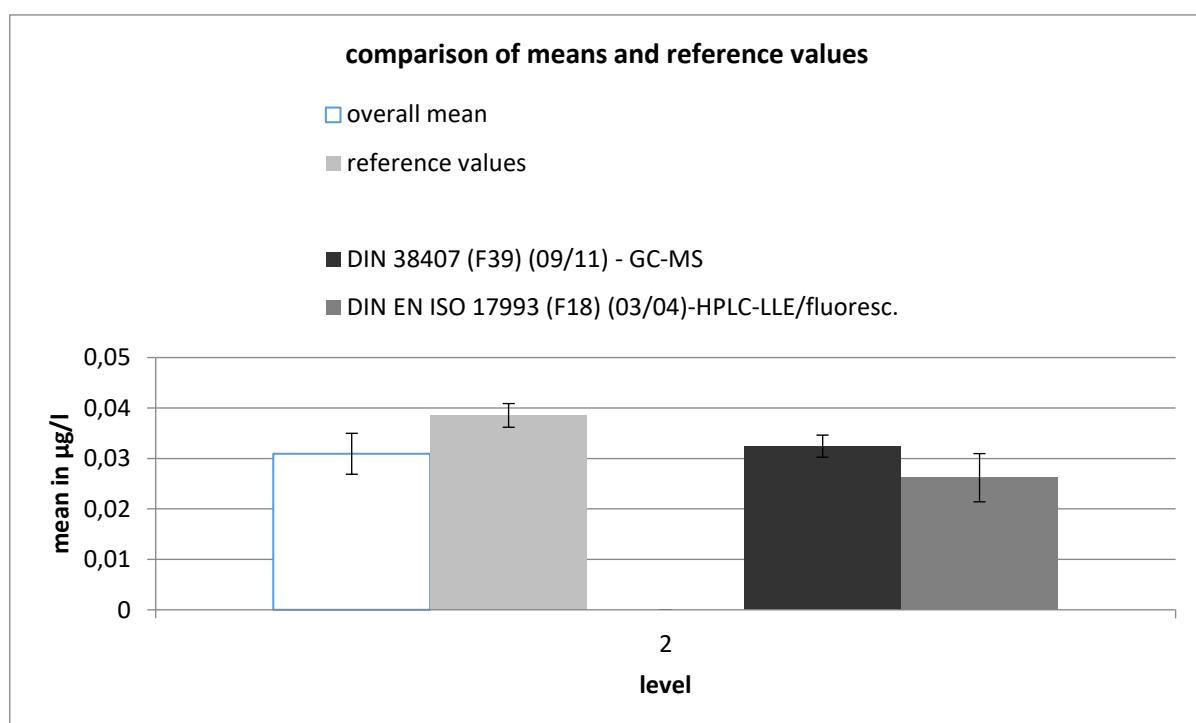
**Comparison of means and reference values**

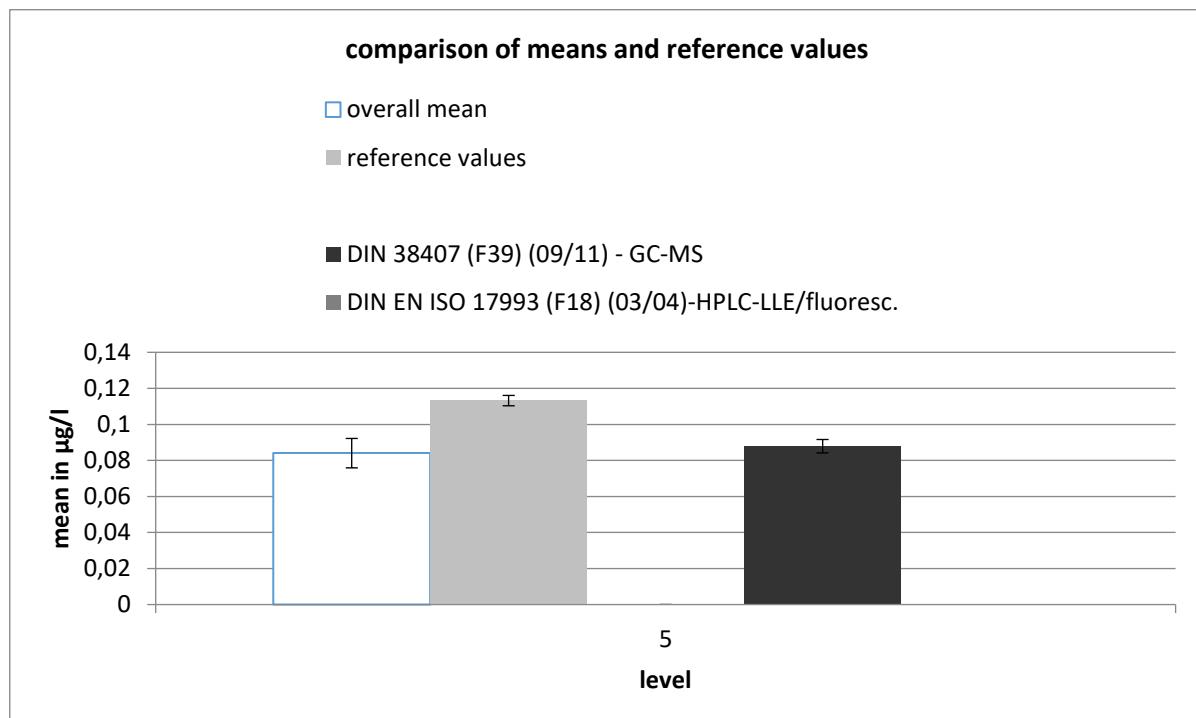
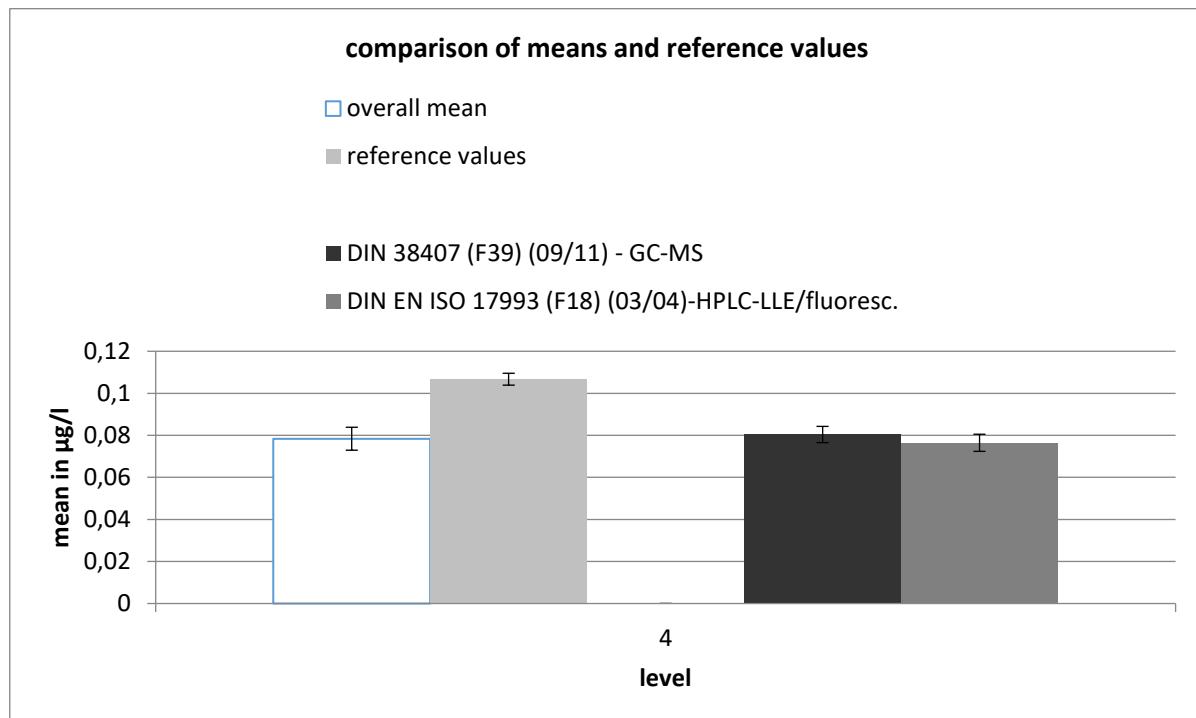
level	mean [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0202	0,0017	8,3	0,0294	0,0023
2	0,0309	0,0041	13,1	0,0385	0,0023
3	0,0552	0,0045	8,2	0,0753	0,0026
4	0,0784	0,0055	7,0	0,1067	0,0028
5	0,0840	0,0082	9,7	0,1132	0,0029
6	0,1245	0,0124	10,0	0,1602	0,0037
7	0,1179	0,0084	7,1	0,1742	0,0038
8	0,1555	0,0098	6,3	0,1986	0,0039
9	0,1893	0,0148	7,8	0,2364	0,0046

**comparison of means and reference values**

□ overall mean  
 reference values  
  
■ DIN 38407 (F39) (09/11) - GC-MS  
■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.







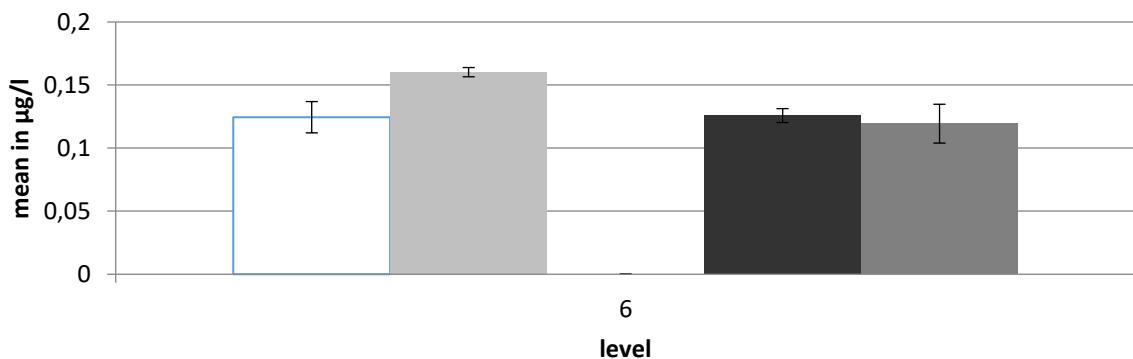
**comparison of means and reference values**

□ overall mean

■ reference values

■ DIN 38407 (F39) (09/11) - GC-MS

■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.



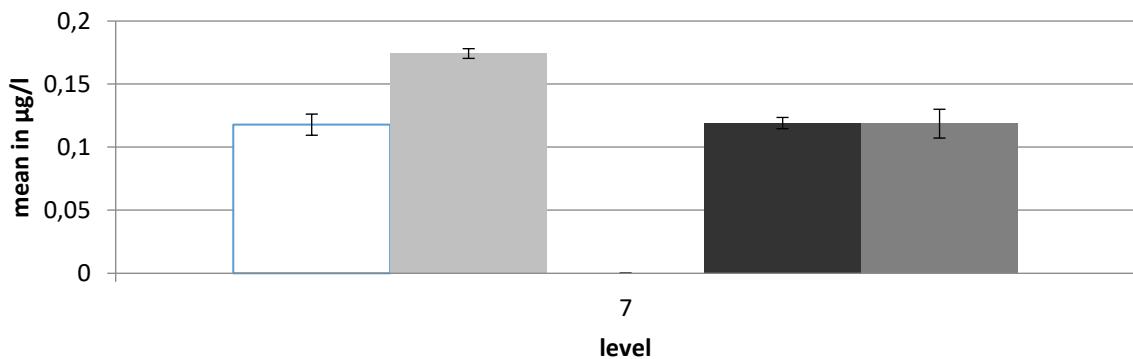
**comparison of means and reference values**

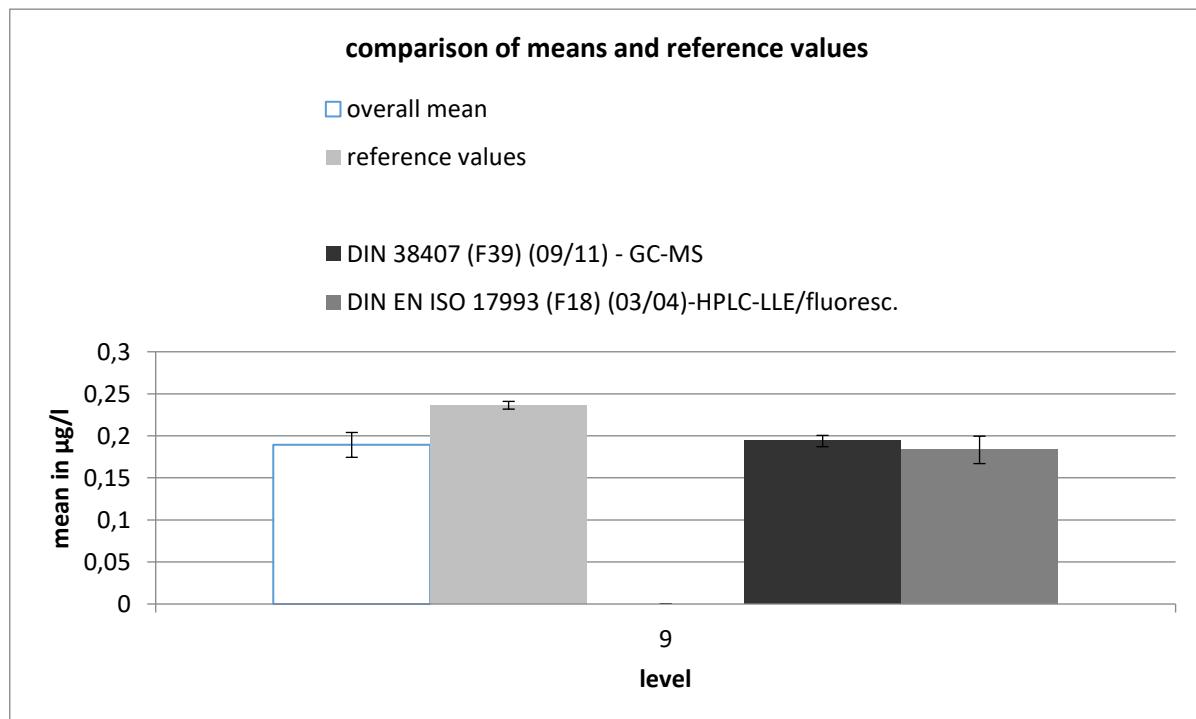
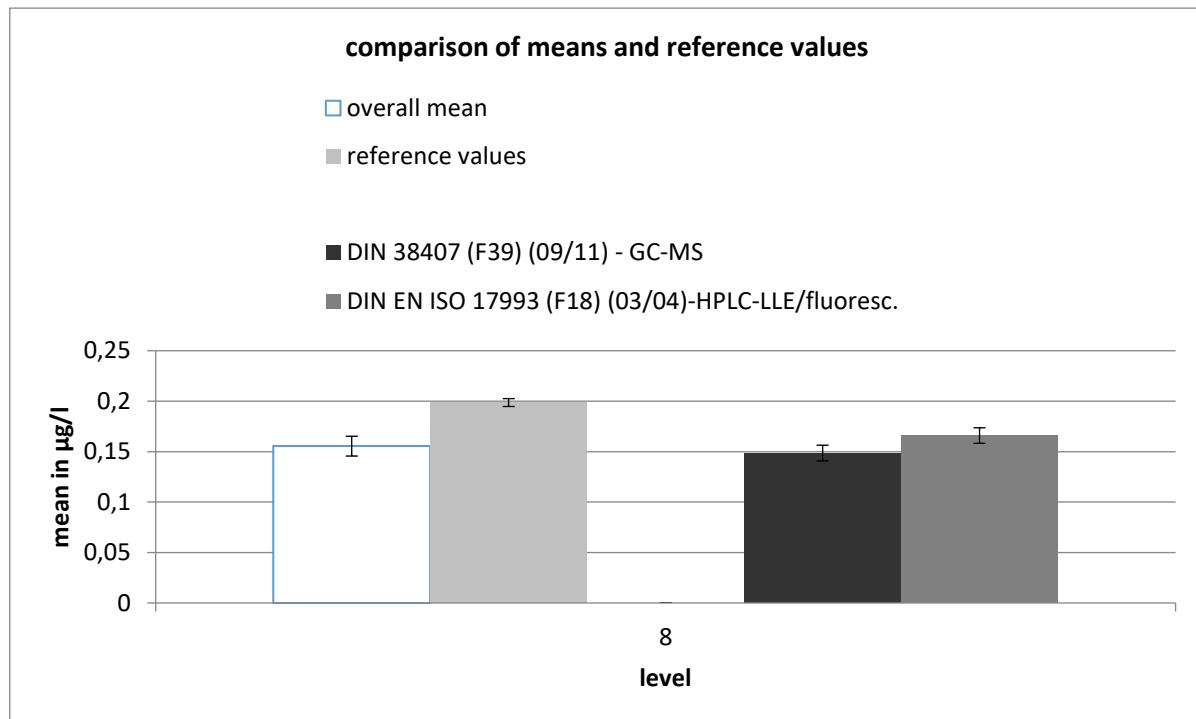
□ overall mean

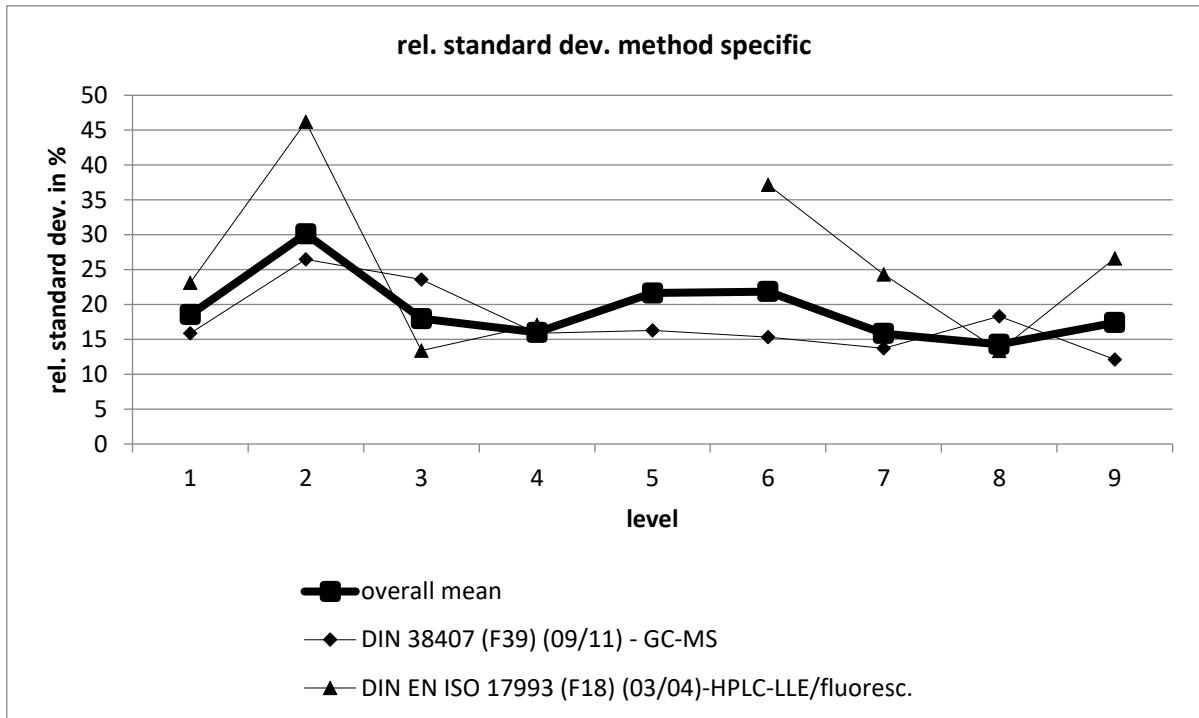
■ reference values

■ DIN 38407 (F39) (09/11) - GC-MS

■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.







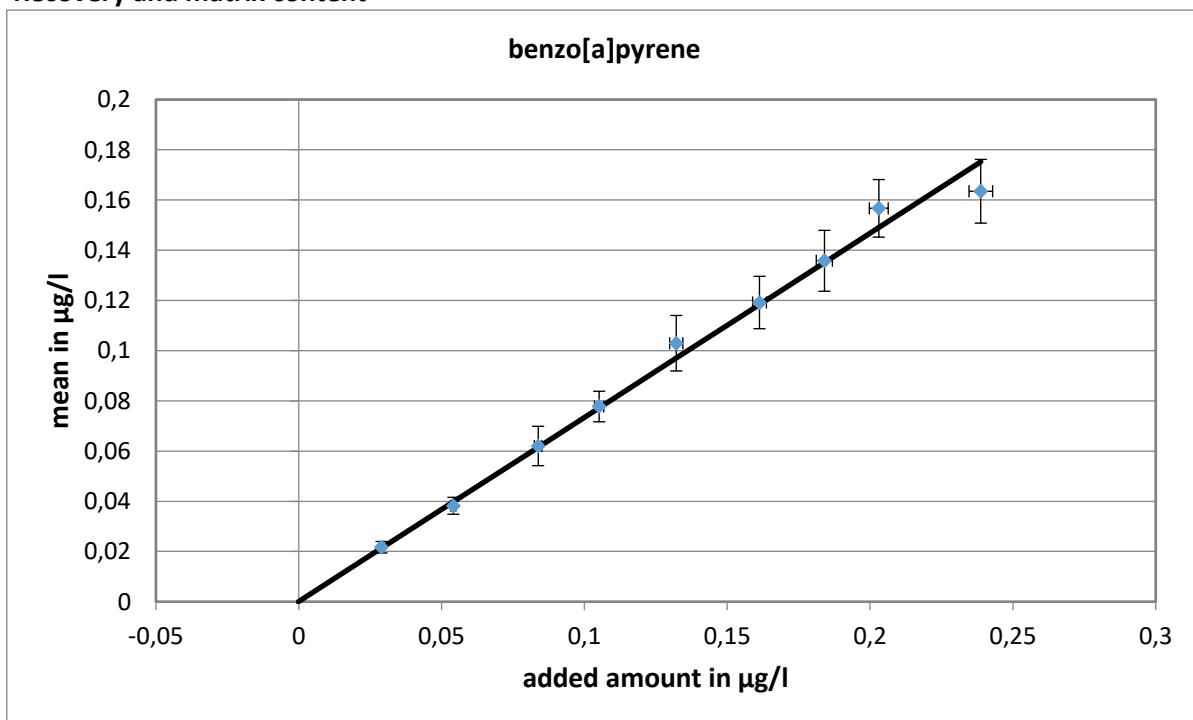
DIN 38407 (F39) (09/11) - GC-MS									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0205	0,001	4,8117	0,0033	15,871	17	0	1	5,882
2	0,0324	0,0022	6,7554	0,0086	26,476	24	1	2	12,5
3	0,0553	0,0038	6,953	0,013	23,599	18	1	0	5,556
4	0,0804	0,0039	4,8113	0,0128	15,87	17	0	0	0
5	0,0879	0,0037	4,2468	0,0143	16,294	23	4	0	17,39
6	0,1258	0,0055	4,3923	0,0193	15,317	19	1	0	5,263
7	0,1191	0,0045	3,7478	0,0164	13,739	21	1	0	4,762
8	0,1486	0,0078	5,2468	0,0272	18,296	19	1	0	5,263
9	0,1938	0,0067	3,4754	0,0235	12,119	19	3	0	15,79

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0201	0,0015	7,4654	0,0046	23,131	15	1	1	13,33
2	0,0262	0,0048	18,259	0,0121	46,193	10	0	0	0
3	0,0555	0,0027	4,8365	0,0074	13,403	12	2	0	16,67
4	0,0765	0,0041	5,328	0,013	17,05	16	0	1	6,25
6	0,1194	0,0154	12,885	0,0444	37,165	13	1	0	7,692
7	0,1187	0,0114	9,6108	0,0288	24,314	10	1	0	10
8	0,1659	0,0077	4,6366	0,0222	13,374	13	2	0	15,38
9	0,1833	0,0163	8,8962	0,0488	26,629	14	1	0	7,143

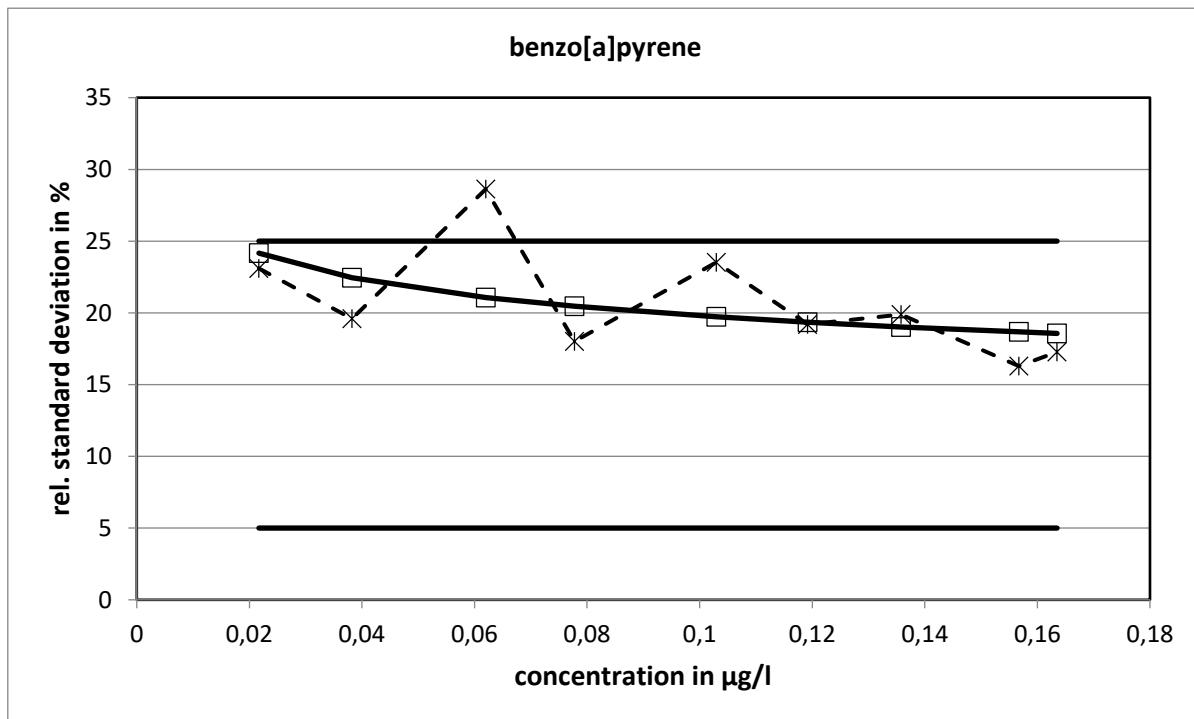
# benzo[a]pyrene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]
1	0,0217	10,55	0,0050	0,0052	0,0052	24,16	0,0338	0,0122	55,72	-43,79	30	2	0	6,5
2	0,0382	8,80	0,0075	0,0086	0,0086	22,44	0,0578	0,0226	51,16	-40,90	31	1	2	9,7
3	0,0620	12,65	0,0178	0,0131	0,0131	21,07	0,0915	0,0381	47,59	-38,57	32	3	1	12,5
4	0,0777	7,83	0,0140	0,0159	0,0159	20,46	0,1135	0,0486	46,02	-37,53	33	1	0	2,9
5	0,1030	10,74	0,0242	0,0203	0,0203	19,72	0,1484	0,0656	44,15	-36,27	30	2	1	10,0
6	0,1192	8,76	0,0229	0,0231	0,0231	19,35	0,1707	0,0767	43,21	-35,64	30	3	1	13,3
7	0,1358	8,92	0,0270	0,0258	0,0258	19,02	0,1934	0,0882	42,40	-35,07	31	1	1	6,5
8	0,1567	7,32	0,0255	0,0293	0,0293	18,67	0,2217	0,1027	41,52	-34,47	31	3	0	9,7
9	0,1635	7,76	0,0282	0,0304	0,0304	18,57	0,2309	0,1074	41,26	-34,29	31	3	0	9,7
									sum	279	19	6	9,0	

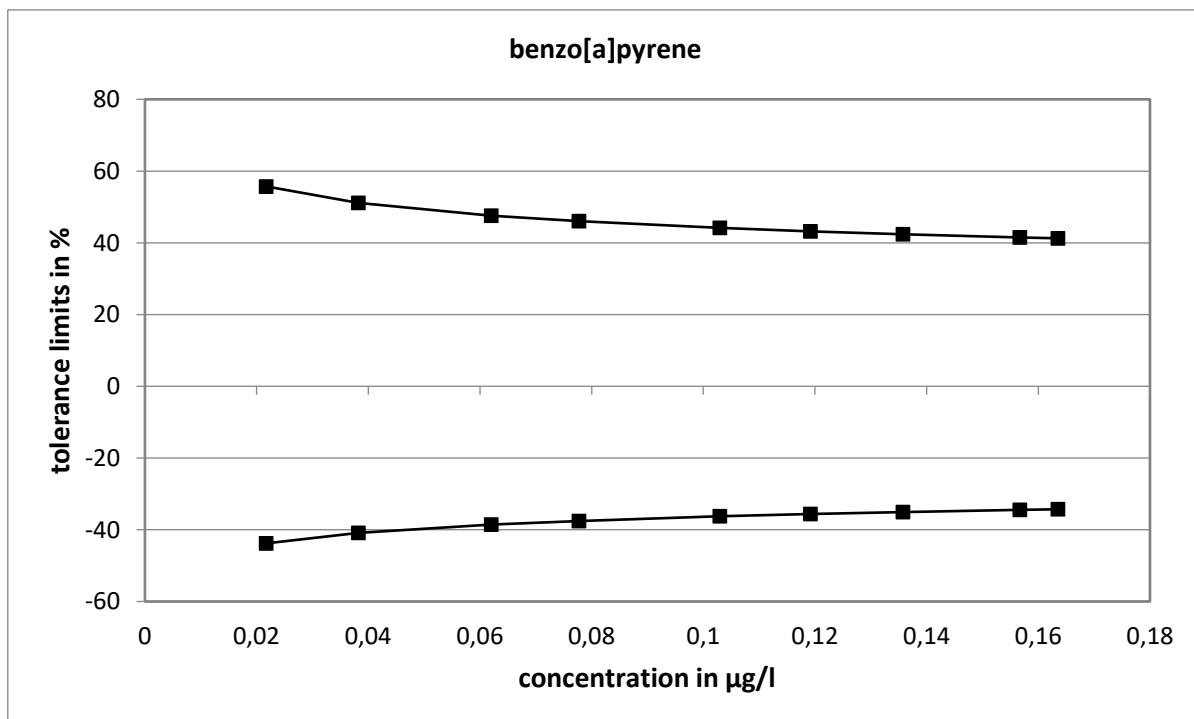
## Recovery and matrix content

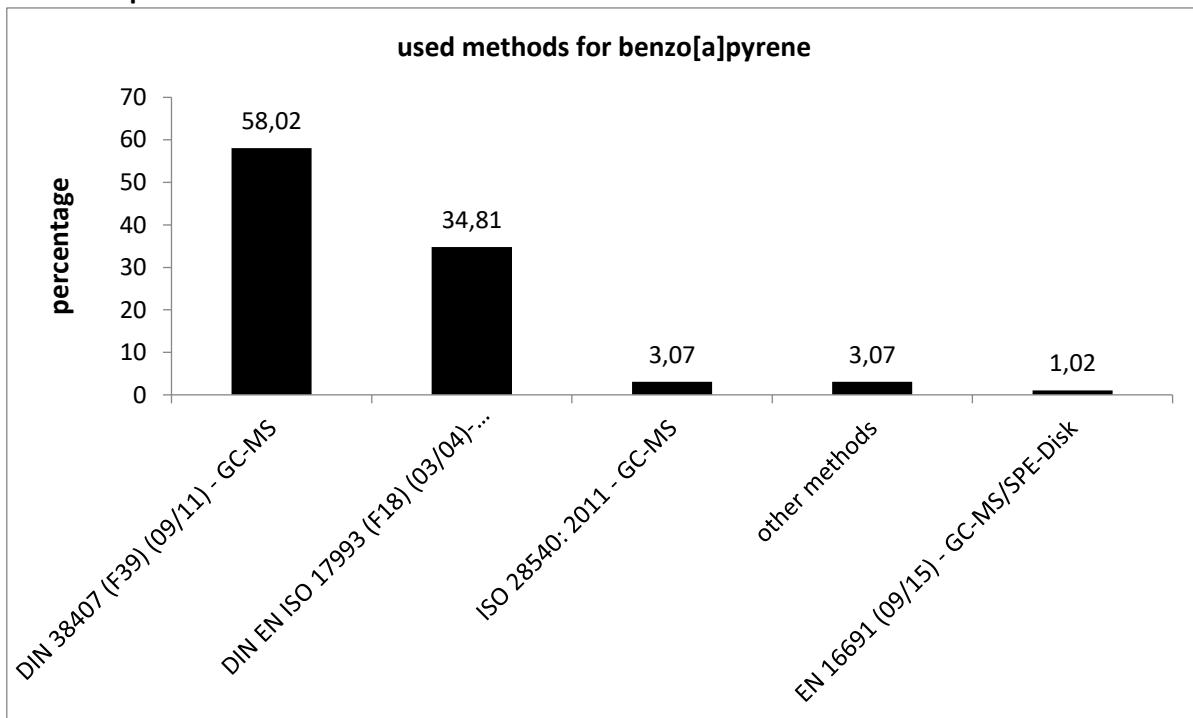
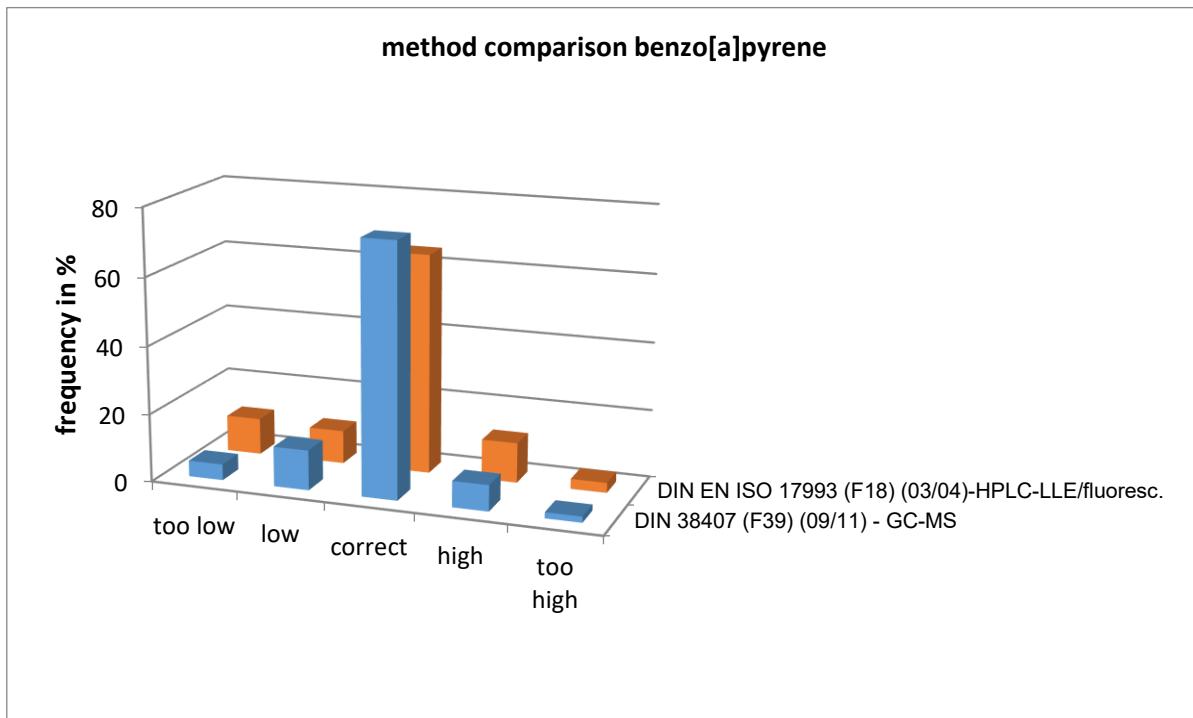


slope of the regression: 0,733; recovery rate: 73,3 %  
neg. x-intercept corresponds to the matrix content: 0,00013  $\mu\text{g/l}$   
expand uncertainty of the matrix content: 0,0001  $\mu\text{g/l}$  = 76,9 %

**Relative standard deviation and tolerance limits**

The relative standard deviations calculated from the variance function did not reach the limits.



**Method specific evaluation****method comparison benzo[a]pyrene**

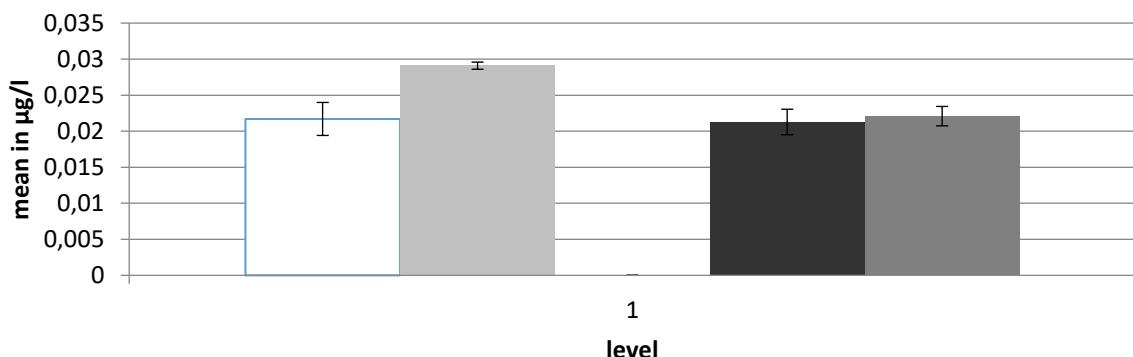
The values determined with GC-MS showed the closest statistical distribution.

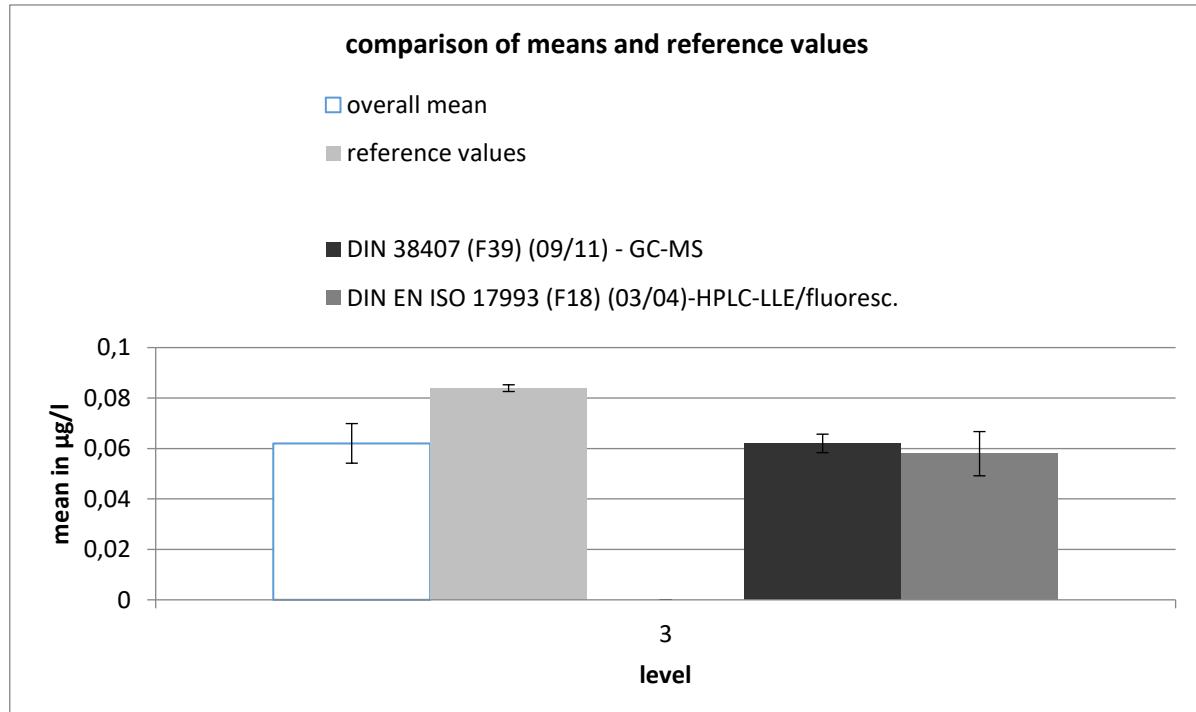
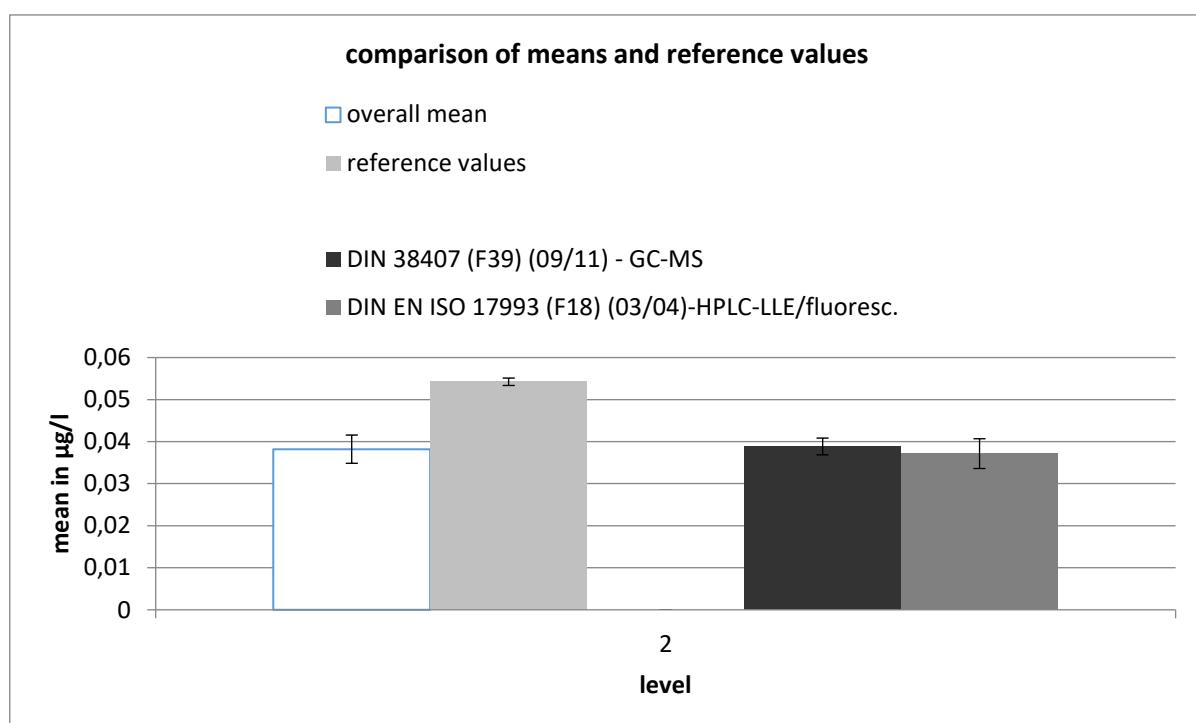
**Comparison of means and reference values**

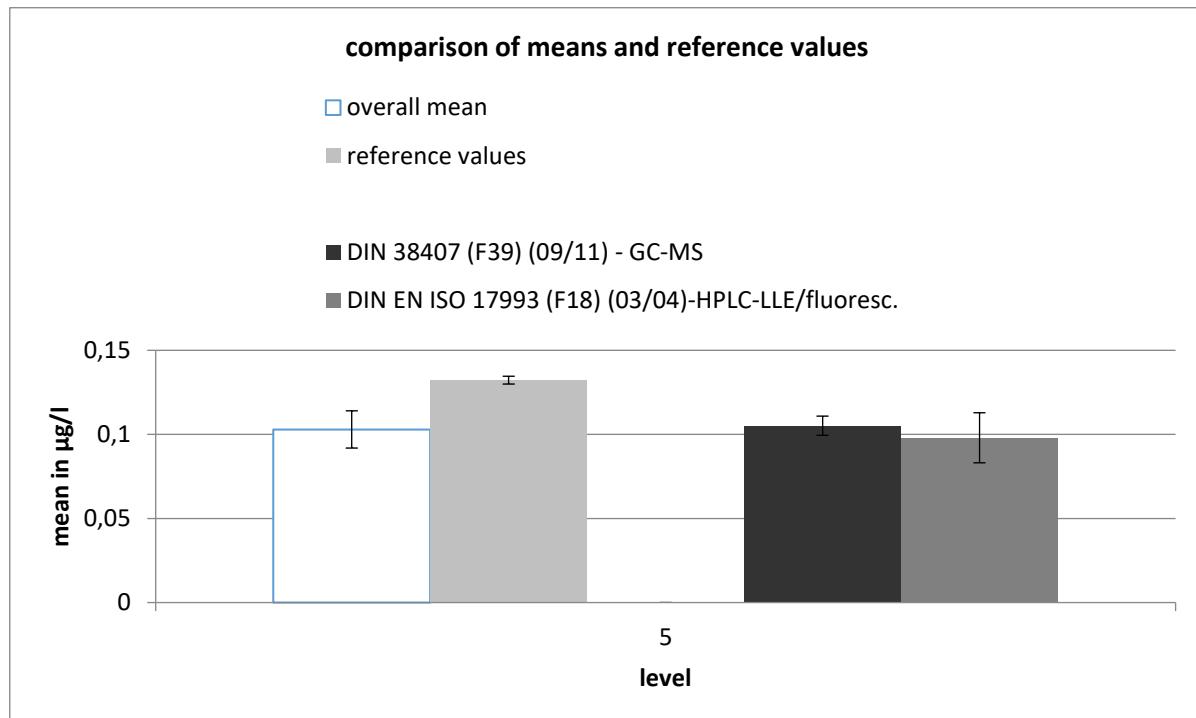
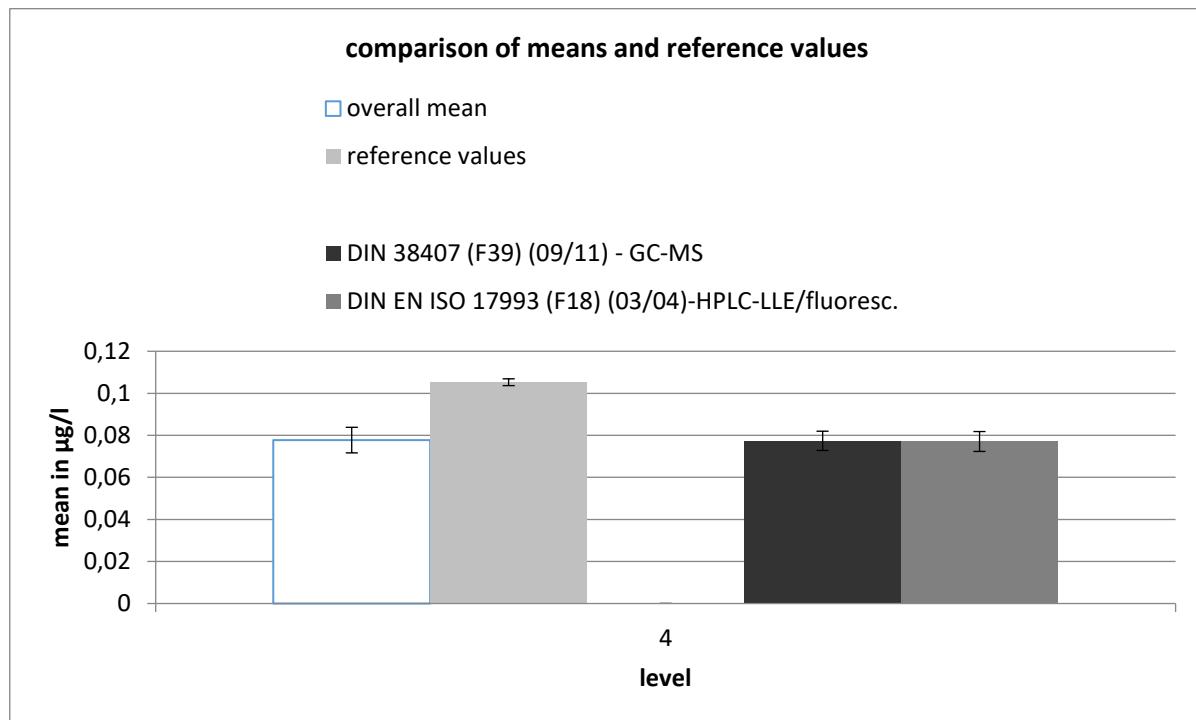
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0217	0,0023	10,5	0,0291	0,0005	1,7
2	0,0382	0,0034	8,8	0,0542	0,0009	1,6
3	0,0620	0,0078	12,6	0,0839	0,0013	1,6
4	0,0777	0,0061	7,8	0,1053	0,0016	1,5
5	0,1030	0,0111	10,7	0,1323	0,0023	1,8
6	0,1192	0,0104	8,8	0,1614	0,0024	1,5
7	0,1358	0,0121	8,9	0,1841	0,0028	1,5
8	0,1567	0,0115	7,3	0,2032	0,0033	1,6
9	0,1635	0,0127	7,8	0,2389	0,0041	1,7

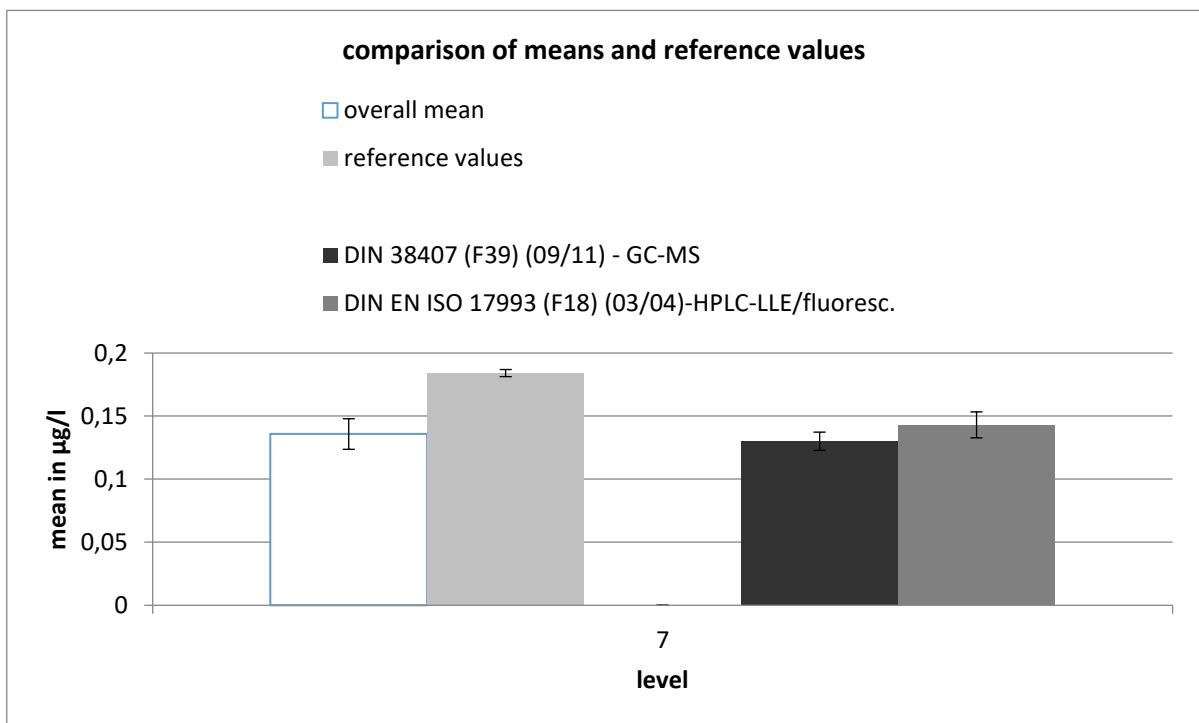
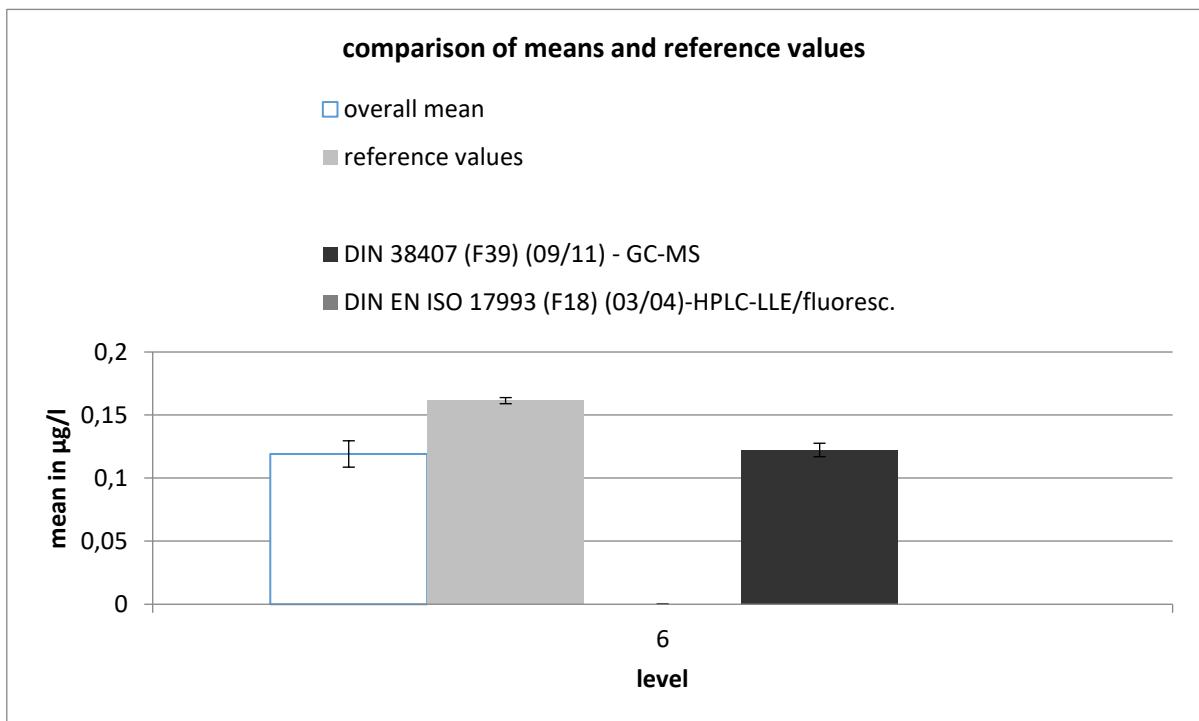
**comparison of means and reference values**

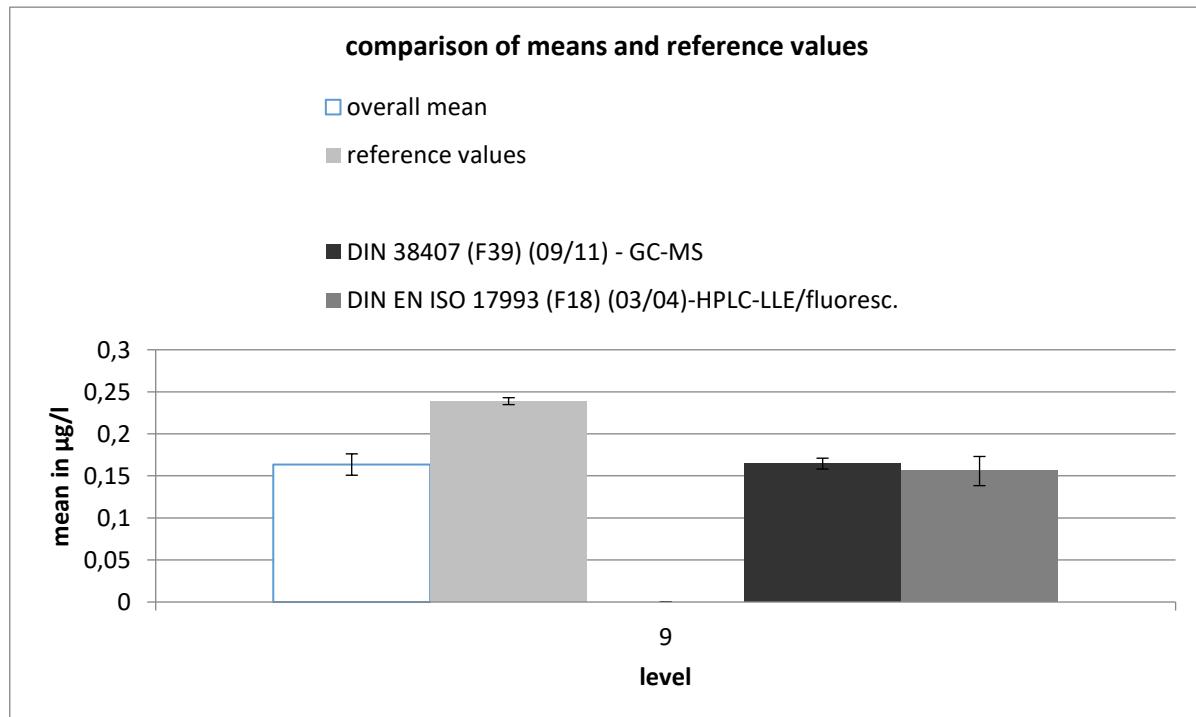
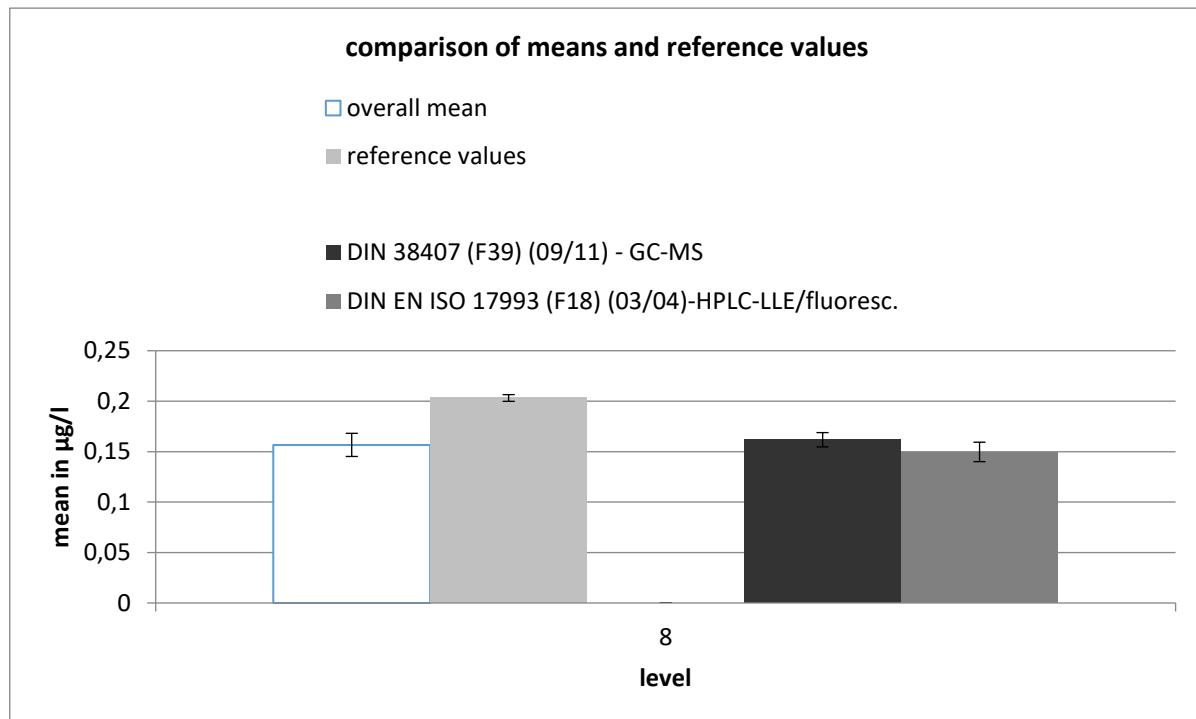
□ overall mean  
■ reference values  
■ DIN 38407 (F39) (09/11) - GC-MS  
■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

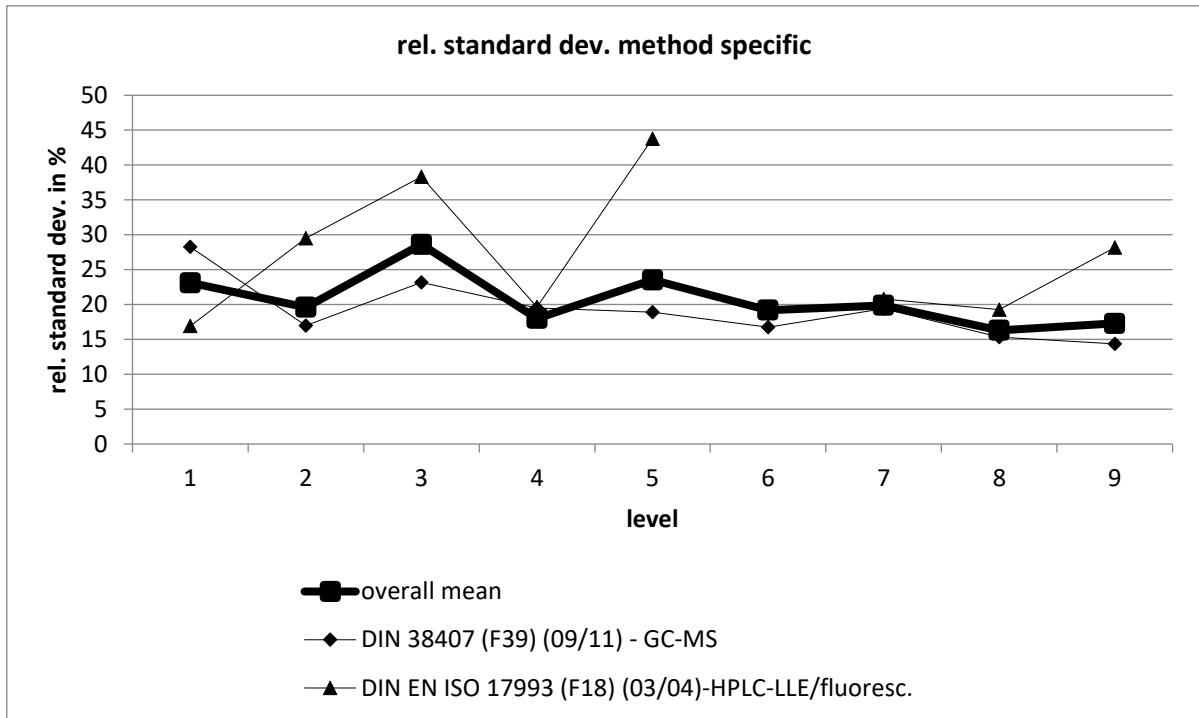












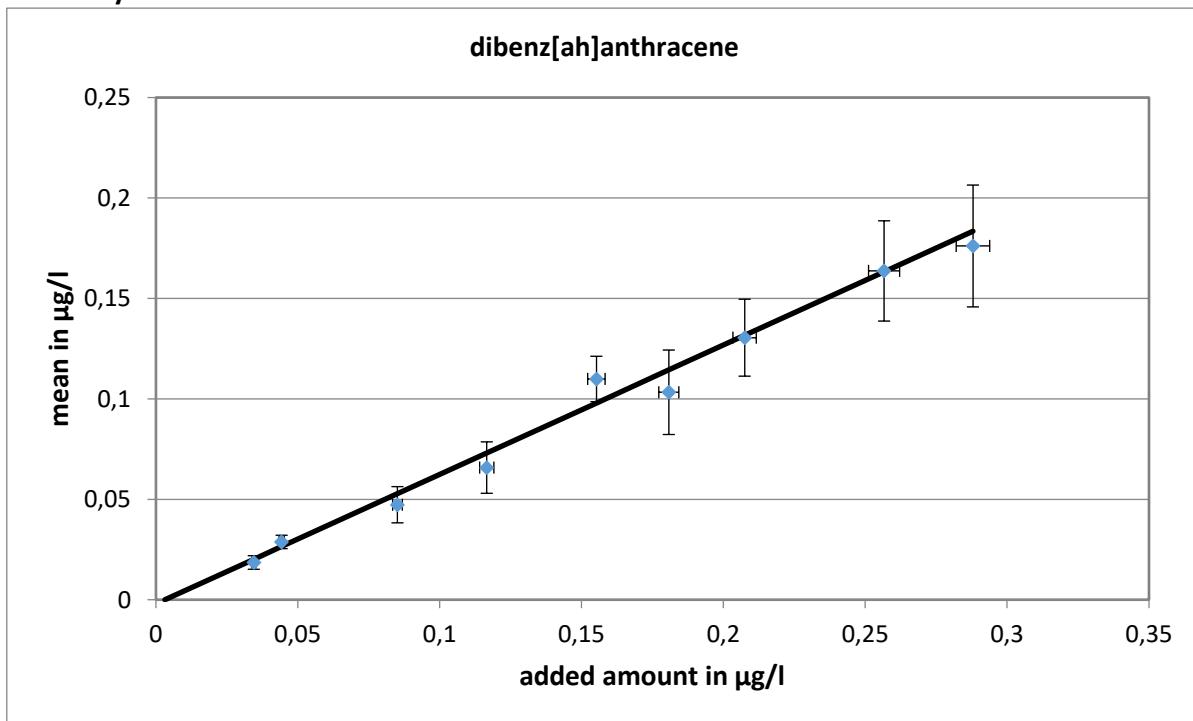
DIN 38407 (F39) (09/11) - GC-MS									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0213	0,0018	8,3249	0,006	28,256	18	1	0	5,556
2	0,0388	0,002	5,1485	0,0066	16,982	17	0	1	5,882
3	0,062	0,0037	5,9111	0,0144	23,167	24	1	1	8,333
4	0,0774	0,0046	5,9096	0,0151	19,493	17	0	0	0
5	0,1052	0,0057	5,4261	0,0199	18,921	19	1	0	5,263
6	0,1223	0,0053	4,3618	0,0205	16,735	23	4	1	21,74
7	0,1301	0,0072	5,571	0,0253	19,427	19	0	0	0
8	0,1618	0,0071	4,3927	0,0248	15,318	19	3	1	21,05
9	0,1646	0,0064	3,9166	0,0236	14,358	21	1	0	4,762

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0221	0,0013	6,1022	0,0037	16,911	12	0	1	8,333
2	0,0371	0,0035	9,5283	0,011	29,522	15	0	2	13,33
3	0,0579	0,0088	15,142	0,0222	38,306	10	1	0	10
4	0,0771	0,0047	6,1404	0,0151	19,649	16	0	1	6,25
5	0,098	0,0149	15,184	0,0429	43,798	13	1	1	15,38
7	0,143	0,0103	7,2078	0,0297	20,79	13	2	1	23,08
8	0,1497	0,0096	6,4373	0,0288	19,269	14	1	1	14,29
9	0,1558	0,0174	11,143	0,0439	28,189	10	0	0	0

# dibenz[ah]anthracene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]
1	0,0185	18,20	0,0074	0,0065	0,0046	25,00	0,0293	0,0102	57,99	-45,19	30	4	3	22,6
2	0,0288	11,60	0,0071	0,0100	0,0072	25,00	0,0454	0,0158	57,99	-45,19	28	3	1	14,3
3	0,0473	19,08	0,0191	0,0161	0,0118	25,00	0,0747	0,0259	57,99	-45,19	28	3	0	10,7
4	0,0658	19,45	0,0271	0,0222	0,0164	25,00	0,1039	0,0361	57,99	-45,19	28	3	2	17,9
5	0,1099	10,28	0,0252	0,0366	0,0275	25,00	0,1736	0,0602	57,99	-45,19	31	2	0	6,5
6	0,1033	20,37	0,0437	0,0344	0,0258	25,00	0,1632	0,0566	57,99	-45,19	27	5	2	25,9
7	0,1305	14,68	0,0413	0,0432	0,0326	25,00	0,2061	0,0715	57,99	-45,19	29	4	0	13,8
8	0,1637	15,24	0,0509	0,0538	0,0409	25,00	0,2586	0,0897	57,99	-45,19	26	3	0	11,5
9	0,1761	17,23	0,0654	0,0577	0,0440	25,00	0,2782	0,0965	57,99	-45,19	29	3	2	16,7
														sum    256    30    10    15,6

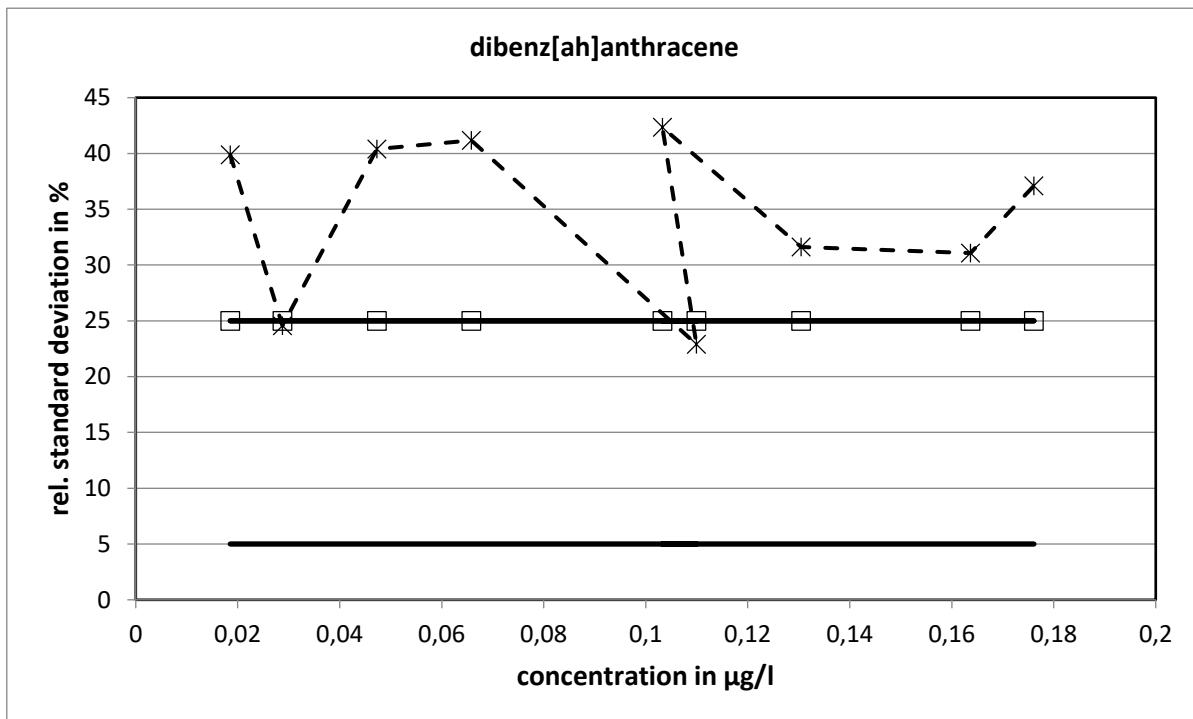
## Recovery and matrix content



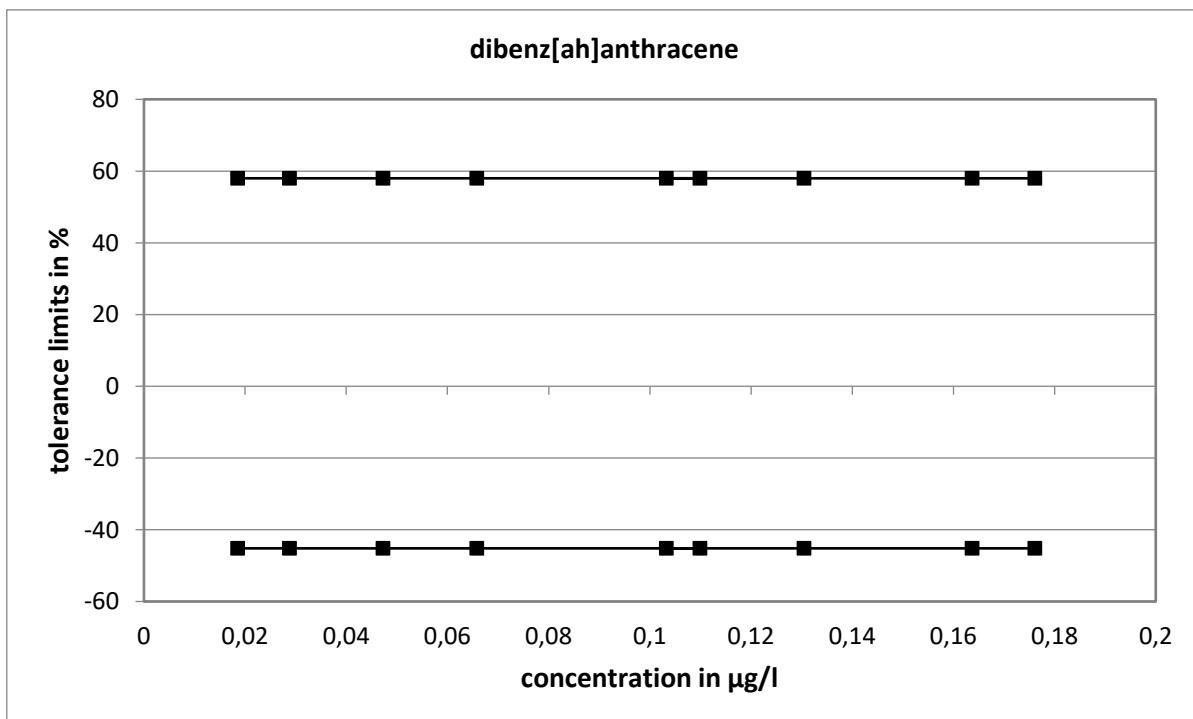
slope of the regression: 0,644; recovery rate: 64,4 %

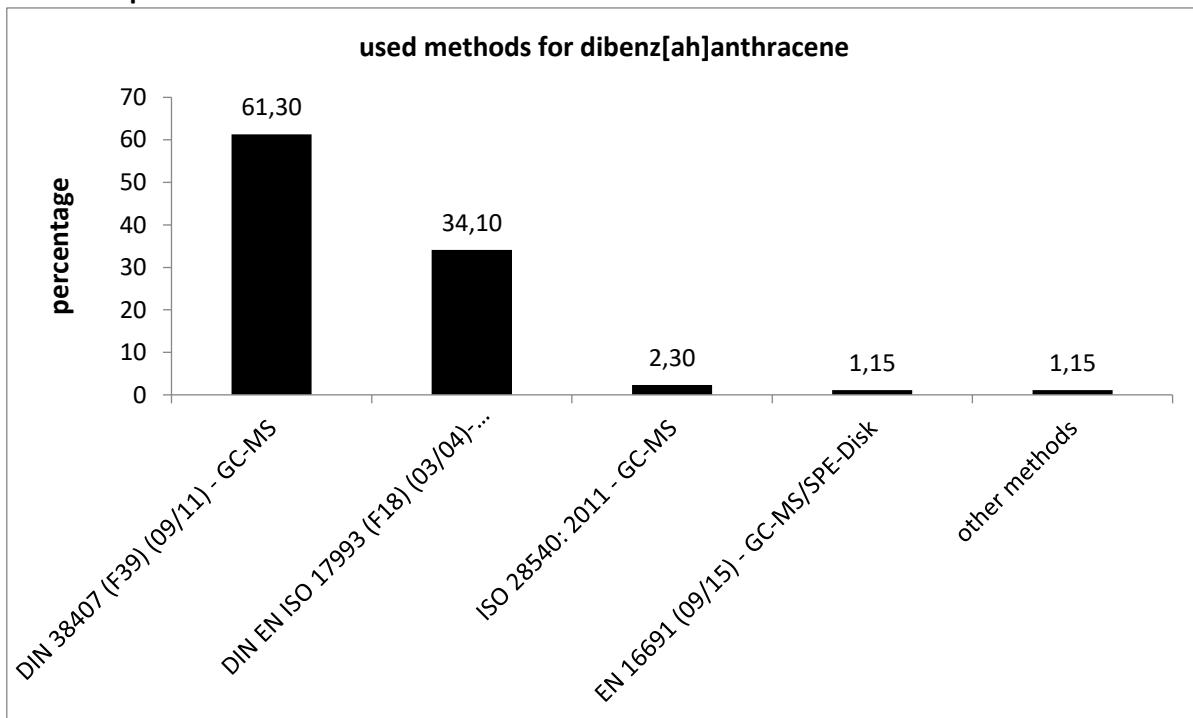
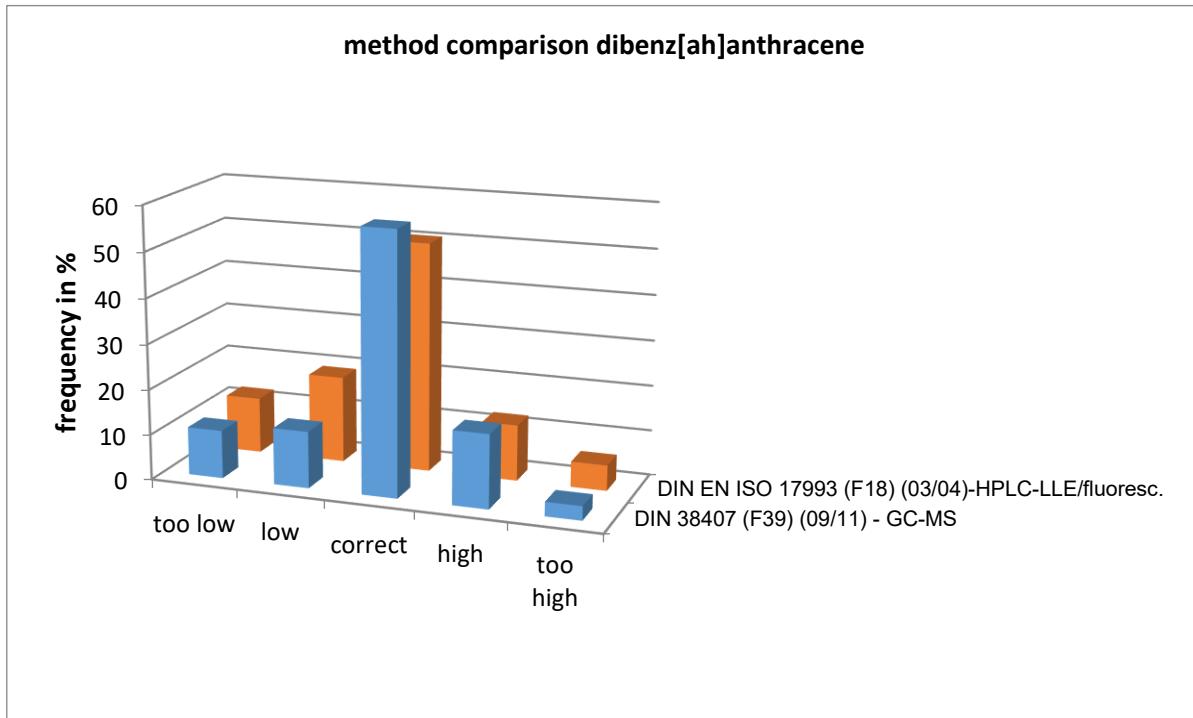
neg. x-intercept corresponds to the matrix content: 0  $\mu\text{g/l}$

expand uncertainty of the matrix content: 0,0032  $\mu\text{g/l}$  = 0 %

**Relative standard deviation and tolerance limits**

The relative standard deviations calculated from the variance function reached the upper limit with all concentration levels.



**Method specific evaluation****method comparison dibenz[ah]anthracene**

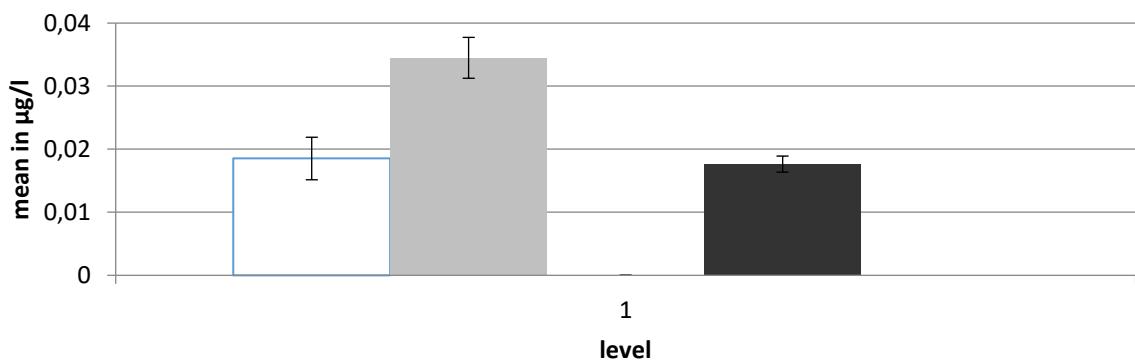
The differences between the methods were not significant.

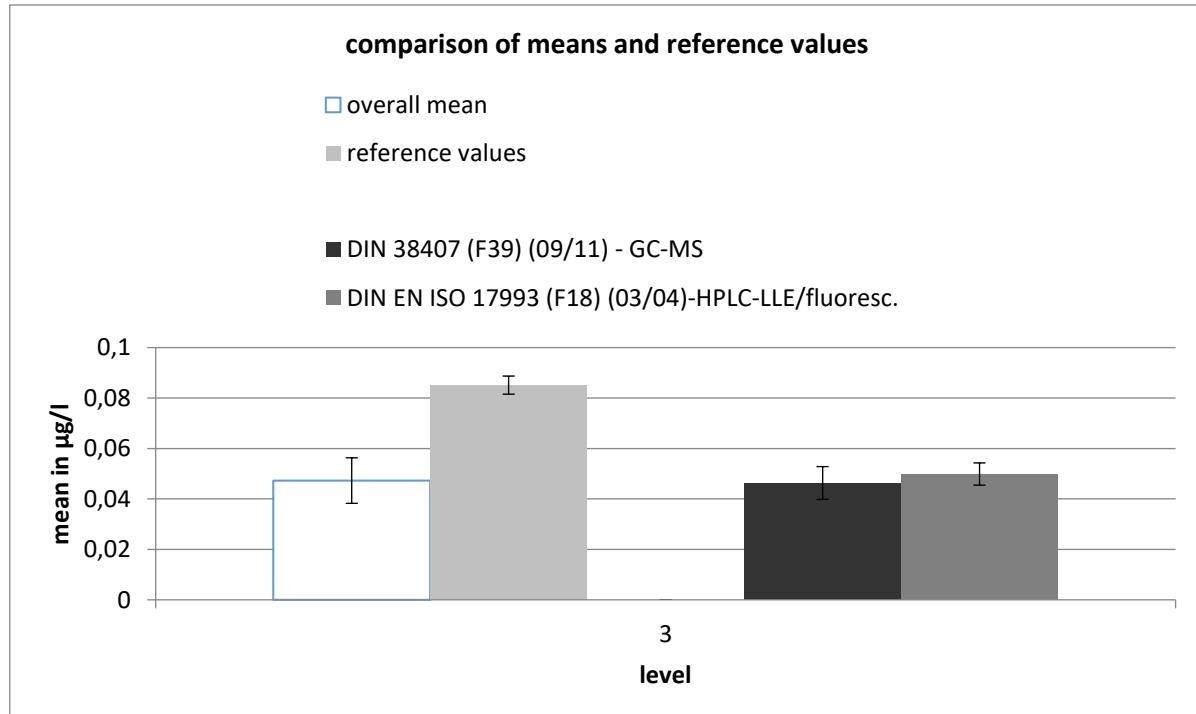
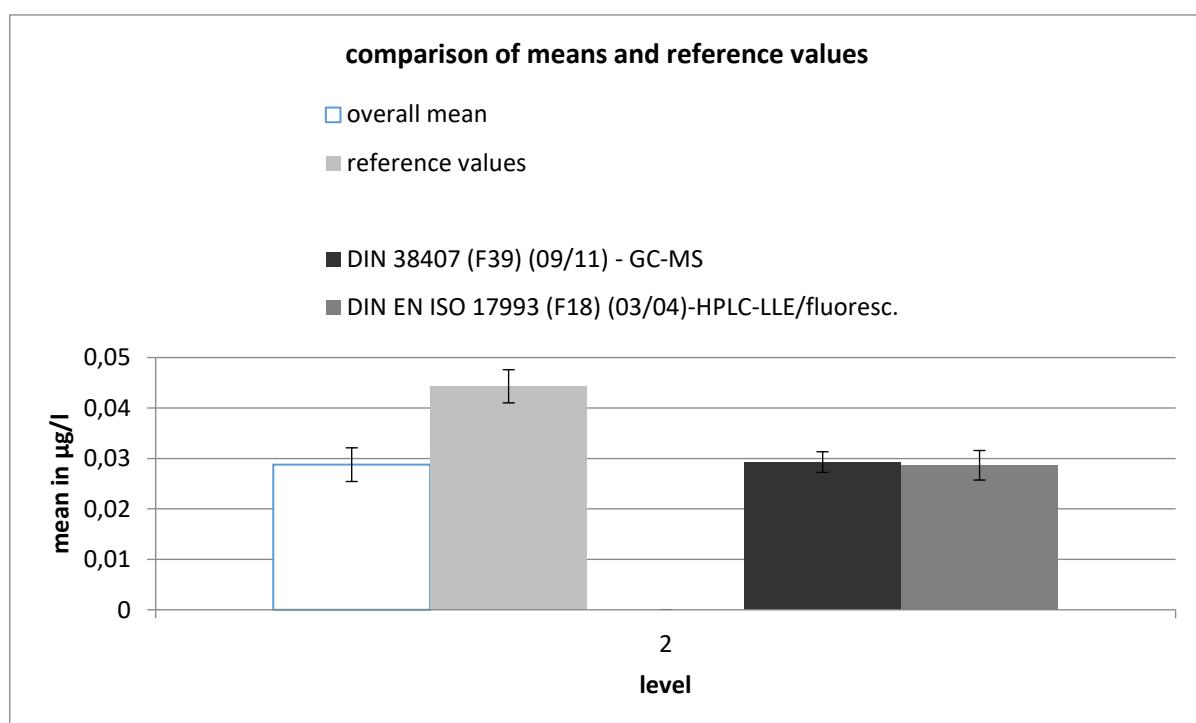
**Comparison of means and reference values**

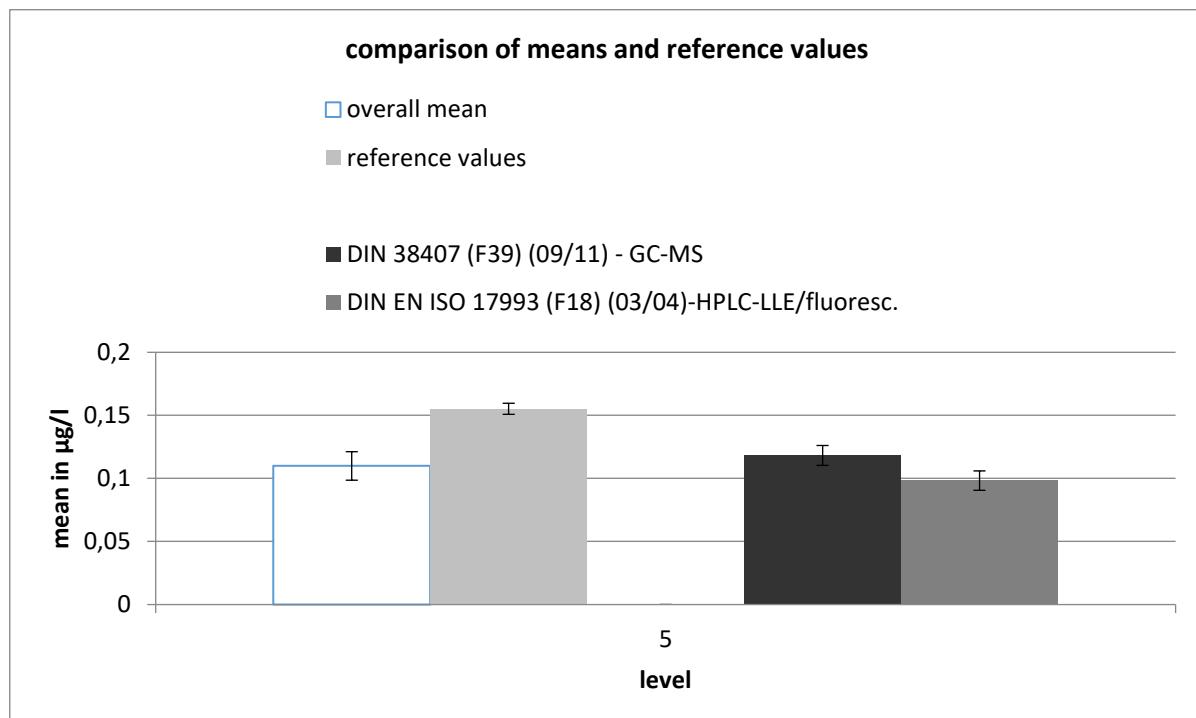
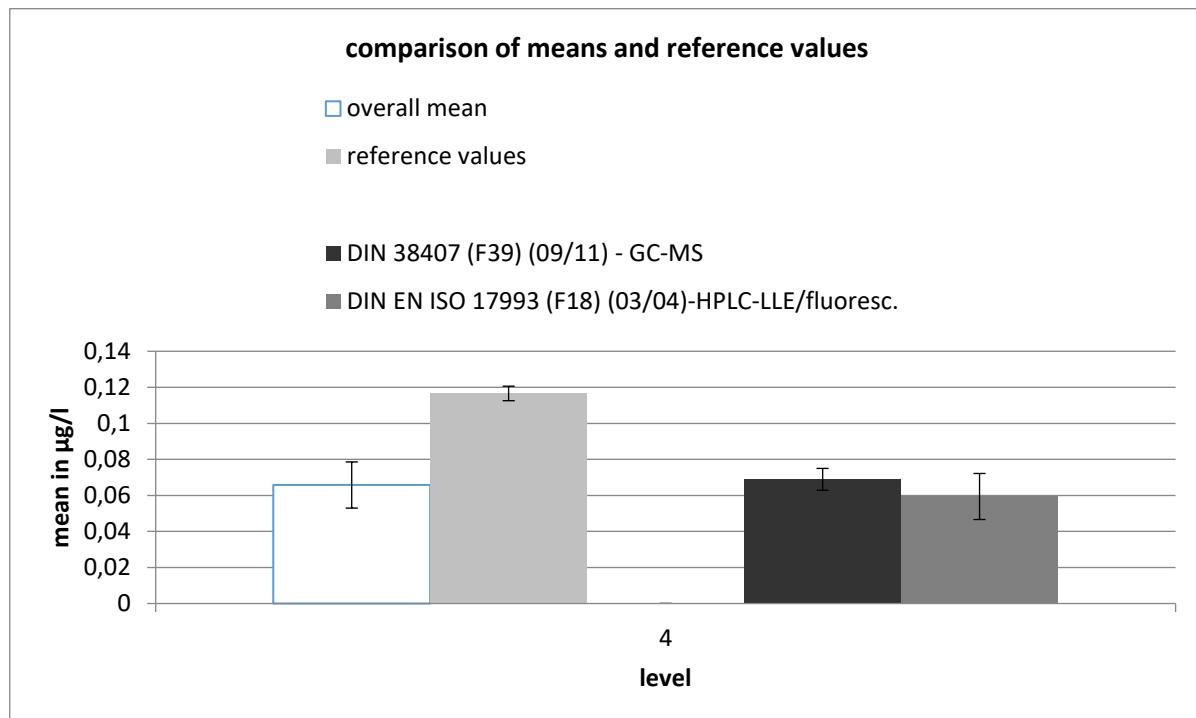
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0185	0,0034	18,2	0,0345	0,0032	9,4
2	0,0288	0,0033	11,6	0,0443	0,0033	7,4
3	0,0473	0,0090	19,1	0,0851	0,0036	4,2
4	0,0658	0,0128	19,4	0,1166	0,0040	3,5
5	0,1099	0,0113	10,3	0,1552	0,0044	2,8
6	0,1033	0,0210	20,4	0,1808	0,0047	2,6
7	0,1305	0,0192	14,7	0,2075	0,0052	2,5
8	0,1637	0,0249	15,2	0,2566	0,0063	2,5
9	0,1761	0,0303	17,2	0,2880	0,0067	2,3

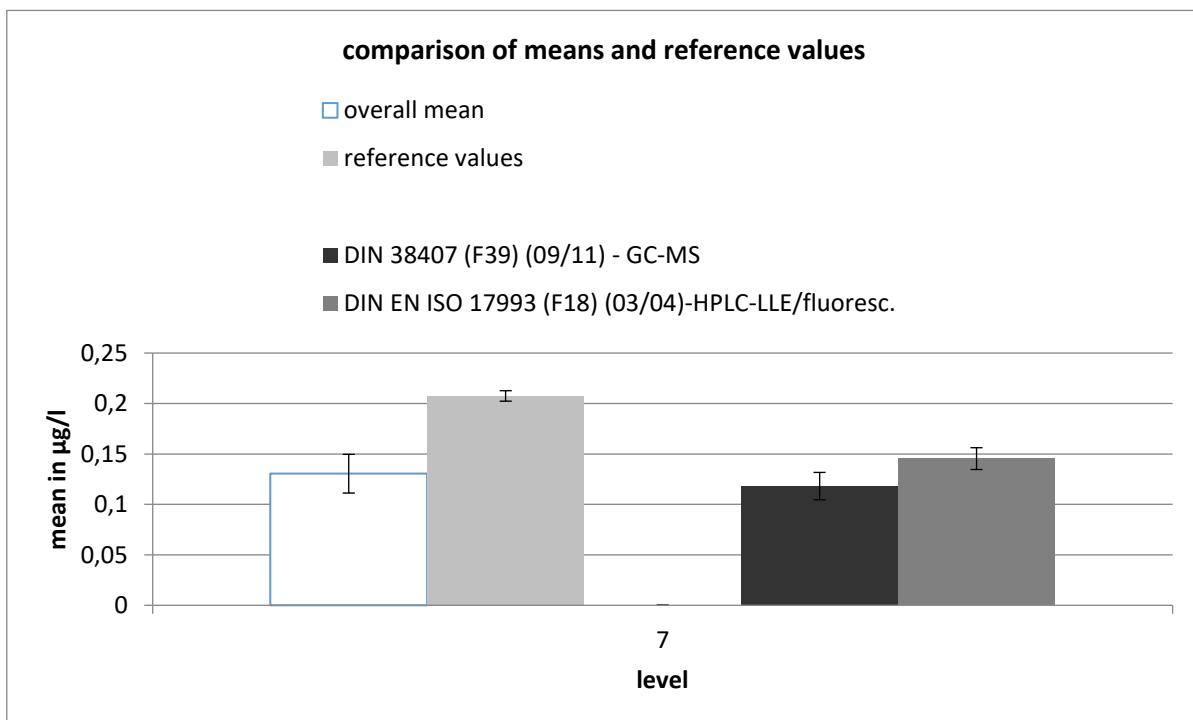
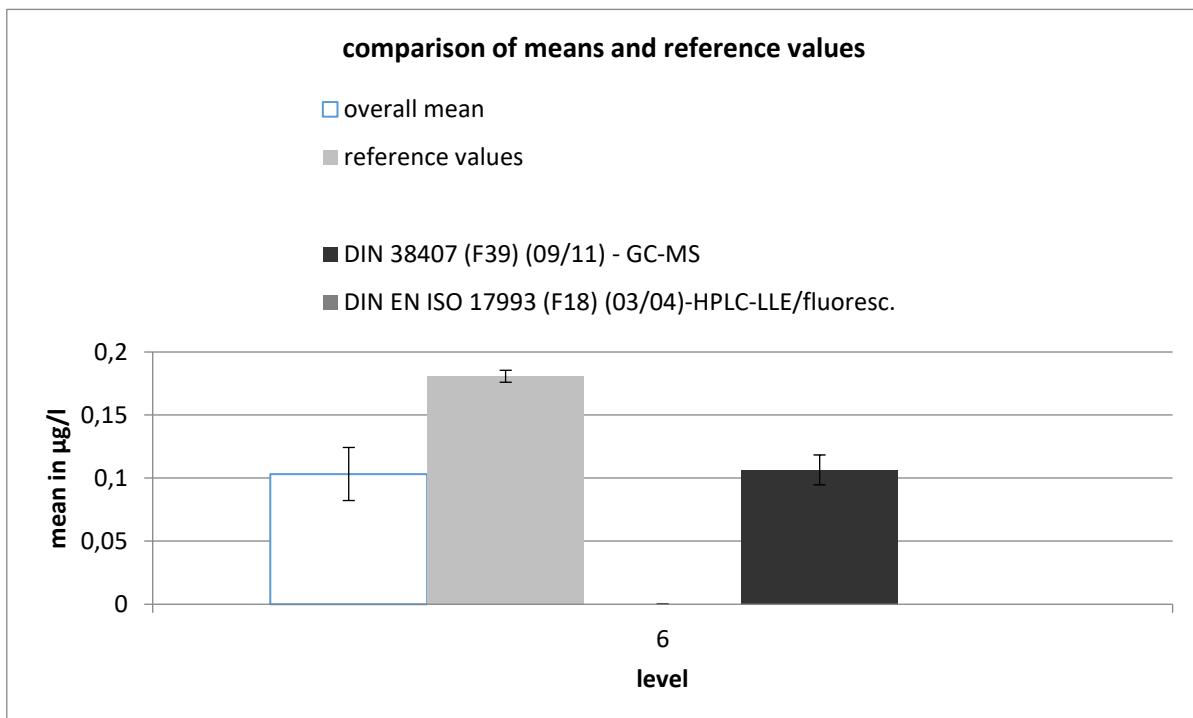
**comparison of means and reference values**

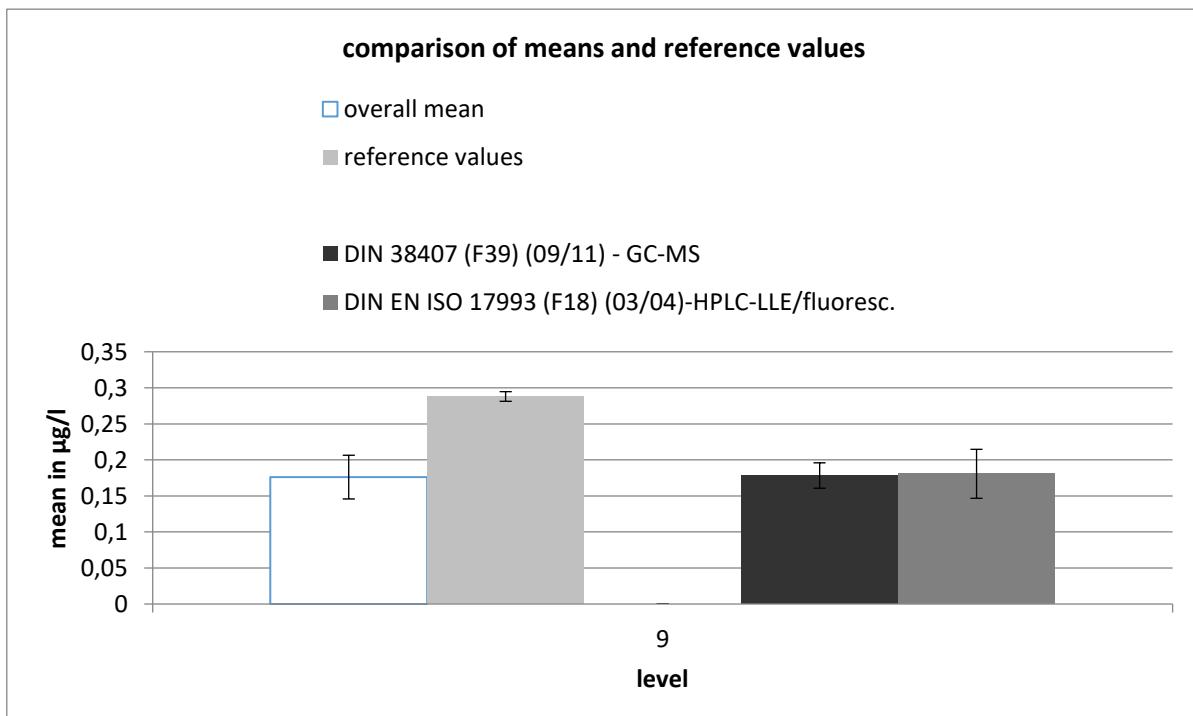
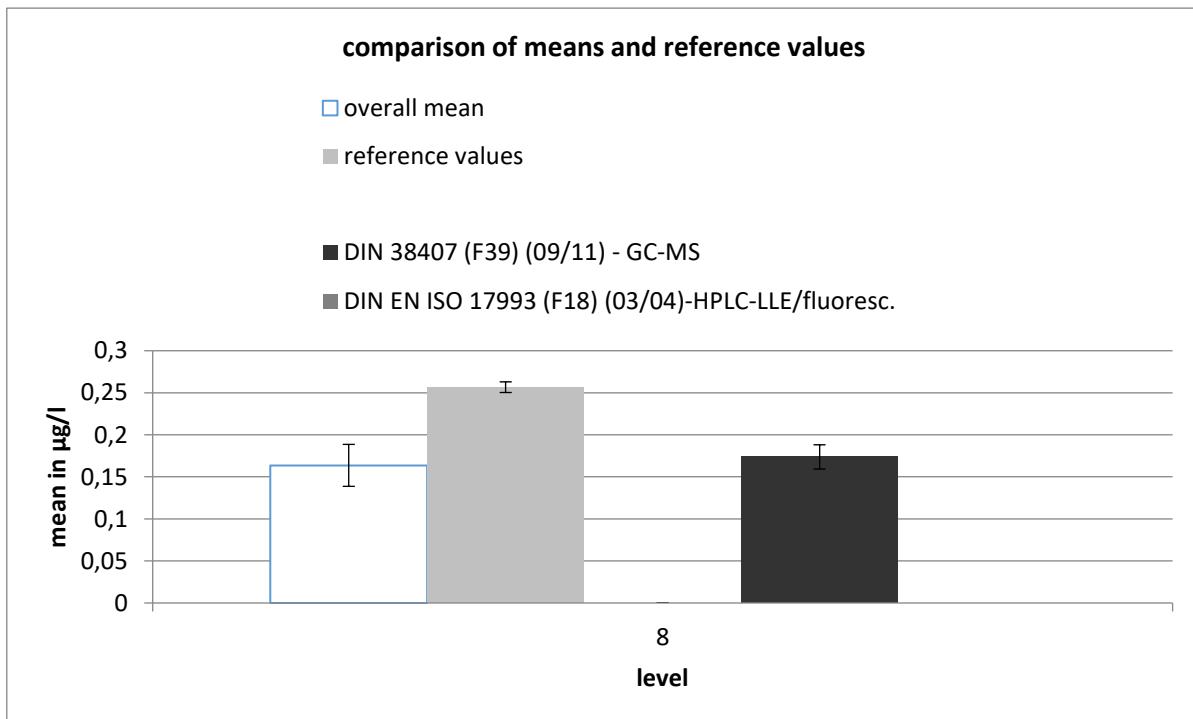
□ overall mean  
■ reference values  
■ DIN 38407 (F39) (09/11) - GC-MS  
■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

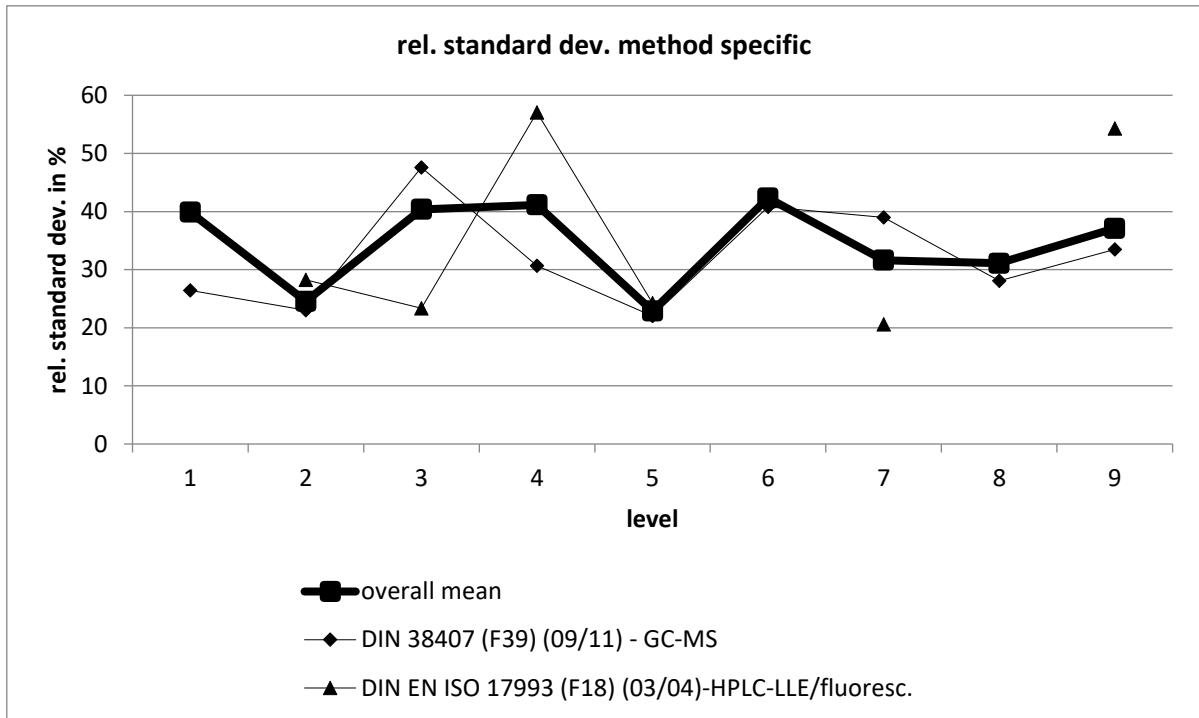












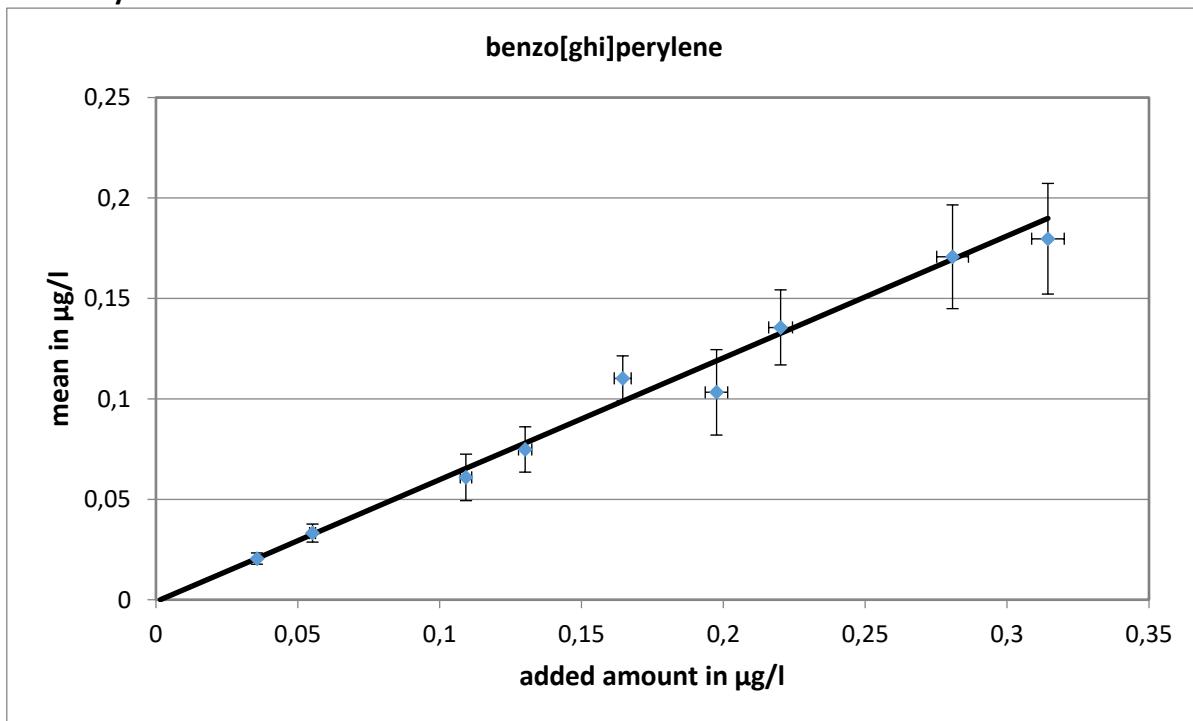
DIN 38407 (F39) (09/11) - GC-MS									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0176	0,0013	7,2035	0,0047	26,408	21	1	2	14,29
2	0,0293	0,002	6,9705	0,0067	22,992	17	2	0	11,76
3	0,0463	0,0065	14,02	0,022	47,585	18	2	0	11,11
4	0,0689	0,0061	8,7934	0,0211	30,664	19	1	1	10,53
5	0,1182	0,0079	6,6763	0,026	22,022	17	2	0	11,76
6	0,1065	0,0119	11,129	0,0435	40,801	21	0	0	0
7	0,1181	0,0136	11,485	0,046	38,981	18	0	0	0
8	0,1737	0,0144	8,2775	0,0488	28,095	18	2	0	11,11
9	0,1783	0,0176	9,8643	0,0597	33,481	18	1	0	5,556

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
2	0,0286	0,0029	10,202	0,0081	28,272	12	1	2	25
3	0,0499	0,0044	8,8039	0,0117	23,359	11	1	0	9,091
4	0,0594	0,0128	21,506	0,0339	57,062	11	0	1	9,091
5	0,0983	0,0077	7,8236	0,0238	24,241	15	1	1	13,33
7	0,1454	0,0108	7,428	0,0299	20,585	12	2	0	16,67
9	0,1807	0,034	18,823	0,0981	54,294	13	0	0	0

# benzo[ghi]perylene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]	
1	0,0205	13,58	0,0063	0,0066	0,0051	25,00	0,0324	0,0112	57,99	-45,19	32	3	3	18,2	
2	0,0332	13,54	0,0100	0,0108	0,0083	25,00	0,0524	0,0182	57,99	-45,19	31	2	3	16,1	
3	0,0609	19,01	0,0254	0,0200	0,0152	25,00	0,0962	0,0334	57,99	-45,19	30	4	1	16,1	
4	0,0748	15,08	0,0251	0,0246	0,0187	25,00	0,1182	0,0410	57,99	-45,19	31	7	1	25,8	
5	0,1102	10,13	0,0256	0,0366	0,0276	25,00	0,1741	0,0604	57,99	-45,19	33	2	0	5,9	
6	0,1032	20,59	0,0466	0,0342	0,0258	25,00	0,1631	0,0566	57,99	-45,19	30	3	3	20,0	
7	0,1356	13,79	0,0409	0,0452	0,0339	25,00	0,2142	0,0743	57,99	-45,19	30	3	1	12,9	
8	0,1707	15,12	0,0575	0,0571	0,0427	25,00	0,2697	0,0936	57,99	-45,19	31	3	0	9,7	
9	0,1797	15,32	0,0623	0,0602	0,0449	25,00	0,2839	0,0985	57,99	-45,19	32	4	0	12,5	
											sum	280	31	12	15,4

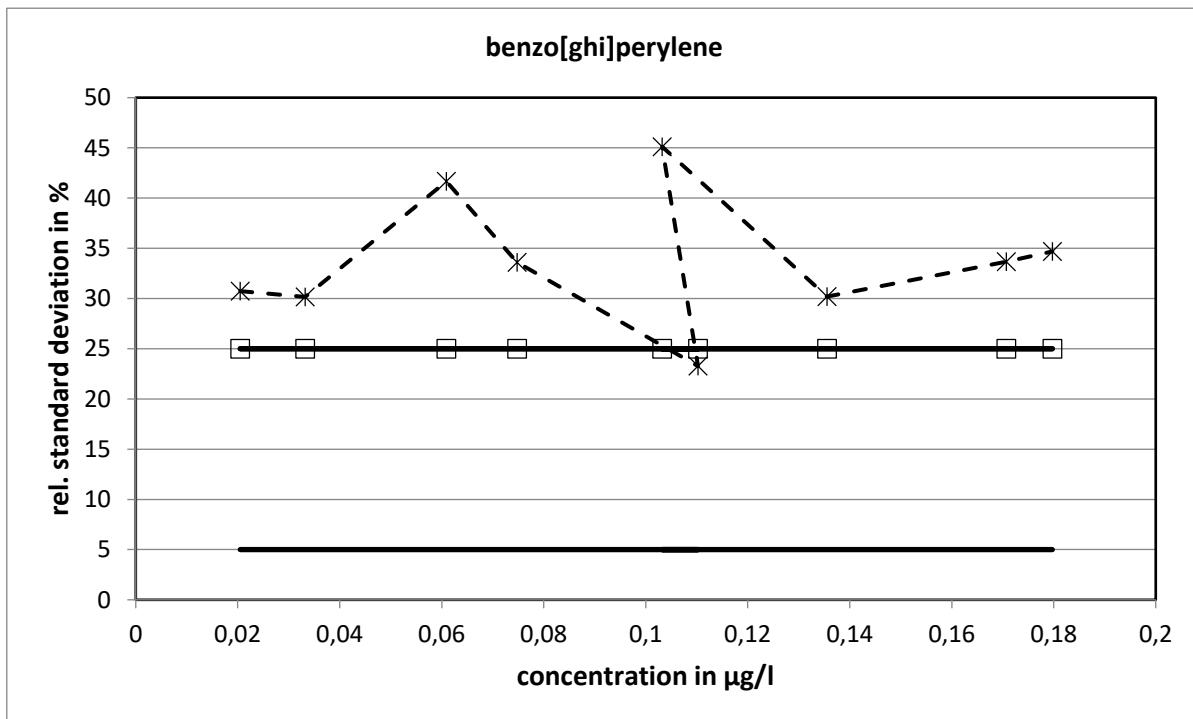
## Recovery and matrix content



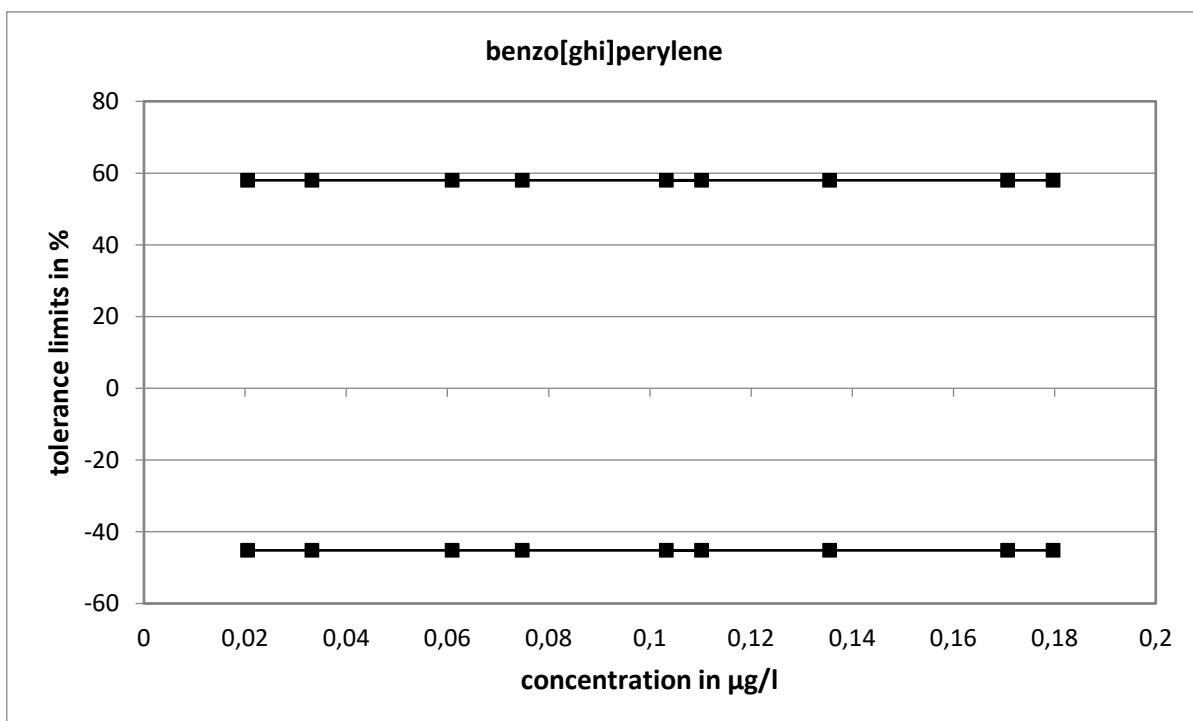
slope of the regression: 0,607; recovery rate: 60,7 %

neg. x-intercept corresponds to the matrix content: 0  $\mu\text{g/l}$

expand uncertainty of the matrix content: 0,0015  $\mu\text{g/l}$  = 0 %

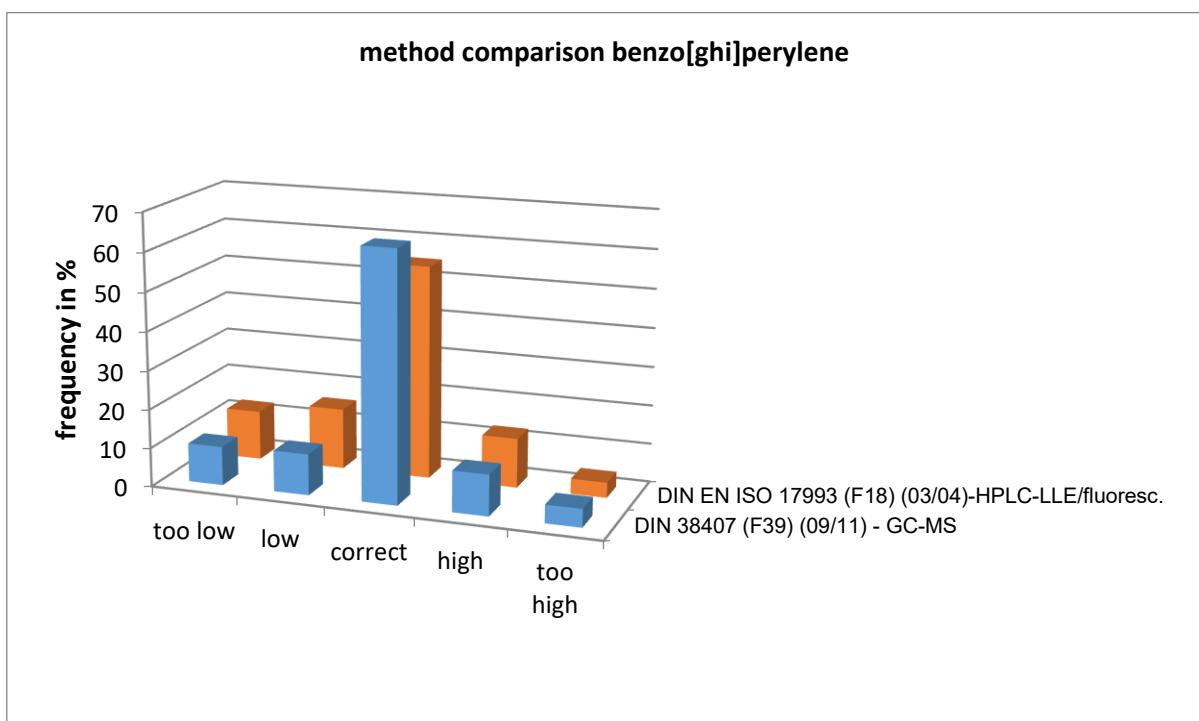
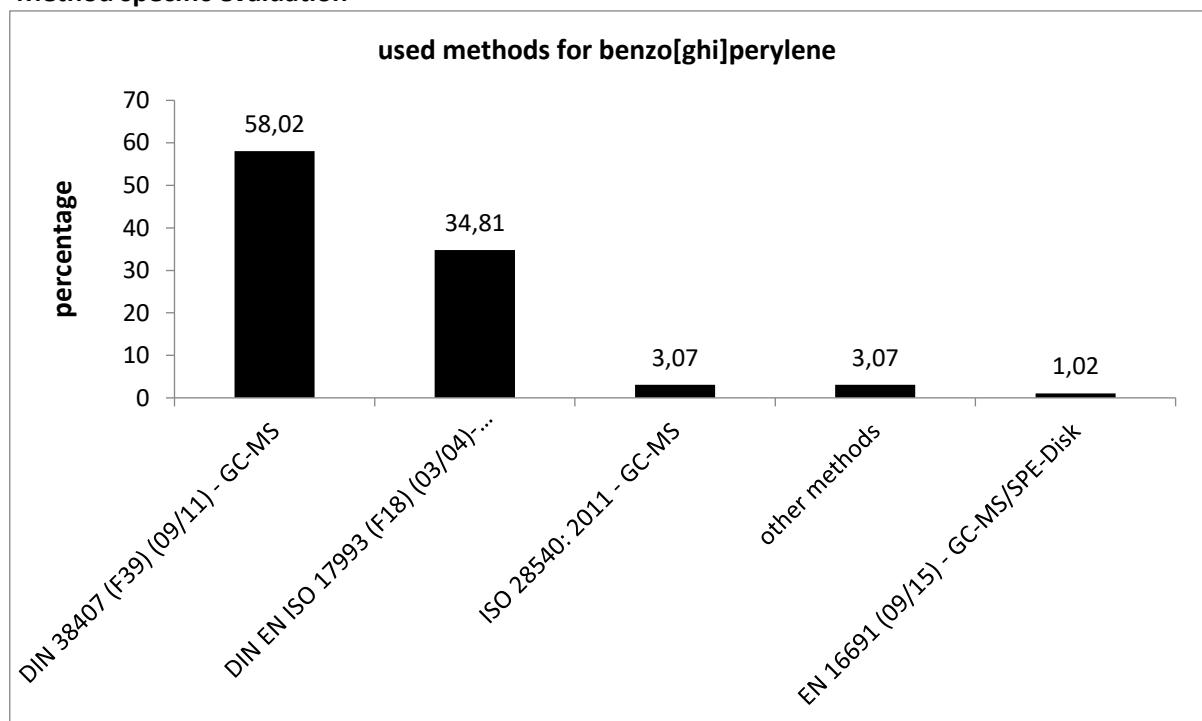
**Relative standard deviation and tolerance limits**

The relative standard deviations calculated from the variance function reached the upper limit with all concentration levels.



The differences between the methods were not significant.

**Method specific evaluation**

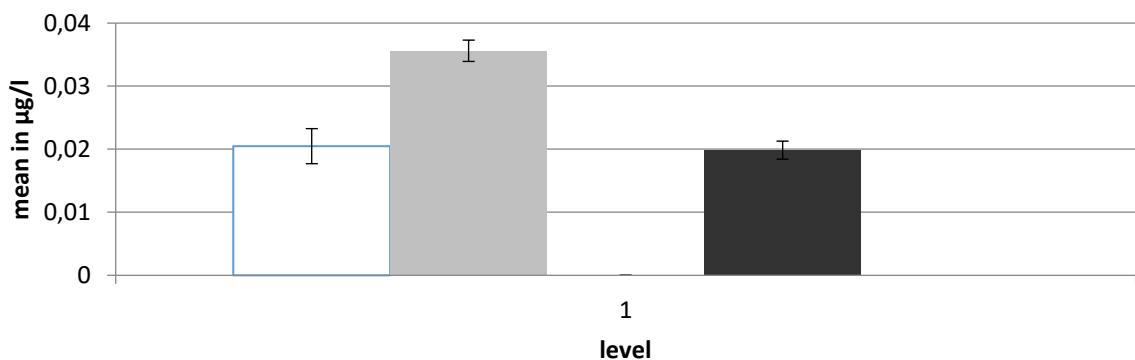


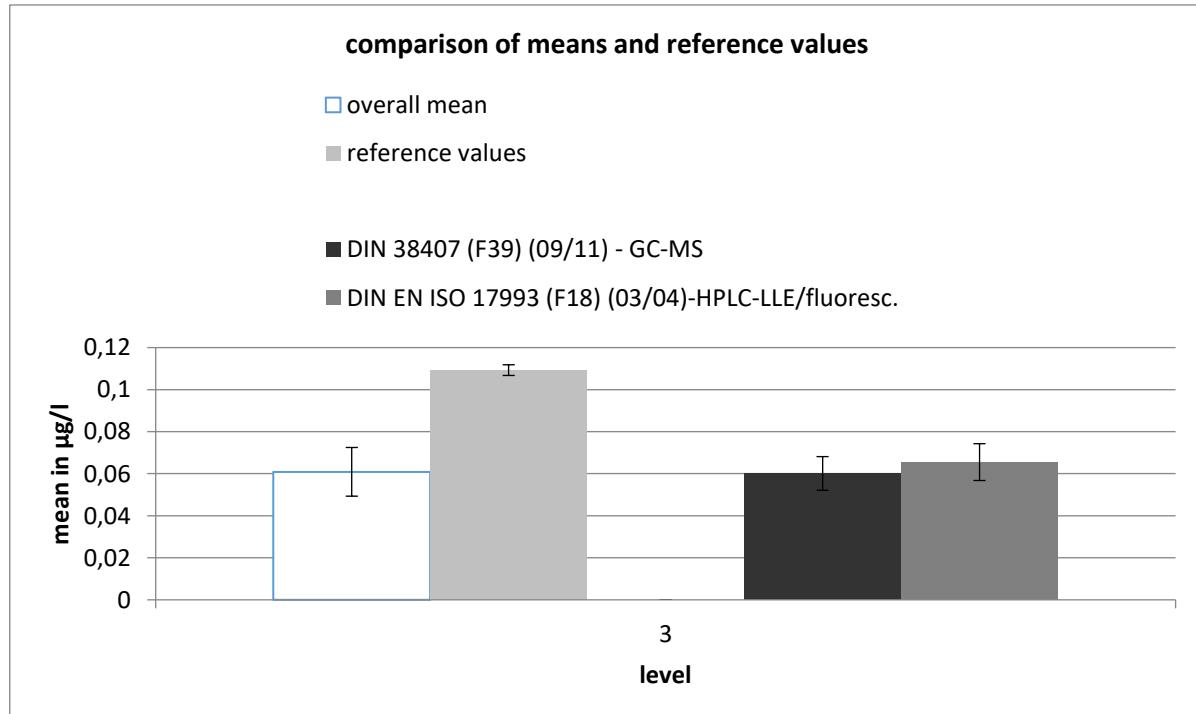
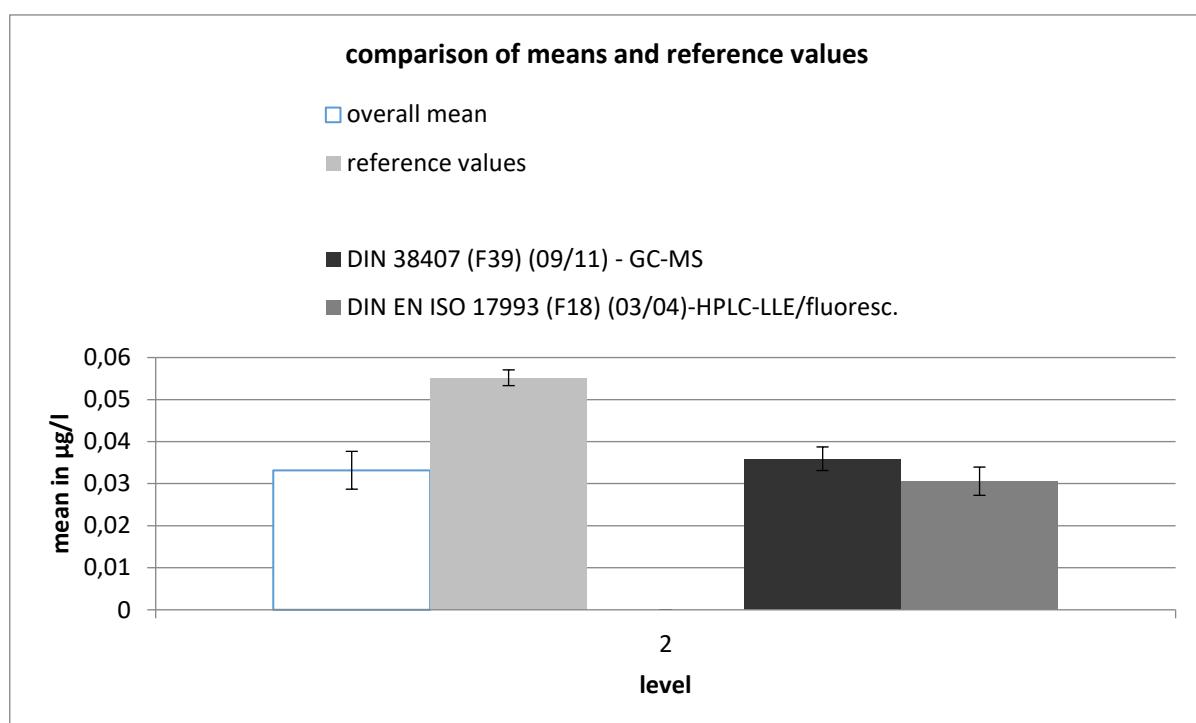
**Comparison of means and reference values**

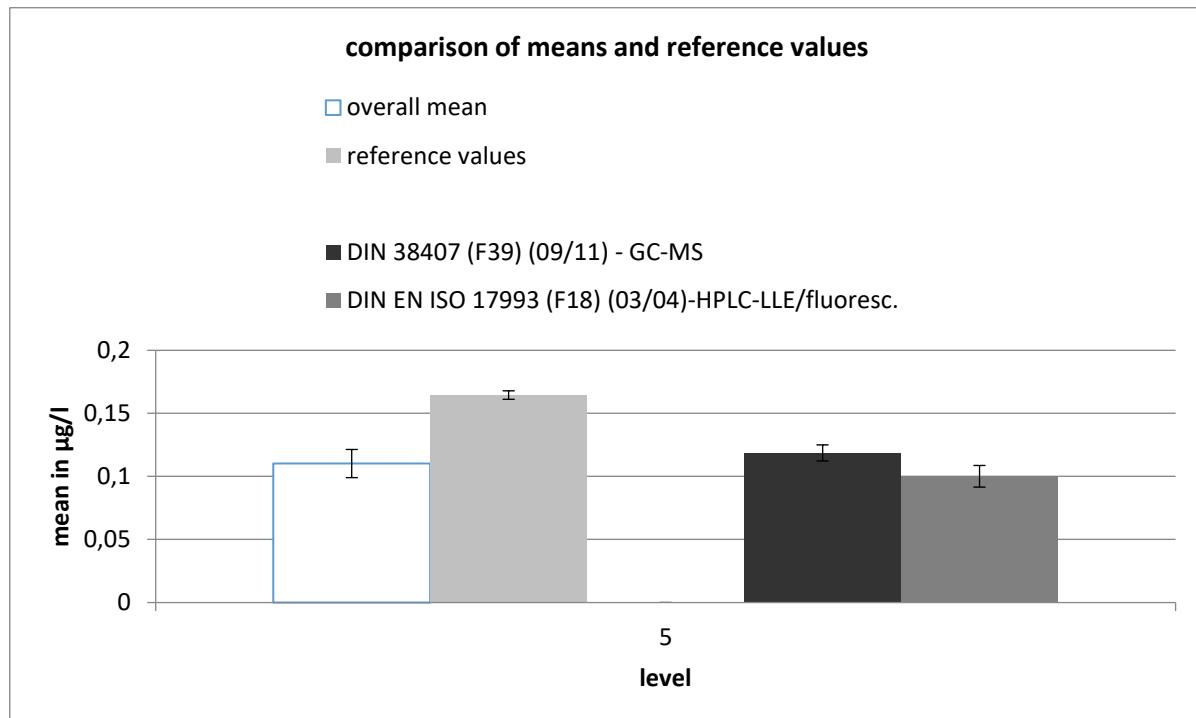
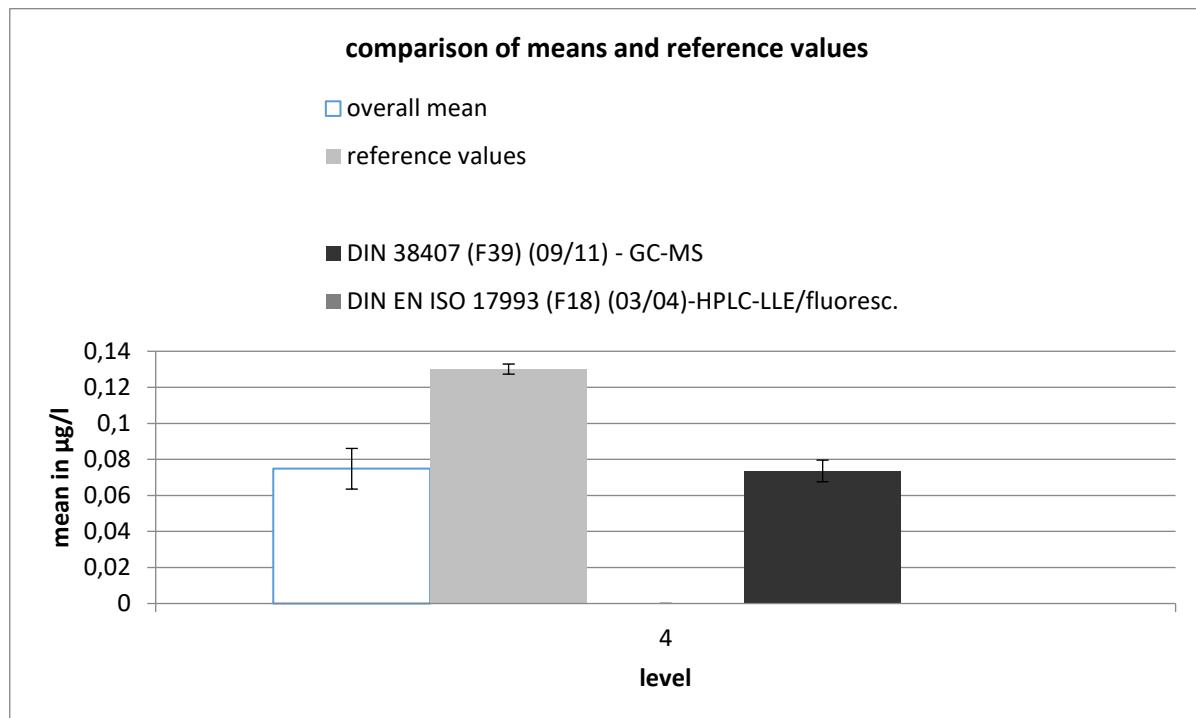
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0205	0,0028	13,6	0,0356	0,0017	4,8
2	0,0332	0,0045	13,5	0,0552	0,0019	3,4
3	0,0609	0,0116	19,0	0,1093	0,0025	2,3
4	0,0748	0,0113	15,1	0,1301	0,0028	2,2
5	0,1102	0,0112	10,1	0,1645	0,0034	2,0
6	0,1032	0,0213	20,6	0,1976	0,0043	2,2
7	0,1356	0,0187	13,8	0,2202	0,0045	2,0
8	0,1707	0,0258	15,1	0,2808	0,0058	2,1
9	0,1797	0,0275	15,3	0,3144	0,0059	1,9

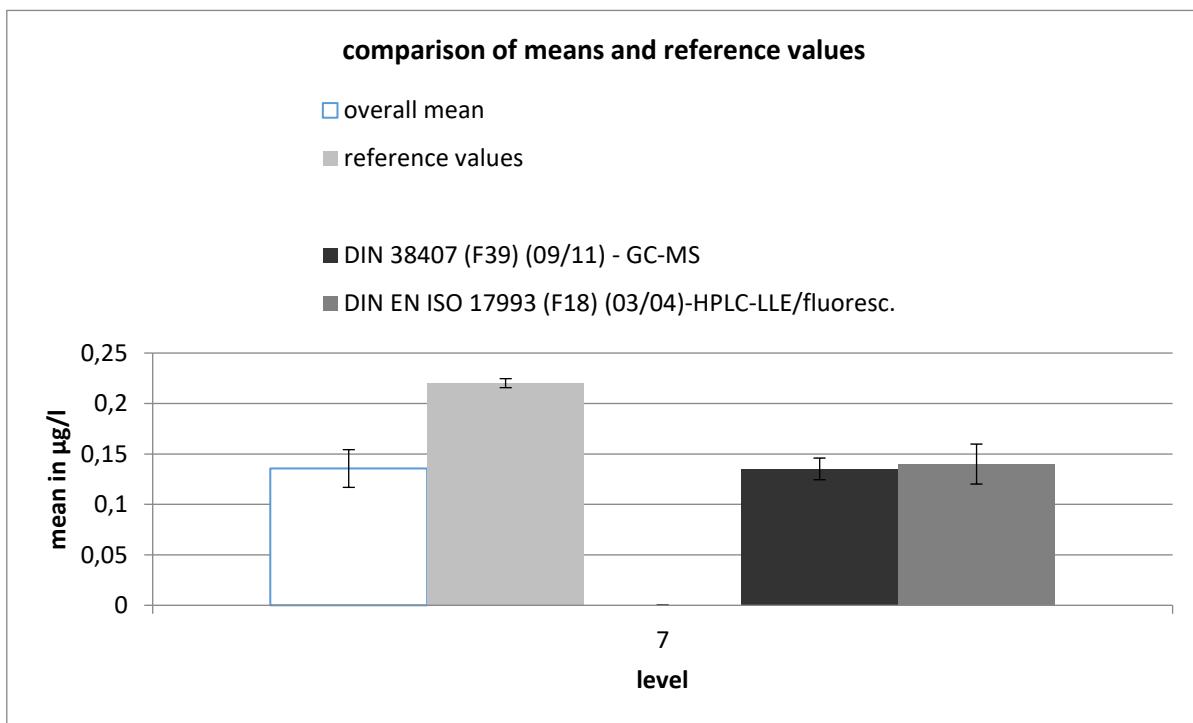
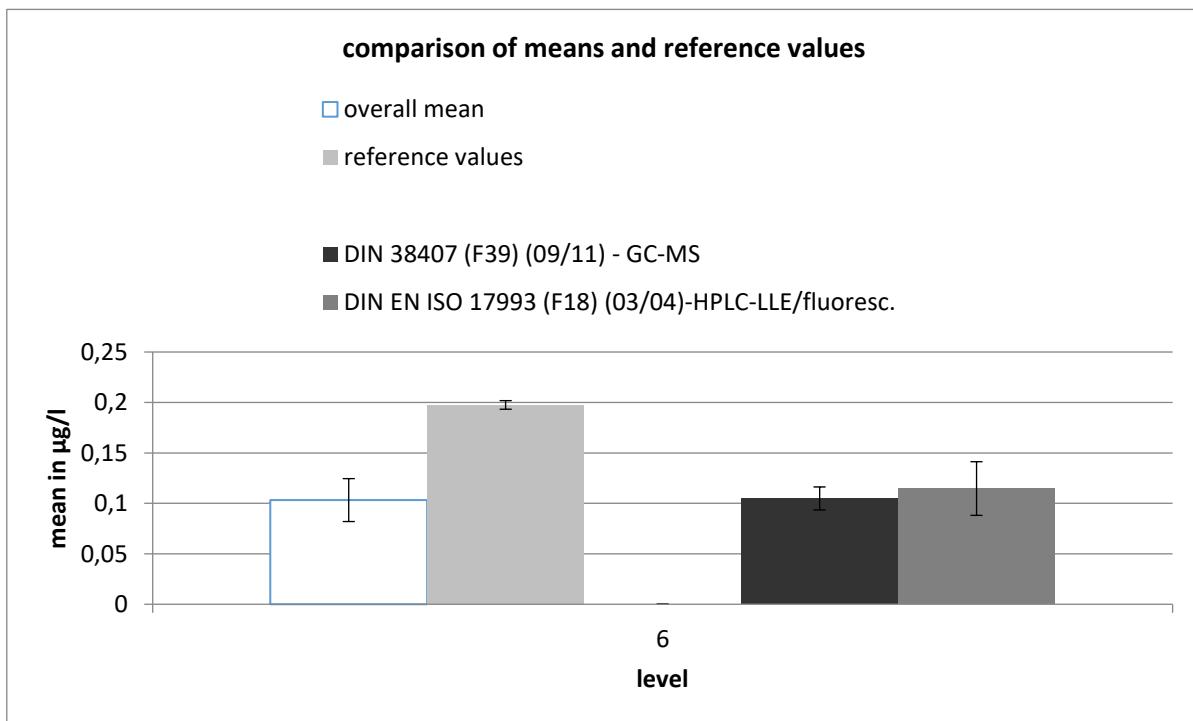
**comparison of means and reference values**

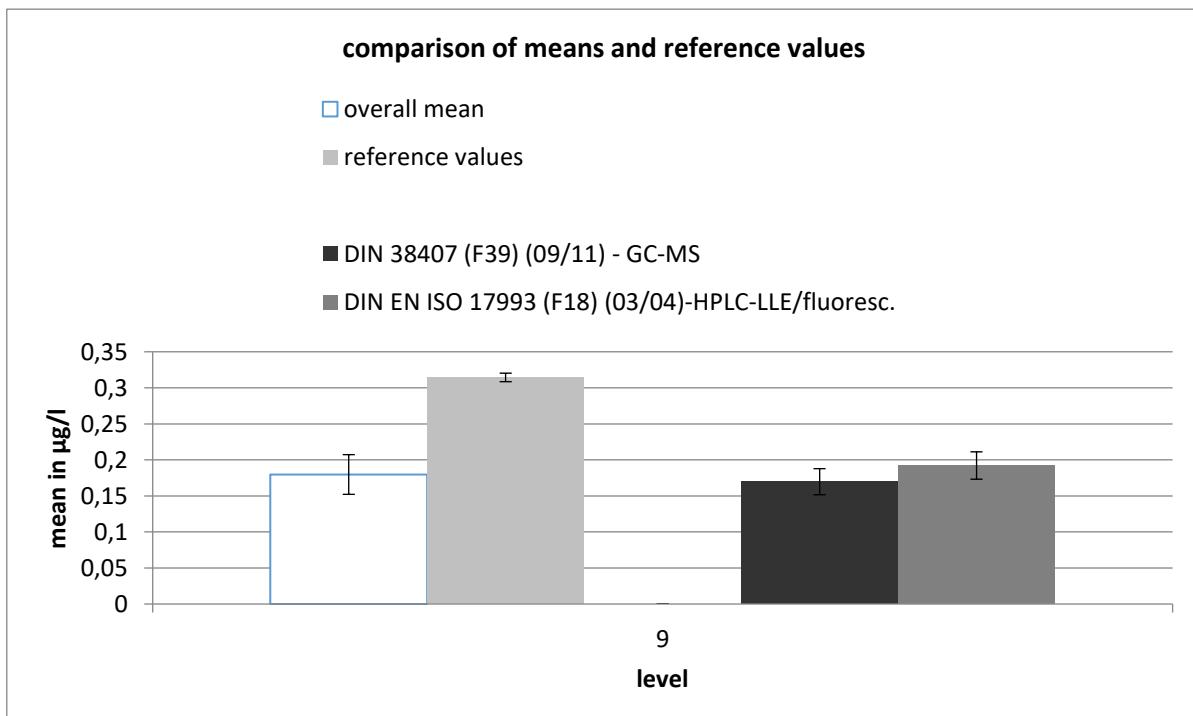
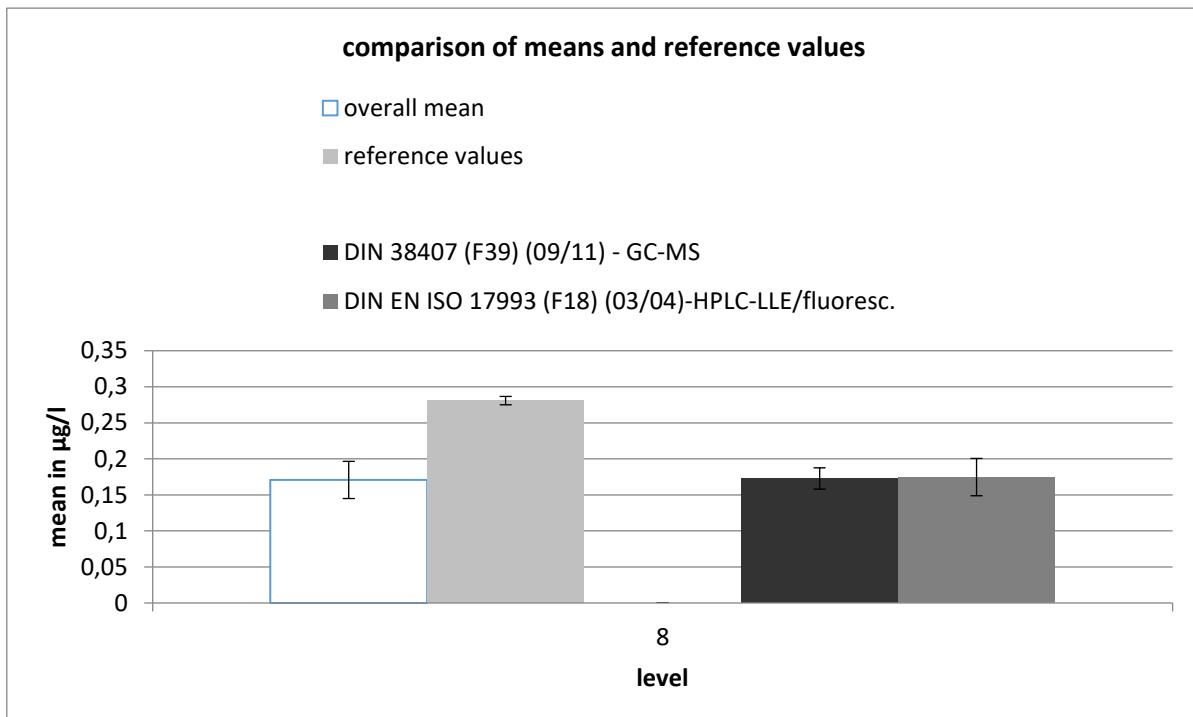
□ overall mean  
■ reference values  
■ DIN 38407 (F39) (09/11) - GC-MS  
■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

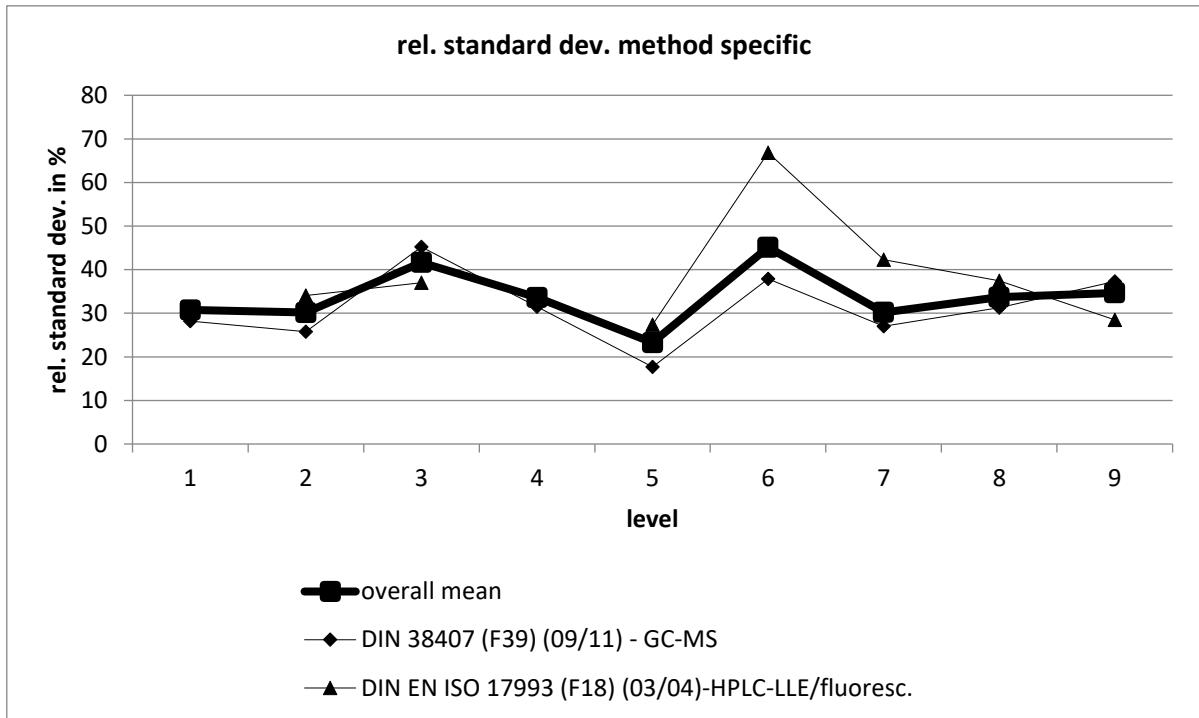












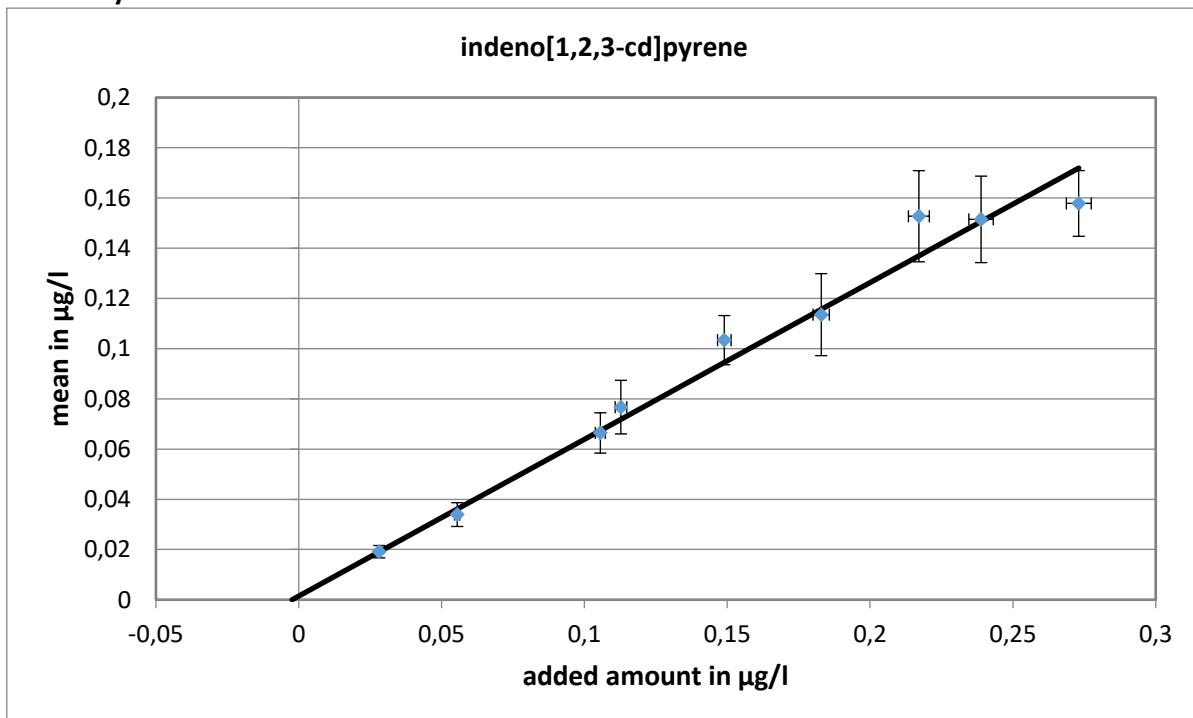
DIN 38407 (F39) (09/11) - GC-MS										
level	robust mean [ $\mu\text{g}/\text{l}$ ]	exp. unc. of the mean [ $\mu\text{g}/\text{l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g}/\text{l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]	
1	0,0199	0,0014	7,1983	0,0056	28,211	24	1	3	16,67	
2	0,0359	0,0028	7,8018	0,0092	25,734	17	2	2	23,53	
3	0,0601	0,008	13,319	0,0272	45,208	18	1	0	5,556	
4	0,0736	0,006	8,2152	0,0232	31,519	23	4	1	21,74	
5	0,1186	0,0064	5,3627	0,021	17,689	17	0	0	0	
6	0,1048	0,0114	10,866	0,0397	37,891	19	0	0	0	
7	0,1352	0,0108	7,9611	0,0365	27,021	18	1	0	5,556	
8	0,1728	0,0147	8,5304	0,054	31,273	21	1	0	4,762	
9	0,1697	0,0181	10,688	0,0632	37,27	19	0	0	0	

DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.										
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]	
2	0,0306	0,0034	11,004	0,0104	34,096	15	1	2	20	
3	0,0655	0,0088	13,358	0,0243	37,02	12	1	0	8,333	
5	0,1001	0,0086	8,553	0,0274	27,369	16	1	0	6,25	
6	0,1147	0,0266	23,174	0,0767	66,845	13	0	0	0	
7	0,14	0,0198	14,139	0,0593	42,322	14	0	0	0	
8	0,1747	0,0259	14,816	0,0655	37,481	10	1	0	10	
9	0,1922	0,019	9,8759	0,0547	28,486	13	1	0	7,692	

# indeno[1,2,3-cd]pyrene

level	assigned value [ $\mu\text{g/l}$ ]	expanded uncertainty of the assigned value [%]	standard deviation, calculated using robust statistics [ $\mu\text{g/l}$ ]	standard deviation from variance function [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [ $\mu\text{g/l}$ ]	standard deviation for proficiency assessment [%]	upper tolerance limit [ $\mu\text{g/l}$ ]	lower tolerance limit [ $\mu\text{g/l}$ ]	upper tolerance limit [%]	lower tolerance limit [%]	number of results	out below	out above	out [%]	
1	0,0191	12,89	0,0055	0,0061	0,0048	25,00	0,0302	0,0105	57,99	-45,19	31	3	1	12,9	
2	0,0339	13,95	0,0109	0,0100	0,0085	25,00	0,0536	0,0186	57,99	-45,19	33	3	3	18,2	
3	0,0664	12,08	0,0179	0,0180	0,0166	25,00	0,1049	0,0364	57,99	-45,19	31	2	0	6,5	
4	0,0767	13,93	0,0230	0,0204	0,0192	25,00	0,1212	0,0420	57,99	-45,19	29	3	3	20,0	
5	0,1034	9,47	0,0225	0,0265	0,0258	25,00	0,1633	0,0567	57,99	-45,19	33	1	0	2,9	
6	0,1135	14,39	0,0364	0,0288	0,0284	25,00	0,1794	0,0622	57,99	-45,19	31	5	0	16,1	
7	0,1527	11,88	0,0404	0,0373	0,0373	24,39	0,2388	0,0853	56,34	-44,18	31	3	1	12,9	
8	0,1515	11,37	0,0384	0,0370	0,0370	24,42	0,2369	0,0845	56,41	-44,22	31	3	0	9,7	
9	0,1578	8,29	0,0296	0,0383	0,0383	24,29	0,2463	0,0884	56,07	-44,01	32	2	0	6,3	
											sum	282	25	8	11,7

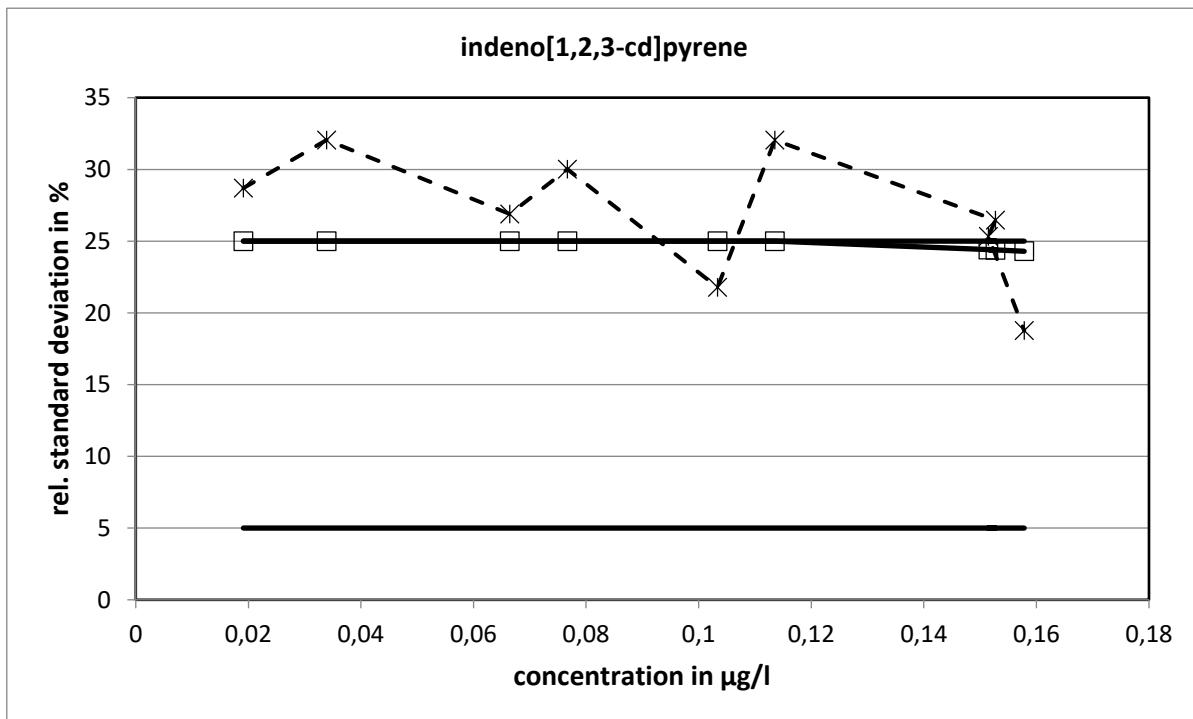
## Recovery and matrix content



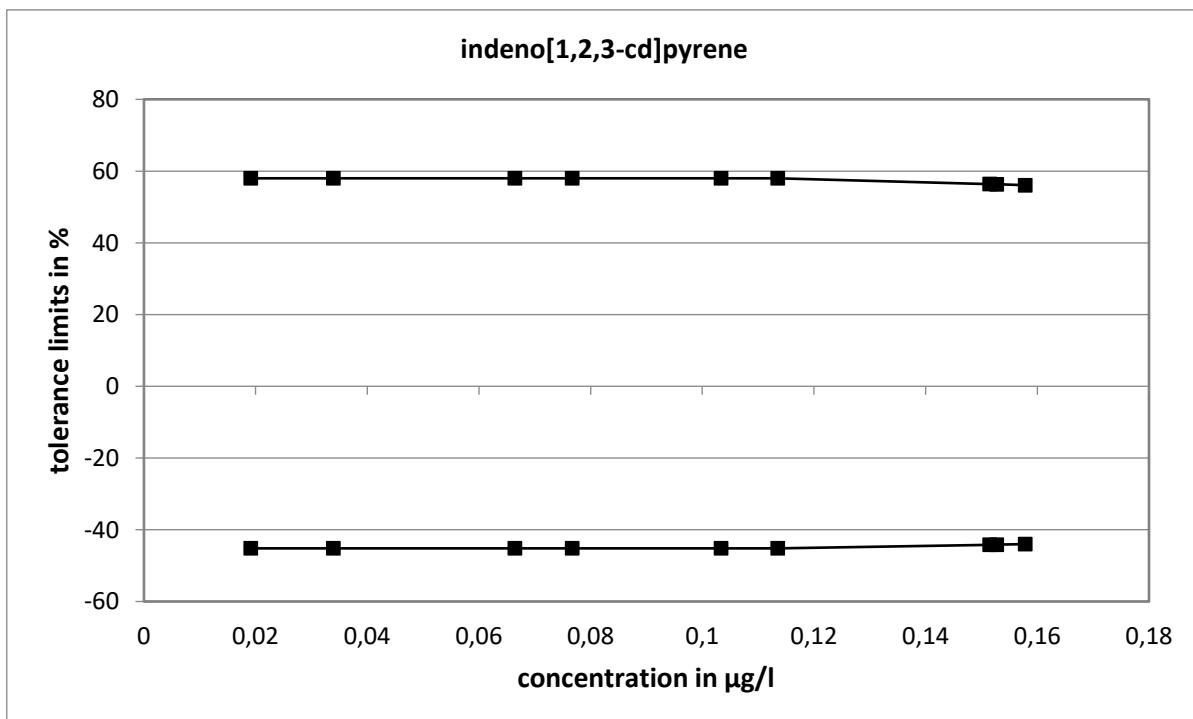
slope of the regression: 0,624; recovery rate: 62,4 %

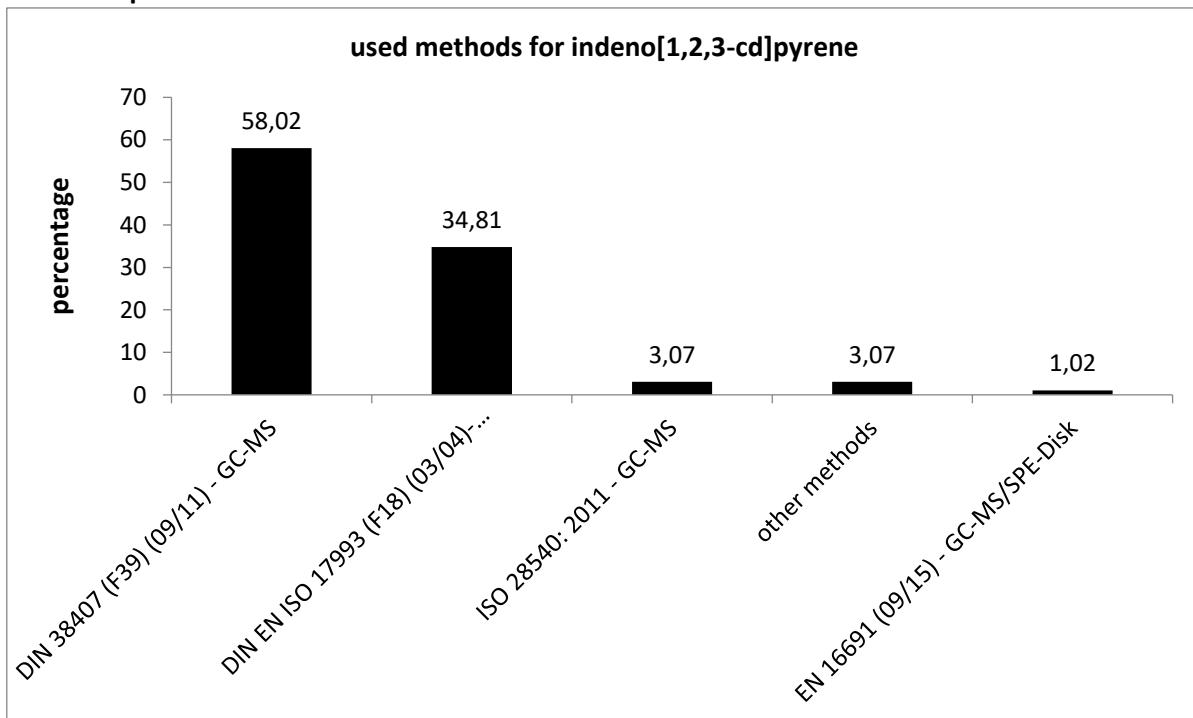
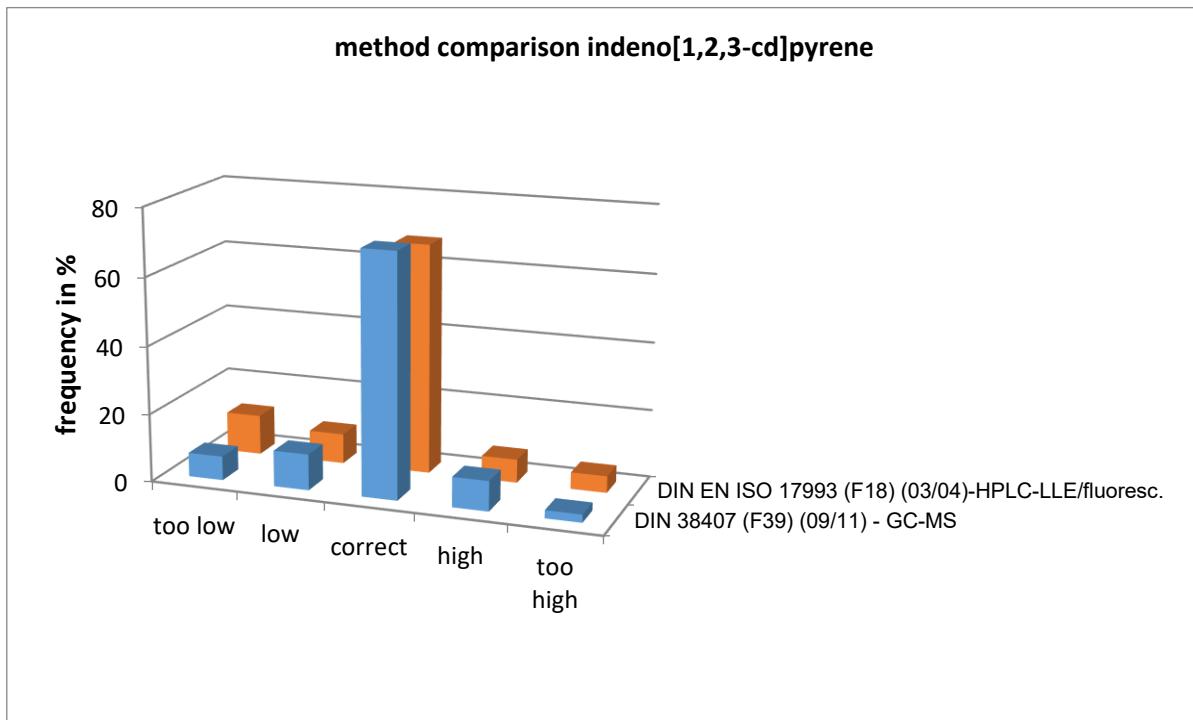
neg. x-intercept corresponds to the matrix content: 0,0023  $\mu\text{g/l}$

expand uncertainty of the matrix content: 0,0023  $\mu\text{g/l}$  = 100 %

**Relative standard deviation and tolerance limits**

The relative standard deviations calculated from the variance function reached the upper limit with six concentration levels.



**Method specific evaluation****method comparison indeno[1,2,3-cd]pyrene**

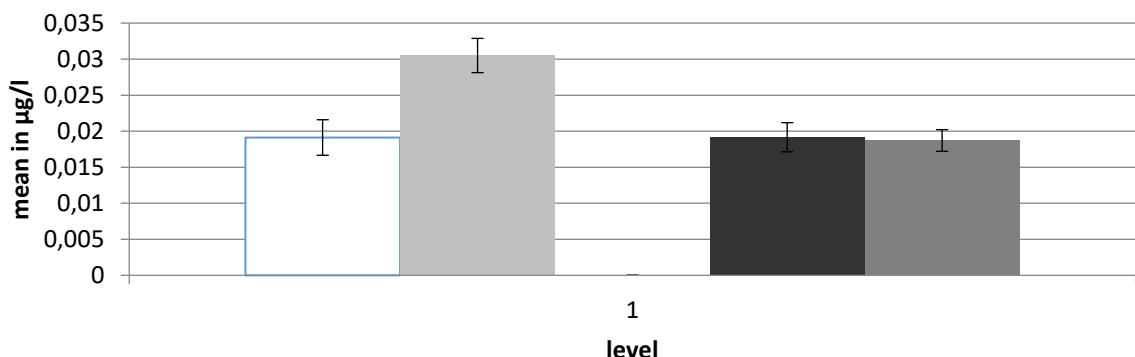
The differences between the methods were not significant.

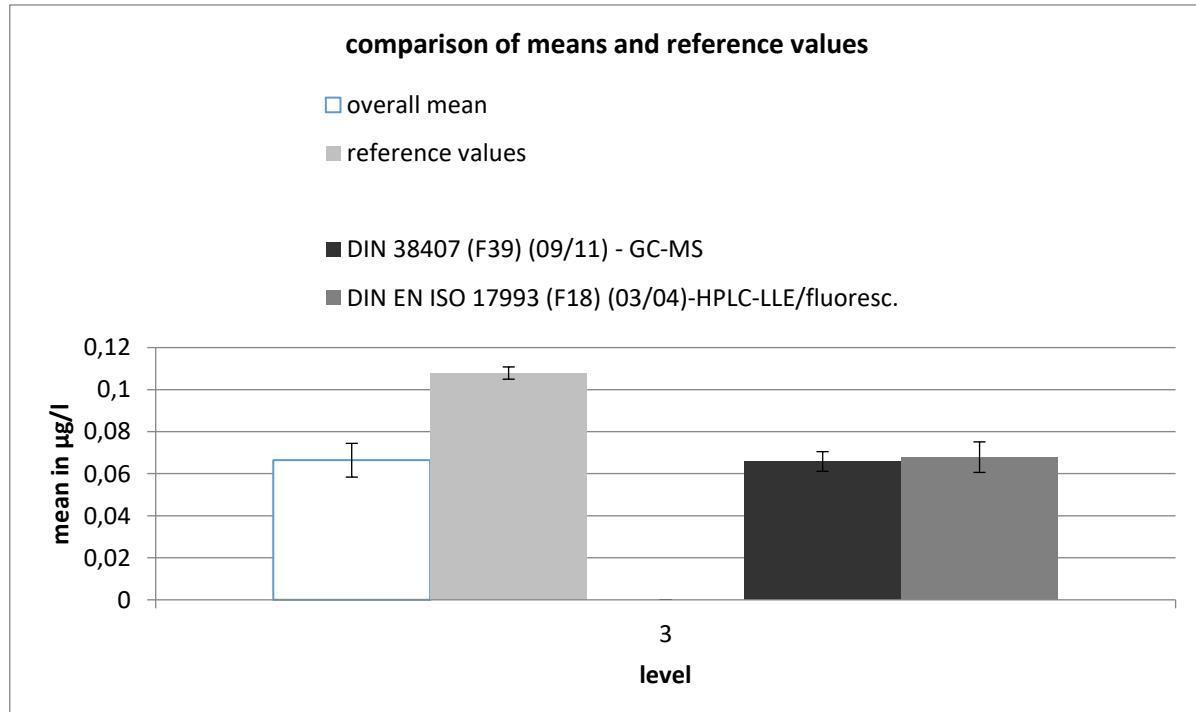
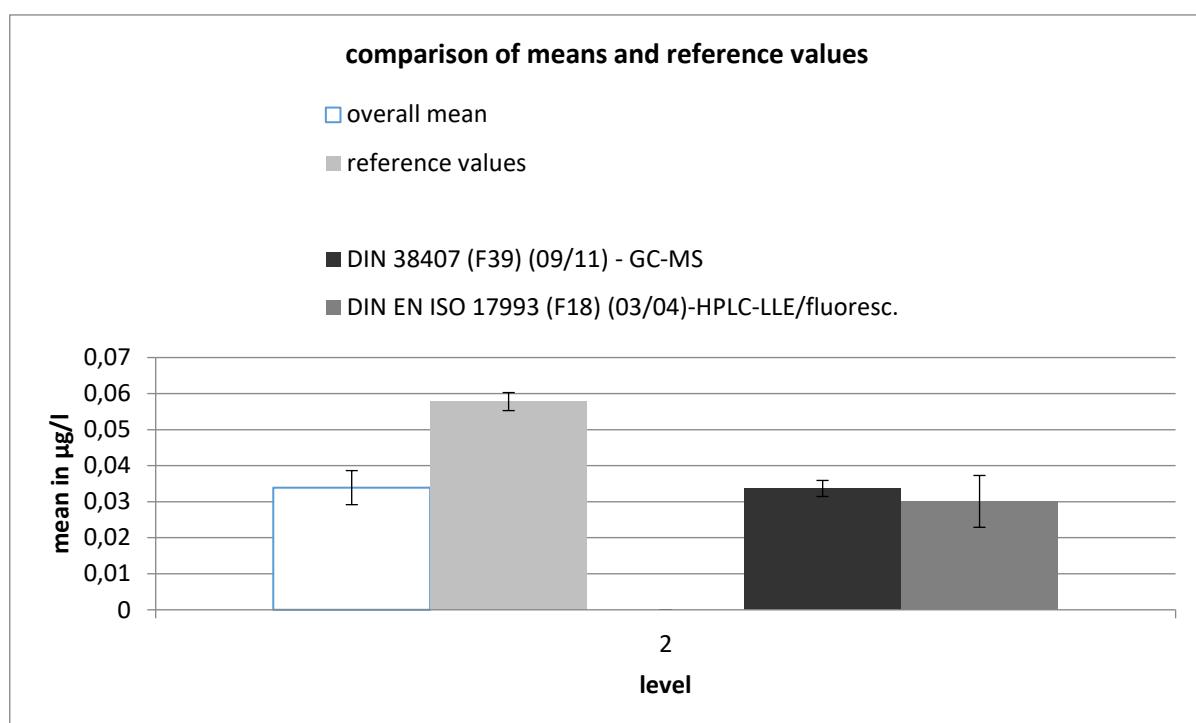
**Comparison of means and reference values**

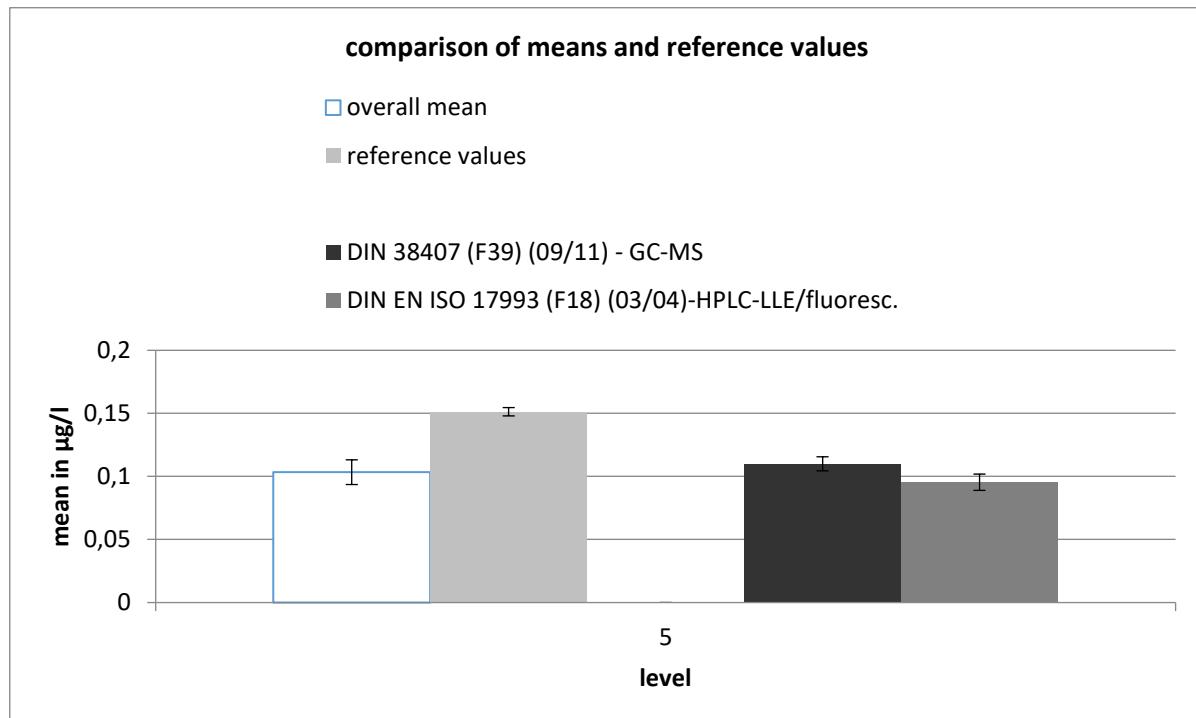
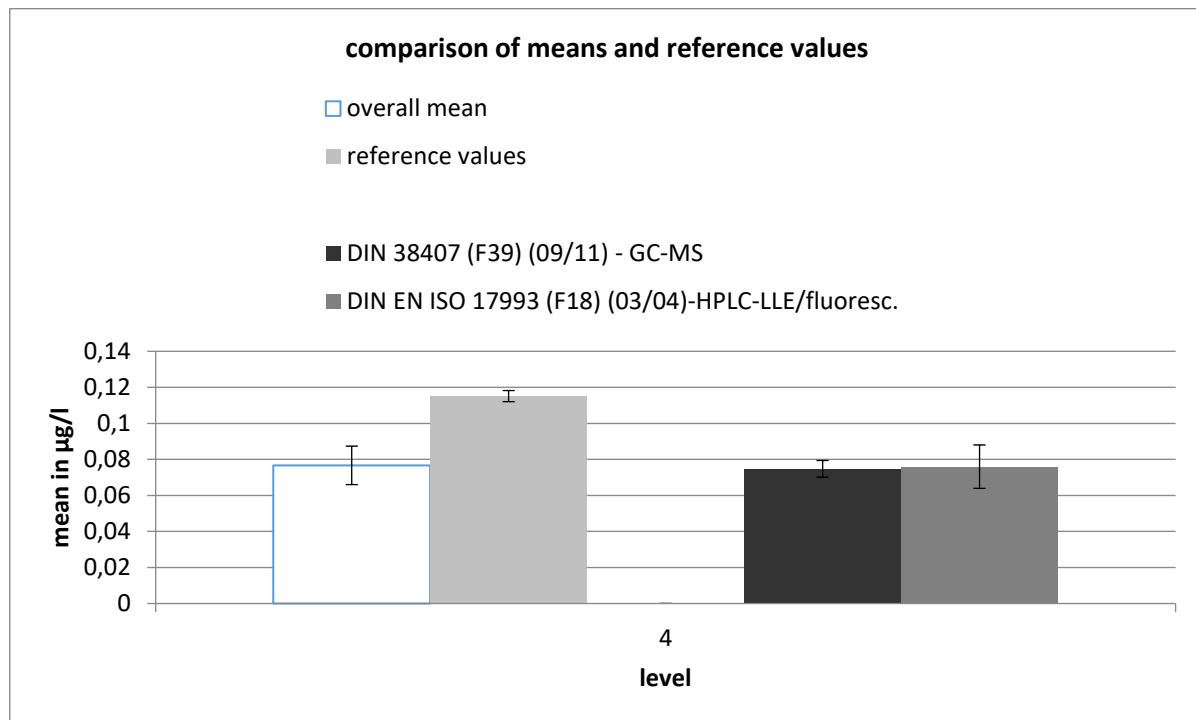
level	mean [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]	reference value [µg/l]	exp. uncertainty [µg/l]	exp. uncertainty [%]
1	0,0191	0,0025	12,9	0,0305	0,0024	7,8
2	0,0339	0,0047	13,9	0,0578	0,0025	4,3
3	0,0664	0,0080	12,1	0,1079	0,0029	2,7
4	0,0767	0,0107	13,9	0,1151	0,0031	2,7
5	0,1034	0,0098	9,5	0,1513	0,0033	2,2
6	0,1135	0,0163	14,4	0,1852	0,0037	2,0
7	0,1527	0,0181	11,9	0,2194	0,0043	2,0
8	0,1515	0,0172	11,4	0,2412	0,0049	2,0
9	0,1578	0,0131	8,3	0,2754	0,0049	1,8

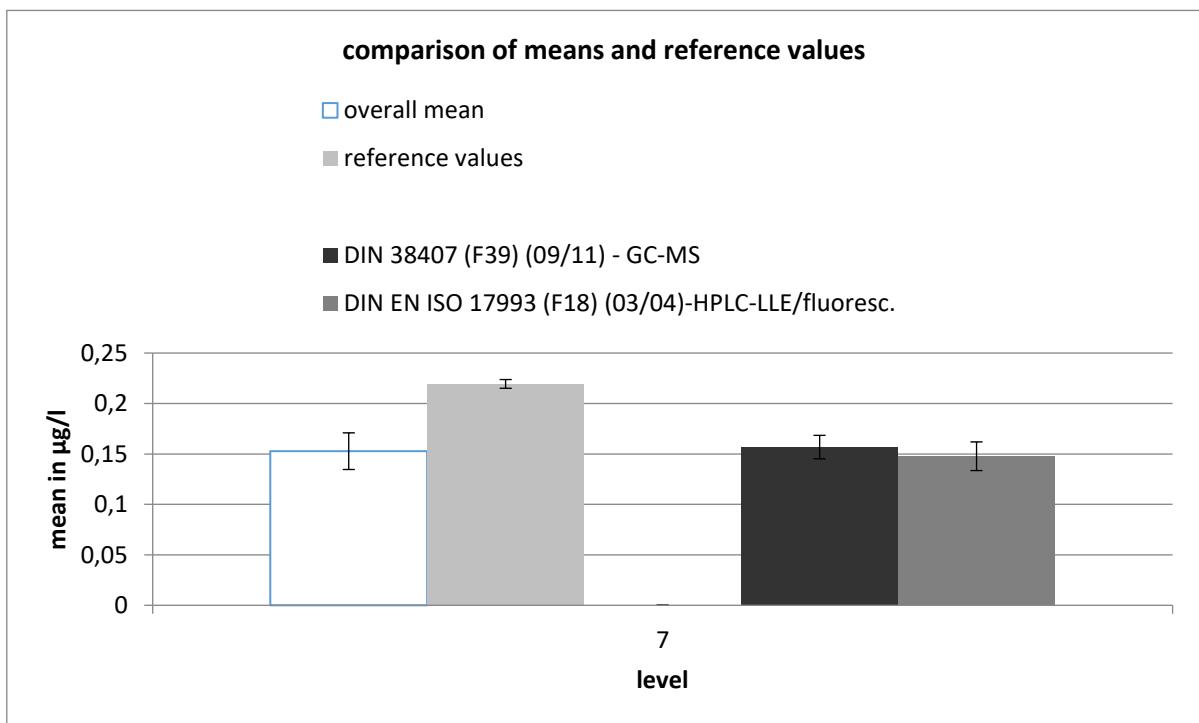
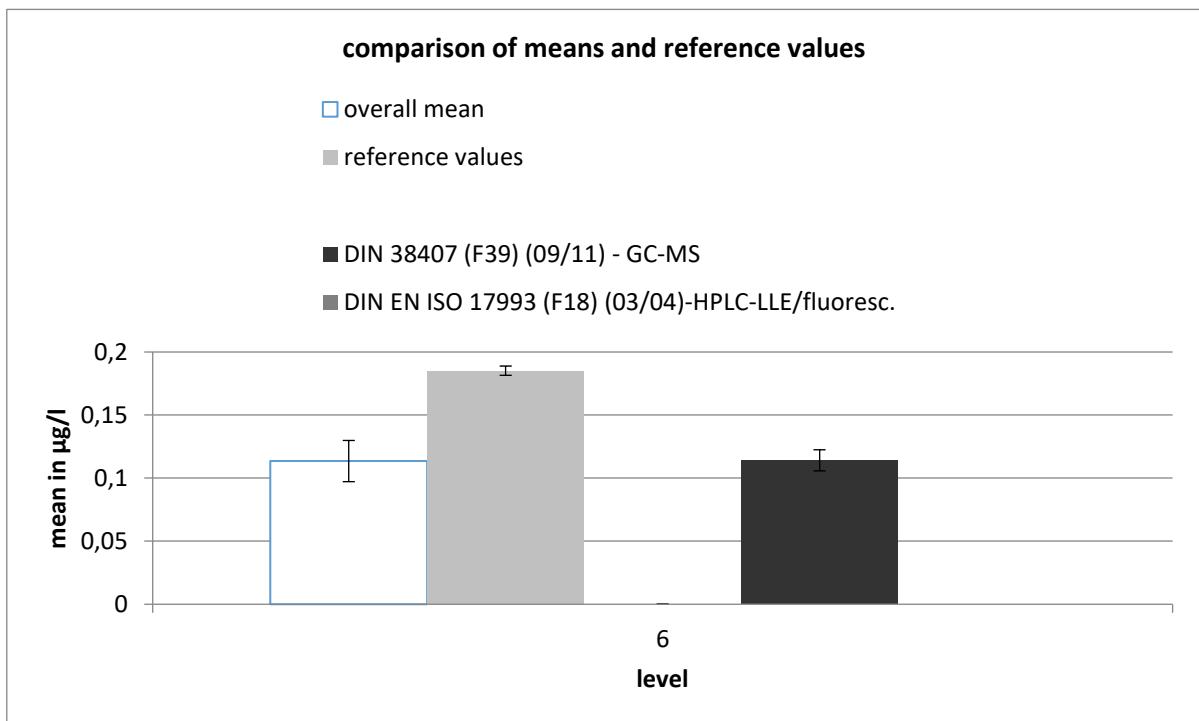
**comparison of means and reference values**

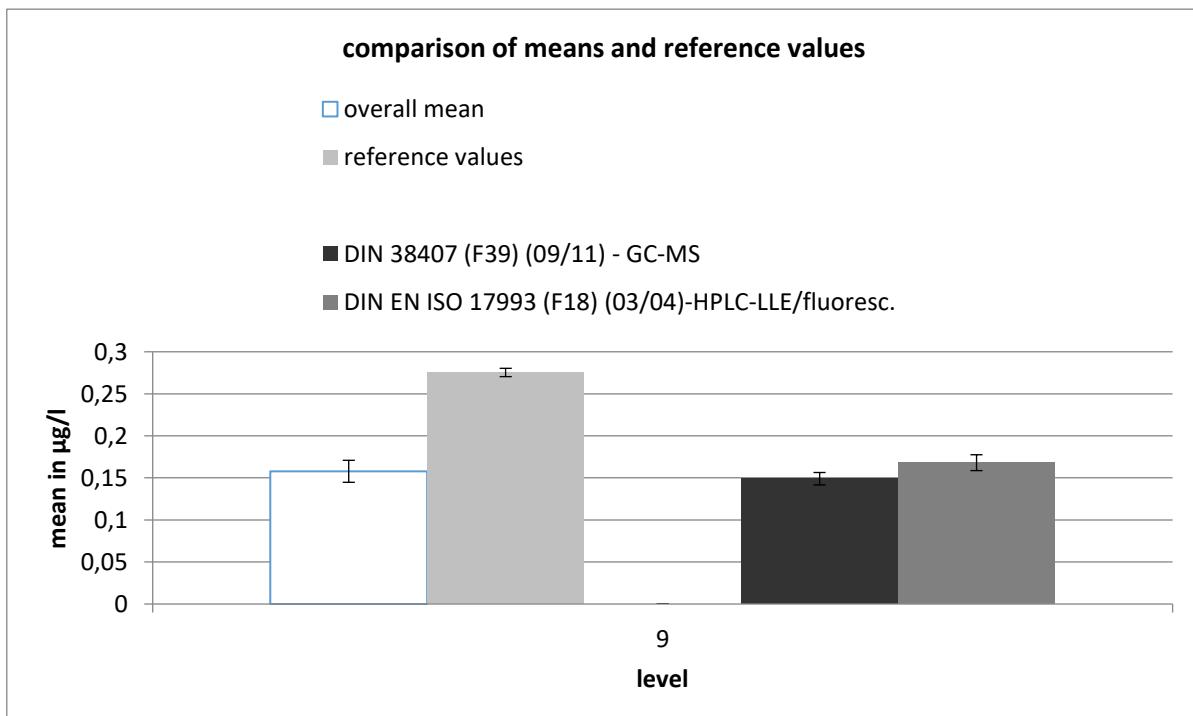
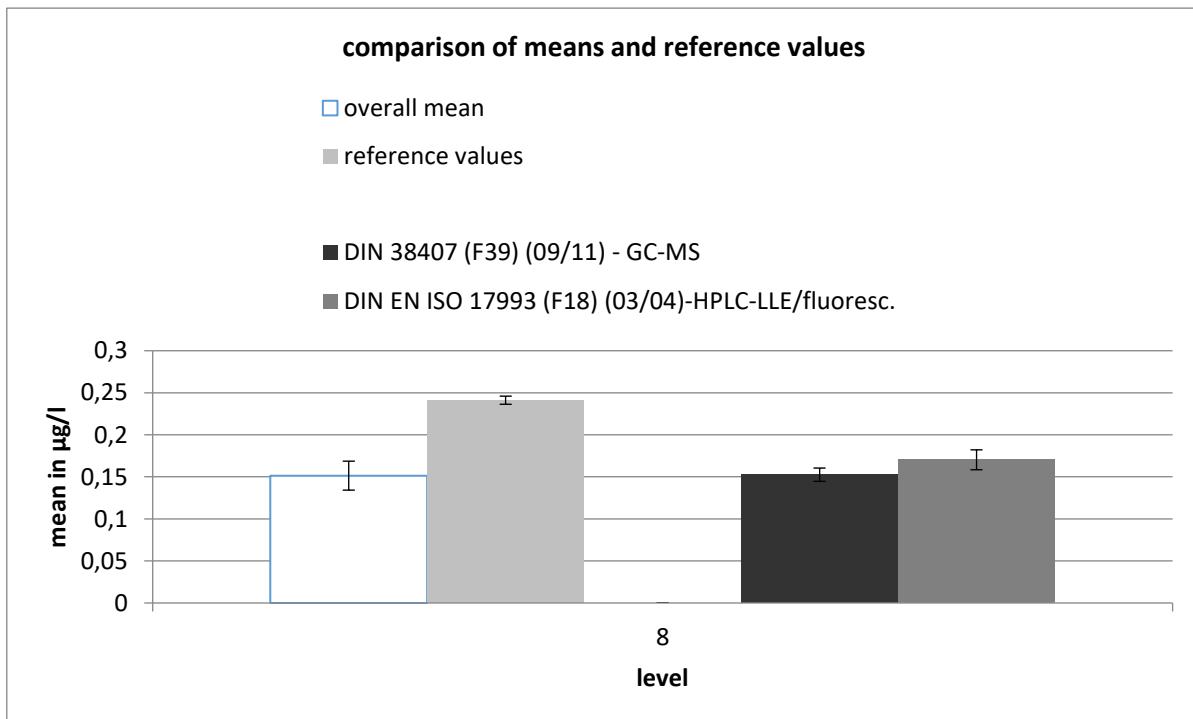
□ overall mean  
■ reference values  
■ DIN 38407 (F39) (09/11) - GC-MS  
■ DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.

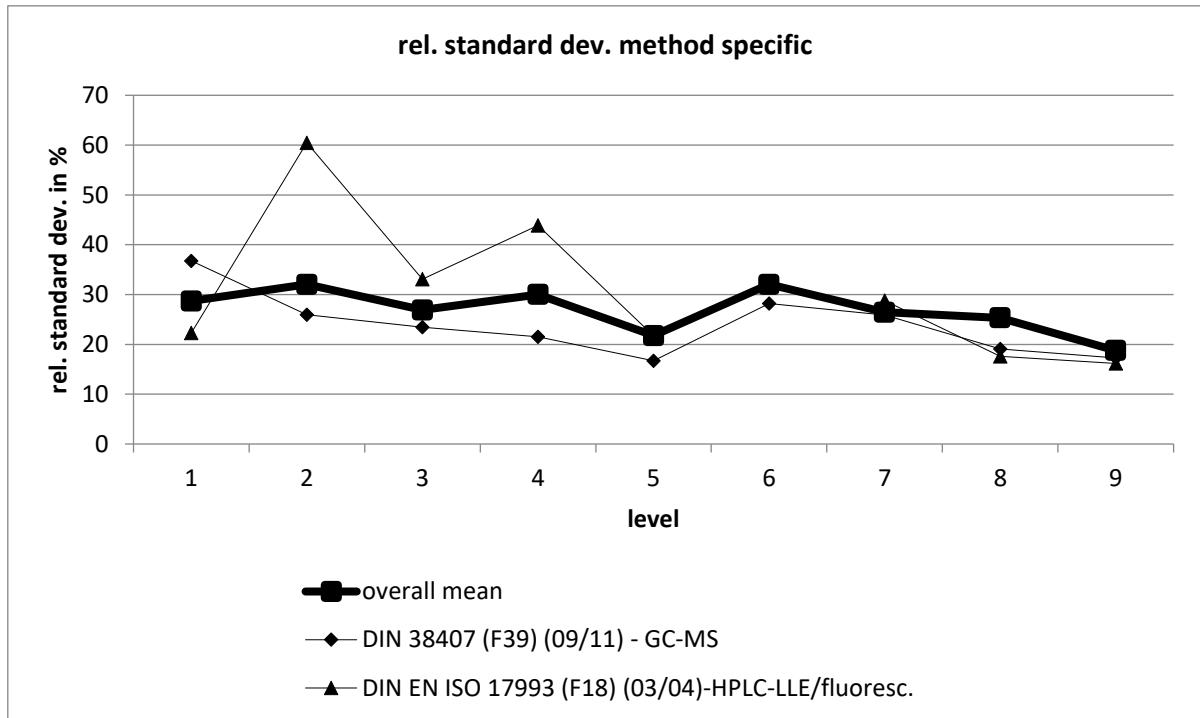






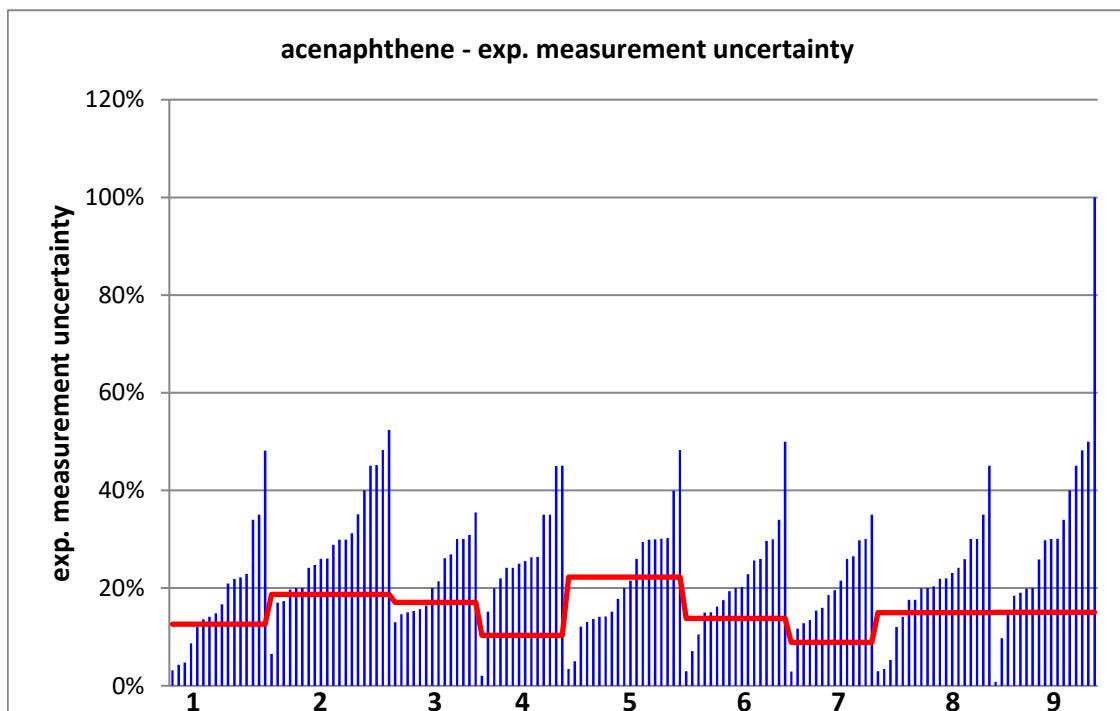
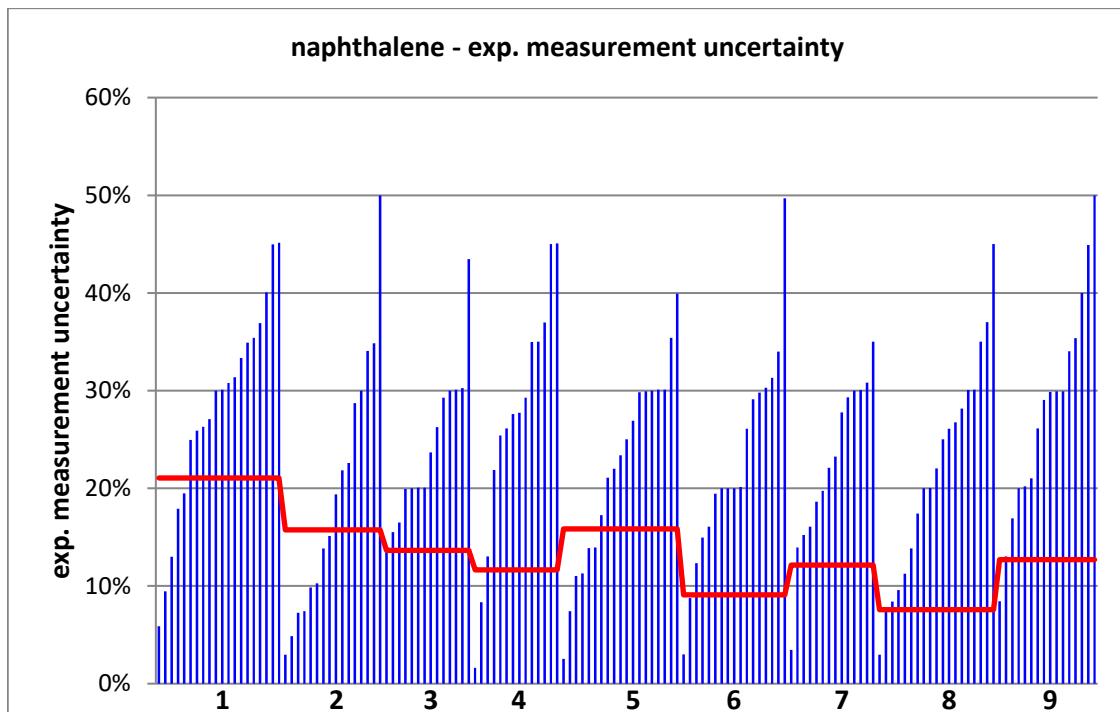


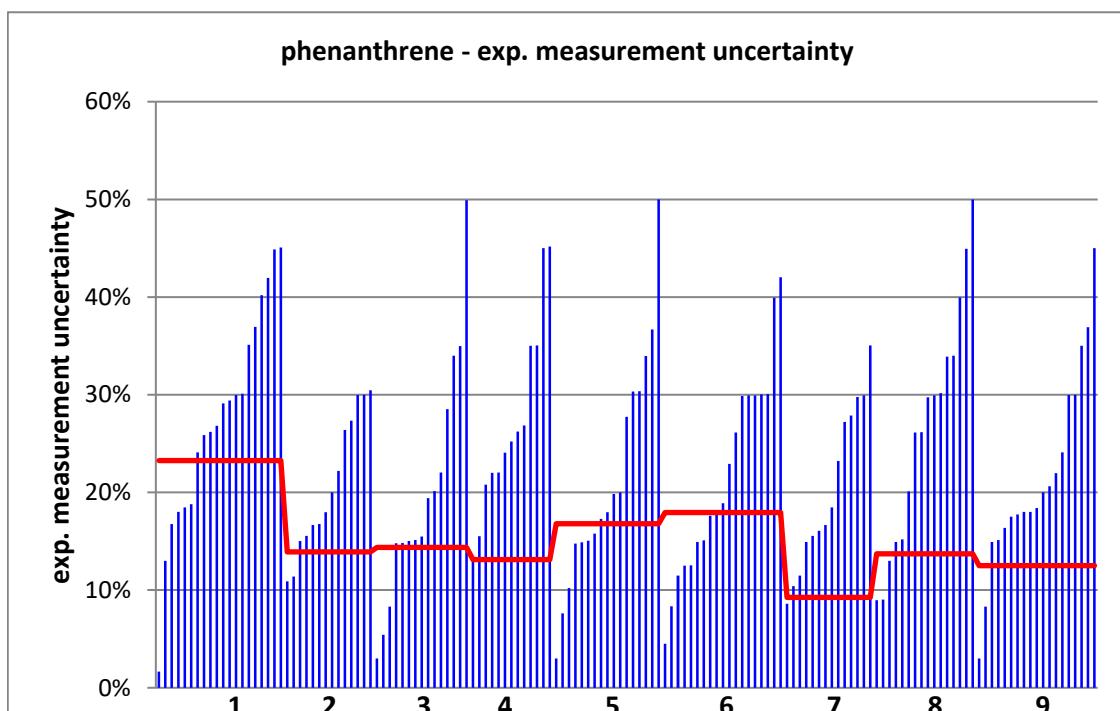
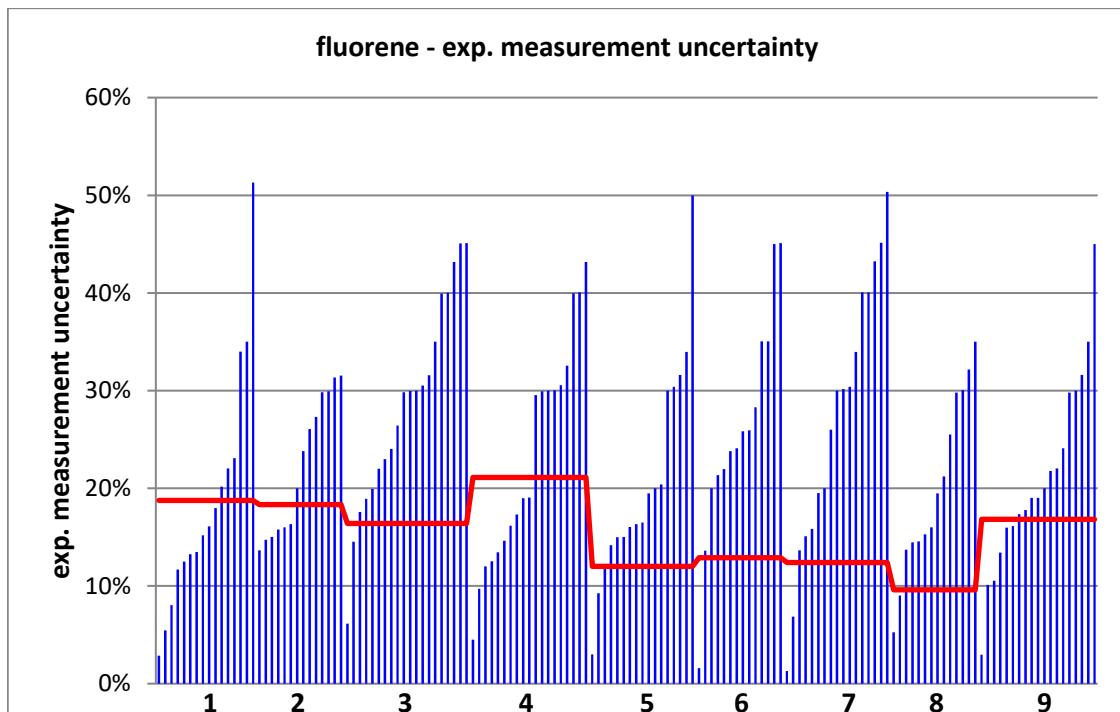


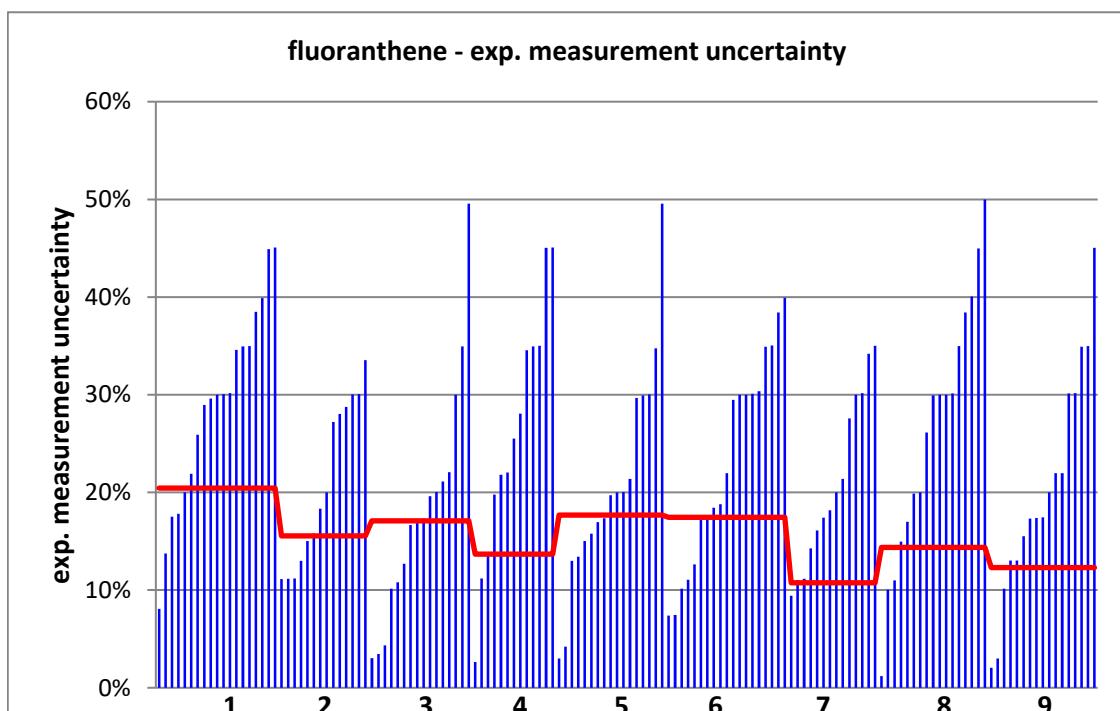
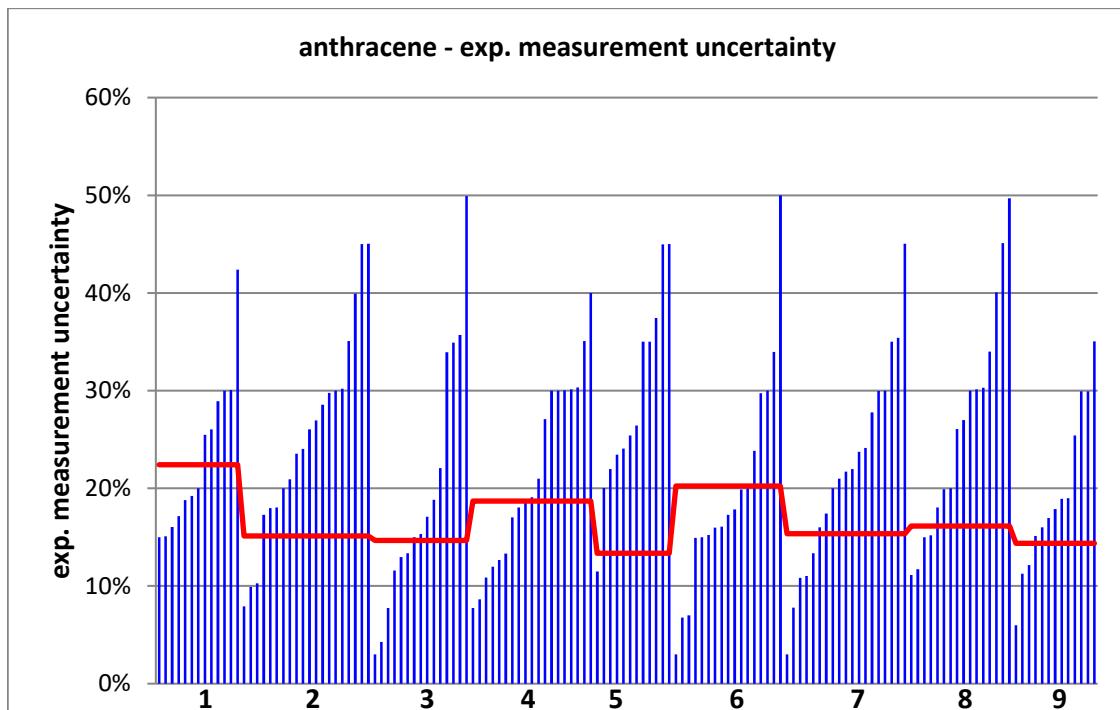


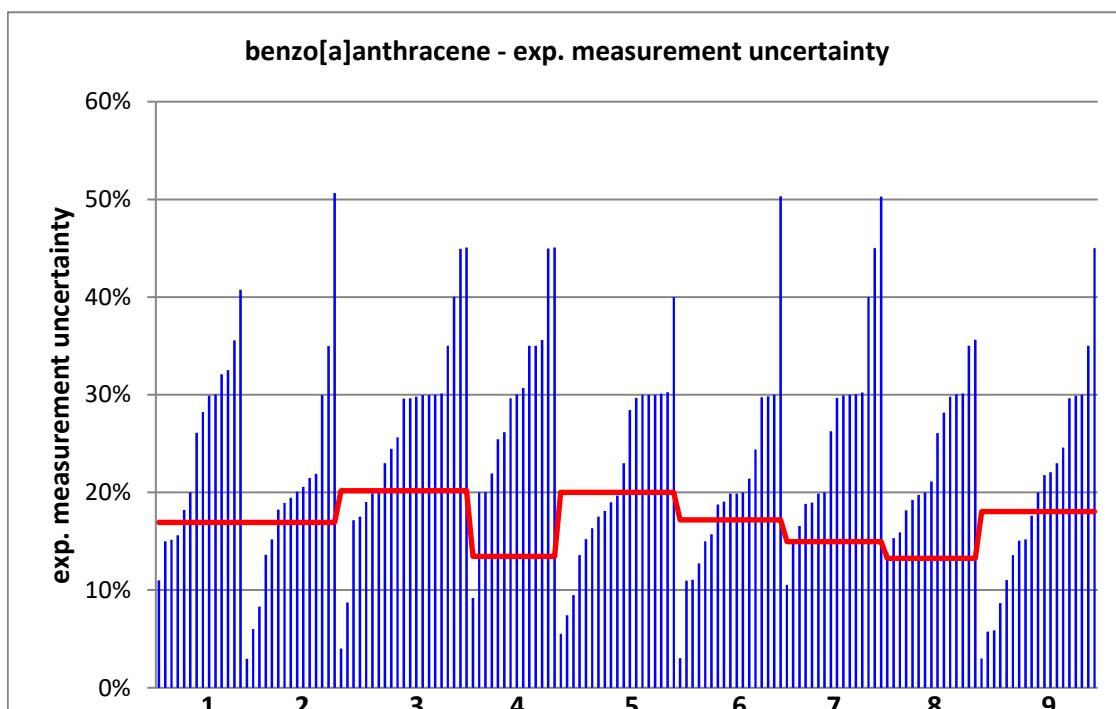
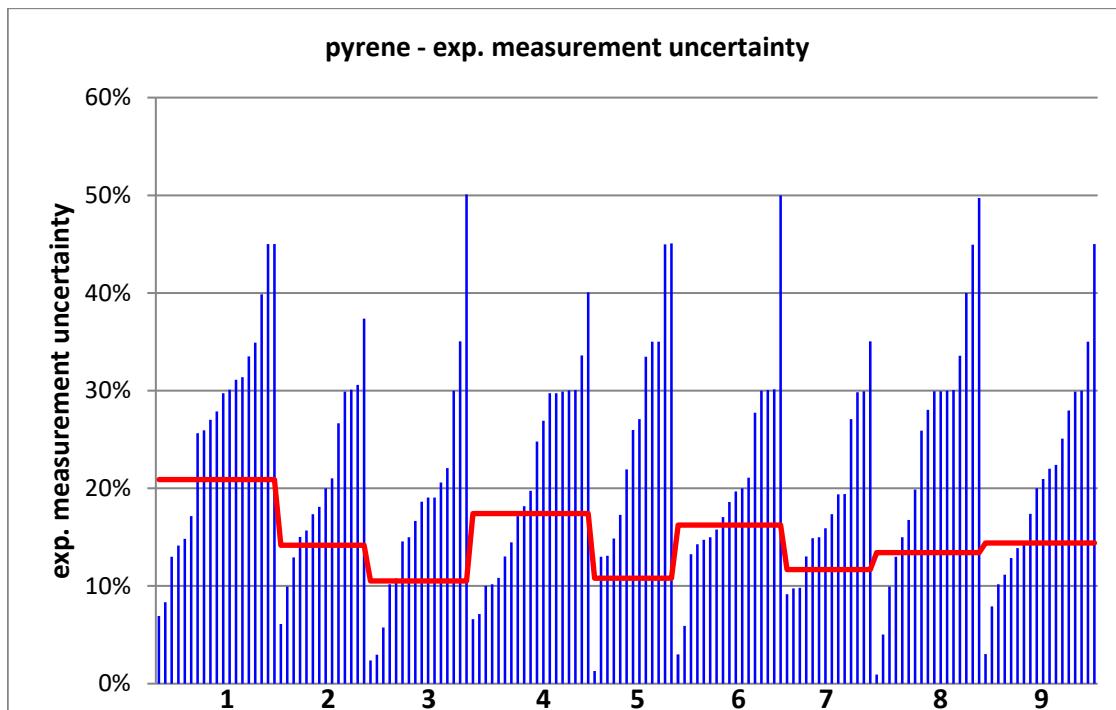
DIN 38407 (F39) (09/11) - GC-MS									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0192	0,002	10,544	0,007	36,769	19	2	1	15,79
2	0,0337	0,0022	6,6213	0,0087	25,95	24	1	2	12,5
3	0,0658	0,0047	7,1049	0,0154	23,435	17	3	0	17,65
4	0,0748	0,0046	6,1722	0,0161	21,523	19	2	1	15,79
5	0,11	0,0056	5,0671	0,0184	16,714	17	1	0	5,882
6	0,1141	0,0084	7,3493	0,0322	28,197	23	4	0	17,39
7	0,1568	0,0116	7,4262	0,0406	25,896	19	2	0	10,53
8	0,1526	0,0079	5,2051	0,0291	19,082	21	1	0	4,762
9	0,149	0,0074	4,9591	0,0258	17,293	19	3	1	21,05

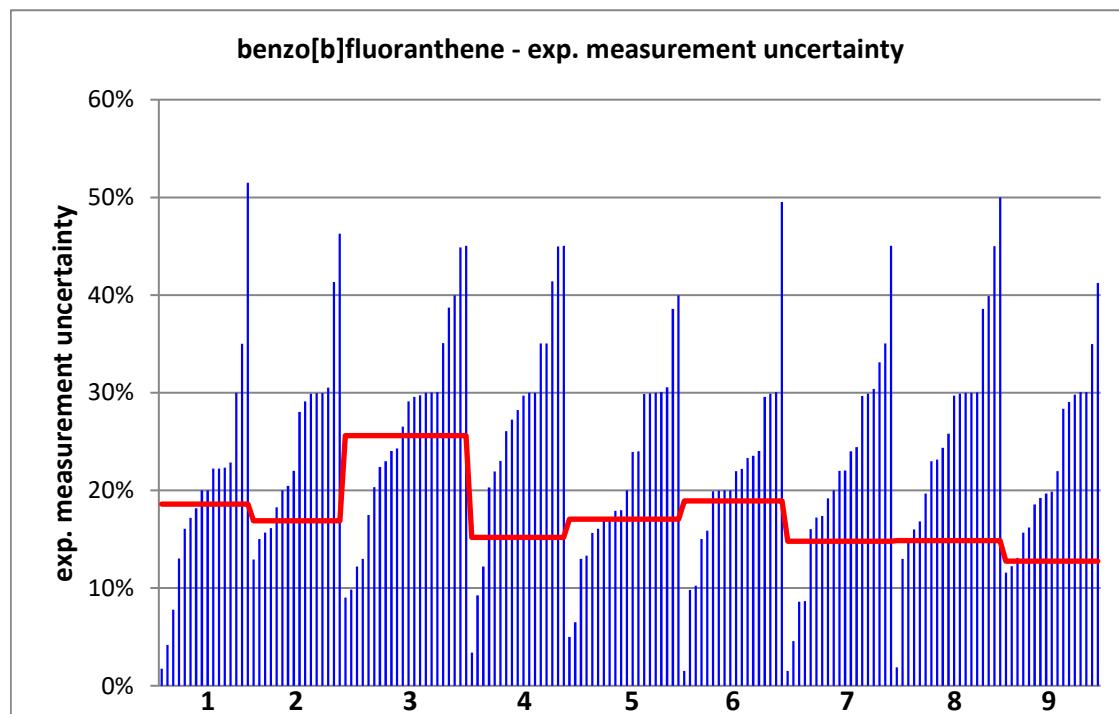
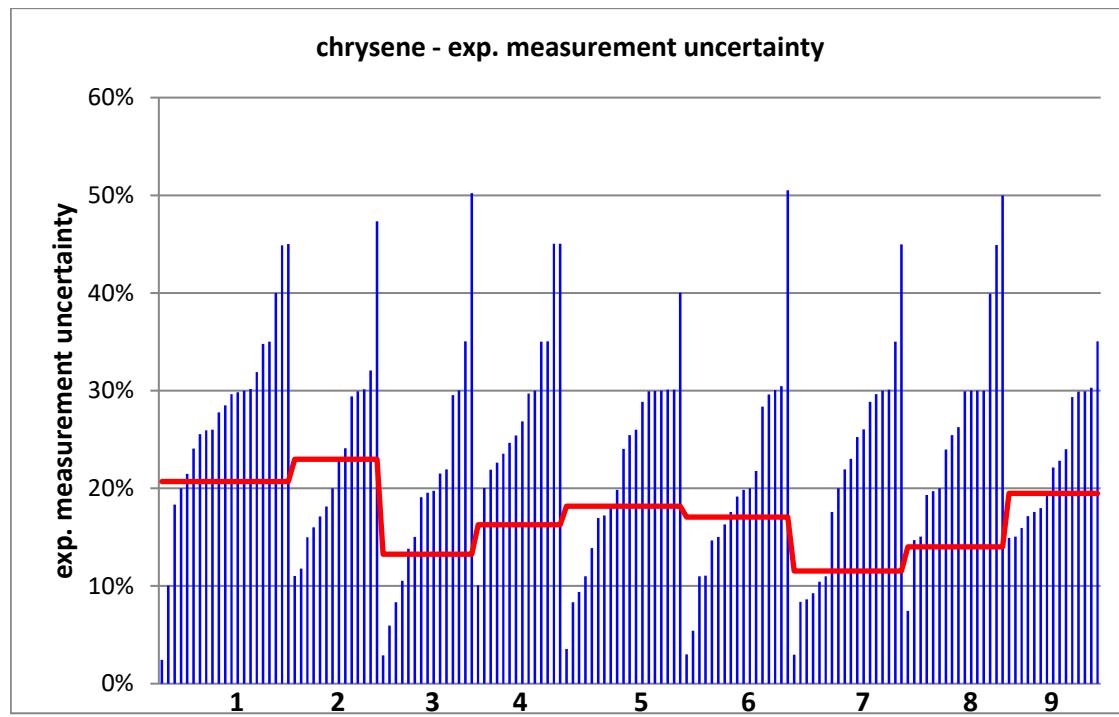
DIN EN ISO 17993 (F18) (03/04)-HPLC-LLE/fluoresc.									
level	robust mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [ $\mu\text{g/l}$ ]	exp. unc. of the mean [%]	robust standard deviation [ $\mu\text{g/l}$ ]	robust standard deviation [%]	number of results	out below	out above	out [%]
1	0,0187	0,0015	8,0399	0,0042	22,281	12	0	1	8,333
2	0,0301	0,0072	23,909	0,0182	60,486	10	0	0	0
3	0,0679	0,0073	10,685	0,0225	33,106	15	1	1	13,33
4	0,076	0,012	15,838	0,0333	43,891	12	1	0	8,333
5	0,0954	0,0065	6,7762	0,0207	21,684	16	0	1	6,25
7	0,1477	0,0142	9,6056	0,0425	28,753	14	1	1	14,29
8	0,1703	0,0118	6,9543	0,03	17,593	10	2	0	20
9	0,1681	0,0094	5,6068	0,0272	16,173	13	1	0	7,692

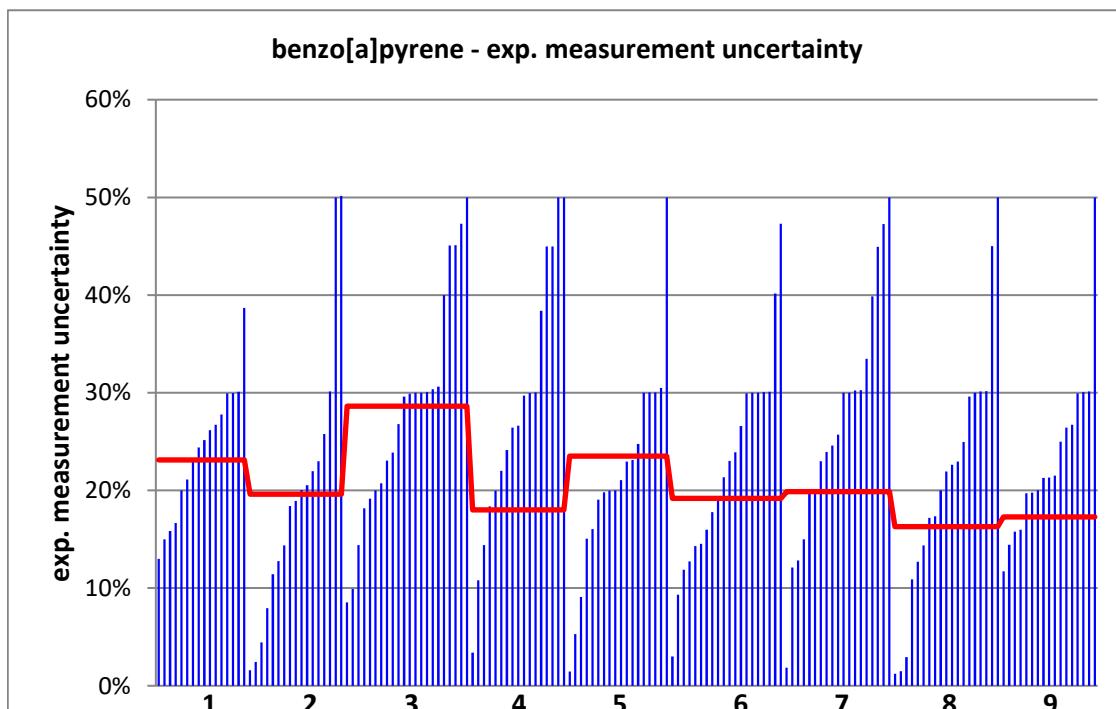
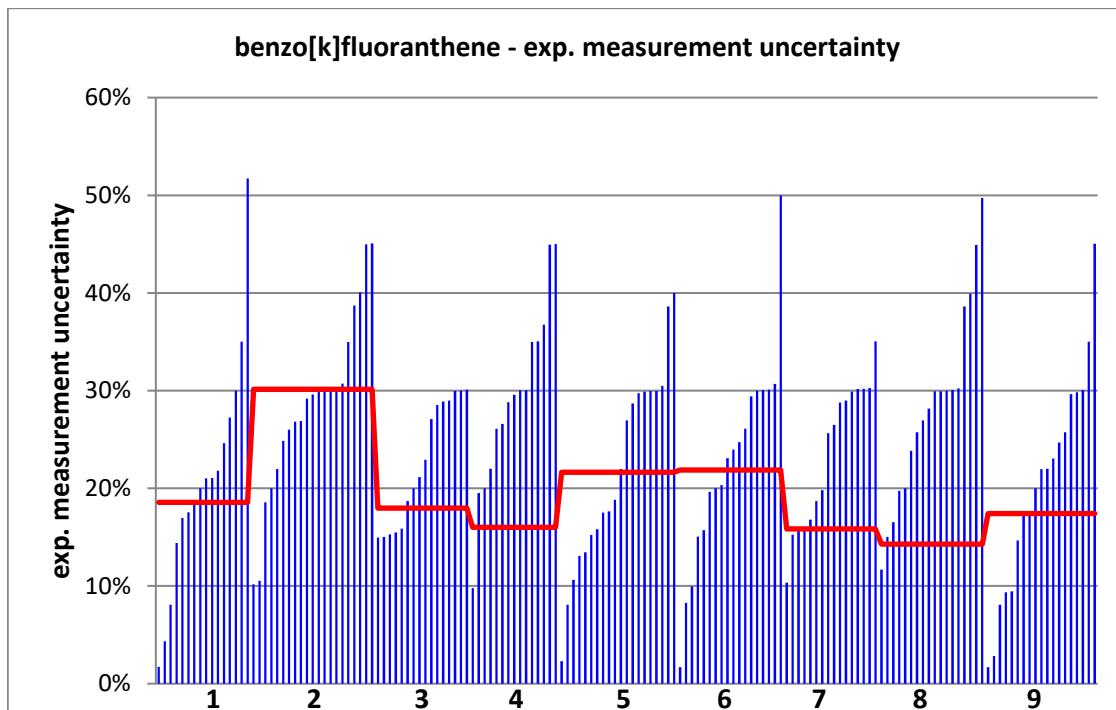


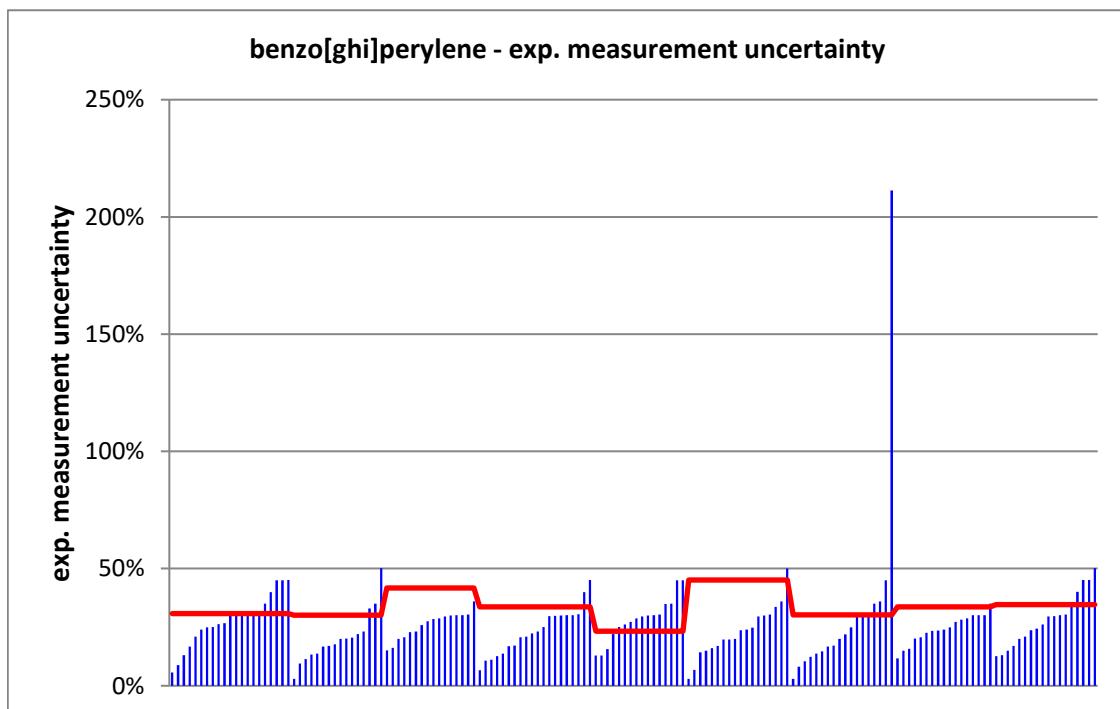
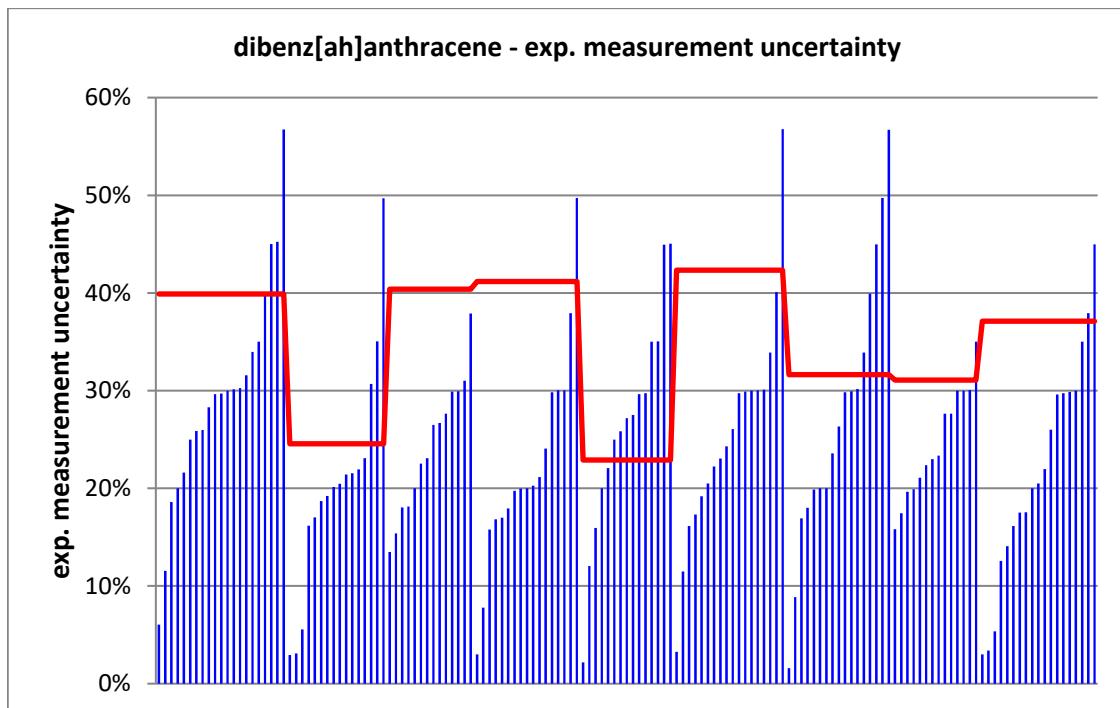


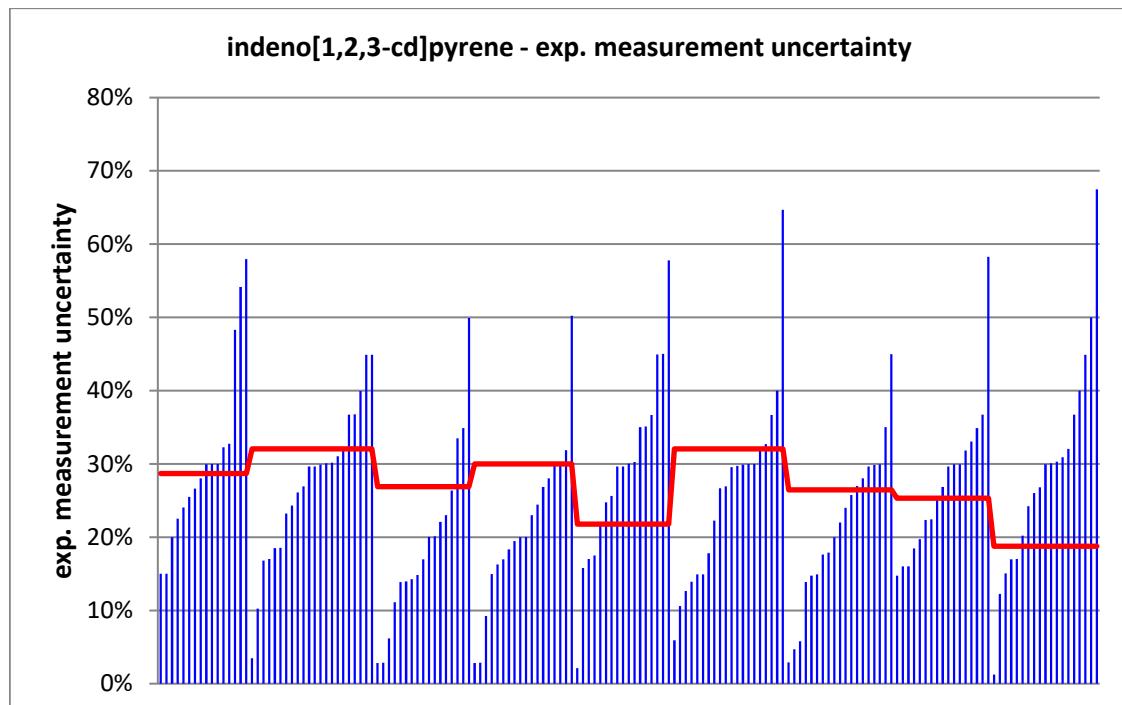








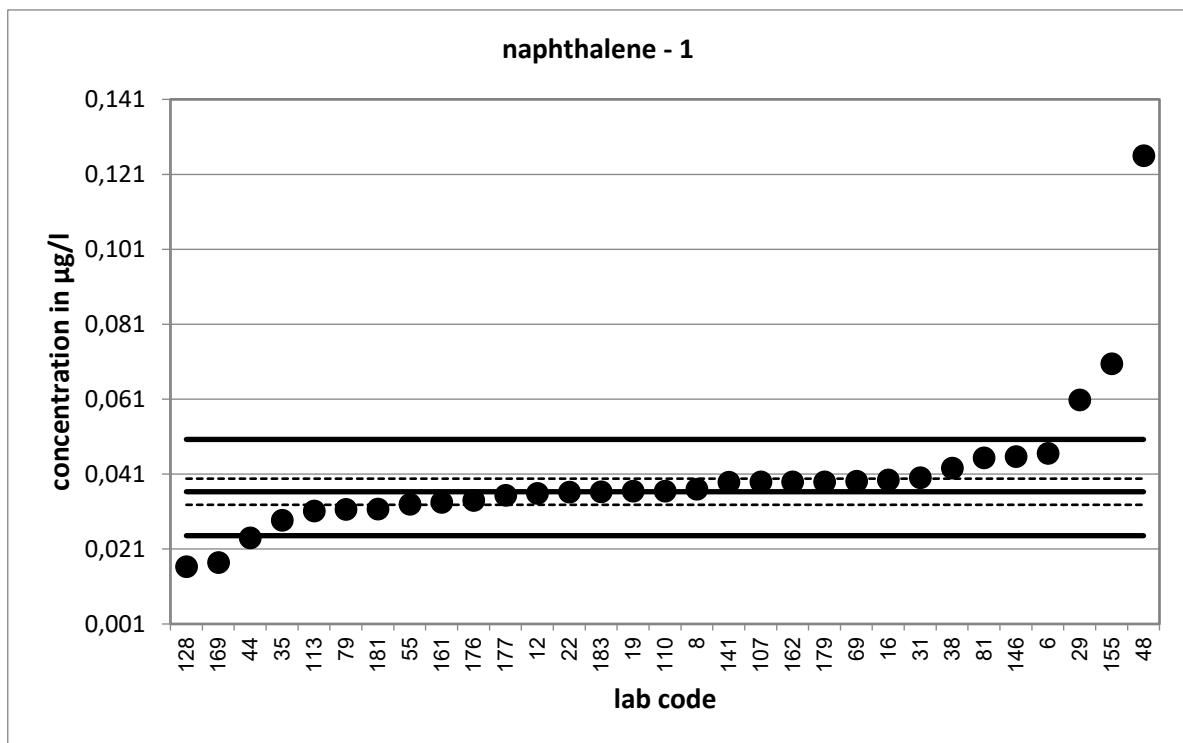




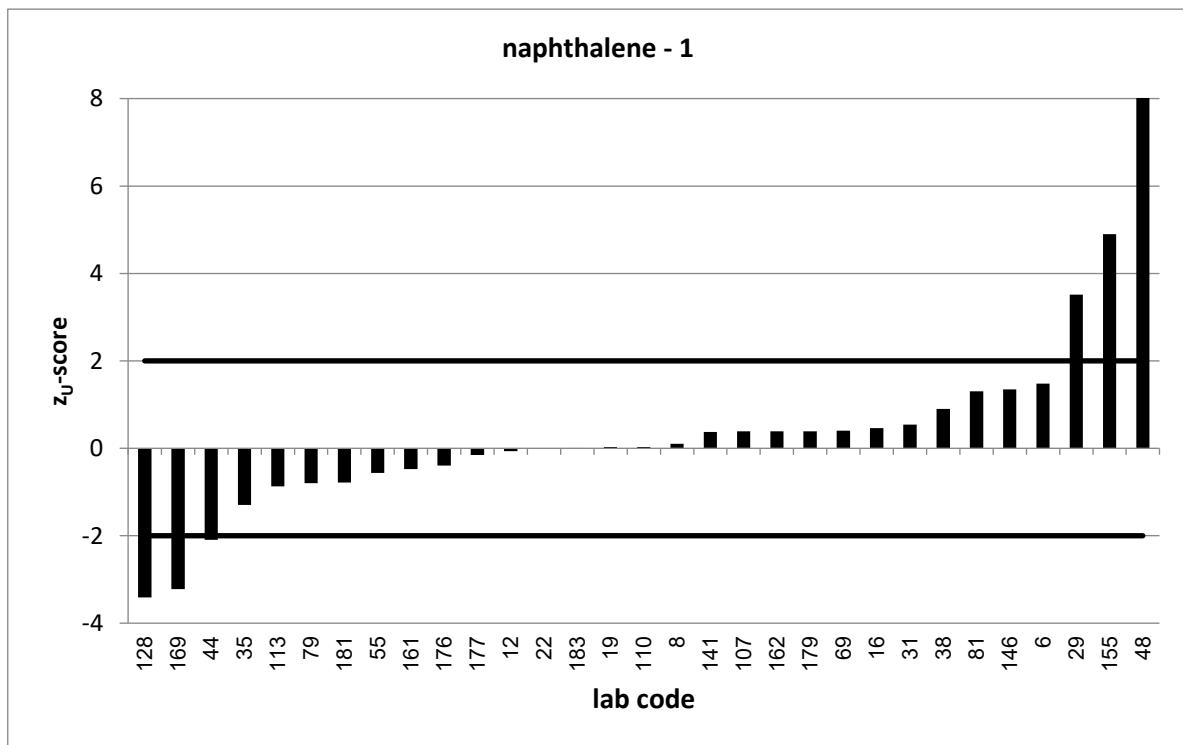
PT 3/24		naphthalene - 1			
assigned value [ $\mu\text{g/l}$ ]*		0,0363 $\pm$ 0,00349			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,05025			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,02456			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0466	0,017	1,2	1,5	s
8	0,037	0,009	0,1	0,1	s
12	0,0359	0,011	-0,1	-0,1	s
16	0,0395	0,008	0,8	0,5	s
19	0,0365	0,01	0,0	0,0	s
22	0,0362	0,015	0,0	0,0	s
29	0,0608	0,008	5,7	3,5	u
31	0,0401	0,014	0,5	0,5	s
35	0,0287	0,009	-1,6	-1,3	s
38	0,0426			0,9	s
44	0,024	0,008	-2,8	-2,1	q
48	0,126	0,007	21,9	12,9	u
55	0,033	0,015	-0,4	-0,6	s
69	0,0391	0,007	0,7	0,4	s
79	0,0316			-0,8	s
81	0,0454			1,3	s
107	0,039	0,01	0,5	0,4	s
110	0,0365			0,0	s
113	0,0312			-0,9	s
128	0,0163			-3,4	u
141	0,0389	0,018	0,3	0,4	s
146	0,0457	0,011	1,6	1,3	s
155	0,0705			4,9	u
161	0,0335			-0,5	s
162	0,039	0,012	0,4	0,4	s
169	0,0174	0,005	-6,4	-3,2	u
176	0,034			-0,4	s
177	0,0354			-0,2	s
179	0,039	0,012	0,4	0,4	s
181	0,0317	0,003	-2,0	-0,8	s
183	0,0363	0,013	0,0	0,0	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

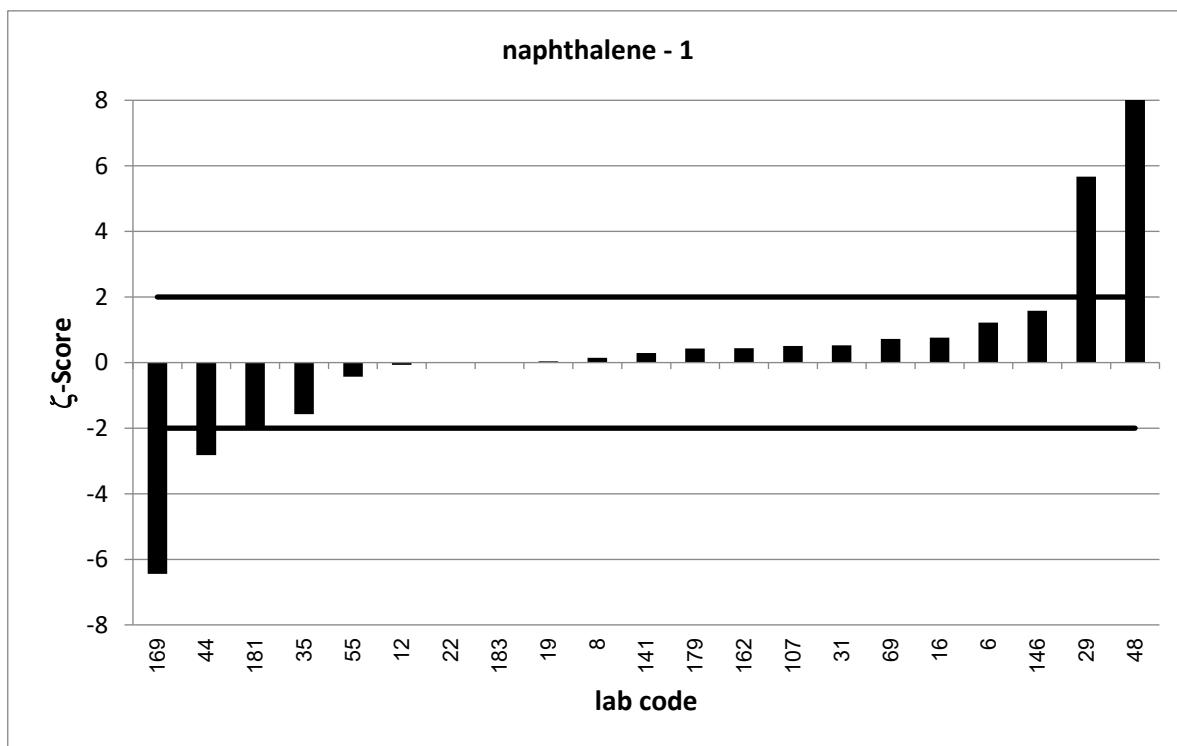
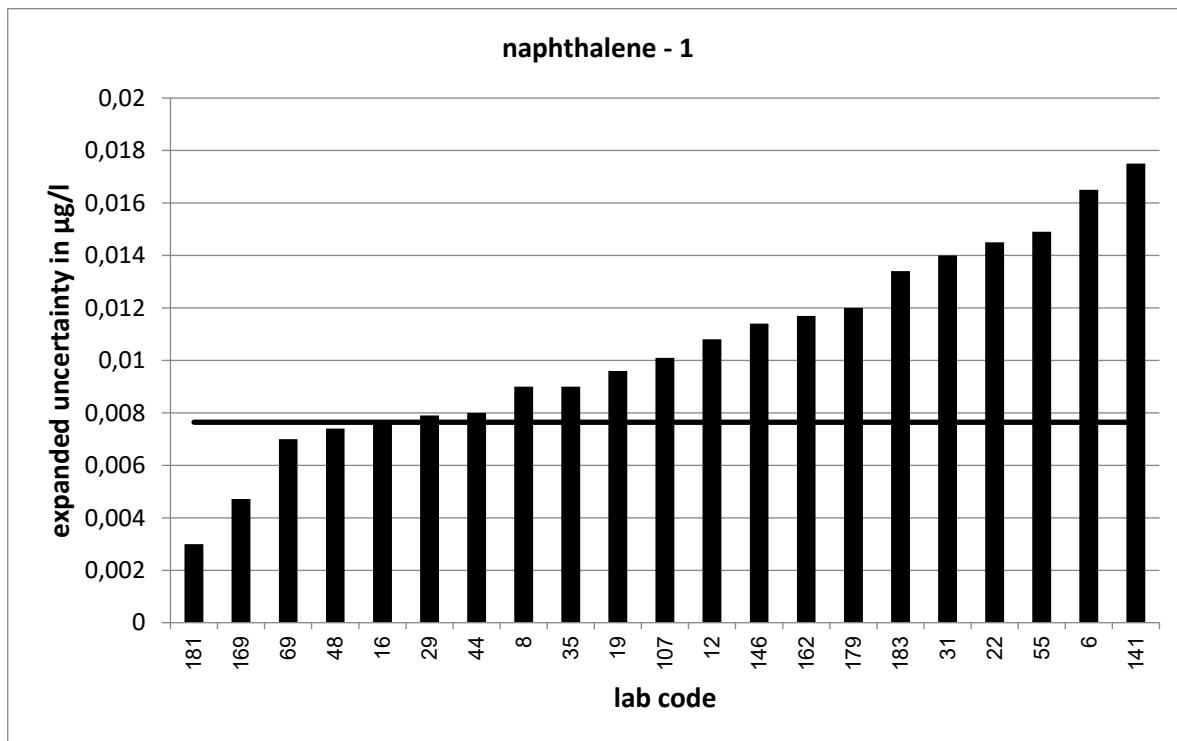
\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.



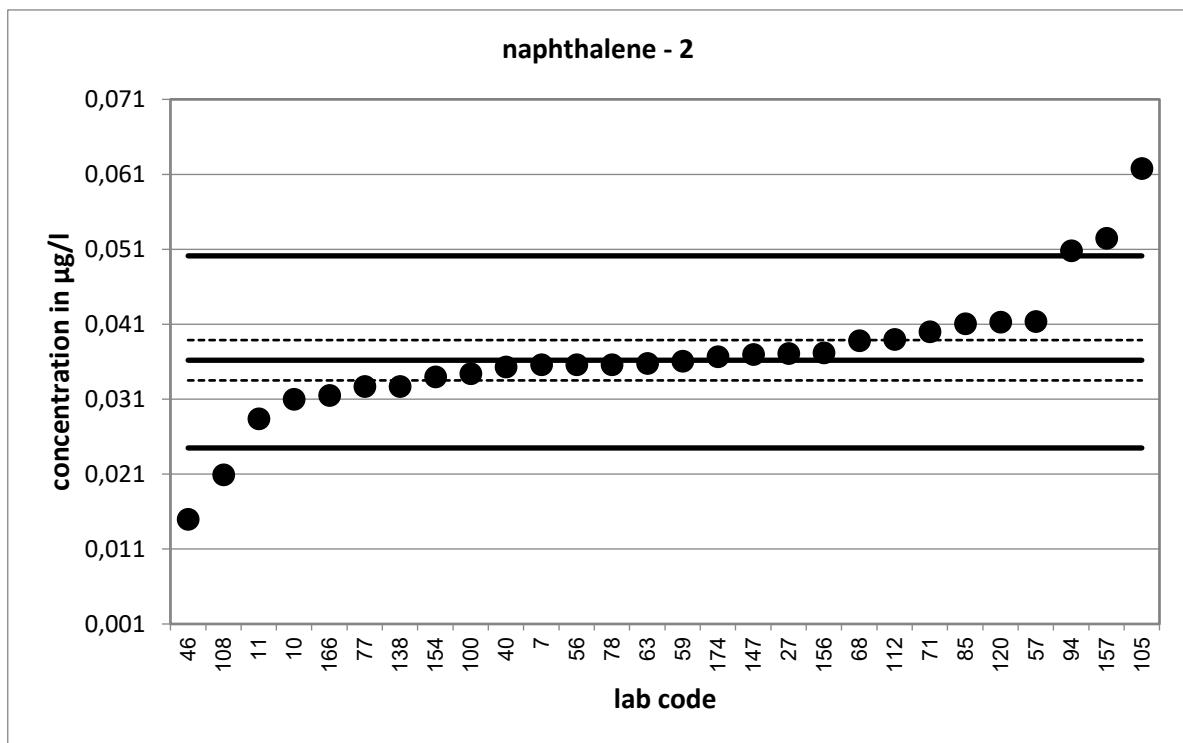
Strongly deviating values are not correctly shown in the diagram.



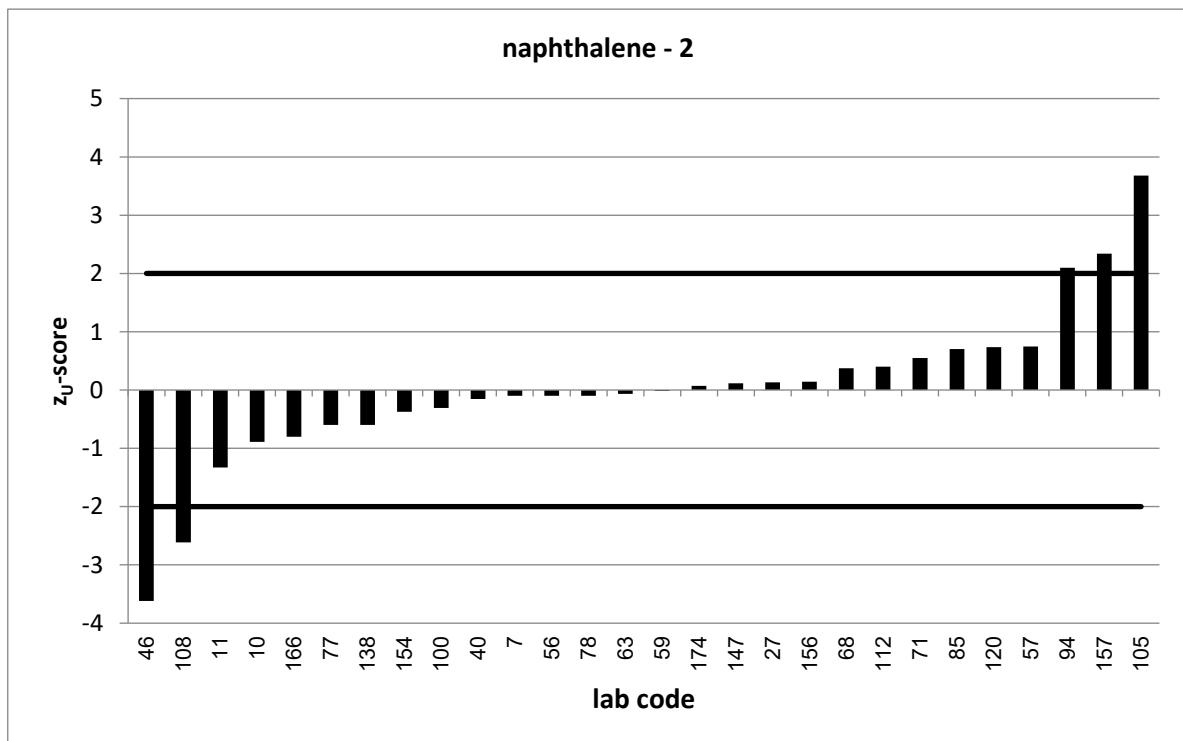
PT 3/24		naphthalene - 2			
assigned value [ $\mu\text{g/l}$ ]*		$0,03619 \pm 0,00269$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,05012			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,02449			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0356	0,004	-0,3	-0,1	s
10	0,031	0,007	-1,4	-0,9	s
11	0,0284	0,006	-2,3	-1,3	s
27	0,0371			0,1	s
40	0,0353			-0,2	s
46	0,015			-3,6	u
56	0,0356	0,005	-0,2	-0,1	s
57	0,0414			0,7	s
59	0,0361	0,007	0,0	0,0	s
63	0,0358	0,012	-0,1	-0,1	s
68	0,0388			0,4	s
71	0,04	0,012	0,6	0,5	s
77	0,0327	0,011	-0,6	-0,6	s
78	0,0356			-0,1	s
85	0,0411	0,002	2,9	0,7	s
94	0,0508			2,1	q
100	0,0344	0,005	-0,6	-0,3	s
105	0,0618			3,7	u
108	0,0209	0,006	-4,7	-2,6	q
112	0,039	0,004	1,2	0,4	s
120	0,0413	0,003	2,5	0,7	s
138	0,0327			-0,6	s
147	0,037	0,001	0,6	0,1	s
154	0,034	0,017	-0,3	-0,4	s
156	0,0372	0,003	0,5	0,1	s
157	0,0525			2,3	q
166	0,0315			-0,8	s
174	0,0367			0,1	s

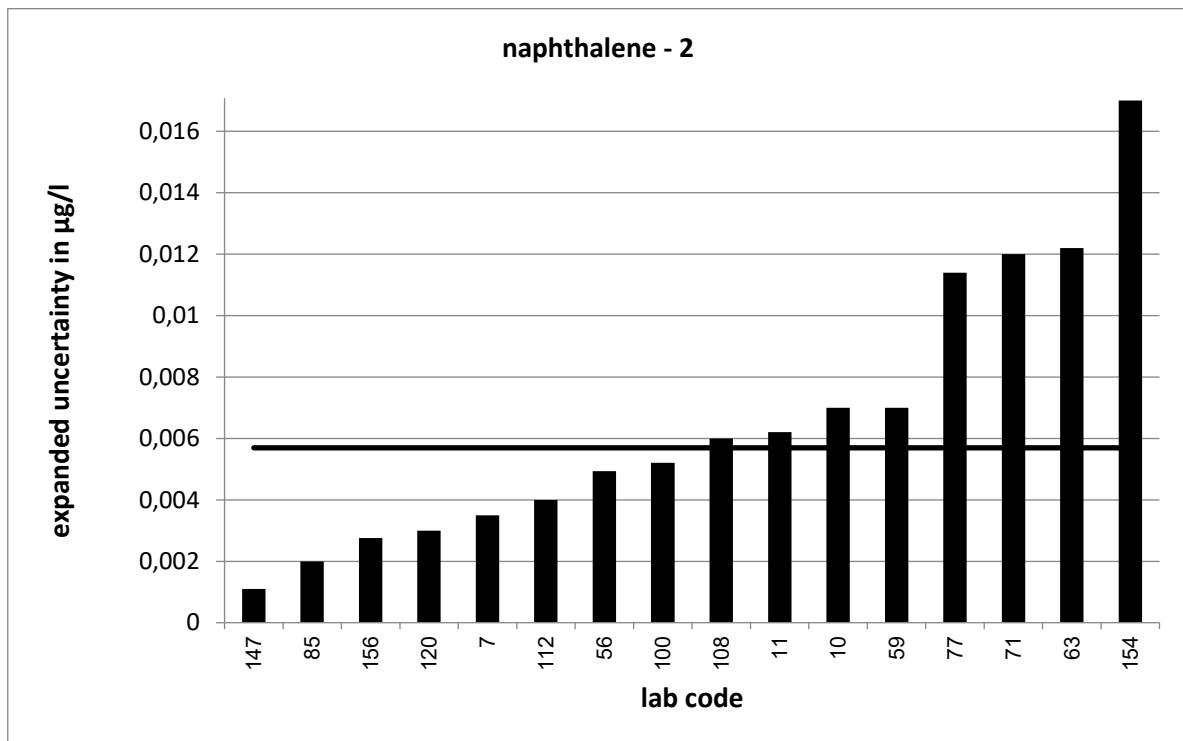
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

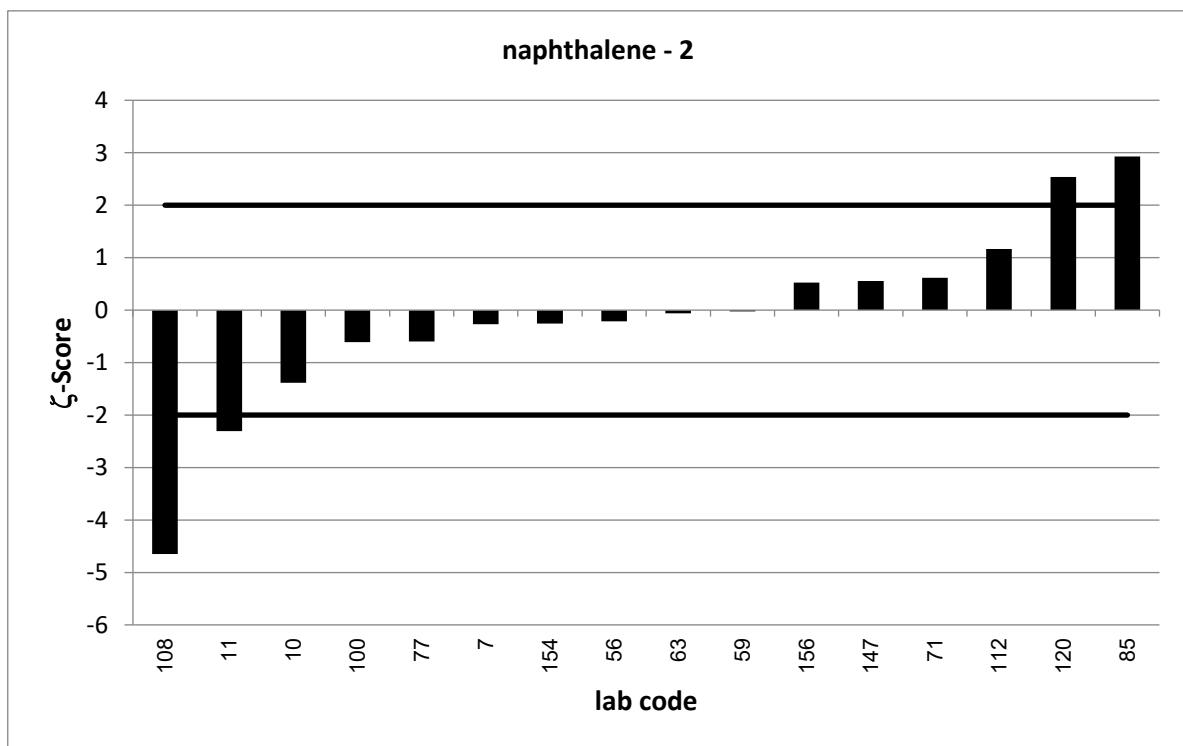


Strongly deviating values are not shown in the diagram.





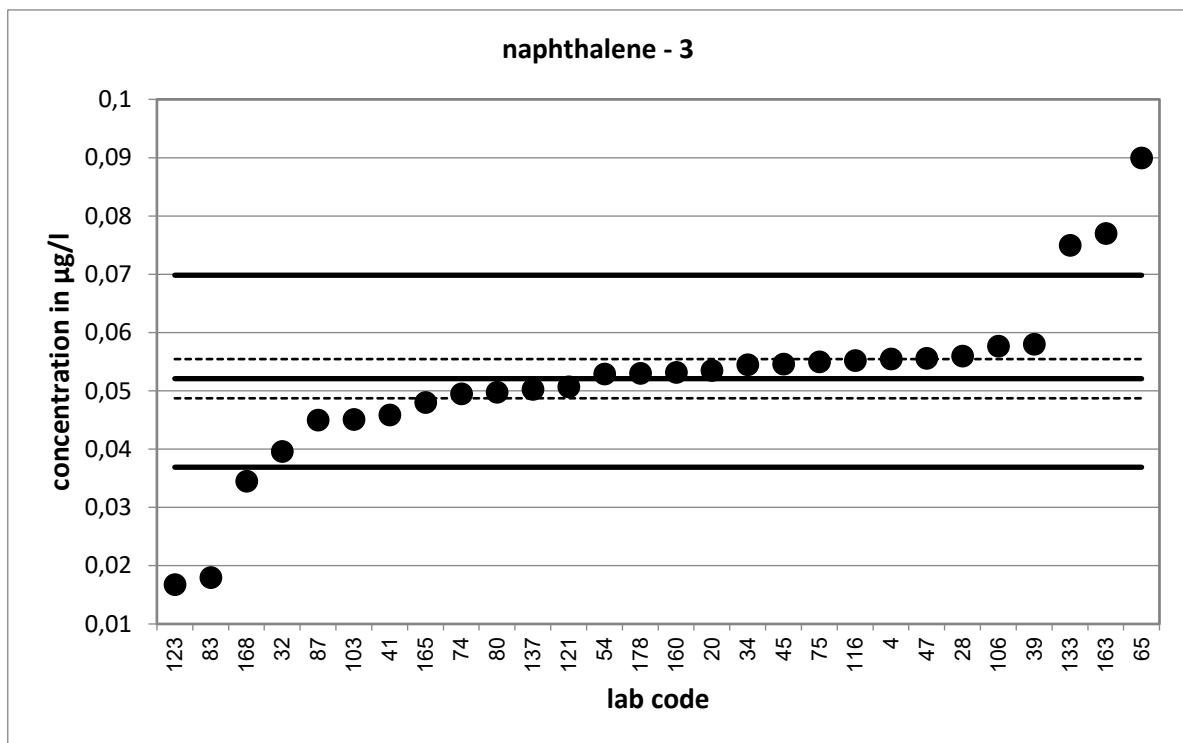
Strongly deviating values are not correctly shown in the diagram.



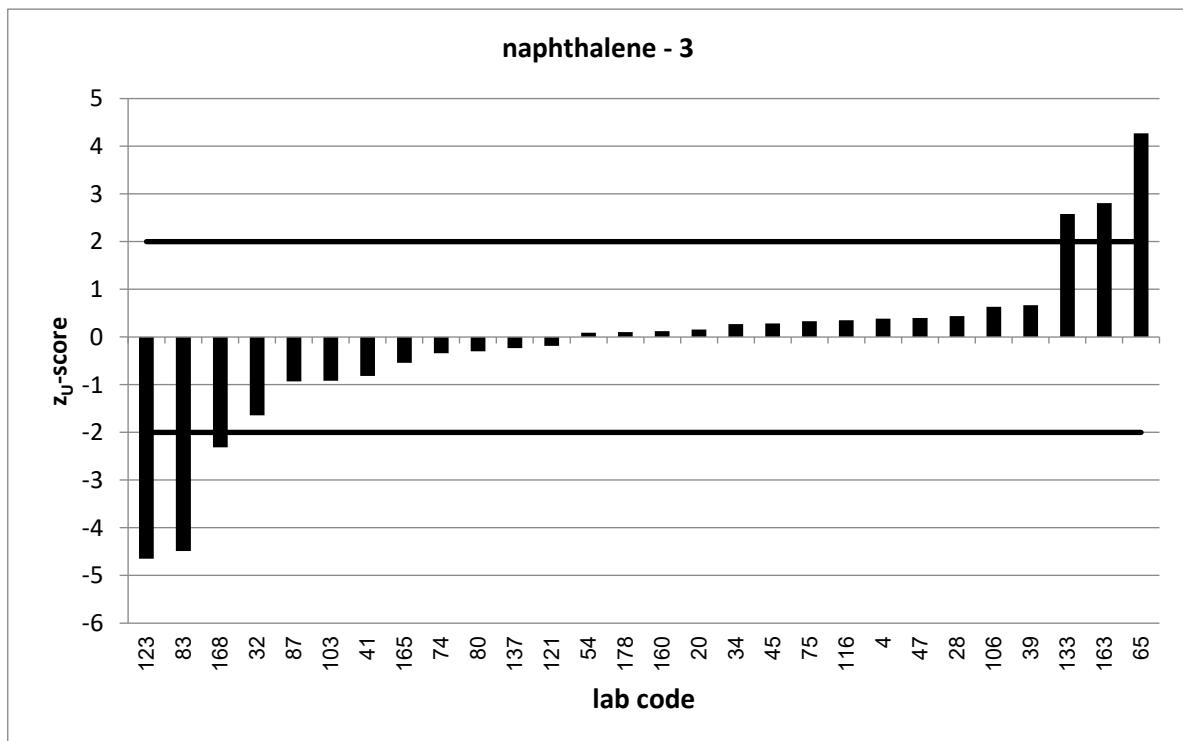
PT 3/24		naphthalene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,05209 \pm 0,00336$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,06983$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,0369$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0555			0,4	s
20	0,0535	0,016	0,2	0,2	s
28	0,056	0,016	0,5	0,4	s
32	0,0396			-1,6	s
34	0,0545	0,009	0,5	0,3	s
39	0,058	0,009	1,2	0,7	s
41	0,0459			-0,8	s
45	0,0546			0,3	s
47	0,0556			0,4	s
54	0,0529	0,016	0,1	0,1	s
65	0,09			4,3	u
74	0,0495	0,013	-0,4	-0,3	s
75	0,055	0,011	0,5	0,3	s
80	0,0498	0,01	-0,4	-0,3	s
83	0,018			-4,5	u
87	0,045	0,014	-1,0	-0,9	s
103	0,0451	0,006	-2,0	-0,9	s
106	0,0577			0,6	s
116	0,0552	0,011	0,5	0,4	s
121	0,0507	0,012	-0,2	-0,2	s
123	0,0168			-4,6	u
133	0,075			2,6	q
137	0,0503	0,01	-0,3	-0,2	s
160	0,0532			0,1	s
163	0,077			2,8	q
165	0,048			-0,5	s
168	0,0345	0,015	-2,3	-2,3	q
178	0,053			0,1	s

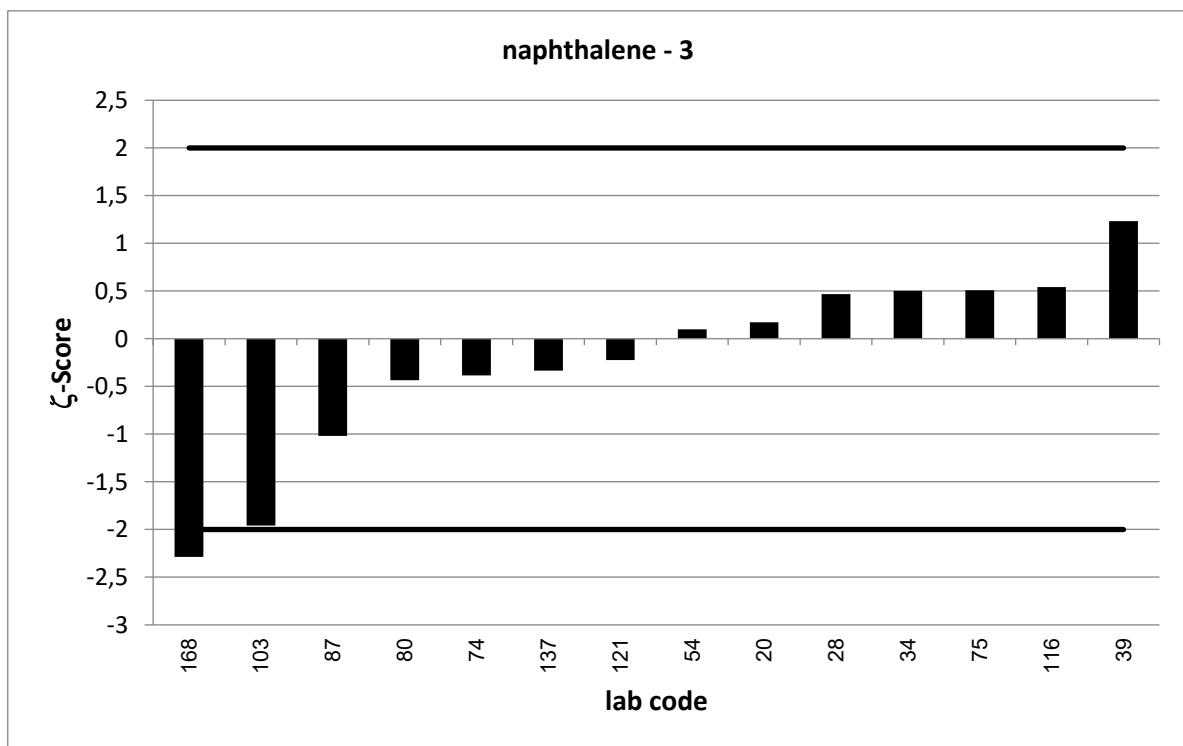
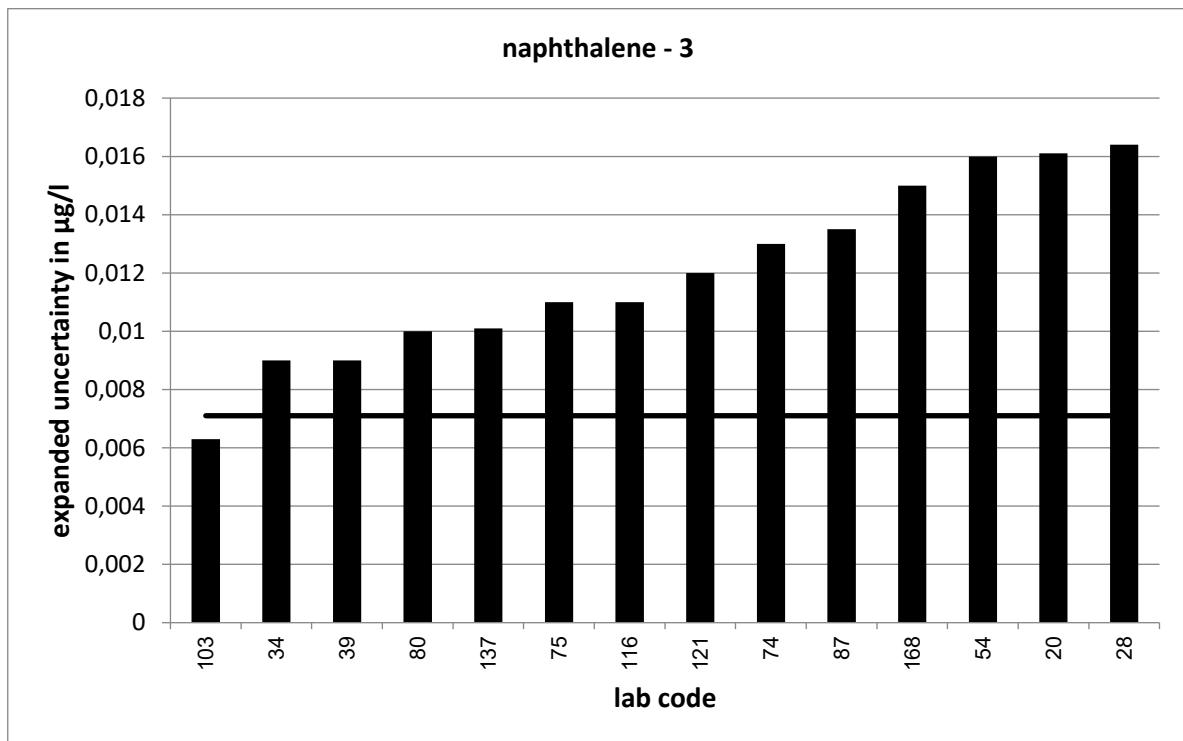
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

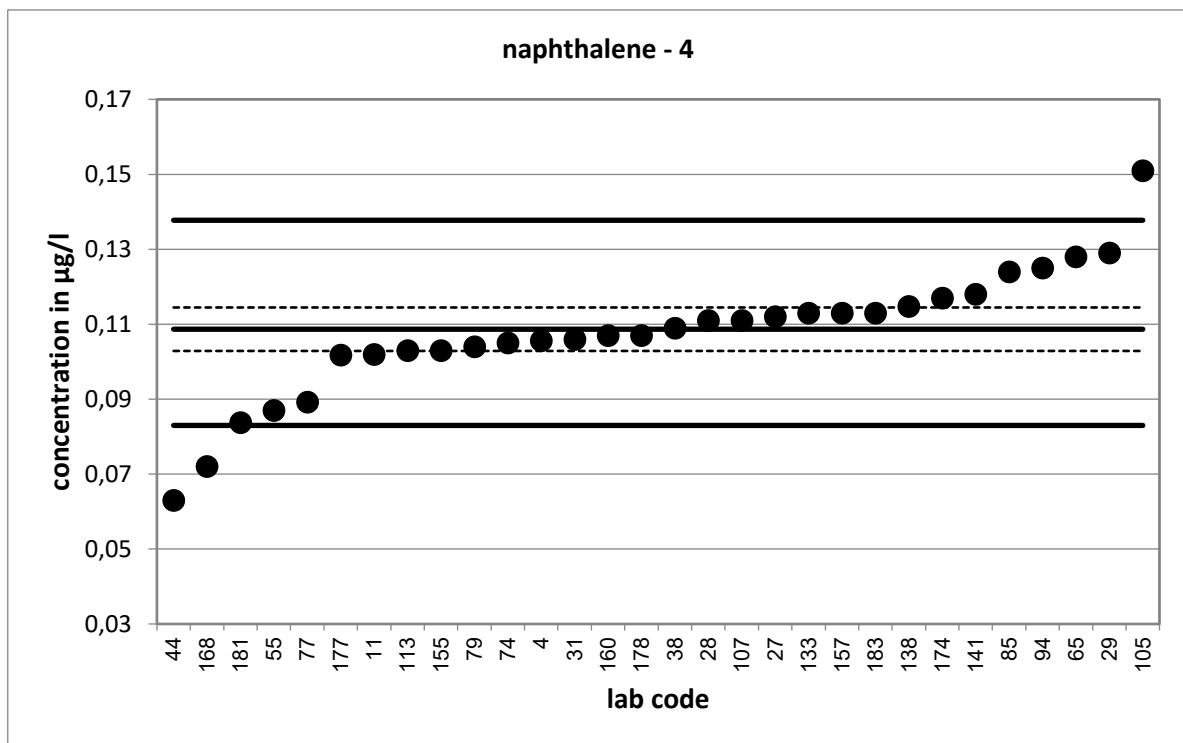




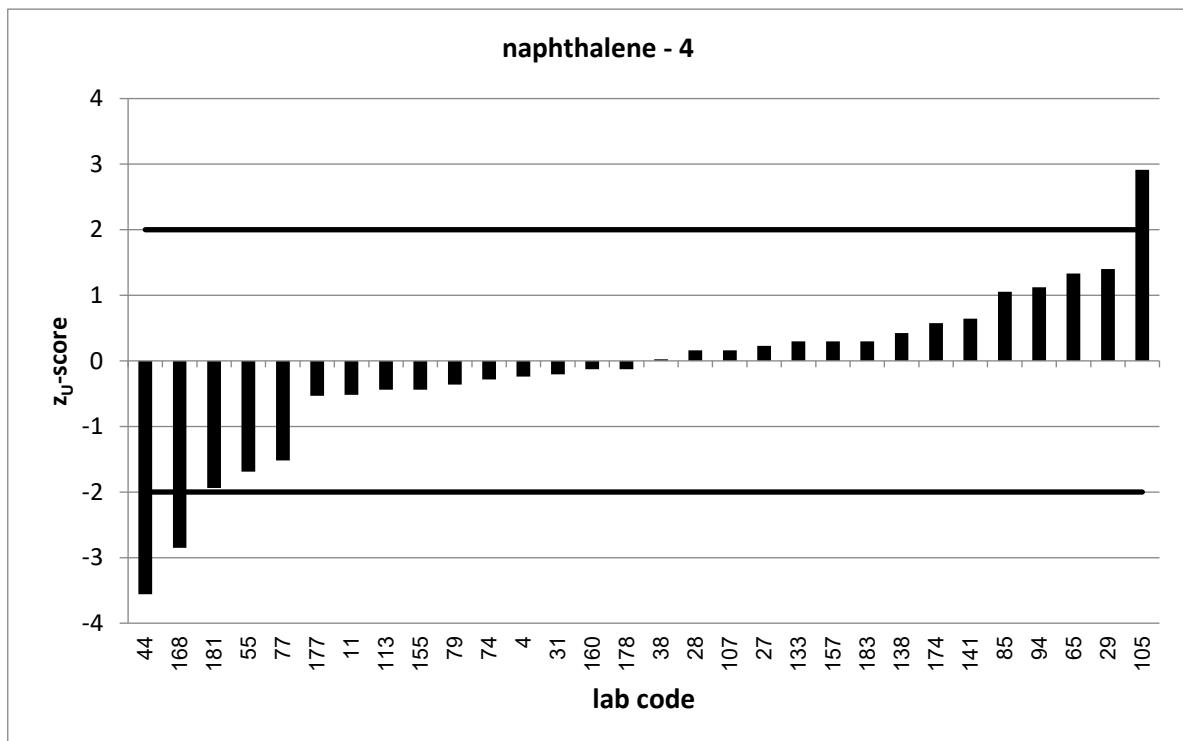
PT 3/24		naphthalene - 4			
assigned value [ $\mu\text{g/l}$ ]*		0,1087 $\pm$ 0,0058			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1377			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,08299			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,1056			-0,2	s
11	0,102	0,022	-0,6	-0,5	s
27	0,112			0,2	s
28	0,111	0,033	0,1	0,2	s
29	0,129	0,017	2,3	1,4	s
31	0,106	0,037	-0,1	-0,2	s
38	0,109			0,0	s
44	0,063	0,016	-5,4	-3,6	u
55	0,087	0,039	-1,1	-1,7	s
65	0,128			1,3	s
74	0,105	0,029	-0,2	-0,3	s
77	0,0892	0,031	-1,2	-1,5	s
79	0,104			-0,4	s
85	0,124	0,002	5,0	1,1	s
94	0,125			1,1	s
105	0,151			2,9	q
107	0,111	0,029	0,2	0,2	s
113	0,103			-0,4	s
133	0,113			0,3	s
138	0,1148			0,4	s
141	0,118	0,053	0,3	0,6	s
155	0,103			-0,4	s
157	0,113			0,3	s
160	0,107			-0,1	s
168	0,0721	0,02	-3,5	-2,8	q
174	0,117			0,6	s
177	0,1018			-0,5	s
178	0,107			-0,1	s
181	0,0838	0,007	-5,5	-1,9	s
183	0,113	0,042	0,2	0,3	s

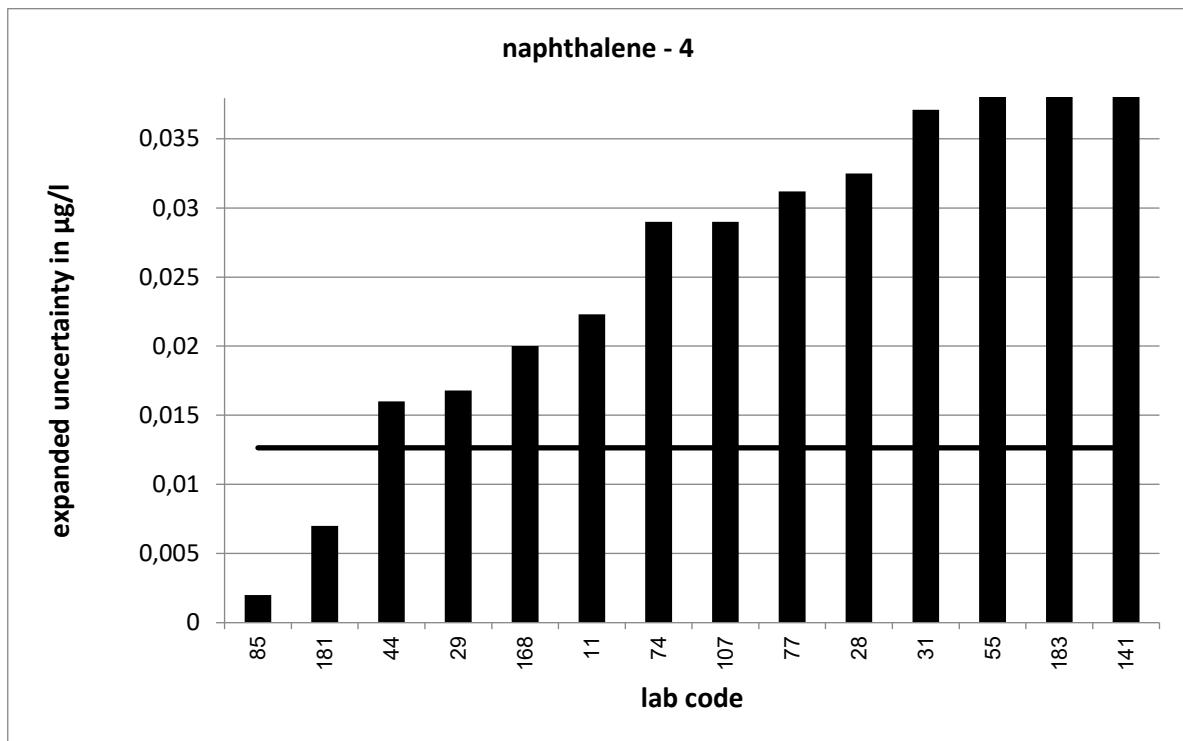
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

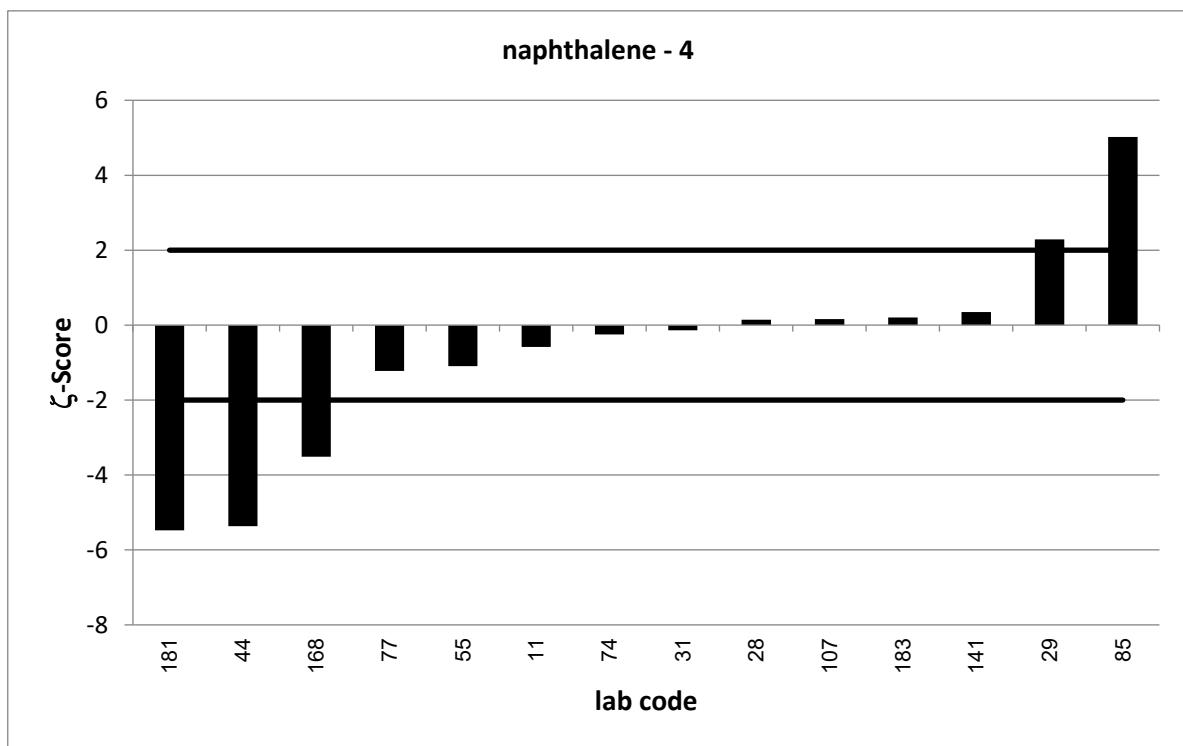


Strongly deviating values are not shown in the diagram.





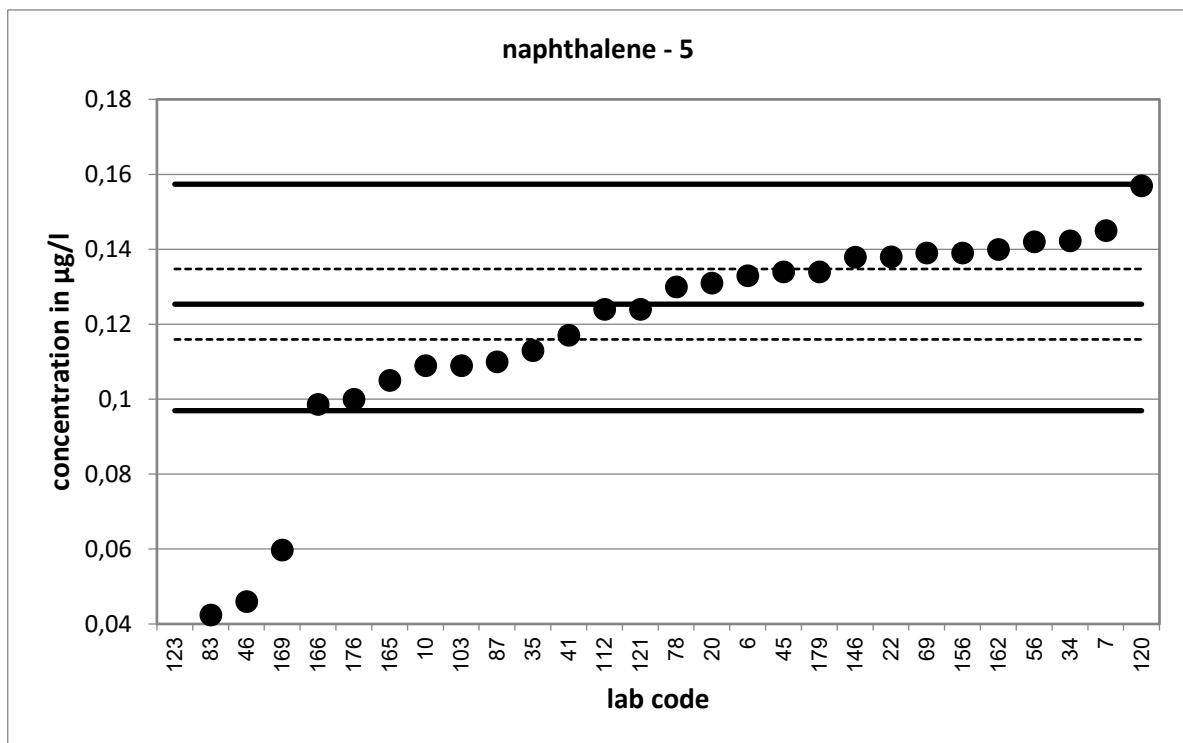
Strongly deviating values are not correctly shown in the diagram.



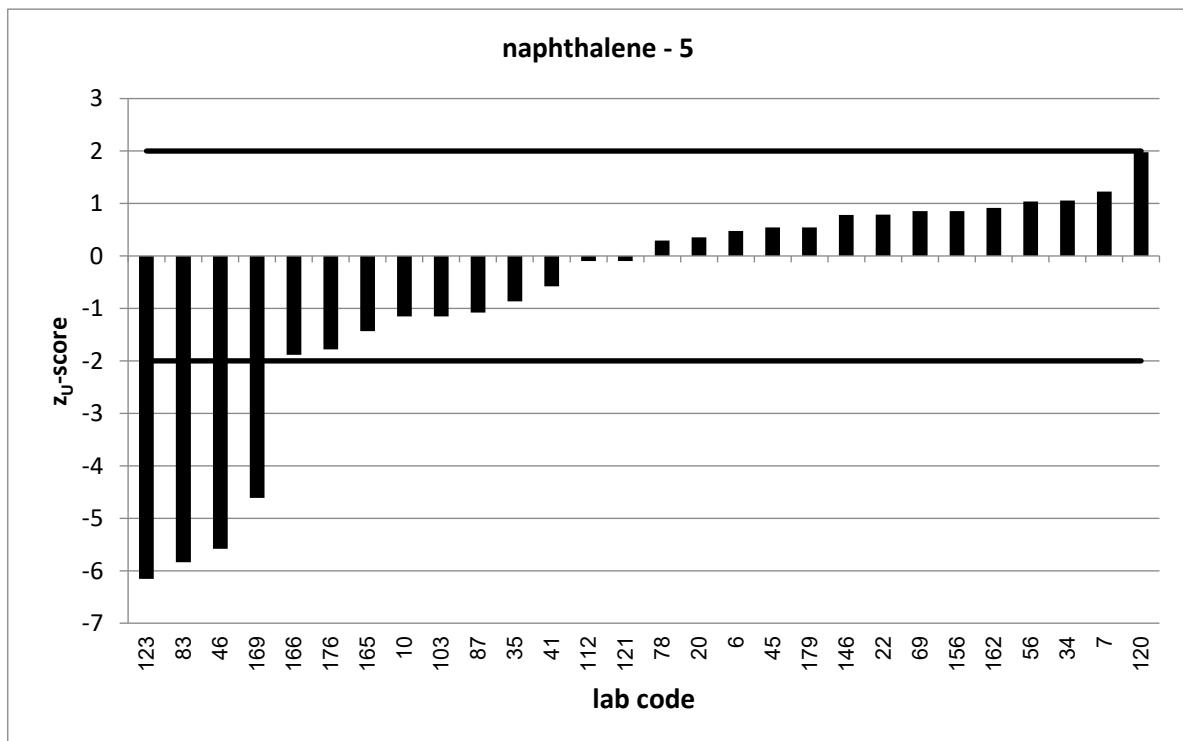
PT 3/24		naphthalene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,1253 \pm 0,0094$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1574			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,09692			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,133	0,047	0,3	0,5	s
7	0,145	0,016	2,1	1,2	s
10	0,109	0,024	-1,3	-1,2	s
20	0,131	0,039	0,3	0,4	s
22	0,138	0,055	0,5	0,8	s
34	0,1423	0,03	1,1	1,1	s
35	0,113	0,034	-0,7	-0,9	s
41	0,1171			-0,6	s
45	0,134			0,5	s
46	0,046			-5,6	u
56	0,142	0,02	1,5	1,0	s
69	0,139	0,024	1,1	0,9	s
78	0,13			0,3	s
83	0,0424			-5,8	u
87	0,11	0,033	-0,9	-1,1	s
103	0,109	0,015	-1,8	-1,2	s
112	0,124	0,014	-0,2	-0,1	s
120	0,157	0,004	6,2	2,0	s
121	0,124	0,029	-0,1	-0,1	s
123	0,0379			-6,2	u
146	0,1379	0,034	0,7	0,8	s
156	0,139	0,01	2,0	0,9	s
162	0,14	0,042	0,7	0,9	s
165	0,105			-1,4	s
166	0,0986			-1,9	s
169	0,0598	0,016	-7,0	-4,6	u
176	0,1			-1,8	s
179	0,134	0,04	0,4	0,5	s

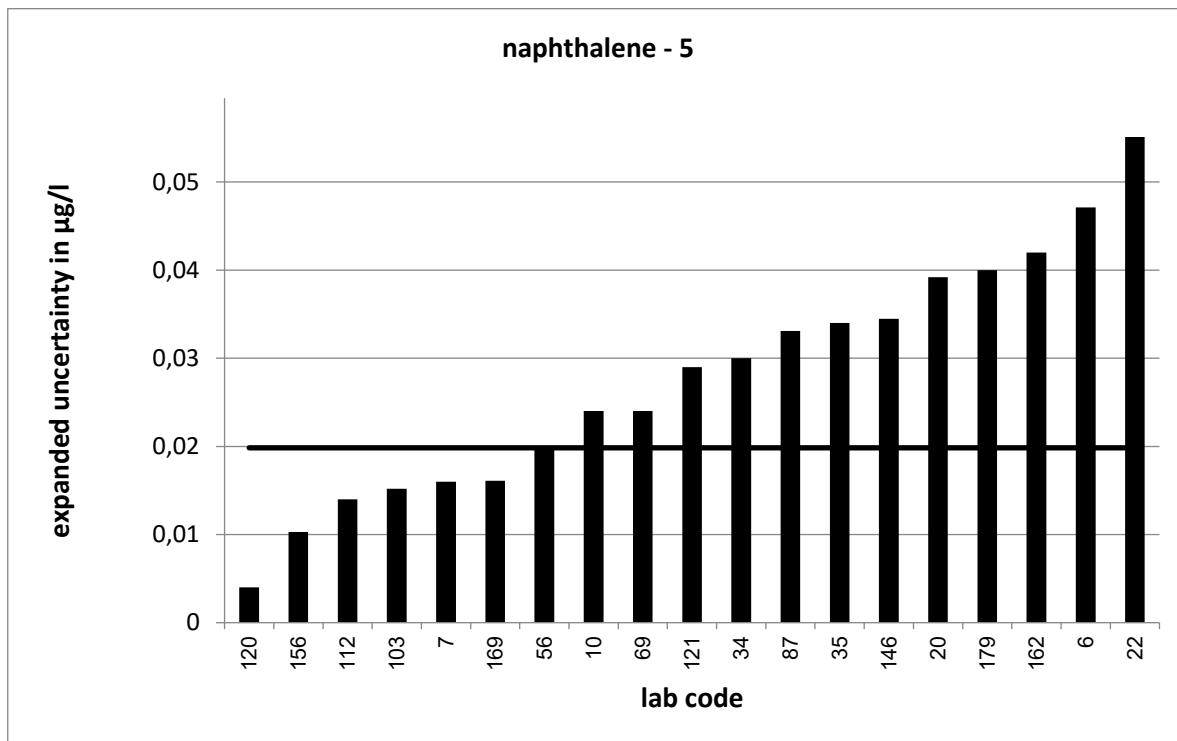
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

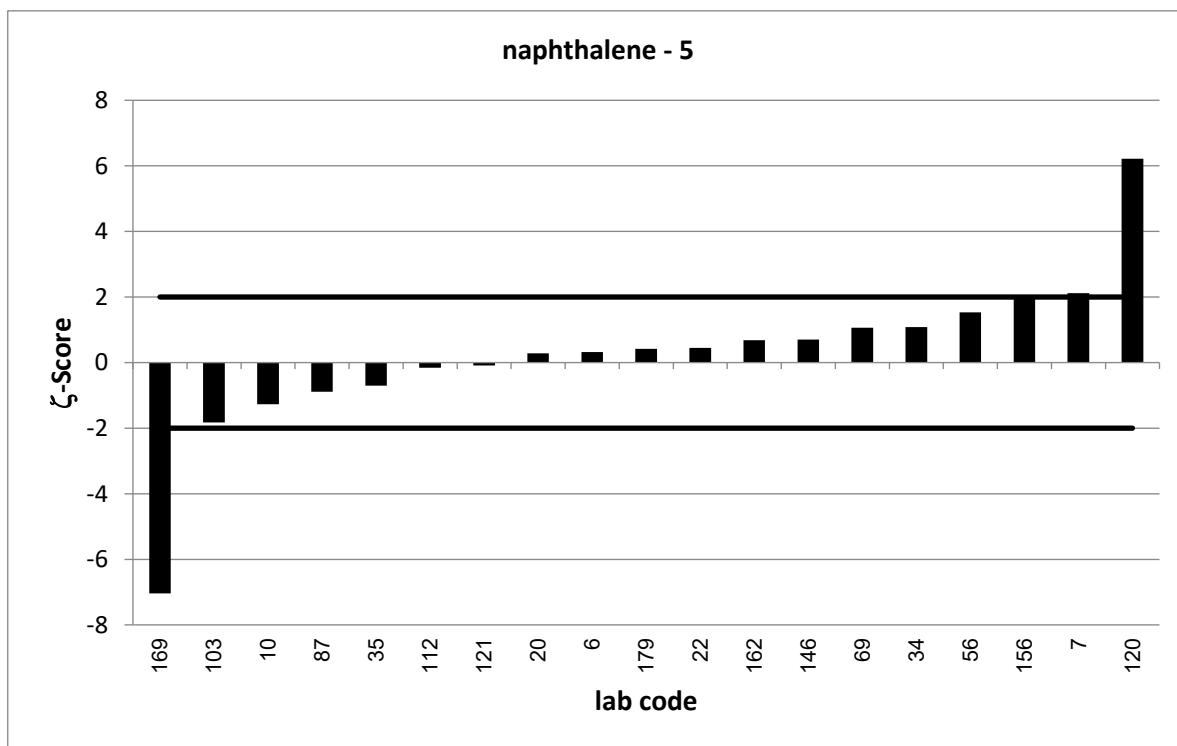


Strongly deviating values are not shown in the diagram.





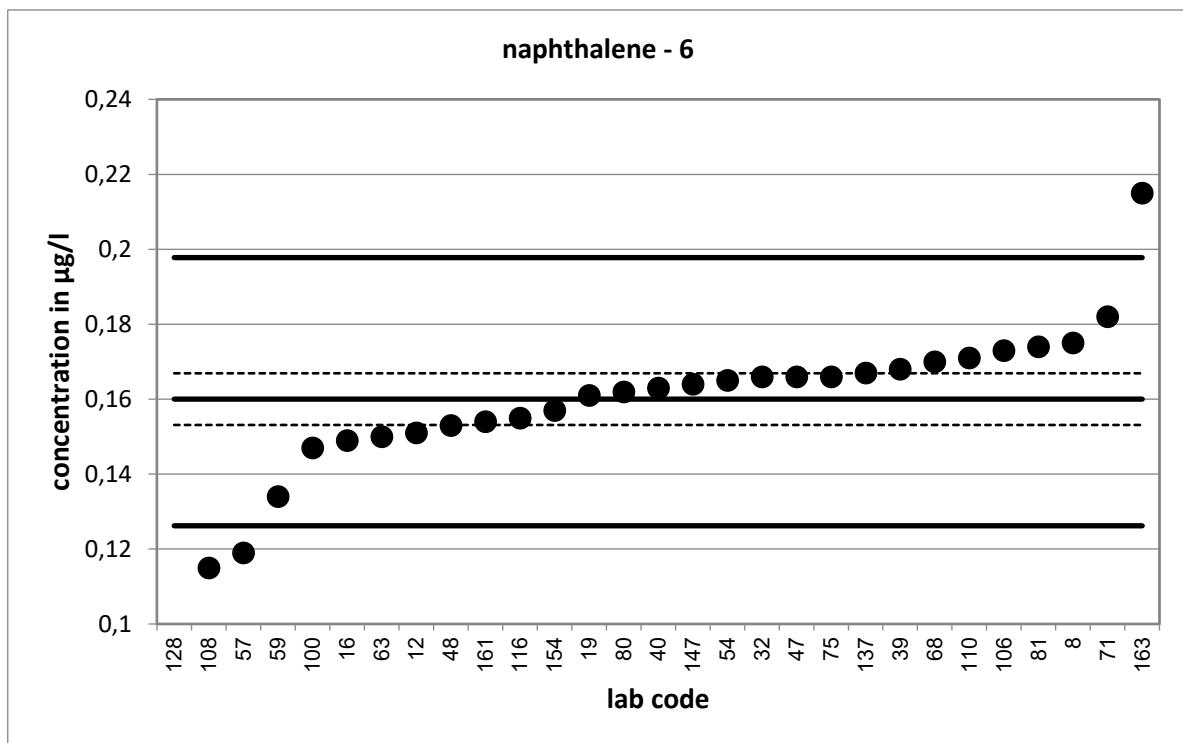
Strongly deviating values are not correctly shown in the diagram.



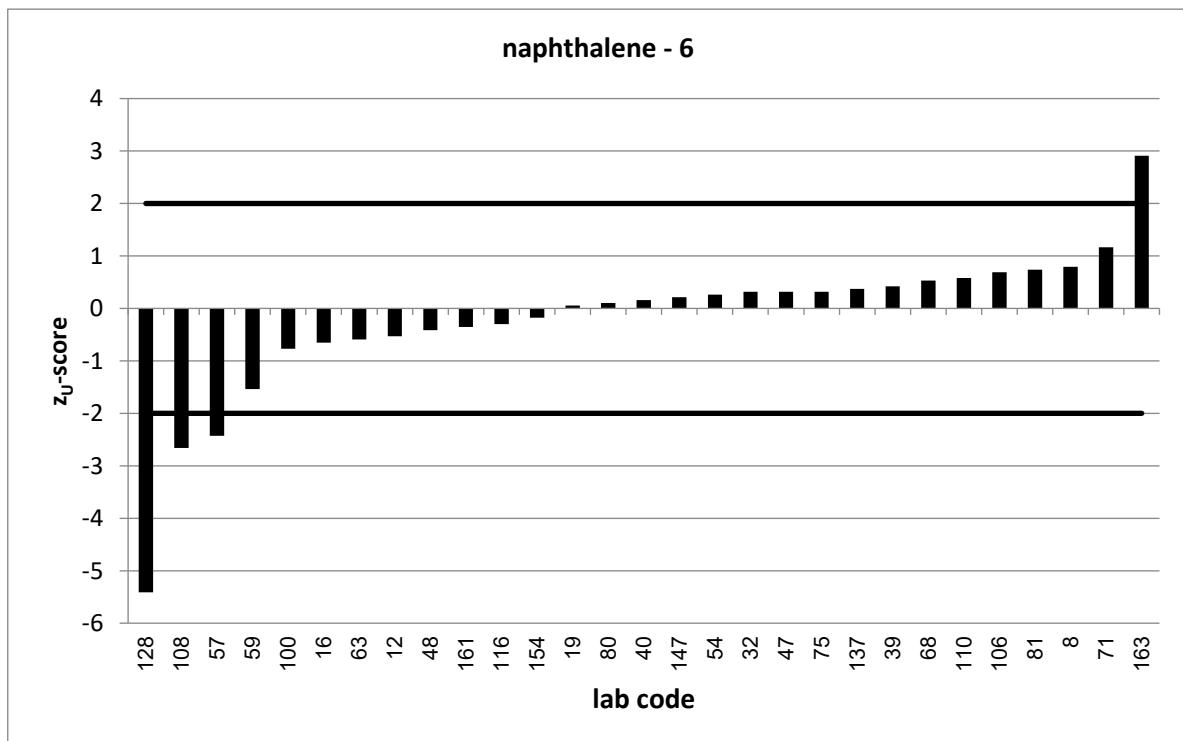
PT 3/24		naphthalene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,16 \pm 0,0069$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1978			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1262			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,175	0,042	0,7	0,8	s
12	0,151	0,045	-0,4	-0,5	s
16	0,149	0,029	-0,7	-0,7	s
19	0,161	0,042	0,0	0,1	s
32	0,166			0,3	s
39	0,168	0,027	0,6	0,4	s
40	0,163			0,2	s
47	0,166			0,3	s
48	0,153	0,013	-0,9	-0,4	s
54	0,165	0,05	0,2	0,3	s
57	0,119			-2,4	q
59	0,134	0,027	-1,9	-1,5	s
63	0,15	0,051	-0,4	-0,6	s
68	0,17			0,5	s
71	0,182	0,053	0,8	1,2	s
75	0,166	0,033	0,4	0,3	s
80	0,162	0,02	0,2	0,1	s
81	0,174			0,7	s
100	0,147	0,022	-1,1	-0,8	s
106	0,173			0,7	s
108	0,115	0,036	-2,5	-2,7	q
110	0,171			0,6	s
116	0,155	0,031	-0,3	-0,3	s
128	0,0685			-5,4	u
137	0,167	0,033	0,4	0,4	s
147	0,164	0,005	0,9	0,2	s
154	0,157	0,078	-0,1	-0,2	s
161	0,154			-0,4	s
163	0,215			2,9	q

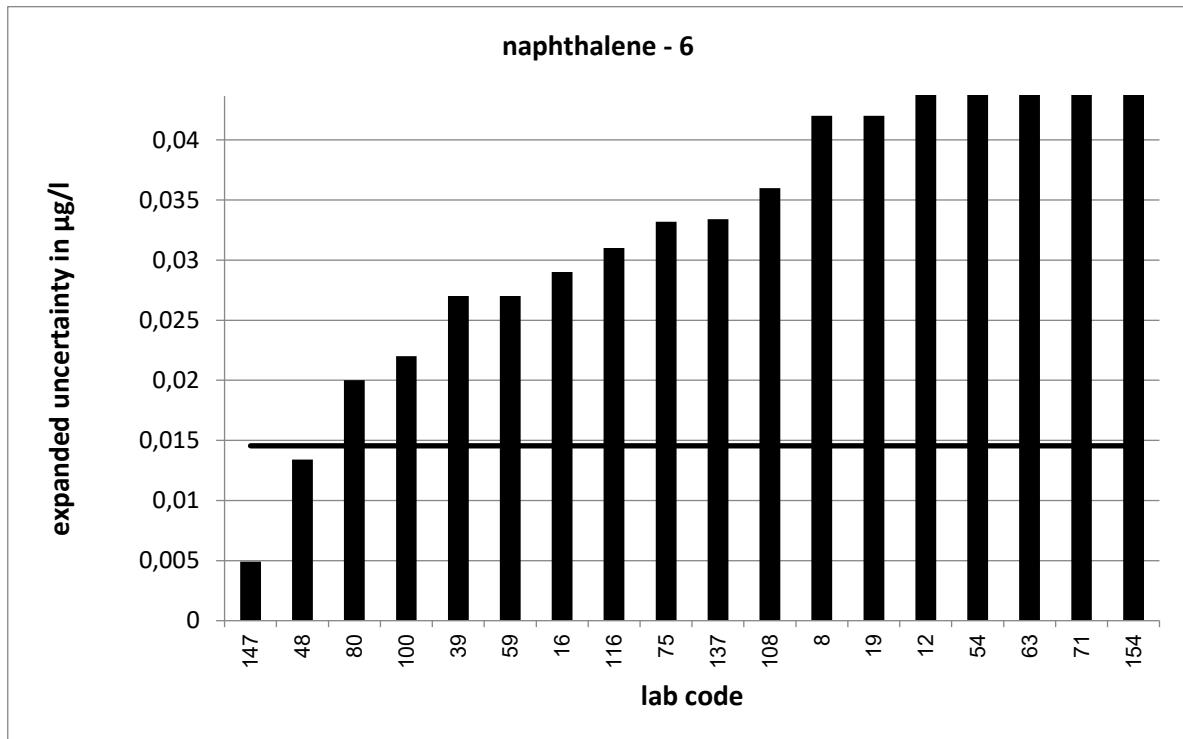
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

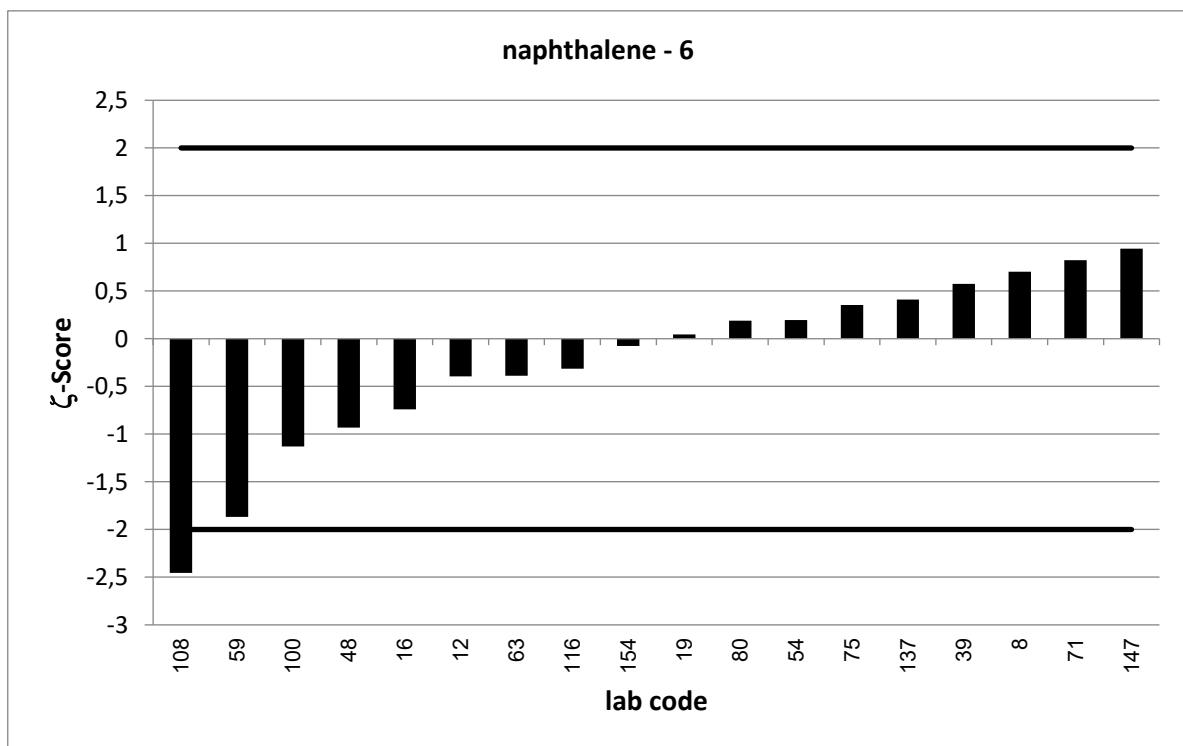


Strongly deviating values are not shown in the diagram.





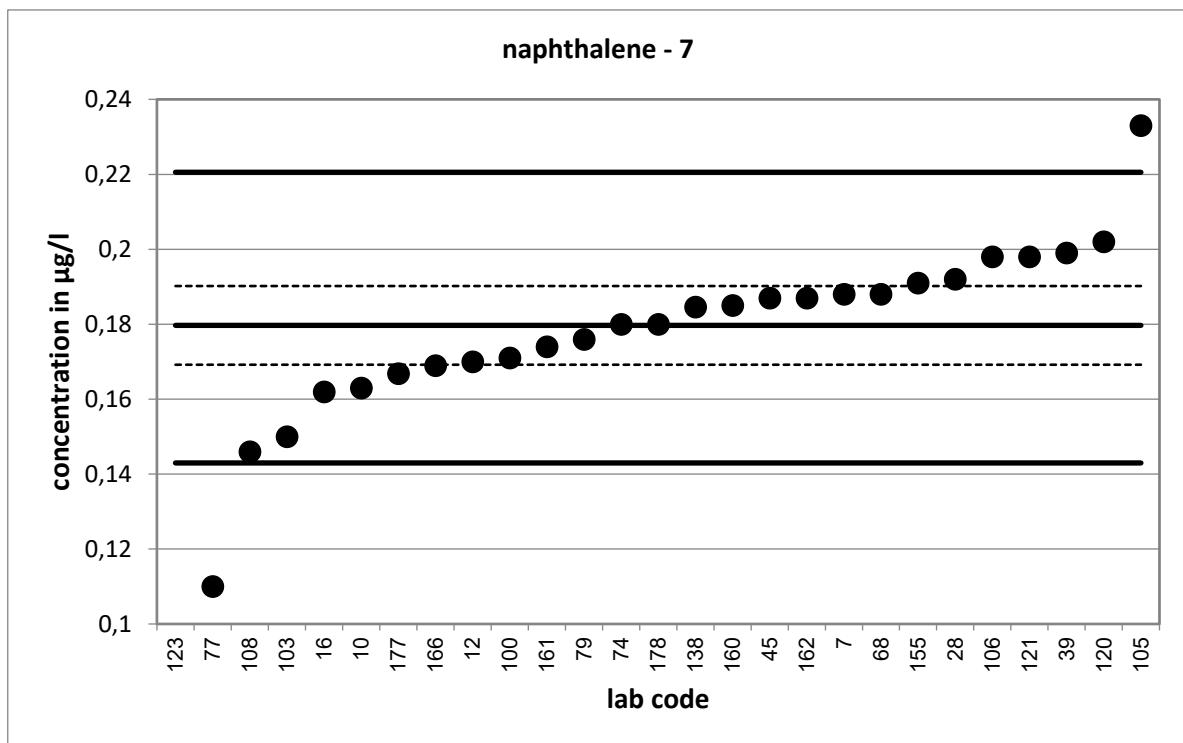
Strongly deviating values are not correctly shown in the diagram.



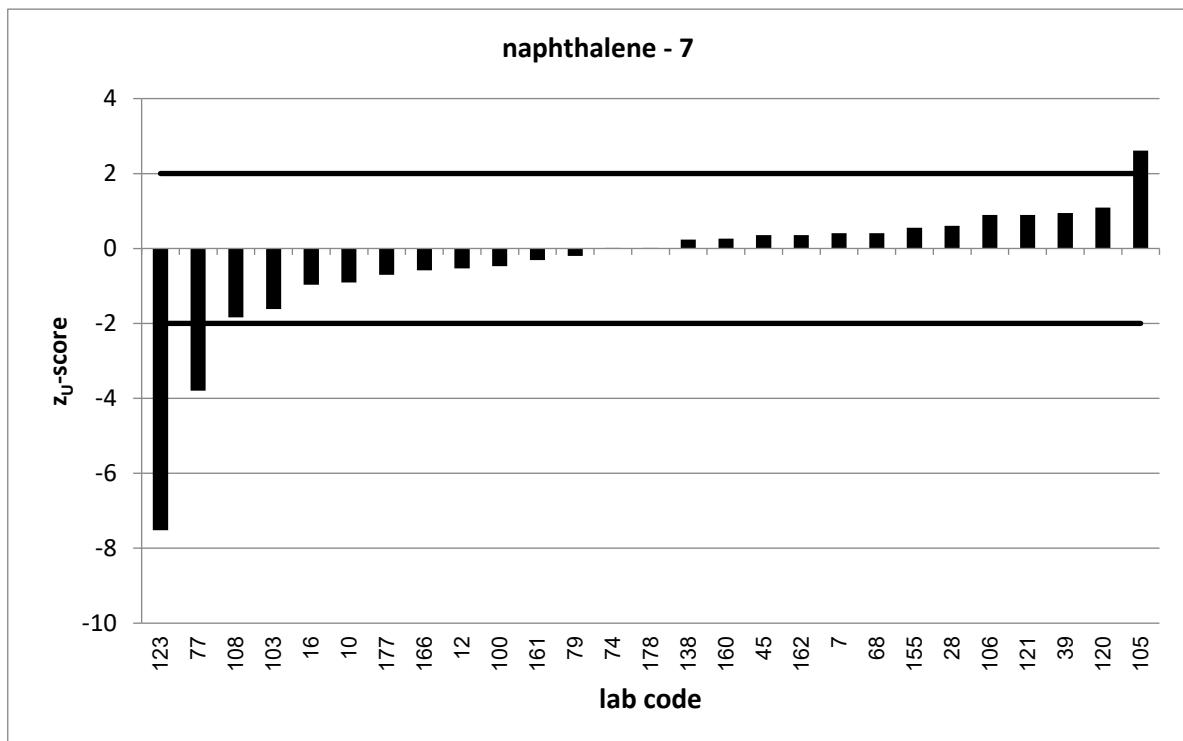
PT 3/24		naphthalene - 7			
assigned value [ $\mu\text{g/l}$ ]*		0,1797	$\pm 0,0105$		
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2205			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,143			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,188	0,035	0,5	0,4	s
10	0,163	0,036	-0,9	-0,9	s
12	0,17	0,051	-0,4	-0,5	s
16	0,162	0,032	-1,1	-1,0	s
28	0,192	0,056	0,4	0,6	s
39	0,199	0,032	1,1	0,9	s
45	0,187			0,4	s
68	0,188			0,4	s
74	0,18	0,05	0,0	0,0	s
77	0,11	0,039	-3,5	-3,8	u
79	0,176			-0,2	s
100	0,171	0,026	-0,6	-0,5	s
103	0,15	0,021	-2,5	-1,6	s
105	0,233			2,6	q
106	0,198			0,9	s
108	0,146	0,045	-1,5	-1,8	s
120	0,202	0,007	3,5	1,1	s
121	0,198	0,046	0,8	0,9	s
123	0,0417			-7,5	u
138	0,1846			0,2	s
155	0,191			0,6	s
160	0,185			0,3	s
161	0,174			-0,3	s
162	0,187	0,056	0,3	0,4	s
166	0,169			-0,6	s
177	0,1668			-0,7	s
178	0,18			0,0	s

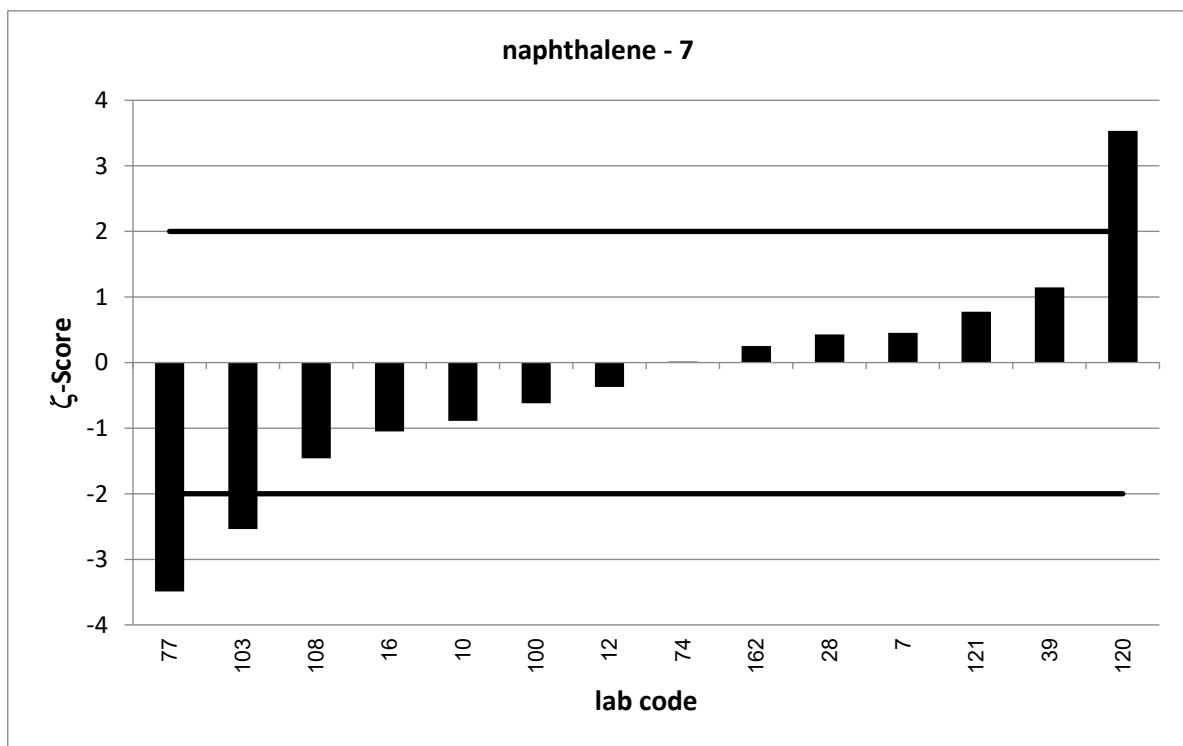
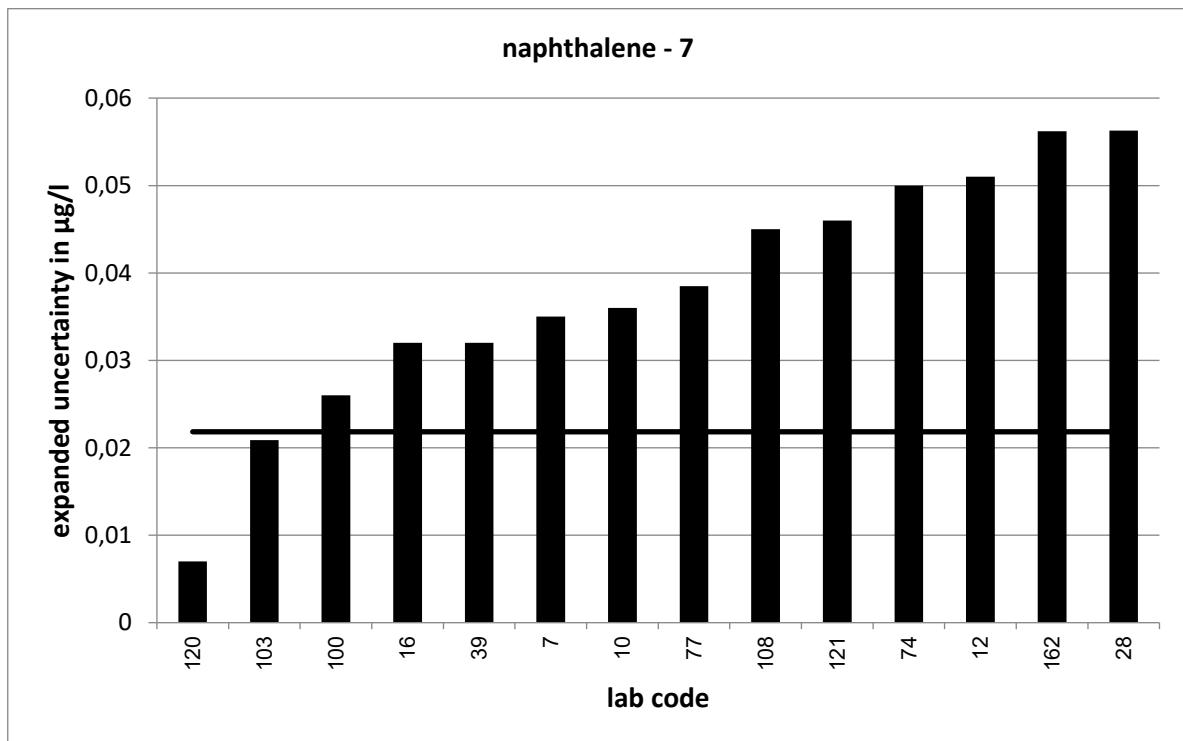
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

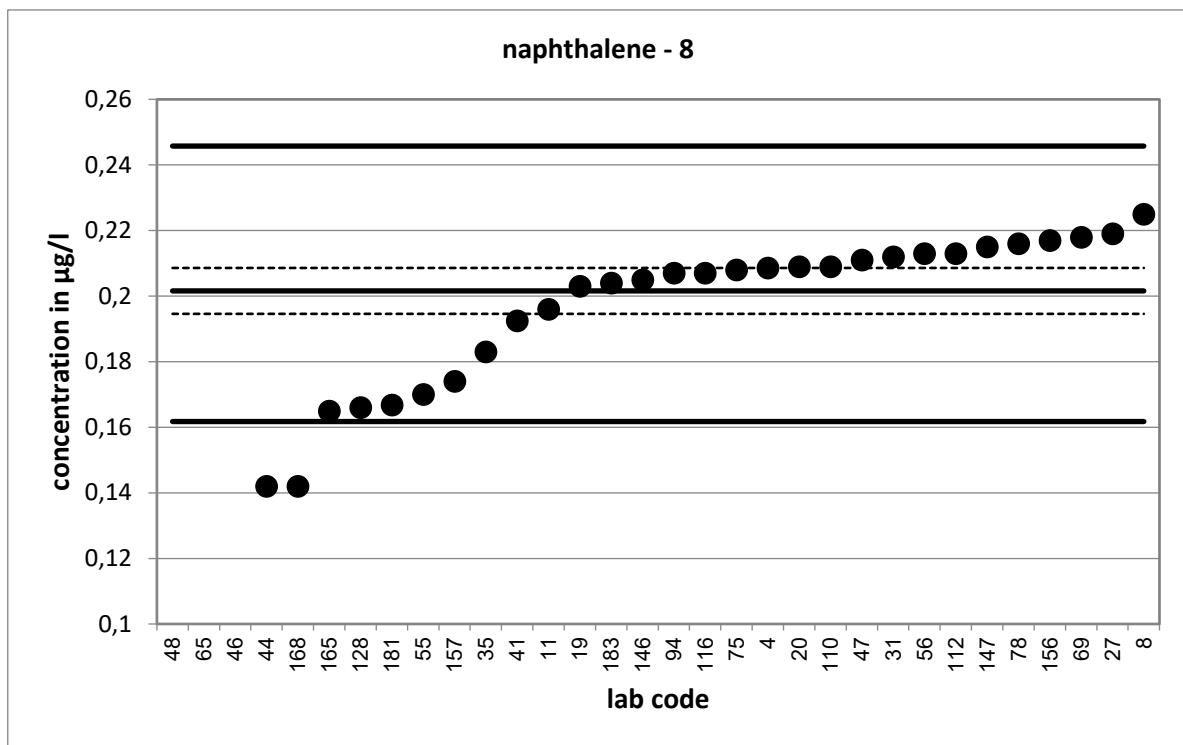




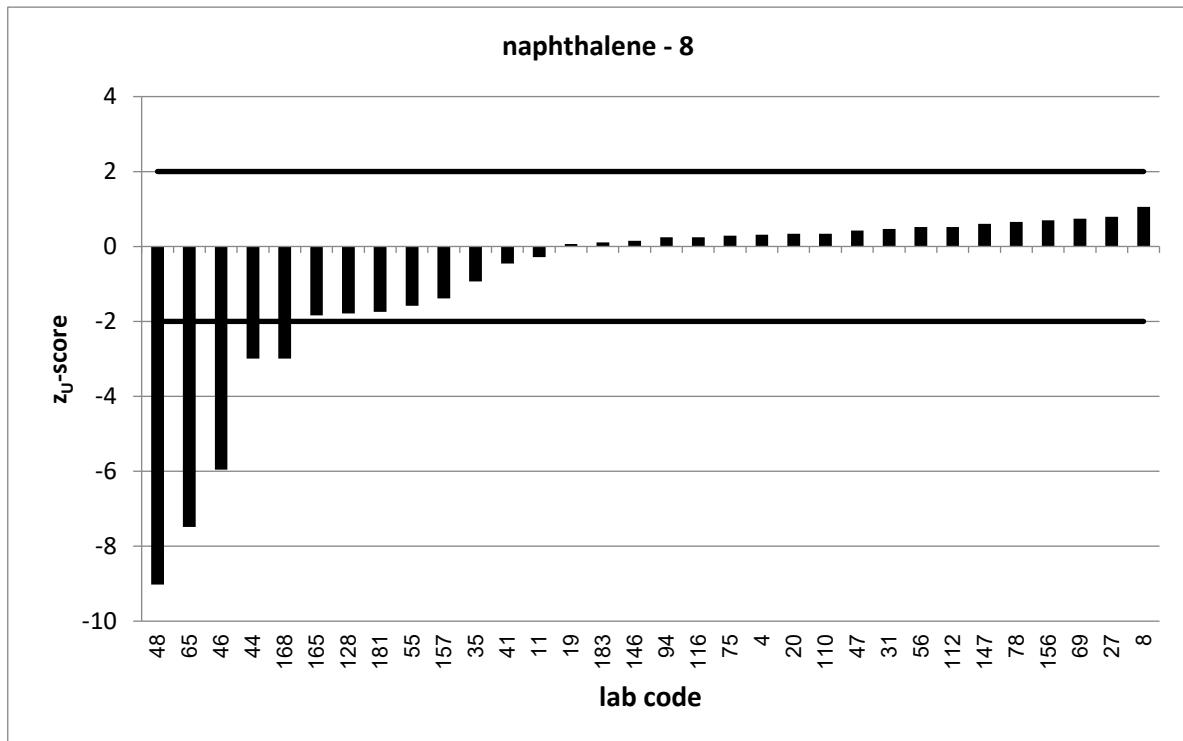
PT 3/24		naphthalene - 8			
assigned value [ $\mu\text{g/l}$ ]*		$0,2016 \pm 0,007$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2458			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1617			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,2086			0,3	s
8	0,225	0,054	0,9	1,1	s
11	0,196	0,043	-0,3	-0,3	s
19	0,203	0,053	0,1	0,1	s
20	0,209	0,063	0,2	0,3	s
27	0,219			0,8	s
31	0,212	0,074	0,3	0,5	s
35	0,183	0,055	-0,7	-0,9	s
41	0,1925			-0,5	s
44	0,142	0,038	-3,1	-3,0	u
46	0,083			-6,0	u
47	0,211			0,4	s
48	0,0219	0,002	-49,4	-9,0	u
55	0,17	0,077	-0,8	-1,6	s
56	0,213	0,03	0,8	0,5	s
65	0,0525			-7,5	u
69	0,218	0,038	0,8	0,7	s
75	0,208	0,042	0,3	0,3	s
78	0,216			0,7	s
94	0,207			0,2	s
110	0,209			0,3	s
112	0,213	0,024	0,9	0,5	s
116	0,207	0,042	0,3	0,2	s
128	0,166			-1,8	s
146	0,205	0,051	0,1	0,2	s
147	0,215	0,006	2,8	0,6	s
156	0,217	0,016	1,8	0,7	s
157	0,174			-1,4	s
165	0,165			-1,8	s
168	0,142	0,04	-2,9	-3,0	u
181	0,1668	0,014	-4,4	-1,7	s
183	0,204	0,076	0,1	0,1	s

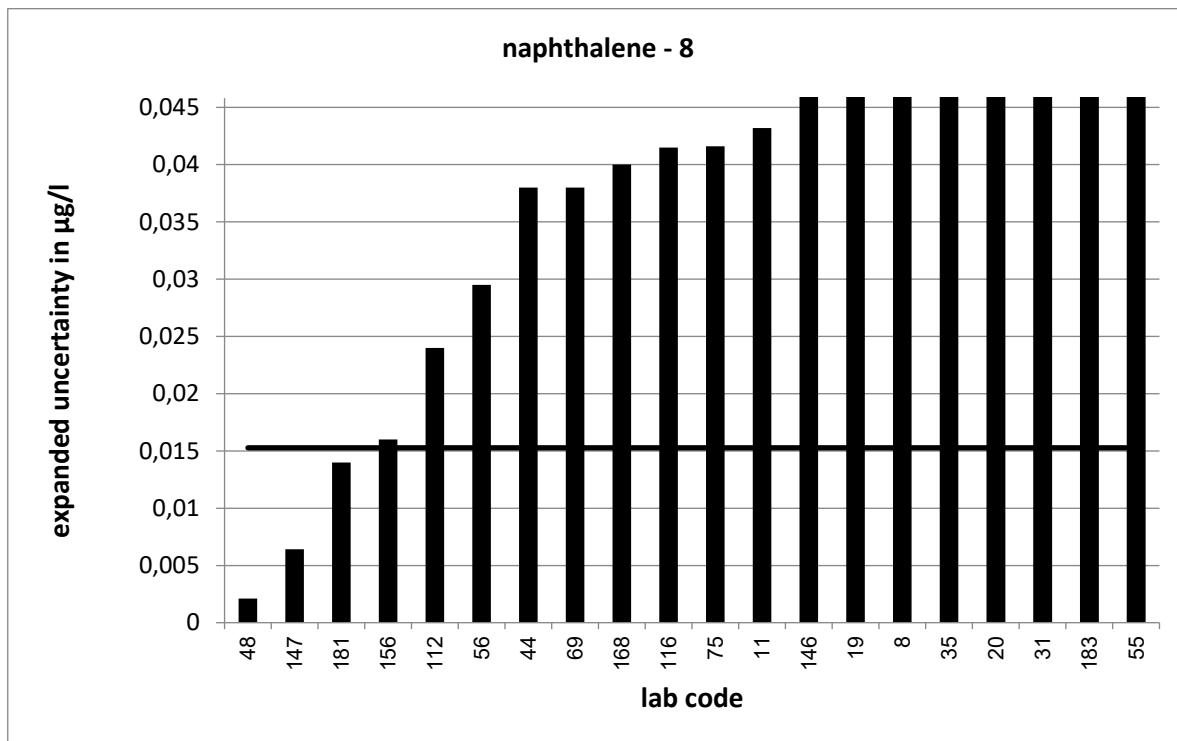
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

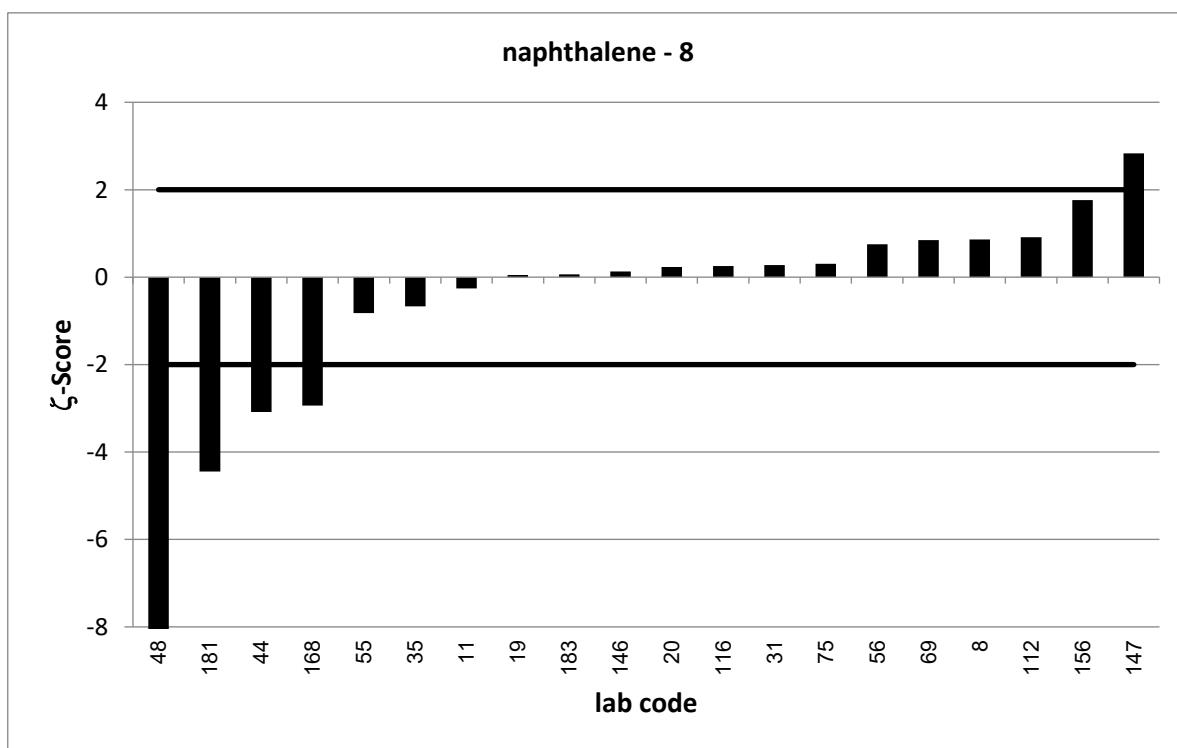


Strongly deviating values are not shown in the diagram.





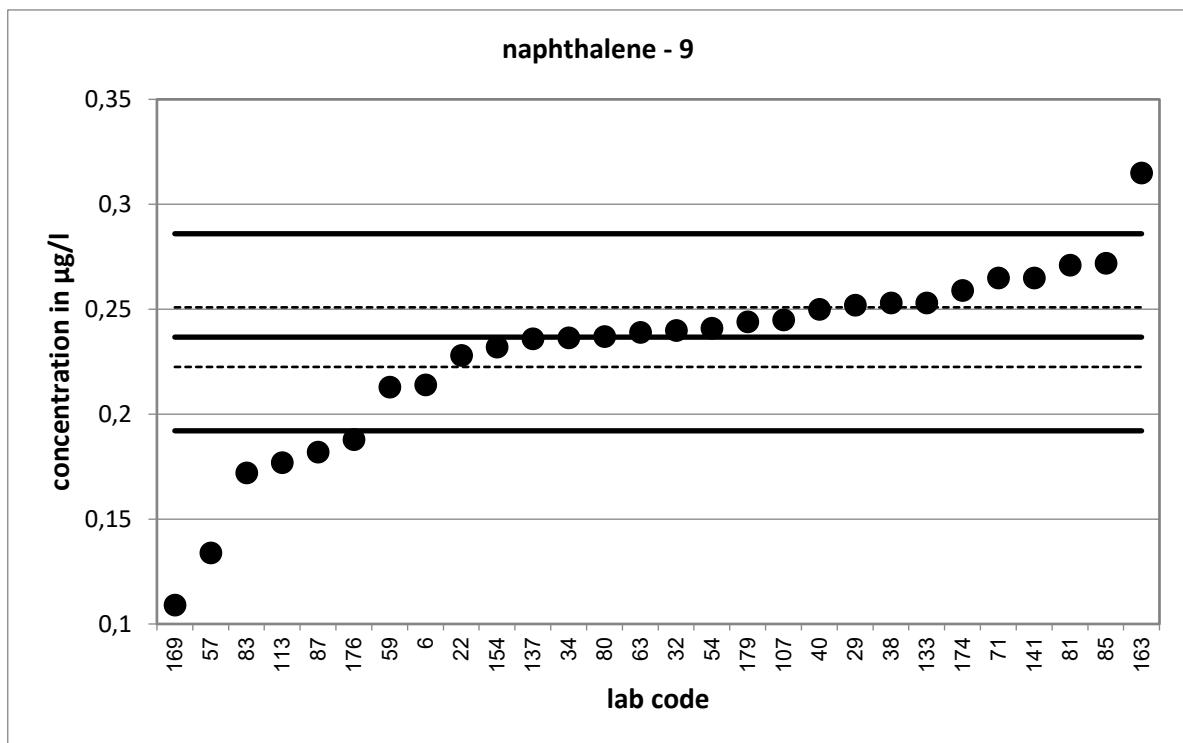
Strongly deviating values are not correctly shown in the diagram.



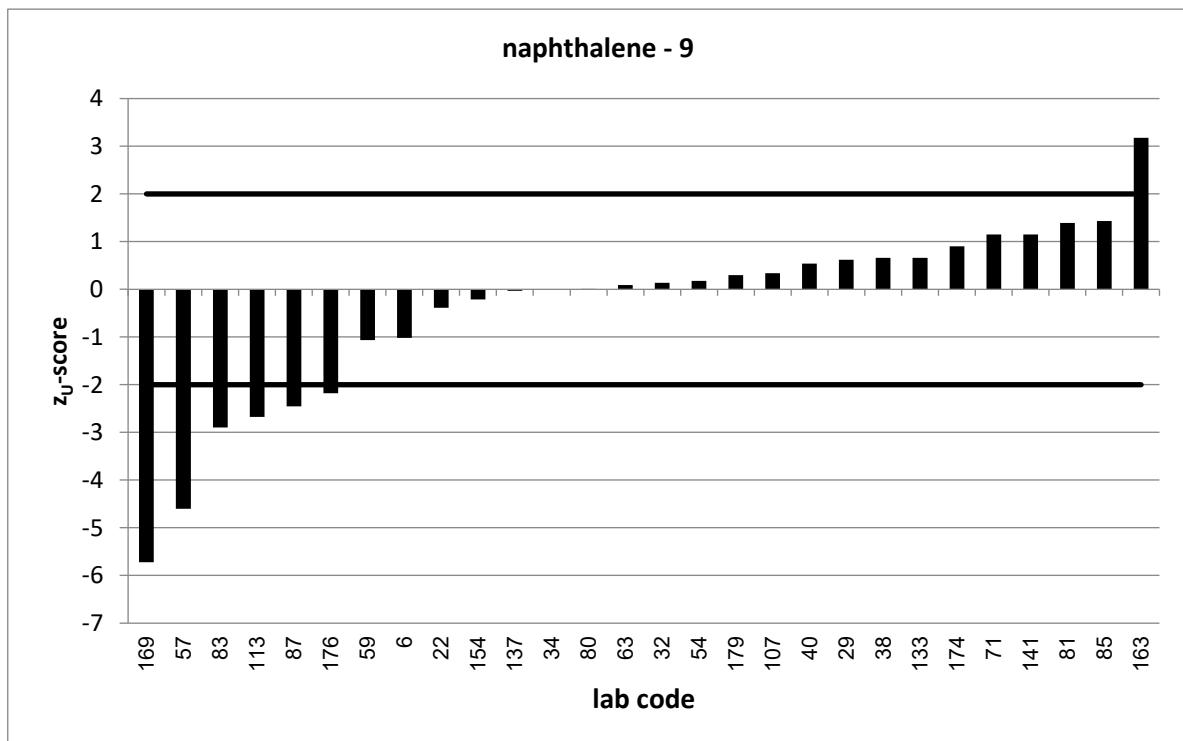
PT 3/24		naphthalene - 9			
assigned value [ $\mu\text{g/l}$ ]*		0,2367 $\pm$ 0,0142			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,286			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1921			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,214	0,076	-0,6	-1,0	s
22	0,228	0,091	-0,2	-0,4	s
29	0,252	0,033	0,9	0,6	s
32	0,24			0,1	s
34	0,2365	0,04	0,0	0,0	s
38	0,253			0,7	s
40	0,25			0,5	s
54	0,241	0,072	0,1	0,2	s
57	0,134			-4,6	u
59	0,213	0,043	-1,0	-1,1	s
63	0,239	0,081	0,1	0,1	s
71	0,265	0,077	0,7	1,1	s
80	0,237	0,02	0,0	0,0	s
81	0,271			1,4	s
83	0,172			-2,9	q
85	0,272			1,4	s
87	0,182	0,055	-1,9	-2,5	q
107	0,245	0,064	0,3	0,3	s
113	0,177			-2,7	q
133	0,253			0,7	s
137	0,236	0,047	0,0	0,0	s
141	0,265	0,119	0,5	1,1	s
154	0,232	0,116	-0,1	-0,2	s
163	0,315			3,2	u
169	0,109	0,023	-9,5	-5,7	u
174	0,259			0,9	s
176	0,188			-2,2	q
179	0,244	0,073	0,2	0,3	s

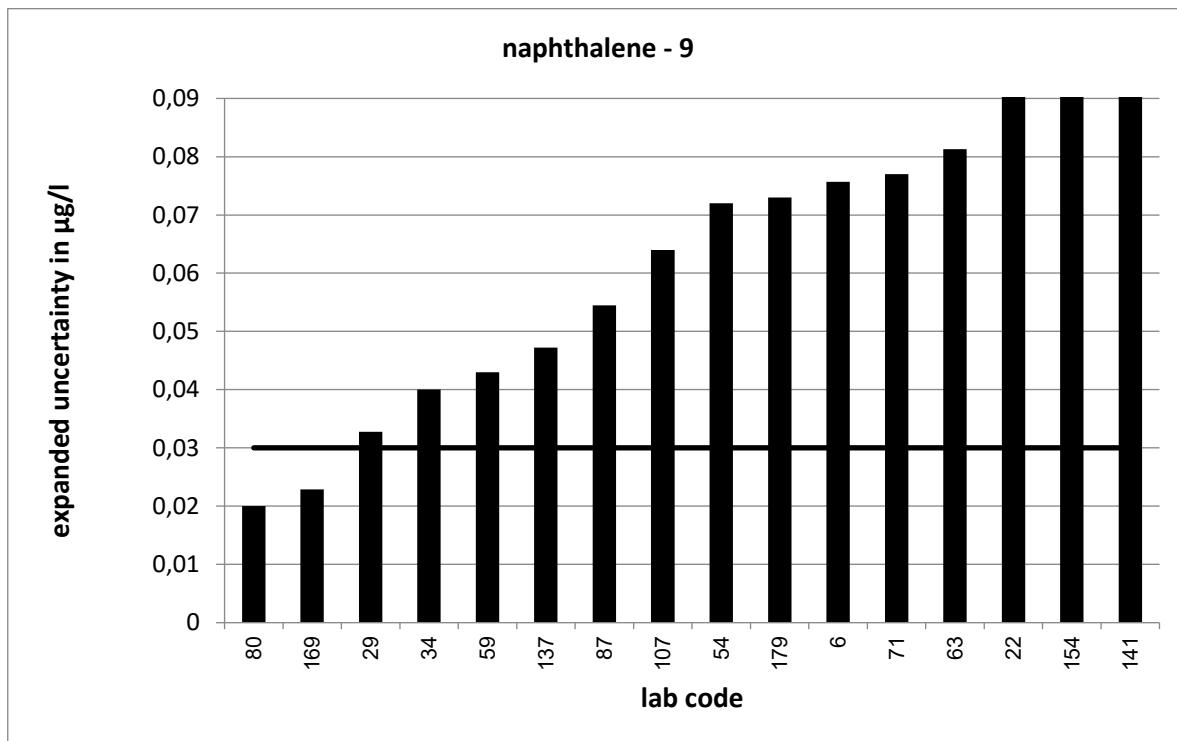
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

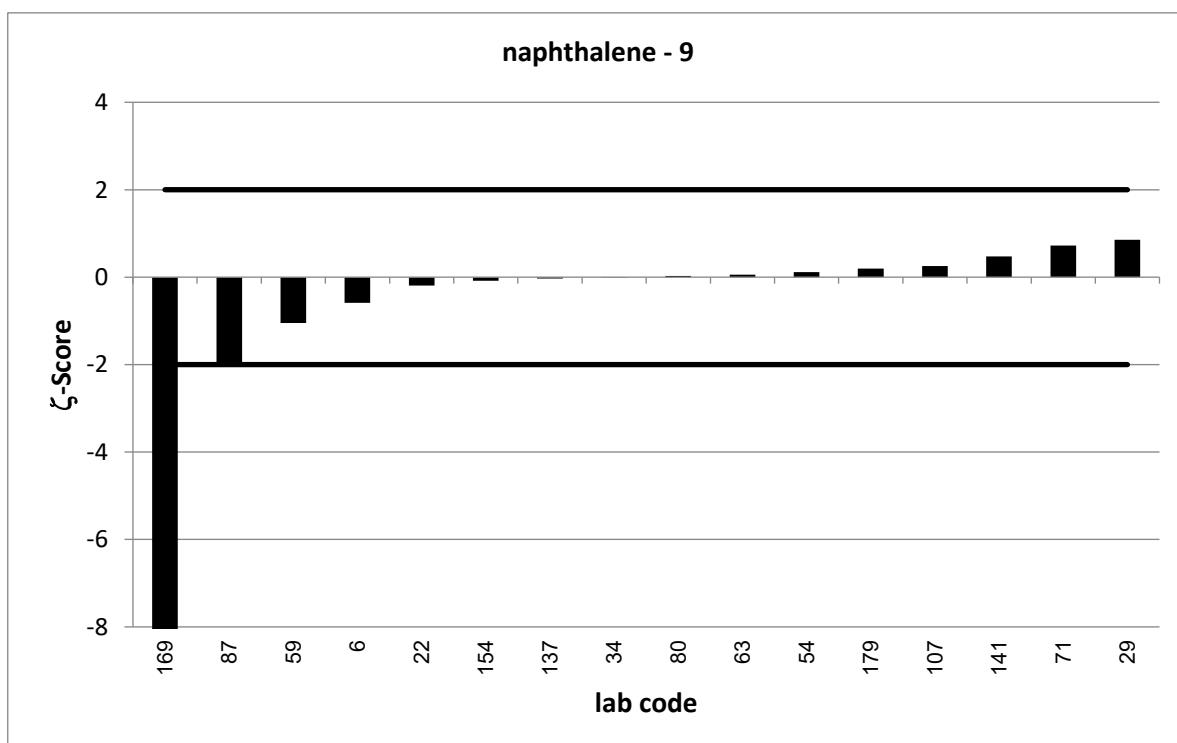


Strongly deviating values are not shown in the diagram.





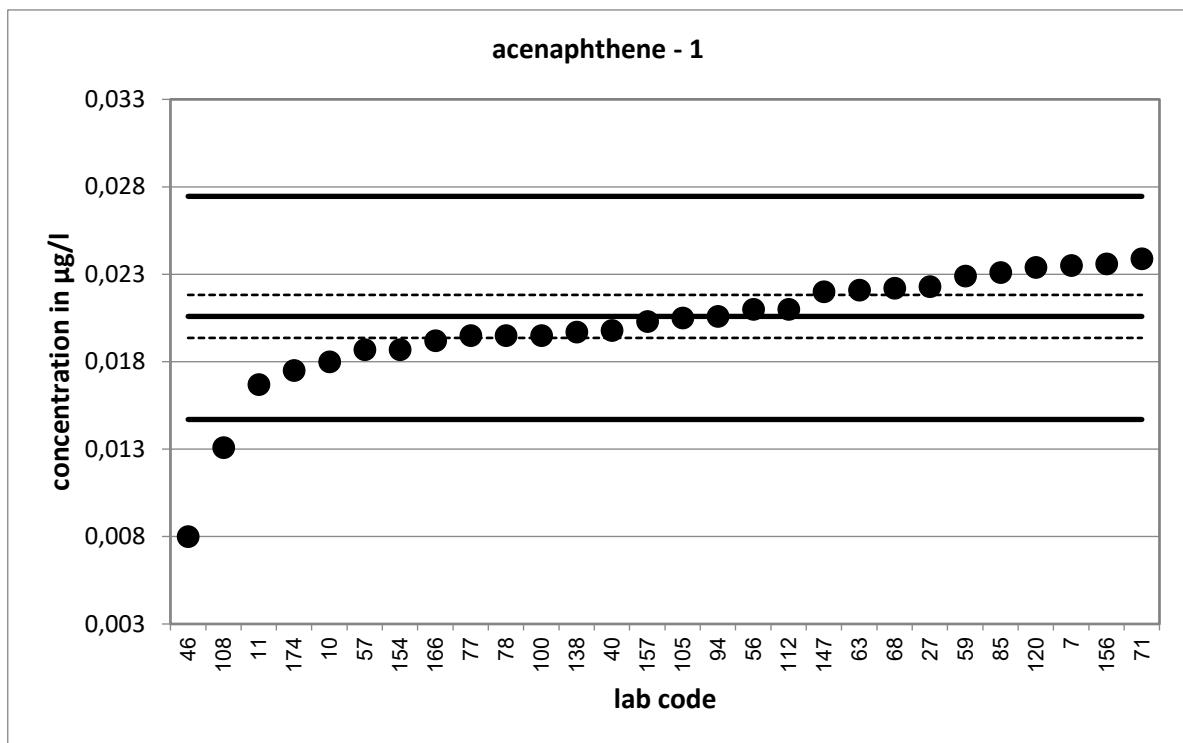
Strongly deviating values are not correctly shown in the diagram.



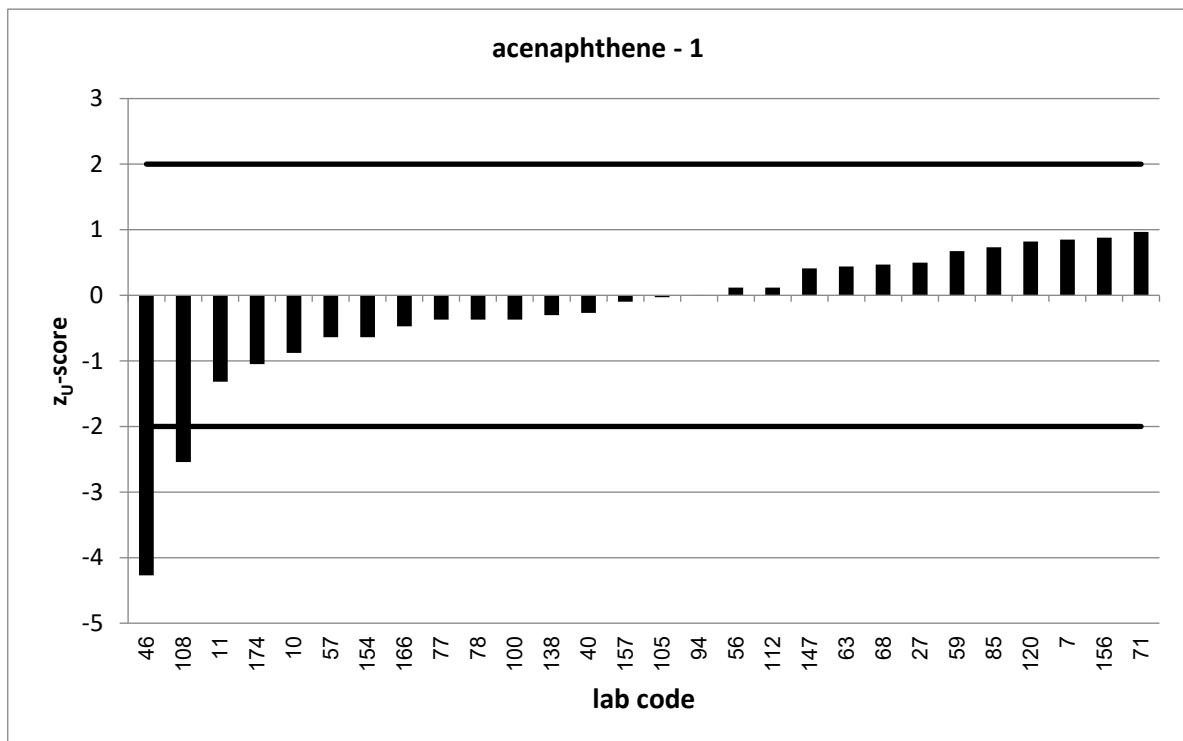
PT 3/24		acenaphthene - 1			
assigned value [ $\mu\text{g/l}$ ]*		$0,02059 \pm 0,00123$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,02745			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0147			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0235	0,003	1,7	0,8	s
10	0,018	0,003	-1,6	-0,9	s
11	0,0167	0,004	-2,0	-1,3	s
27	0,0223			0,5	s
40	0,0198			-0,3	s
46	0,008			-4,3	u
56	0,021	0,003	0,3	0,1	s
57	0,0187			-0,6	s
59	0,0229	0,005	0,9	0,7	s
63	0,0221	0,008	0,4	0,4	s
68	0,0222			0,5	s
71	0,0239	0,005	1,3	1,0	s
77	0,0195	0,007	-0,3	-0,4	s
78	0,0195			-0,4	s
85	0,0231	0,002	2,1	0,7	s
94	0,0206			0,0	s
100	0,0195	0,003	-0,7	-0,4	s
105	0,0205			0,0	s
108	0,0131	0,003	-4,6	-2,5	q
112	0,021	0,001	0,5	0,1	s
120	0,0234	0,001	3,5	0,8	s
138	0,0197			-0,3	s
147	0,022	7E-04	2,0	0,4	s
154	0,0187	0,009	-0,4	-0,6	s
156	0,0236	0,003	1,9	0,9	s
157	0,0203			-0,1	s
166	0,0192			-0,5	s
174	0,0175			-1,0	s

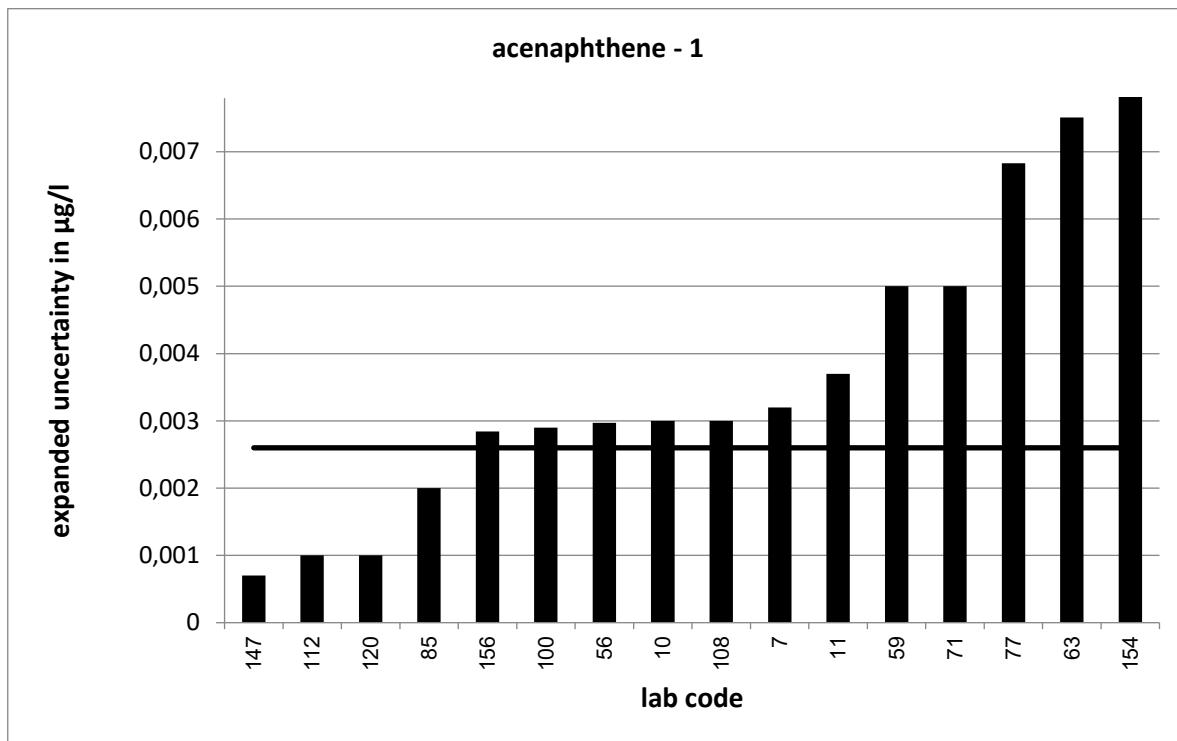
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

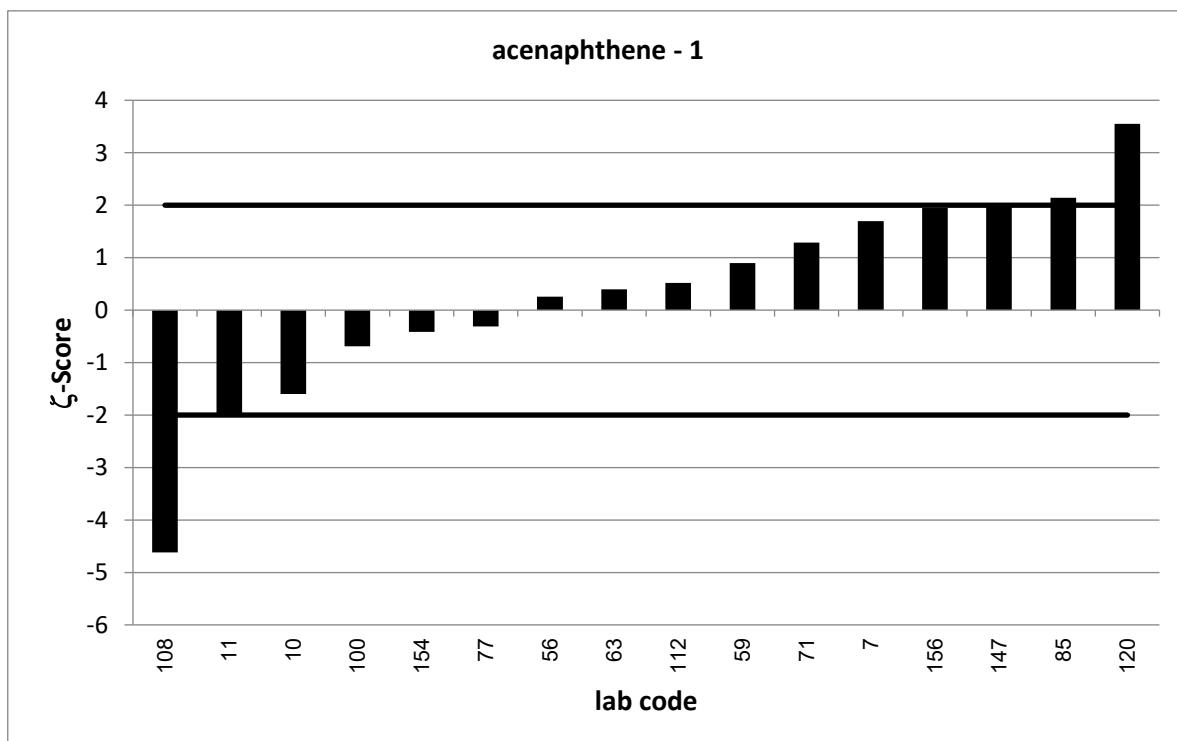


Strongly deviating values are not shown in the diagram.





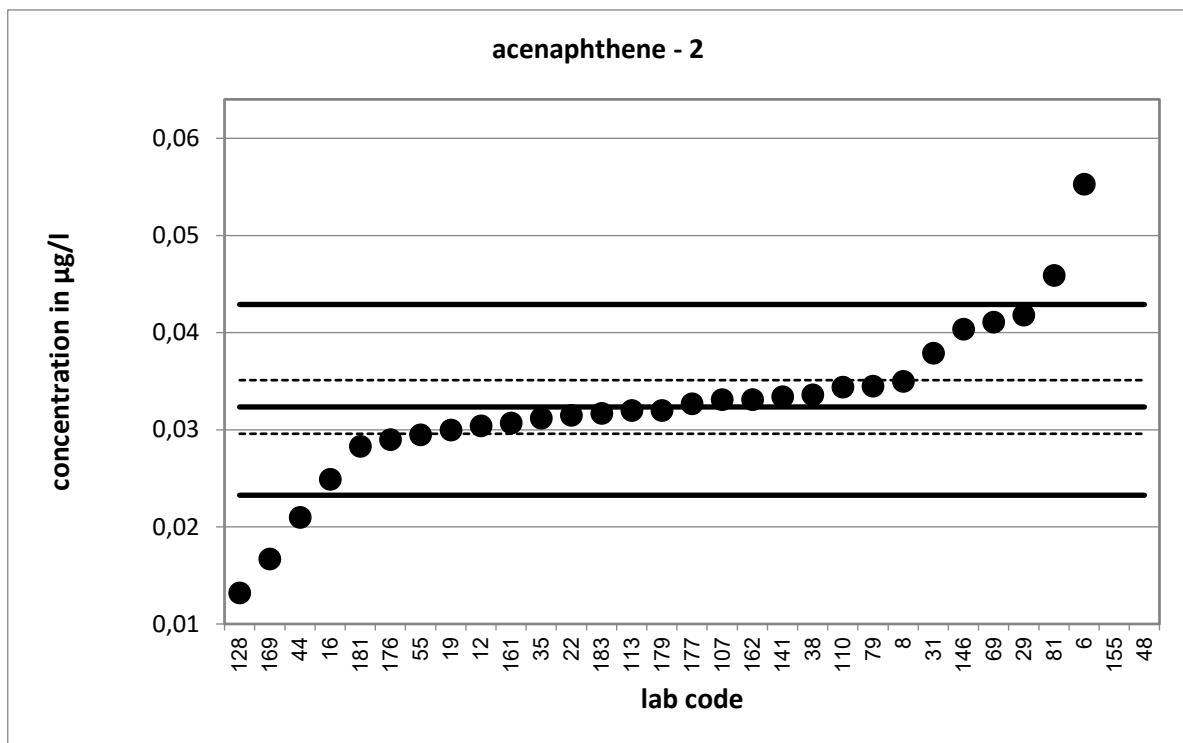
Strongly deviating values are not correctly shown in the diagram.



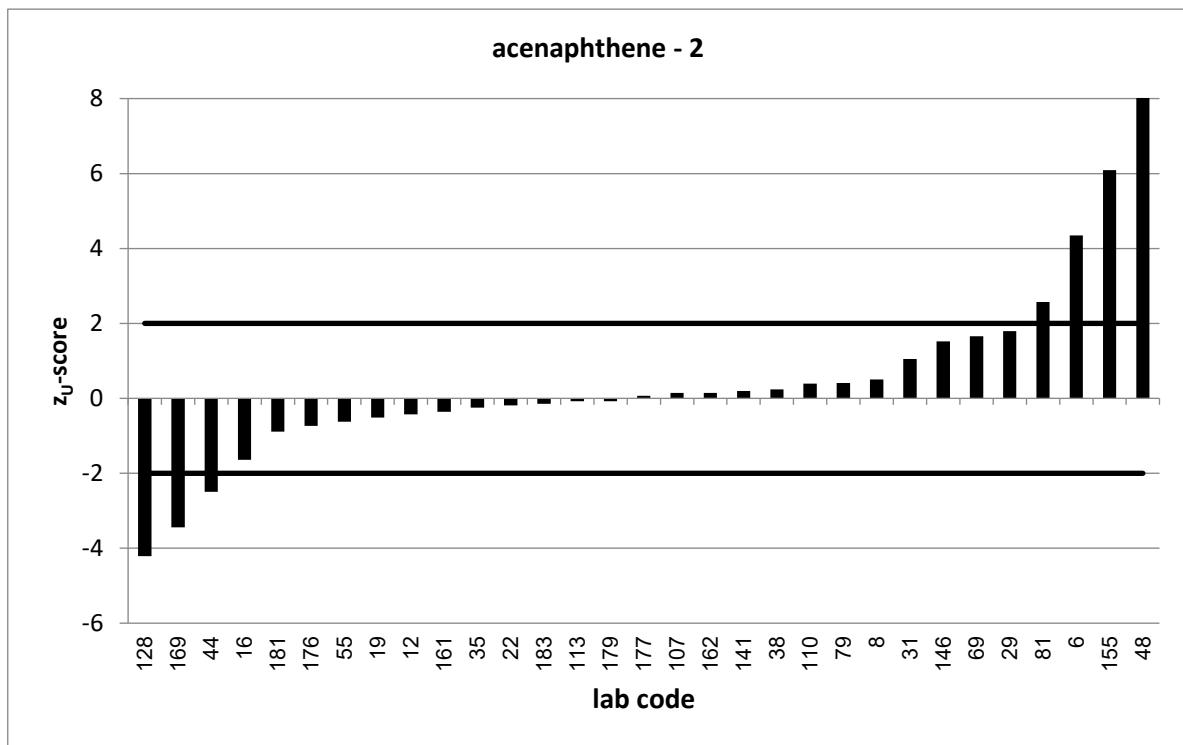
PT 3/24		acenaphthene - 2			
assigned value [ $\mu\text{g/l}$ ]*		$0,03234 \pm 0,00276$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,0429			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,02326			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0553	0,027	1,7	4,4	u
8	0,035	0,008	0,6	0,5	s
12	0,0304	0,009	-0,4	-0,4	s
16	0,0249	0,005	-2,6	-1,6	s
19	0,03	0,005	-0,8	-0,5	s
22	0,0315	0,013	-0,1	-0,2	s
29	0,0418	0,008	2,1	1,8	s
31	0,0379	0,013	0,8	1,1	s
35	0,0312	0,009	-0,2	-0,3	s
38	0,0336			0,2	s
44	0,021	0,011	-2,0	-2,5	q
48	0,142	0,009	22,6	20,8	u
55	0,0295	0,013	-0,4	-0,6	s
69	0,0411	0,007	2,3	1,7	s
79	0,0345			0,4	s
81	0,0459			2,6	q
107	0,0331	0,009	0,2	0,1	s
110	0,0344			0,4	s
113	0,032			-0,1	s
128	0,0132			-4,2	u
141	0,0334	0,015	0,1	0,2	s
146	0,04036	0,008	1,9	1,5	s
155	0,0645			6,1	u
161	0,0307			-0,4	s
162	0,0331	0,01	0,1	0,1	s
169	0,0167	0,004	-6,1	-3,4	u
176	0,029			-0,7	s
177	0,0327			0,1	s
179	0,032	0,01	-0,1	-0,1	s
181	0,0283	0,007	-1,1	-0,9	s
183	0,0317	0,008	-0,2	-0,1	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

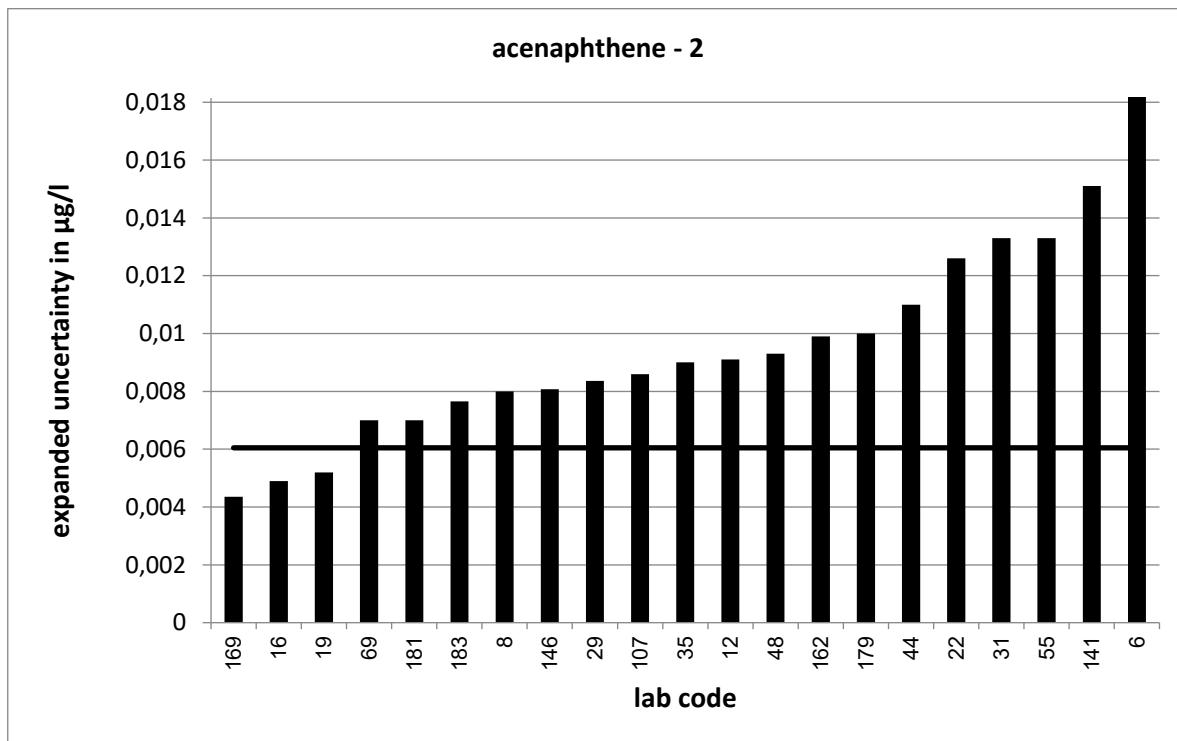
\*\* s = satisfactory, q = questionable, u = unsatisfactory



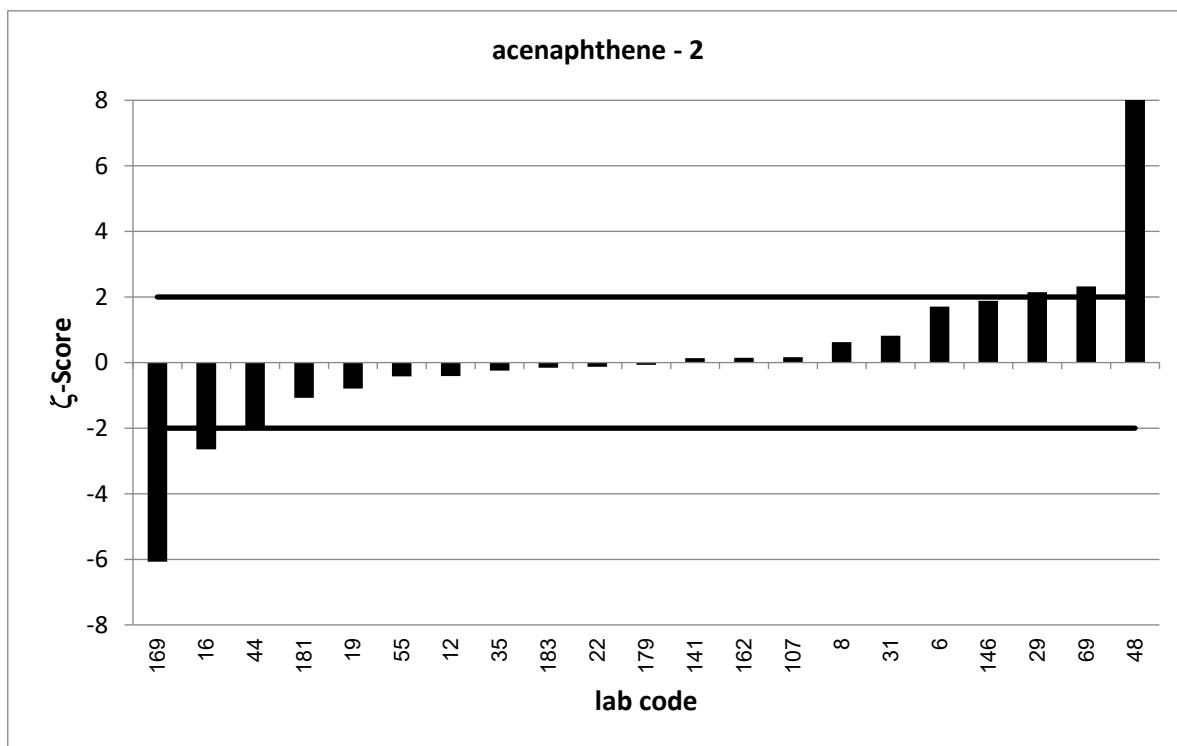
Strongly deviating values are not shown in the diagram.



Strongly deviating values are not correctly shown in the diagram.



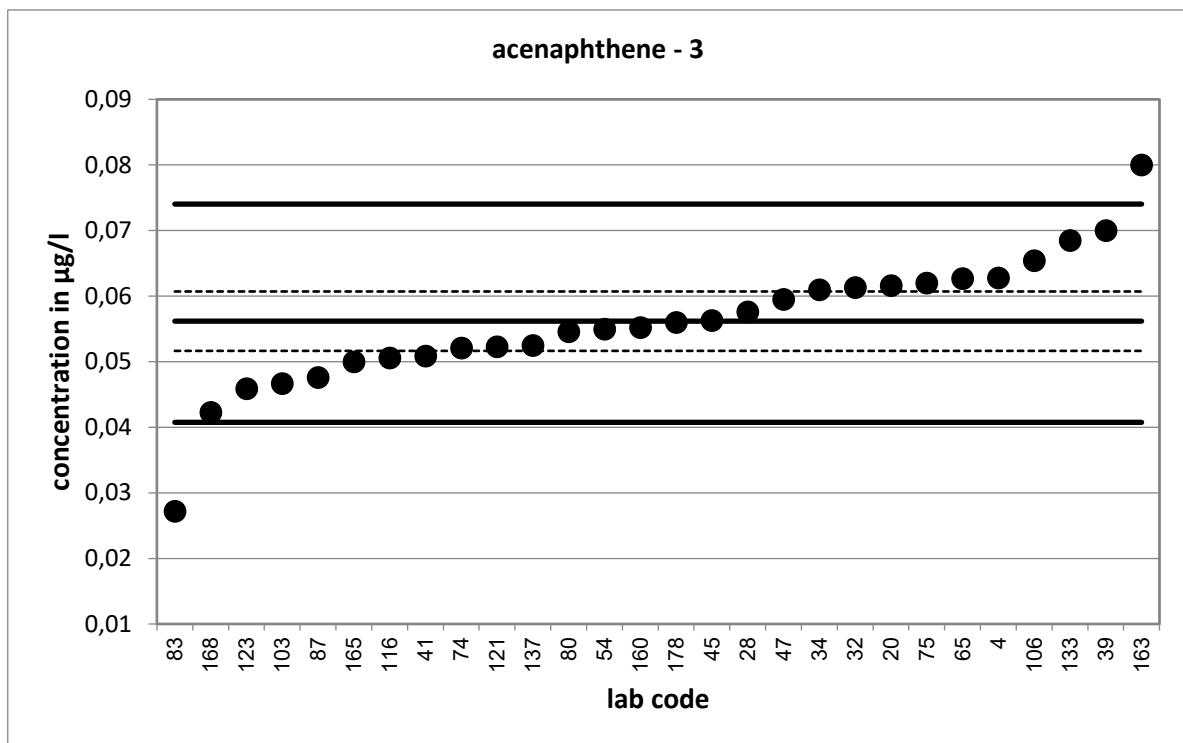
Strongly deviating values are not correctly shown in the diagram.



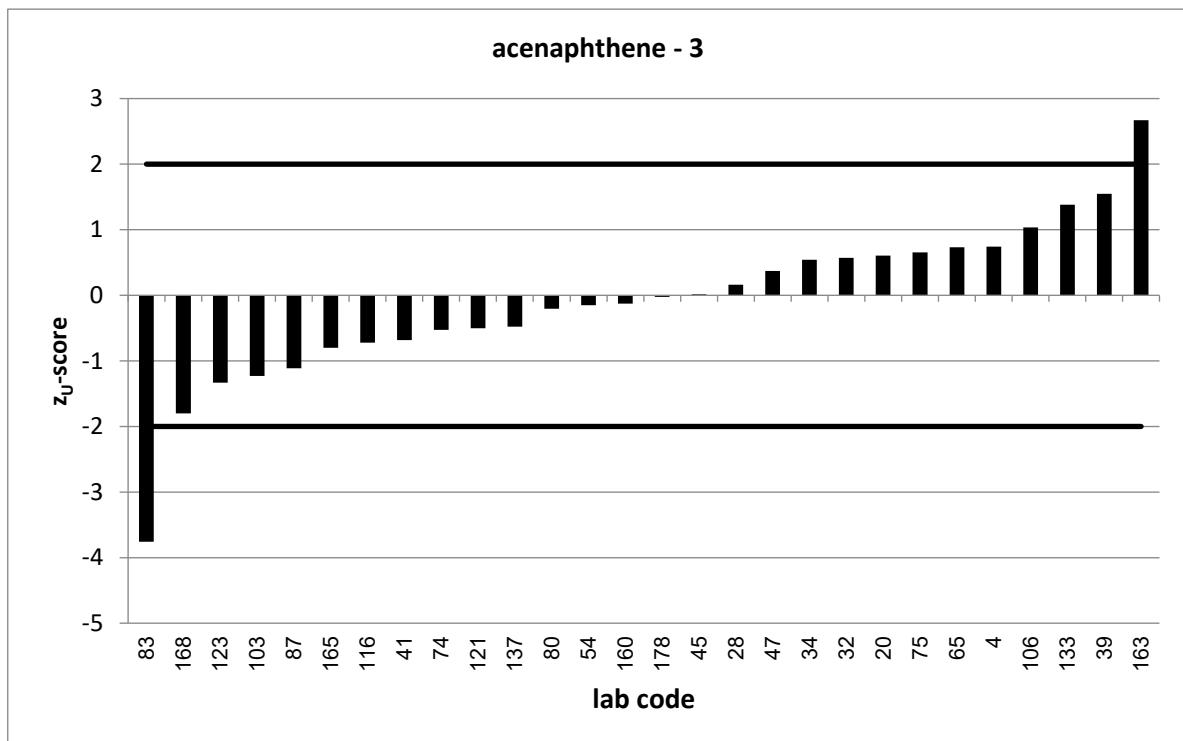
PT 3/24		acenaphthene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,05618 \pm 0,00453$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,07403			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,04075			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0628			0,7	s
20	0,0616	0,019	0,6	0,6	s
28	0,0576	0,009	0,3	0,2	s
32	0,0613			0,6	s
34	0,061	0,01	0,9	0,5	s
39	0,07	0,011	2,3	1,5	s
41	0,0509			-0,7	s
45	0,0563			0,0	s
47	0,0595			0,4	s
54	0,055	0,017	-0,1	-0,2	s
65	0,0627			0,7	s
74	0,0521	0,014	-0,6	-0,5	s
75	0,062	0,012	0,9	0,7	s
80	0,0546	0,008	-0,3	-0,2	s
83	0,0272			-3,8	u
87	0,0476	0,014	-1,1	-1,1	s
103	0,0467	0,01	-1,7	-1,2	s
106	0,0654			1,0	s
116	0,0506	0,013	-0,8	-0,7	s
121	0,0523	0,007	-0,9	-0,5	s
123	0,0459			-1,3	s
133	0,0685			1,4	s
137	0,0525	0,008	-0,8	-0,5	s
160	0,0552			-0,1	s
163	0,08			2,7	q
165	0,05			-0,8	s
168	0,0423	0,015	-1,8	-1,8	s
178	0,056			0,0	s

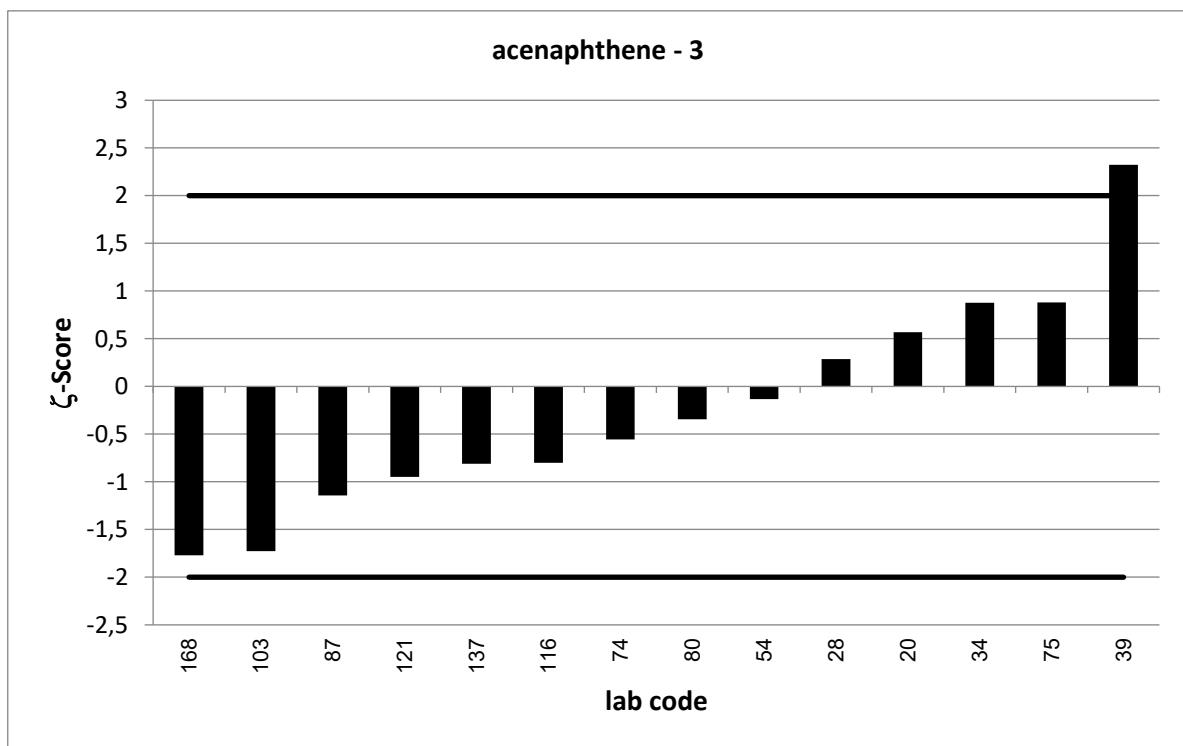
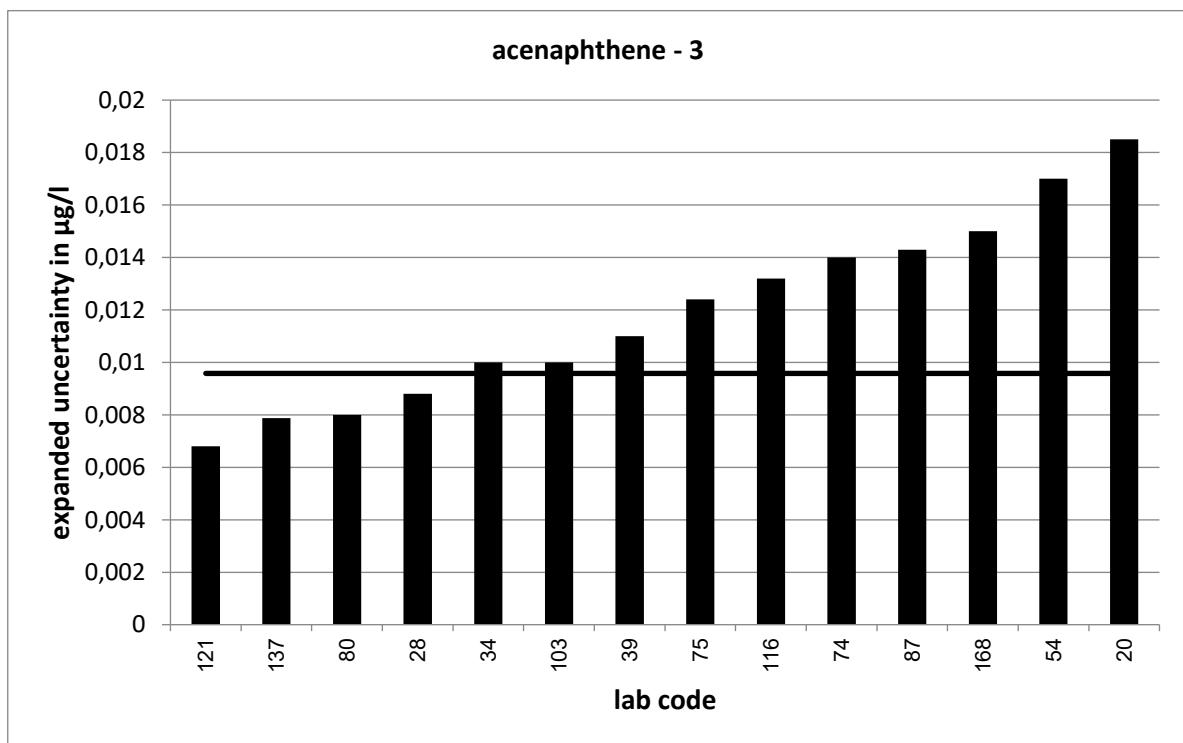
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

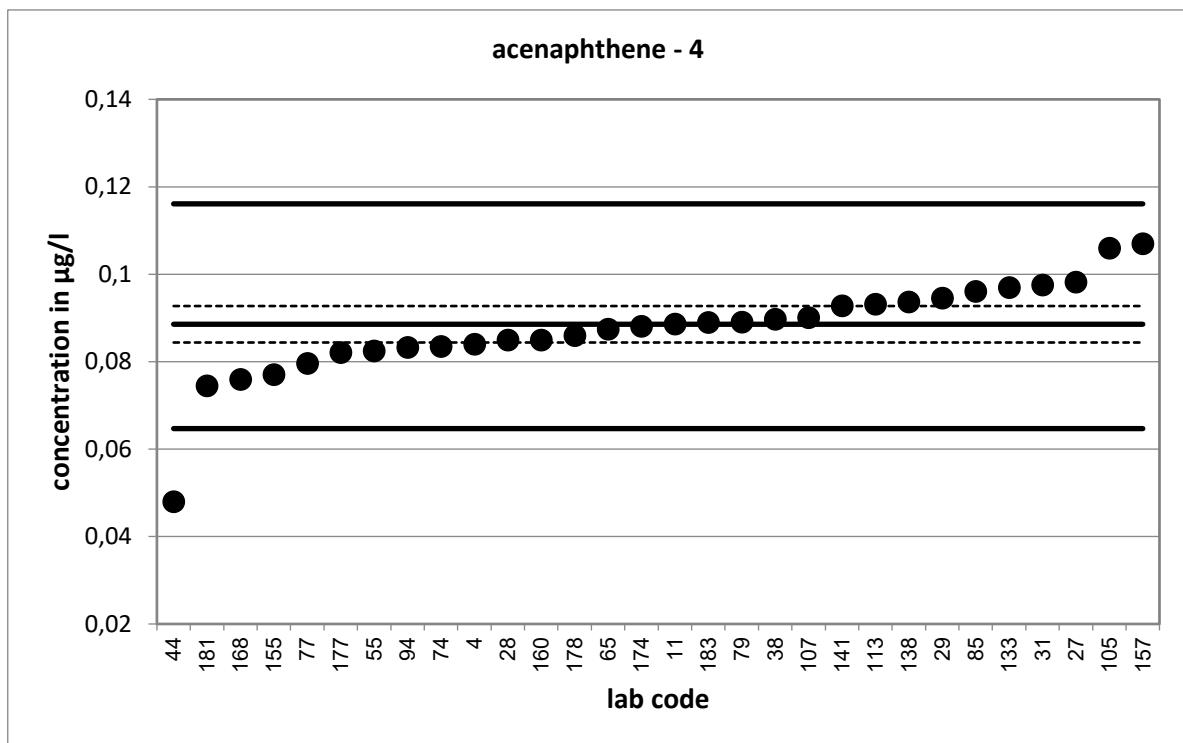




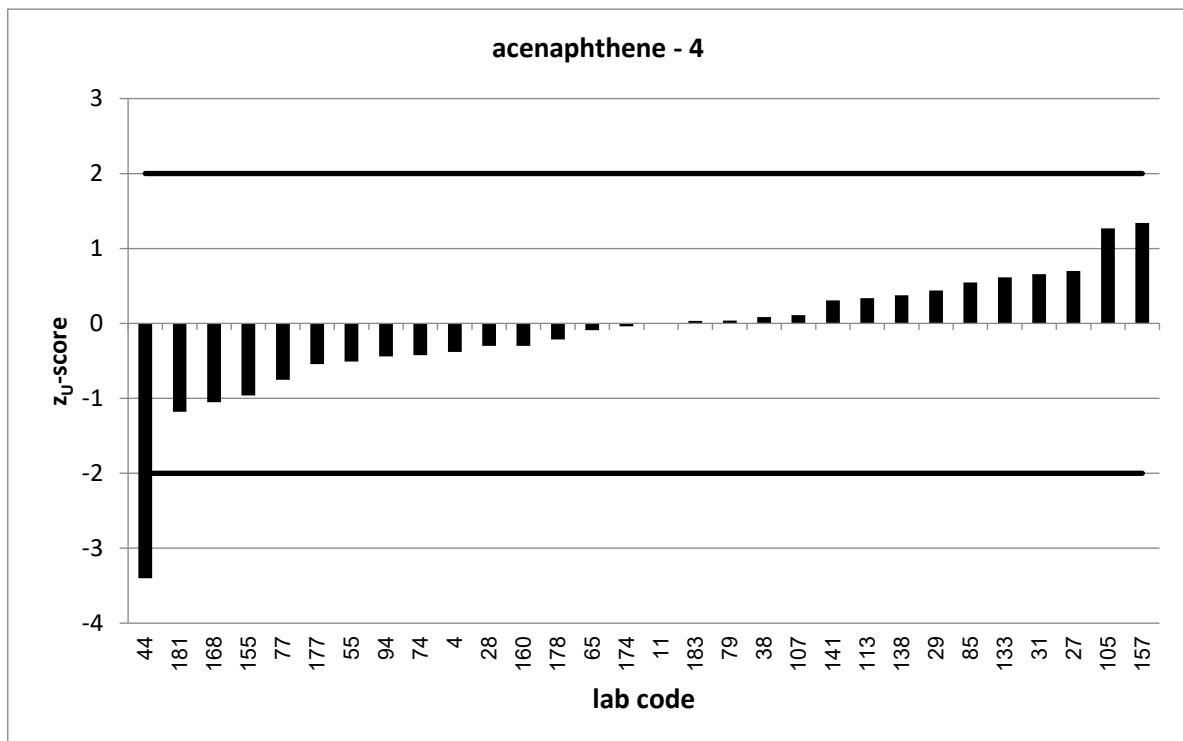
PT 3/24		acenaphthene - 4			
assigned value [ $\mu\text{g/l}$ ]*		$0,08856 \pm 0,00417$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1161			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,06469			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,084			-0,4	s
11	0,0886	0,02	0,0	0,0	s
27	0,0982			0,7	s
28	0,085	0,013	-0,5	-0,3	s
29	0,0946	0,019	0,6	0,4	s
31	0,0976	0,034	0,5	0,7	s
38	0,0897			0,1	s
44	0,048	0,012	-6,4	-3,4	u
55	0,0825	0,037	-0,3	-0,5	s
65	0,0875			-0,1	s
74	0,0835	0,022	-0,5	-0,4	s
77	0,0796	0,028	-0,6	-0,8	s
79	0,0891			0,0	s
85	0,0961	0,002	3,3	0,5	s
94	0,0833			-0,4	s
105	0,106			1,3	s
107	0,0901	0,023	0,1	0,1	s
113	0,0932			0,3	s
133	0,097			0,6	s
138	0,0937			0,4	s
141	0,0928	0,042	0,2	0,3	s
155	0,0771			-1,0	s
157	0,107			1,3	s
160	0,085			-0,3	s
168	0,076	0,02	-1,2	-1,1	s
174	0,0881			0,0	s
177	0,0821			-0,5	s
178	0,086			-0,2	s
181	0,0745	0,018	-1,5	-1,2	s
183	0,089	0,022	0,0	0,0	s

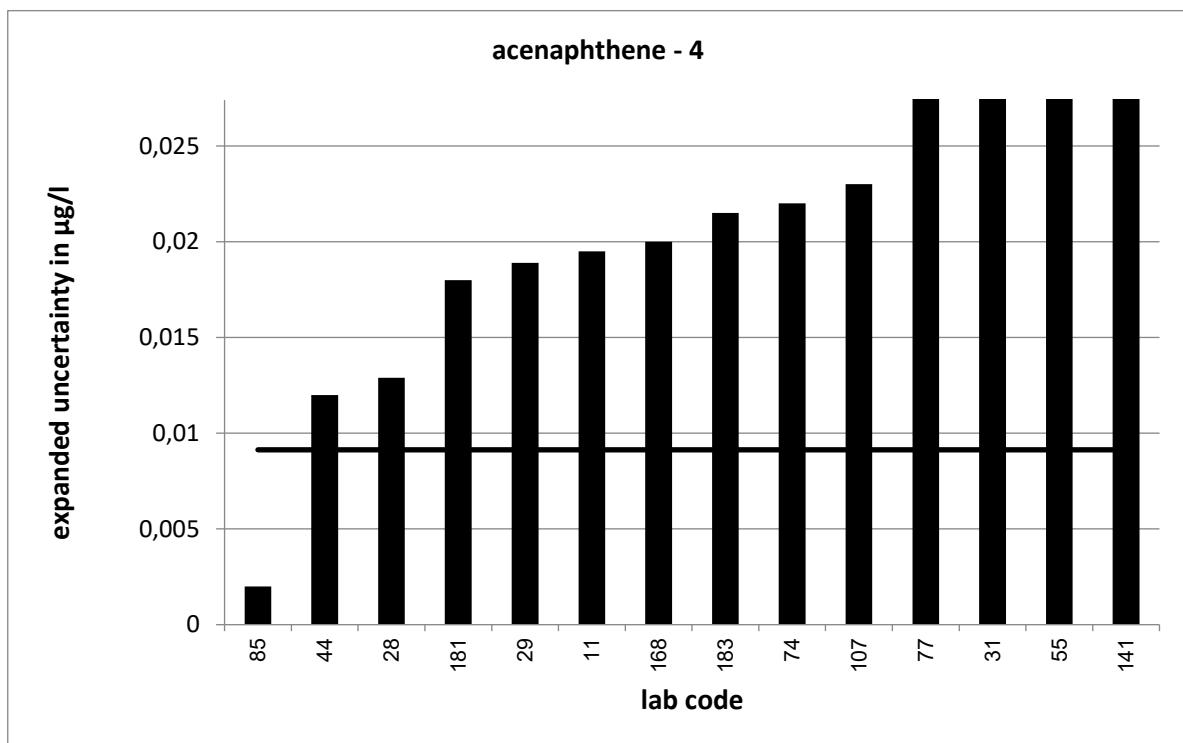
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

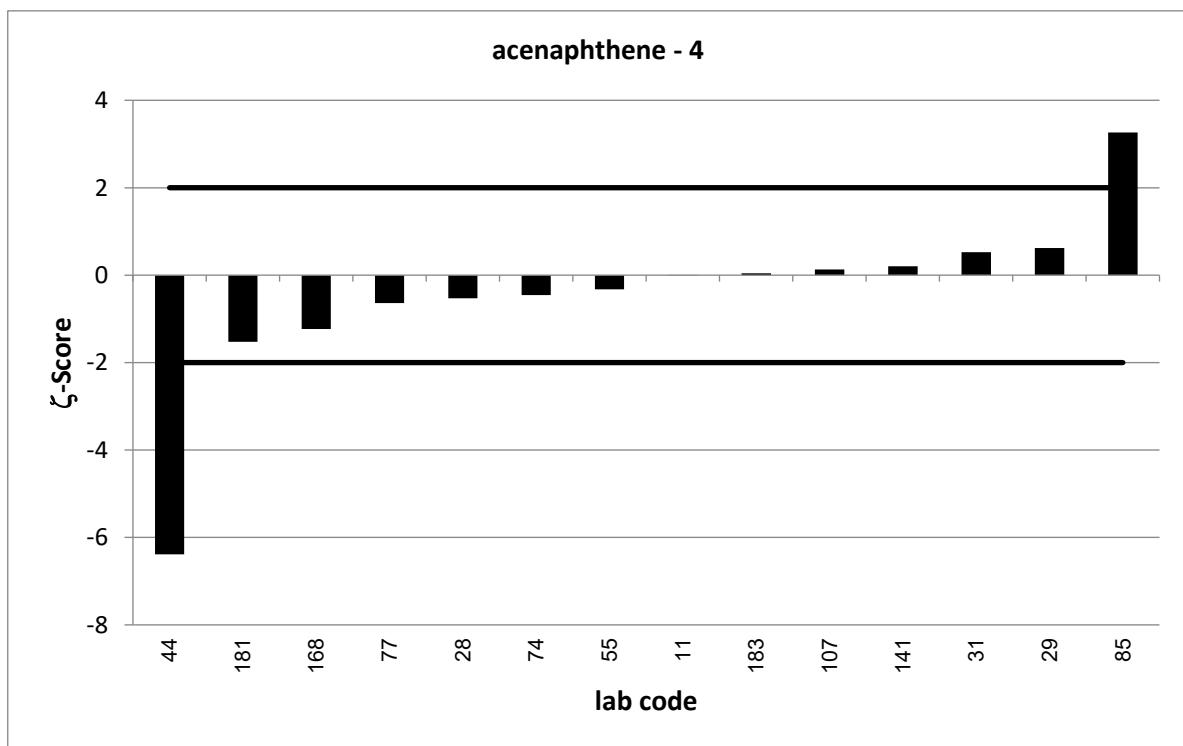


Strongly deviating values are not shown in the diagram.





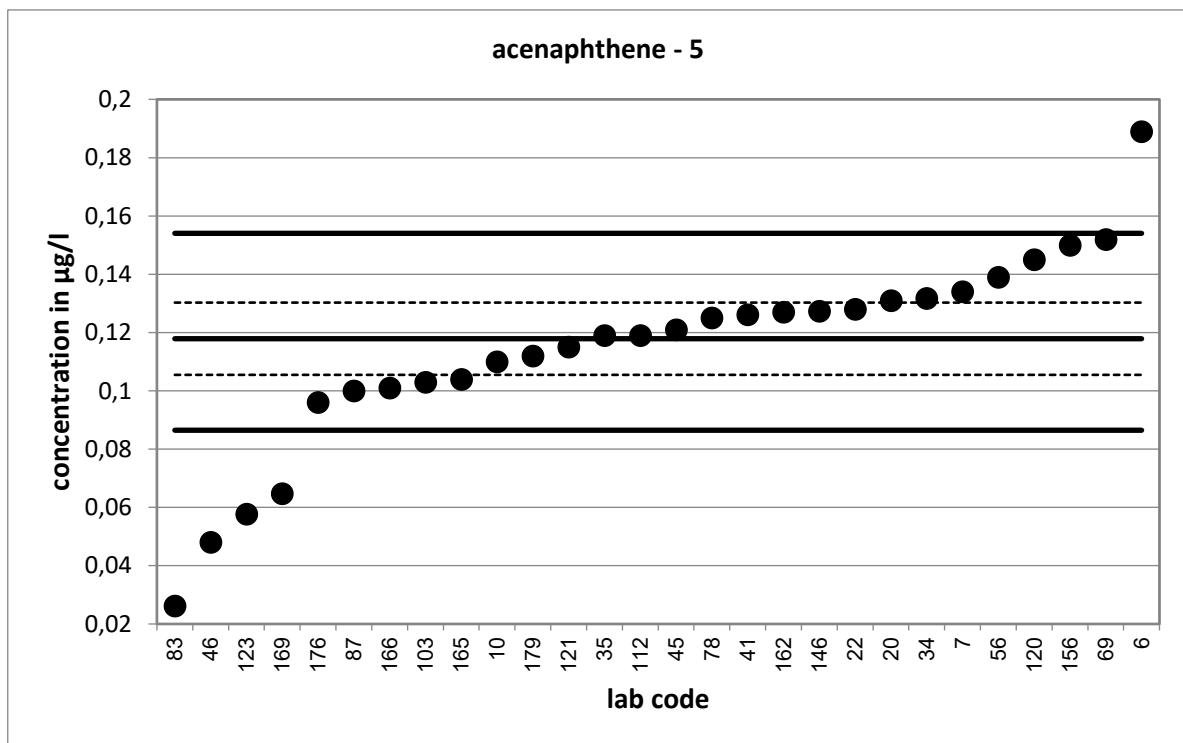
Strongly deviating values are not correctly shown in the diagram.



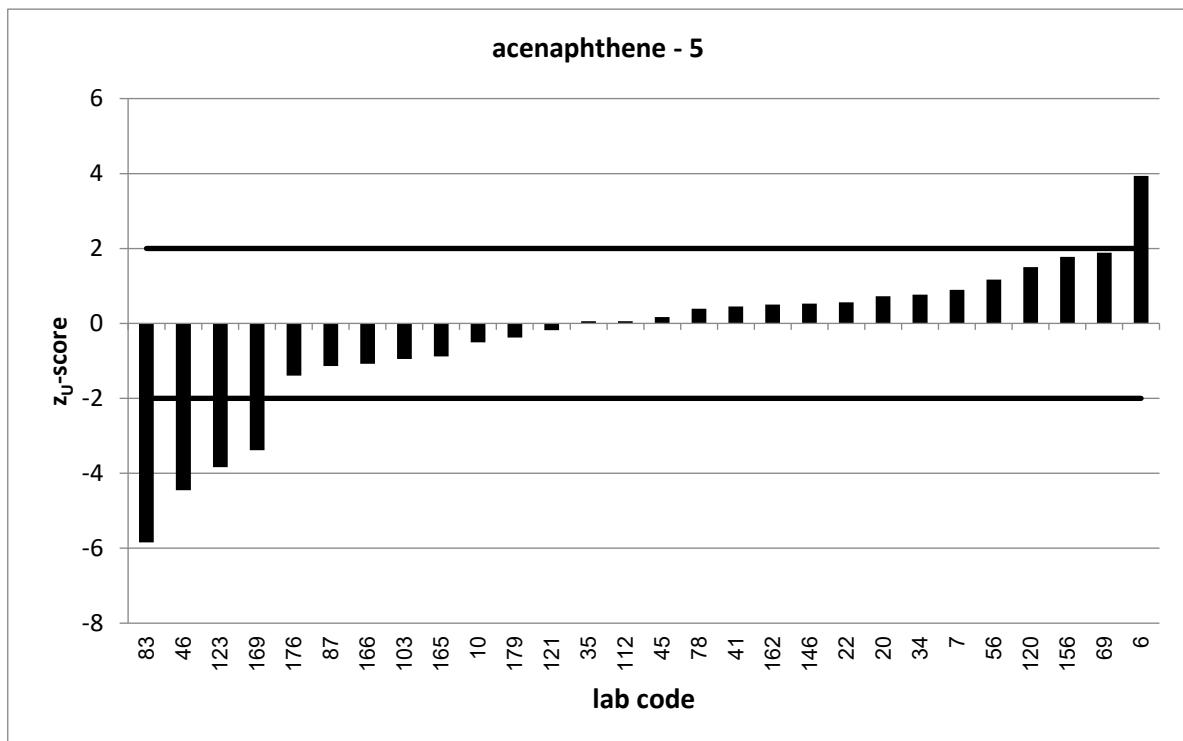
PT 3/24		acenaphthene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,1179 \pm 0,0124$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,154			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,08648			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,189	0,091	1,5	3,9	u
7	0,134	0,019	1,4	0,9	s
10	0,11	0,015	-0,8	-0,5	s
20	0,131	0,039	0,6	0,7	s
22	0,128	0,051	0,4	0,6	s
34	0,1317	0,02	1,2	0,8	s
35	0,119	0,036	0,1	0,1	s
41	0,1261			0,5	s
45	0,121			0,2	s
46	0,048			-4,5	u
56	0,139	0,02	1,8	1,2	s
69	0,152	0,027	2,3	1,9	s
78	0,125			0,4	s
83	0,0262			-5,8	u
87	0,1	0,03	-1,1	-1,1	s
103	0,103	0,022	-1,2	-0,9	s
112	0,119	0,006	0,2	0,1	s
120	0,145	0,005	4,1	1,5	s
121	0,115	0,015	-0,3	-0,2	s
123	0,0577			-3,8	u
146	0,1274	0,026	0,7	0,5	s
156	0,15	0,018	2,9	1,8	s
162	0,127	0,038	0,5	0,5	s
165	0,104			-0,9	s
166	0,101			-1,1	s
169	0,0647	0,017	-5,1	-3,4	u
176	0,096			-1,4	s
179	0,112	0,033	-0,3	-0,4	s

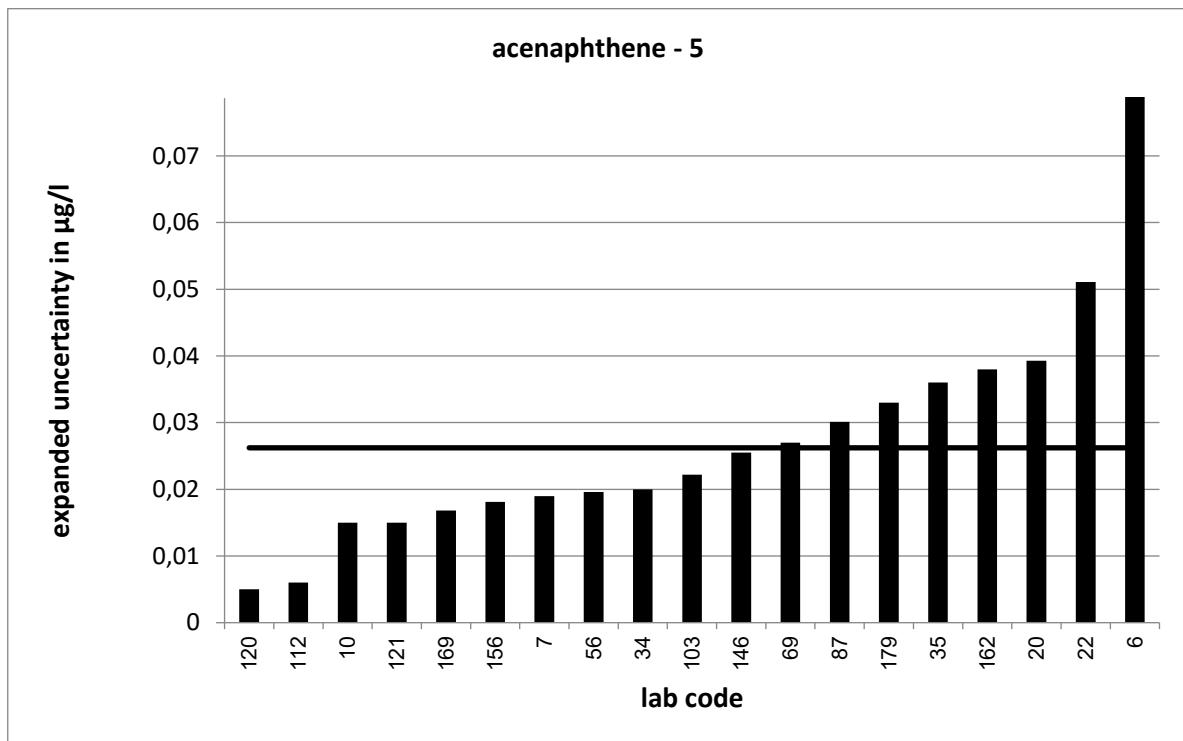
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.





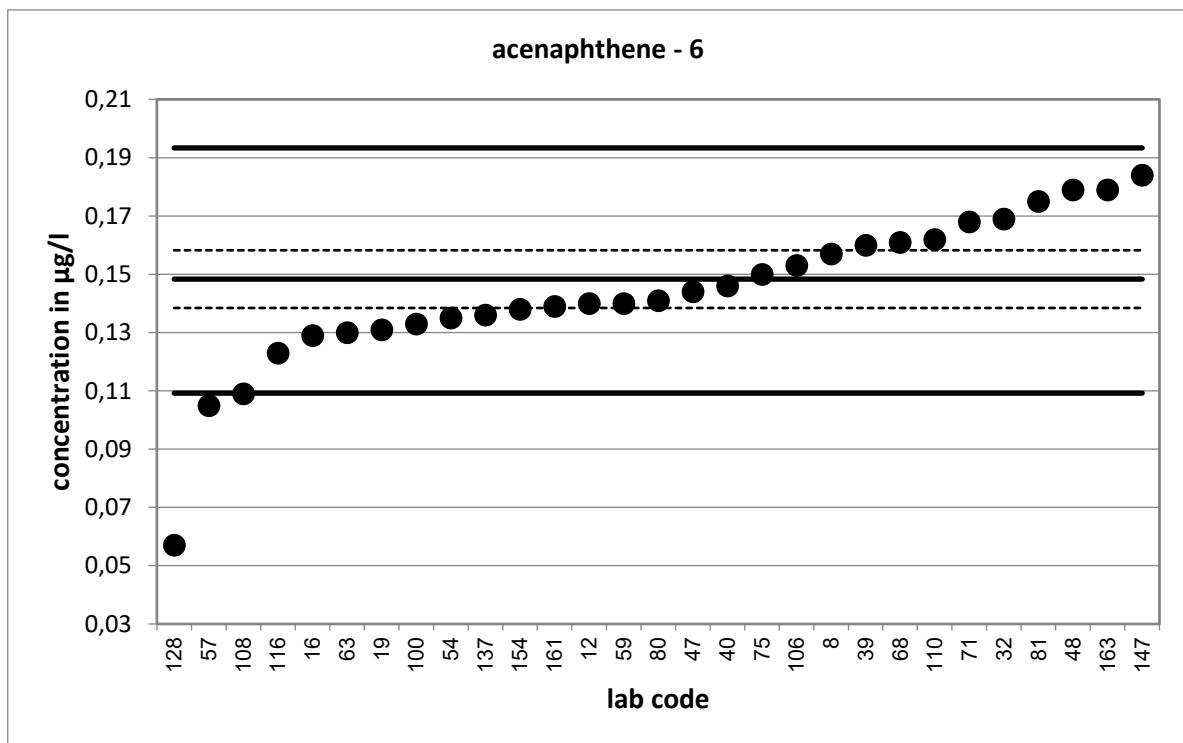
Strongly deviating values are not correctly shown in the diagram.



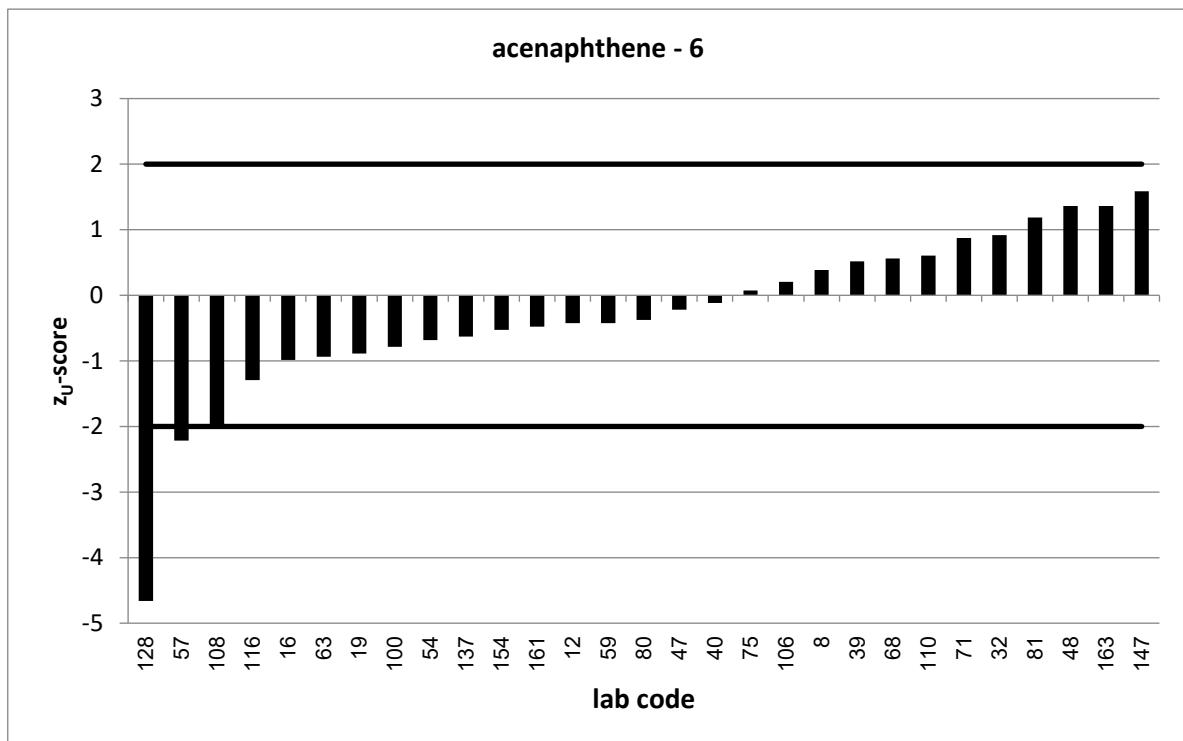
PT 3/24		acenaphthene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,1483 \pm 0,0099$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1933			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1092			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,157	0,038	0,4	0,4	s
12	0,14	0,042	-0,4	-0,4	s
16	0,129	0,025	-1,4	-1,0	s
19	0,131	0,023	-1,4	-0,9	s
32	0,169			0,9	s
39	0,16	0,026	0,8	0,5	s
40	0,146			-0,1	s
47	0,144			-0,2	s
48	0,179	0,019	2,9	1,4	s
54	0,135	0,04	-0,6	-0,7	s
57	0,105			-2,2	q
59	0,14	0,032	-0,5	-0,4	s
63	0,13	0,044	-0,8	-0,9	s
68	0,161			0,6	s
71	0,168	0,034	1,1	0,9	s
75	0,15	0,03	0,1	0,1	s
80	0,141	0,01	-1,0	-0,4	s
81	0,175			1,2	s
100	0,133	0,02	-1,4	-0,8	s
106	0,153			0,2	s
108	0,109	0,028	-2,6	-2,0	s
110	0,162			0,6	s
116	0,123	0,032	-1,5	-1,3	s
128	0,0571			-4,7	u
137	0,136	0,02	-1,1	-0,6	s
147	0,184	0,006	6,3	1,6	s
154	0,138	0,069	-0,3	-0,5	s
161	0,139			-0,5	s
163	0,179			1,4	s

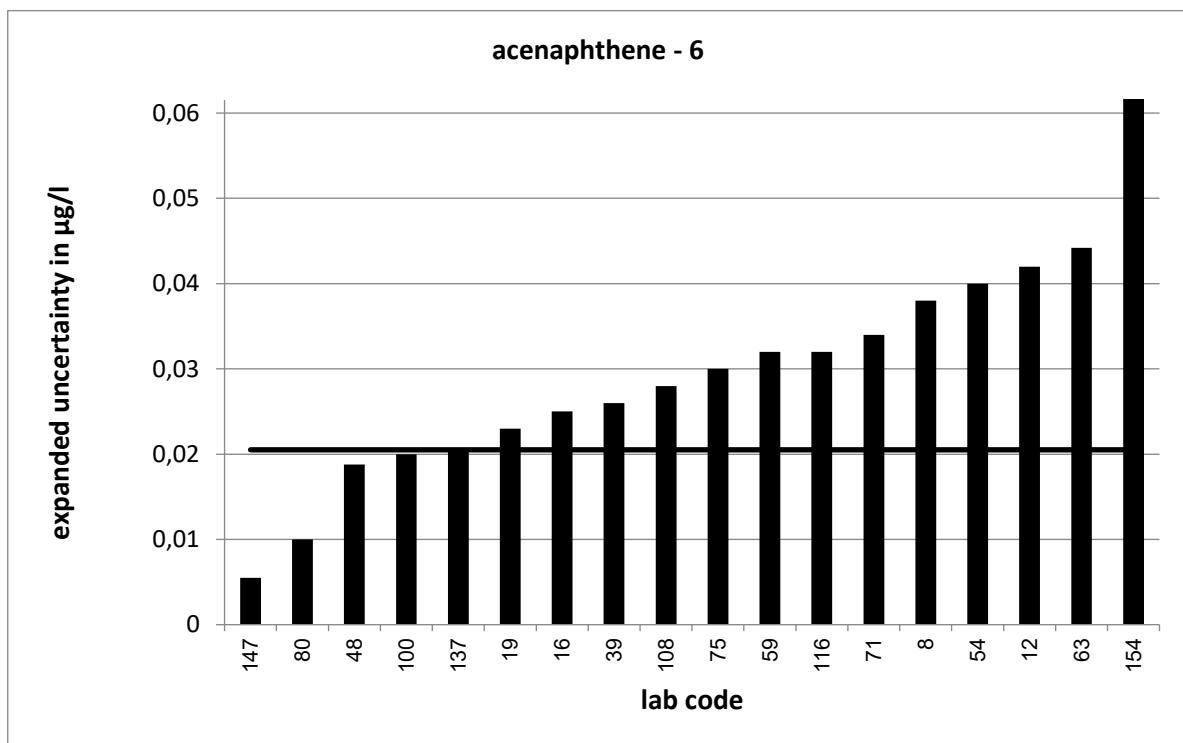
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

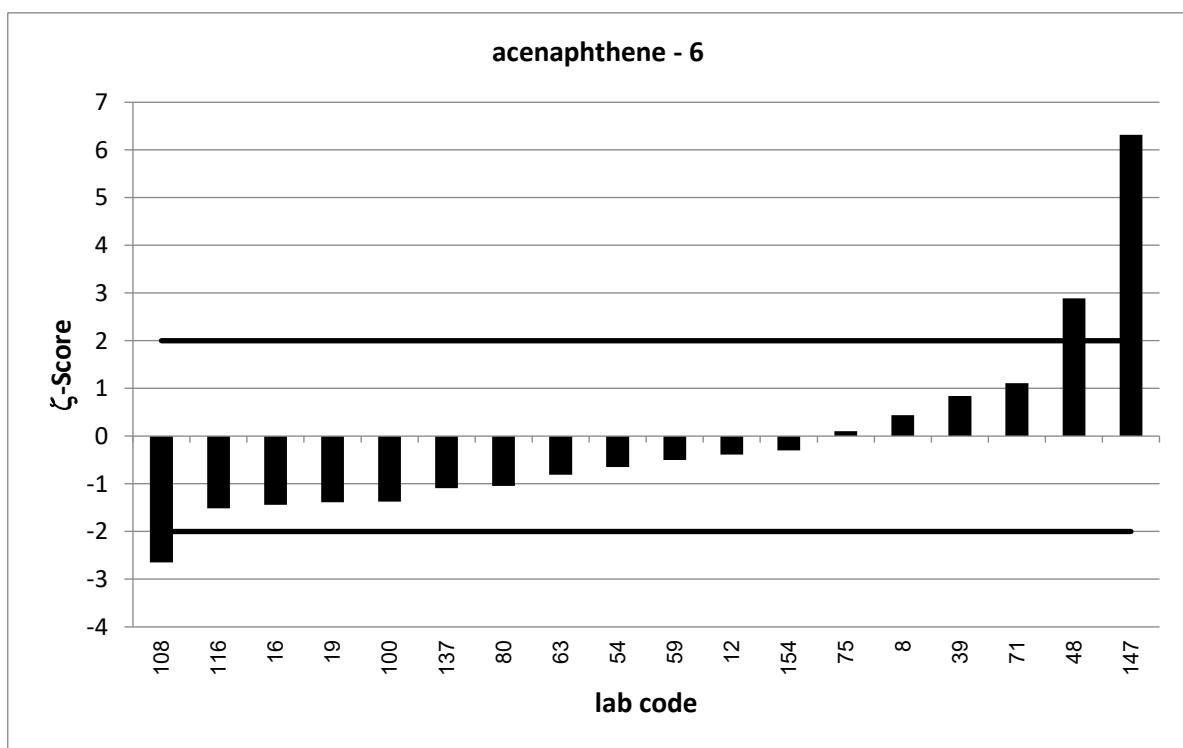


Strongly deviating values are not shown in the diagram.





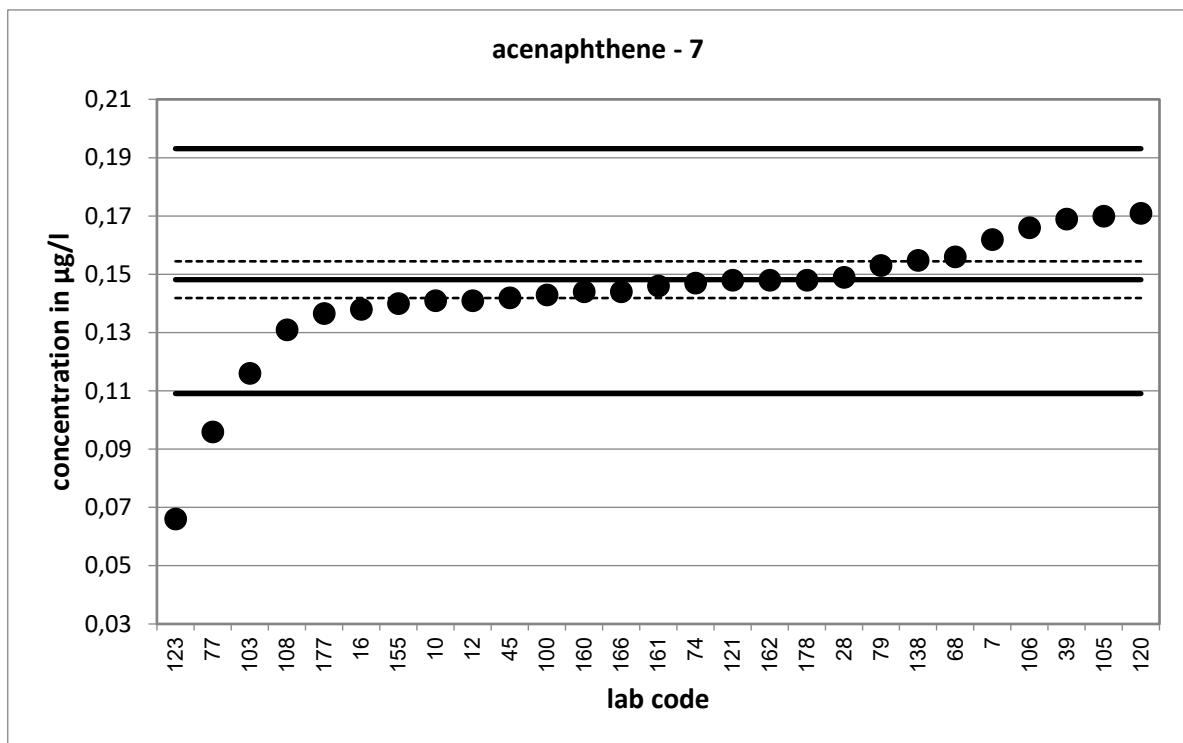
Strongly deviating values are not correctly shown in the diagram.



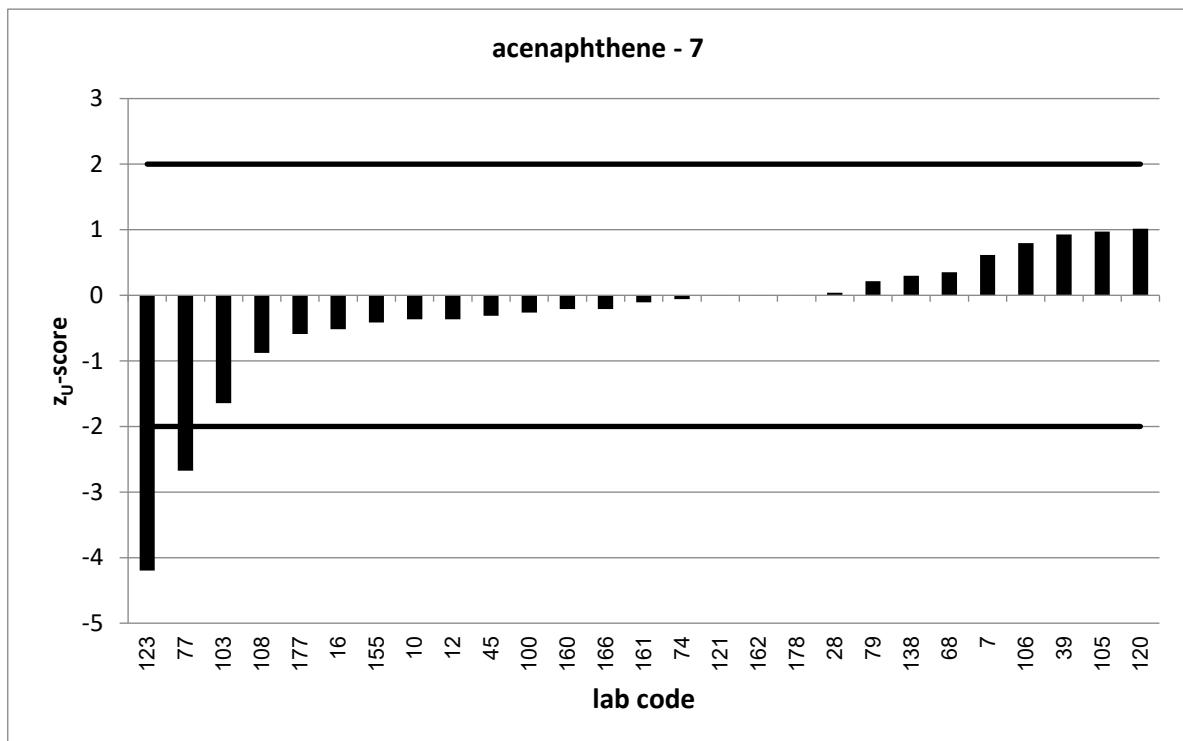
PT 3/24		acenaphthene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,1481 \pm 0,0063$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1931			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1091			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,162	0,019	1,4	0,6	s
10	0,141	0,019	-0,7	-0,4	s
12	0,141	0,042	-0,3	-0,4	s
16	0,138	0,027	-0,7	-0,5	s
28	0,149	0,028	0,1	0,0	s
39	0,169	0,027	1,5	0,9	s
45	0,142			-0,3	s
68	0,156			0,3	s
74	0,147	0,039	-0,1	-0,1	s
77	0,0959	0,034	-3,1	-2,7	q
79	0,153			0,2	s
100	0,143	0,022	-0,4	-0,3	s
103	0,116	0,025	-2,5	-1,6	s
105	0,17			1,0	s
106	0,166			0,8	s
108	0,131	0,034	-1,0	-0,9	s
120	0,171	0,005	5,7	1,0	s
121	0,148	0,019	0,0	0,0	s
123	0,0661			-4,2	u
138	0,1548			0,3	s
155	0,14			-0,4	s
160	0,144			-0,2	s
161	0,146			-0,1	s
162	0,148	0,045	0,0	0,0	s
166	0,144			-0,2	s
177	0,1366			-0,6	s
178	0,148			0,0	s

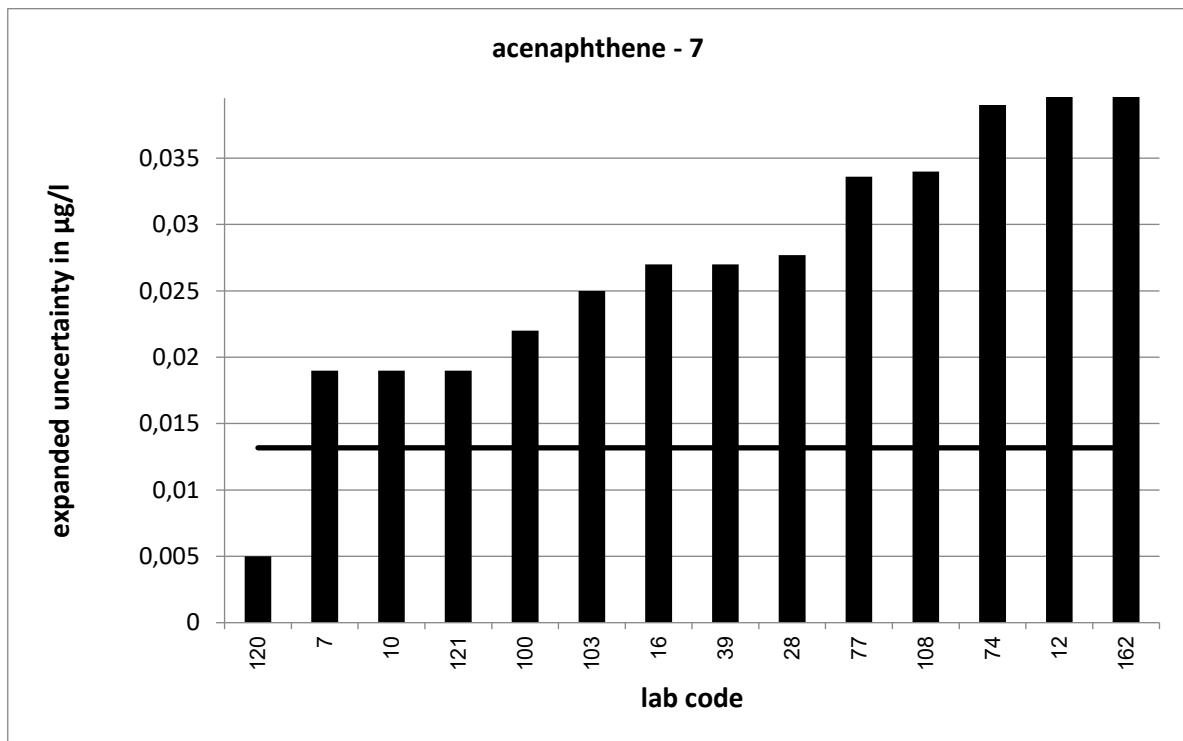
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

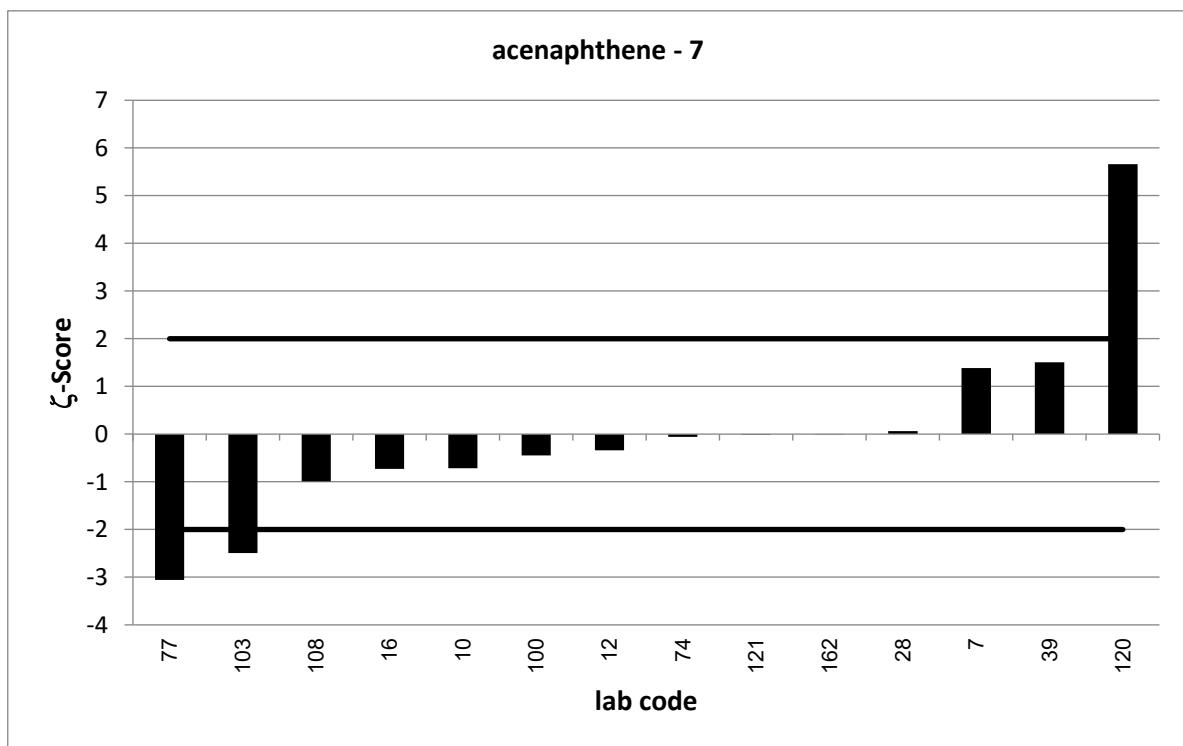


Strongly deviating values are not shown in the diagram.





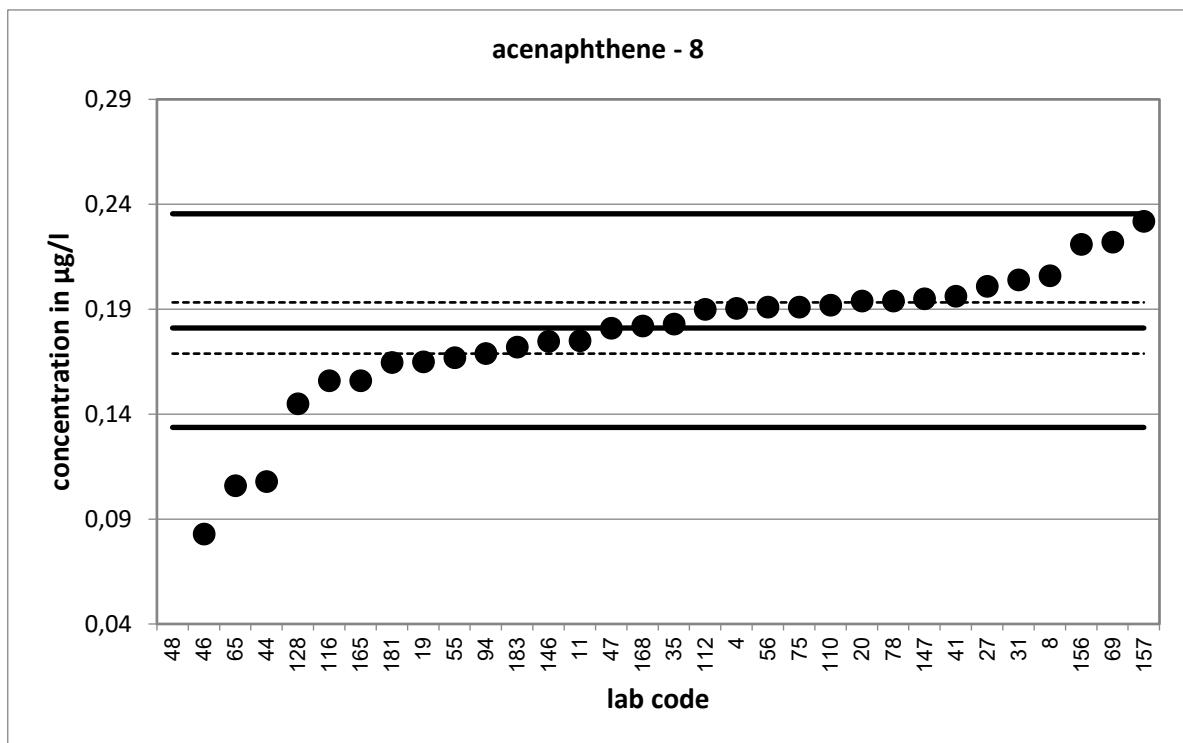
Strongly deviating values are not correctly shown in the diagram.



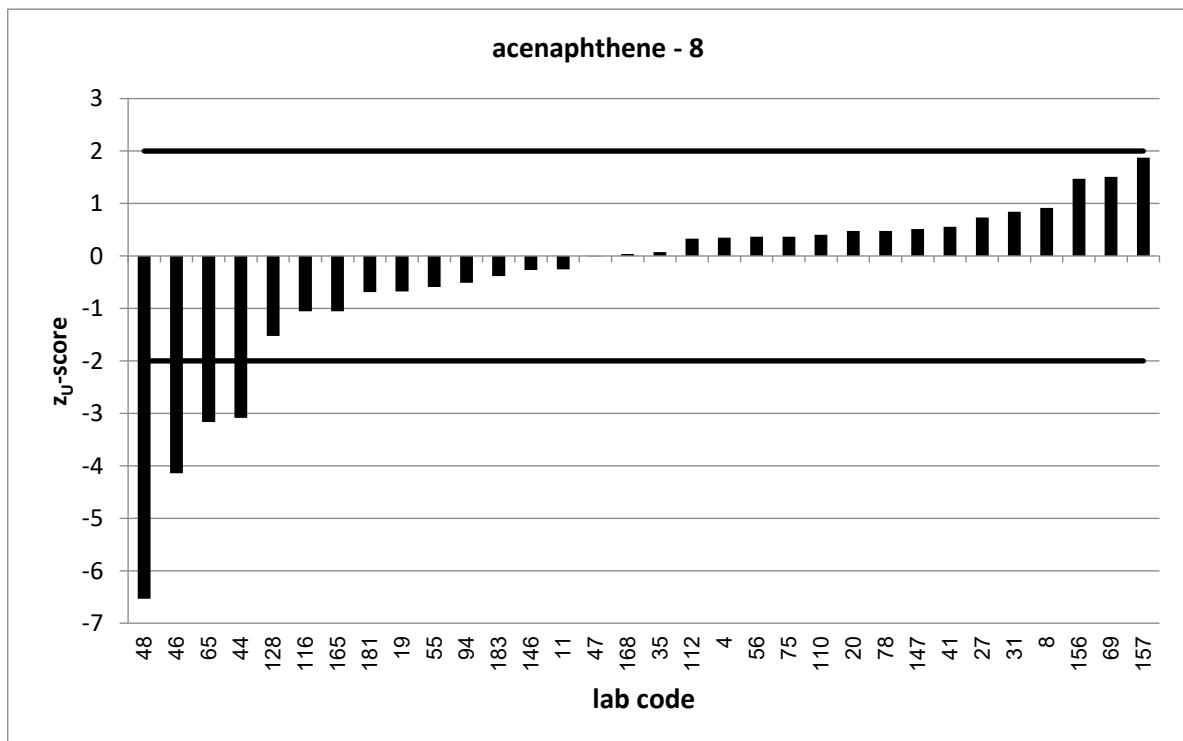
PT 3/24		acenaphthene - 8			
assigned value [ $\mu\text{g/l}$ ]*		$0,181 \pm 0,0122$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2355			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1337			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,1905			0,3	s
8	0,206	0,049	1,0	0,9	s
11	0,175	0,038	-0,3	-0,3	s
19	0,165	0,029	-1,0	-0,7	s
20	0,194	0,058	0,4	0,5	s
27	0,201			0,7	s
31	0,204	0,071	0,6	0,8	s
35	0,183	0,055	0,1	0,1	s
41	0,1962			0,6	s
44	0,108	0,022	-5,8	-3,1	u
46	0,083			-4,1	u
47	0,181			0,0	s
48	0,0263	9E-04	-25,4	-6,5	u
55	0,167	0,075	-0,4	-0,6	s
56	0,191	0,027	0,7	0,4	s
65	0,106			-3,2	u
69	0,222	0,039	2,0	1,5	s
75	0,191	0,038	0,5	0,4	s
78	0,194			0,5	s
94	0,169			-0,5	s
110	0,192			0,4	s
112	0,19	0,01	1,1	0,3	s
116	0,156	0,04	-1,2	-1,1	s
128	0,145			-1,5	s
146	0,1747	0,035	-0,3	-0,3	s
147	0,195	0,006	2,1	0,5	s
156	0,221	0,027	2,7	1,5	s
157	0,232			1,9	s
165	0,156			-1,1	s
168	0,182	0,04	0,0	0,0	s
181	0,1647	0,038	-0,8	-0,7	s
183	0,172	0,042	-0,4	-0,4	s

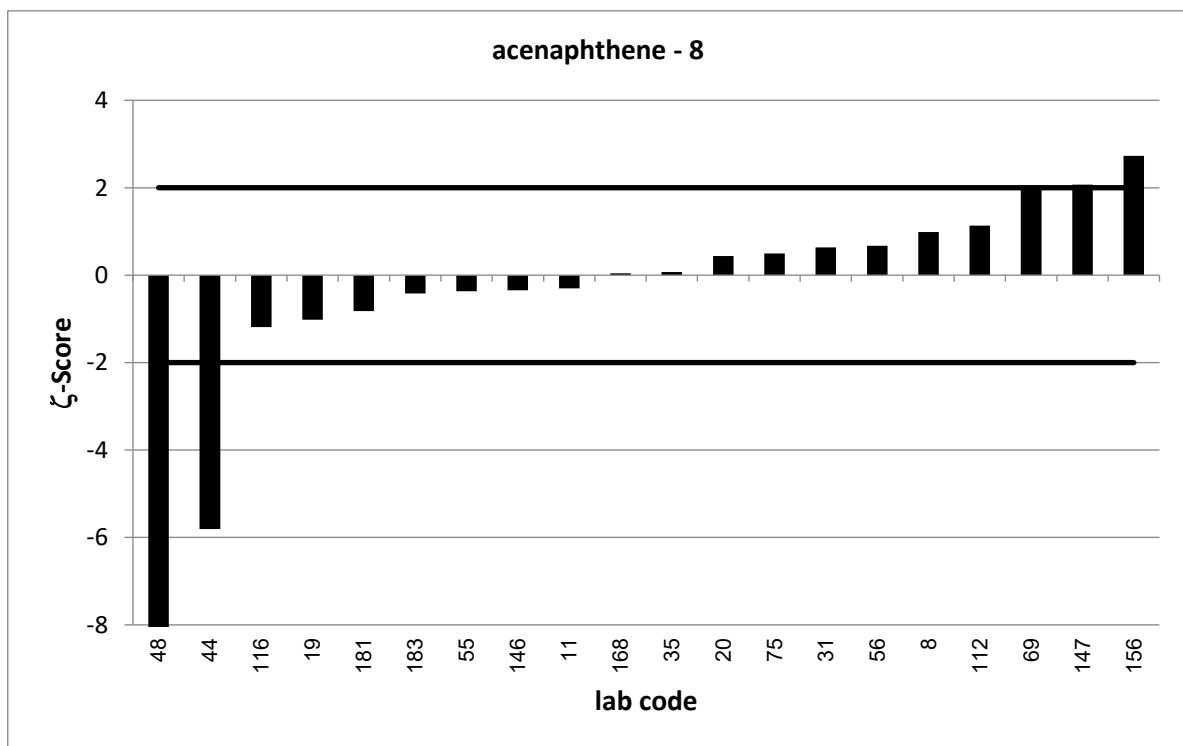
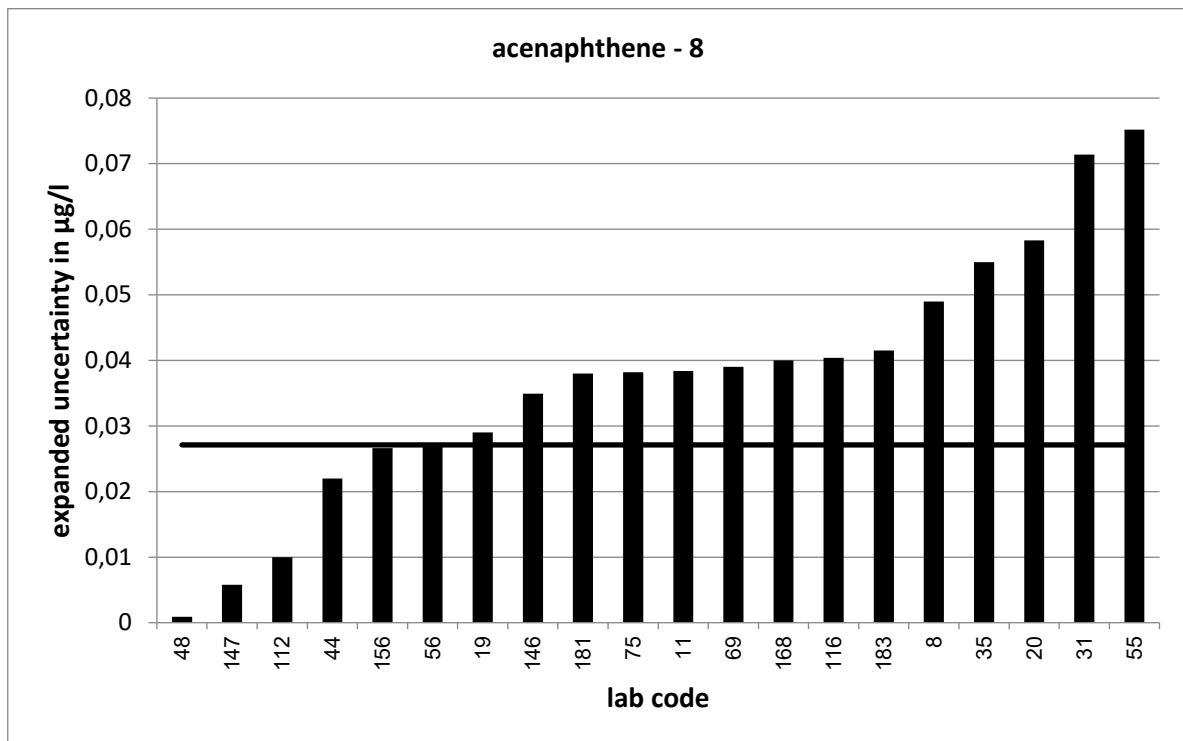
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

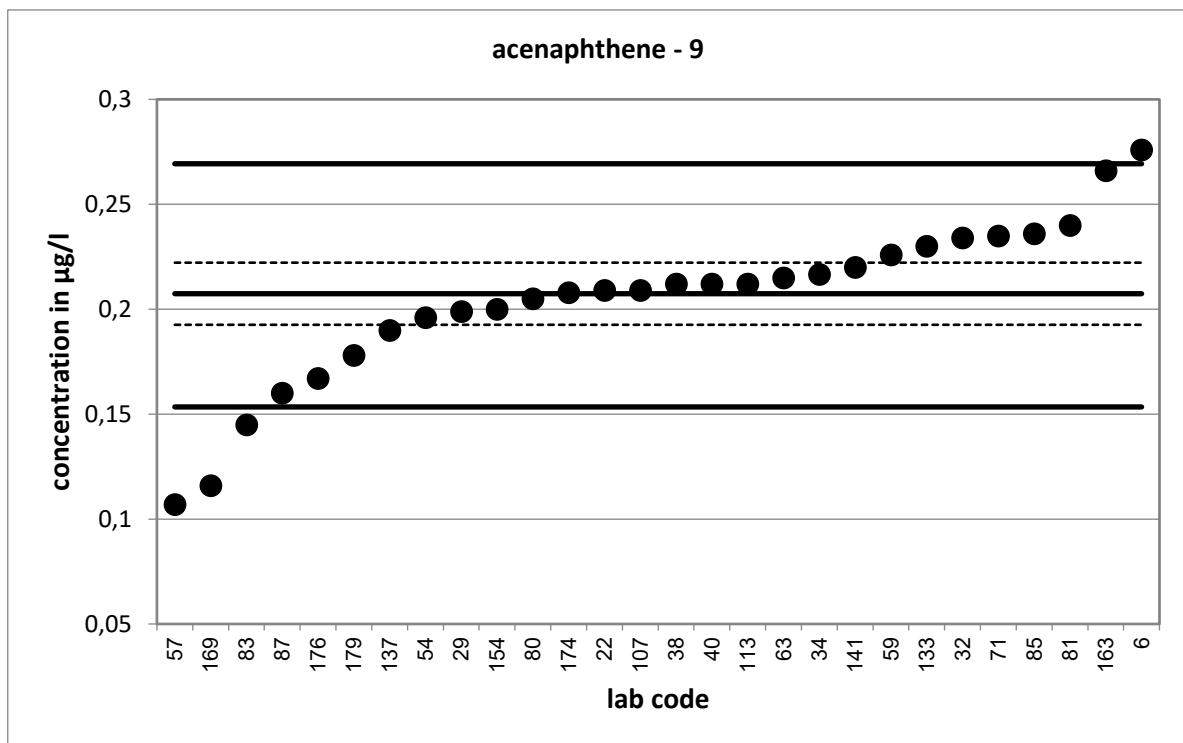




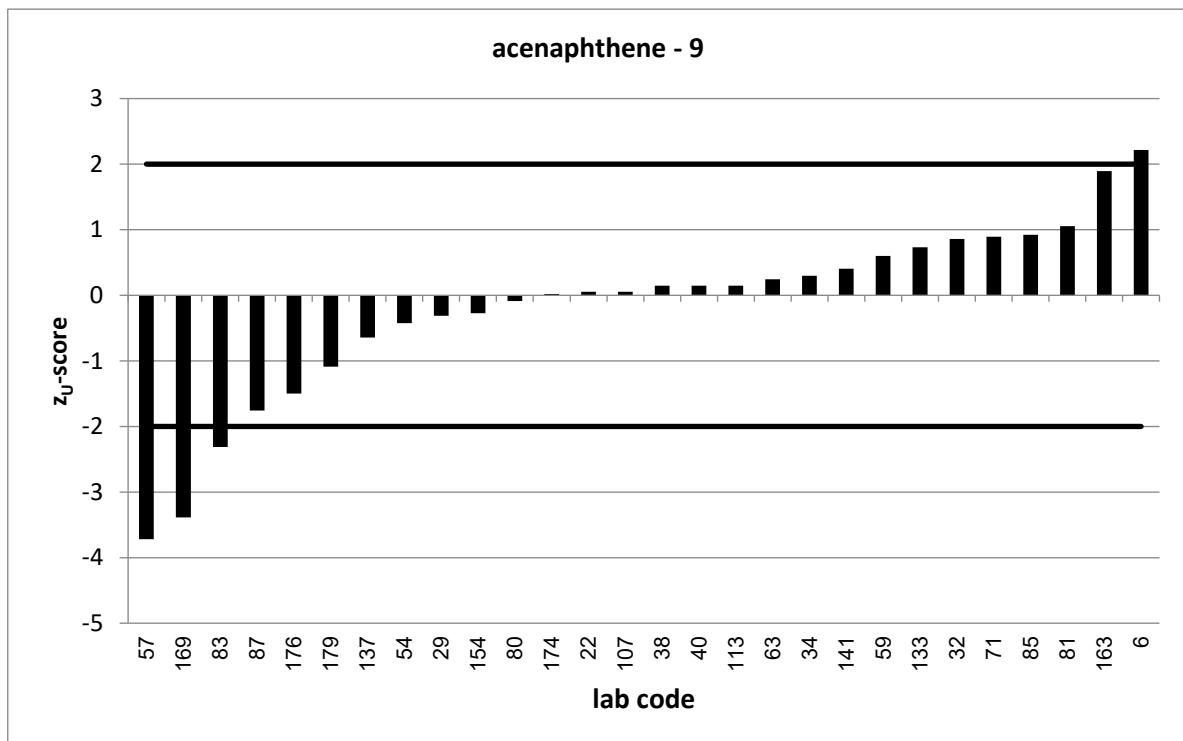
PT 3/24		acenaphthene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,2074 \pm 0,0148$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2693			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1534			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,276	0,133	1,0	2,2	q
22	0,209	0,084	0,0	0,1	s
29	0,199	0,04	-0,4	-0,3	s
32	0,234			0,9	s
34	0,2166	0,04	0,4	0,3	s
38	0,212			0,1	s
40	0,212			0,1	s
54	0,196	0,059	-0,4	-0,4	s
57	0,107			-3,7	u
59	0,226	0,045	0,8	0,6	s
63	0,215	0,073	0,2	0,2	s
71	0,235	0,235	0,2	0,9	s
80	0,205	0,02	-0,2	-0,1	s
81	0,24			1,1	s
83	0,145			-2,3	q
85	0,236	0,002	3,8	0,9	s
87	0,16	0,048	-1,9	-1,8	s
107	0,209	0,054	0,1	0,1	s
113	0,212			0,1	s
133	0,23			0,7	s
137	0,19	0,029	-1,1	-0,6	s
141	0,22	0,099	0,3	0,4	s
154	0,2	0,1	-0,1	-0,3	s
163	0,266			1,9	s
169	0,116	0,022	-6,9	-3,4	u
174	0,208			0,0	s
176	0,167			-1,5	s
179	0,178	0,053	-1,1	-1,1	s

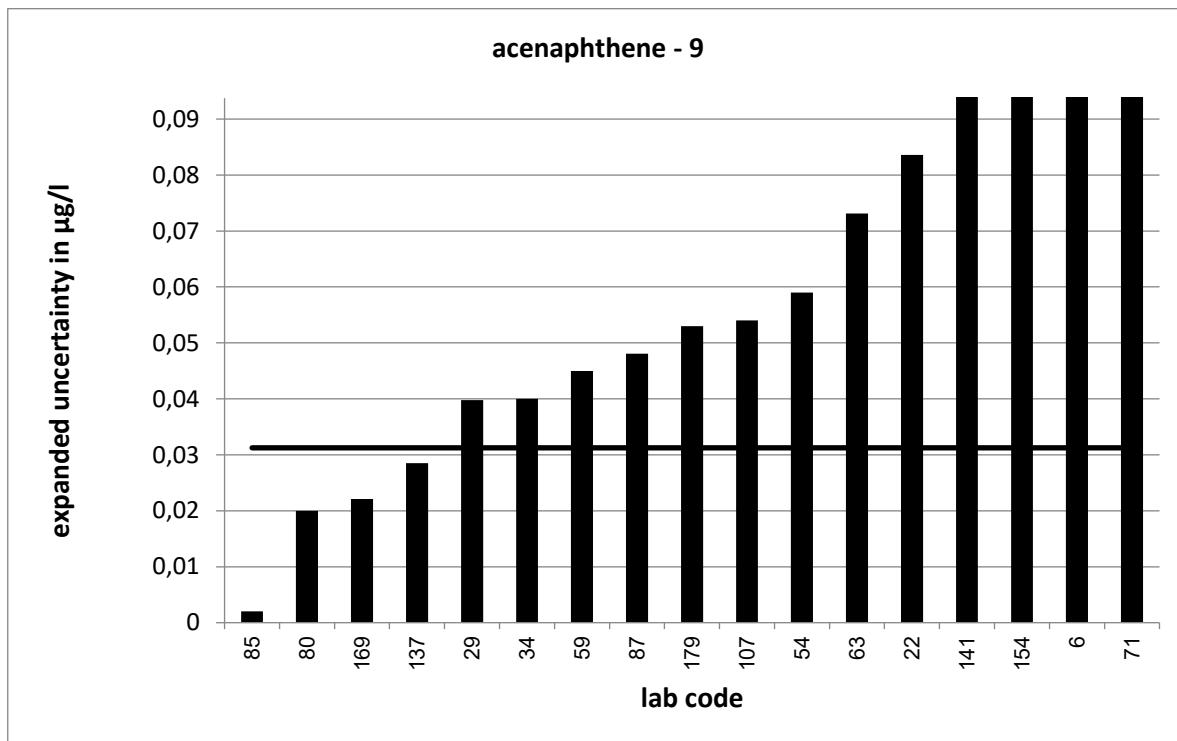
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

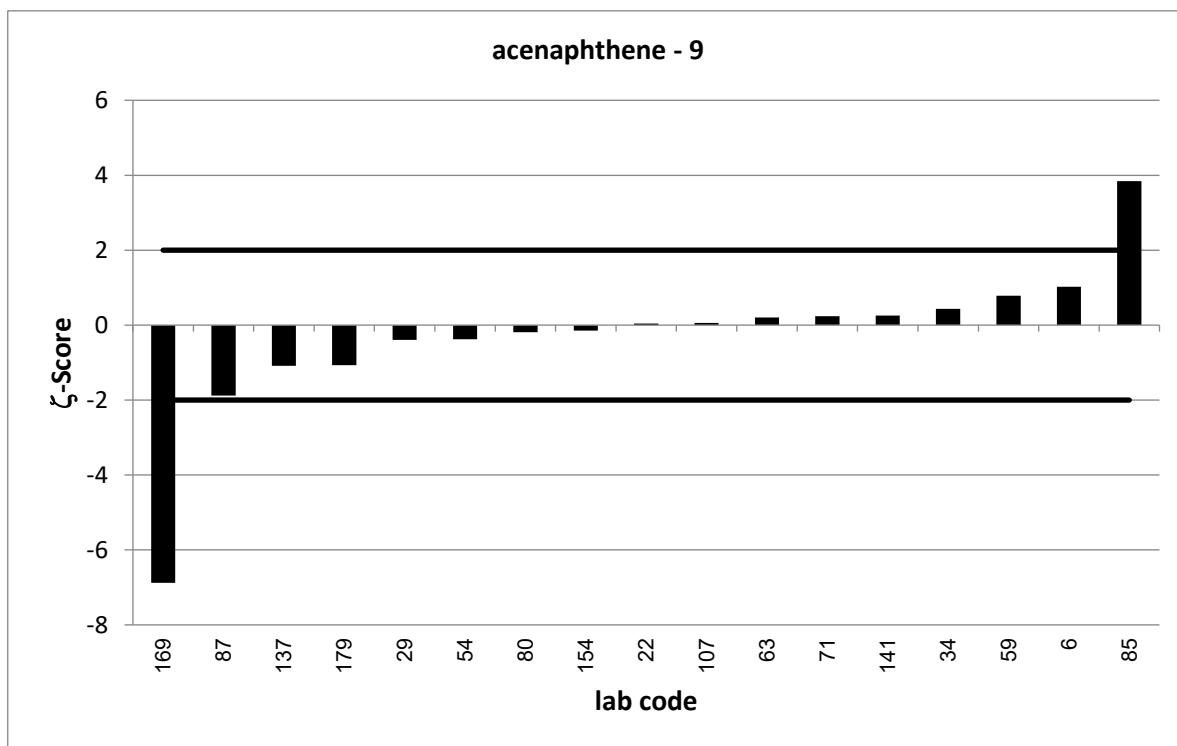


Strongly deviating values are not shown in the diagram.





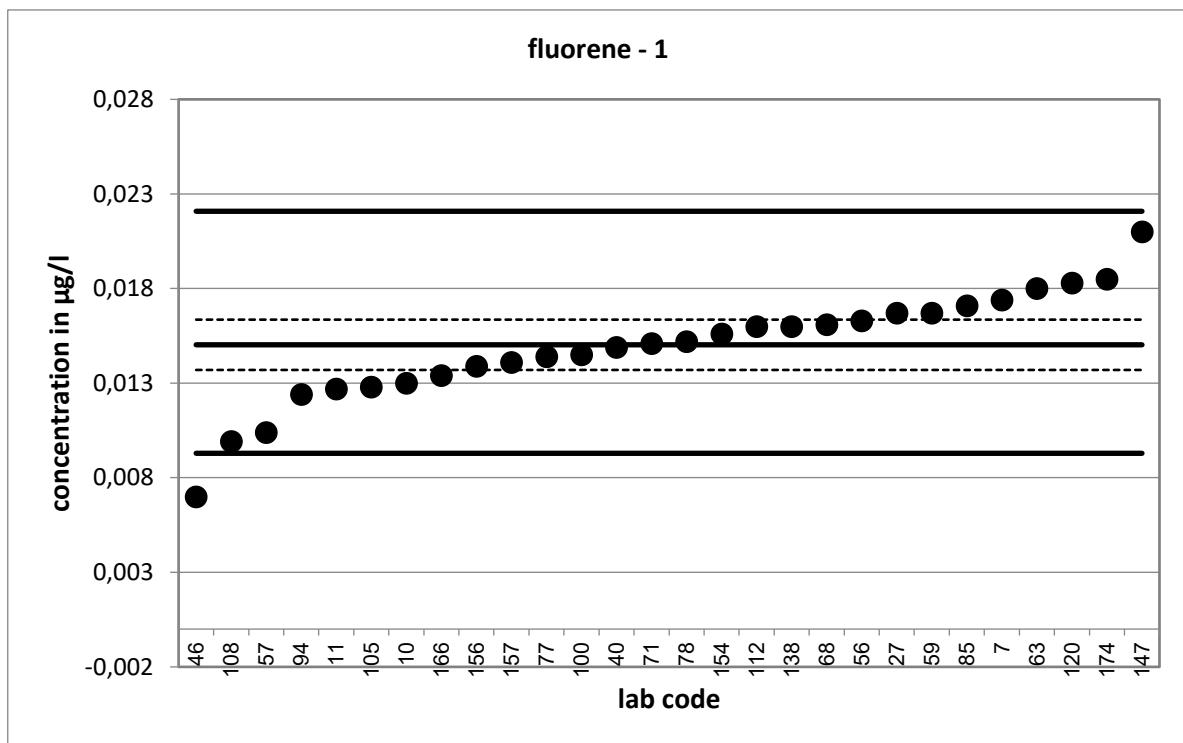
Strongly deviating values are not correctly shown in the diagram.



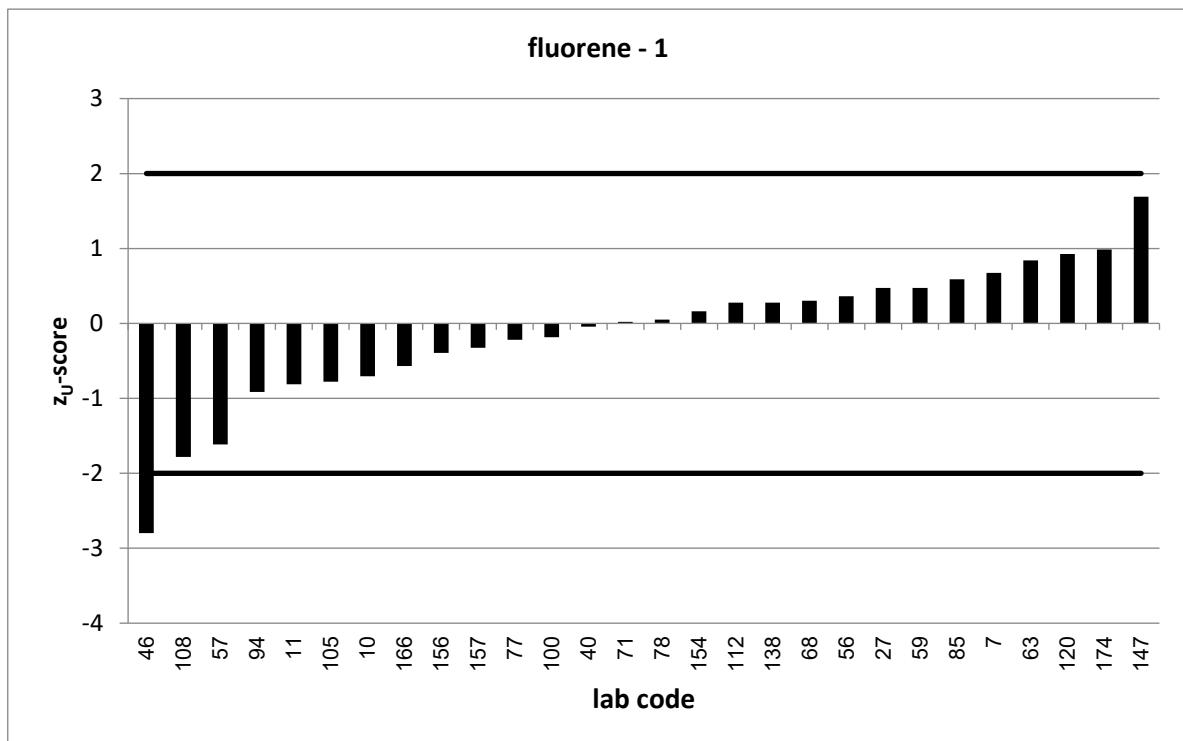
PT 3/24		fluorene - 1			
assigned value [ $\mu\text{g/l}$ ]*		0,01503 $\pm$ 0,00133			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,02209			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,009291			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0174	0,001	2,5	0,7	s
10	0,013	0,003	-1,2	-0,7	s
11	0,0127	0,003	-1,5	-0,8	s
27	0,0167			0,5	s
40	0,0149			0,0	s
46	0,007			-2,8	q
56	0,0163	0,002	1,0	0,4	s
57	0,0104			-1,6	s
59	0,0167	0,003	1,0	0,5	s
63	0,018	0,006	0,9	0,8	s
68	0,0161			0,3	s
71	0,0151	0,002	0,1	0,0	s
77	0,0144	0,005	-0,2	-0,2	s
78	0,0152			0,0	s
85	0,0171	0,002	1,7	0,6	s
94	0,0124			-0,9	s
100	0,0145	0,002	-0,4	-0,2	s
105	0,0128			-0,8	s
108	0,00992	0,002	-4,3	-1,8	s
112	0,016	0,002	0,8	0,3	s
120	0,0183	0,001	3,9	0,9	s
138	0,016			0,3	s
147	0,021	6E-04	8,2	1,7	s
154	0,0156	0,008	0,1	0,2	s
156	0,0139	0,002	-0,9	-0,4	s
157	0,0141			-0,3	s
166	0,0134			-0,6	s
174	0,0185			1,0	s

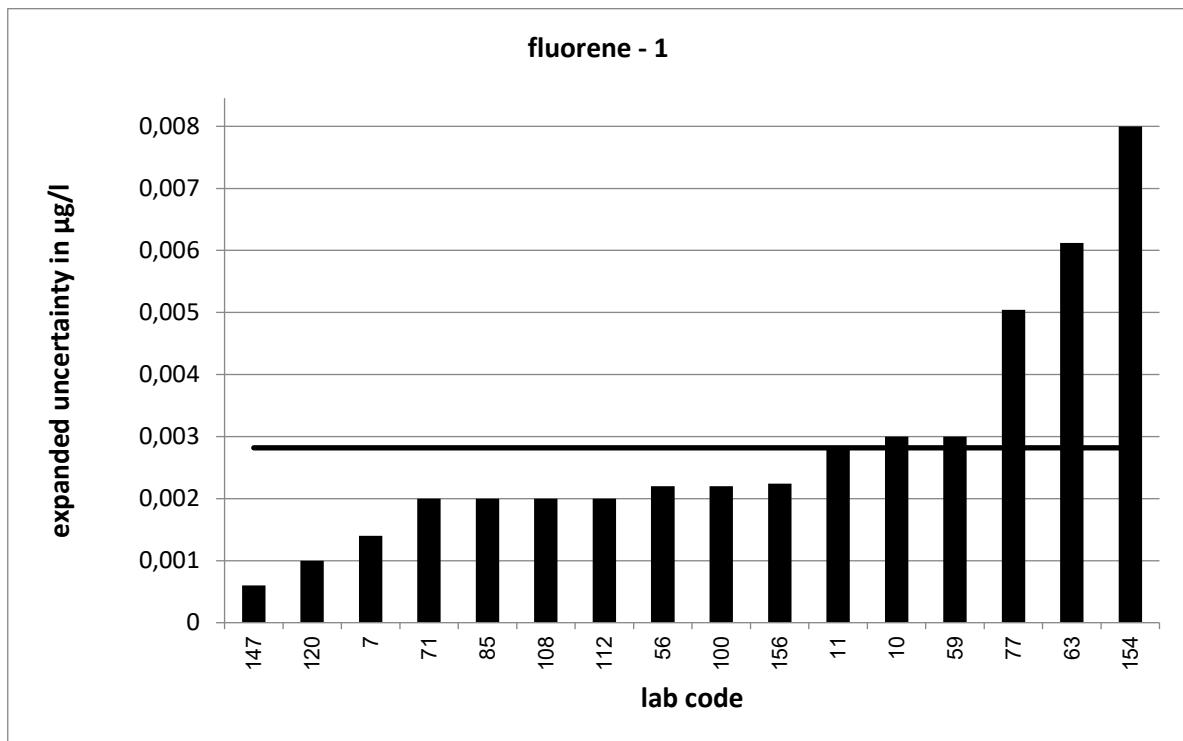
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor k=2 corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

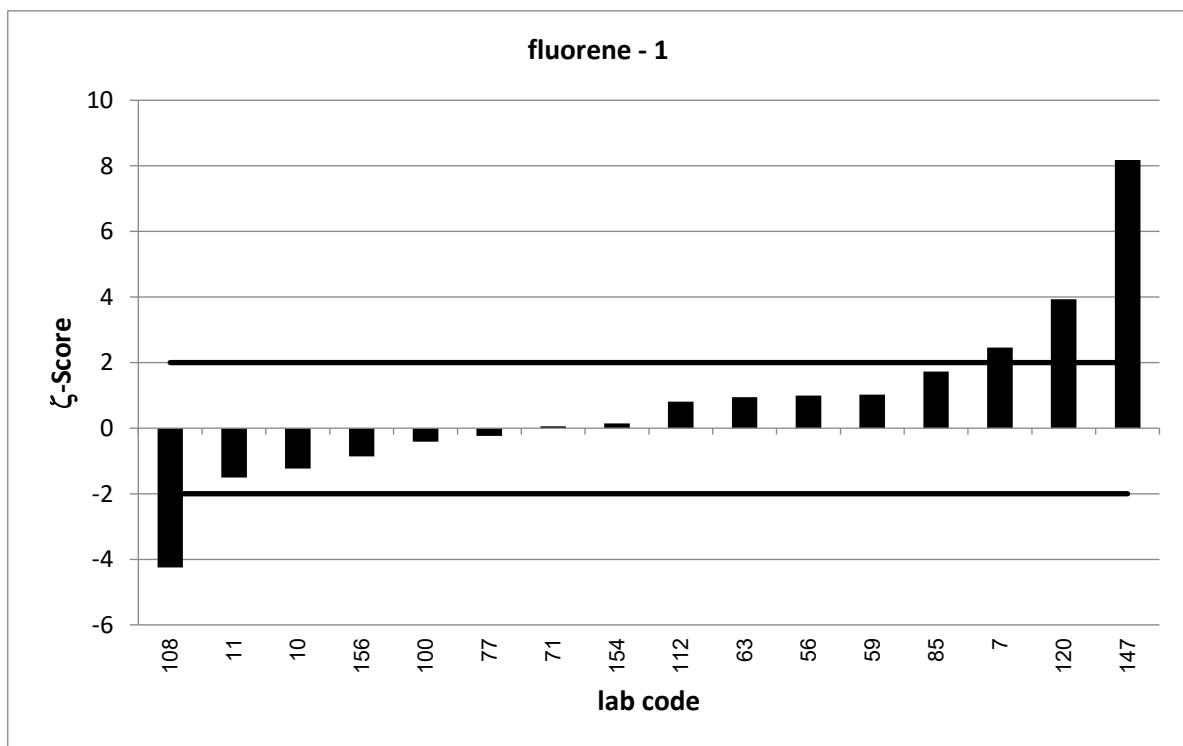


Strongly deviating values are not shown in the diagram.





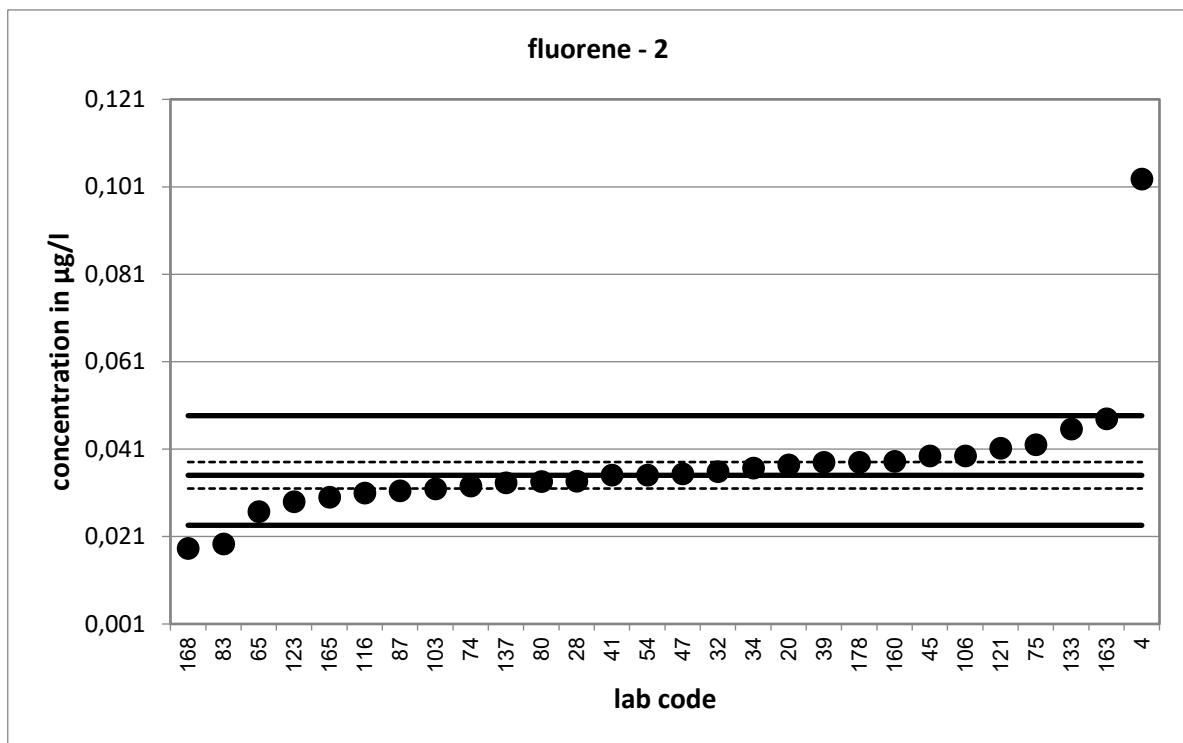
Strongly deviating values are not correctly shown in the diagram.



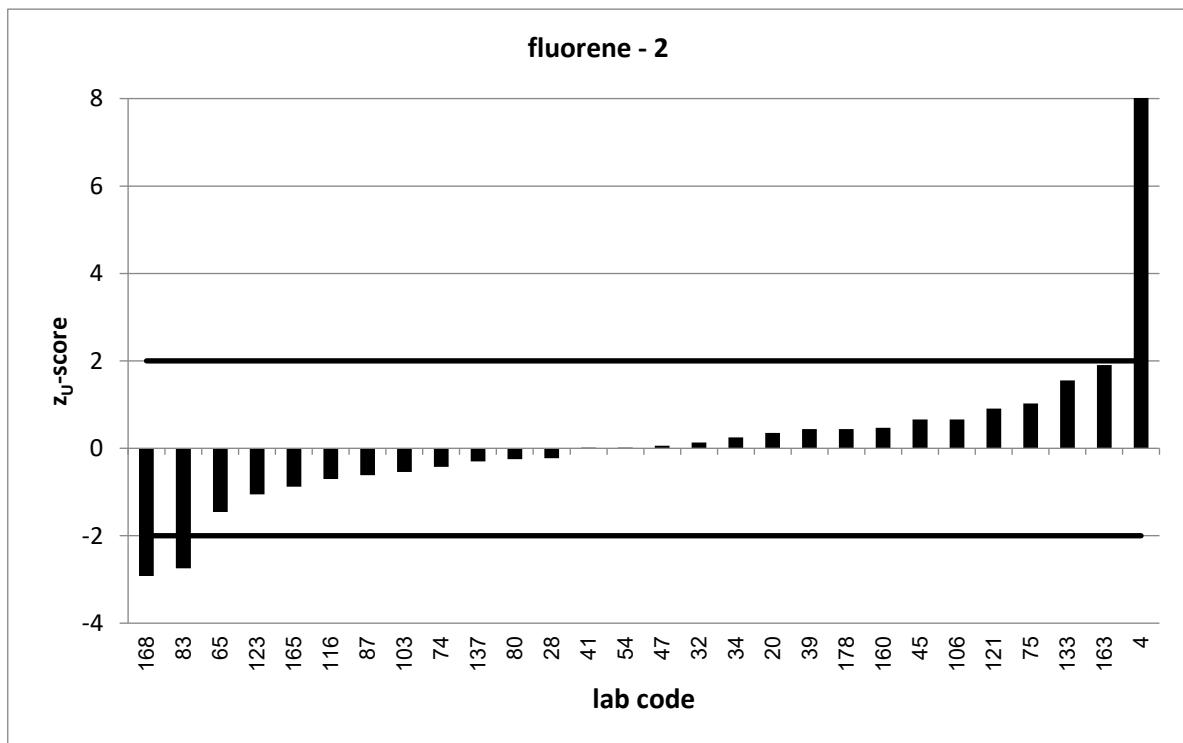
PT 3/24		fluorene - 2			
assigned value [ $\mu\text{g/l}$ ]*		0,03501	$\pm 0,00303$		
upper tolerance limit [ $\mu\text{g/l}$ ]		0,04865			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,02358			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,1028			9,9	u
20	0,0374	0,011	0,4	0,4	s
28	0,0337	0,005	-0,5	-0,2	s
32	0,0359			0,1	s
34	0,0367	0,006	0,5	0,2	s
39	0,038	0,006	0,9	0,4	s
41	0,0351			0,0	s
45	0,0395			0,7	s
47	0,0354			0,1	s
54	0,0351	0,011	0,0	0,0	s
65	0,0267			-1,5	s
74	0,0326	0,009	-0,5	-0,4	s
75	0,042	0,008	1,6	1,0	s
80	0,0336	0,008	-0,3	-0,2	s
83	0,0193			-2,7	q
87	0,0315	0,009	-0,7	-0,6	s
103	0,0319	0,005	-1,1	-0,5	s
106	0,0395			0,7	s
116	0,031	0,005	-1,4	-0,7	s
121	0,0412	0,013	0,9	0,9	s
123	0,029			-1,1	s
133	0,0456			1,6	s
137	0,0333	0,005	-0,6	-0,3	s
160	0,0382			0,5	s
163	0,048			1,9	s
165	0,03			-0,9	s
168	0,0183	0,005	-5,7	-2,9	q
178	0,038			0,4	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

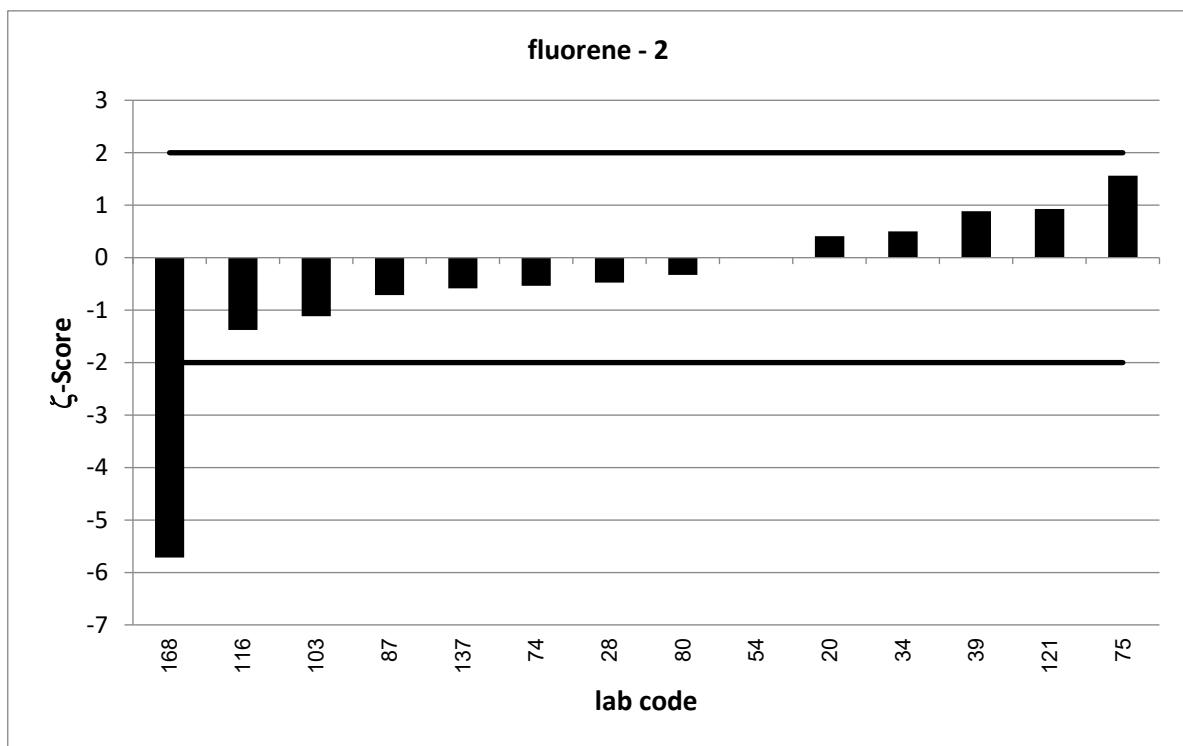
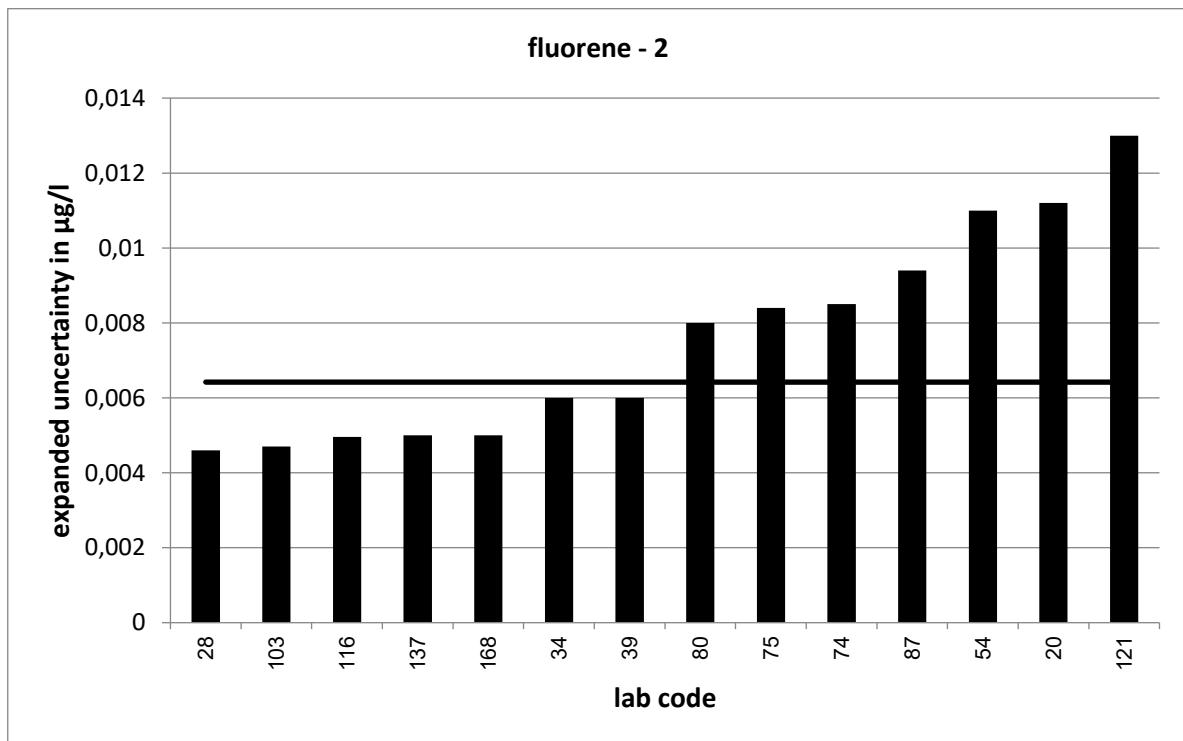
\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.



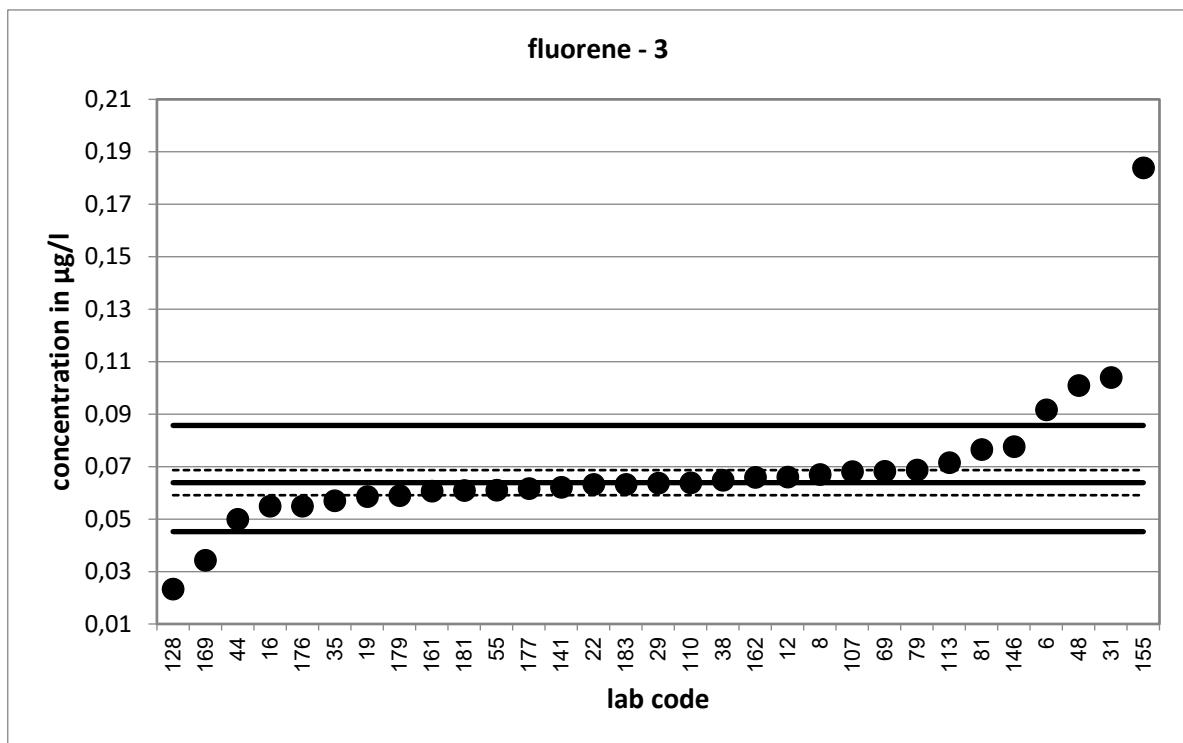
Strongly deviating values are not correctly shown in the diagram.



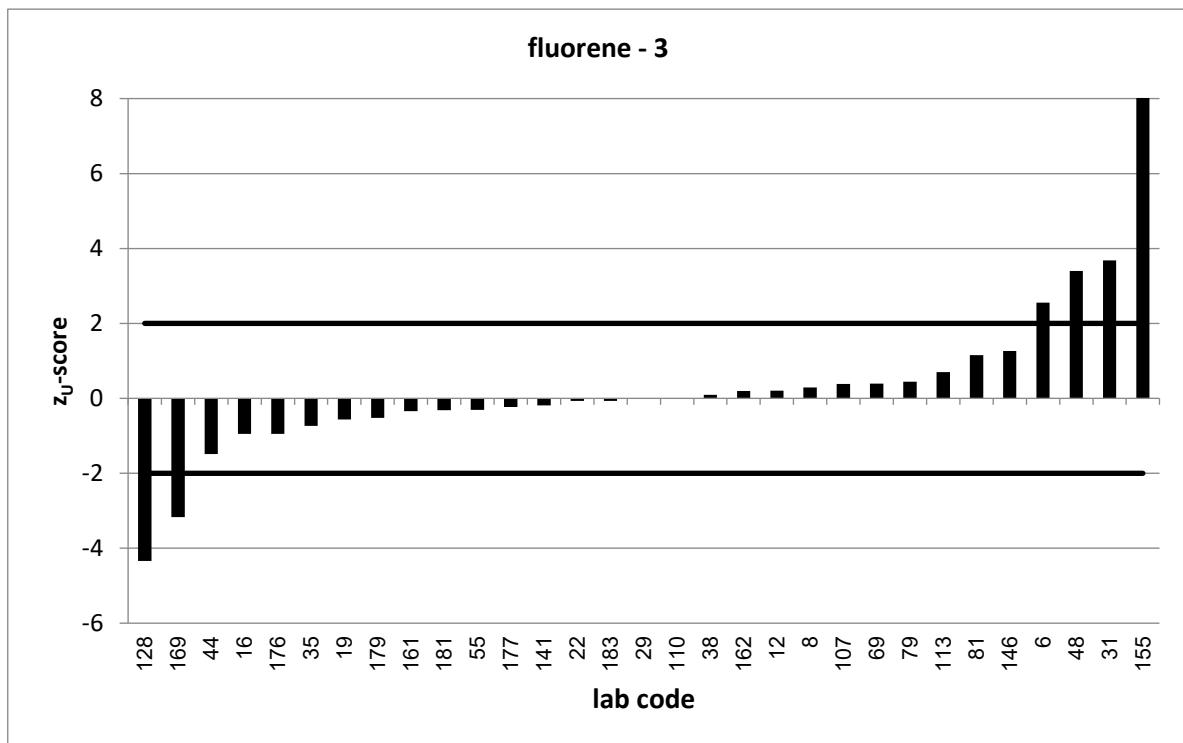
PT 3/24		fluorene - 3			
assigned value [ $\mu\text{g/l}$ ]*			0,06387	$\pm 0,00478$	
upper tolerance limit [ $\mu\text{g/l}$ ]			0,08569		
lower tolerance limit [ $\mu\text{g/l}$ ]			0,04521		
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0917	0,04	1,4	2,6	q
8	0,067	0,016	0,4	0,3	s
12	0,0661	0,02	0,2	0,2	s
16	0,055	0,008	-1,9	-1,0	s
19	0,0586	0,019	-0,6	-0,6	s
22	0,0632	0,025	-0,1	-0,1	s
29	0,0637	0,013	0,0	0,0	s
31	0,104	0,036	2,2	3,7	u
35	0,057	0,017	-0,8	-0,7	s
38	0,0649			0,1	s
44	0,05	0,011	-2,3	-1,5	s
48	0,101	0,006	9,5	3,4	u
55	0,061	0,028	-0,2	-0,3	s
69	0,0682	0,012	0,7	0,4	s
79	0,0687			0,4	s
81	0,0765			1,2	s
107	0,0681	0,018	0,5	0,4	s
110	0,0639			0,0	s
113	0,0715			0,7	s
128	0,0234			-4,3	u
141	0,0621	0,028	-0,1	-0,2	s
146	0,07765	0,015	1,8	1,3	s
155	0,184			11,0	u
161	0,0607			-0,3	s
162	0,066	0,02	0,2	0,2	s
169	0,0343	0,014	-4,1	-3,2	u
176	0,055			-1,0	s
177	0,0617			-0,2	s
179	0,059	0,018	-0,5	-0,5	s
181	0,0609	0,014	-0,4	-0,3	s
183	0,0632	0,015	-0,1	-0,1	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

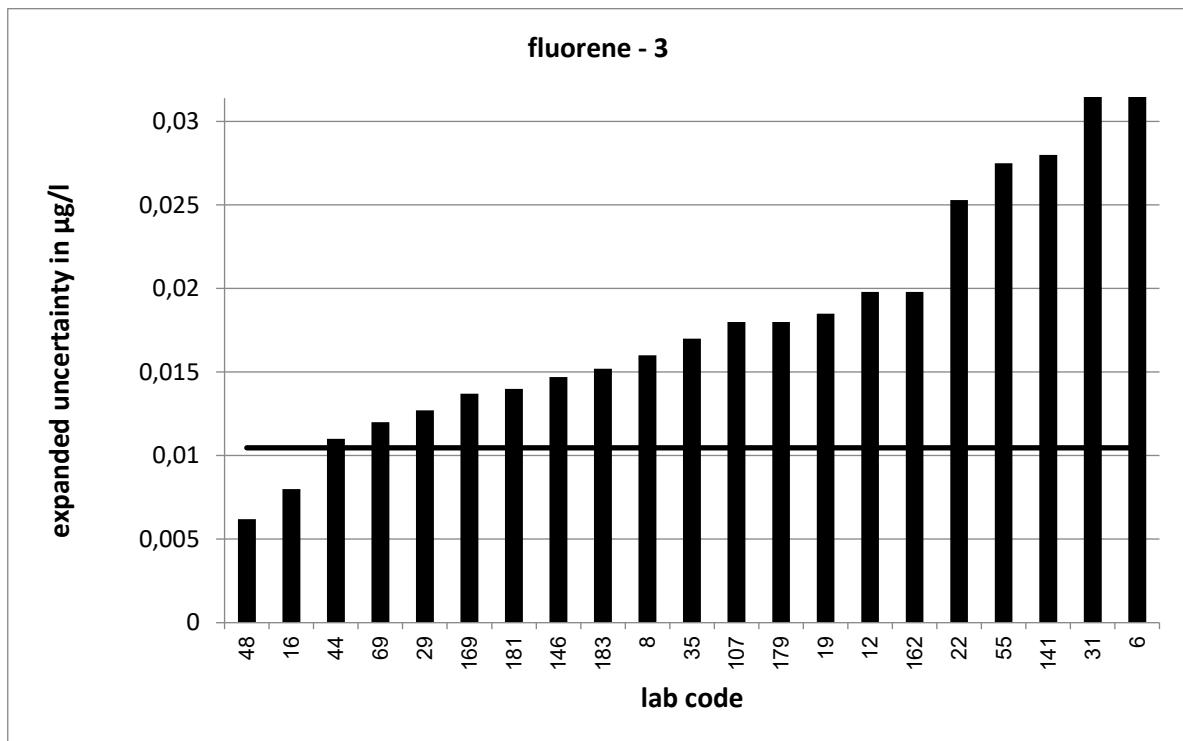
\*\* s = satisfactory, q = questionable, u = unsatisfactory



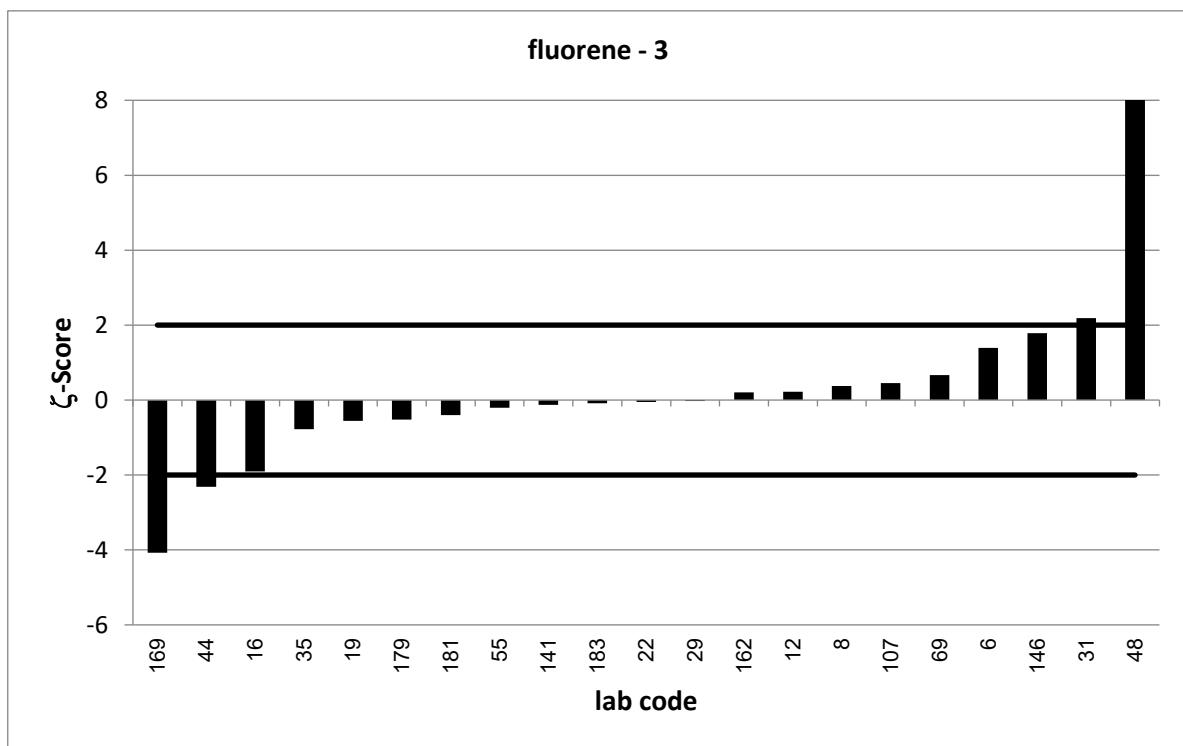
Strongly deviating values are not shown in the diagram.



Strongly deviating values are not correctly shown in the diagram.



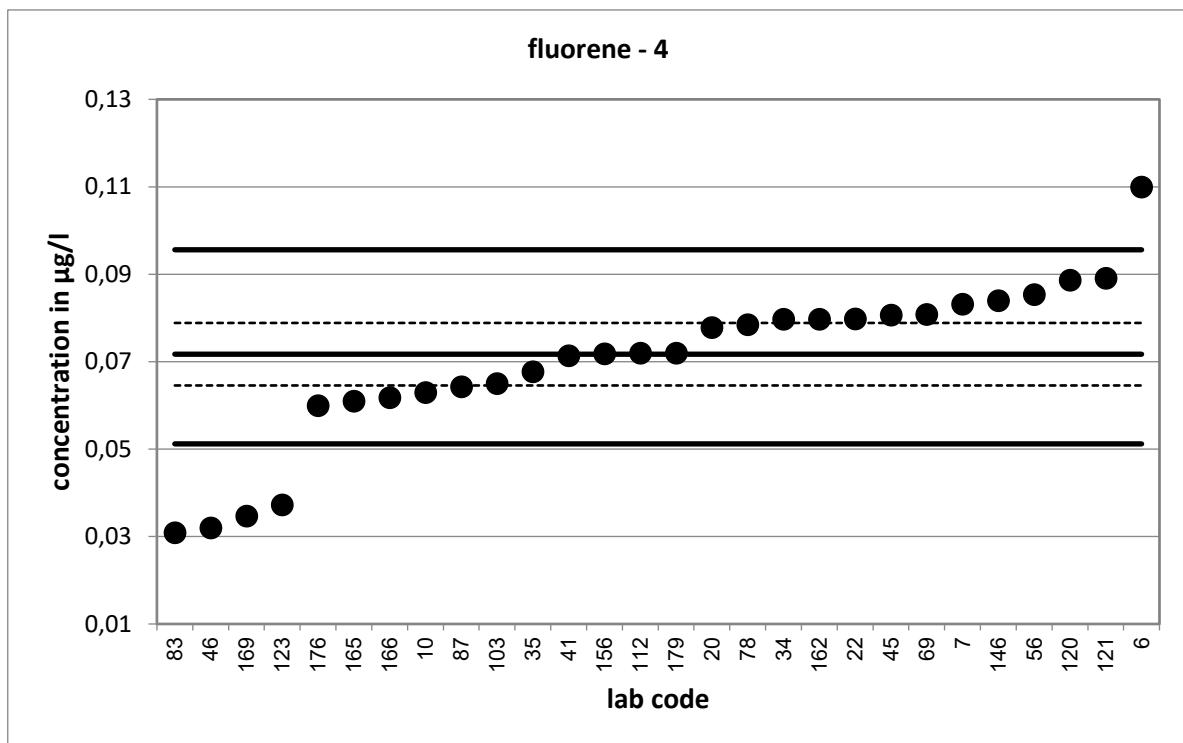
Strongly deviating values are not correctly shown in the diagram.



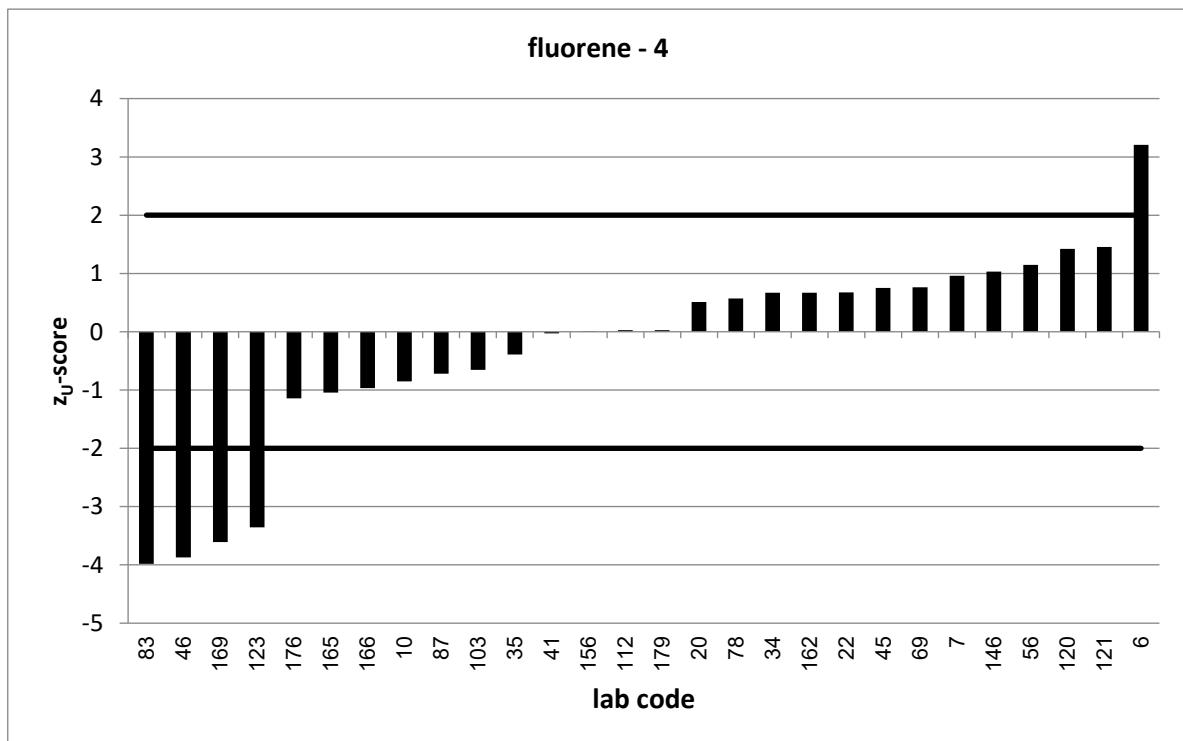
PT 3/24		fluorene - 4			
assigned value [ $\mu\text{g/l}$ ]*		0,07171	$\pm 0,00715$		
upper tolerance limit [ $\mu\text{g/l}$ ]		0,0956			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0512			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,11	0,048	1,6	3,2	u
7	0,0832	0,01	1,9	1,0	s
10	0,063	0,012	-1,2	-0,8	s
20	0,0778	0,023	0,5	0,5	s
22	0,0798	0,032	0,5	0,7	s
34	0,0797	0,01	1,3	0,7	s
35	0,0677	0,02	-0,4	-0,4	s
41	0,0714			0,0	s
45	0,0807			0,8	s
46	0,032			-3,9	u
56	0,0854	0,012	2,0	1,1	s
69	0,0808	0,014	1,2	0,8	s
78	0,0785			0,6	s
83	0,0309			-4,0	u
87	0,0643	0,019	-0,7	-0,7	s
103	0,065	0,01	-1,1	-0,7	s
112	0,072	0,007	0,1	0,0	s
120	0,0887	0,004	4,1	1,4	s
121	0,0891	0,029	1,2	1,5	s
123	0,0373			-3,4	u
146	0,08401	0,016	1,4	1,0	s
156	0,0718	0,012	0,0	0,0	s
162	0,0797	0,024	0,6	0,7	s
165	0,061			-1,0	s
166	0,0618			-1,0	s
169	0,0347	0,014	-4,7	-3,6	u
176	0,06			-1,1	s
179	0,072	0,022	0,0	0,0	s

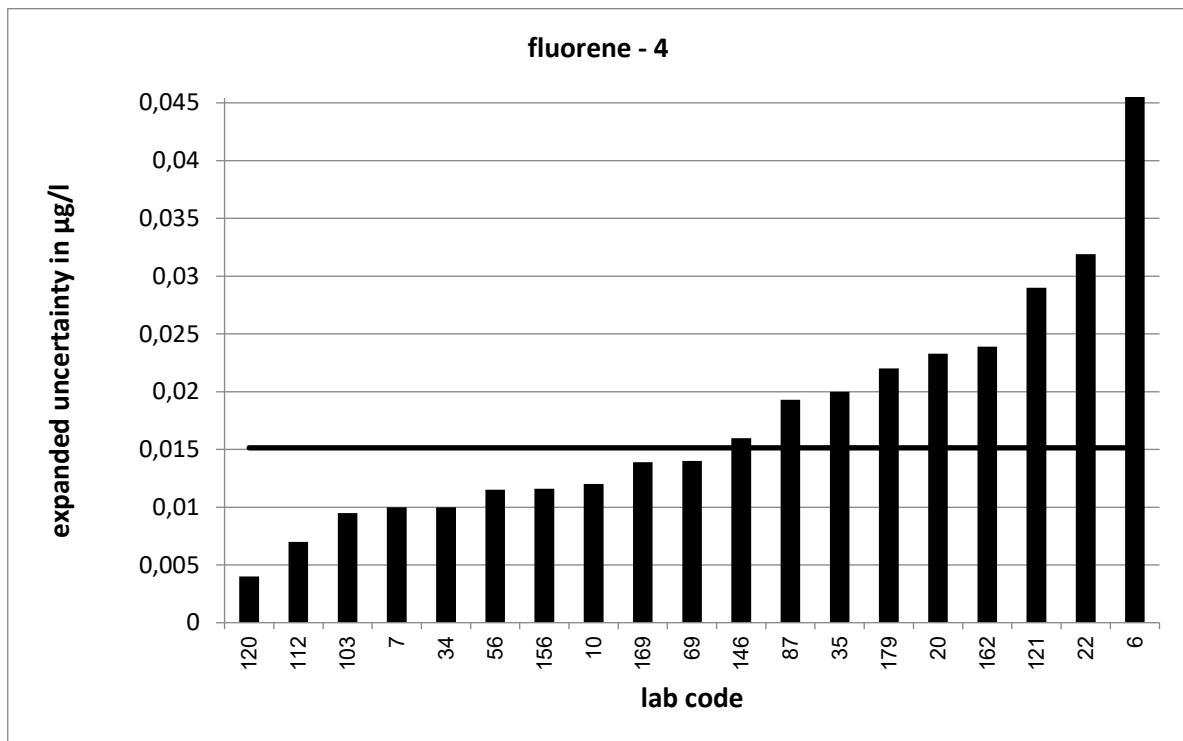
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

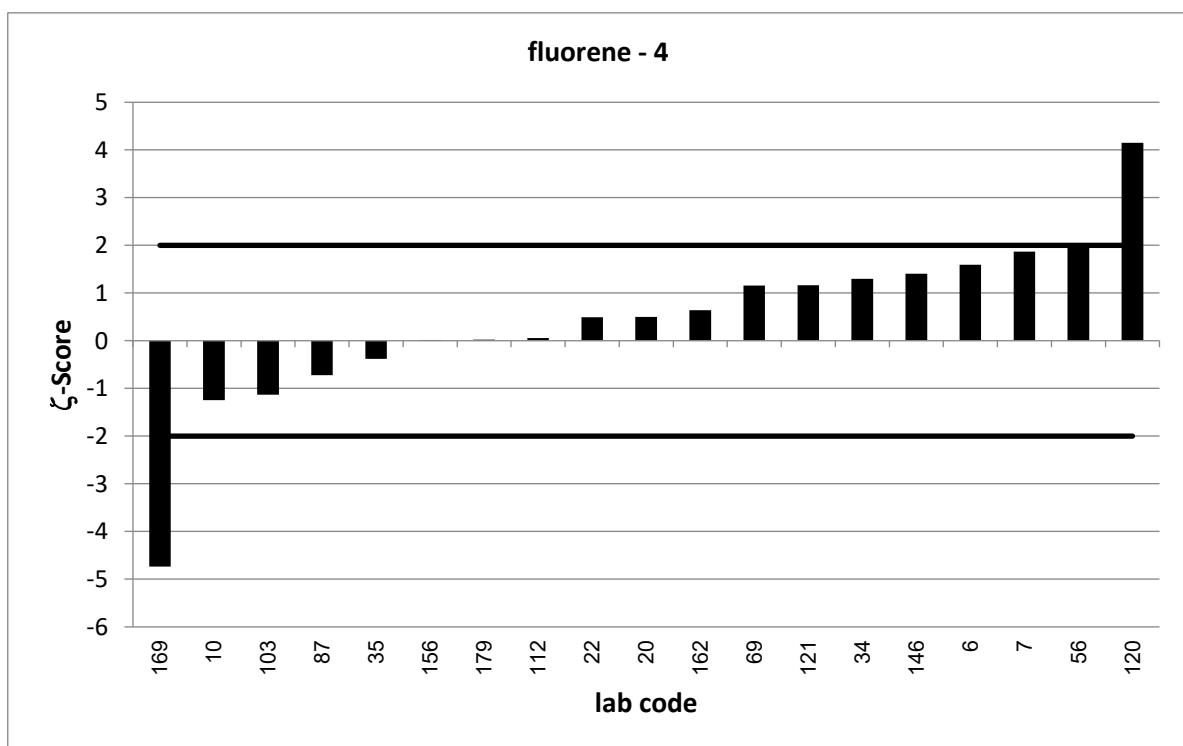


Strongly deviating values are not shown in the diagram.





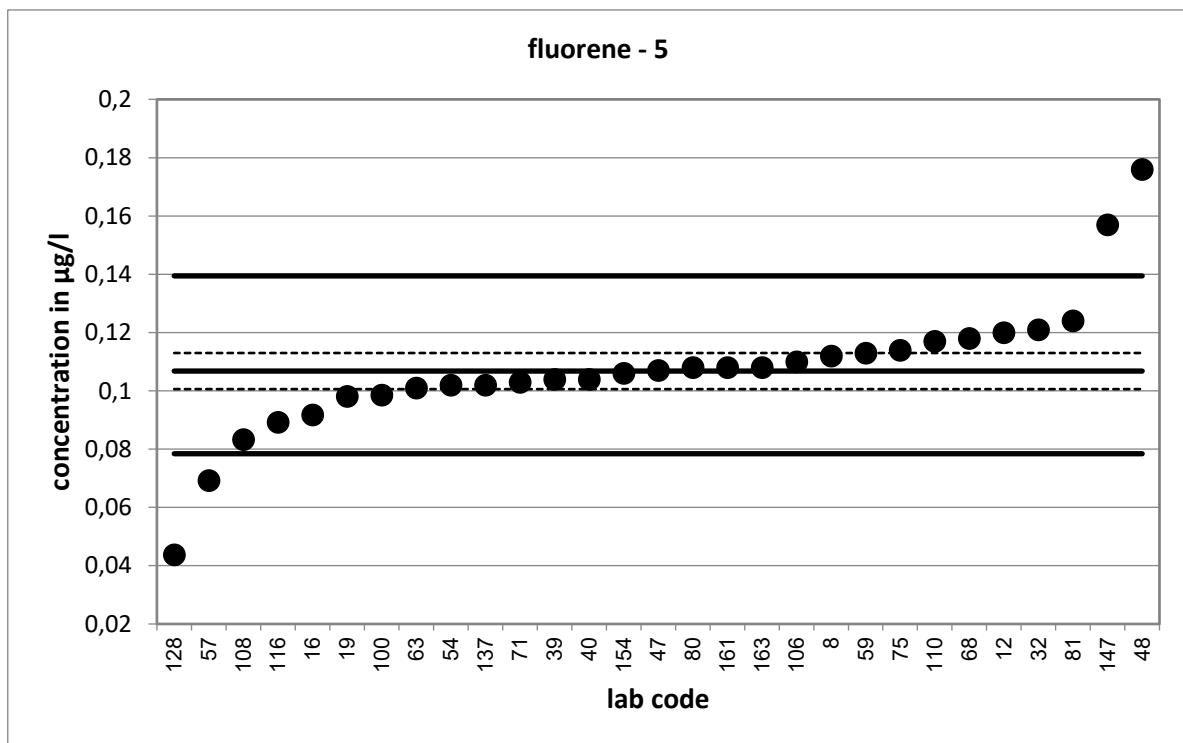
Strongly deviating values are not correctly shown in the diagram.



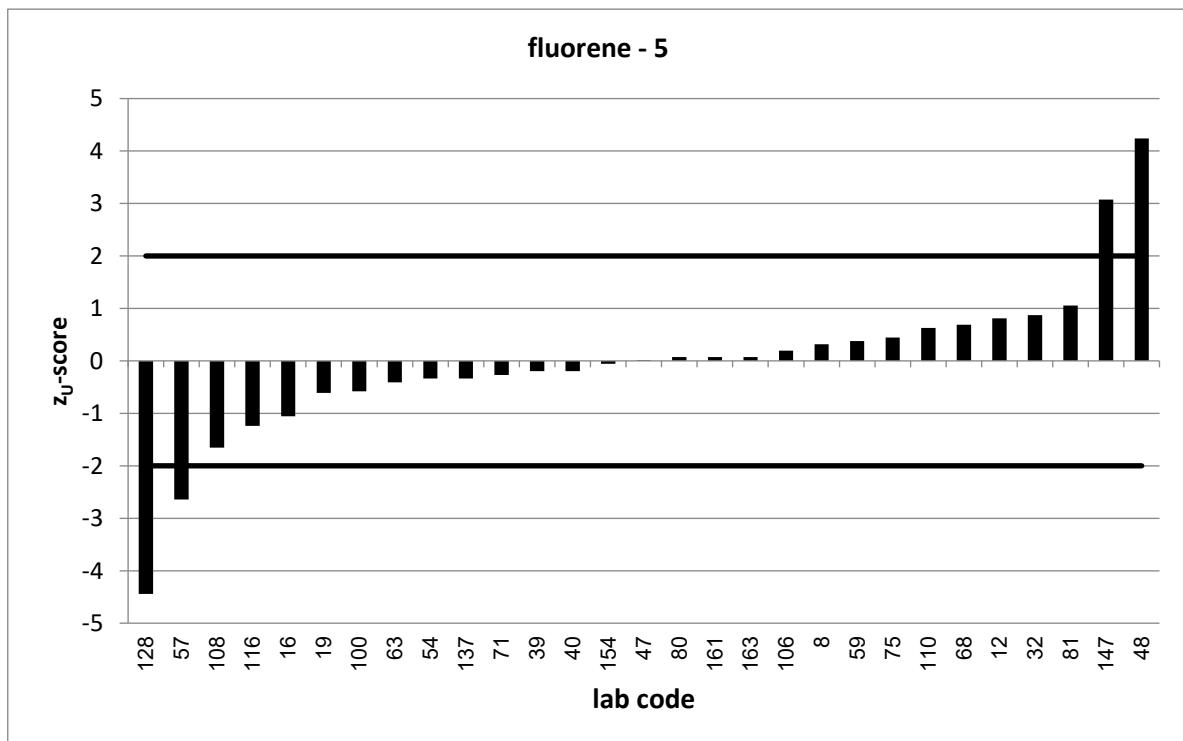
PT 3/24		fluorene - 5			
assigned value [ $\mu\text{g/l}$ ]*		0,1068 $\pm$ 0,0062			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1394			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,07842			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,112	0,027	0,4	0,3	s
12	0,12	0,036	0,7	0,8	s
16	0,0918	0,013	-2,1	-1,1	s
19	0,0981	0,031	-0,5	-0,6	s
32	0,121			0,9	s
39	0,104	0,017	-0,3	-0,2	s
40	0,104			-0,2	s
47	0,107			0,0	s
48	0,176	0,021	6,2	4,2	u
54	0,102	0,031	-0,3	-0,3	s
57	0,0693			-2,6	q
59	0,113	0,022	0,5	0,4	s
63	0,101	0,034	-0,3	-0,4	s
68	0,118			0,7	s
71	0,103	0,017	-0,4	-0,3	s
75	0,114	0,023	0,6	0,4	s
80	0,108	0,01	0,2	0,1	s
81	0,124			1,1	s
100	0,0986	0,015	-1,0	-0,6	s
106	0,11			0,2	s
108	0,0833	0,017	-2,6	-1,7	s
110	0,117			0,6	s
116	0,0892	0,014	-2,3	-1,2	s
128	0,0438			-4,4	u
137	0,102	0,015	-0,6	-0,3	s
147	0,157	0,005	12,9	3,1	u
154	0,106	0,053	0,0	-0,1	s
161	0,108			0,1	s
163	0,108			0,1	s

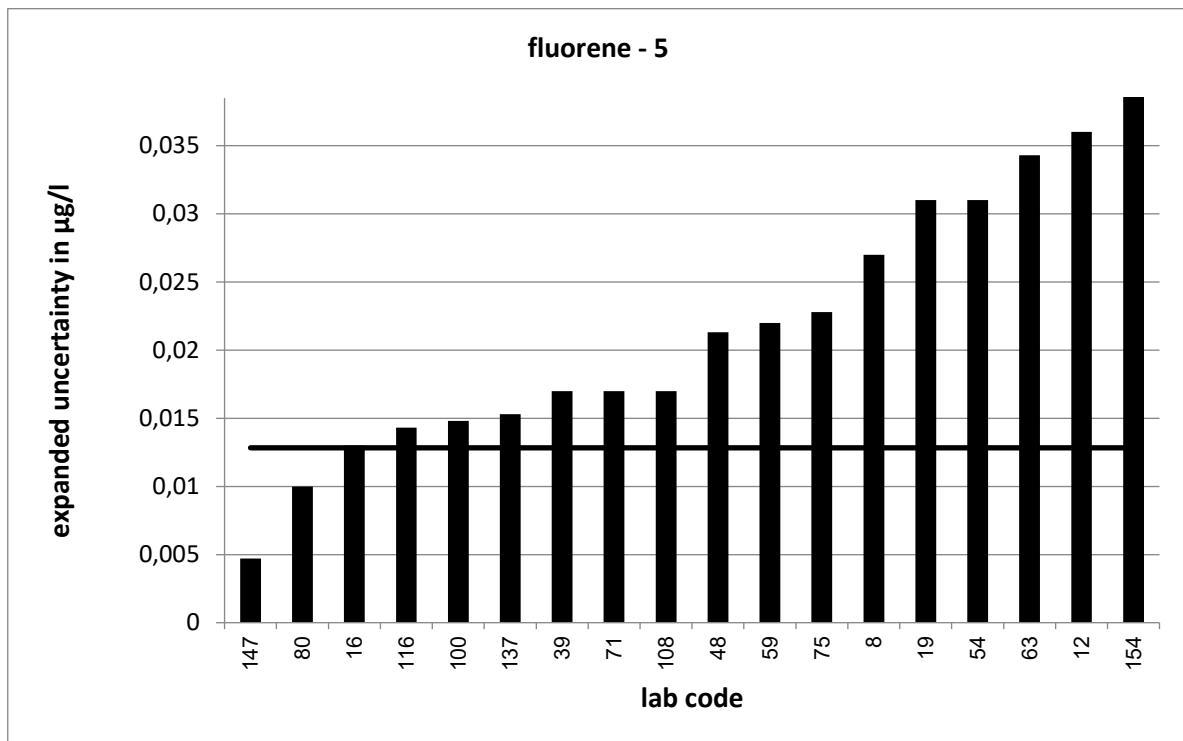
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

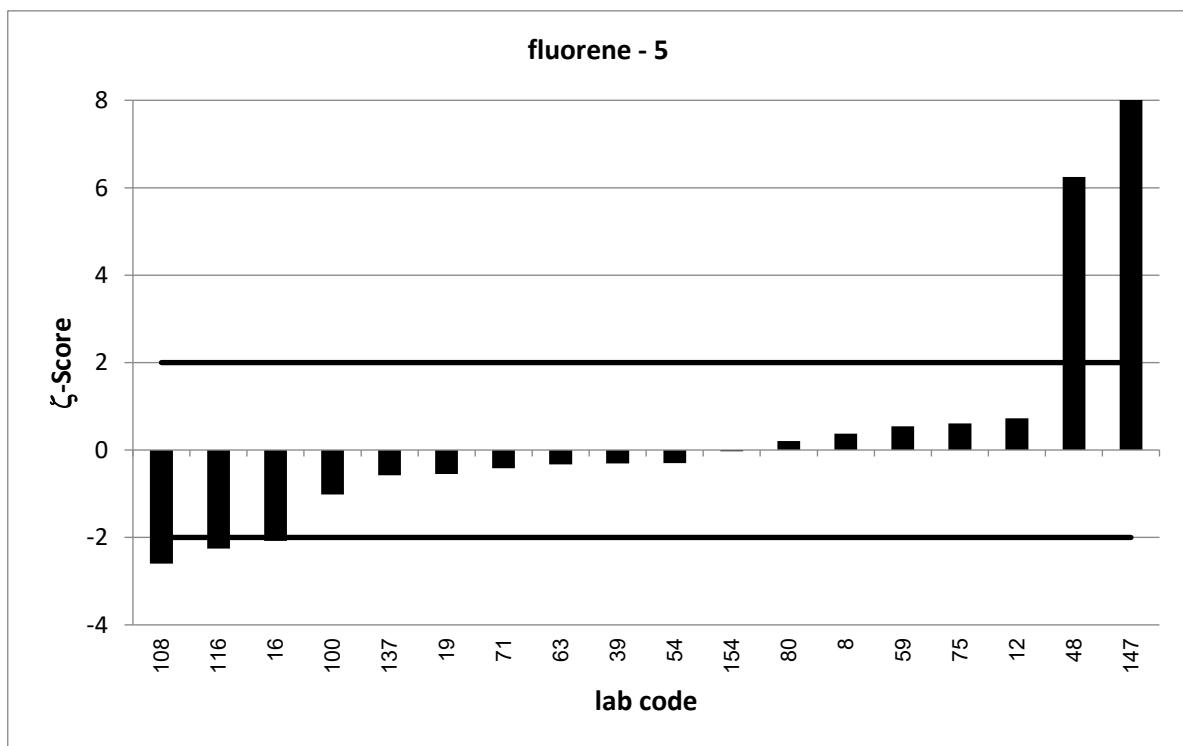


Strongly deviating values are not shown in the diagram.





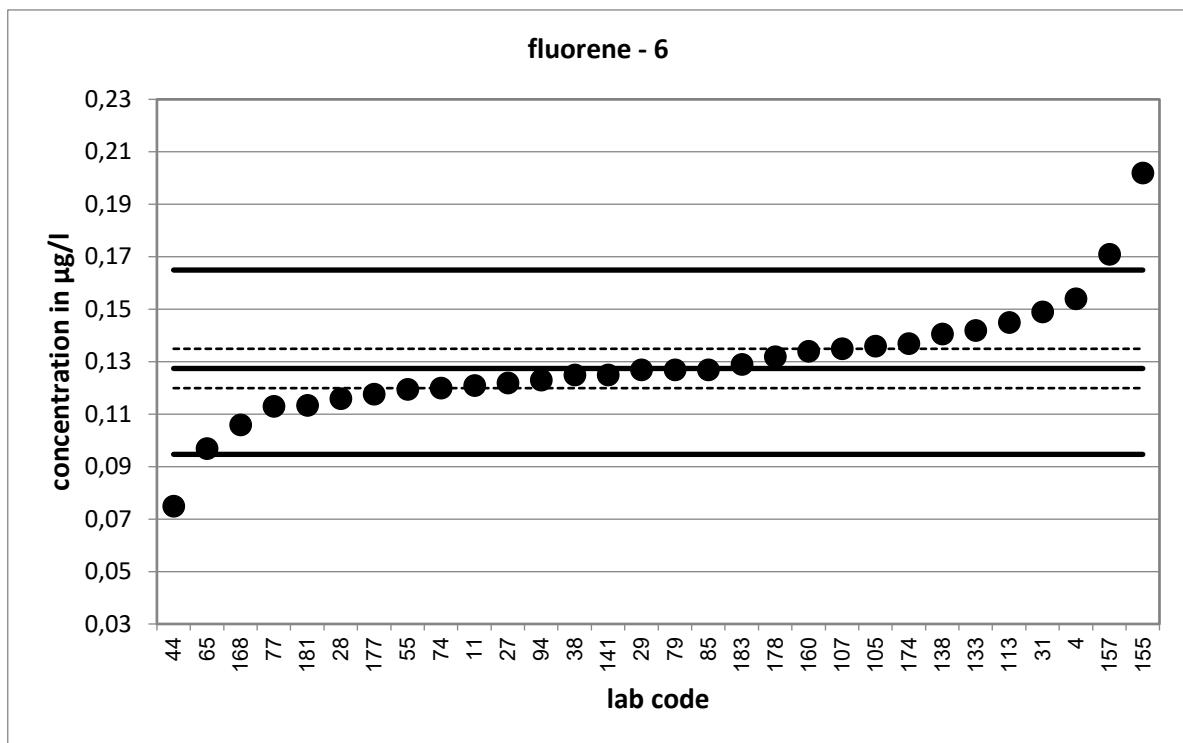
Strongly deviating values are not correctly shown in the diagram.



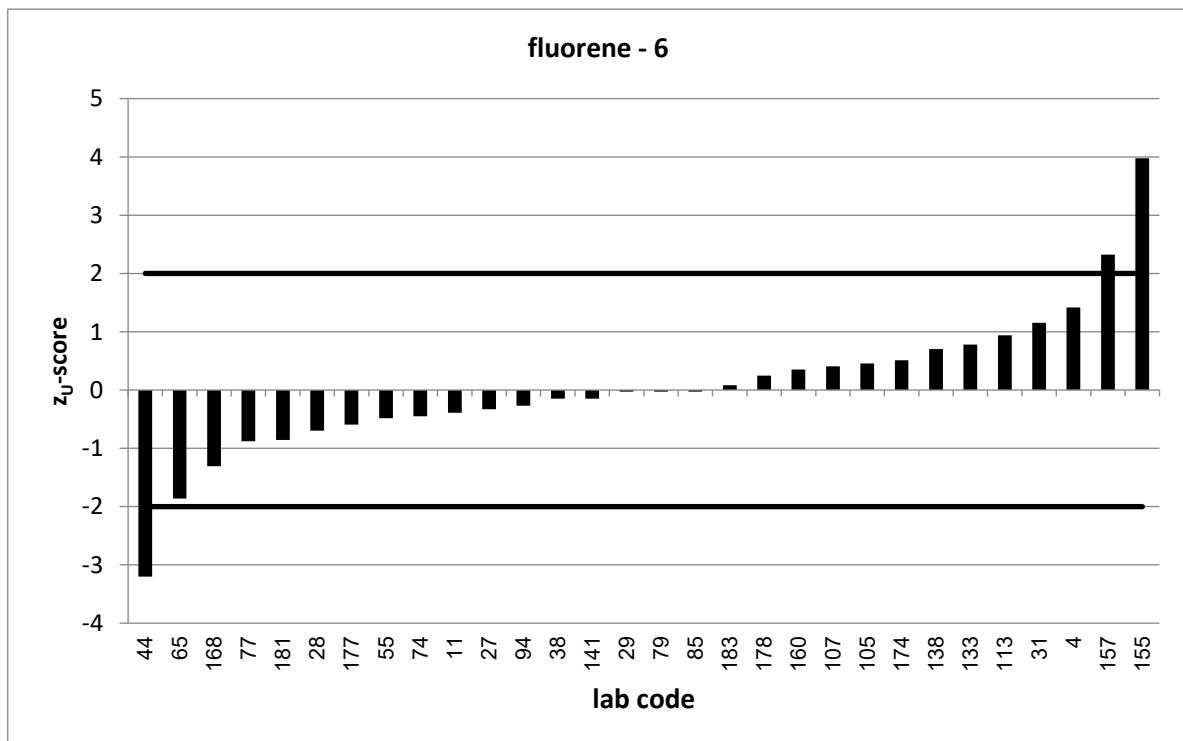
PT 3/24		fluorene - 6			
	assigned value [ $\mu\text{g/l}$ ]*	0,1274	$\pm 0,0075$		
	upper tolerance limit [ $\mu\text{g/l}$ ]	0,1649			
	lower tolerance limit [ $\mu\text{g/l}$ ]	0,09467			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,154			1,4	s
11	0,121	0,027	-0,5	-0,4	s
27	0,122			-0,3	s
28	0,116	0,016	-1,3	-0,7	s
29	0,127	0,025	0,0	0,0	s
31	0,149	0,052	0,8	1,2	s
38	0,125			-0,1	s
44	0,075	0,016	-5,9	-3,2	u
55	0,1195	0,054	-0,3	-0,5	s
65	0,0969			-1,9	s
74	0,12	0,031	-0,5	-0,5	s
77	0,113	0,04	-0,7	-0,9	s
79	0,127			0,0	s
85	0,127	0,002	-0,1	0,0	s
94	0,123			-0,3	s
105	0,136			0,5	s
107	0,135	0,035	0,4	0,4	s
113	0,145			0,9	s
133	0,142			0,8	s
138	0,1406			0,7	s
141	0,125	0,056	-0,1	-0,1	s
155	0,202			4,0	u
157	0,171			2,3	q
160	0,134			0,4	s
168	0,106	0,03	-1,4	-1,3	s
174	0,137			0,5	s
177	0,1177			-0,6	s
178	0,132			0,2	s
181	0,1134	0,027	-1,0	-0,9	s
183	0,129	0,031	0,1	0,1	s

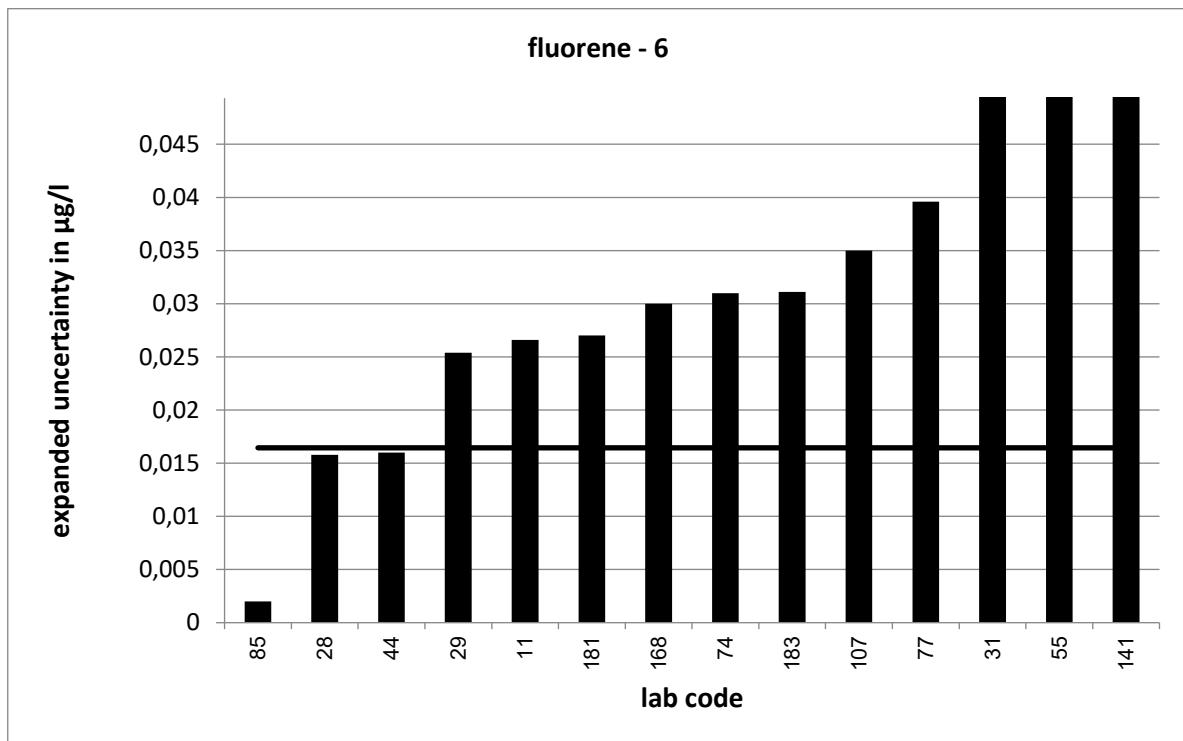
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

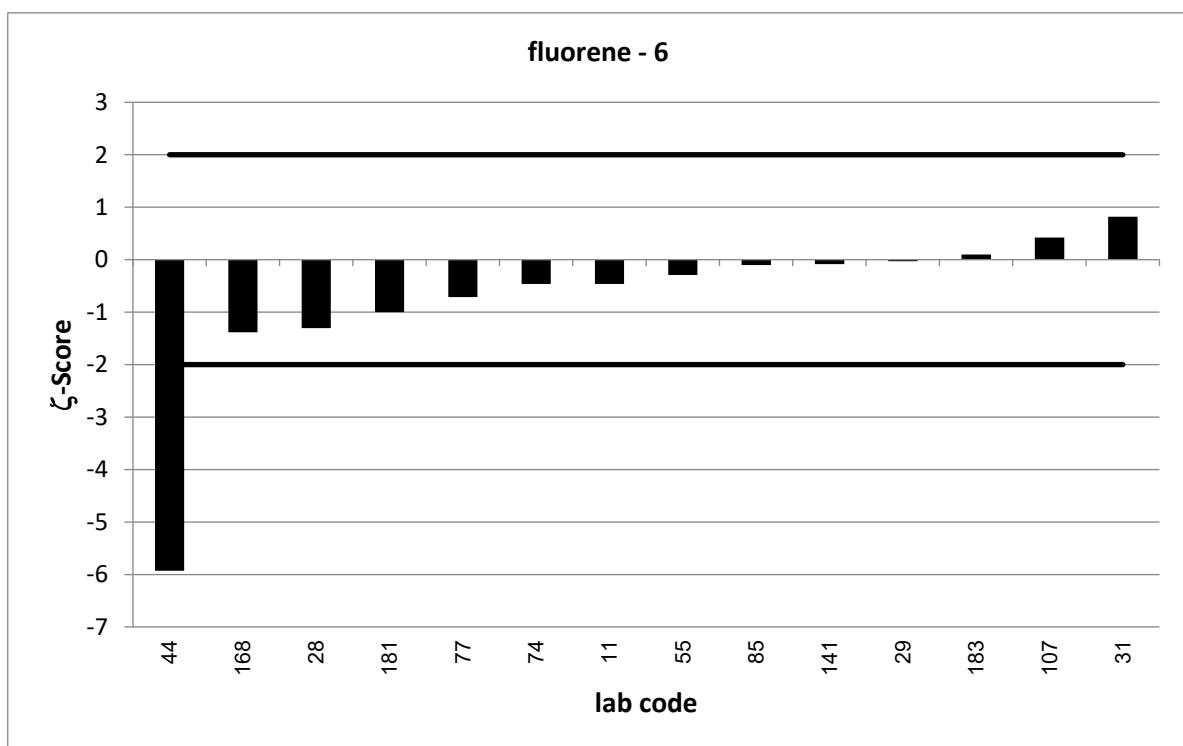


Strongly deviating values are not shown in the diagram.





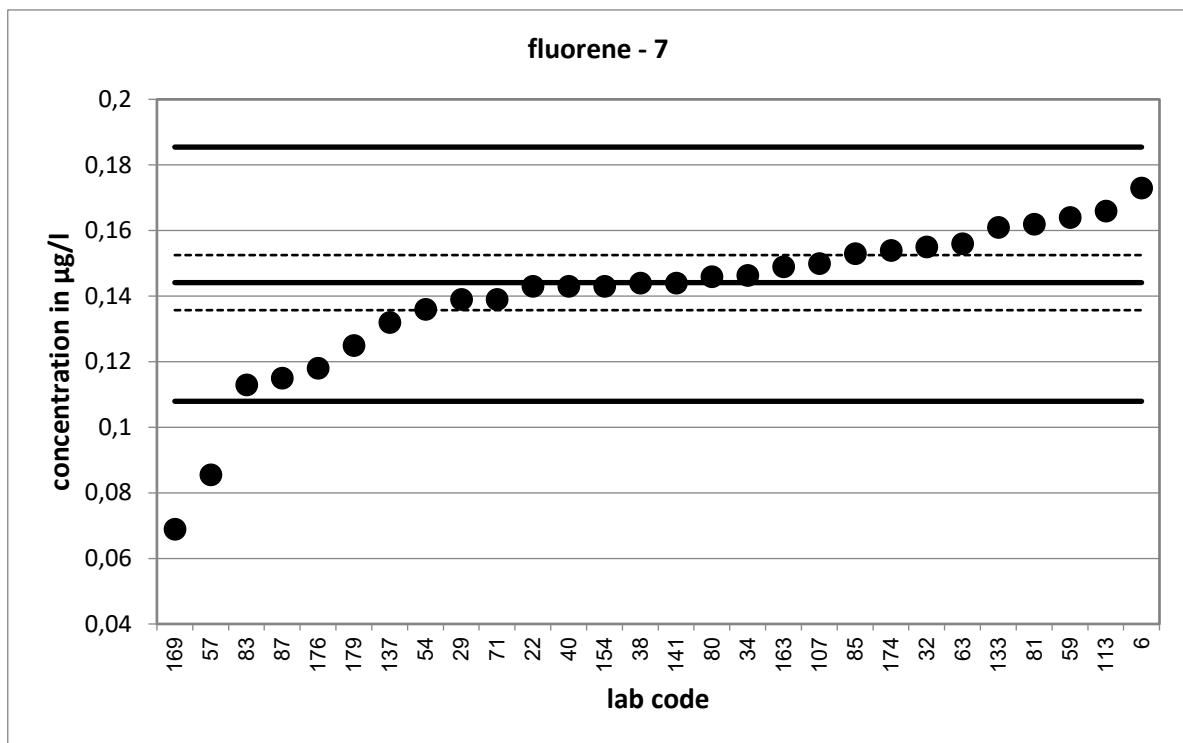
Strongly deviating values are not correctly shown in the diagram.



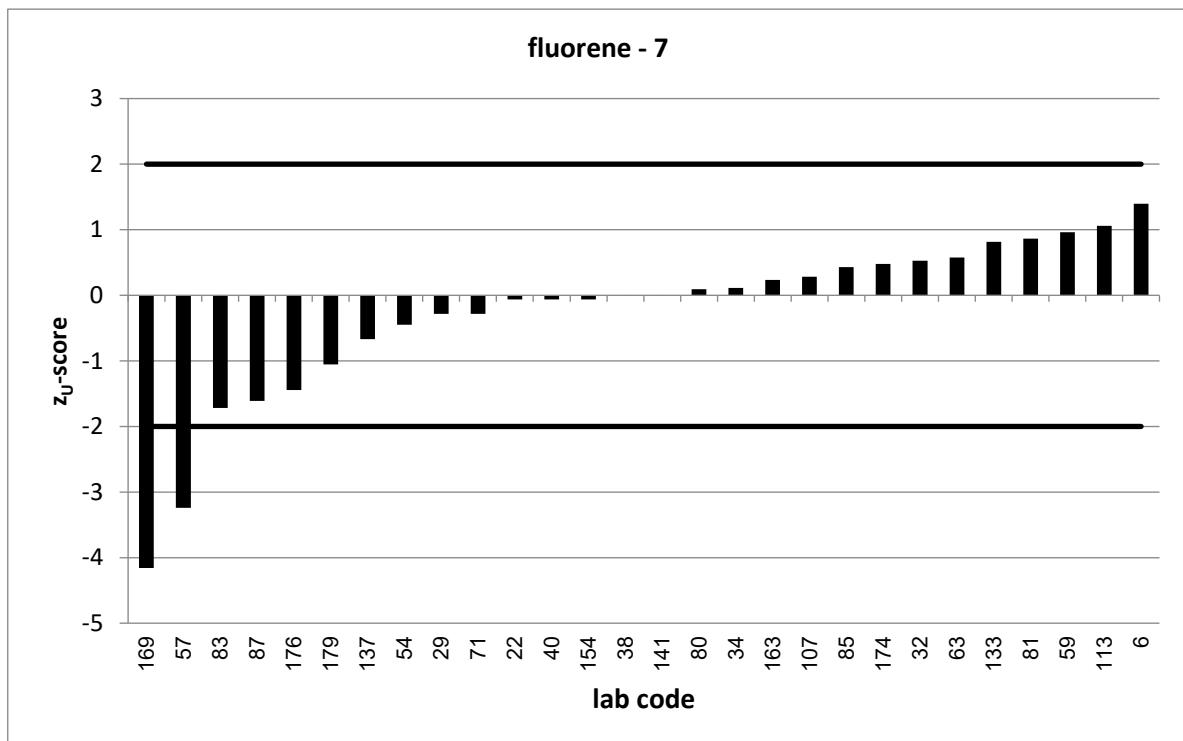
PT 3/24		fluorene - 7			
assigned value [ $\mu\text{g/l}$ ]*		0,1441 $\pm$ 0,0084			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1854			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1079			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,173	0,075	0,8	1,4	s
22	0,143	0,057	0,0	-0,1	s
29	0,139	0,028	-0,4	-0,3	s
32	0,155			0,5	s
34	0,1464	0,02	0,2	0,1	s
38	0,144			0,0	s
40	0,143			-0,1	s
54	0,136	0,041	-0,4	-0,4	s
57	0,0855			-3,2	u
59	0,164	0,032	1,2	1,0	s
63	0,156	0,053	0,4	0,6	s
71	0,139	0,022	-0,4	-0,3	s
80	0,146	0,01	0,3	0,1	s
81	0,162			0,9	s
83	0,113			-1,7	s
85	0,153	0,002	2,0	0,4	s
87	0,115	0,035	-1,6	-1,6	s
107	0,15	0,039	0,3	0,3	s
113	0,166			1,1	s
133	0,161			0,8	s
137	0,132	0,02	-1,1	-0,7	s
141	0,144	0,065	0,0	0,0	s
154	0,143	0,072	0,0	-0,1	s
163	0,149			0,2	s
169	0,0689	0,028	-5,2	-4,2	u
174	0,154			0,5	s
176	0,118			-1,4	s
179	0,125	0,038	-1,0	-1,1	s

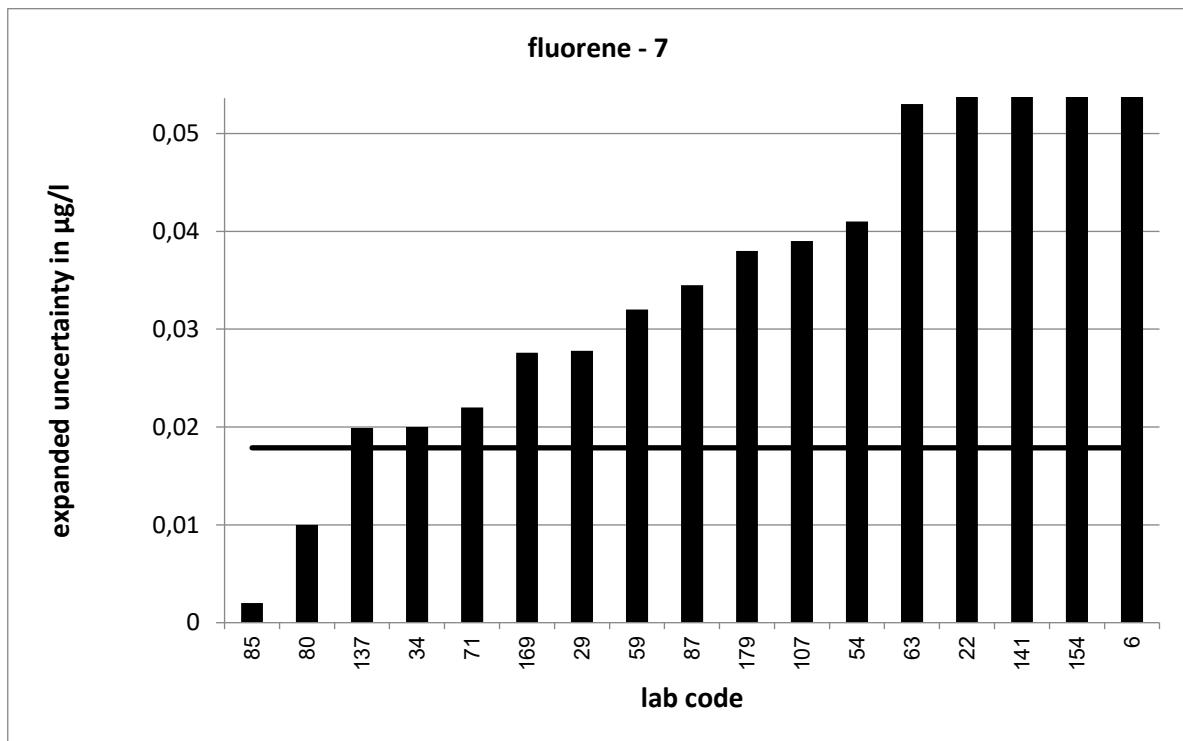
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

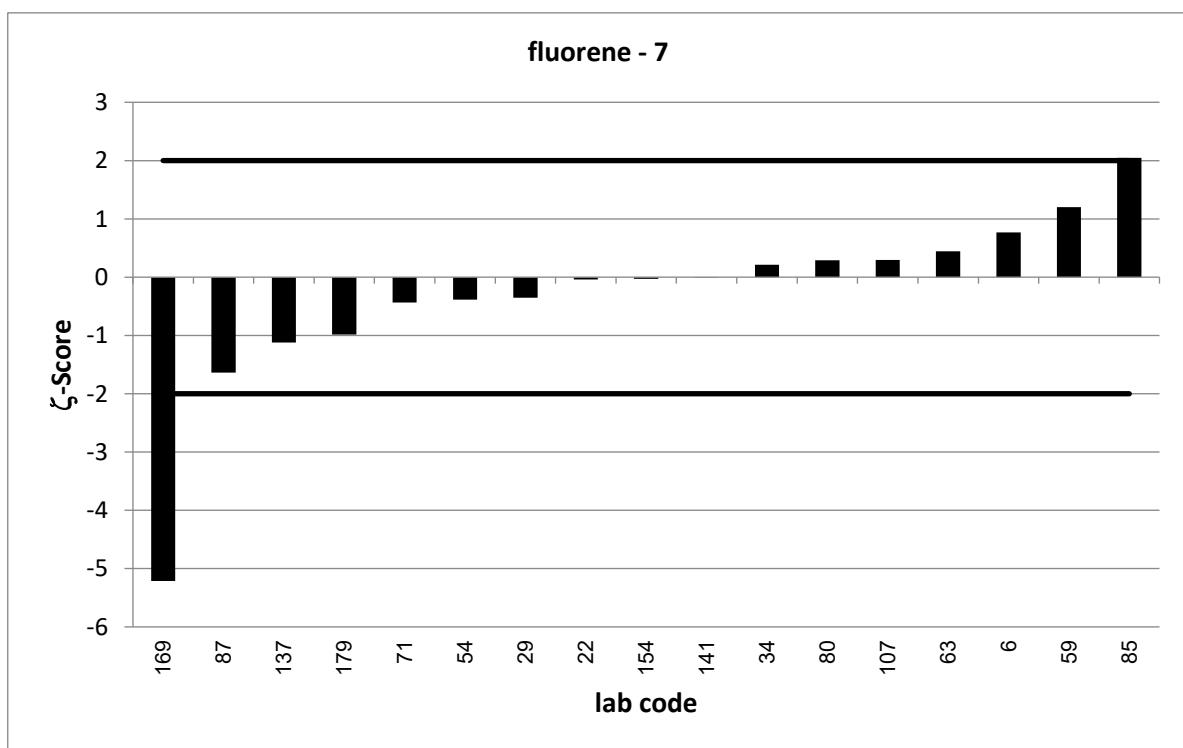


Strongly deviating values are not shown in the diagram.





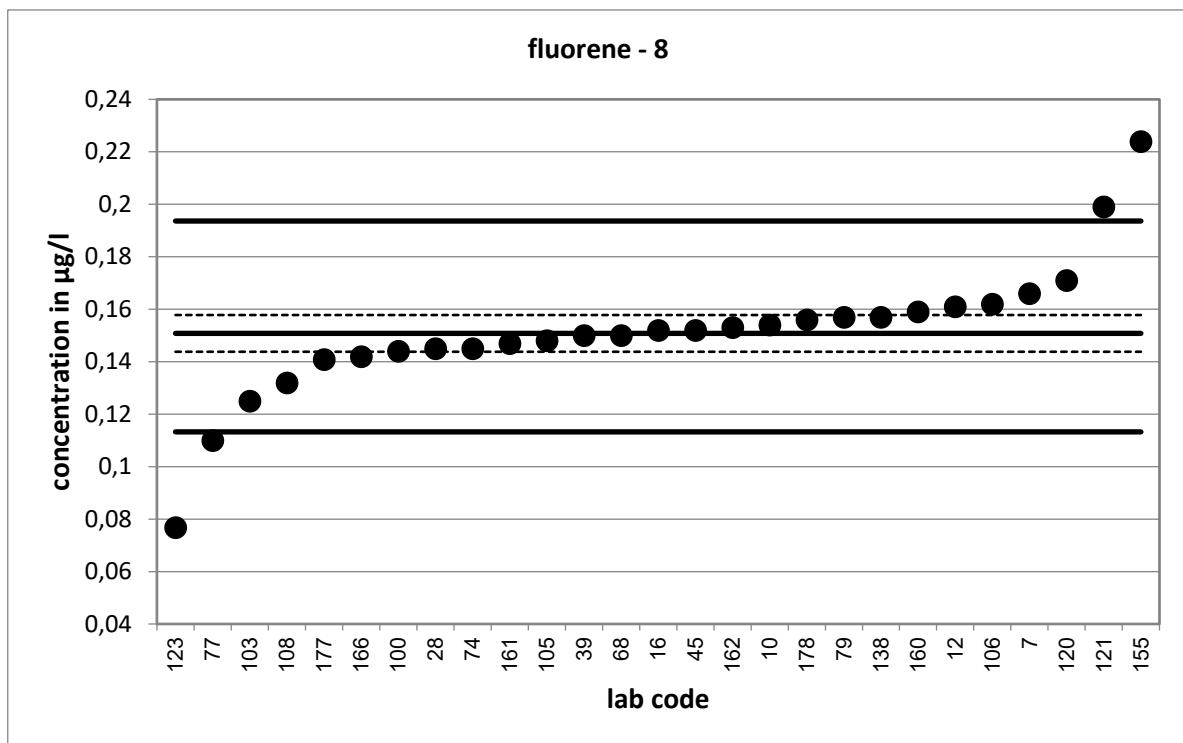
Strongly deviating values are not correctly shown in the diagram.



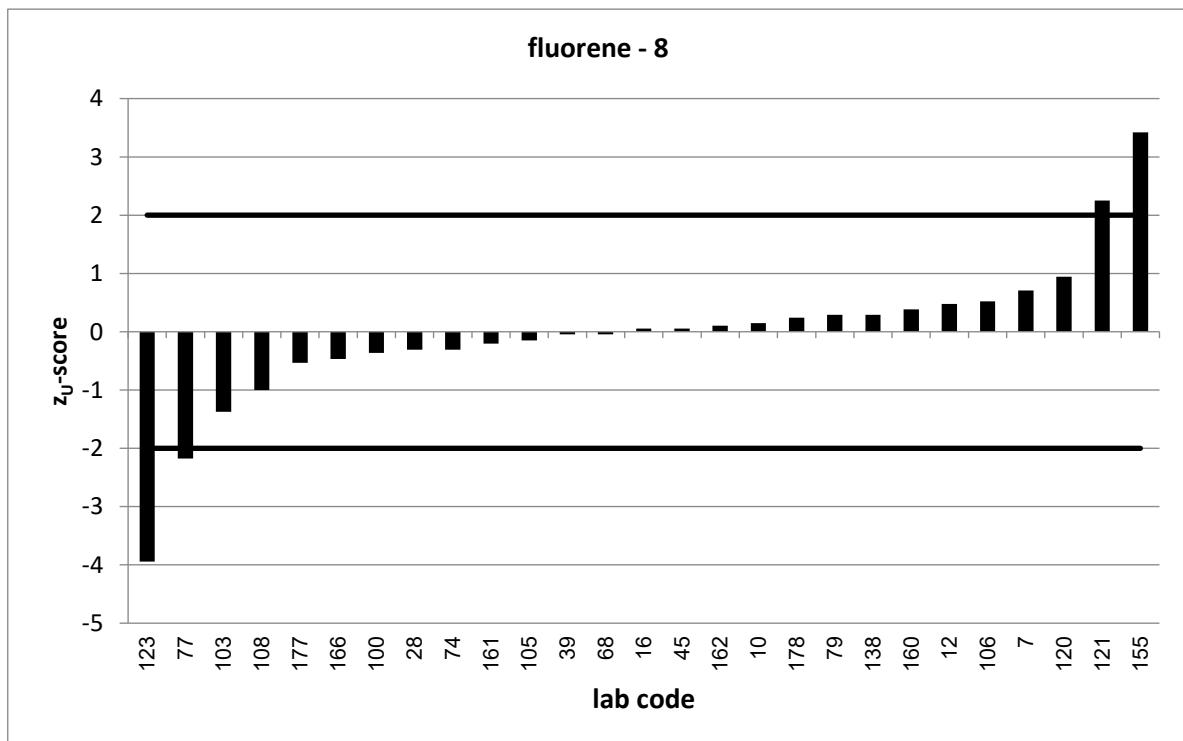
PT 3/24		fluorene - 8			
assigned value [ $\mu\text{g/l}$ ]*		0,1508 $\pm$ 0,007			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1936			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1132			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,166	0,015	1,8	0,7	s
10	0,154	0,03	0,2	0,2	s
12	0,161	0,048	0,4	0,5	s
16	0,152	0,022	0,1	0,1	s
28	0,145	0,02	-0,5	-0,3	s
39	0,15	0,024	-0,1	0,0	s
45	0,152			0,1	s
68	0,15			0,0	s
74	0,145	0,037	-0,3	-0,3	s
77	0,11	0,039	-2,1	-2,2	q
79	0,157			0,3	s
100	0,144	0,022	-0,6	-0,4	s
103	0,125	0,018	-2,6	-1,4	s
105	0,148			-0,1	s
106	0,162			0,5	s
108	0,132	0,028	-1,3	-1,0	s
120	0,171	0,009	3,6	0,9	s
121	0,199	0,064	1,5	2,3	q
123	0,0768			-3,9	u
138	0,157			0,3	s
155	0,224			3,4	u
160	0,159			0,4	s
161	0,147			-0,2	s
162	0,153	0,046	0,1	0,1	s
166	0,142			-0,5	s
177	0,1408			-0,5	s
178	0,156			0,2	s

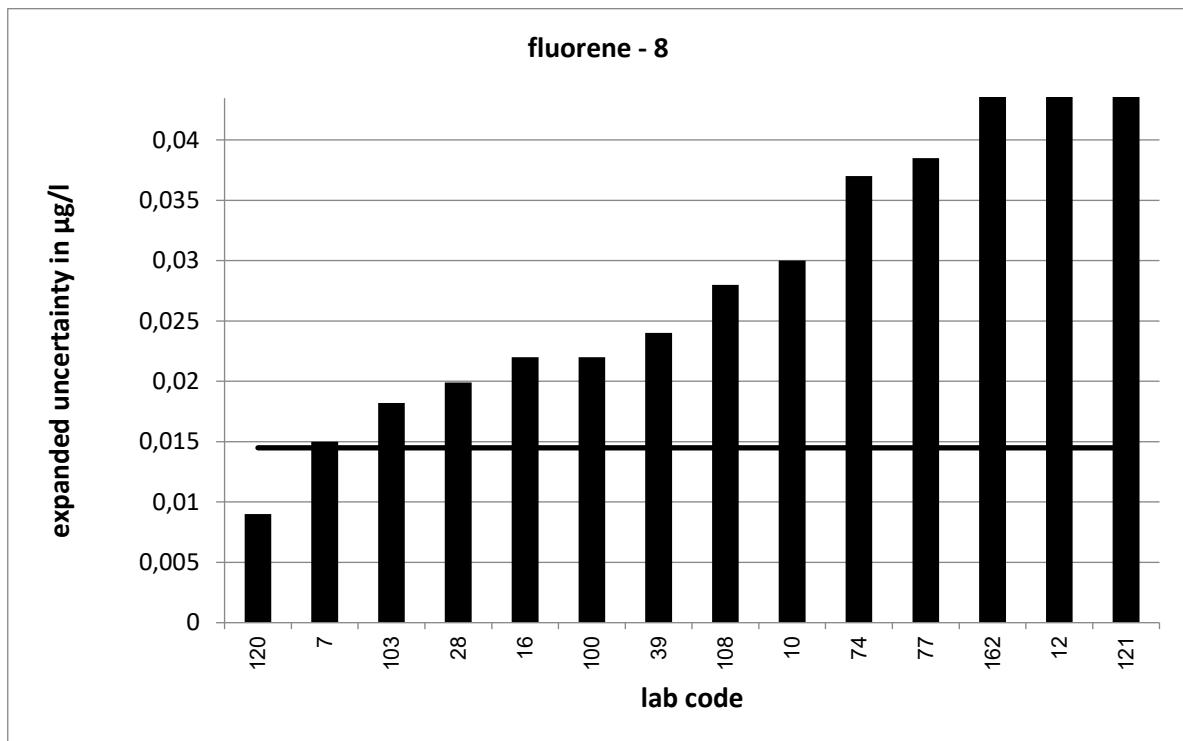
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.





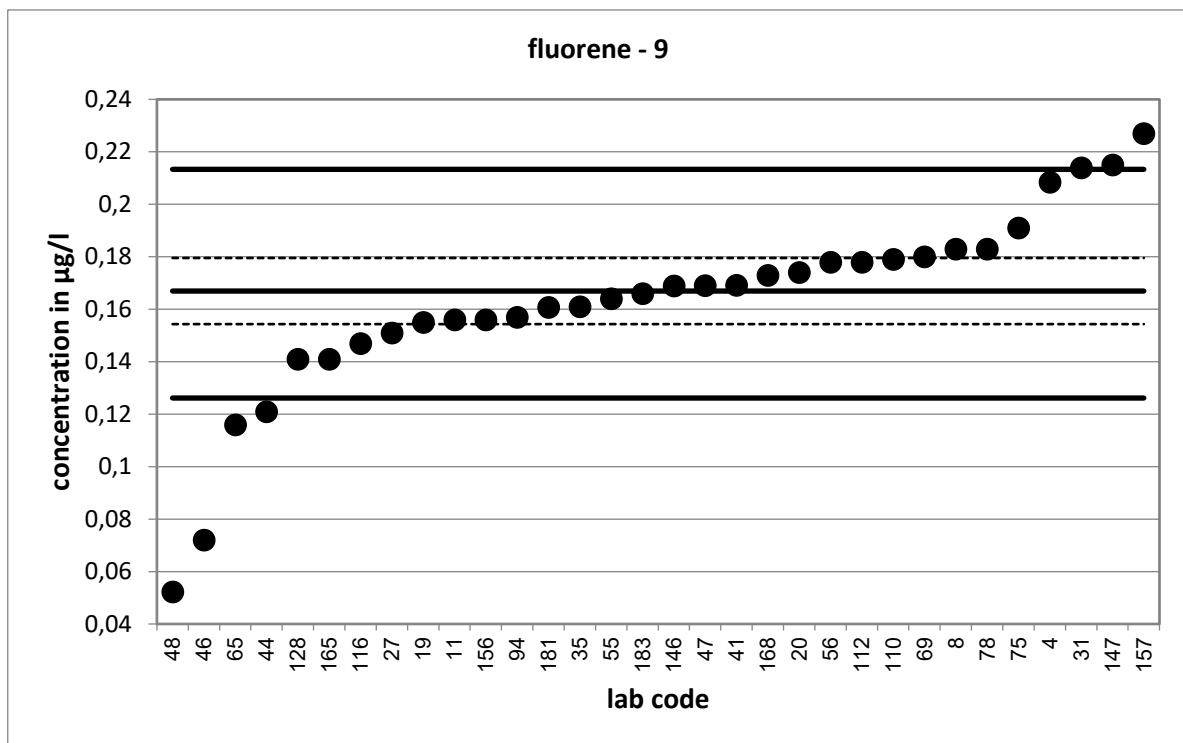
Strongly deviating values are not correctly shown in the diagram.



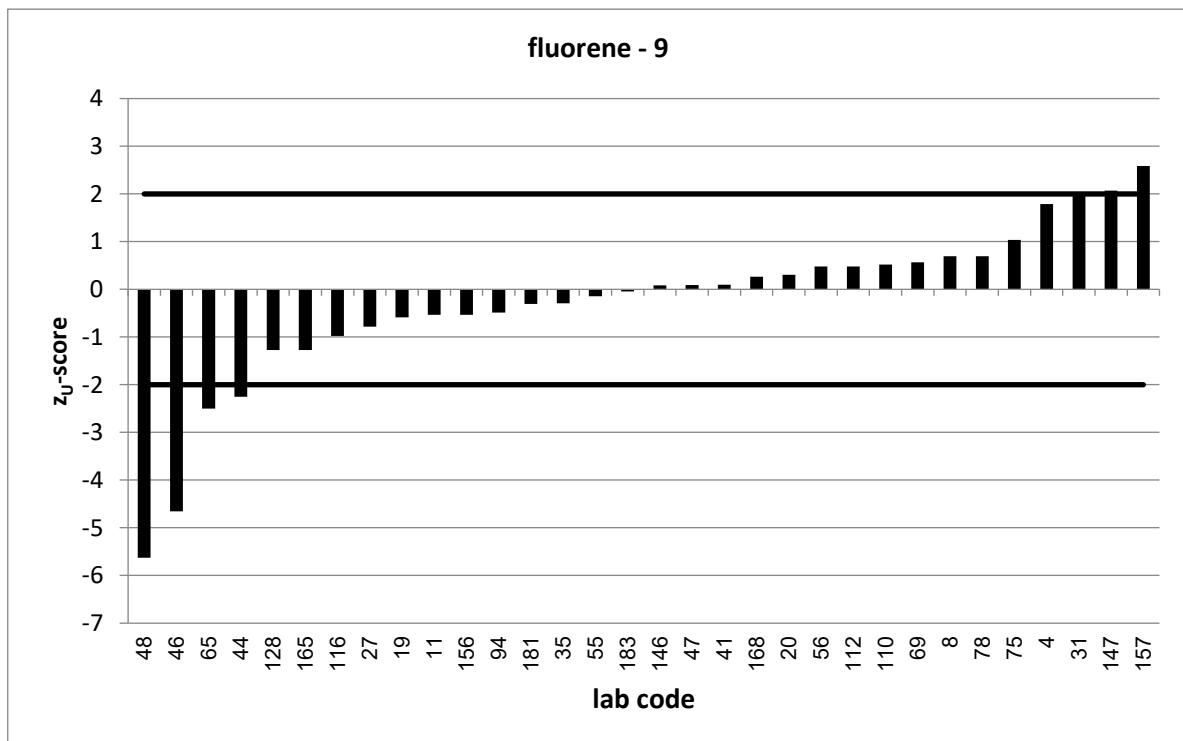
PT 3/24		fluorene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,1669 \pm 0,0126$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2133			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1261			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,2084			1,8	s
8	0,183	0,044	0,7	0,7	s
11	0,156	0,034	-0,6	-0,5	s
19	0,155	0,049	-0,5	-0,6	s
20	0,174	0,052	0,3	0,3	s
27	0,151			-0,8	s
31	0,214	0,075	1,2	2,0	s
35	0,161	0,048	-0,2	-0,3	s
41	0,1692			0,1	s
44	0,121	0,023	-3,5	-2,3	q
46	0,072			-4,7	u
47	0,169			0,1	s
48	0,0522	0,006	-16,7	-5,6	u
55	0,164	0,074	-0,1	-0,1	s
56	0,178	0,024	0,8	0,5	s
65	0,116			-2,5	q
69	0,18	0,032	0,8	0,6	s
75	0,191	0,038	1,2	1,0	s
78	0,183			0,7	s
94	0,157			-0,5	s
110	0,179			0,5	s
112	0,178	0,018	1,0	0,5	s
116	0,147	0,024	-1,5	-1,0	s
128	0,141			-1,3	s
146	0,1689	0,032	0,1	0,1	s
147	0,215	0,006	6,8	2,1	q
156	0,156	0,025	-0,8	-0,5	s
157	0,227			2,6	q
165	0,141			-1,3	s
168	0,173	0,03	0,4	0,3	s
181	0,1607	0,035	-0,3	-0,3	s
183	0,166	0,04	0,0	0,0	s

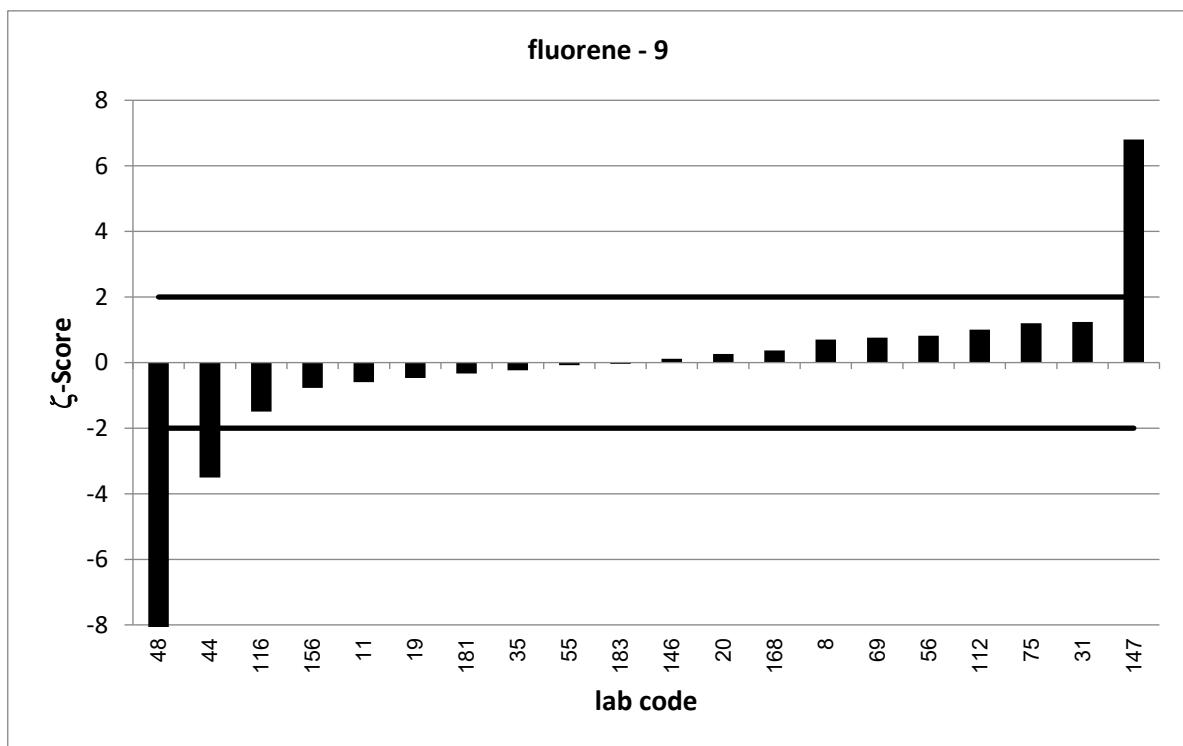
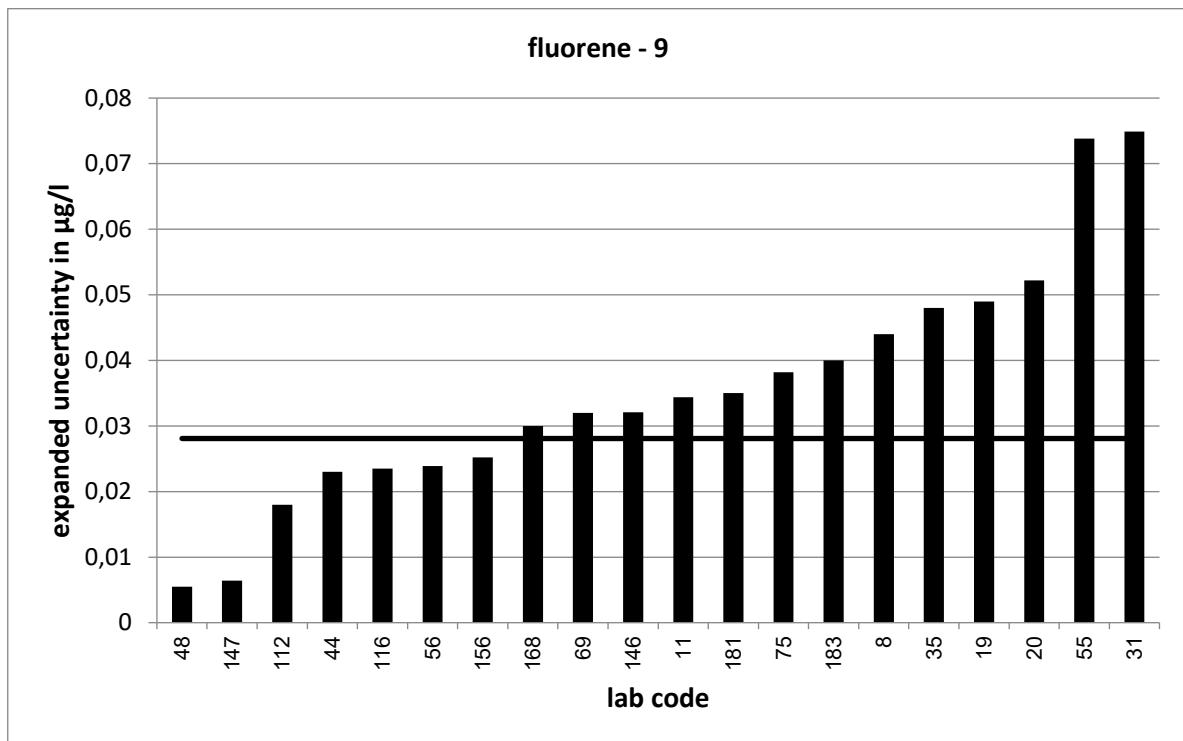
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

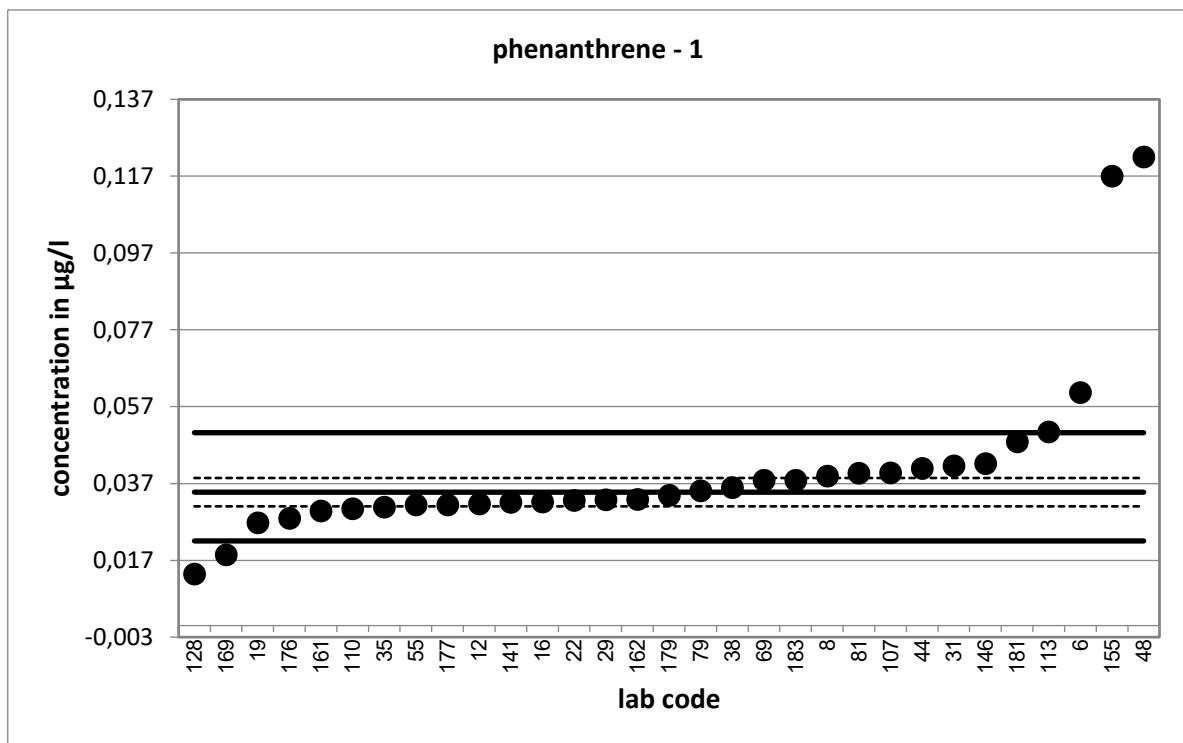




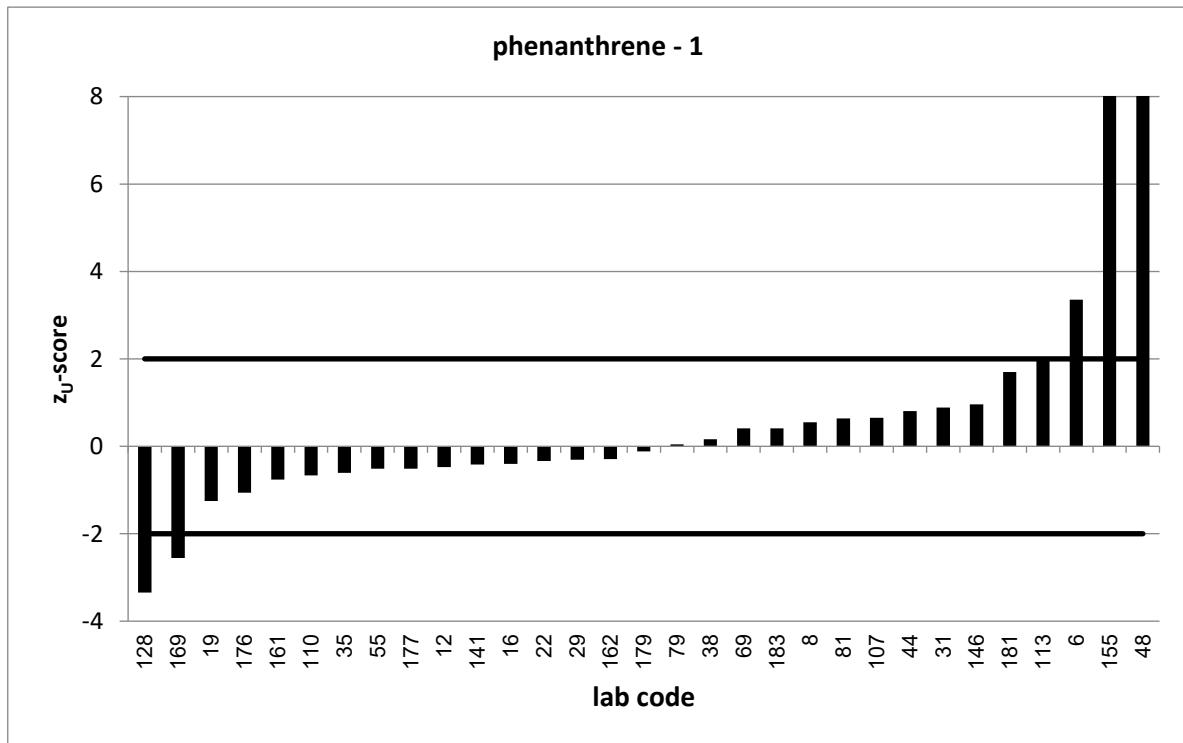
PT 3/24		phenanthrene - 1			
	assigned value [ $\mu\text{g/l}$ ]*		0,03474	$\pm 0,00369$	
	upper tolerance limit [ $\mu\text{g/l}$ ]		0,05022		
	lower tolerance limit [ $\mu\text{g/l}$ ]		0,02204		
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0607	0,016	3,2	3,4	u
8	0,039	0,009	0,9	0,6	s
12	0,0317	0,01	-0,6	-0,5	s
16	0,0322	0,005	-0,8	-0,4	s
19	0,0268	0,01	-1,5	-1,3	s
22	0,0326	0,013	-0,3	-0,3	s
29	0,0328	0,004	-0,7	-0,3	s
31	0,0416	0,015	0,9	0,9	s
35	0,0309	0,009	-0,8	-0,6	s
38	0,036			0,2	s
44	0,041	0,011	1,1	0,8	s
48	0,122	0,002	41,6	11,3	u
55	0,0315	0,014	-0,4	-0,5	s
69	0,0379	0,007	0,8	0,4	s
79	0,0351			0,0	s
81	0,0397			0,6	s
107	0,0398	0,01	0,9	0,7	s
110	0,0305			-0,7	s
113	0,0505			2,0	s
128	0,0135			-3,3	u
141	0,0321	0,014	-0,4	-0,4	s
146	0,04219	0,008	1,8	1,0	s
155	0,117			10,6	u
161	0,0299			-0,8	s
162	0,0329	0,01	-0,3	-0,3	s
169	0,0185	0,008	-3,8	-2,6	q
176	0,028			-1,1	s
177	0,0315			-0,5	s
179	0,034	0,01	-0,1	-0,1	s
181	0,0479	0,009	2,7	1,7	s
183	0,0379	0,009	0,6	0,4	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

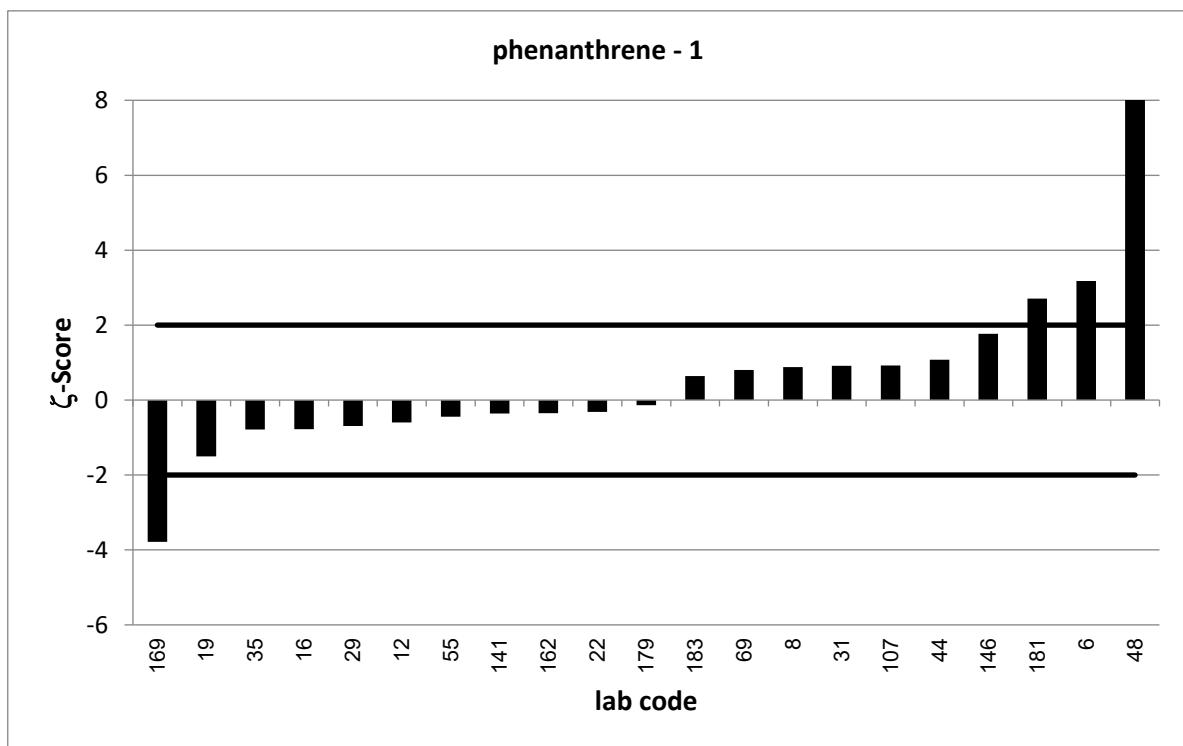
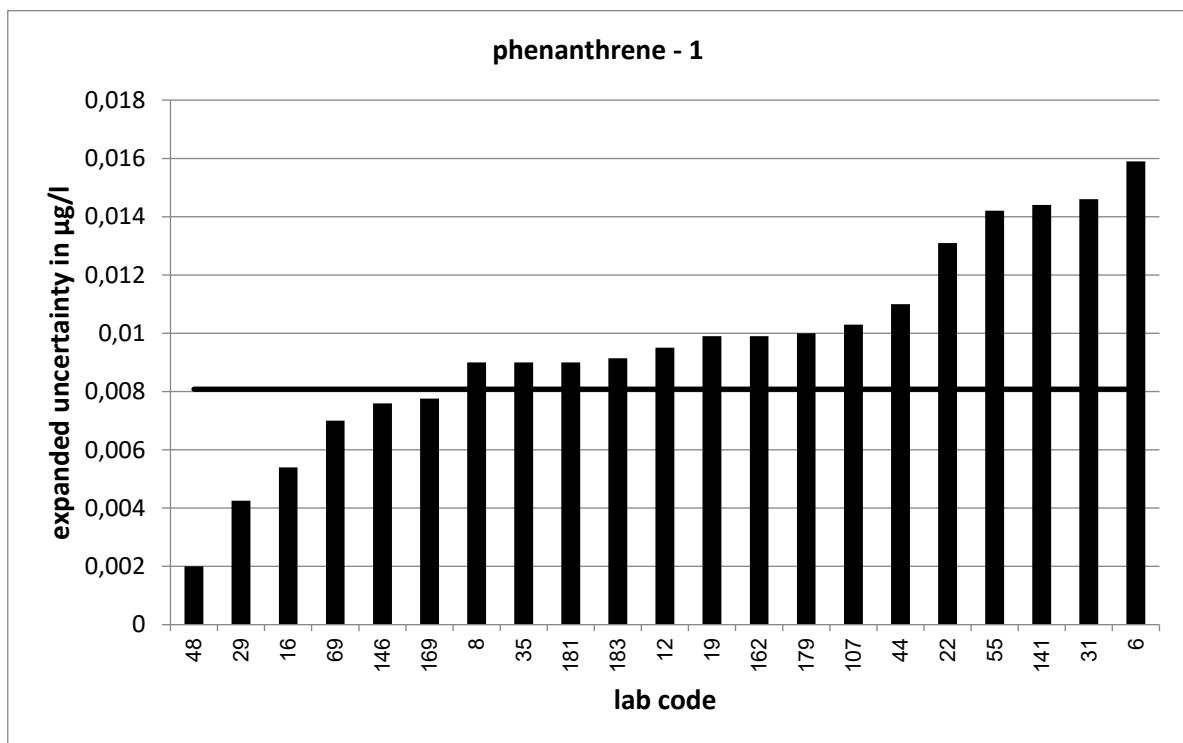
\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.



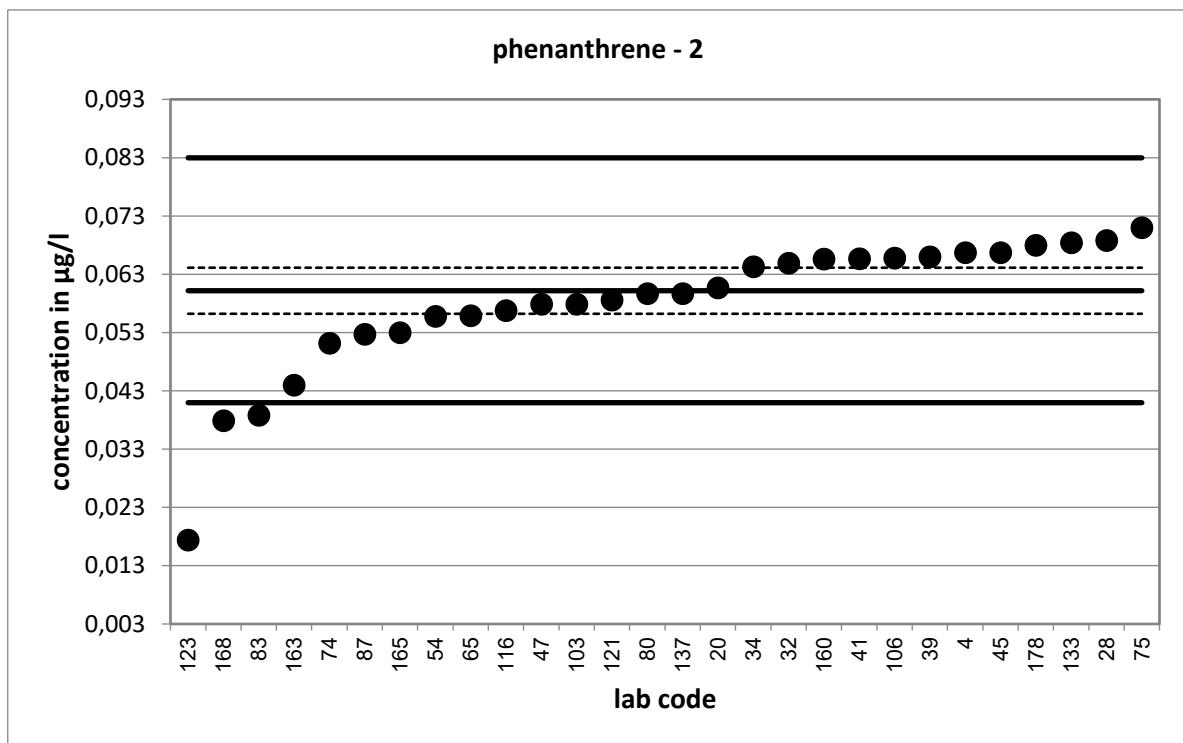
Strongly deviating values are not correctly shown in the diagram.



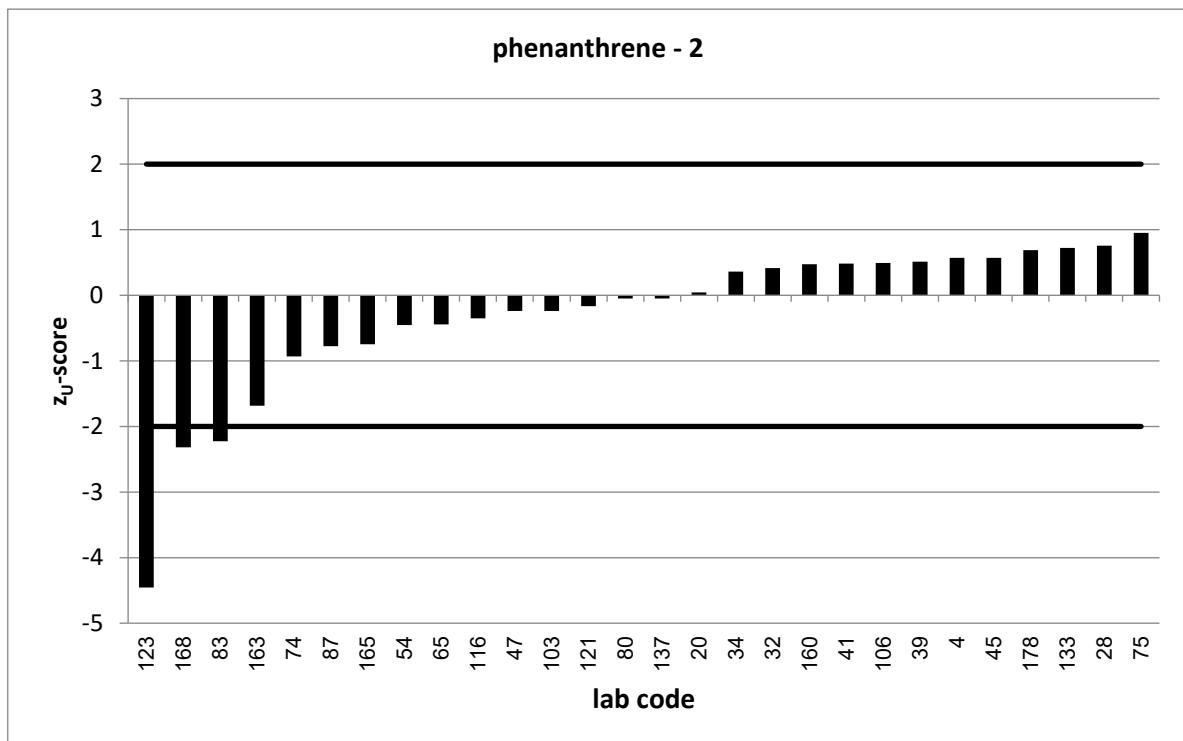
PT 3/24		phenanthrene - 2			
assigned value [ $\mu\text{g/l}$ ]*		0,06017 $\pm$ 0,00395			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,08297			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,04097			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0667			0,6	s
20	0,0607	0,018	0,1	0,0	s
28	0,0688	0,011	1,5	0,8	s
32	0,0649			0,4	s
34	0,0643	0,007	1,0	0,4	s
39	0,066	0,011	1,0	0,5	s
41	0,0657			0,5	s
45	0,0667			0,6	s
47	0,0579			-0,2	s
54	0,0558	0,017	-0,5	-0,5	s
65	0,0559			-0,4	s
74	0,0512	0,014	-1,2	-0,9	s
75	0,071	0,014	1,5	0,9	s
80	0,0597	0,01	-0,1	0,0	s
83	0,0388			-2,2	q
87	0,0527	0,016	-0,9	-0,8	s
103	0,0579	0,007	-0,6	-0,2	s
106	0,0658			0,5	s
116	0,0568	0,01	-0,6	-0,4	s
121	0,0586	0,013	-0,2	-0,2	s
123	0,0174			-4,5	u
133	0,0684			0,7	s
137	0,0597	0,009	-0,1	0,0	s
160	0,0656			0,5	s
163	0,044			-1,7	s
165	0,053			-0,7	s
168	0,0379	0,01	-4,1	-2,3	q
178	0,068			0,7	s

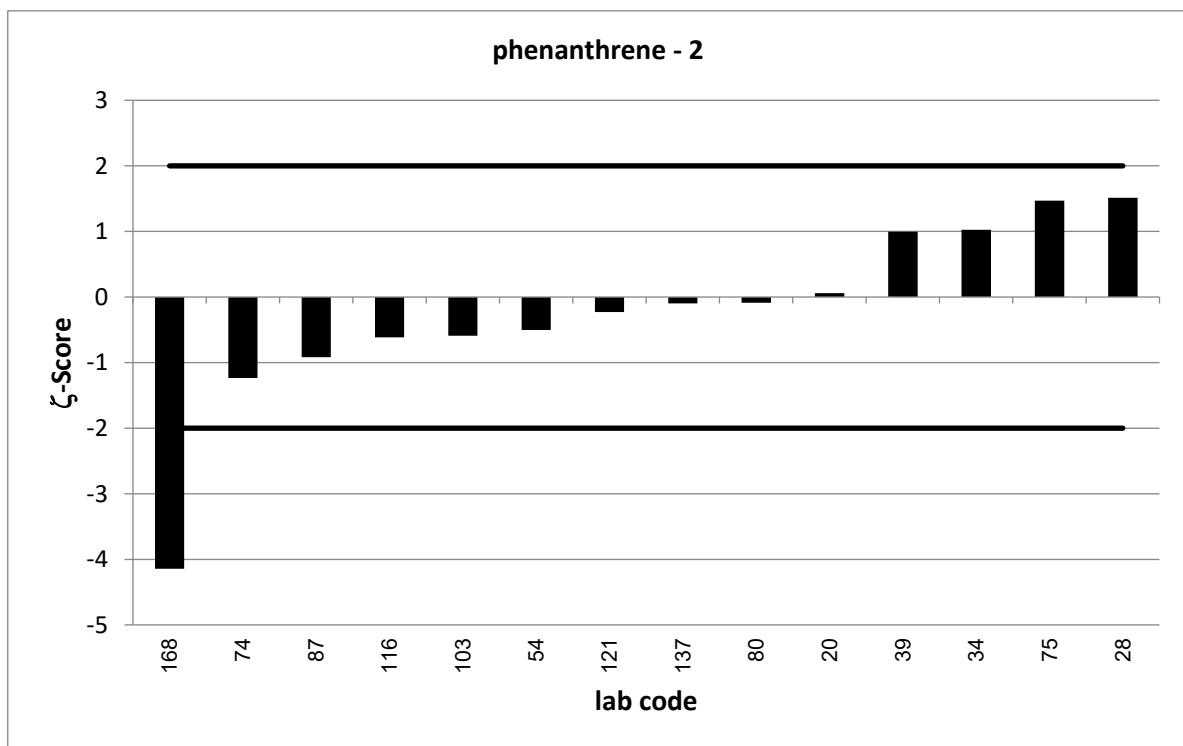
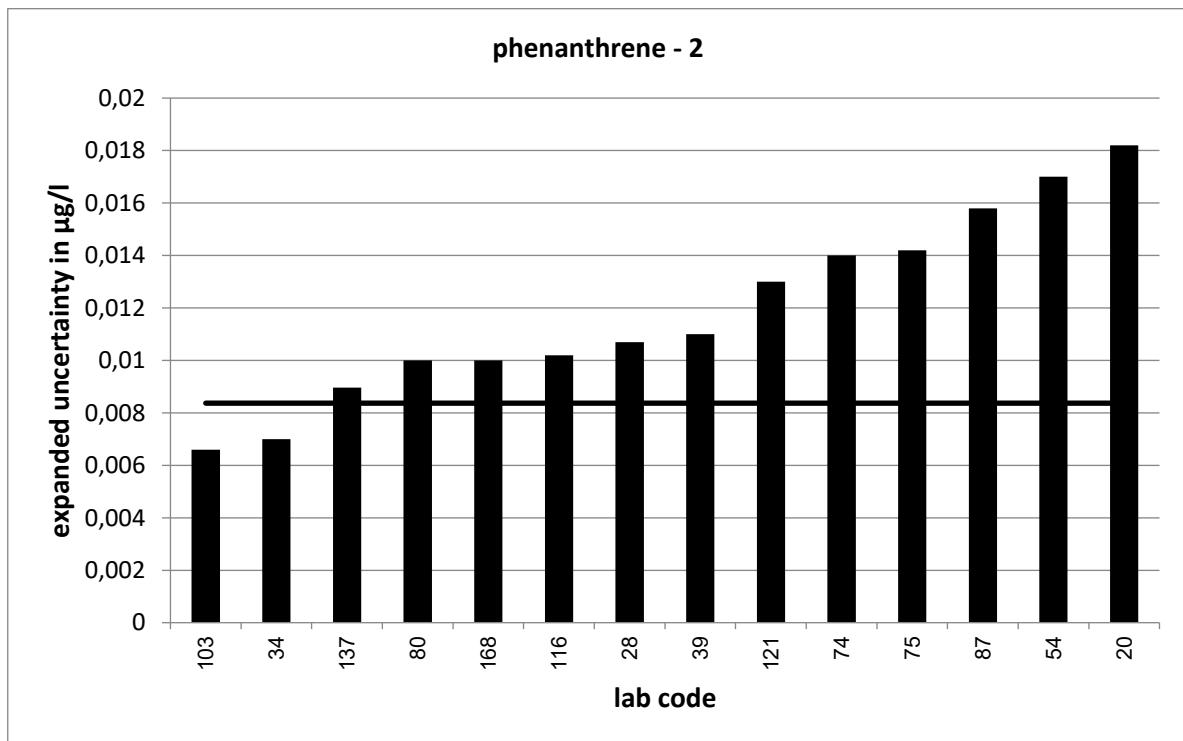
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

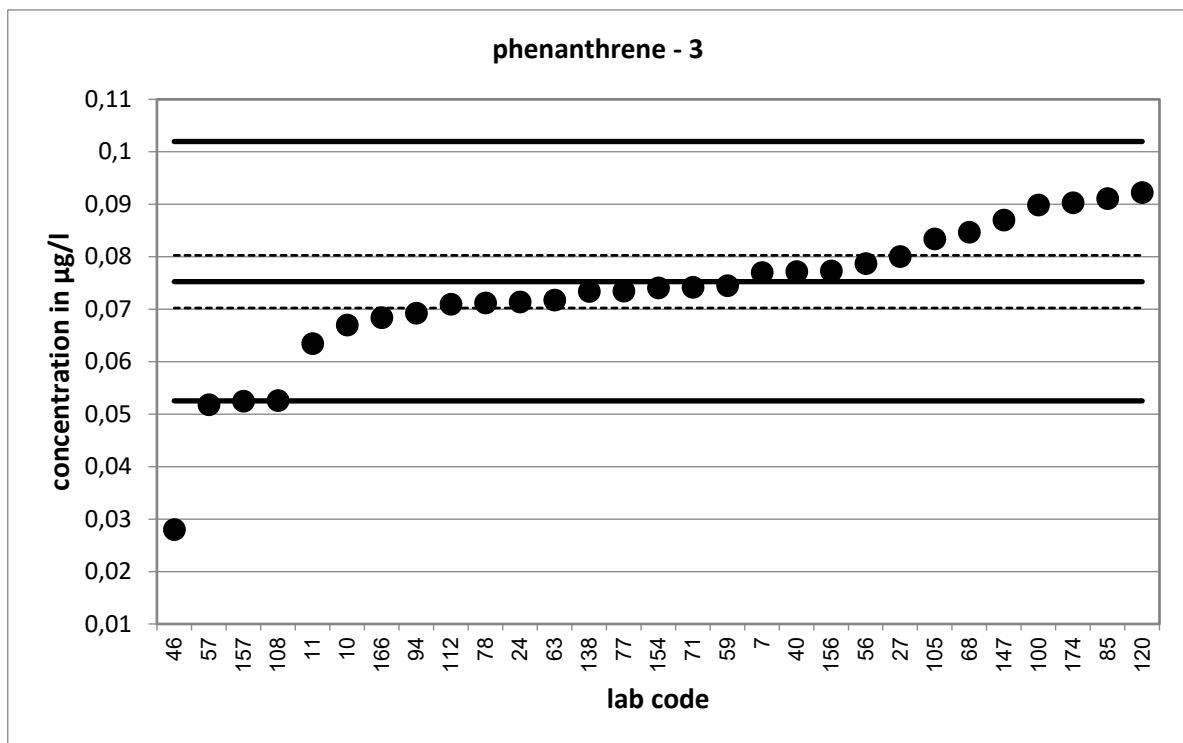




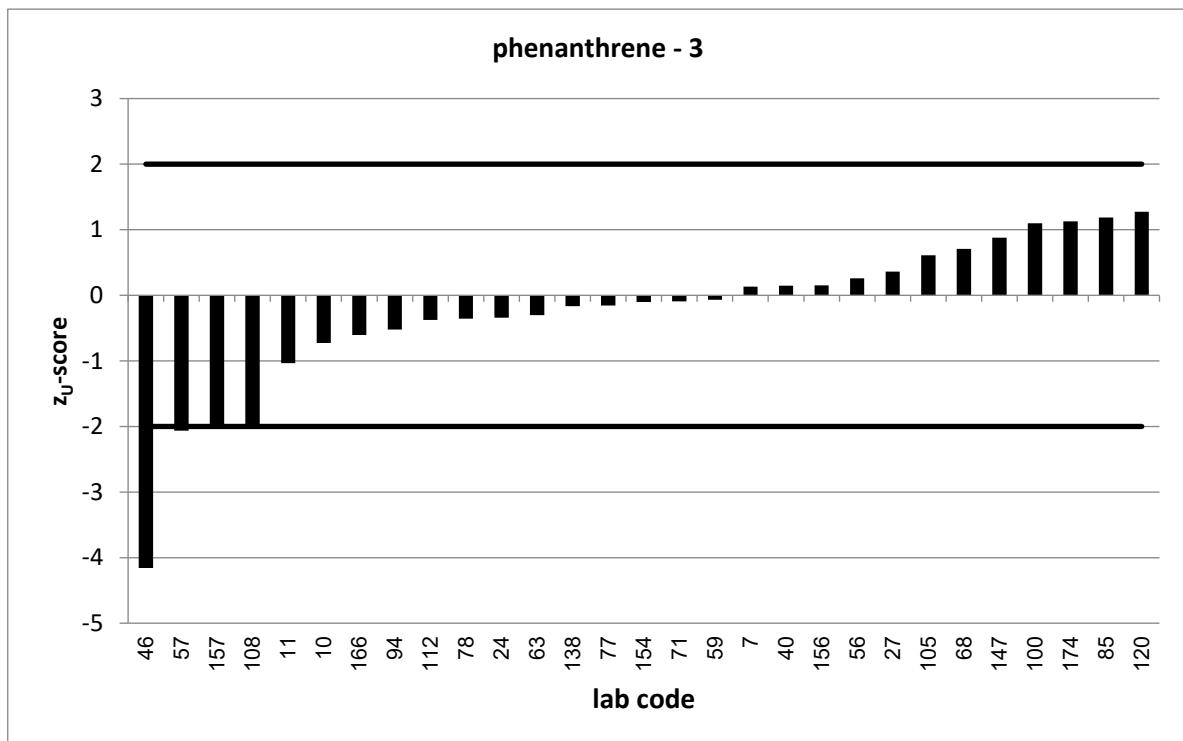
PT 3/24		phenanthrene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,07526 \pm 0,00502$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,102			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,05253			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,077	0,011	0,3	0,1	s
10	0,067	0,013	-1,2	-0,7	s
11	0,0635	0,014	-1,6	-1,0	s
24	0,0714			-0,3	s
27	0,0801			0,4	s
40	0,0772			0,1	s
46	0,028			-4,2	u
56	0,0787	0,012	0,5	0,3	s
57	0,0518			-2,1	q
59	0,0745	0,015	-0,1	-0,1	s
63	0,0718	0,024	-0,3	-0,3	s
68	0,0847			0,7	s
71	0,0742	0,011	-0,2	-0,1	s
77	0,0735	0,026	-0,1	-0,2	s
78	0,0712			-0,4	s
85	0,0911			1,2	s
94	0,0693			-0,5	s
100	0,0899	0,014	2,0	1,1	s
105	0,0834			0,6	s
108	0,0526	0,015	-2,9	-2,0	s
112	0,071	0,011	-0,7	-0,4	s
120	0,0923	0,005	4,8	1,3	s
138	0,0734			-0,2	s
147	0,087	0,003	4,2	0,9	s
154	0,0741	0,037	-0,1	-0,1	s
156	0,0773	0,006	0,5	0,2	s
157	0,0525			-2,0	s
166	0,0684			-0,6	s
174	0,0903			1,1	s

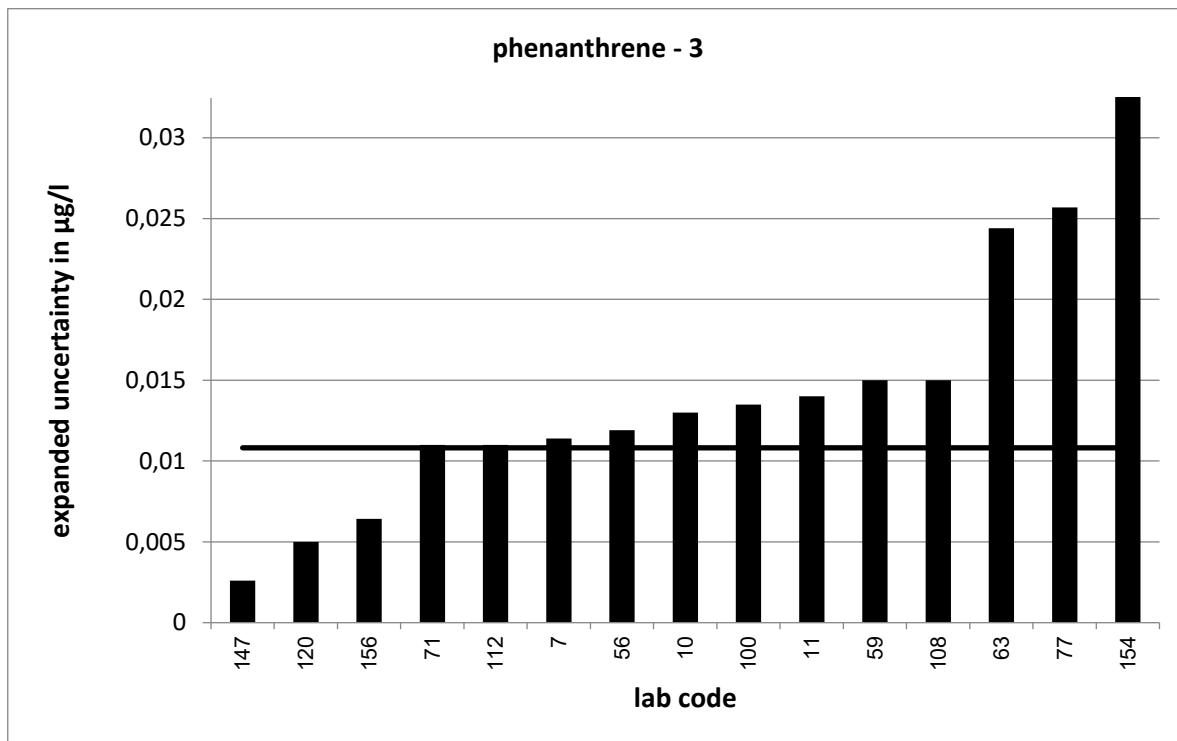
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

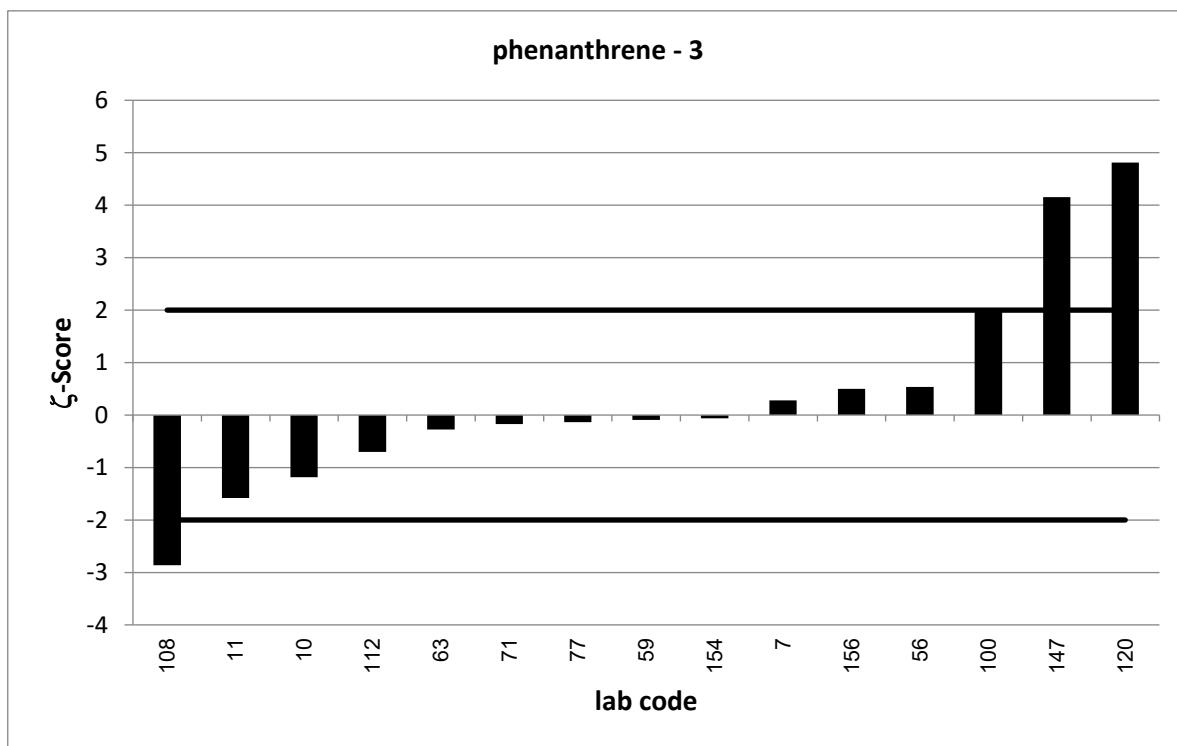


Strongly deviating values are not shown in the diagram.





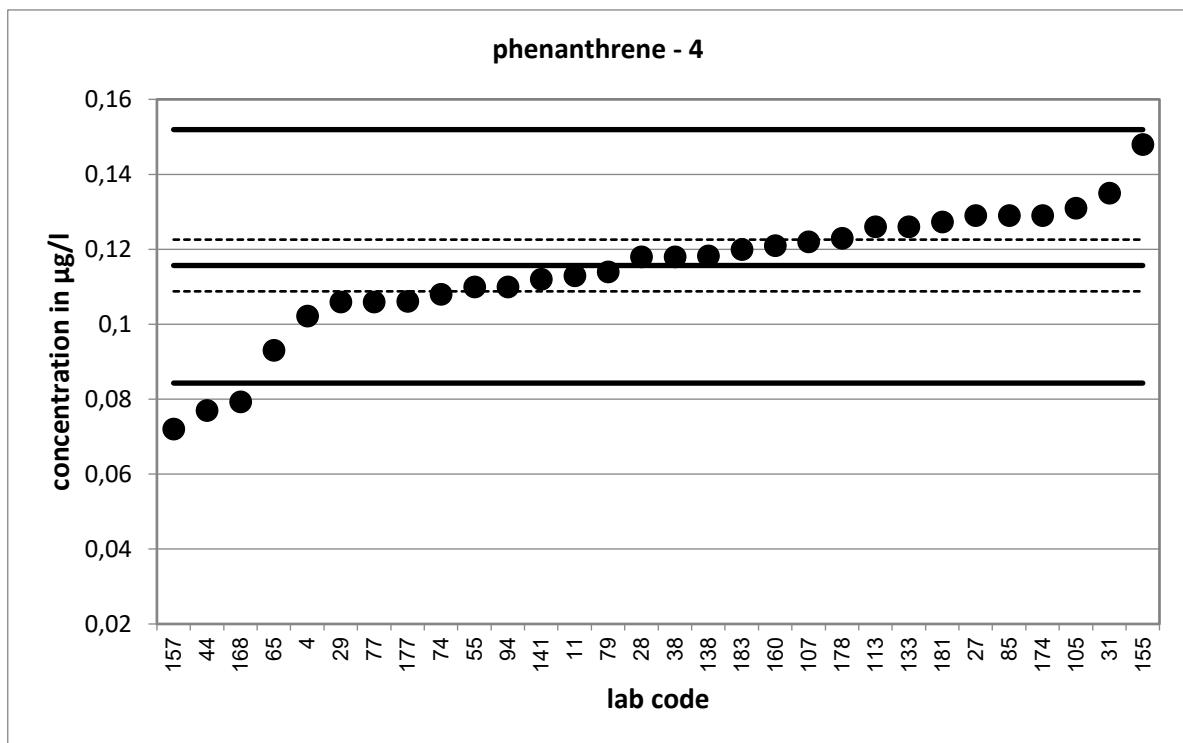
Strongly deviating values are not correctly shown in the diagram.



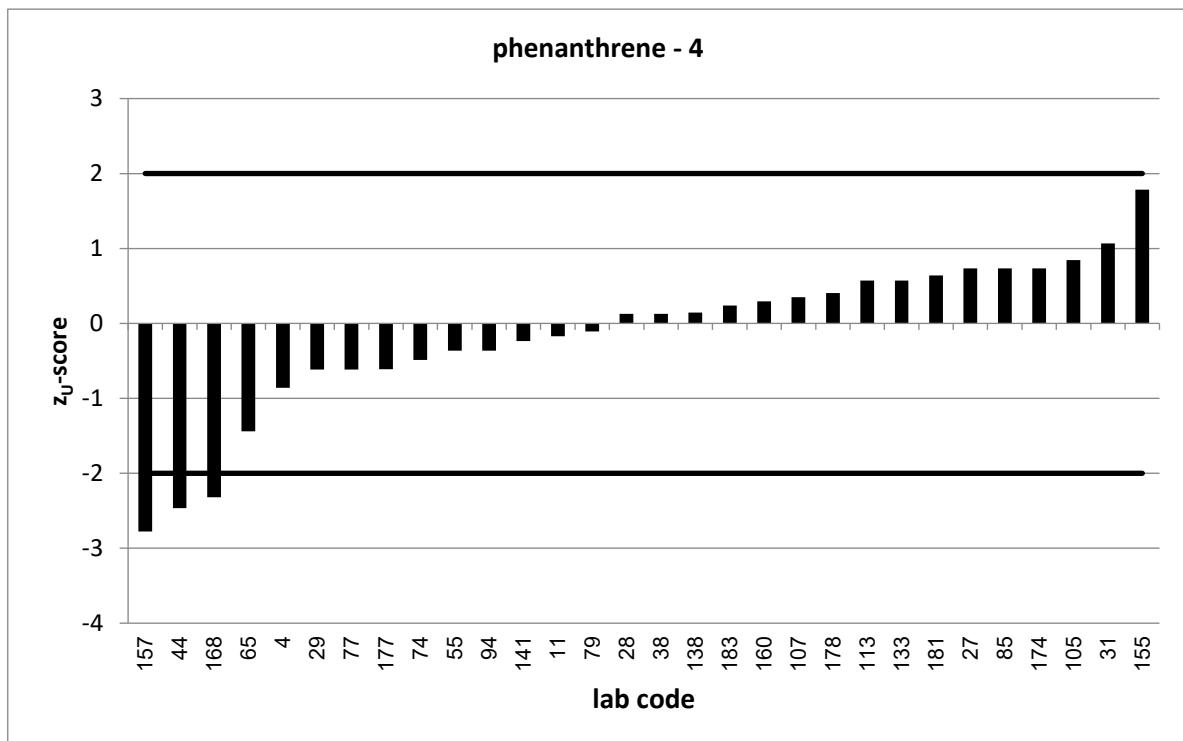
PT 3/24		phenanthrene - 4			
assigned value [ $\mu\text{g/l}$ ]*		0,1157	$\pm$ 0,0069		
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1519			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,08429			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,1022			-0,9	s
11	0,113	0,025	-0,2	-0,2	s
27	0,129			0,7	s
28	0,118	0,018	0,2	0,1	s
29	0,106	0,014	-1,3	-0,6	s
31	0,135	0,047	0,8	1,1	s
38	0,118			0,1	s
44	0,077	0,016	-4,4	-2,5	q
55	0,11	0,05	-0,2	-0,4	s
65	0,0931			-1,4	s
74	0,108	0,029	-0,5	-0,5	s
77	0,106	0,037	-0,5	-0,6	s
79	0,114			-0,1	s
85	0,129			0,7	s
94	0,11			-0,4	s
105	0,131			0,8	s
107	0,122	0,032	0,4	0,3	s
113	0,126			0,6	s
133	0,126			0,6	s
138	0,1183			0,1	s
141	0,112	0,051	-0,1	-0,2	s
155	0,148			1,8	s
157	0,0721			-2,8	q
160	0,121			0,3	s
168	0,0793	0,02	-3,4	-2,3	q
174	0,129			0,7	s
177	0,1061			-0,6	s
178	0,123			0,4	s
181	0,1273	0,028	0,8	0,6	s
183	0,12	0,029	0,3	0,2	s

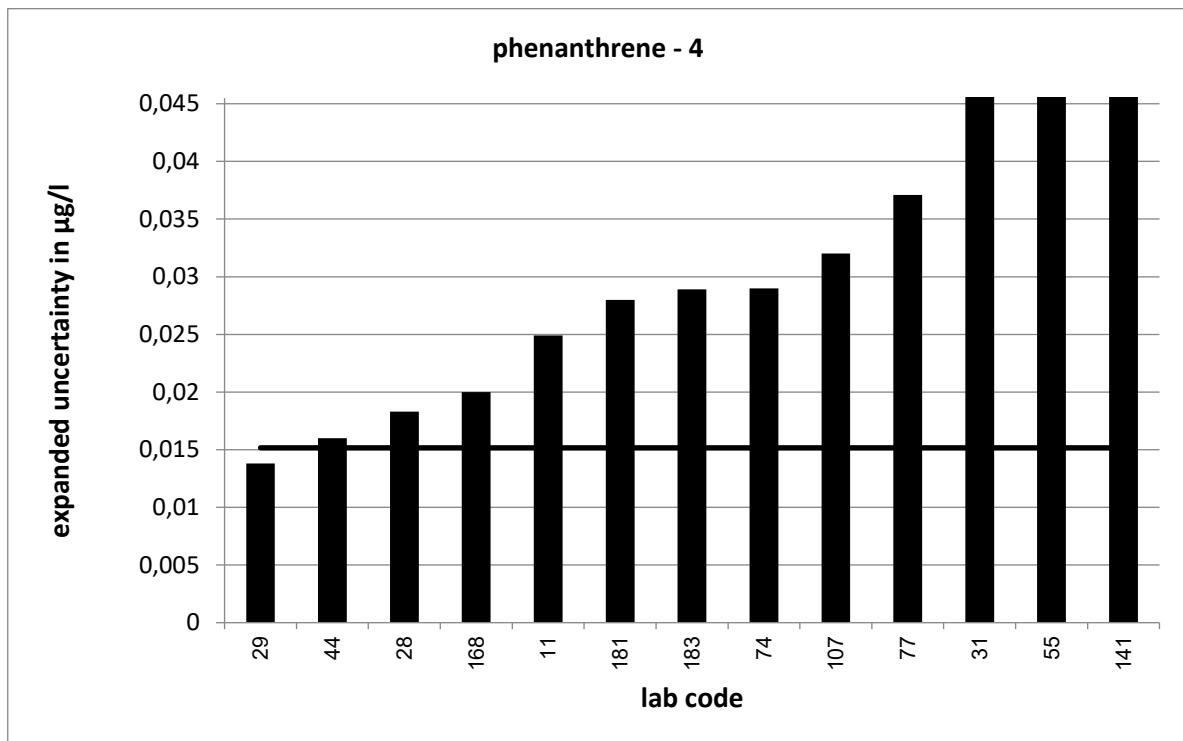
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

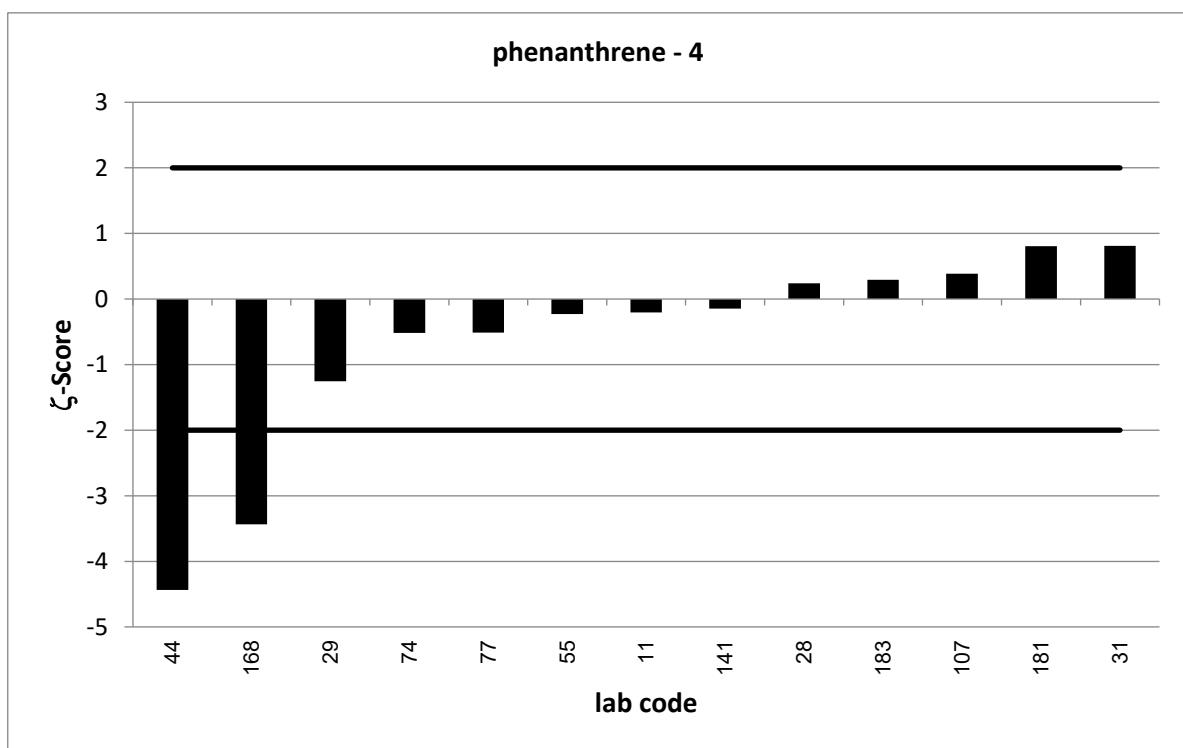


Strongly deviating values are not shown in the diagram.





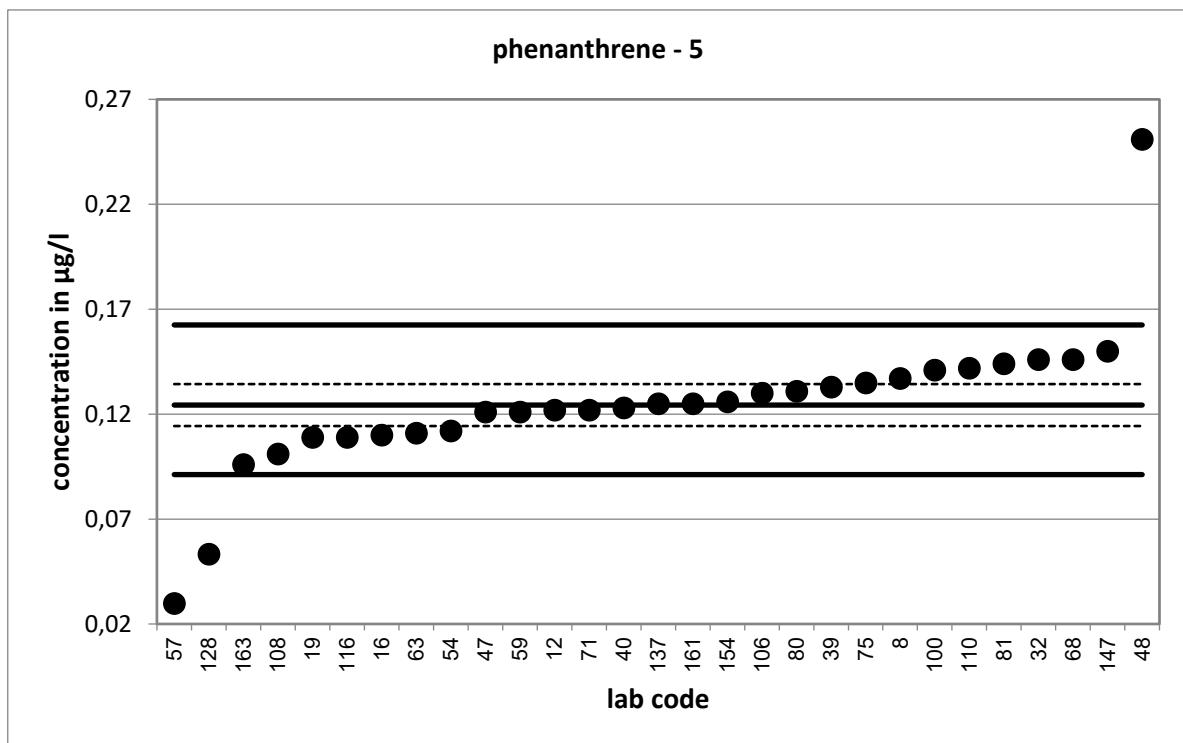
Strongly deviating values are not correctly shown in the diagram.



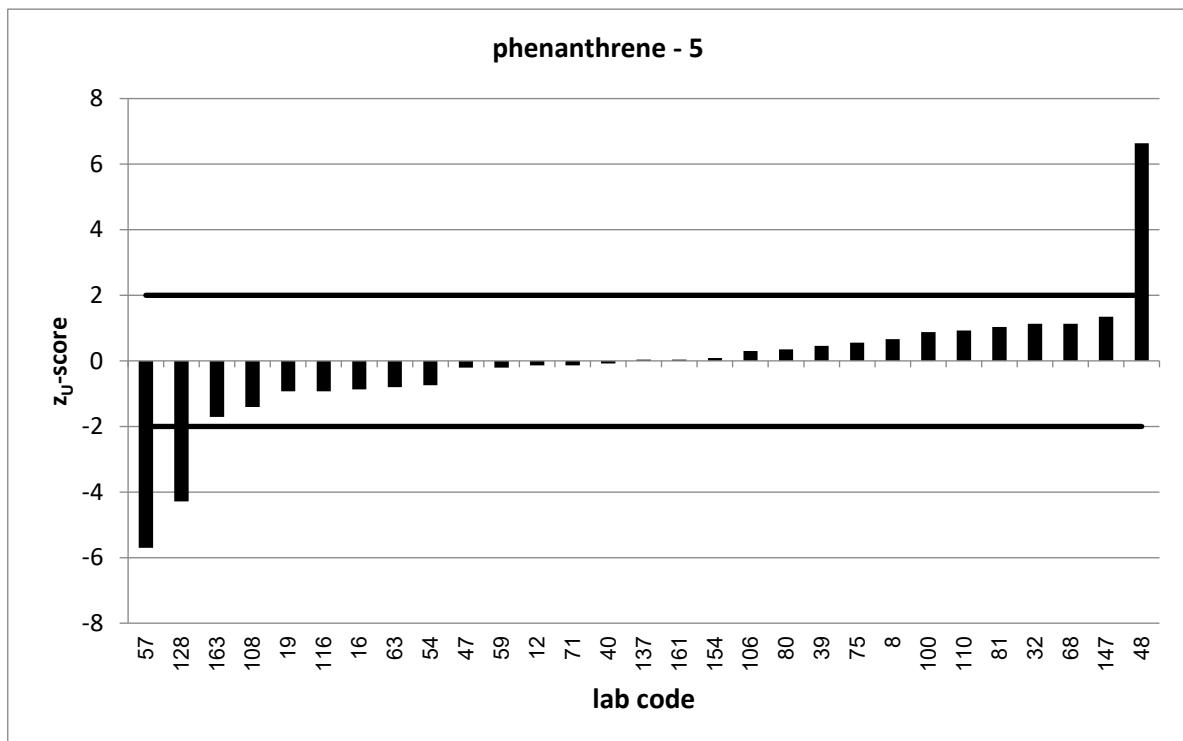
PT 3/24		phenanthrene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,1243 \pm 0,01$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,1625$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,09119$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,137	0,033	0,7	0,7	s
12	0,122	0,037	-0,1	-0,1	s
16	0,11	0,019	-1,3	-0,9	s
19	0,109	0,04	-0,7	-0,9	s
32	0,146			1,1	s
39	0,133	0,021	0,7	0,5	s
40	0,123			-0,1	s
47	0,121			-0,2	s
48	0,251	0,026	9,2	6,6	u
54	0,112	0,034	-0,7	-0,7	s
57	0,0299			-5,7	u
59	0,121	0,024	-0,3	-0,2	s
63	0,111	0,038	-0,7	-0,8	s
68	0,146			1,1	s
71	0,122	0,018	-0,2	-0,1	s
75	0,135	0,027	0,7	0,6	s
80	0,131	0,01	0,9	0,3	s
81	0,144			1,0	s
100	0,141	0,021	1,4	0,9	s
106	0,13			0,3	s
108	0,101	0,028	-1,6	-1,4	s
110	0,142			0,9	s
116	0,109	0,02	-1,4	-0,9	s
128	0,0533			-4,3	u
137	0,125	0,019	0,1	0,0	s
147	0,15	0,005	4,7	1,3	s
154	0,126	0,063	0,1	0,1	s
161	0,125			0,0	s
163	0,096			-1,7	s

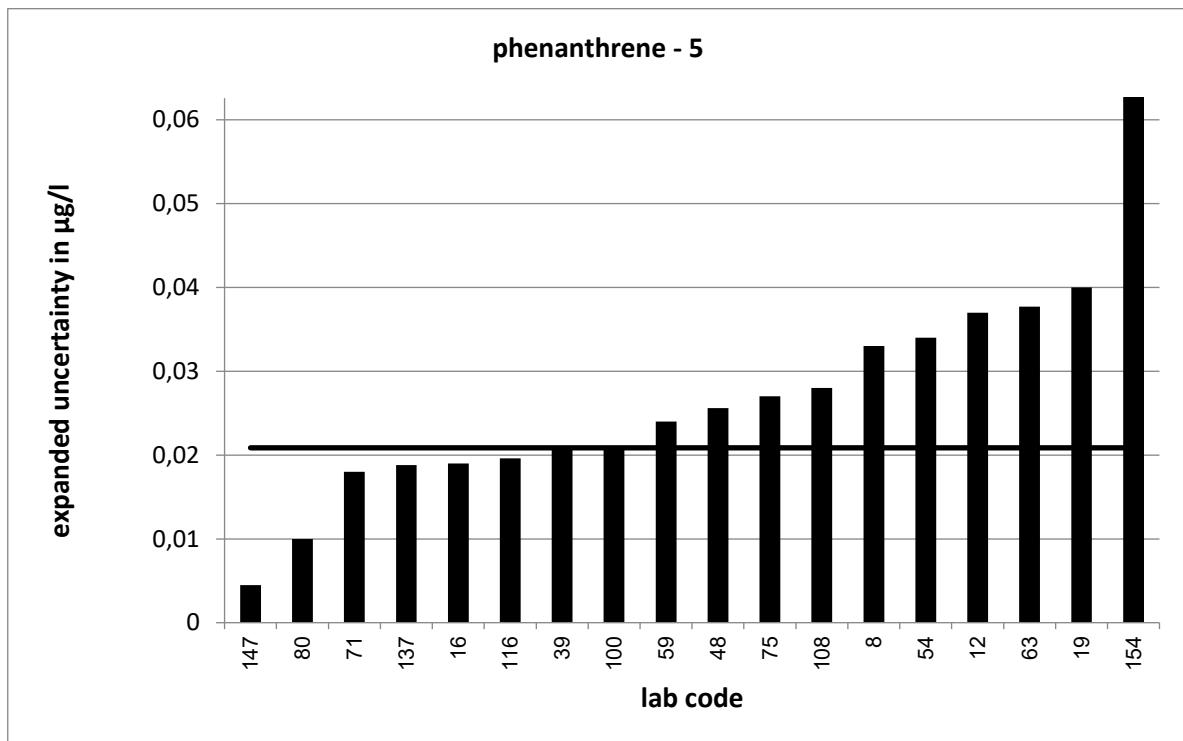
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

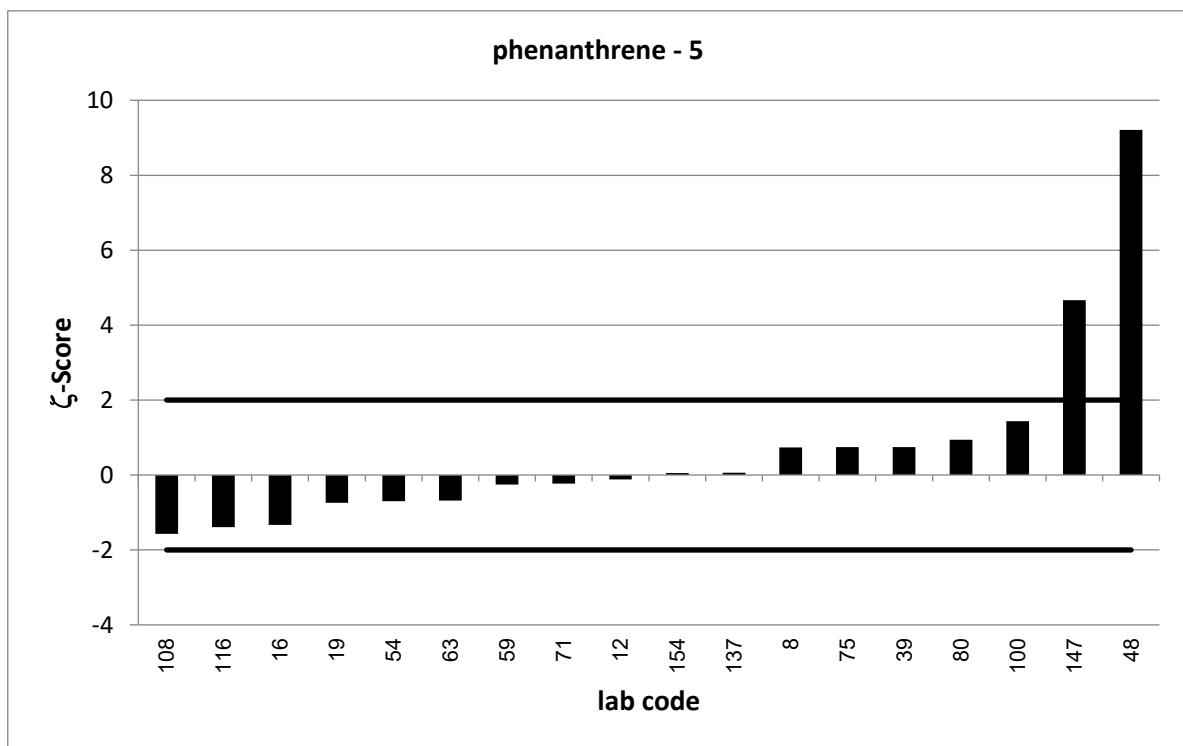


Strongly deviating values are not shown in the diagram.





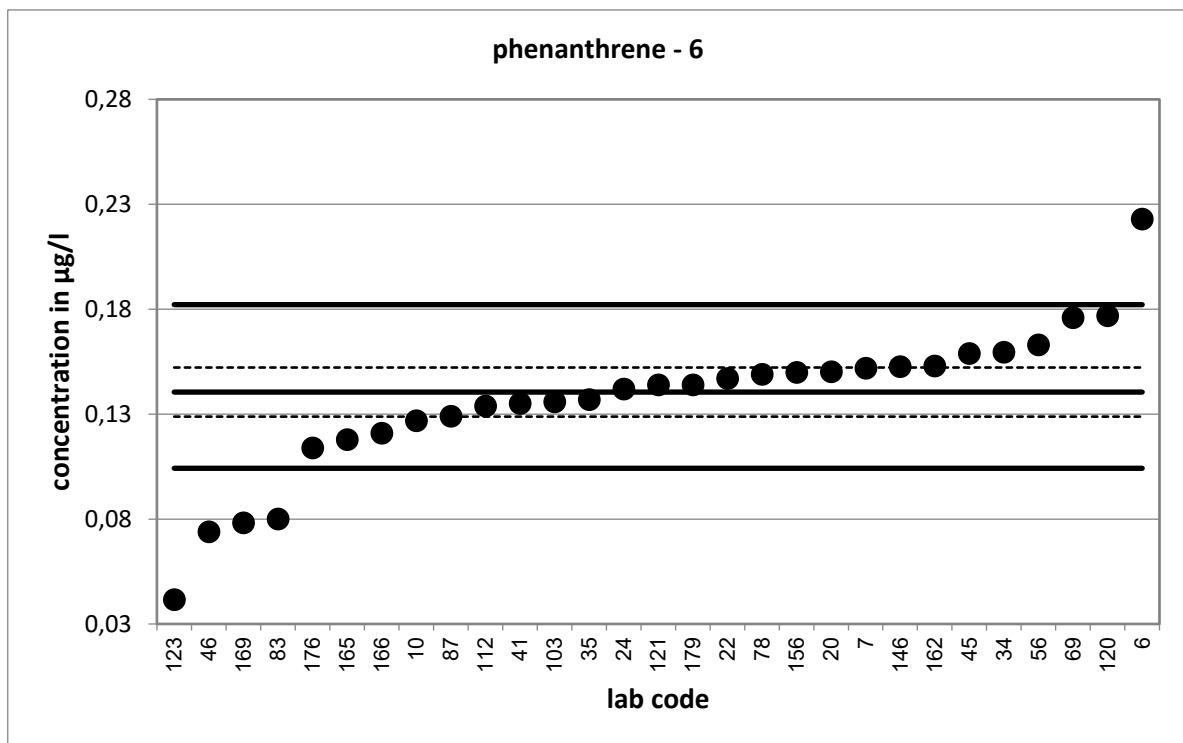
Strongly deviating values are not correctly shown in the diagram.



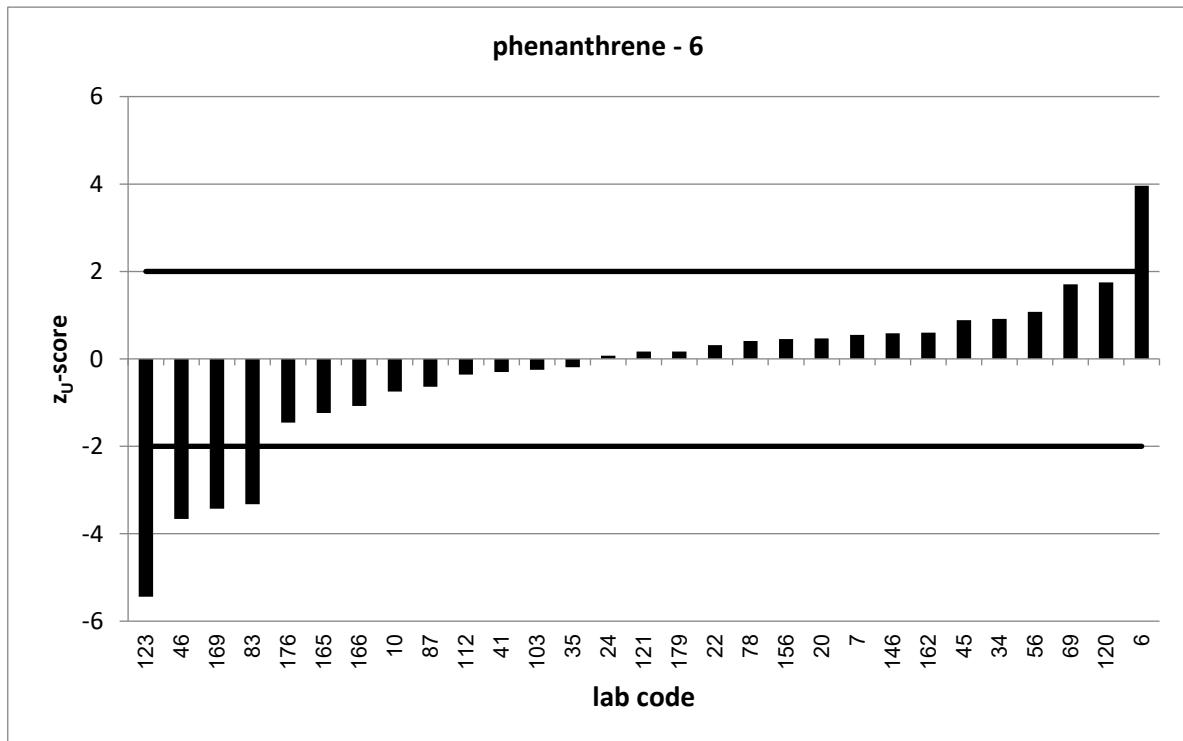
PT 3/24		phenanthrene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,1405 \pm 0,0117$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1822			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1042			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,223	0,058	2,8	4,0	u
7	0,152	0,019	1,0	0,6	s
10	0,127	0,024	-1,0	-0,7	s
20	0,1502	0,045	0,4	0,5	s
22	0,147	0,059	0,2	0,3	s
24	0,142			0,1	s
34	0,1596	0,02	1,6	0,9	s
35	0,137	0,041	-0,2	-0,2	s
41	0,1351			-0,3	s
45	0,159			0,9	s
46	0,074			-3,7	u
56	0,163	0,025	1,7	1,1	s
69	0,176	0,031	2,1	1,7	s
78	0,149			0,4	s
83	0,0801			-3,3	u
87	0,129	0,039	-0,6	-0,6	s
103	0,136	0,016	-0,5	-0,2	s
112	0,134	0,02	-0,6	-0,4	s
120	0,177	0,008	5,1	1,8	s
121	0,144	0,033	0,2	0,2	s
123	0,0417			-5,4	u
146	0,1527	0,028	0,8	0,6	s
156	0,15	0,013	1,1	0,5	s
162	0,153	0,046	0,5	0,6	s
165	0,118			-1,2	s
166	0,121			-1,1	s
169	0,0783	0,033	-3,6	-3,4	u
176	0,114			-1,5	s
179	0,144	0,043	0,2	0,2	s

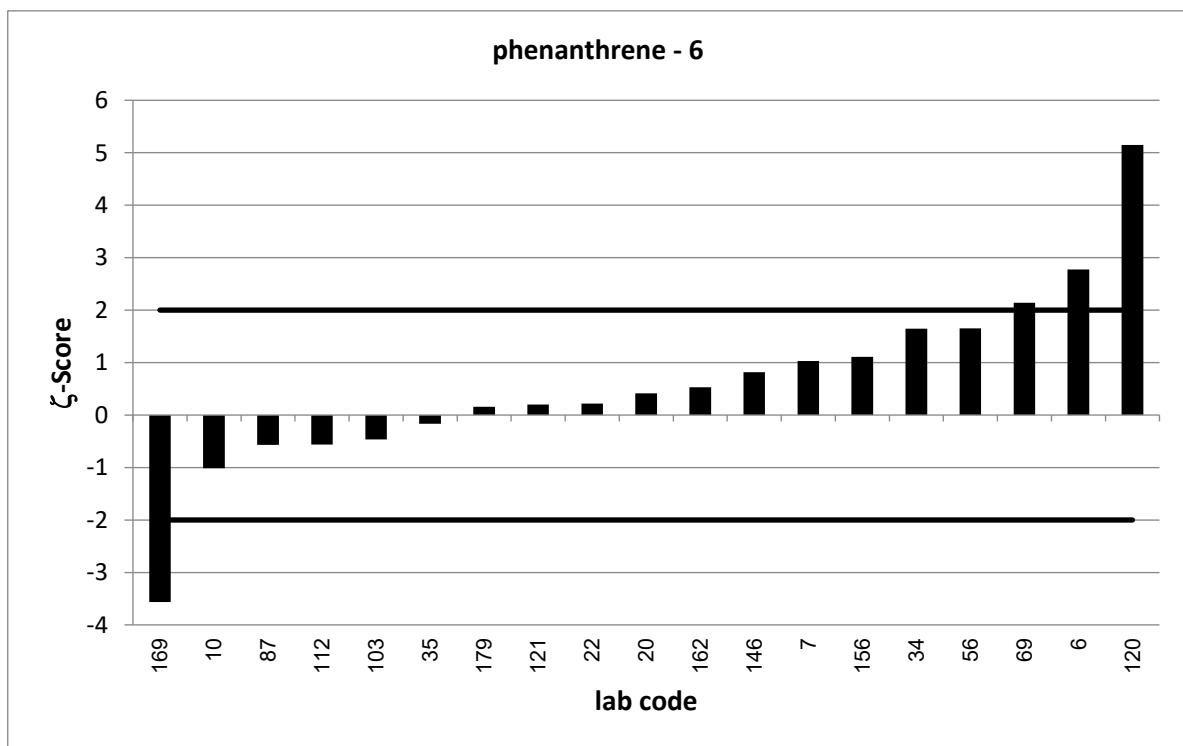
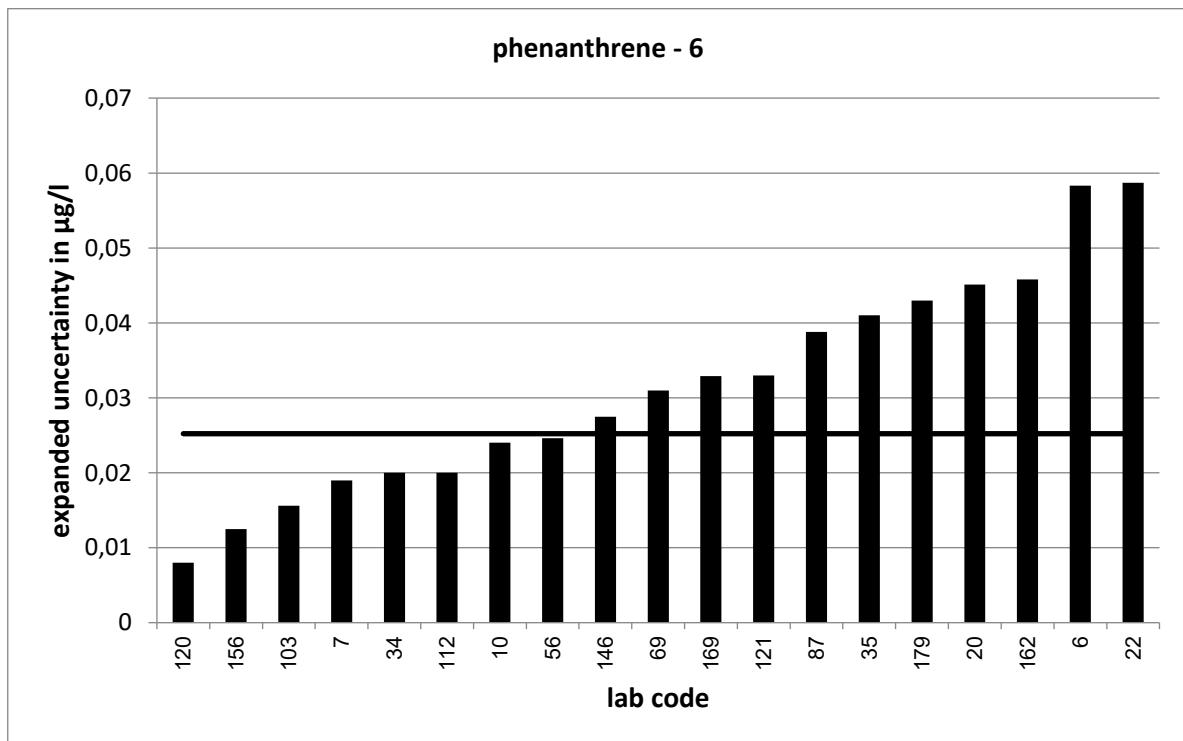
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

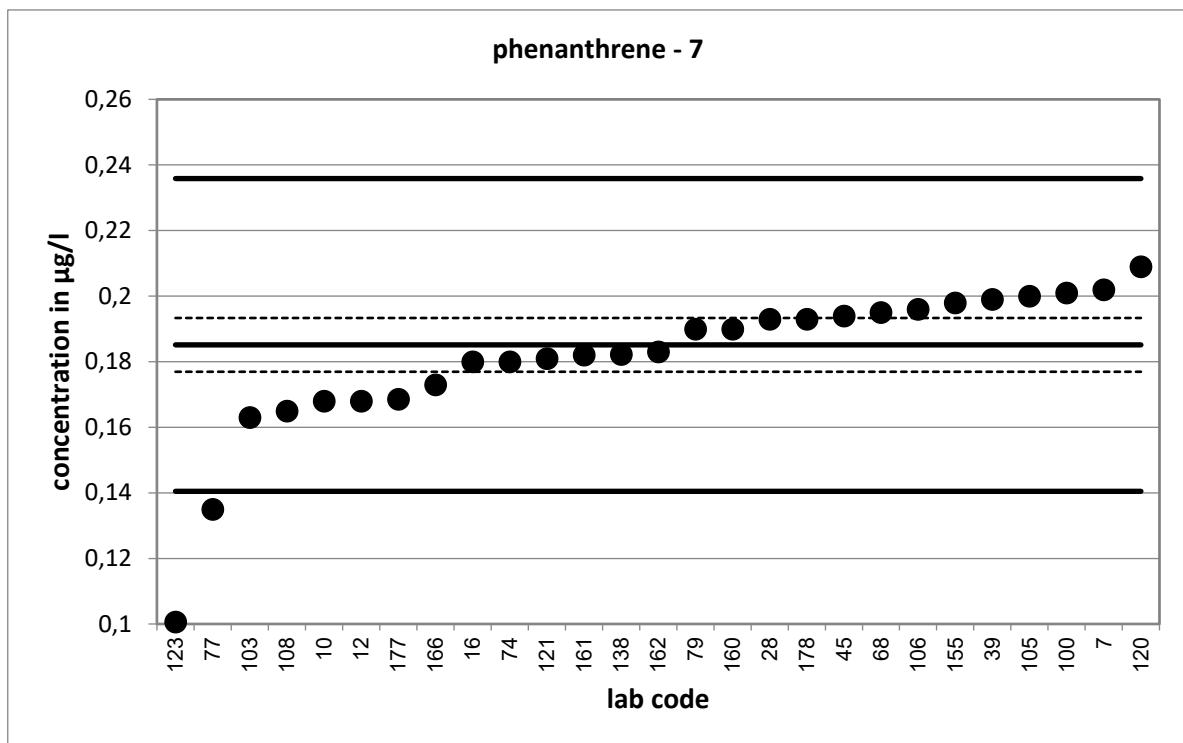




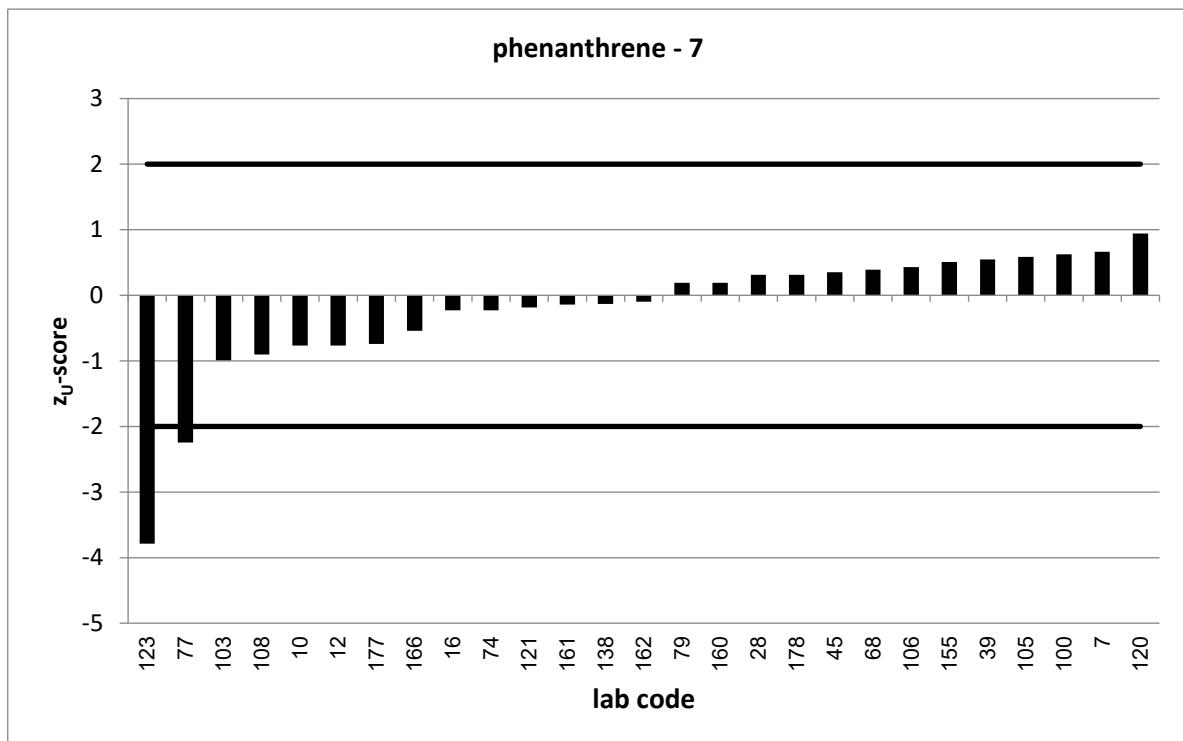
PT 3/24		phenanthrene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,1851 \pm 0,0082$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2359			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1405			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,202	0,021	1,5	0,7	s
10	0,168	0,031	-1,1	-0,8	s
12	0,168	0,05	-0,7	-0,8	s
16	0,18	0,03	-0,3	-0,2	s
28	0,193	0,03	0,5	0,3	s
39	0,199	0,032	0,8	0,5	s
45	0,194			0,3	s
68	0,195			0,4	s
74	0,18	0,049	-0,2	-0,2	s
77	0,135	0,047	-2,1	-2,2	q
79	0,19			0,2	s
100	0,201	0,03	1,0	0,6	s
103	0,163	0,019	-2,2	-1,0	s
105	0,2			0,6	s
106	0,196			0,4	s
108	0,165	0,046	-0,9	-0,9	s
120	0,209	0,018	2,4	0,9	s
121	0,181	0,042	-0,2	-0,2	s
123	0,1006			-3,8	u
138	0,1822			-0,1	s
155	0,198			0,5	s
160	0,19			0,2	s
161	0,182			-0,1	s
162	0,183	0,055	-0,1	-0,1	s
166	0,173			-0,5	s
177	0,1686			-0,7	s
178	0,193			0,3	s

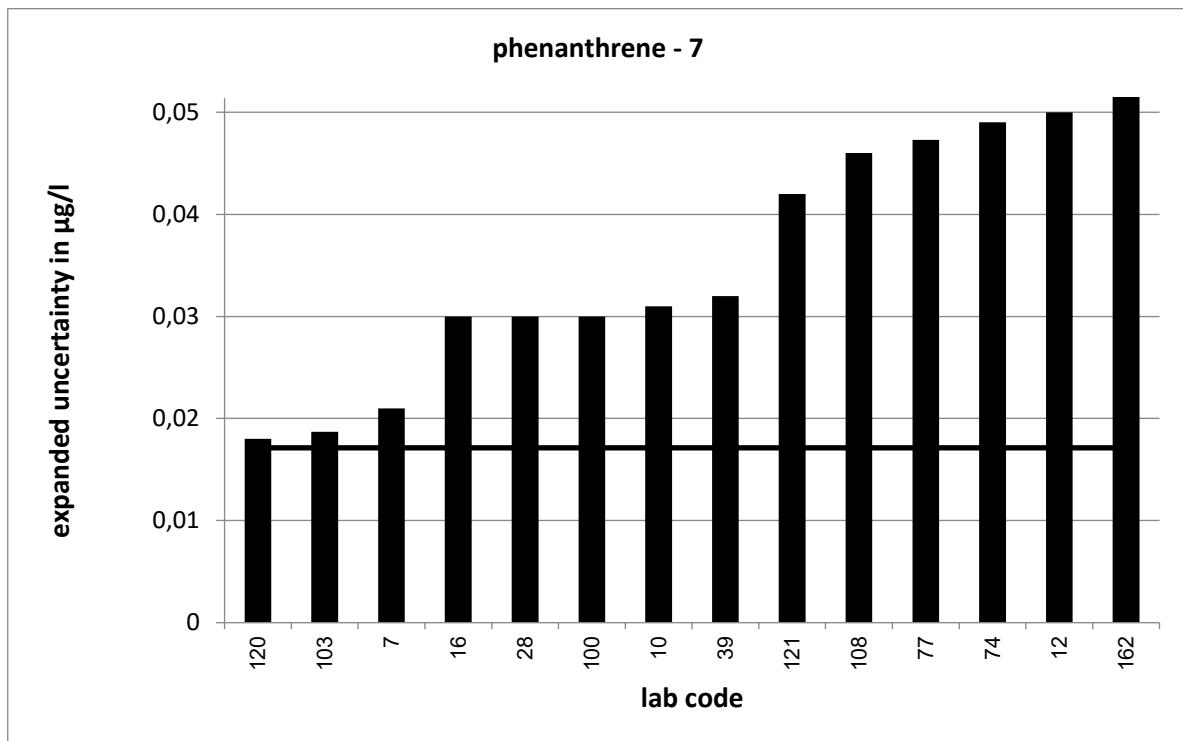
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

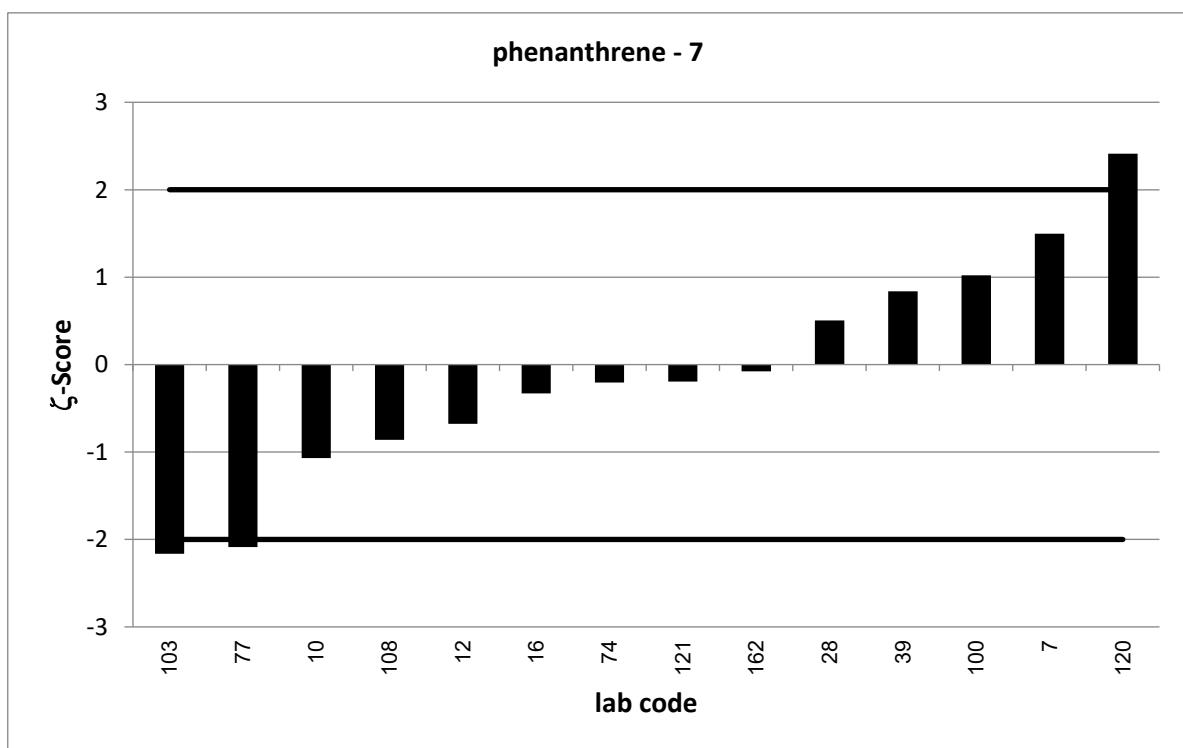


Strongly deviating values are not shown in the diagram.





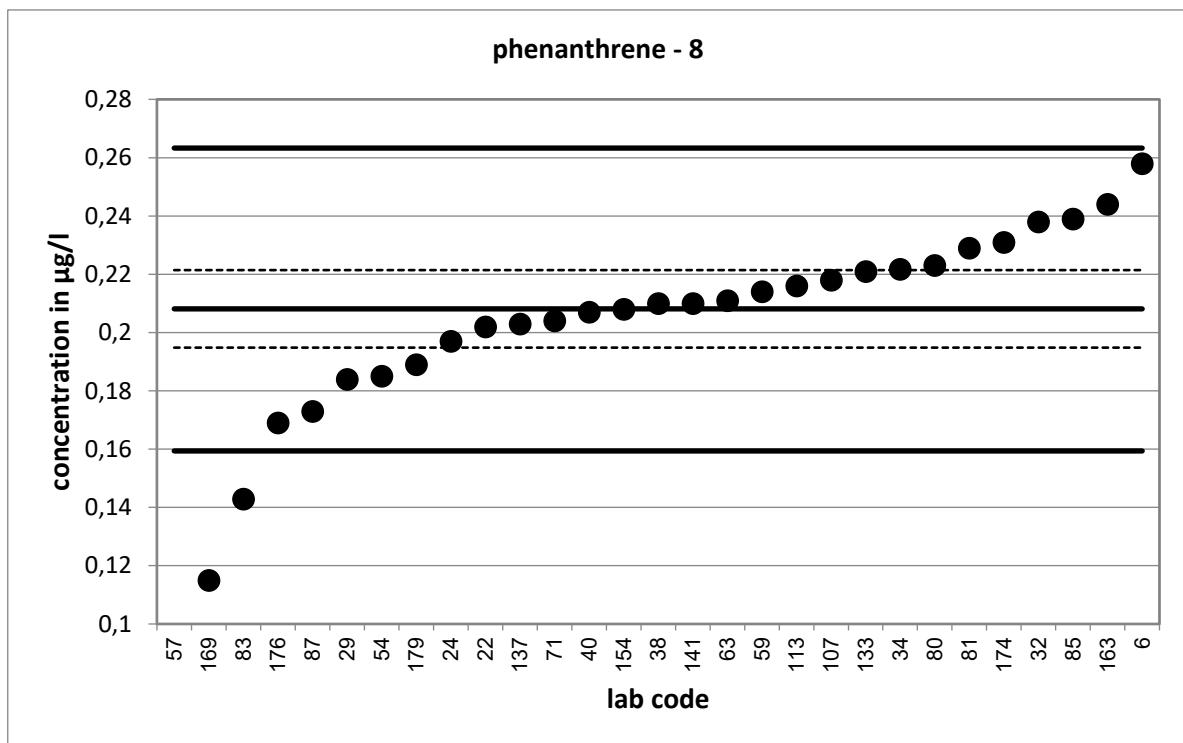
Strongly deviating values are not correctly shown in the diagram.



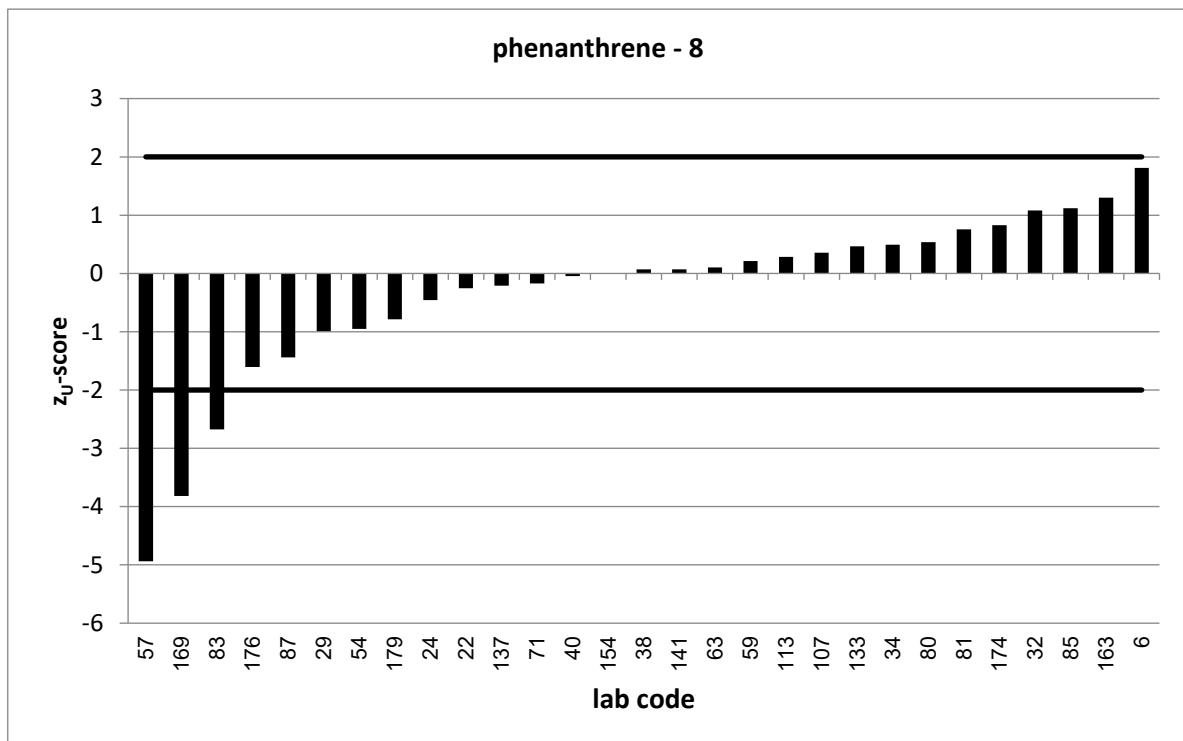
PT 3/24		phenanthrene - 8			
assigned value [ $\mu\text{g/l}$ ]*		$0,2081 \pm 0,0133$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2633			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1594			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,258	0,068	1,5	1,8	s
22	0,202	0,081	-0,1	-0,3	s
24	0,197			-0,5	s
29	0,184	0,024	-1,8	-1,0	s
32	0,238			1,1	s
34	0,2217	0,02	1,1	0,5	s
38	0,21			0,1	s
40	0,207			0,0	s
54	0,185	0,055	-0,8	-0,9	s
57	0,0878			-4,9	u
59	0,214	0,043	0,3	0,2	s
63	0,211	0,072	0,1	0,1	s
71	0,204	0,031	-0,2	-0,2	s
80	0,223	0,02	1,2	0,5	s
81	0,229			0,8	s
83	0,1429			-2,7	q
85	0,239			1,1	s
87	0,173	0,052	-1,3	-1,4	s
107	0,218	0,057	0,3	0,4	s
113	0,216			0,3	s
133	0,221			0,5	s
137	0,203	0,03	-0,3	-0,2	s
141	0,21	0,094	0,0	0,1	s
154	0,208	0,104	0,0	0,0	s
163	0,244			1,3	s
169	0,115	0,039	-4,5	-3,8	u
174	0,231			0,8	s
176	0,169			-1,6	s
179	0,189	0,057	-0,7	-0,8	s

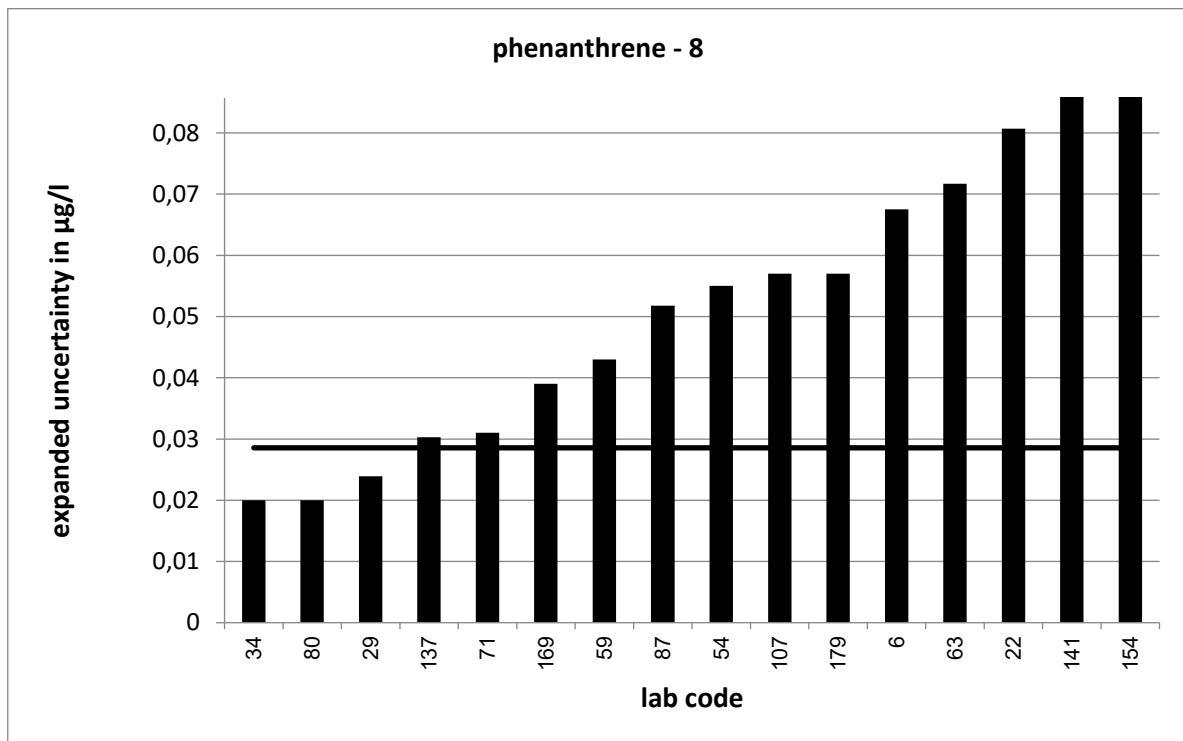
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

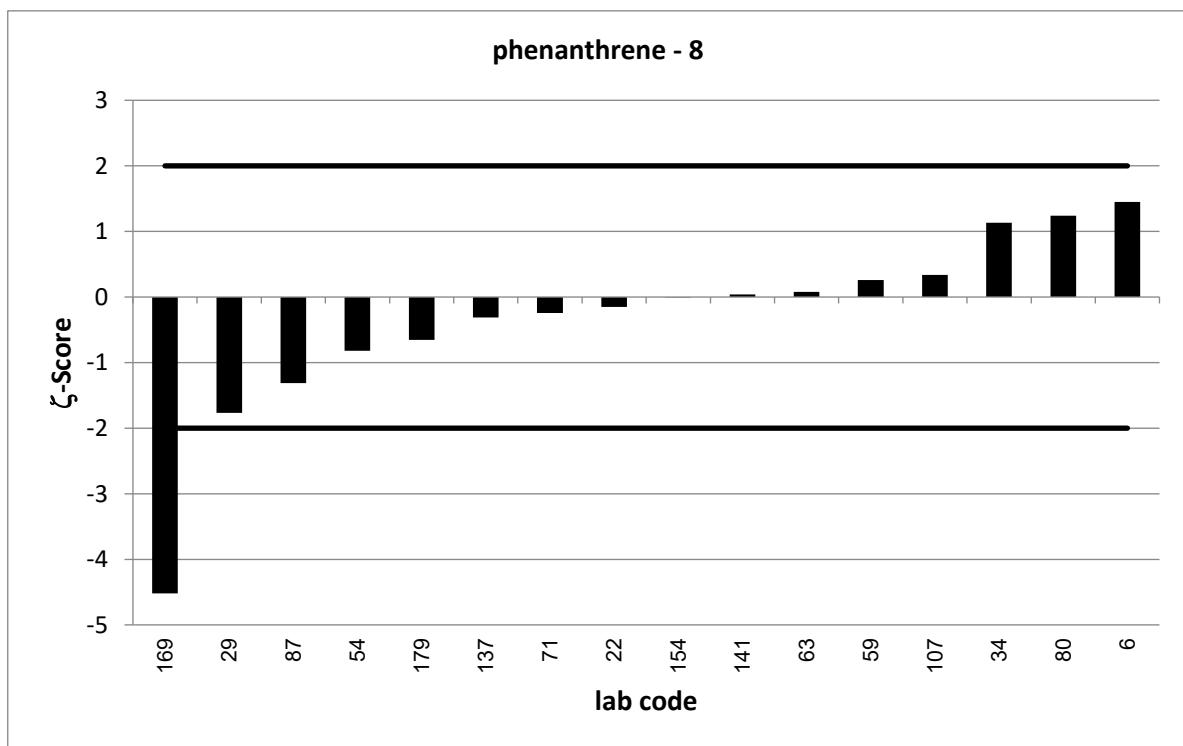


Strongly deviating values are not shown in the diagram.





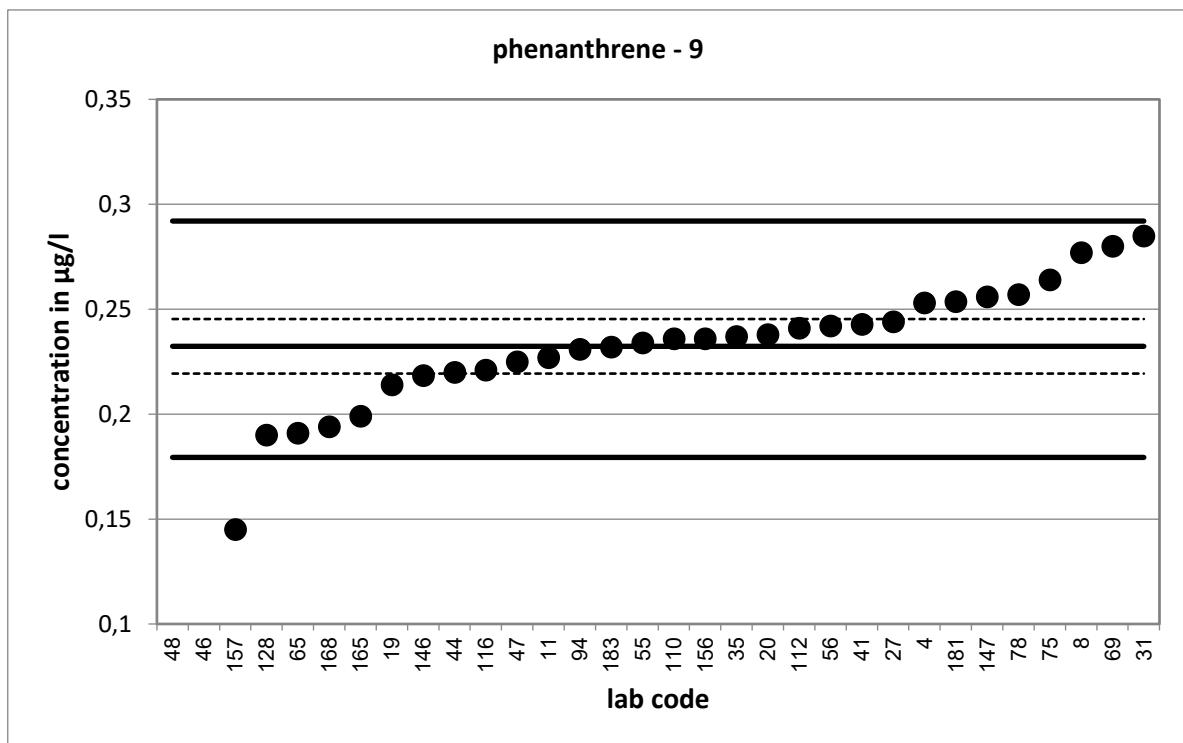
Strongly deviating values are not correctly shown in the diagram.



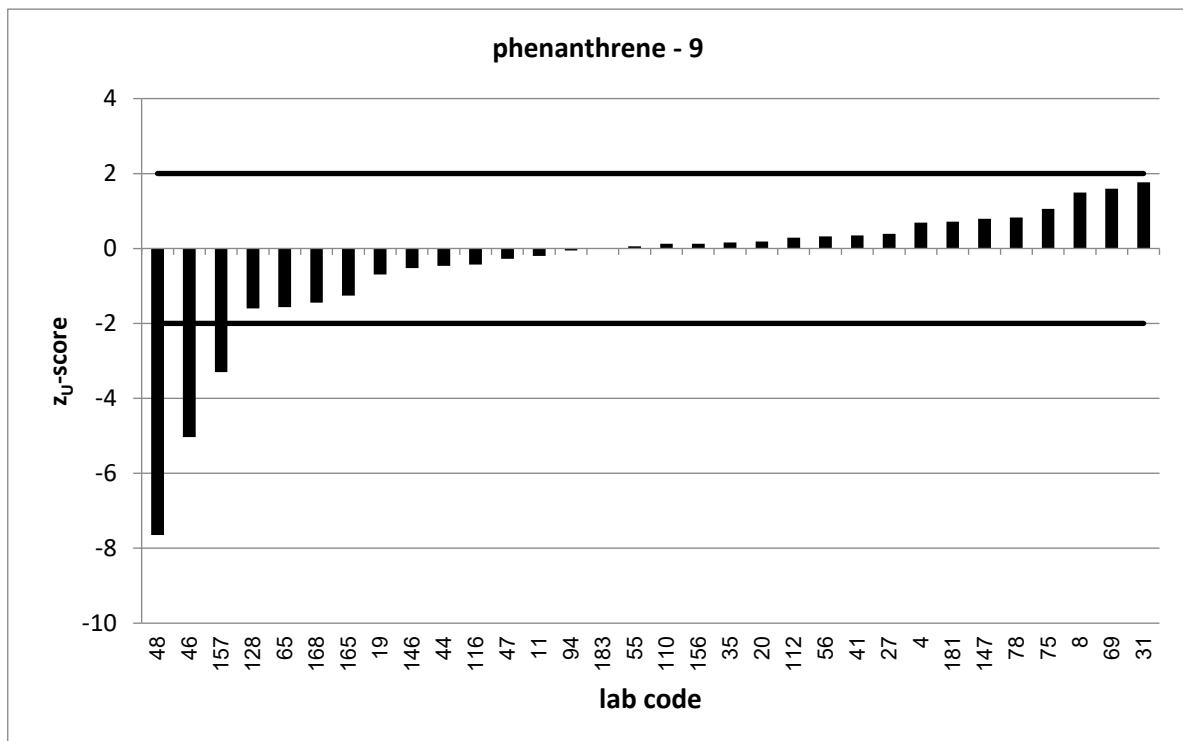
PT 3/24		phenanthrene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,2323 \pm 0,013$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,292			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1794			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,253			0,7	s
8	0,277	0,066	1,3	1,5	s
11	0,227	0,05	-0,2	-0,2	s
19	0,214	0,079	-0,5	-0,7	s
20	0,2379	0,071	0,2	0,2	s
27	0,244			0,4	s
31	0,285	0,1	1,0	1,8	s
35	0,237	0,071	0,1	0,2	s
41	0,2428			0,4	s
44	0,22	0,036	-0,6	-0,5	s
46	0,099			-5,0	u
47	0,225			-0,3	s
48	0,0299	0,006	-28,6	-7,6	u
55	0,234	0,105	0,0	0,1	s
56	0,242	0,037	0,5	0,3	s
65	0,191			-1,6	s
69	0,28	0,049	1,9	1,6	s
75	0,264	0,053	1,2	1,1	s
78	0,257			0,8	s
94	0,231			-0,1	s
110	0,236			0,1	s
112	0,241	0,036	0,5	0,3	s
116	0,221	0,04	-0,5	-0,4	s
128	0,19			-1,6	s
146	0,2184	0,039	-0,7	-0,5	s
147	0,256	0,008	3,1	0,8	s
156	0,236	0,02	0,3	0,1	s
157	0,145			-3,3	u
165	0,199			-1,3	s
168	0,194	0,04	-1,8	-1,4	s
181	0,2537	0,045	0,9	0,7	s
183	0,232	0,056	0,0	0,0	s

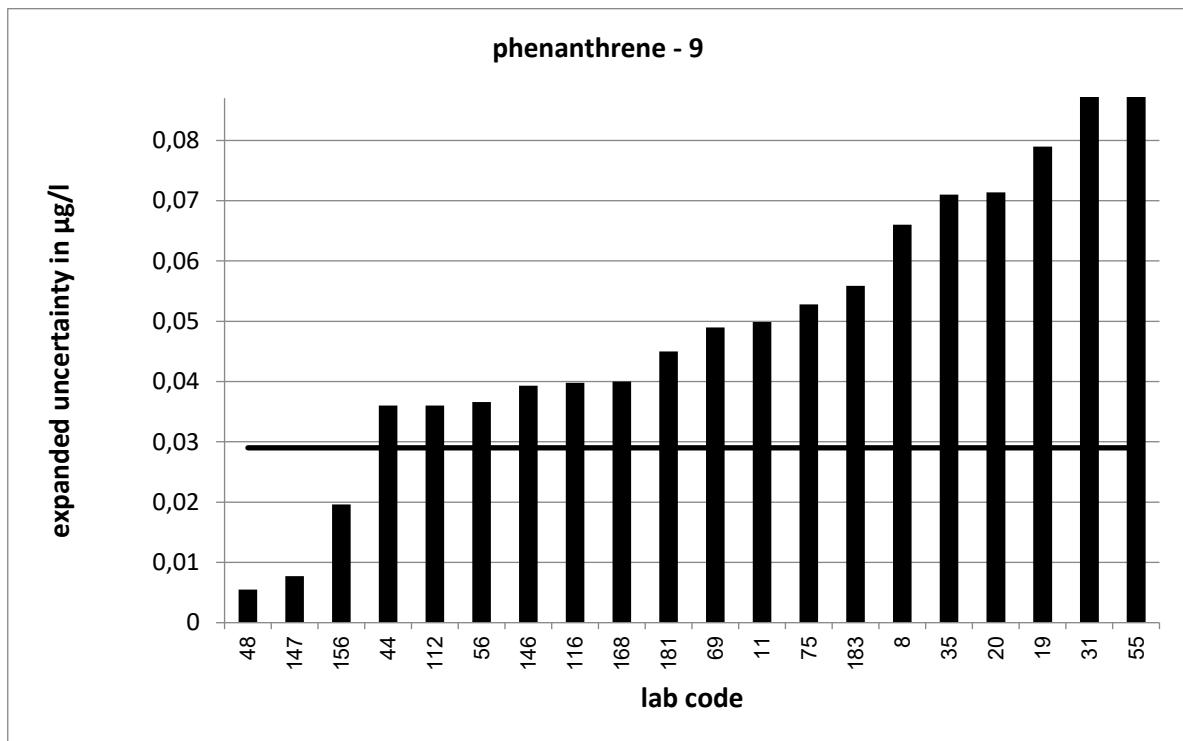
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

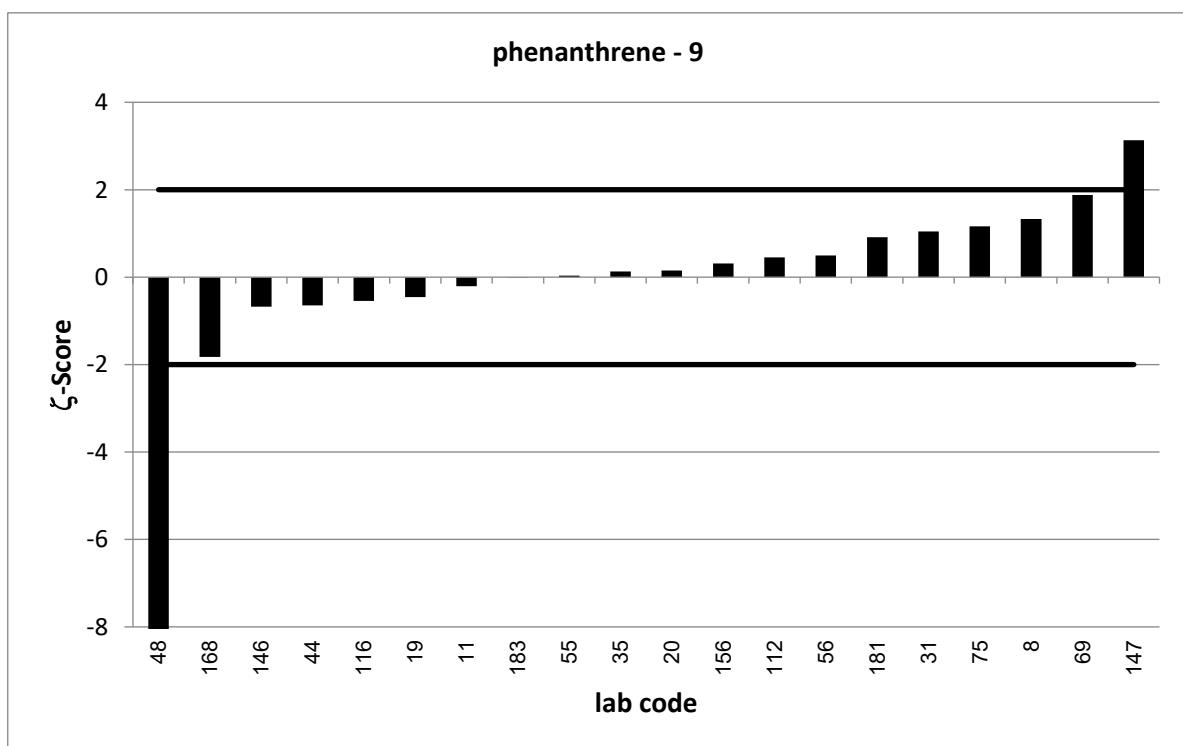


Strongly deviating values are not shown in the diagram.





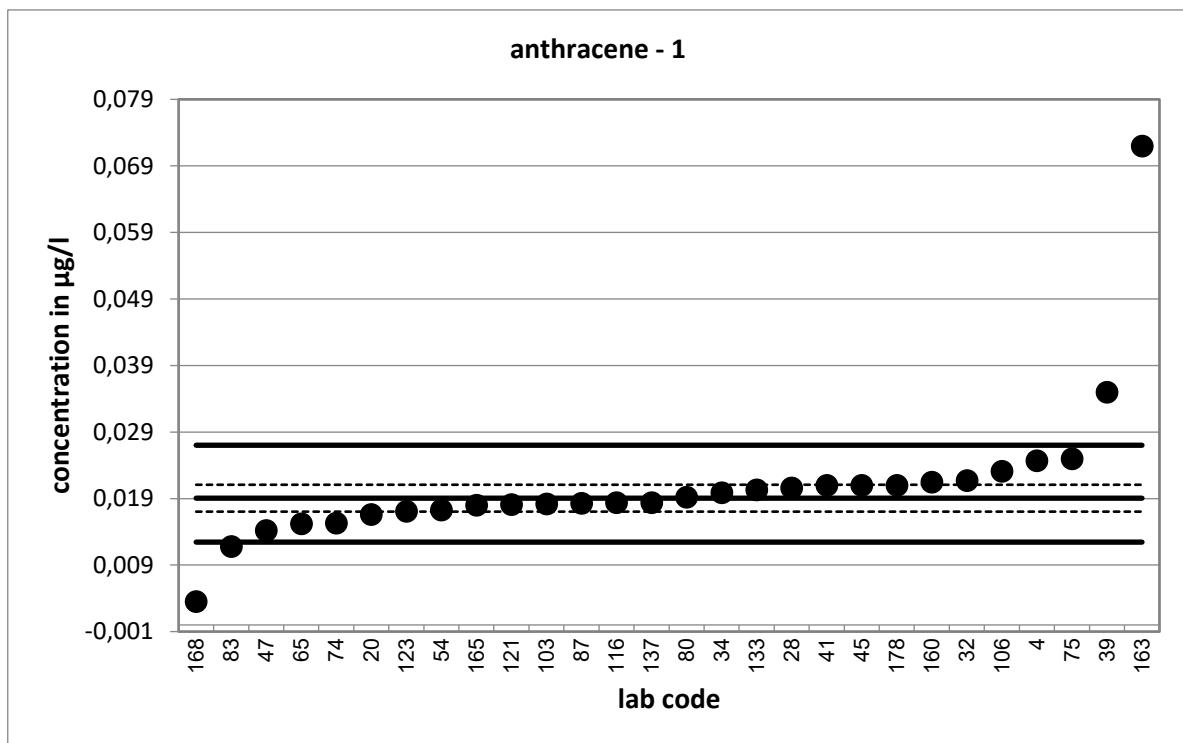
Strongly deviating values are not correctly shown in the diagram.



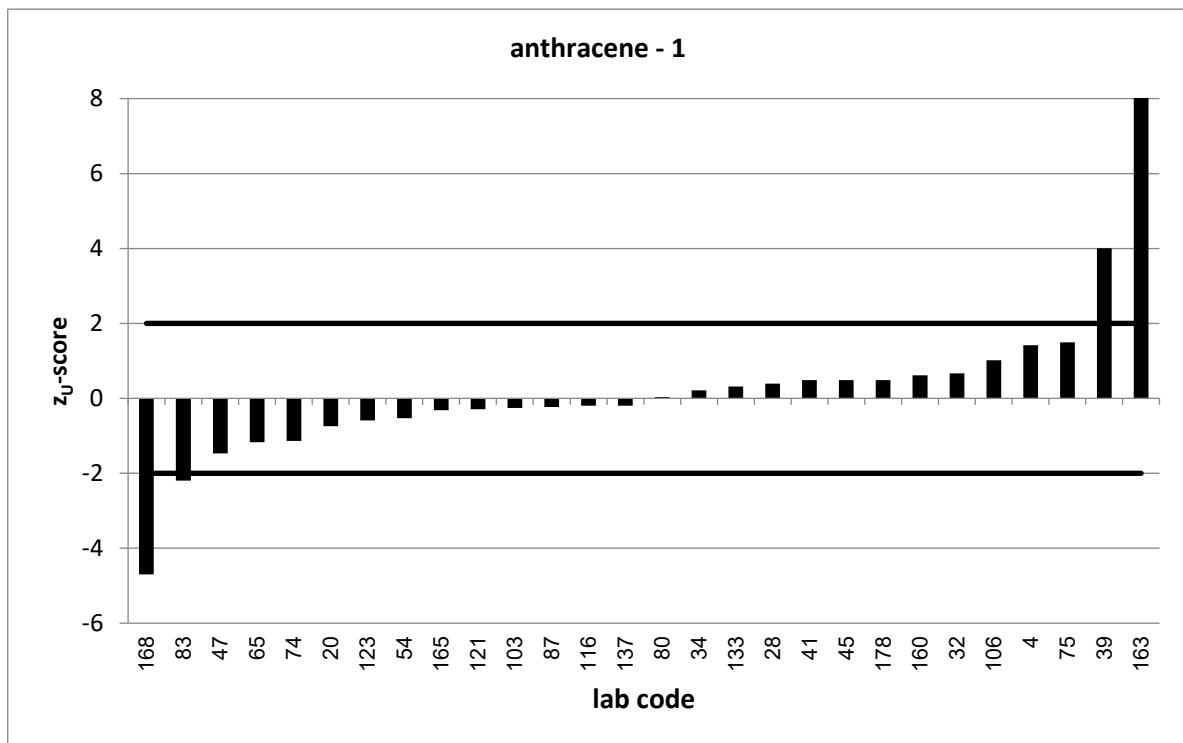
PT 3/24		anthracene - 1			
assigned value [ $\mu\text{g/l}$ ]*		$0,01905 \pm 0,00202$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,02701			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,01245			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0247			1,4	s
20	0,0166	0,005	-0,9	-0,7	s
28	0,0206			0,4	s
32	0,0217			0,7	s
34	0,0199	0,003	0,5	0,2	s
39	0,035	0,006	5,0	4,0	u
41	0,021			0,5	s
45	0,021			0,5	s
47	0,0142			-1,5	s
54	0,0173	0,005	-0,6	-0,5	s
65	0,0152			-1,2	s
74	0,0153	0,004	-1,7	-1,1	s
75	0,025	0,005	2,2	1,5	s
80	0,0192	0,005	0,1	0,0	s
83	0,0118			-2,2	q
87	0,0183	0,006	-0,3	-0,2	s
103	0,0182	0,004	-0,4	-0,3	s
106	0,0231			1,0	s
116	0,0184	0,003	-0,4	-0,2	s
121	0,0181	0,003	-0,5	-0,3	s
123	0,0171			-0,6	s
133	0,0203			0,3	s
137	0,0184	0,003	-0,4	-0,2	s
160	0,0215			0,6	s
163	0,072			13,3	u
165	0,018			-0,3	s
168	0,00354	0,002	-12,3	-4,7	u
178	0,021			0,5	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

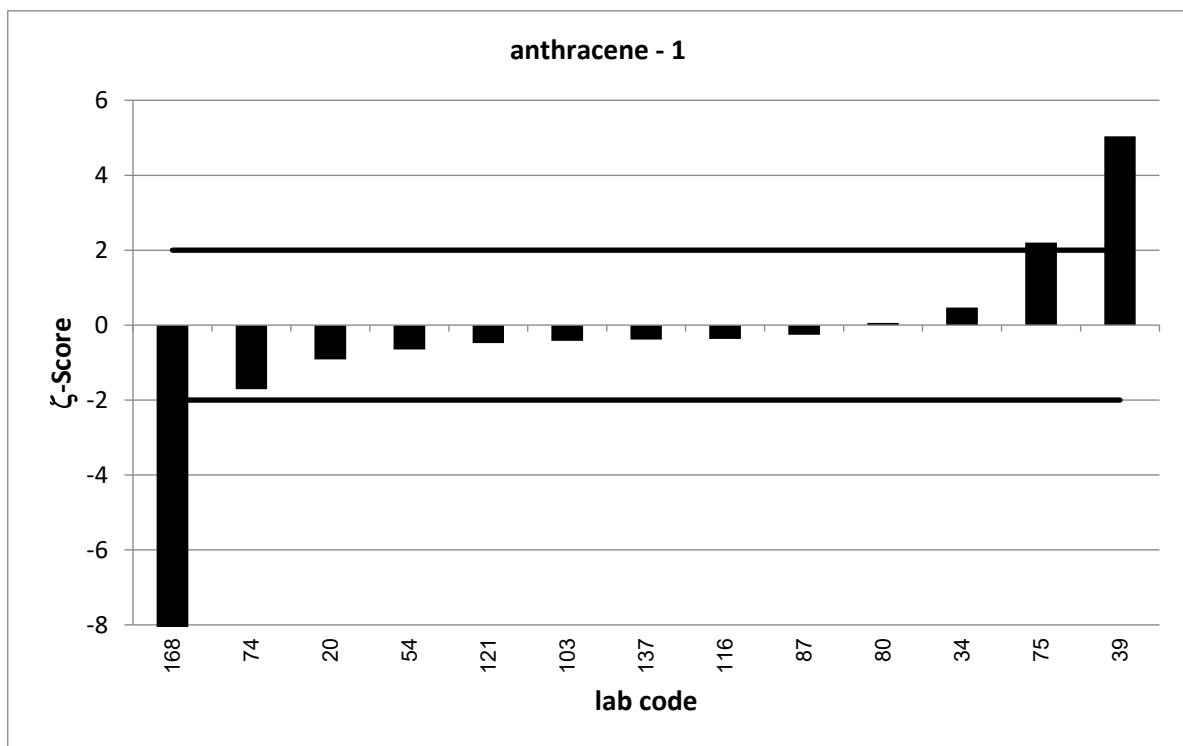
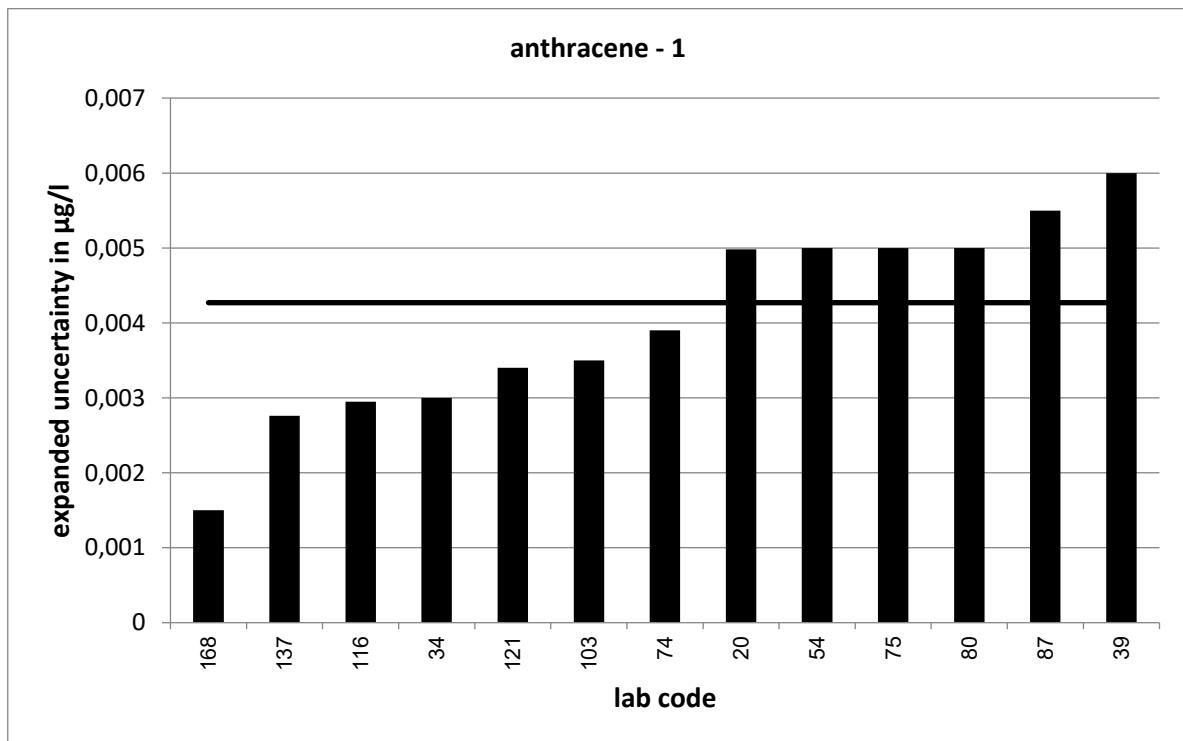
\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.



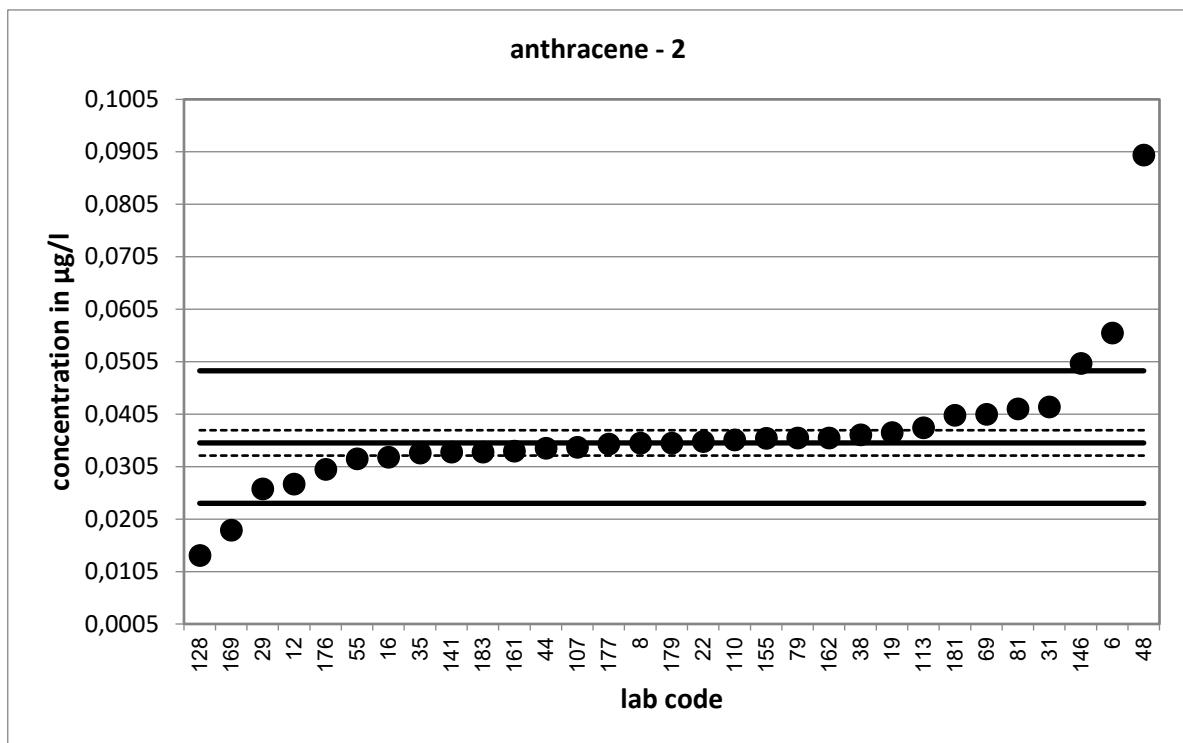
Strongly deviating values are not correctly shown in the diagram.



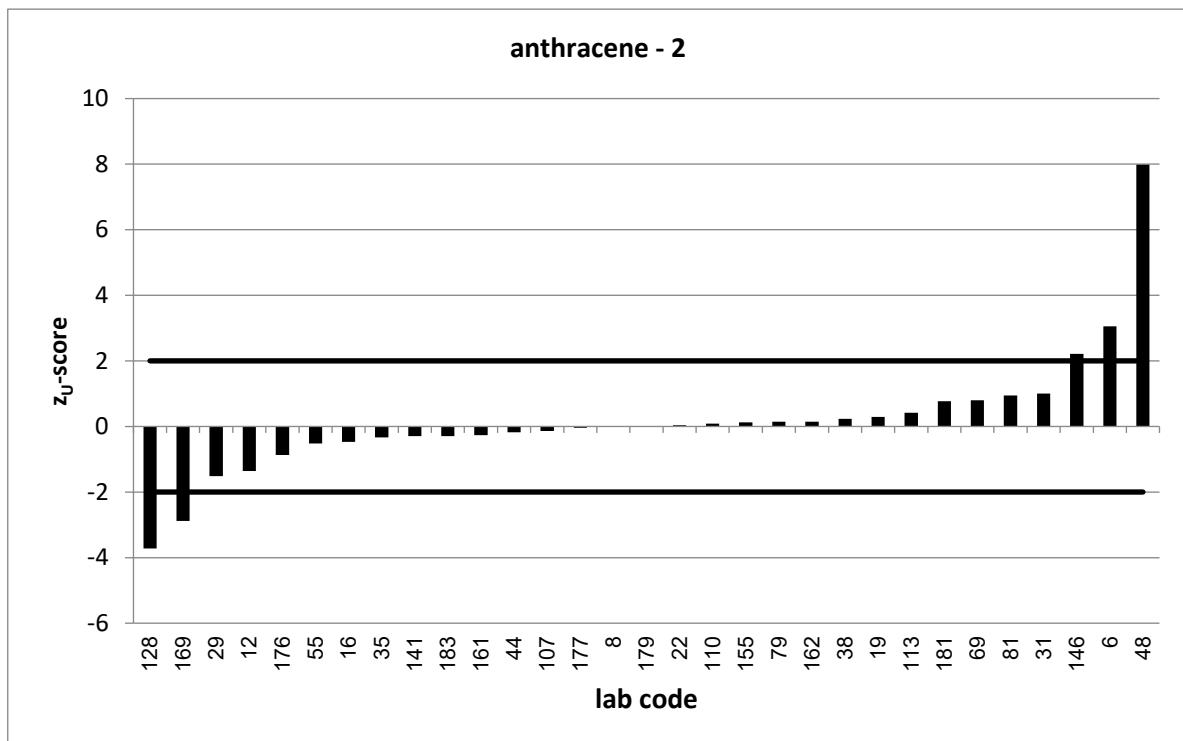
PT 3/24		anthracene - 2			
assigned value [ $\mu\text{g/l}$ ]*		$0,03502 \pm 0,00242$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,04876$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,0235$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,056	0,01	4,0	3,1	u
8	0,035	0,008	0,0	0,0	s
12	0,0272	0,008	-1,8	-1,4	s
16	0,0323	0,006	-0,9	-0,5	s
19	0,037	0,004	0,9	0,3	s
22	0,0353	0,014	0,0	0,0	s
29	0,0263	0,005	-3,0	-1,5	s
31	0,0419	0,015	0,9	1,0	s
35	0,0331	0,01	-0,4	-0,3	s
38	0,0366			0,2	s
44	0,034	0,008	-0,2	-0,2	s
48	0,0899	0,007	14,6	8,0	u
55	0,032	0,014	-0,4	-0,5	s
69	0,0405	0,007	1,5	0,8	s
79	0,036			0,1	s
81	0,0415			0,9	s
107	0,0342	0,009	-0,2	-0,1	s
110	0,0356			0,1	s
113	0,0379			0,4	s
128	0,0136			-3,7	u
141	0,0333	0,015	-0,2	-0,3	s
146	0,0502	0,011	2,8	2,2	q
155	0,0359			0,1	s
161	0,0335			-0,3	s
162	0,036	0,011	0,2	0,1	s
169	0,0184	0,005	-6,0	-2,9	q
176	0,03			-0,9	s
177	0,0348			0,0	s
179	0,035	0,01	0,0	0,0	s
181	0,0403	0,004	2,3	0,8	s
183	0,0333	0,008	-0,4	-0,3	s

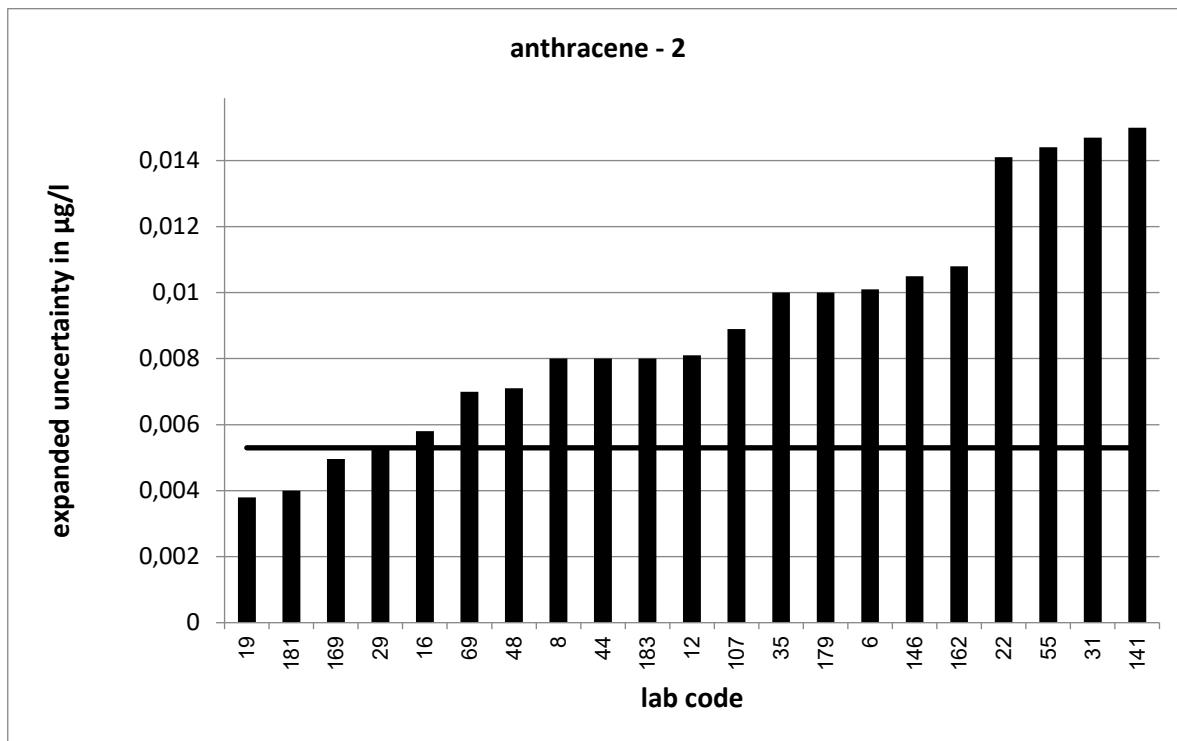
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

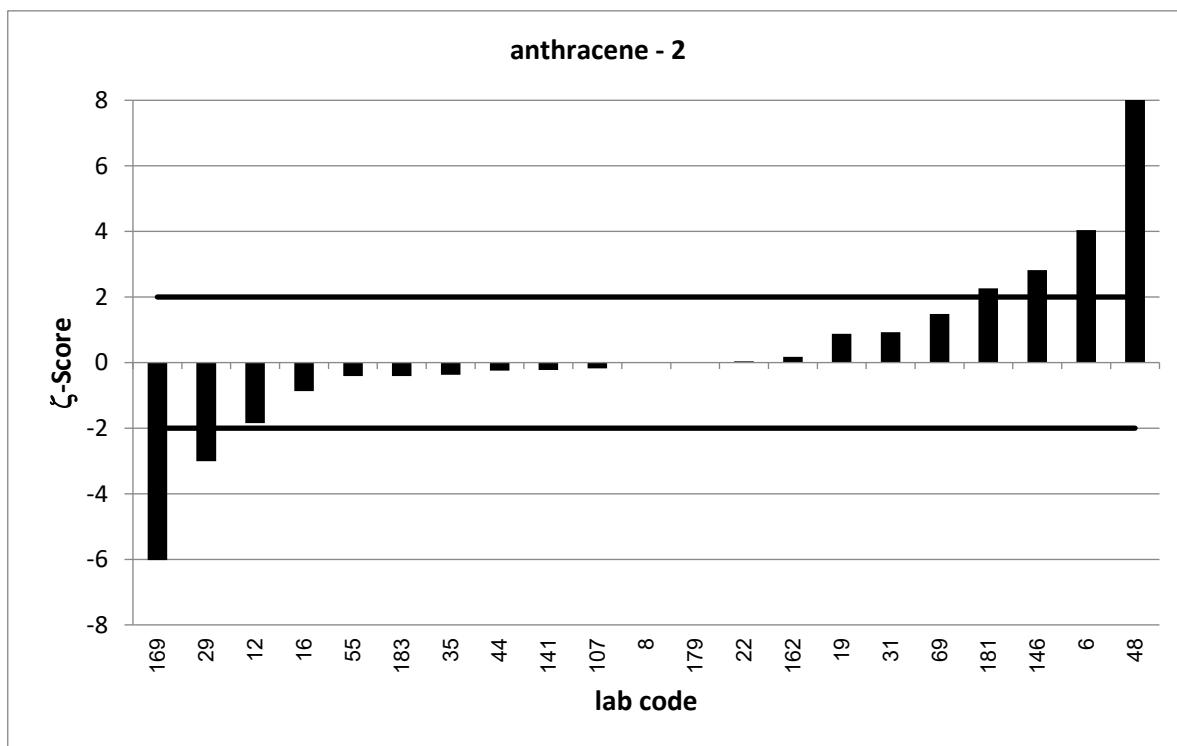


Strongly deviating values are not shown in the diagram.





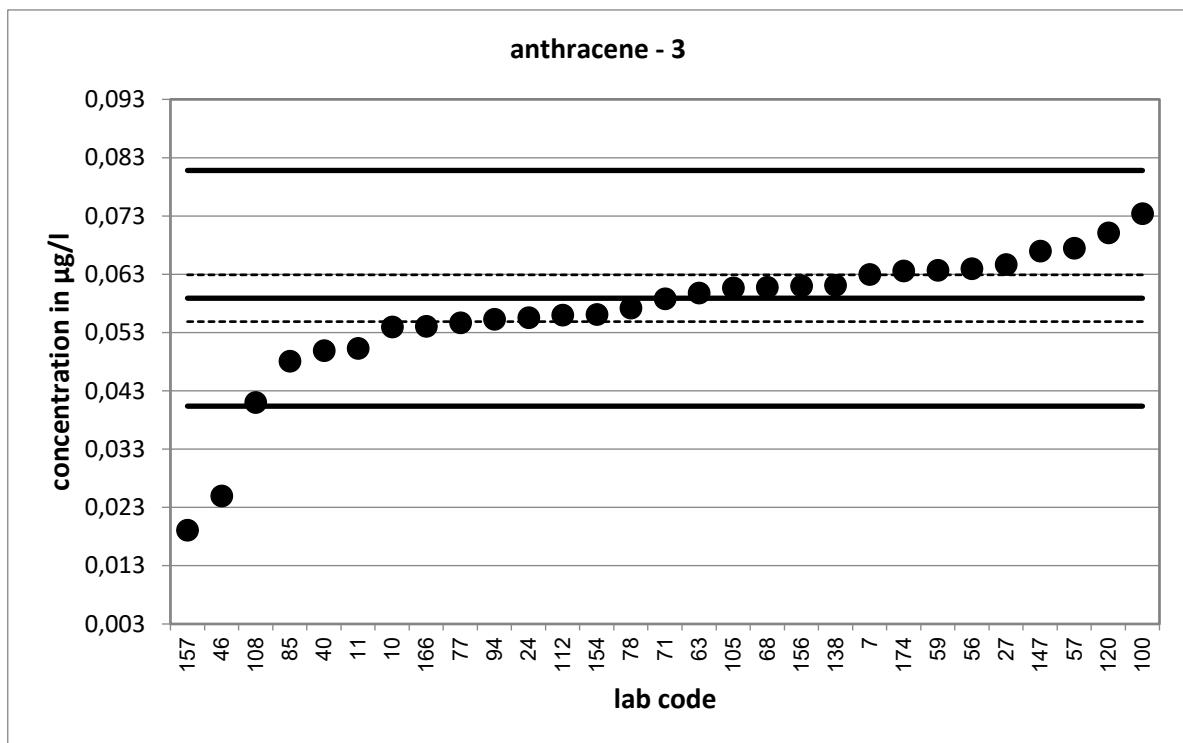
Strongly deviating values are not correctly shown in the diagram.



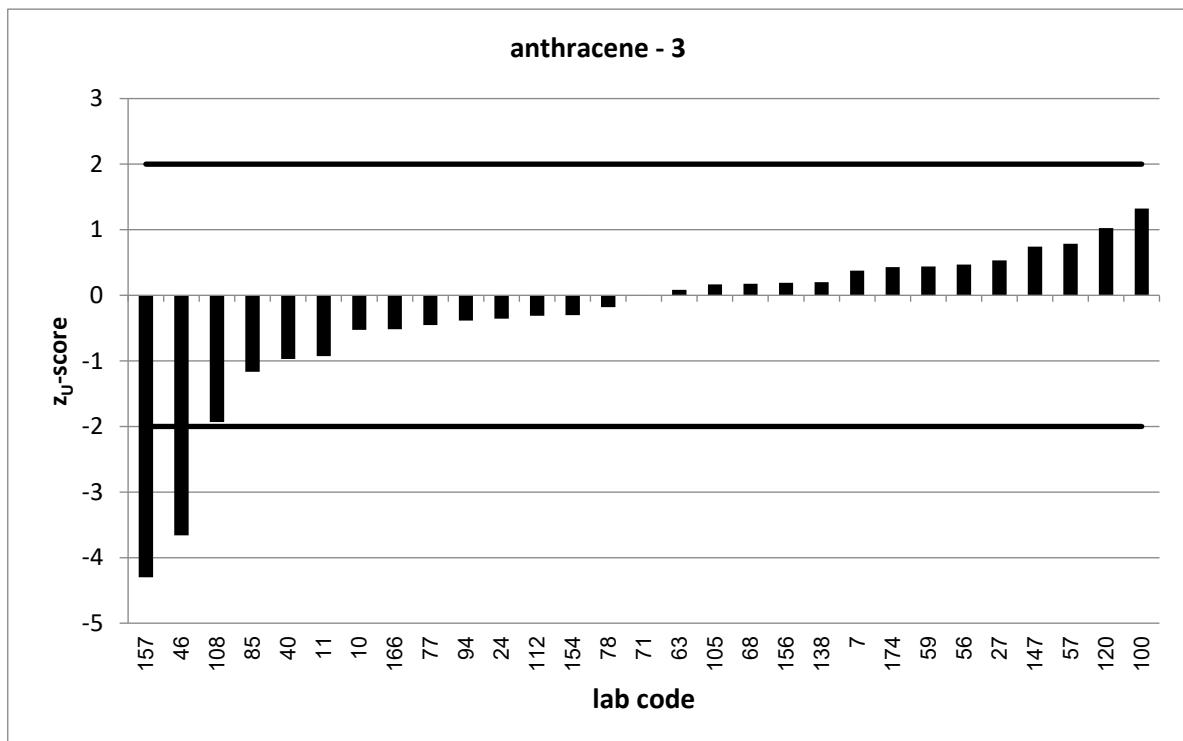
PT 3/24		anthracene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,05889 \pm 0,00401$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,0808			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,04037			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,063	0,007	1,0	0,4	s
10	0,054	0,007	-1,2	-0,5	s
11	0,0503	0,011	-1,5	-0,9	s
24	0,0556			-0,4	s
27	0,0647			0,5	s
40	0,0499			-1,0	s
46	0,025			-3,7	u
56	0,064	0,009	1,1	0,5	s
57	0,0675			0,8	s
59	0,0637	0,012	0,8	0,4	s
63	0,0598	0,02	0,1	0,1	s
68	0,0608			0,2	s
71	0,0588	0,009	0,0	0,0	s
77	0,0547	0,019	-0,4	-0,5	s
78	0,0572			-0,2	s
85	0,0481			-1,2	s
94	0,0553			-0,4	s
100	0,0734	0,011	2,5	1,3	s
105	0,0607			0,2	s
108	0,041	0,007	-4,4	-1,9	s
112	0,056	0,02	-0,3	-0,3	s
120	0,0701	0,003	4,5	1,0	s
138	0,0611			0,2	s
147	0,067	0,002	3,6	0,7	s
154	0,0561	0,028	-0,2	-0,3	s
156	0,061	0,005	0,7	0,2	s
157	0,0191			-4,3	u
166	0,0541			-0,5	s
174	0,0636			0,4	s

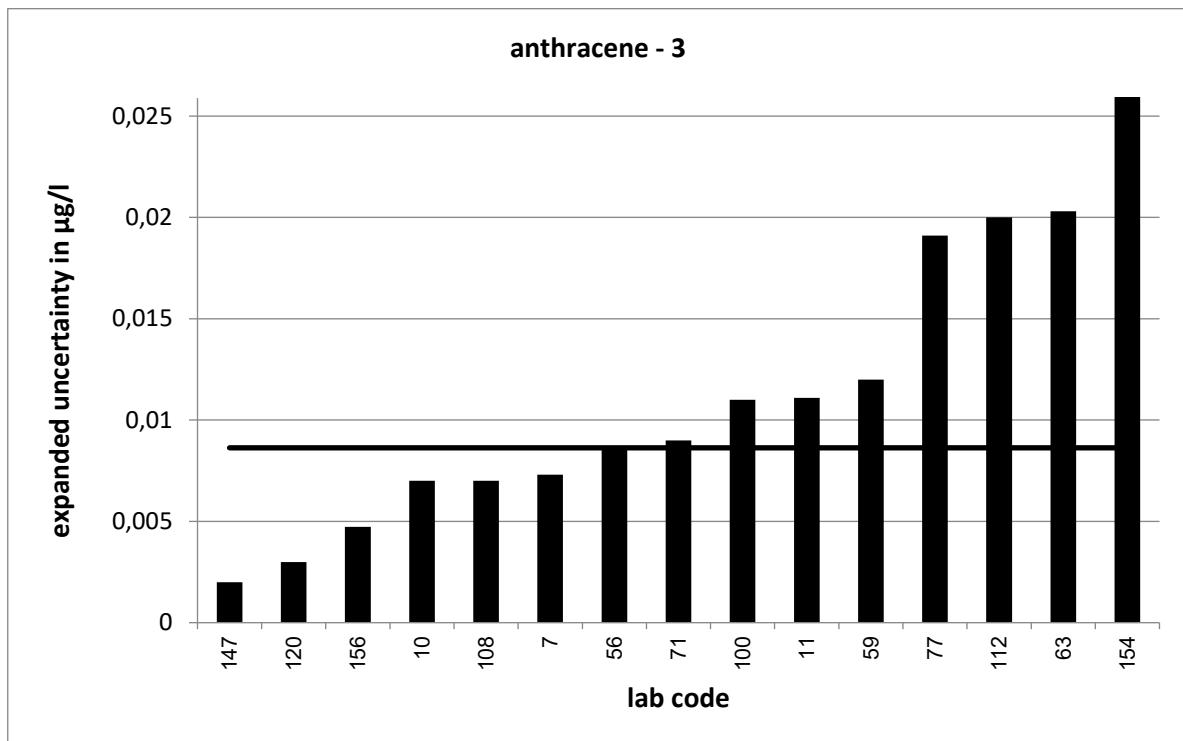
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

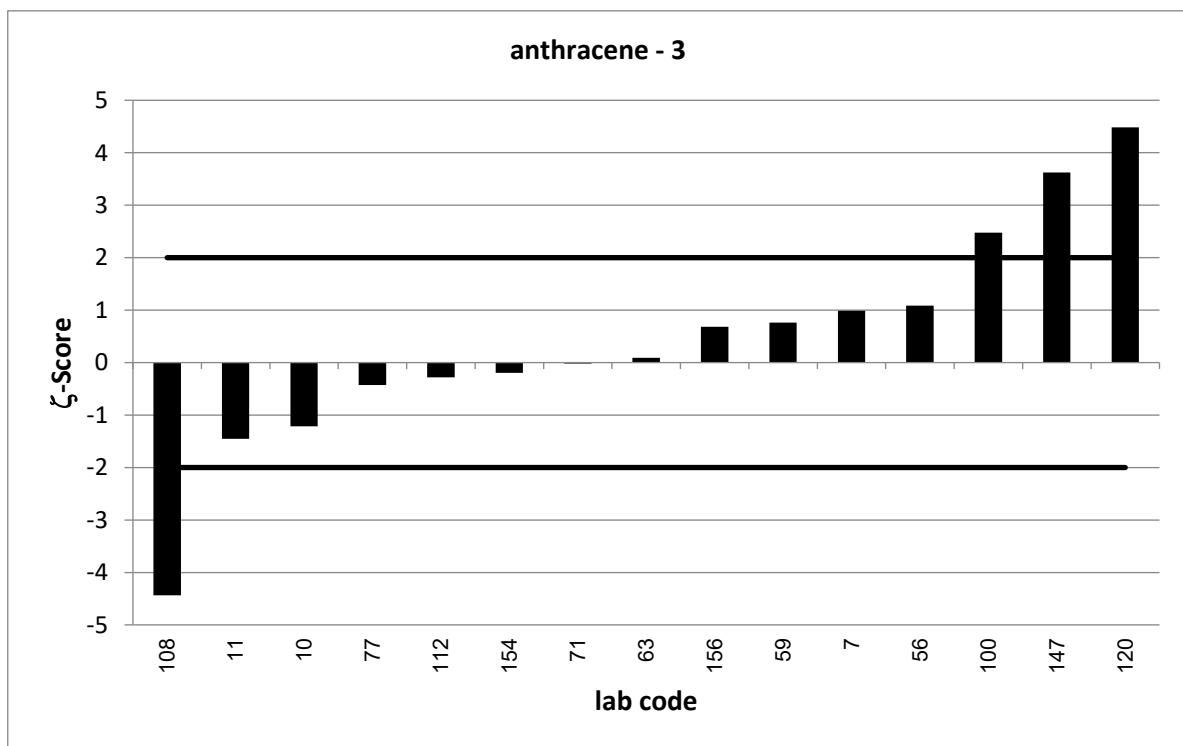


Strongly deviating values are not shown in the diagram.





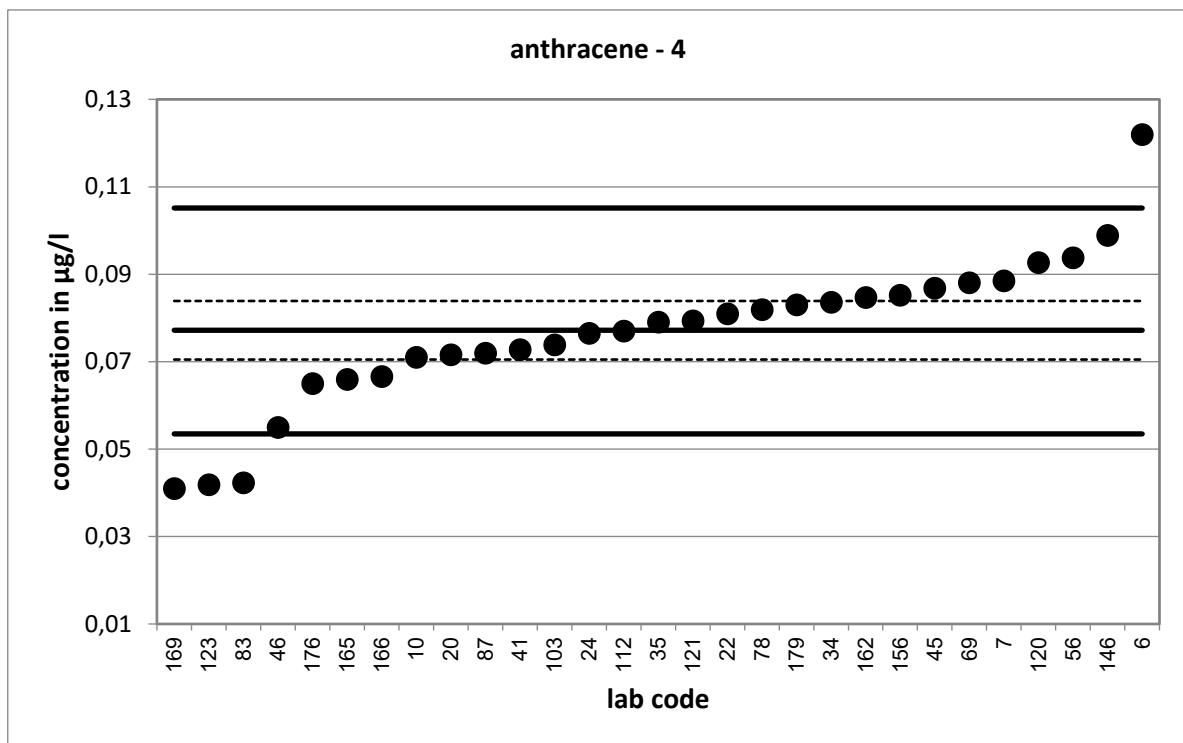
Strongly deviating values are not correctly shown in the diagram.



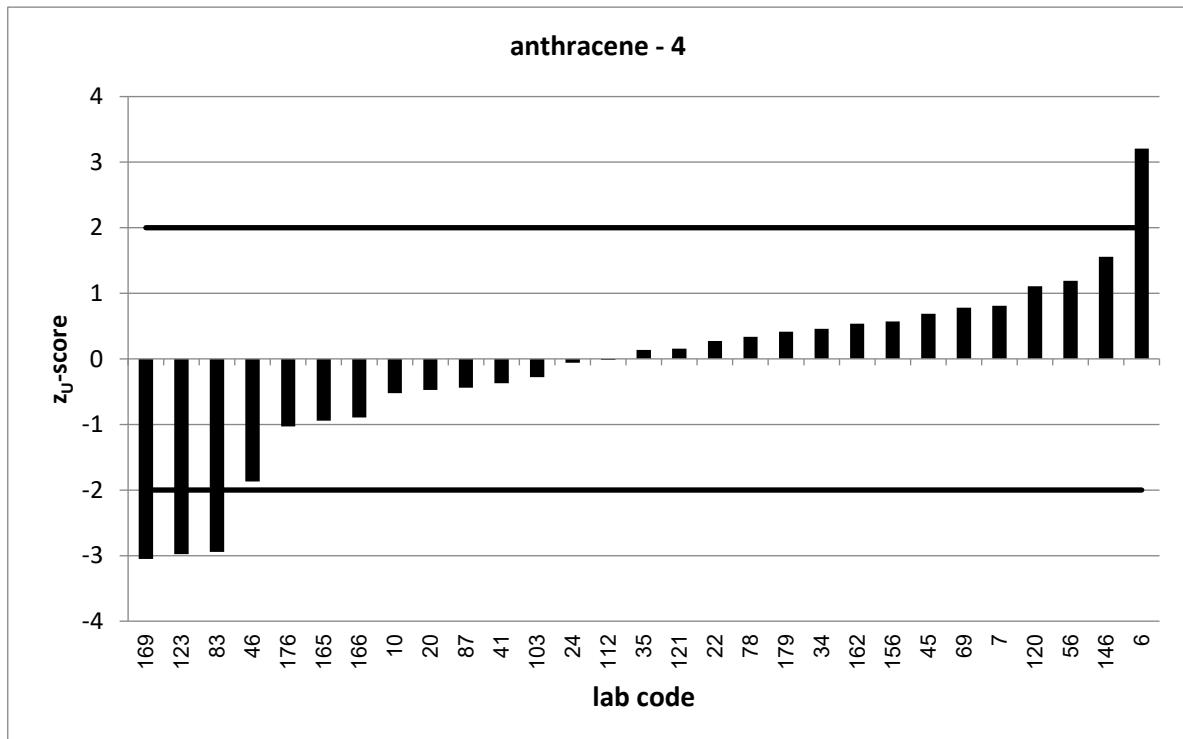
PT 3/24		anthracene - 4			
assigned value [ $\mu\text{g/l}$ ]*		$0,07719 \pm 0,0067$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1051			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,05348			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,122	0,022	3,9	3,2	u
7	0,0885	0,01	1,9	0,8	s
10	0,071	0,009	-1,1	-0,5	s
20	0,0716	0,022	-0,5	-0,5	s
22	0,081	0,032	0,2	0,3	s
24	0,0765			-0,1	s
34	0,0836	0,01	1,1	0,5	s
35	0,0791	0,024	0,2	0,1	s
41	0,0728			-0,4	s
45	0,0868			0,7	s
46	0,055			-1,9	s
56	0,0938	0,013	2,3	1,2	s
69	0,0881	0,015	1,3	0,8	s
78	0,0819			0,3	s
83	0,0423			-2,9	q
87	0,072	0,022	-0,5	-0,4	s
103	0,0739	0,014	-0,4	-0,3	s
112	0,077	0,027	0,0	0,0	s
120	0,0927	0,008	3,0	1,1	s
121	0,0794	0,015	0,3	0,2	s
123	0,0419			-3,0	u
146	0,09895	0,021	2,0	1,6	s
156	0,0852	0,007	1,7	0,6	s
162	0,0847	0,025	0,6	0,5	s
165	0,066			-0,9	s
166	0,0666			-0,9	s
169	0,041	0,011	-5,6	-3,1	u
176	0,065			-1,0	s
179	0,083	0,025	0,4	0,4	s

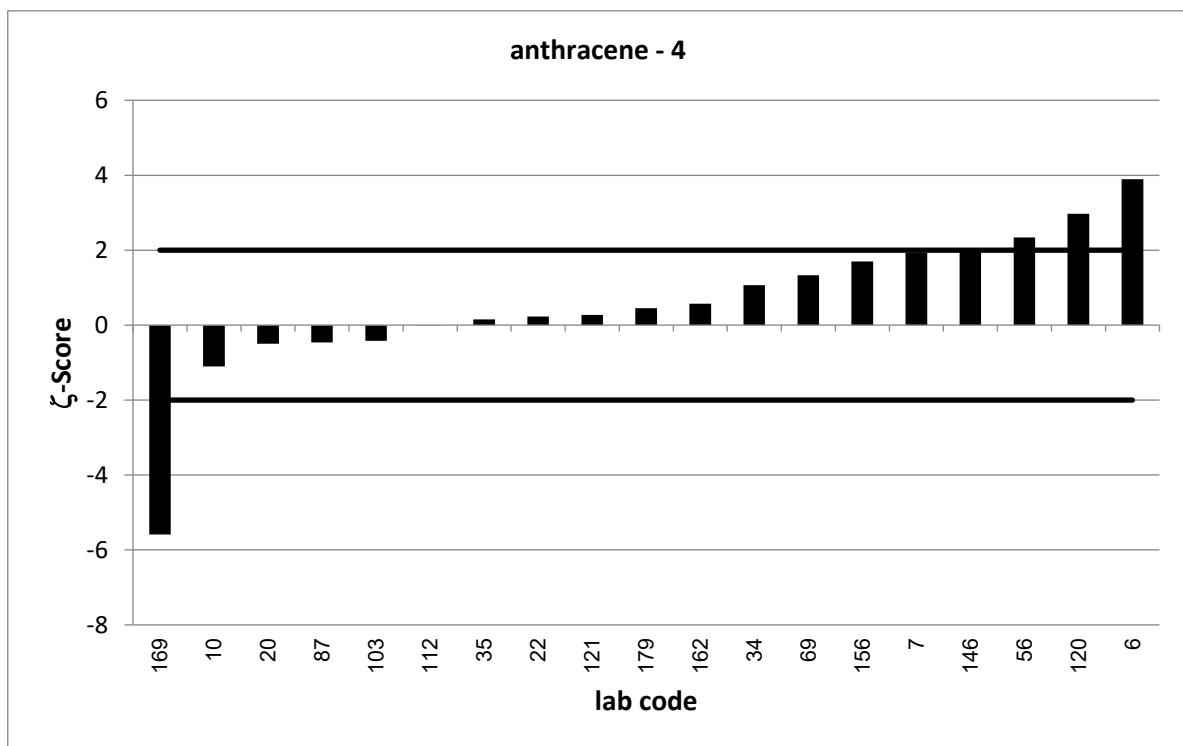
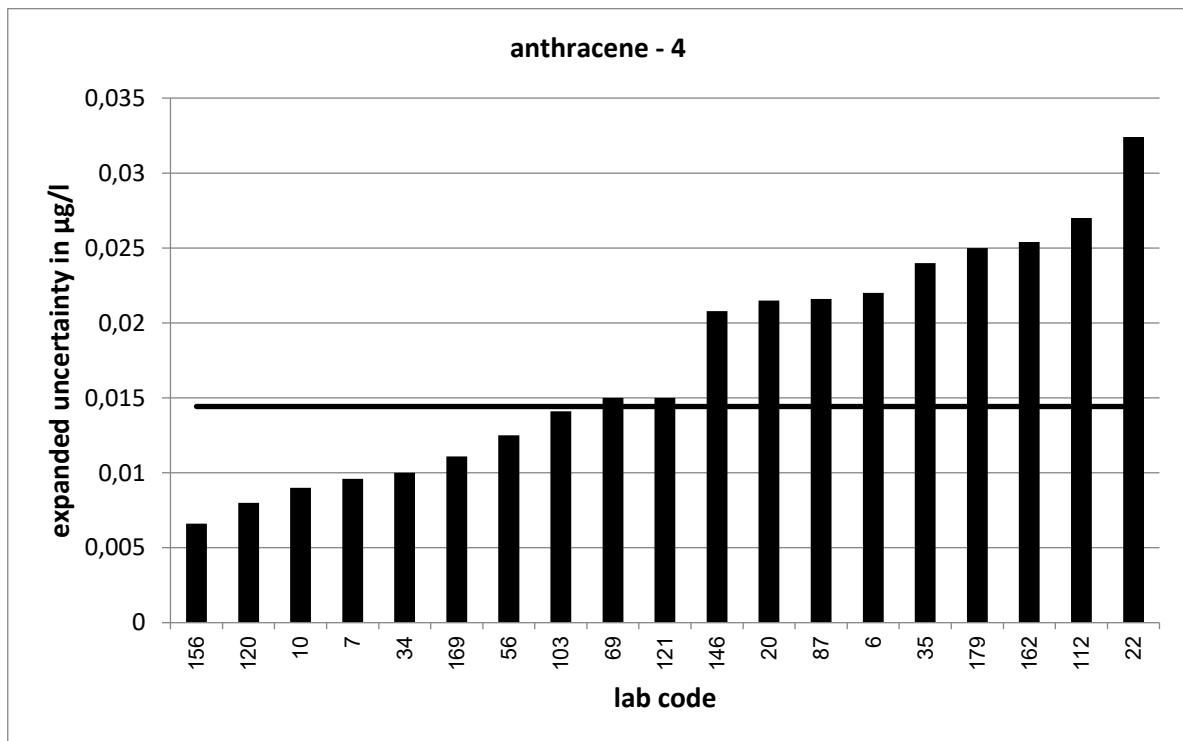
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

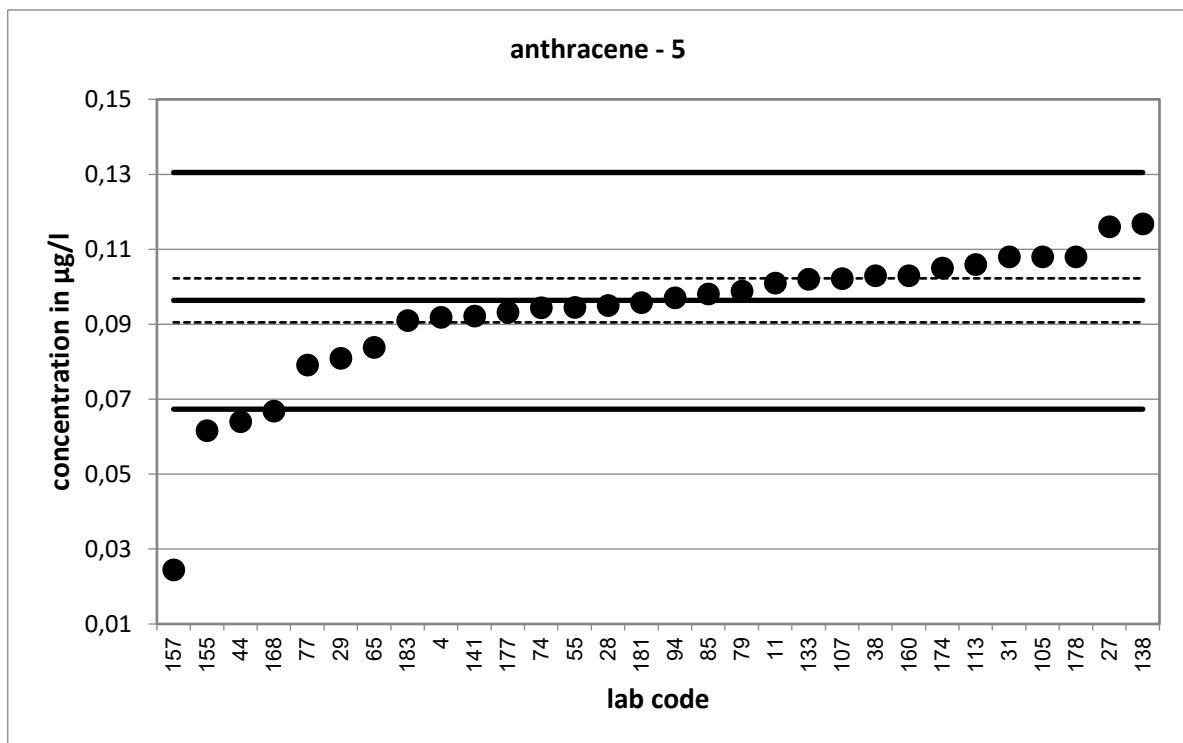




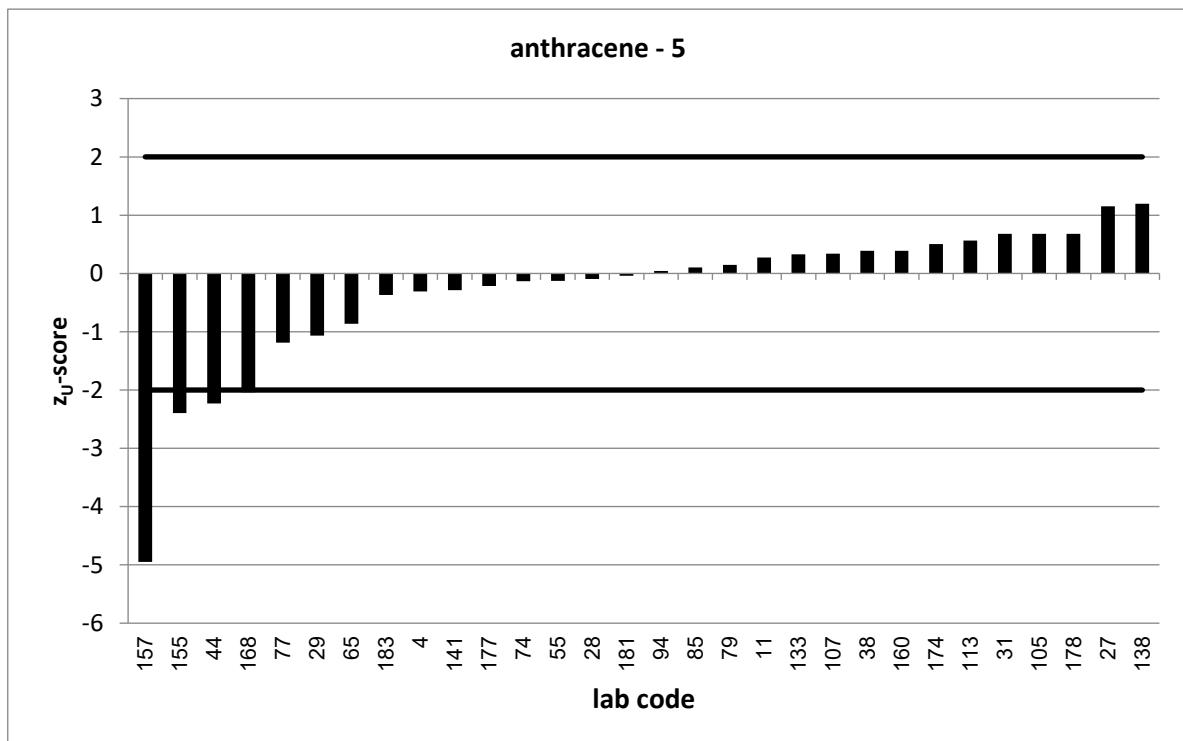
PT 3/24		anthracene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,09637 \pm 0,00587$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1305			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,06733			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0919			-0,3	s
11	0,101	0,022	0,4	0,3	s
27	0,116			1,2	s
28	0,095			-0,1	s
29	0,0809	0,016	-1,8	-1,1	s
31	0,108	0,038	0,6	0,7	s
38	0,103			0,4	s
44	0,064	0,015	-4,0	-2,2	q
55	0,0945	0,043	-0,1	-0,1	s
65	0,0838			-0,9	s
74	0,0944	0,024	-0,2	-0,1	s
77	0,0791	0,028	-1,2	-1,2	s
79	0,0989			0,1	s
85	0,0981			0,1	s
94	0,0971			0,0	s
105	0,108			0,7	s
107	0,1022	0,027	0,4	0,3	s
113	0,106			0,6	s
133	0,102			0,3	s
138	0,1168			1,2	s
141	0,0922	0,042	-0,2	-0,3	s
155	0,0616			-2,4	q
157	0,0245			-4,9	u
160	0,103			0,4	s
168	0,0668	0,025	-2,3	-2,0	s
174	0,105			0,5	s
177	0,0932			-0,2	s
178	0,108			0,7	s
181	0,0958	0,011	-0,1	0,0	s
183	0,091	0,022	-0,5	-0,4	s

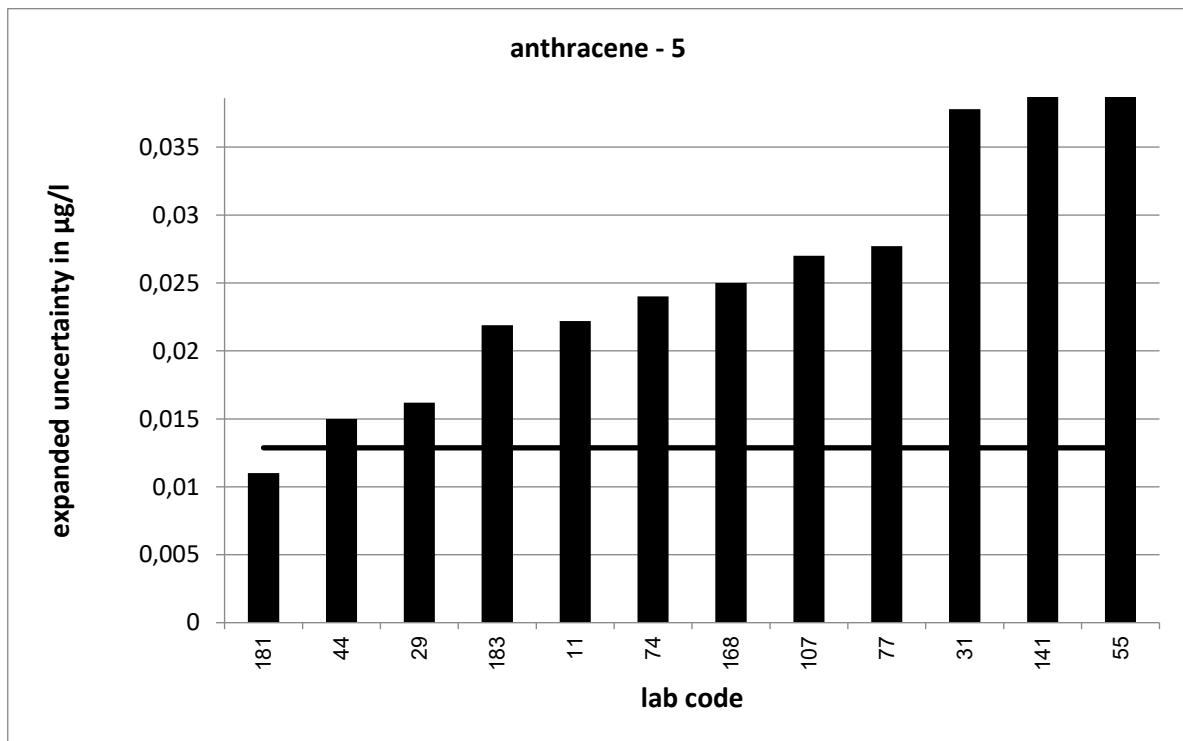
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

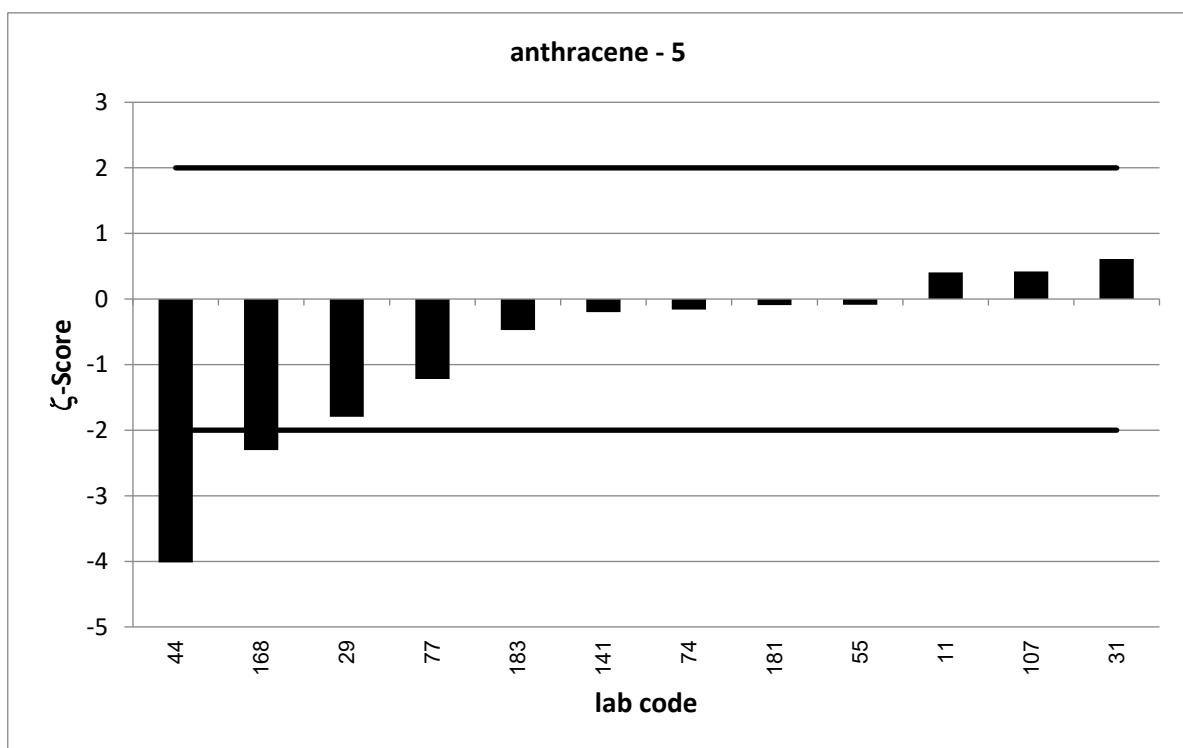


Strongly deviating values are not shown in the diagram.





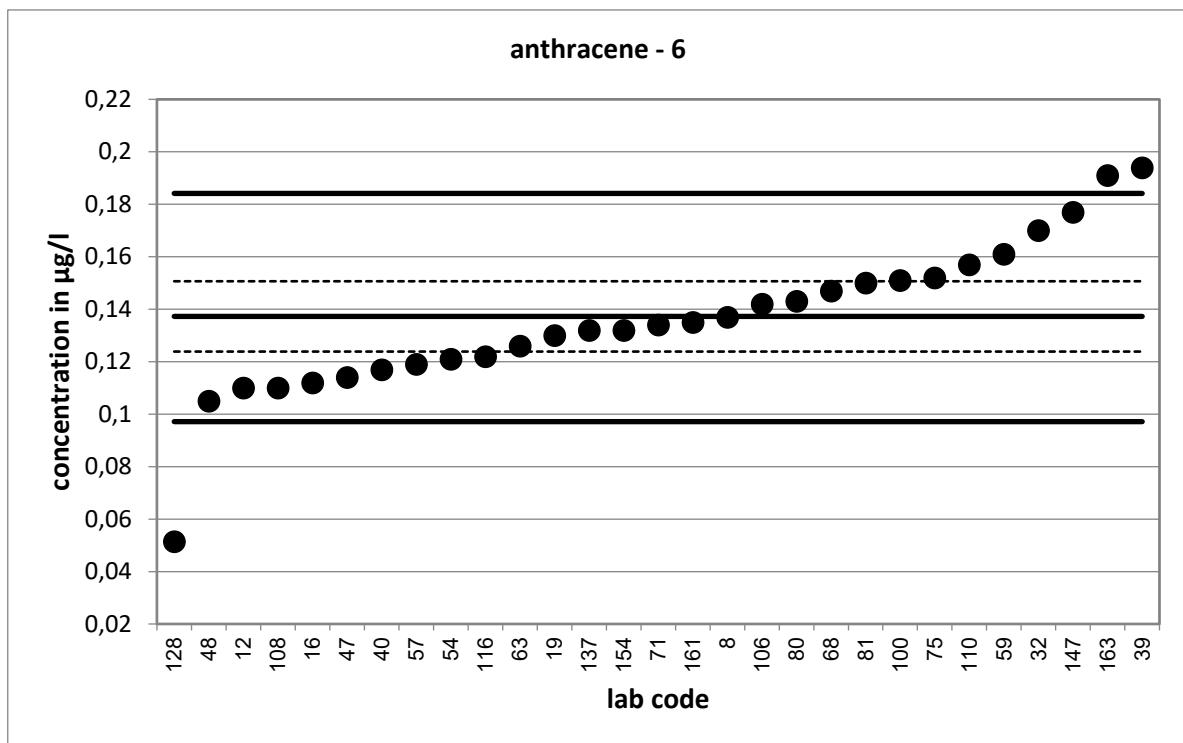
Strongly deviating values are not correctly shown in the diagram.



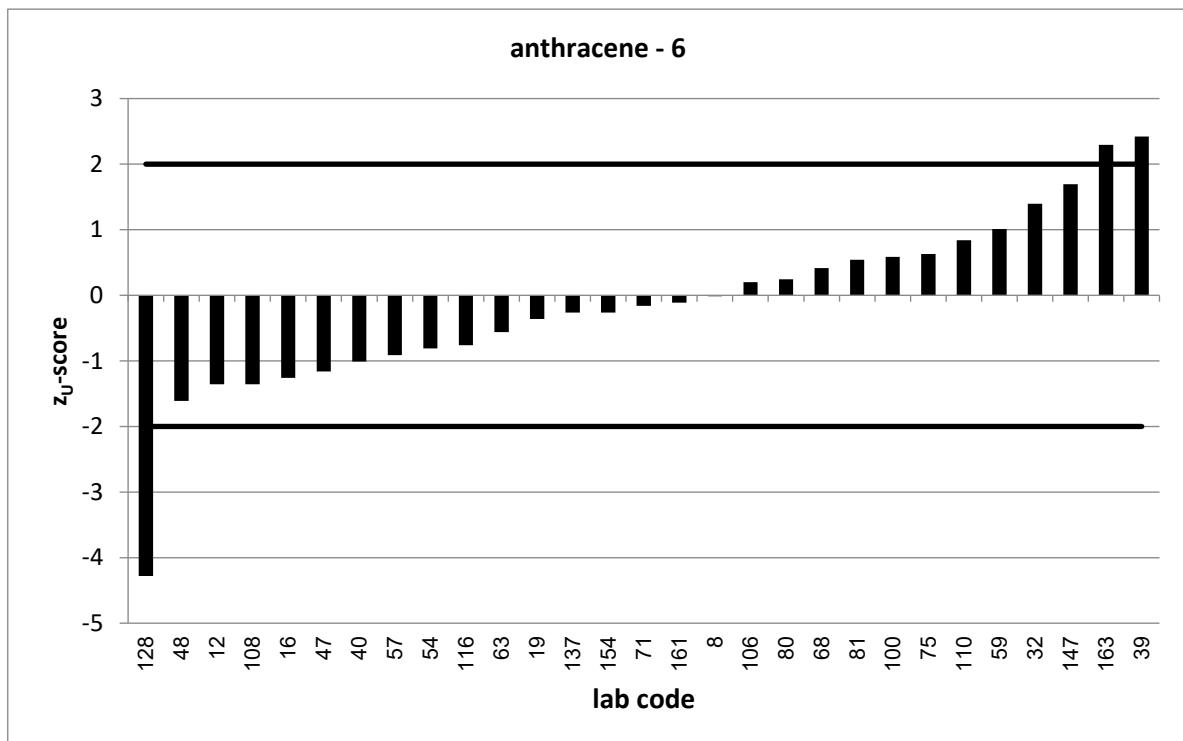
PT 3/24		anthracene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,1373 \pm 0,0134$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,1842$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,09714$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,137	0,033	0,0	0,0	s
12	0,11	0,033	-1,5	-1,4	s
16	0,112	0,02	-2,1	-1,3	s
19	0,13	0,031	-0,4	-0,4	s
32	0,17			1,4	s
39	0,194	0,031	3,4	2,4	q
40	0,117			-1,0	s
47	0,114			-1,2	s
48	0,105	0,007	-4,3	-1,6	s
54	0,121	0,036	-0,8	-0,8	s
57	0,119			-0,9	s
59	0,161	0,032	1,4	1,0	s
63	0,126	0,043	-0,5	-0,6	s
68	0,147			0,4	s
71	0,134	0,02	-0,3	-0,2	s
75	0,152	0,03	0,9	0,6	s
80	0,143	0,01	0,7	0,2	s
81	0,15			0,5	s
100	0,151	0,023	1,0	0,6	s
106	0,142			0,2	s
108	0,11	0,019	-2,3	-1,4	s
110	0,157			0,8	s
116	0,122	0,02	-1,3	-0,8	s
128	0,0514			-4,3	u
137	0,132	0,02	-0,4	-0,3	s
147	0,177	0,005	5,5	1,7	s
154	0,132	0,066	-0,2	-0,3	s
161	0,135			-0,1	s
163	0,191			2,3	q

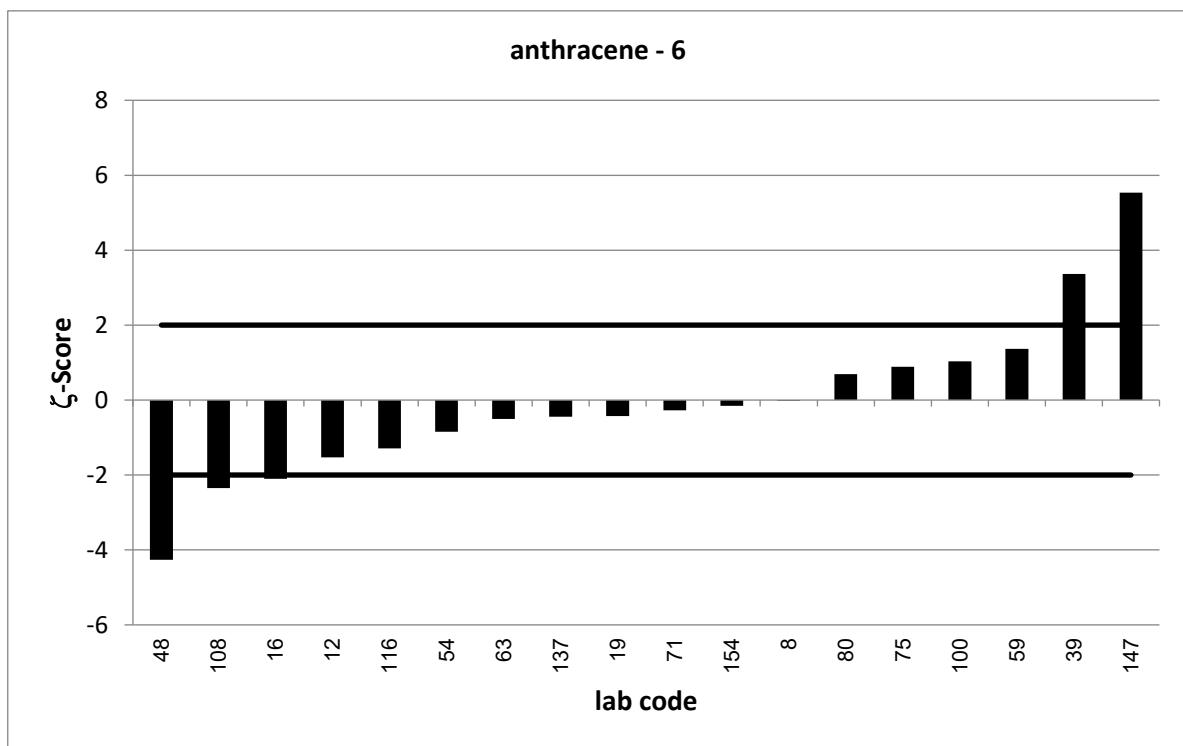
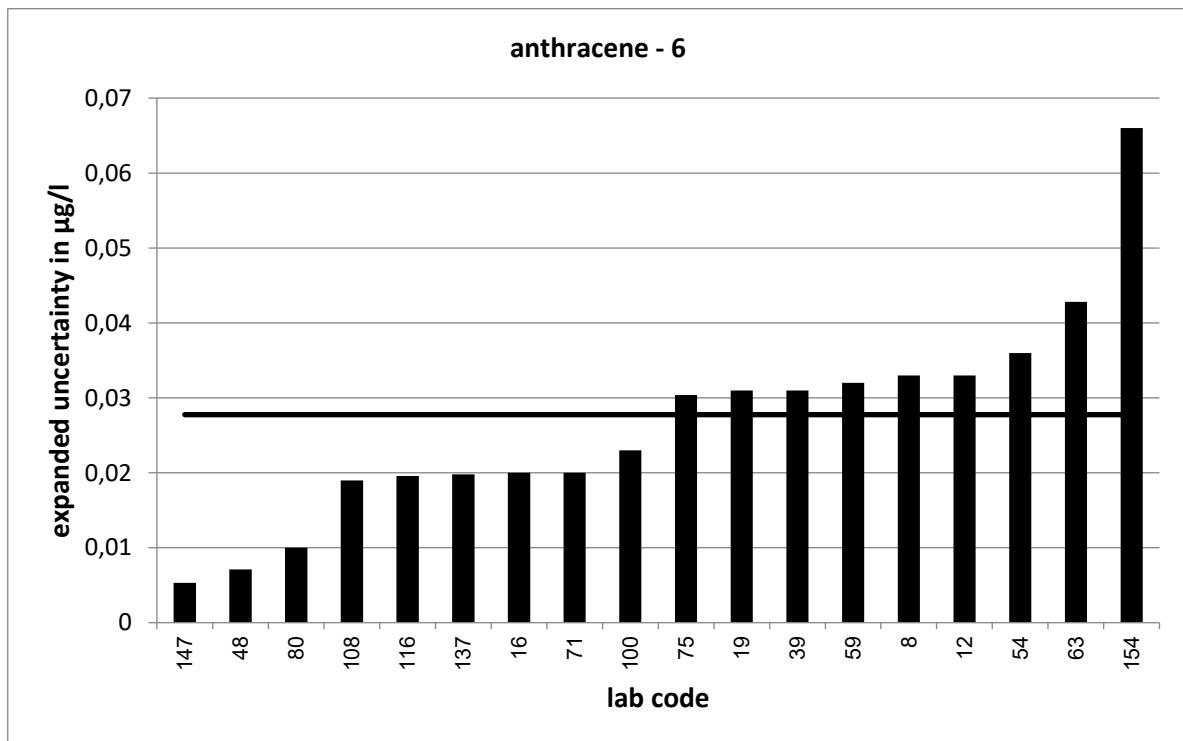
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

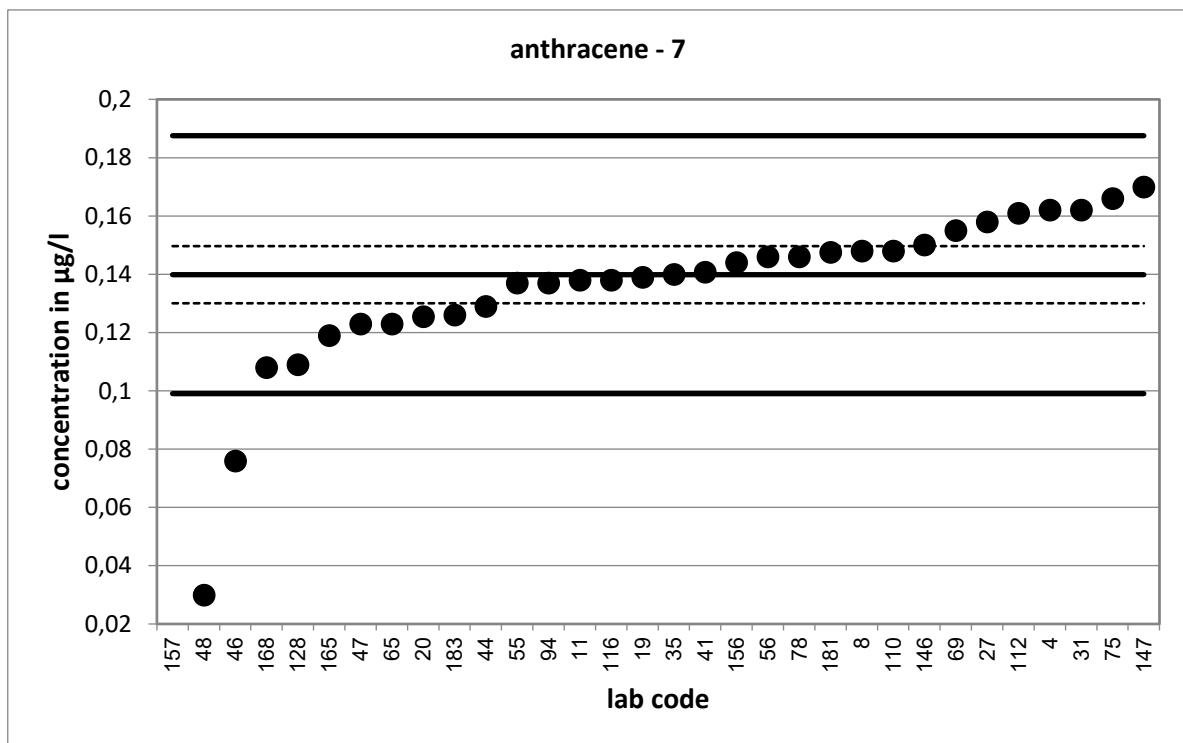




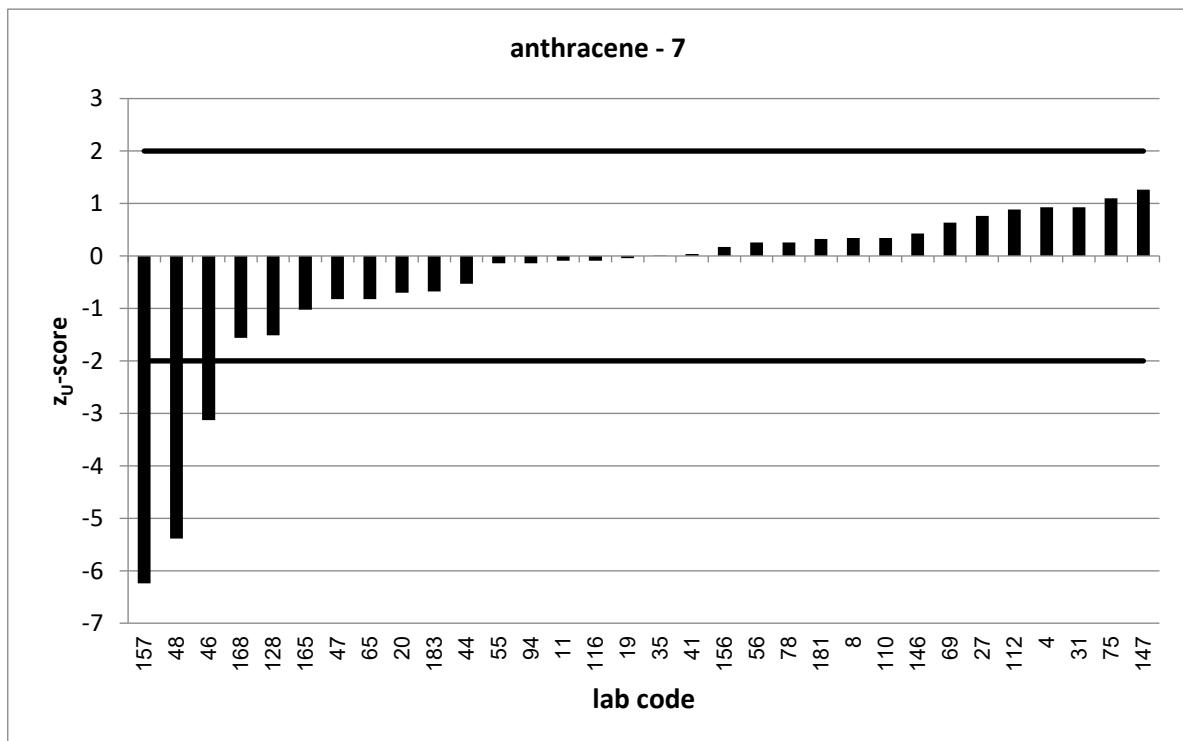
PT 3/24		anthracene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,1398 \pm 0,0098$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1875			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,09904			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,162			0,9	s
8	0,148	0,035	0,4	0,3	s
11	0,138	0,03	-0,1	-0,1	s
19	0,139	0,033	0,0	0,0	s
20	0,1255	0,038	-0,7	-0,7	s
27	0,158			0,8	s
31	0,162	0,057	0,8	0,9	s
35	0,14	0,042	0,0	0,0	s
41	0,1407			0,0	s
44	0,129	0,028	-0,7	-0,5	s
46	0,076			-3,1	u
47	0,123			-0,8	s
48	0,0299	0,003	-21,3	-5,4	u
55	0,137	0,062	-0,1	-0,1	s
56	0,146	0,02	0,6	0,3	s
65	0,123			-0,8	s
69	0,155	0,027	1,1	0,6	s
75	0,166	0,033	1,5	1,1	s
78	0,146			0,3	s
94	0,137			-0,1	s
110	0,148			0,3	s
112	0,161	0,057	0,7	0,9	s
116	0,138	0,022	-0,2	-0,1	s
128	0,109			-1,5	s
146	0,1501	0,032	0,6	0,4	s
147	0,17	0,005	5,5	1,3	s
156	0,144	0,011	0,6	0,2	s
157	0,0125			-6,2	u
165	0,119			-1,0	s
168	0,108	0,03	-2,0	-1,6	s
181	0,1476	0,016	0,8	0,3	s
183	0,126	0,03	-0,9	-0,7	s

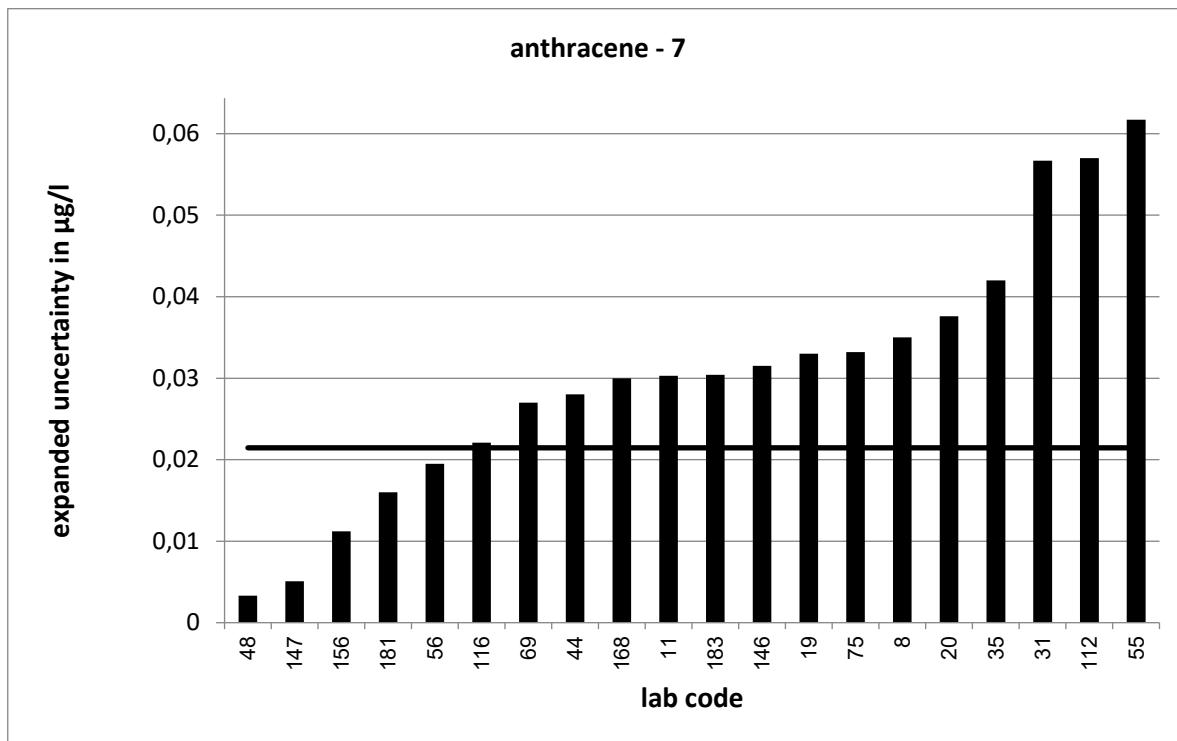
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

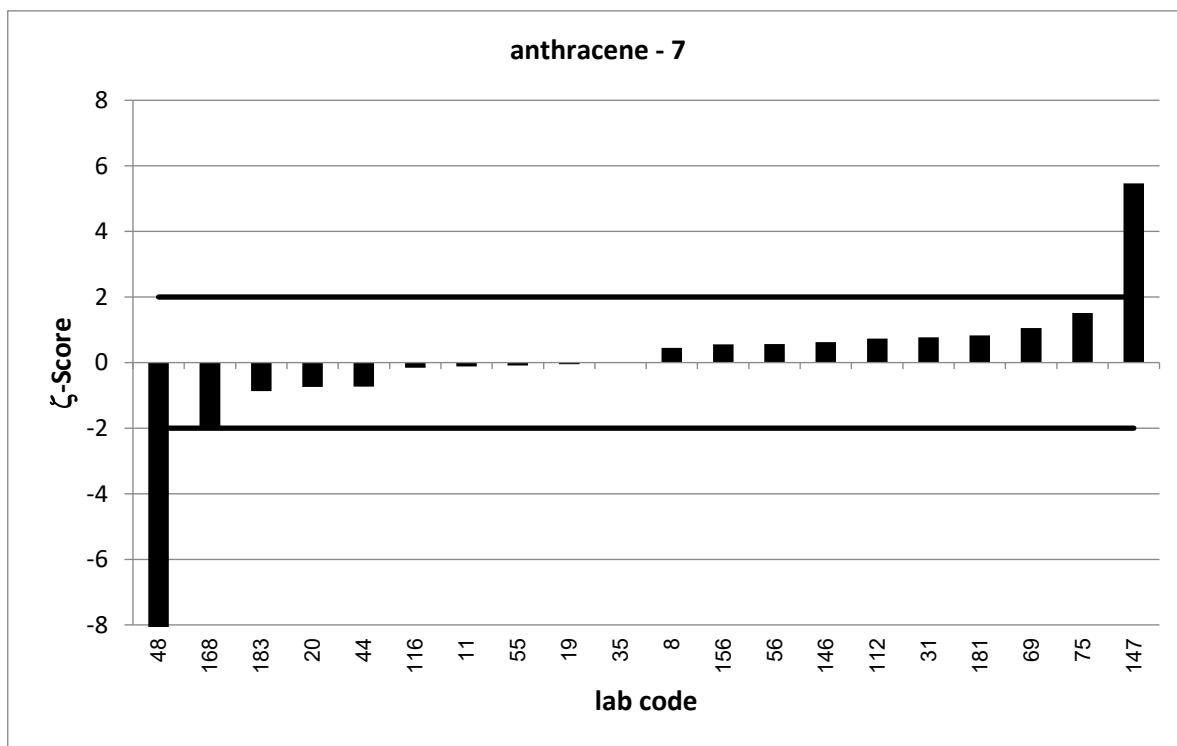


Strongly deviating values are not shown in the diagram.





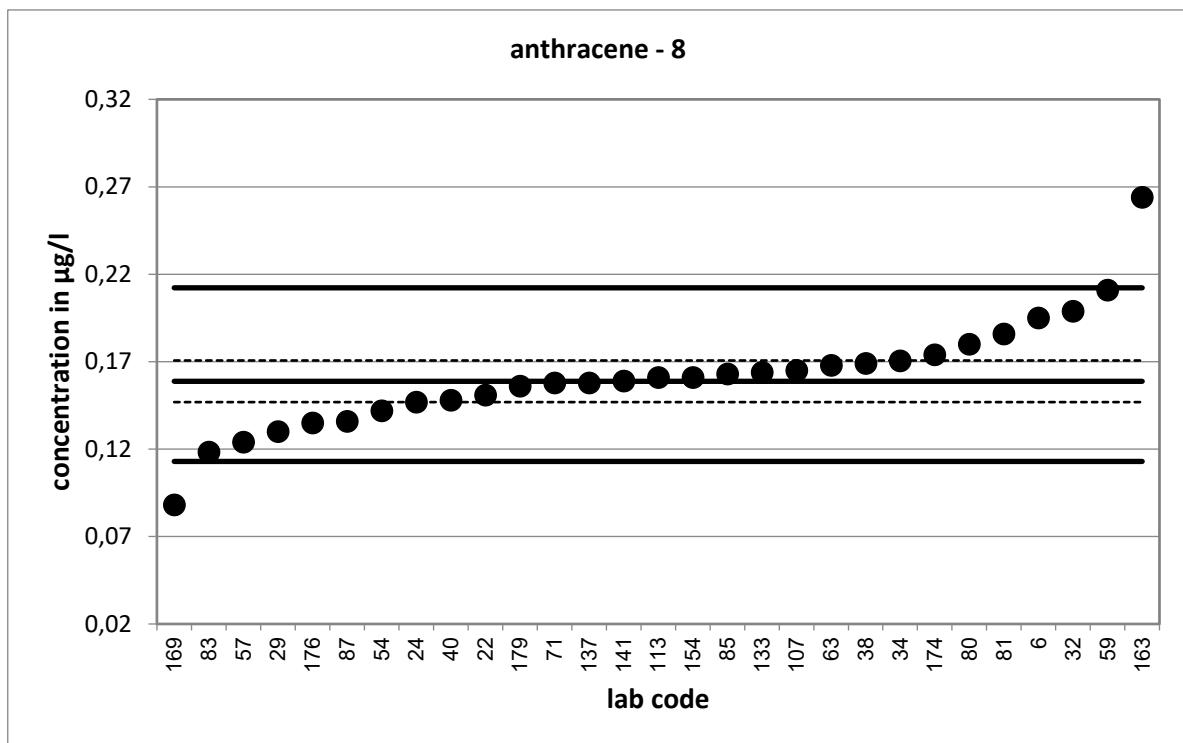
Strongly deviating values are not correctly shown in the diagram.



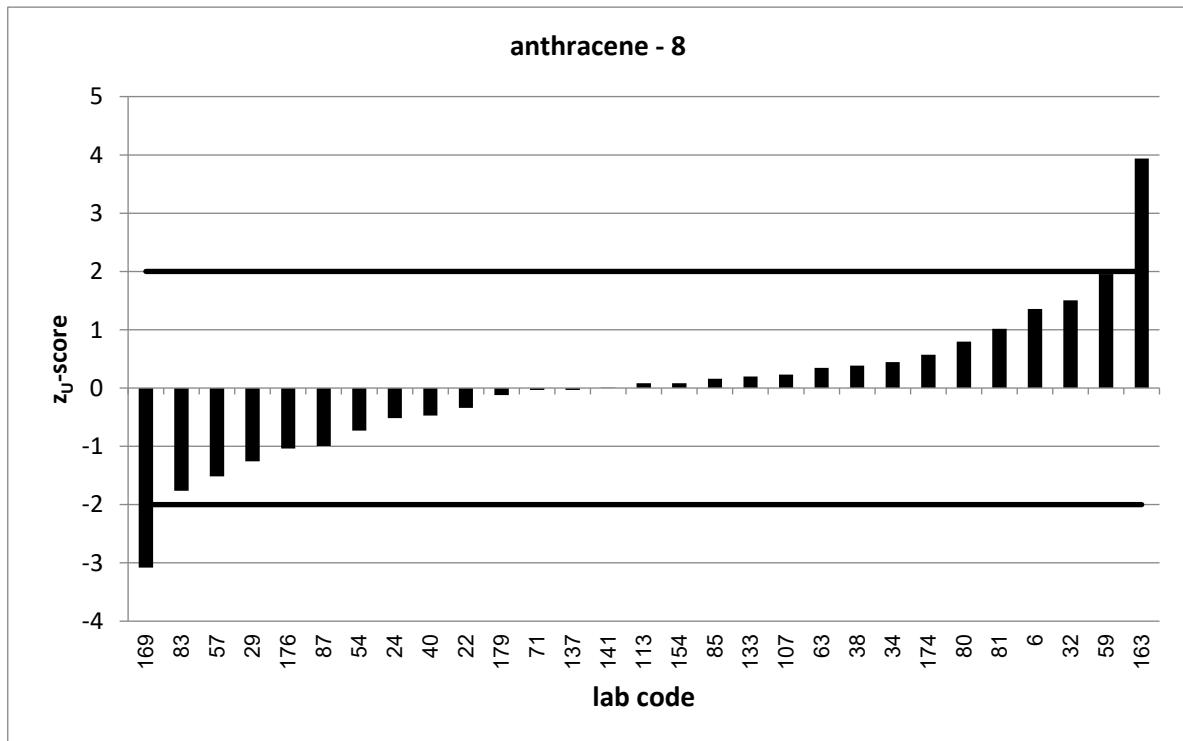
PT 3/24		anthracene - 8			
	assigned value [ $\mu\text{g/l}$ ]*	$0,1588 \pm 0,0119$			
	upper tolerance limit [ $\mu\text{g/l}$ ]	0,2122			
	lower tolerance limit [ $\mu\text{g/l}$ ]	0,113			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,195	0,035	1,9	1,4	s
22	0,151	0,061	-0,3	-0,3	s
24	0,147			-0,5	s
29	0,13	0,026	-2,0	-1,3	s
32	0,199			1,5	s
34	0,1706	0,02	1,0	0,4	s
38	0,169			0,4	s
40	0,148			-0,5	s
54	0,142	0,043	-0,8	-0,7	s
57	0,124			-1,5	s
59	0,211	0,042	2,4	2,0	s
63	0,168	0,057	0,3	0,3	s
71	0,158	0,024	-0,1	0,0	s
80	0,18	0,02	1,8	0,8	s
81	0,186			1,0	s
83	0,1184			-1,8	s
85	0,163			0,2	s
87	0,136	0,041	-1,1	-1,0	s
107	0,165	0,043	0,3	0,2	s
113	0,161			0,1	s
133	0,164			0,2	s
137	0,158	0,024	-0,1	0,0	s
141	0,159	0,072	0,0	0,0	s
154	0,161	0,08	0,1	0,1	s
163	0,264			3,9	u
169	0,0882	0,024	-5,3	-3,1	u
174	0,174			0,6	s
176	0,135			-1,0	s
179	0,156	0,047	-0,1	-0,1	s

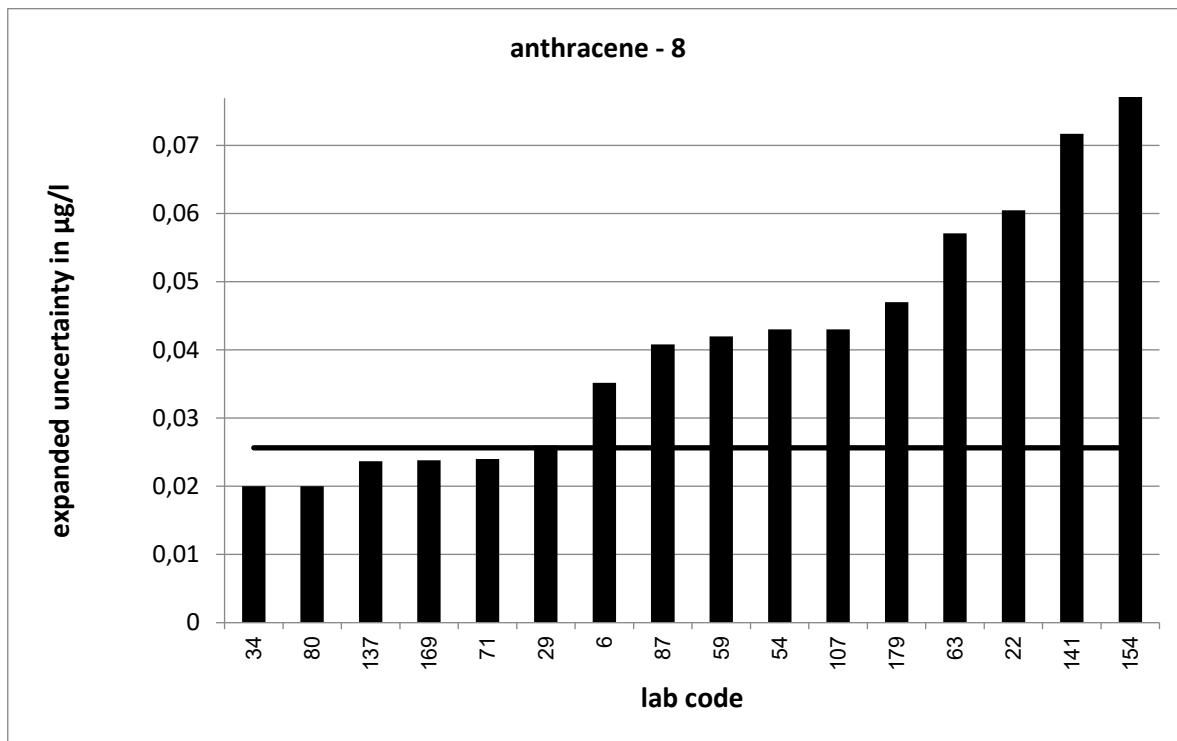
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

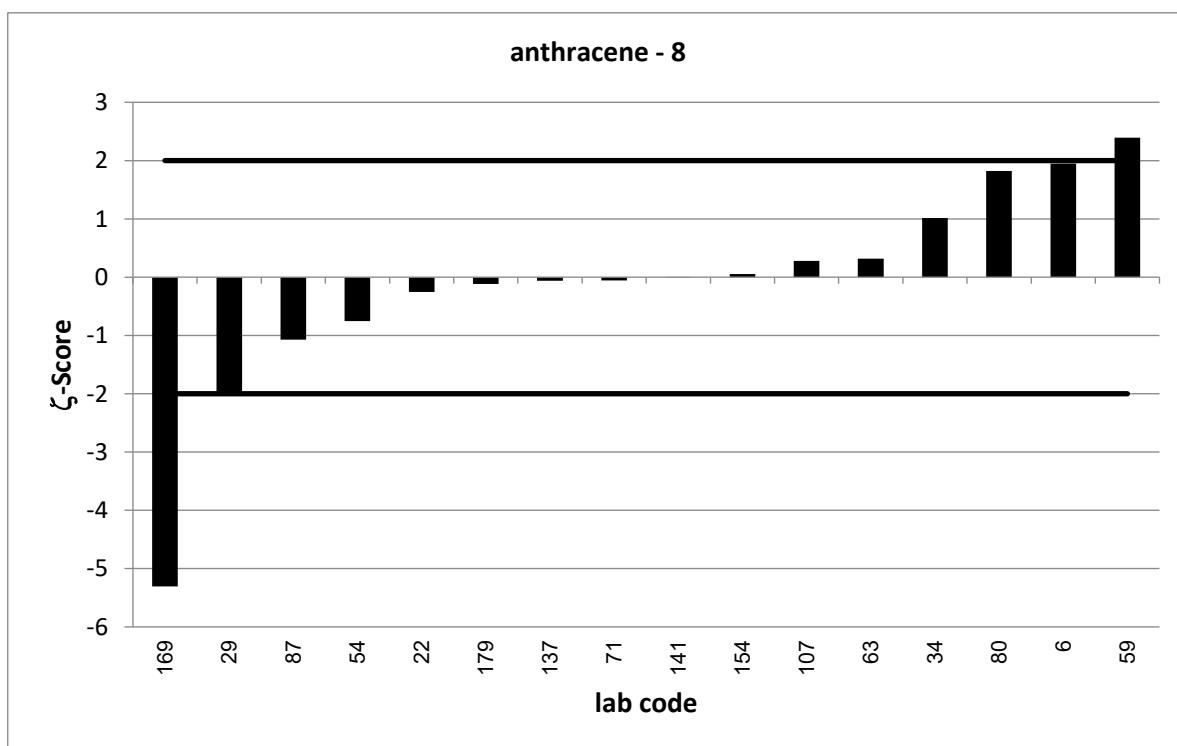


Strongly deviating values are not shown in the diagram.





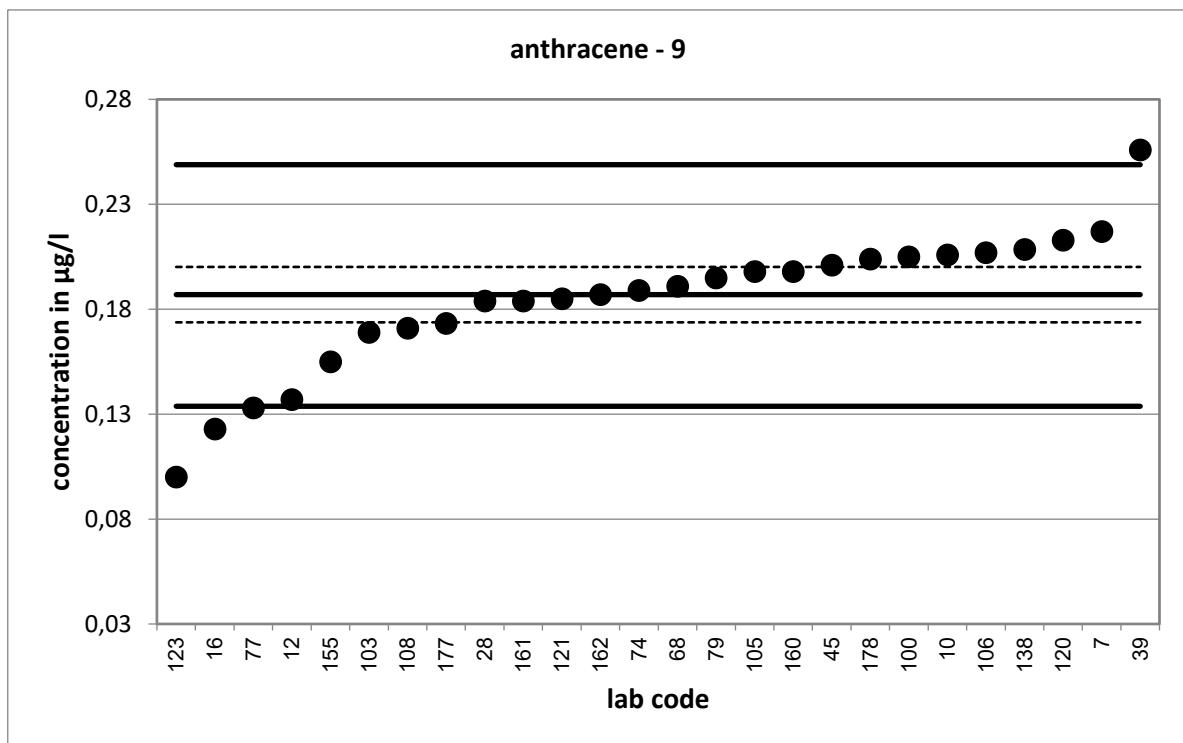
Strongly deviating values are not correctly shown in the diagram.



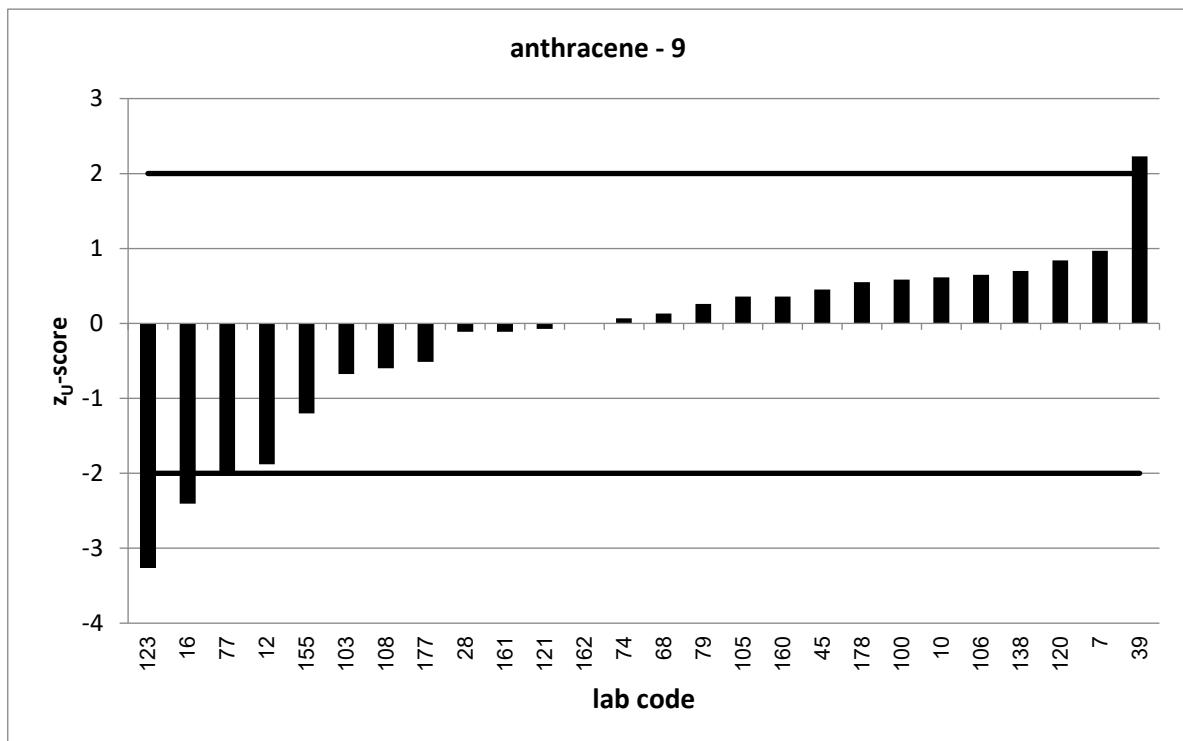
PT 3/24		anthracene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,187 \pm 0,0132$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2489			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1338			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,217	0,013	3,2	1,0	s
10	0,206	0,025	1,3	0,6	s
12	0,137	0,041	-2,3	-1,9	s
16	0,123	0,022	-5,0	-2,4	q
28	0,184			-0,1	s
39	0,256	0,041	3,2	2,2	q
45	0,201			0,5	s
68	0,191			0,1	s
74	0,189	0,048	0,1	0,1	s
77	0,133	0,047	-2,2	-2,0	s
79	0,195			0,3	s
100	0,205	0,031	1,1	0,6	s
103	0,169	0,032	-1,0	-0,7	s
105	0,198			0,4	s
106	0,207			0,6	s
108	0,171	0,029	-1,0	-0,6	s
120	0,213	0,024	1,9	0,8	s
121	0,185	0,035	-0,1	-0,1	s
123	0,1001			-3,3	u
138	0,2086			0,7	s
155	0,155			-1,2	s
160	0,198			0,4	s
161	0,184			-0,1	s
162	0,187	0,056	0,0	0,0	s
177	0,1733			-0,5	s
178	0,204			0,6	s

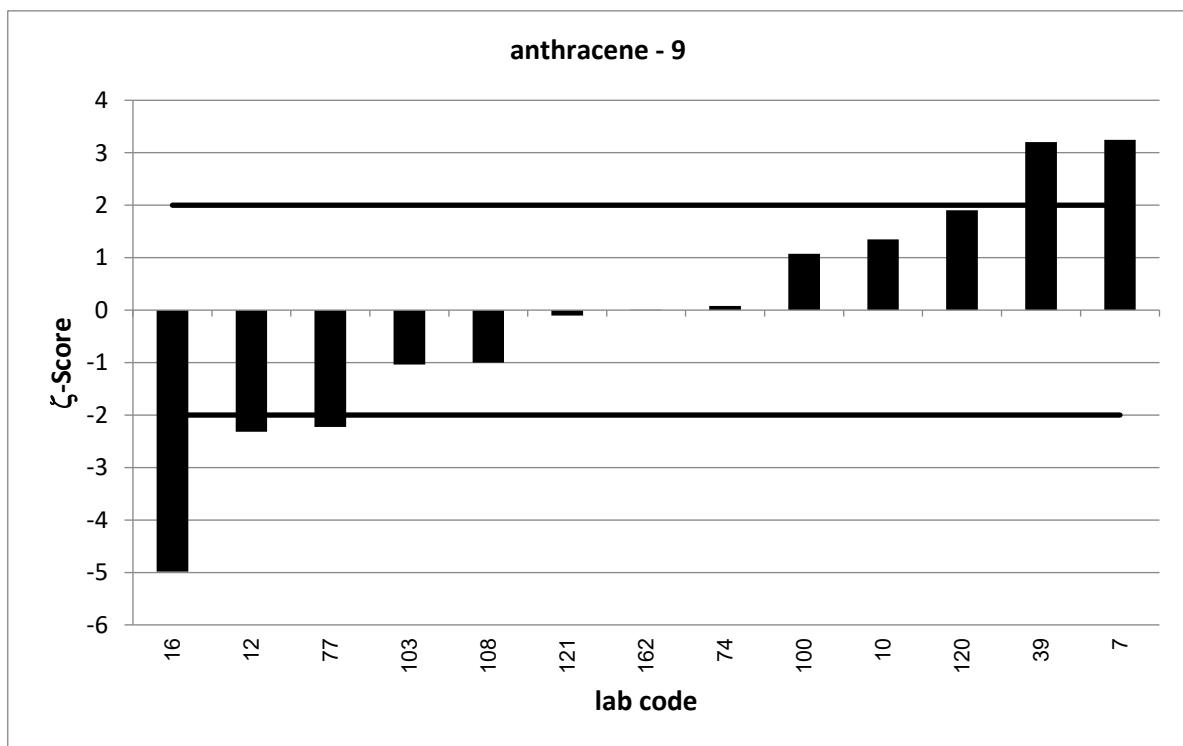
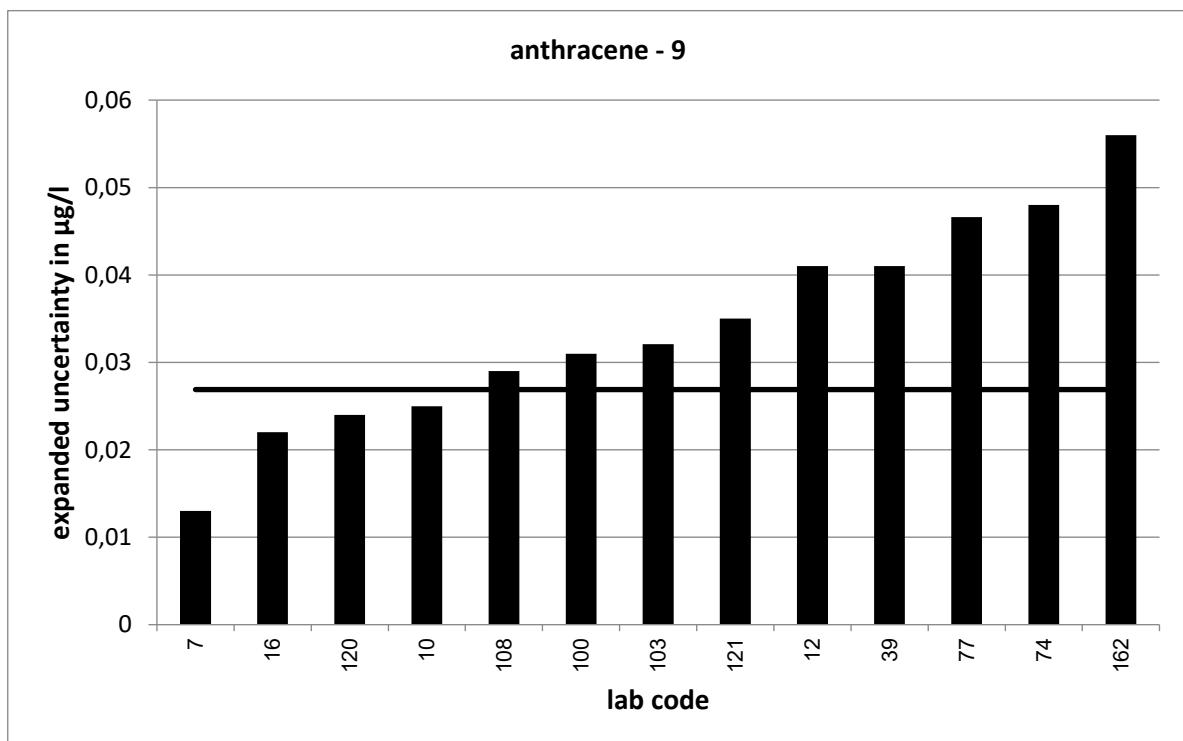
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

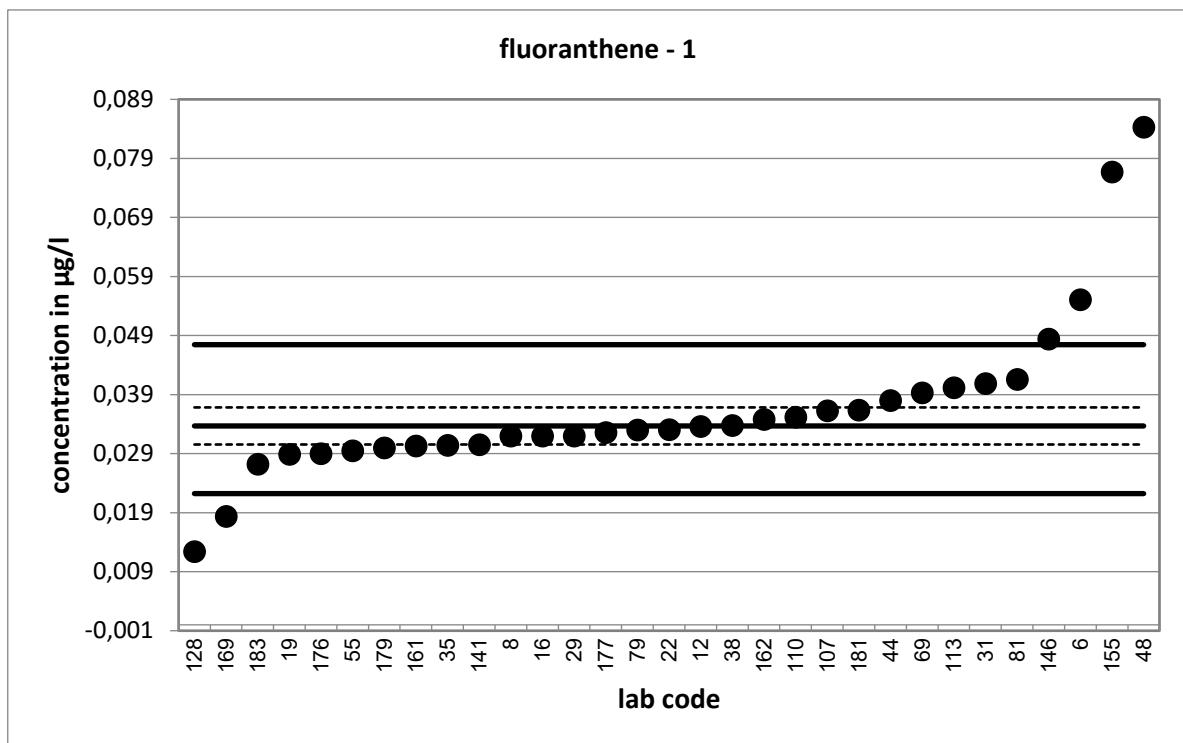




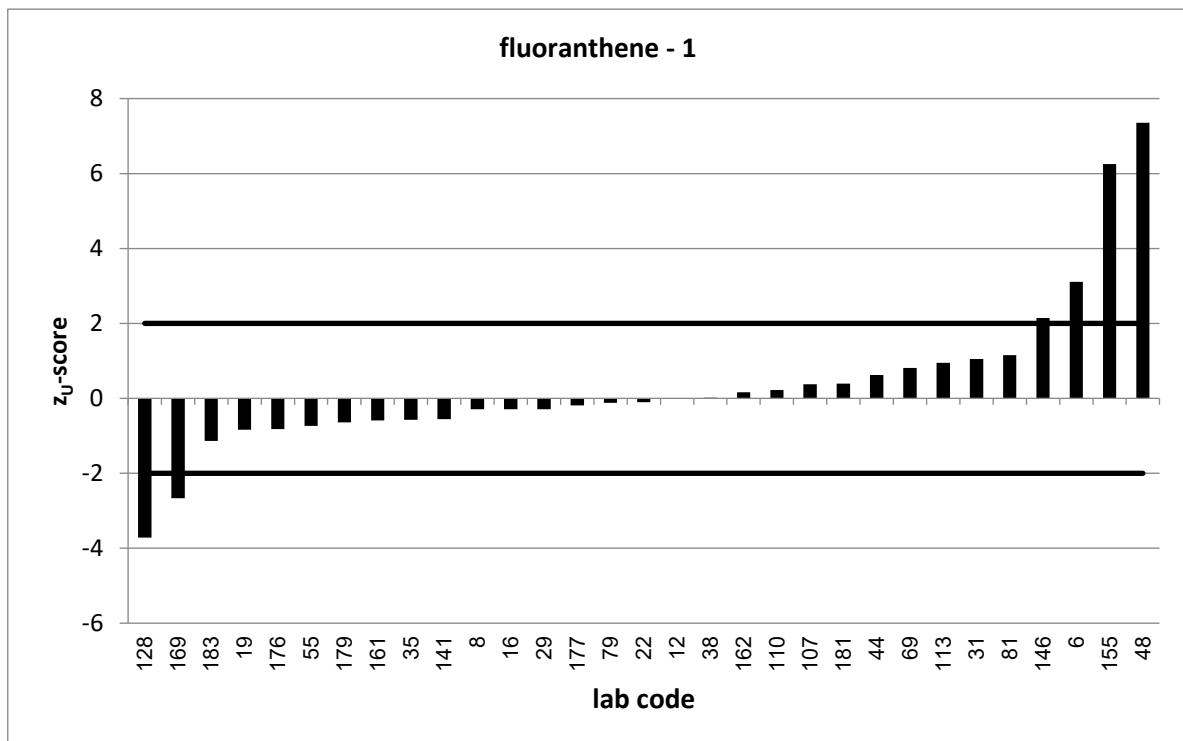
PT 3/24		fluoranthene - 1			
assigned value [ $\mu\text{g/l}$ ]*		$0,03369 \pm 0,00314$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,04745			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,02223			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0551	0,021	2,0	3,1	u
8	0,032	0,008	-0,4	-0,3	s
12	0,0336	0,01	0,0	0,0	s
16	0,032	0,006	-0,5	-0,3	s
19	0,0289	0,01	-0,9	-0,8	s
22	0,0331	0,013	-0,1	-0,1	s
29	0,032	0,006	-0,5	-0,3	s
31	0,0409	0,014	1,0	1,0	s
35	0,0304	0,009	-0,7	-0,6	s
38	0,0338			0,0	s
44	0,038	0,011	0,8	0,6	s
48	0,0843	0,007	13,5	7,4	u
55	0,0295	0,013	-0,6	-0,7	s
69	0,0393	0,007	1,5	0,8	s
79	0,033			-0,1	s
81	0,0416			1,1	s
107	0,0363	0,009	0,5	0,4	s
110	0,0352			0,2	s
113	0,0402			0,9	s
128	0,0124			-3,7	u
141	0,0305	0,014	-0,5	-0,6	s
146	0,04842	0,011	2,7	2,1	q
155	0,0767			6,3	u
161	0,0303			-0,6	s
162	0,0348	0,011	0,2	0,2	s
169	0,0184	0,006	-4,3	-2,7	q
176	0,029			-0,8	s
177	0,0326			-0,2	s
179	0,03	0,009	-0,8	-0,6	s
181	0,0364	0,005	0,9	0,4	s
183	0,0272			-1,1	s

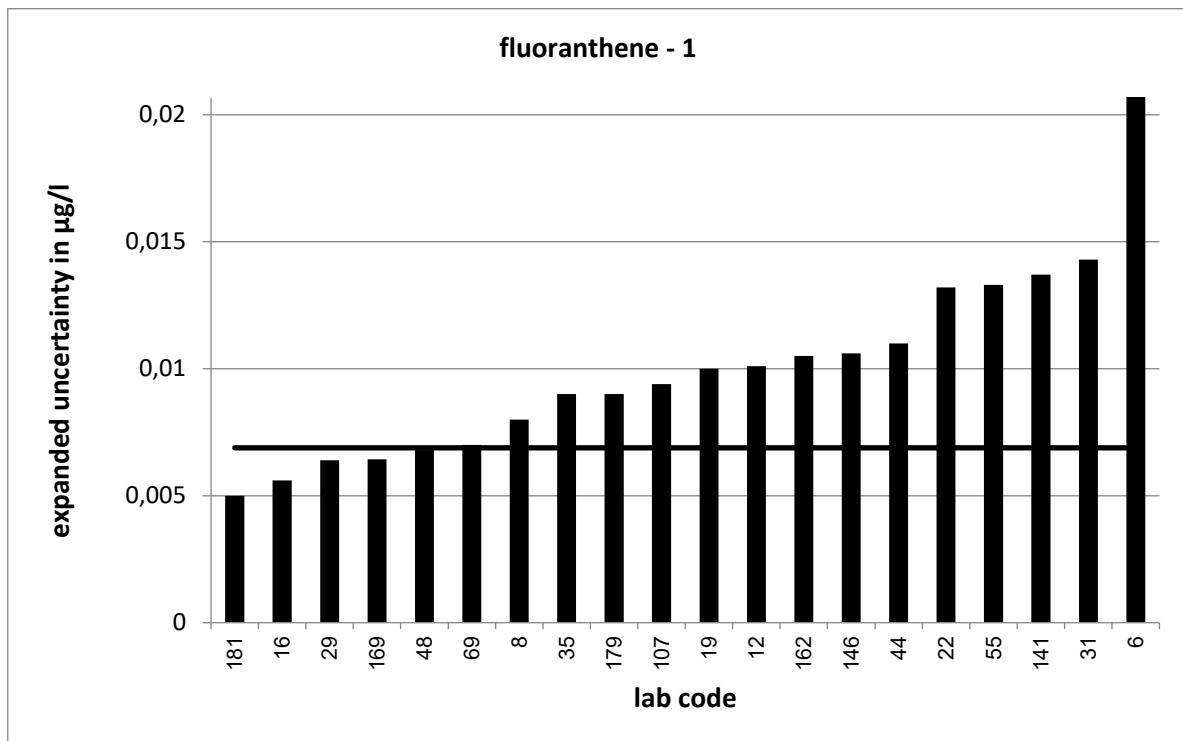
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

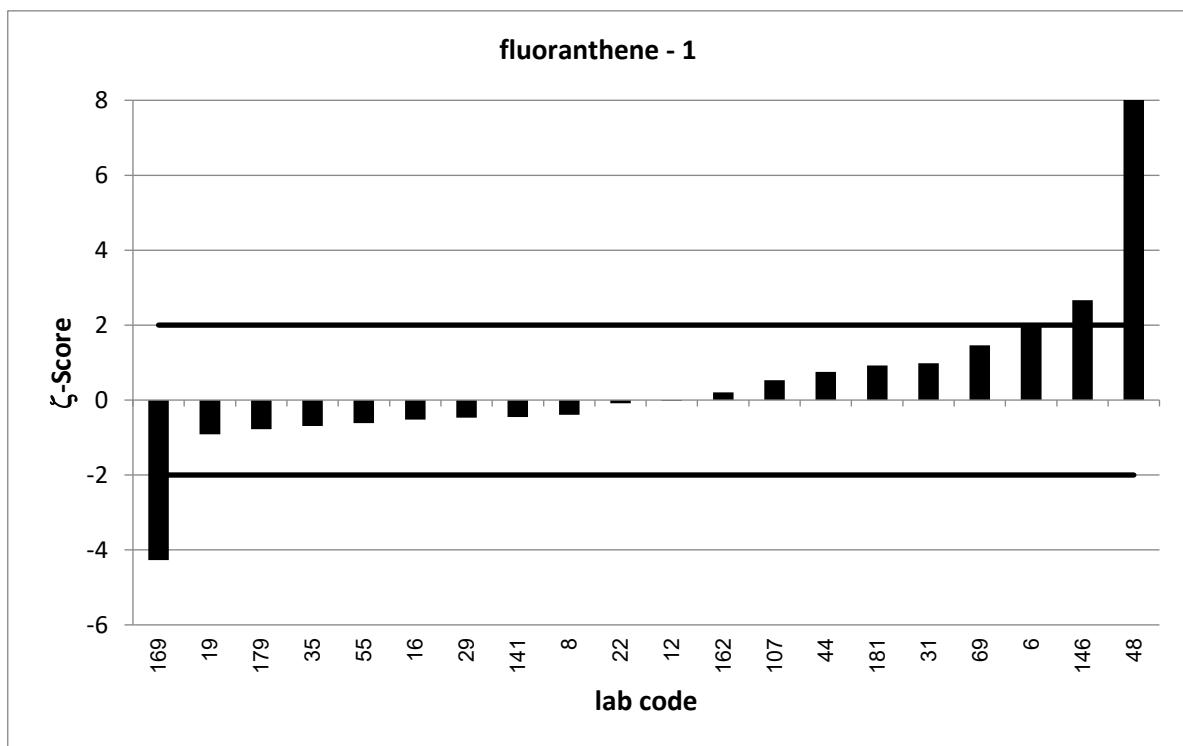


Strongly deviating values are not shown in the diagram.





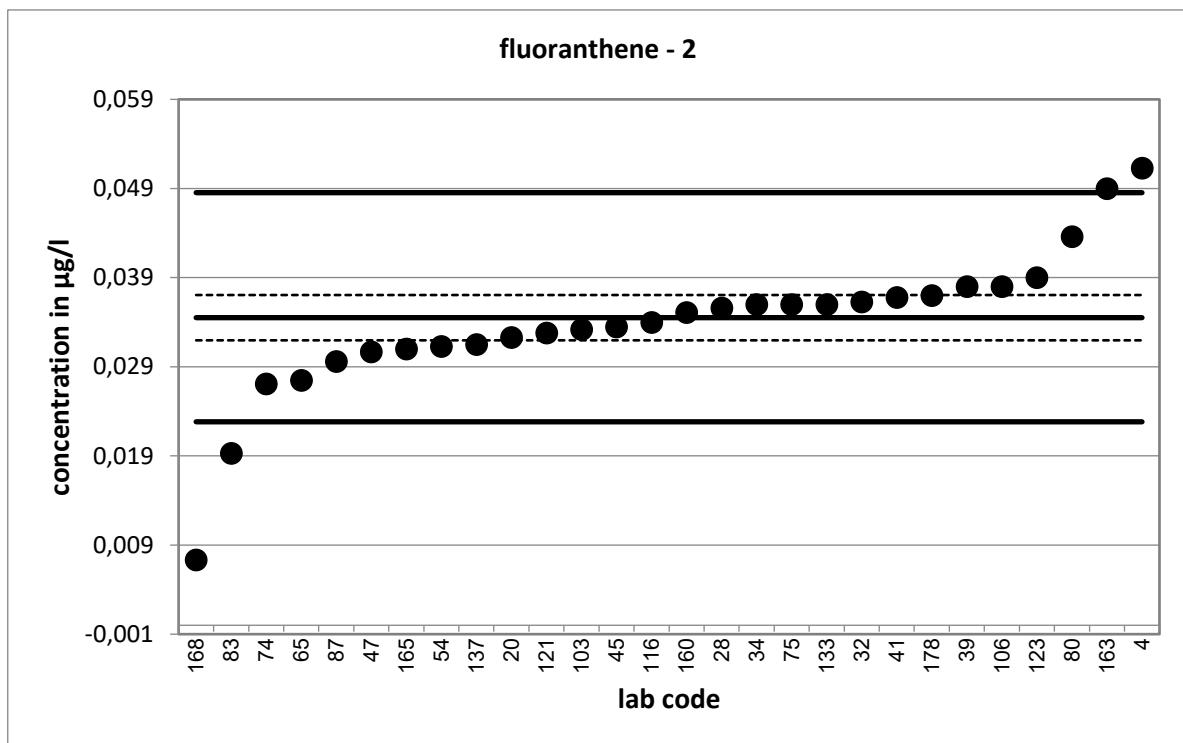
Strongly deviating values are not correctly shown in the diagram.



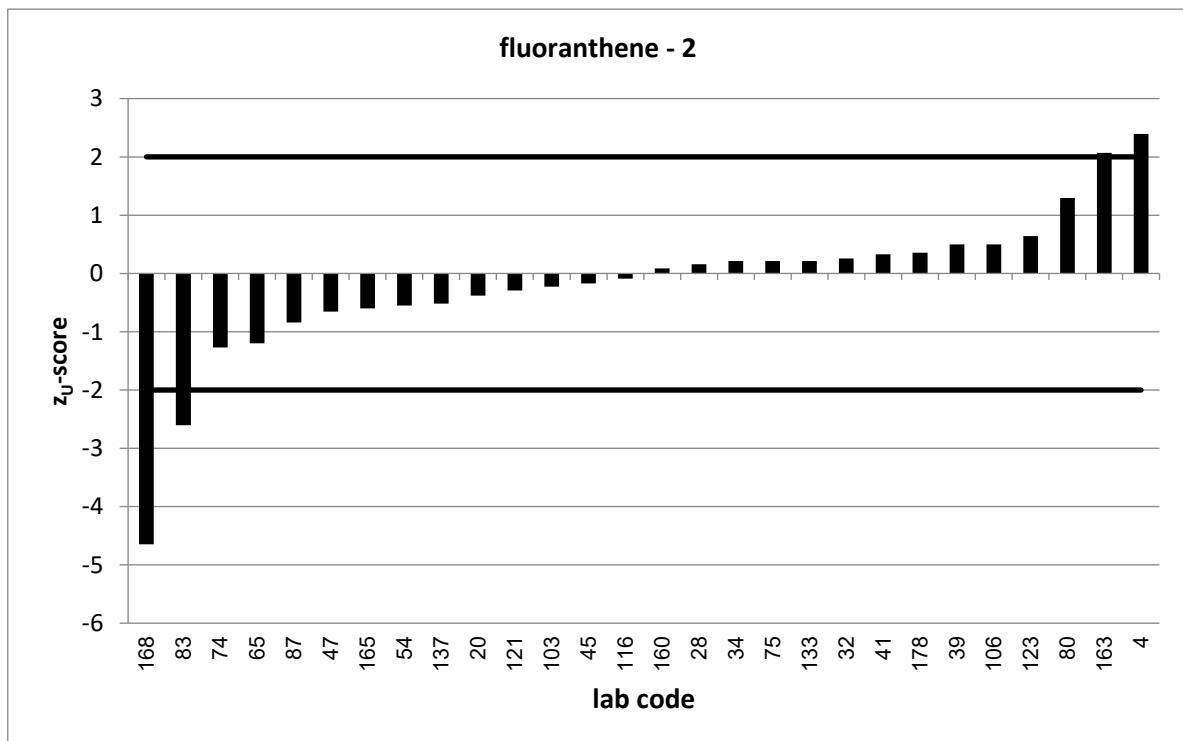
PT 3/24		fluoranthene - 2			
assigned value [ $\mu\text{g/l}$ ]*		$0,03451 \pm 0,00254$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,04853			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,02283			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0513			2,4	q
20	0,0323	0,01	-0,4	-0,4	s
28	0,0356	0,004	0,5	0,2	s
32	0,0363			0,3	s
34	0,036	0,004	0,6	0,2	s
39	0,038	0,006	1,1	0,5	s
41	0,0368			0,3	s
45	0,0335			-0,2	s
47	0,0307			-0,7	s
54	0,0313	0,009	-0,7	-0,5	s
65	0,0275			-1,2	s
74	0,0271	0,008	-1,8	-1,3	s
75	0,036	0,007	0,4	0,2	s
80	0,0436	0,008	2,2	1,3	s
83	0,0193			-2,6	q
87	0,0296	0,009	-1,1	-0,8	s
103	0,0332	0,004	-0,6	-0,2	s
106	0,038			0,5	s
116	0,034	0,004	-0,2	-0,1	s
121	0,0328	0,011	-0,3	-0,3	s
123	0,039			0,6	s
133	0,036			0,2	s
137	0,0315	0,005	-1,1	-0,5	s
160	0,0351			0,1	s
163	0,049			2,1	q
165	0,031			-0,6	s
168	0,00735	0,002	-16,8	-4,6	u
178	0,037			0,4	s

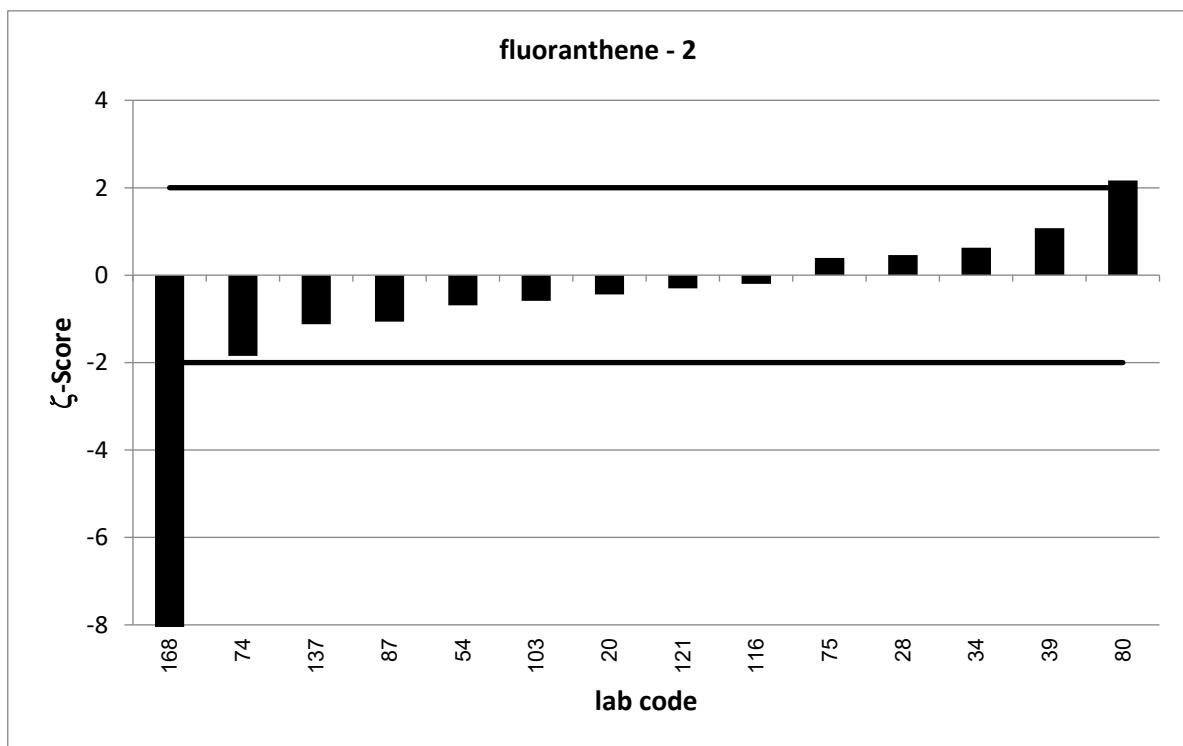
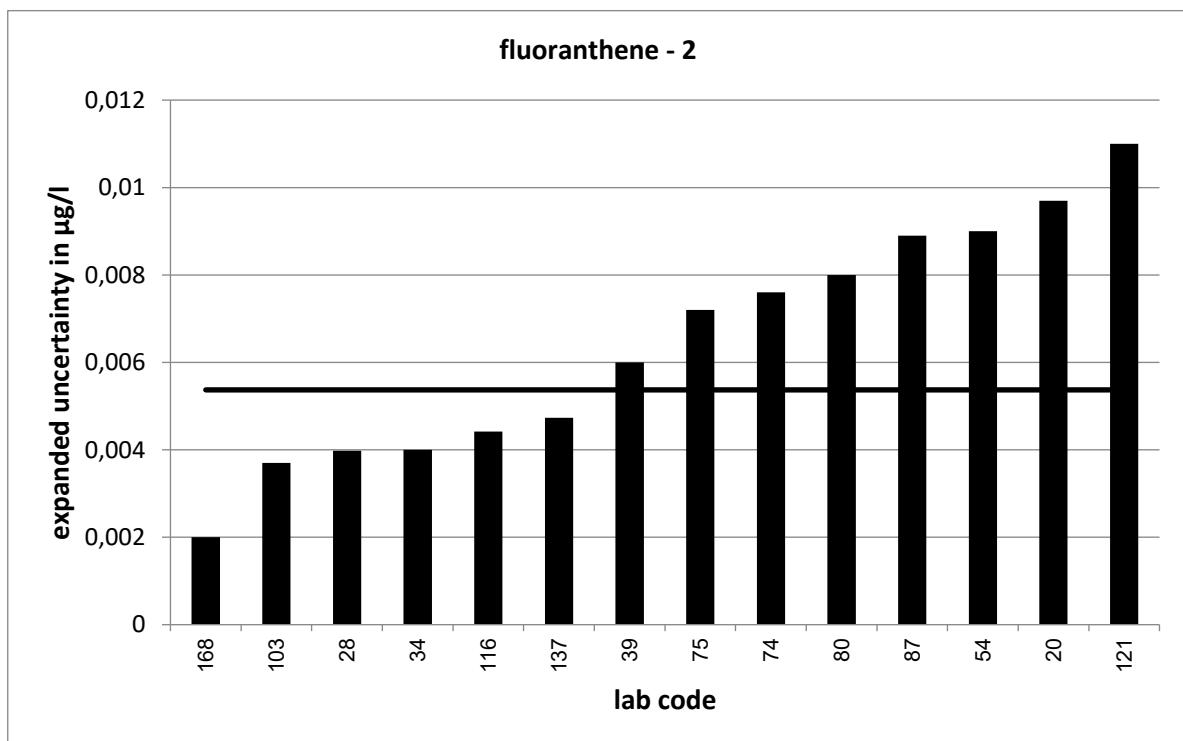
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

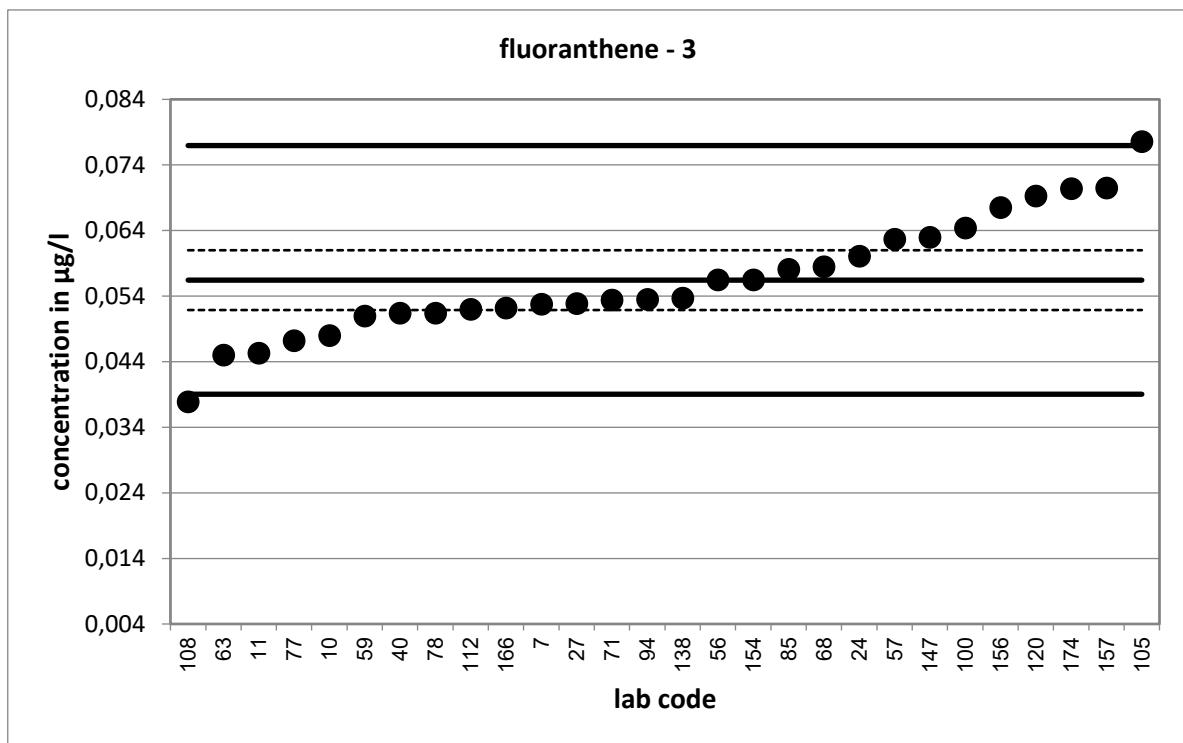




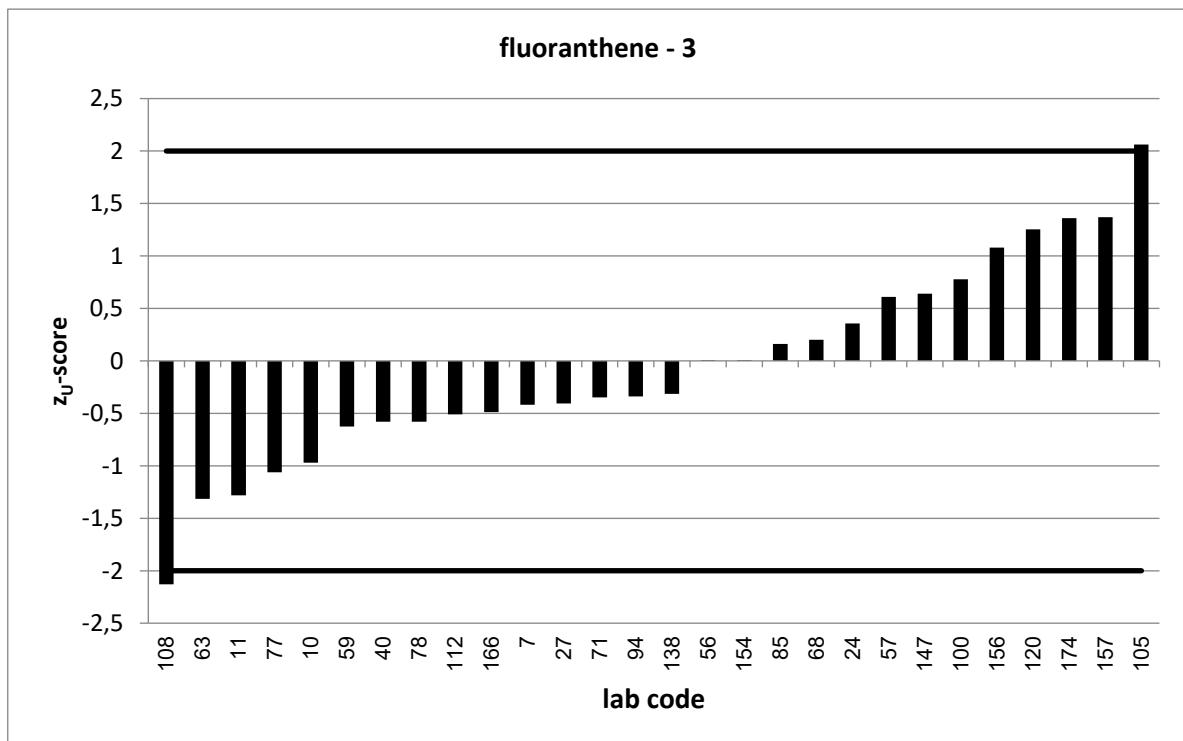
PT 3/24		fluoranthene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,05644 \pm 0,00456$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,07696$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,03904$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0528	0,006	-1,0	-0,4	s
10	0,048	0,008	-1,8	-1,0	s
11	0,0453	0,01	-2,0	-1,3	s
24	0,0601			0,4	s
27	0,0529			-0,4	s
40	0,0514			-0,6	s
56	0,0565	0,007	0,0	0,0	s
57	0,0627			0,6	s
59	0,051	0,01	-1,0	-0,6	s
63	0,045	0,014	-1,6	-1,3	s
68	0,0585			0,2	s
71	0,0534	0,009	-0,6	-0,3	s
77	0,0472	0,017	-1,1	-1,1	s
78	0,0514			-0,6	s
85	0,0581	0,002	0,7	0,2	s
94	0,0535			-0,3	s
100	0,0644	0,013	1,2	0,8	s
105	0,0776			2,1	q
108	0,0379	0,008	-4,0	-2,1	q
112	0,052	0,009	-0,9	-0,5	s
120	0,0693	0,003	4,7	1,3	s
138	0,0537			-0,3	s
147	0,063	0,002	2,7	0,6	s
154	0,0565	0,028	0,0	0,0	s
156	0,0675	0,007	2,7	1,1	s
157	0,0705			1,4	s
166	0,0522			-0,5	s
174	0,0704			1,4	s

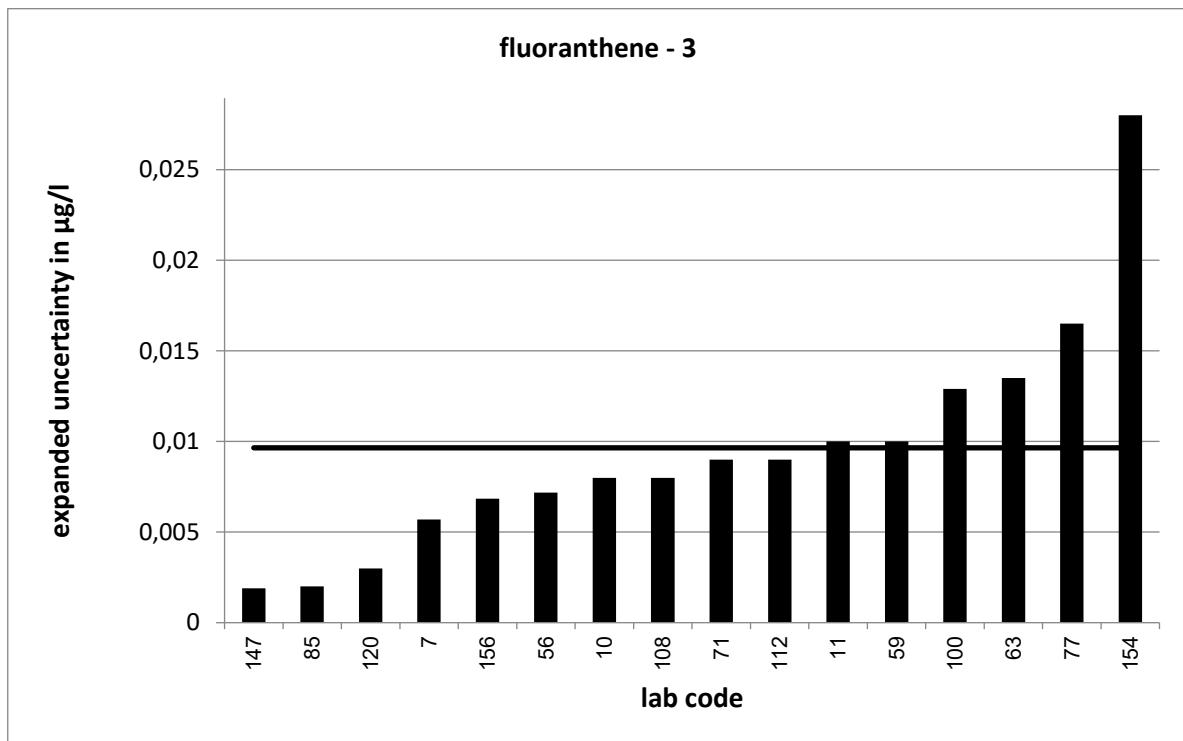
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

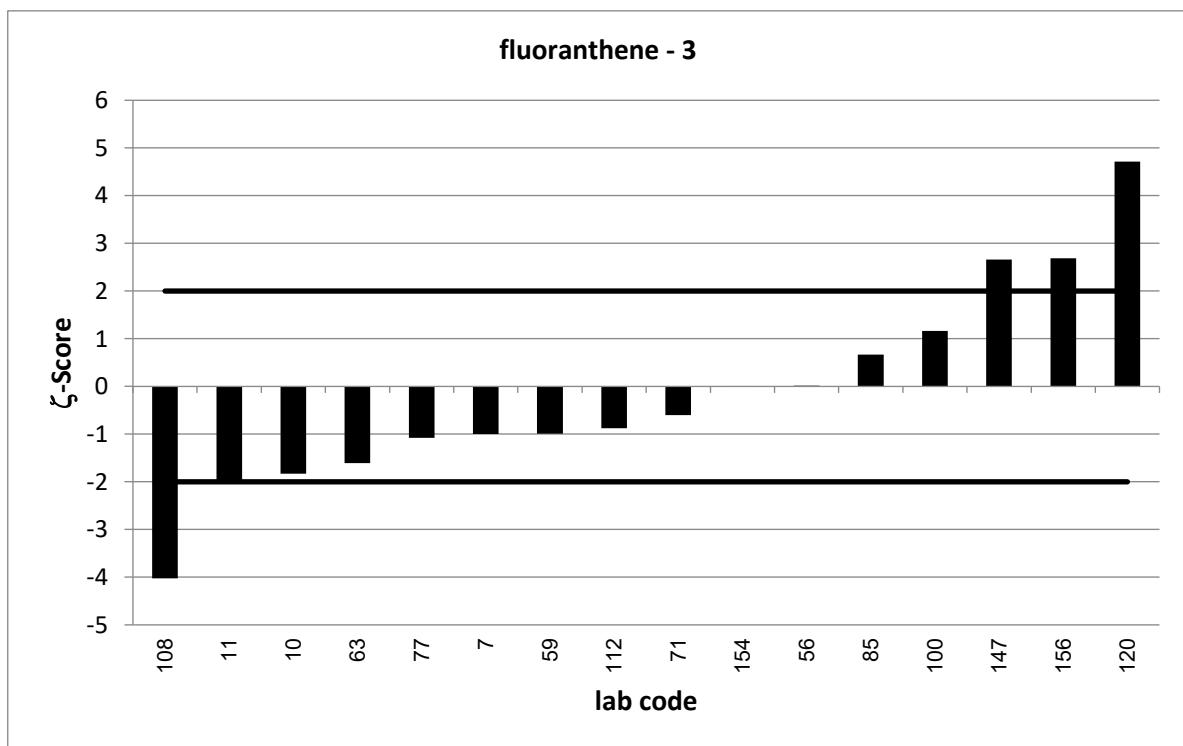


Strongly deviating values are not shown in the diagram.





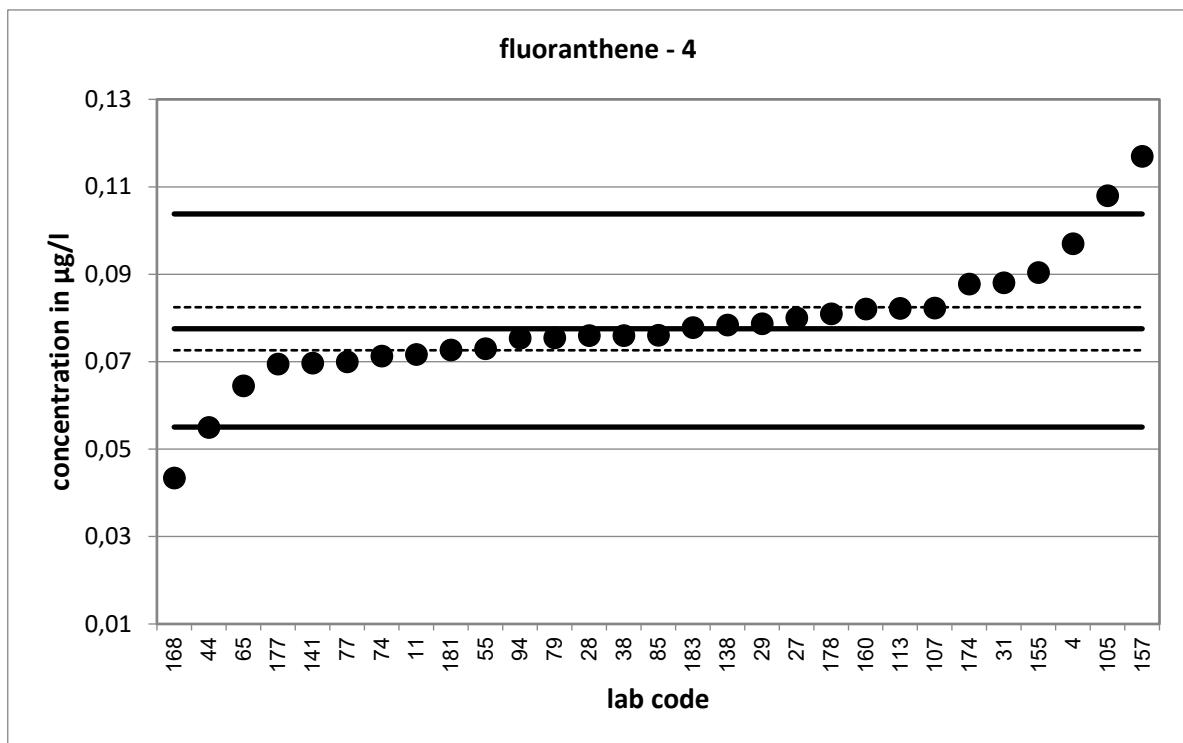
Strongly deviating values are not correctly shown in the diagram.



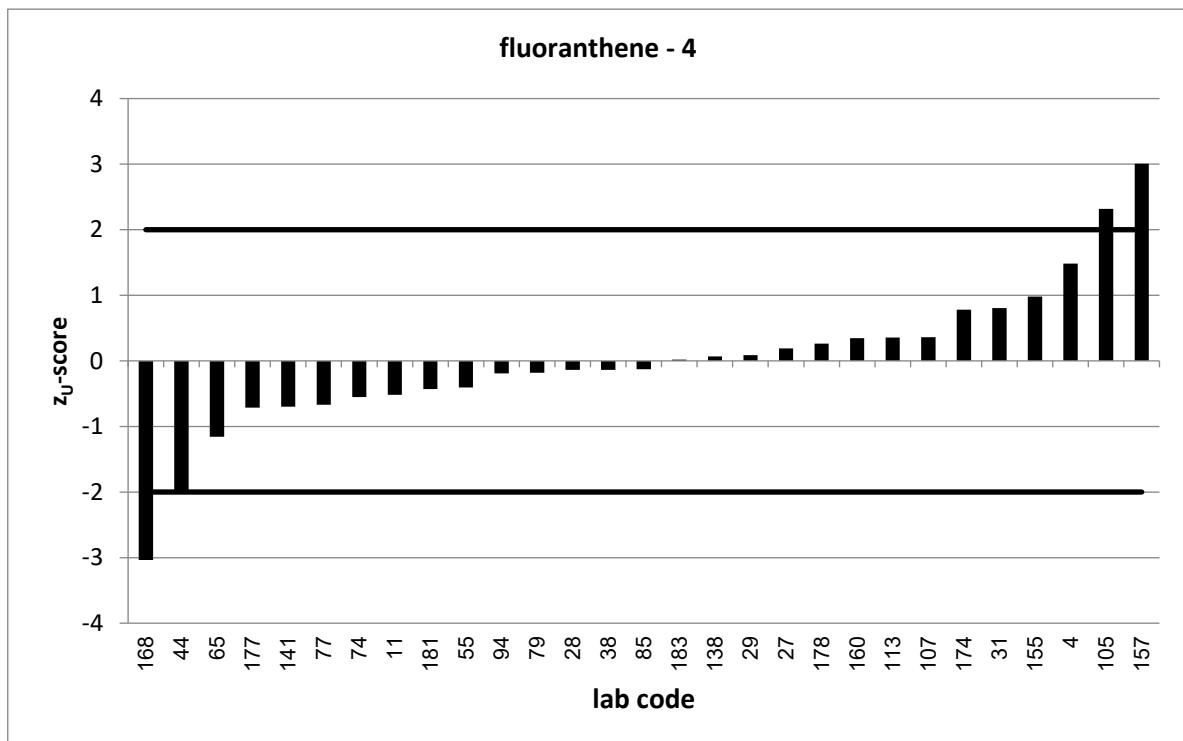
PT 3/24		fluoranthene - 4			
assigned value [ $\mu\text{g/l}$ ]*		$0,07753 \pm 0,00492$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1038			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,05504			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,097			1,5	s
11	0,0717	0,016	-0,7	-0,5	s
27	0,08			0,2	s
28	0,076	0,009	-0,3	-0,1	s
29	0,0787	0,016	0,1	0,1	s
31	0,0881	0,031	0,7	0,8	s
38	0,076			-0,1	s
44	0,055	0,012	-3,5	-2,0	s
55	0,073	0,033	-0,3	-0,4	s
65	0,0645			-1,2	s
74	0,0713	0,02	-0,6	-0,6	s
77	0,07	0,025	-0,6	-0,7	s
79	0,0755			-0,2	s
85	0,0761	0,002	-0,5	-0,1	s
94	0,0754			-0,2	s
105	0,108			2,3	q
107	0,0823	0,021	0,4	0,4	s
113	0,0822			0,4	s
138	0,0784			0,1	s
141	0,0697	0,031	-0,5	-0,7	s
155	0,0904			1,0	s
157	0,117			3,0	u
160	0,0821			0,3	s
168	0,0434	0,015	-4,3	-3,0	u
174	0,0878			0,8	s
177	0,0695			-0,7	s
178	0,081			0,3	s
181	0,0727	0,01	-0,9	-0,4	s
183	0,0778			0,0	s

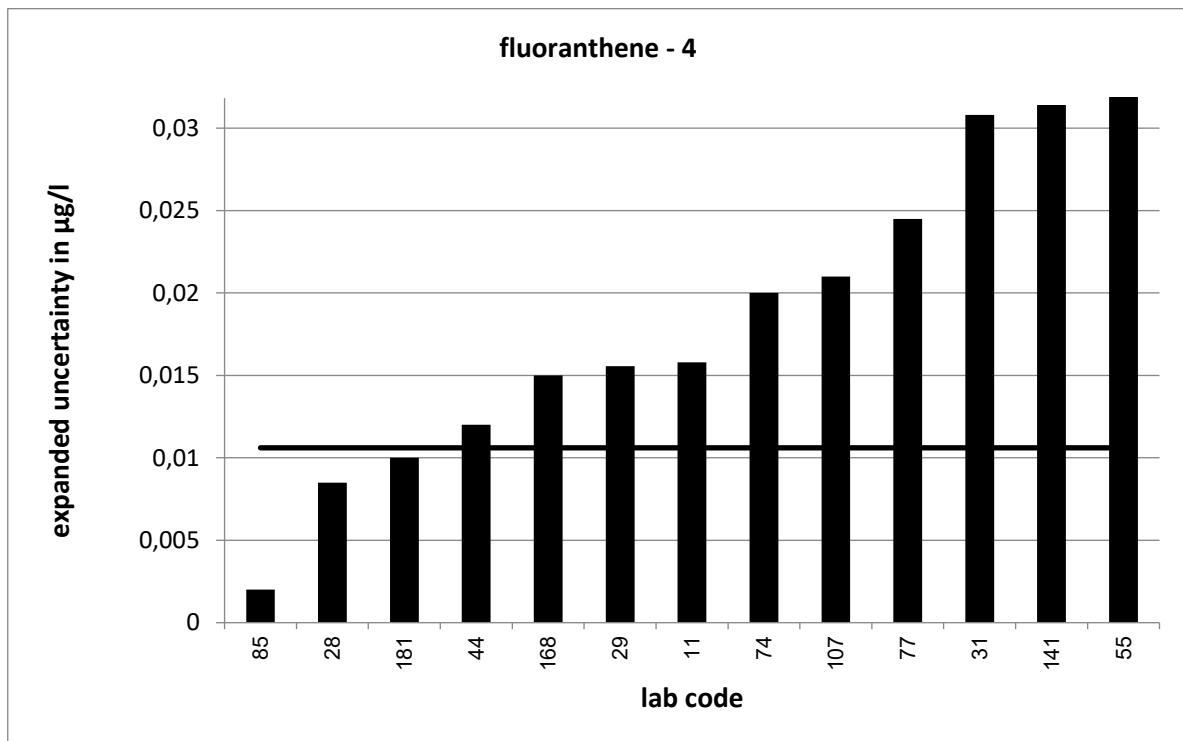
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

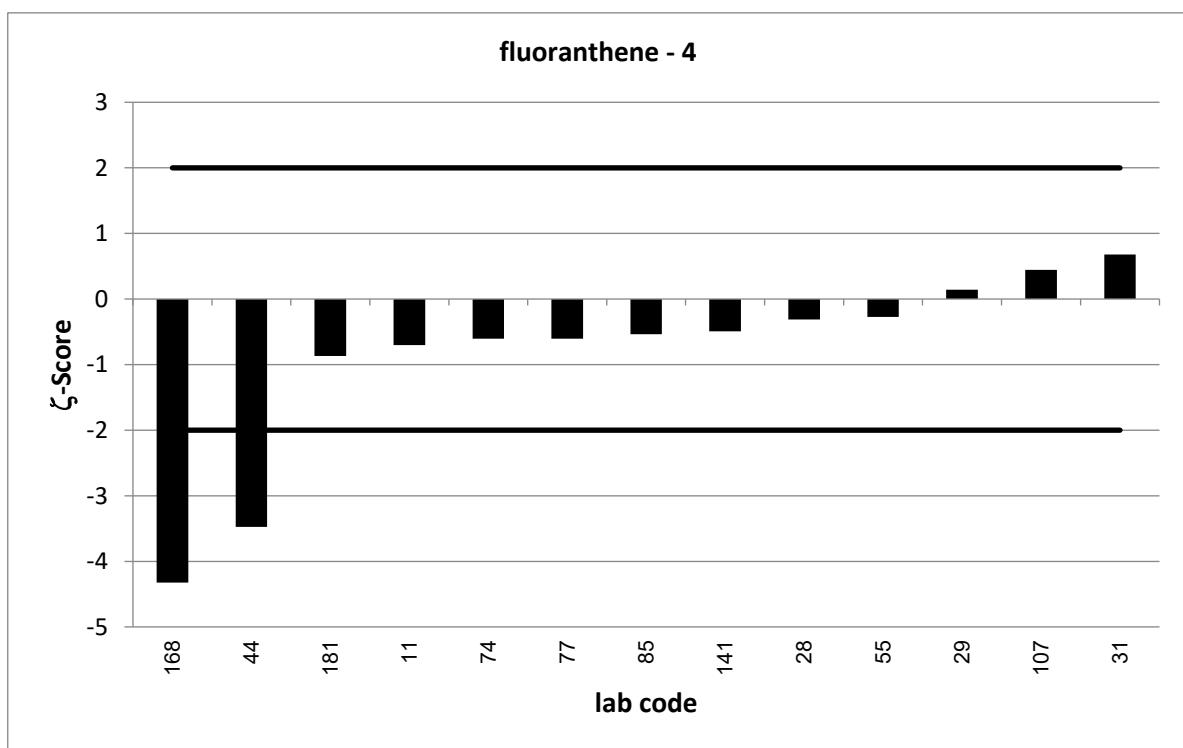


Strongly deviating values are not shown in the diagram.





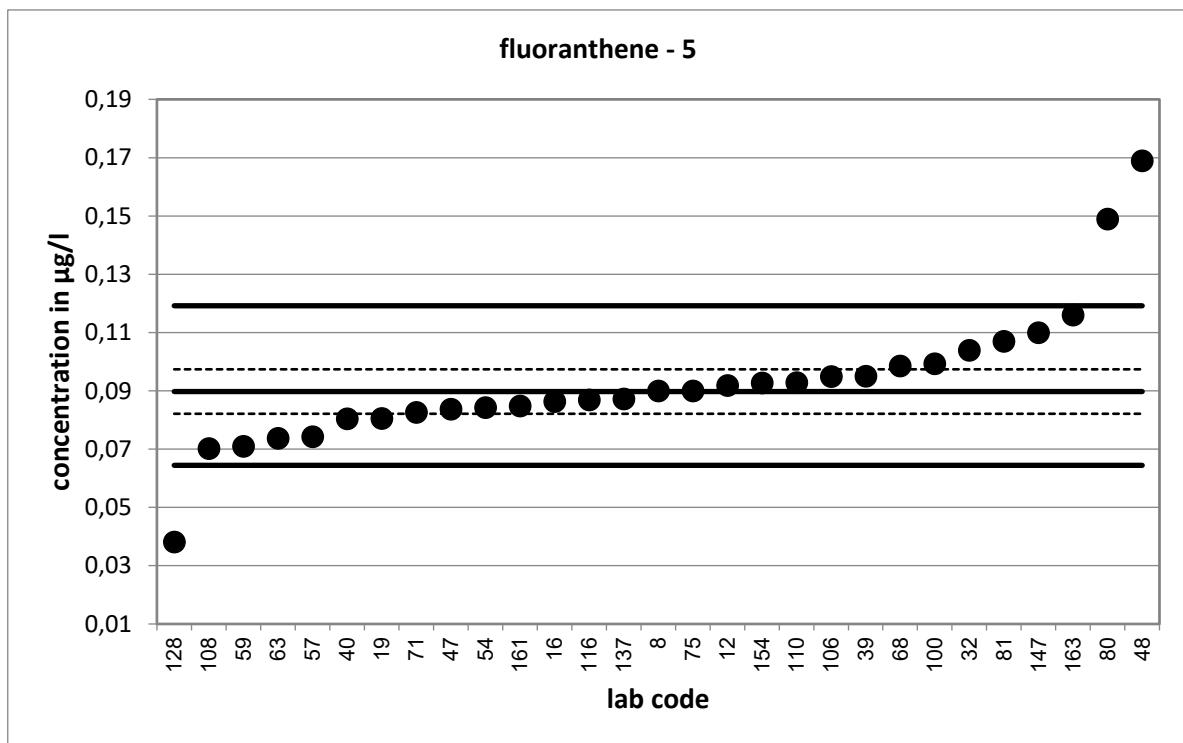
Strongly deviating values are not correctly shown in the diagram.



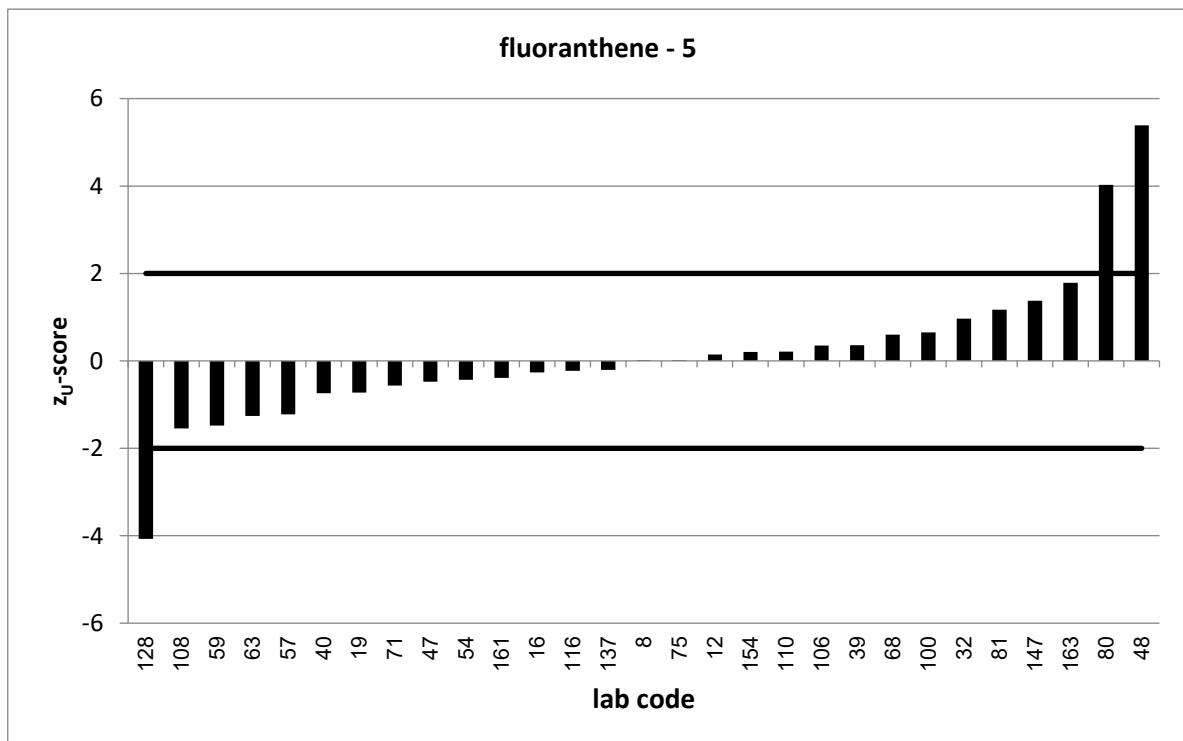
PT 3/24		fluoranthene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,08976 \pm 0,00763$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1192			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,06444			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,09	0,021	0,0	0,0	s
12	0,0919	0,028	0,1	0,1	s
16	0,0864	0,015	-0,4	-0,3	s
19	0,0806	0,028	-0,6	-0,7	s
32	0,104			1,0	s
39	0,095	0,015	0,6	0,4	s
40	0,0804			-0,7	s
47	0,0837			-0,5	s
48	0,169	0,007	15,2	5,4	u
54	0,0843	0,025	-0,4	-0,4	s
57	0,0743			-1,2	s
59	0,071	0,014	-2,4	-1,5	s
63	0,0738	0,022	-1,4	-1,3	s
68	0,0986			0,6	s
71	0,0826	0,014	-0,9	-0,6	s
75	0,09	0,018	0,0	0,0	s
80	0,149	0,02	5,5	4,0	u
81	0,107			1,2	s
100	0,0993	0,02	0,9	0,6	s
106	0,0949			0,3	s
108	0,0702	0,015	-2,3	-1,5	s
110	0,0929			0,2	s
116	0,0869	0,011	-0,4	-0,2	s
128	0,0382			-4,1	u
137	0,0872	0,013	-0,3	-0,2	s
147	0,11	0,003	4,9	1,4	s
154	0,0928	0,046	0,1	0,2	s
161	0,0848			-0,4	s
163	0,116			1,8	s

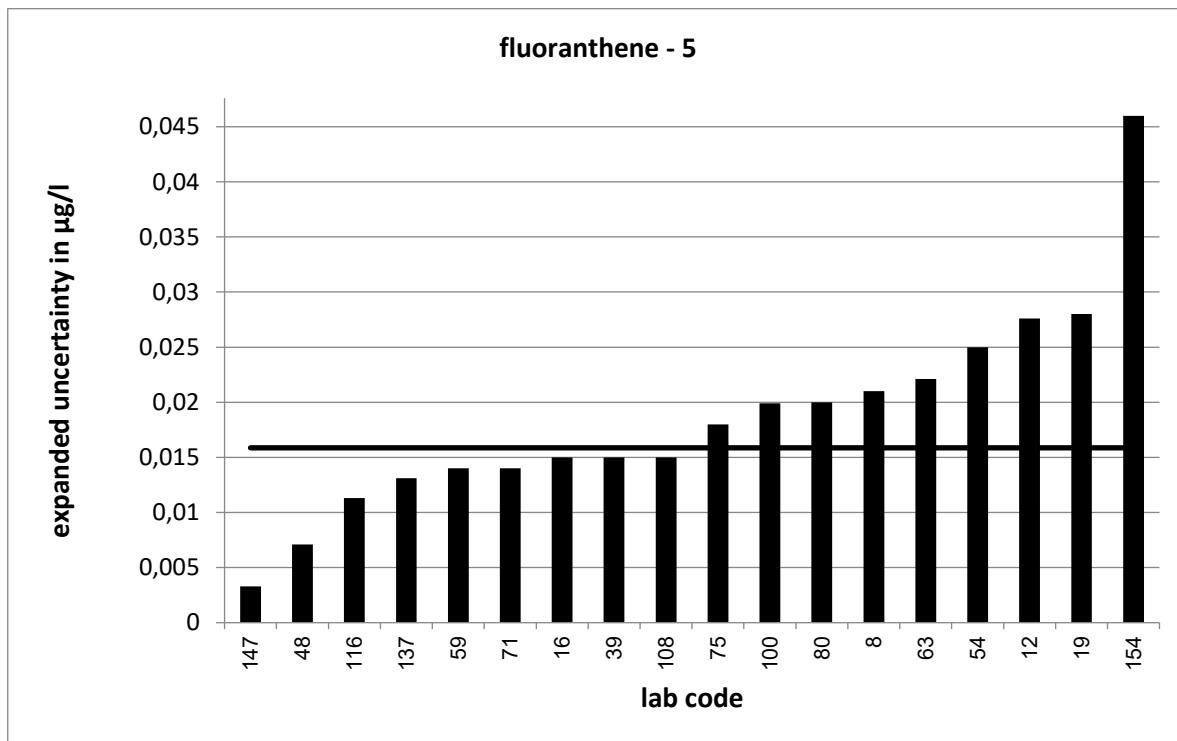
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

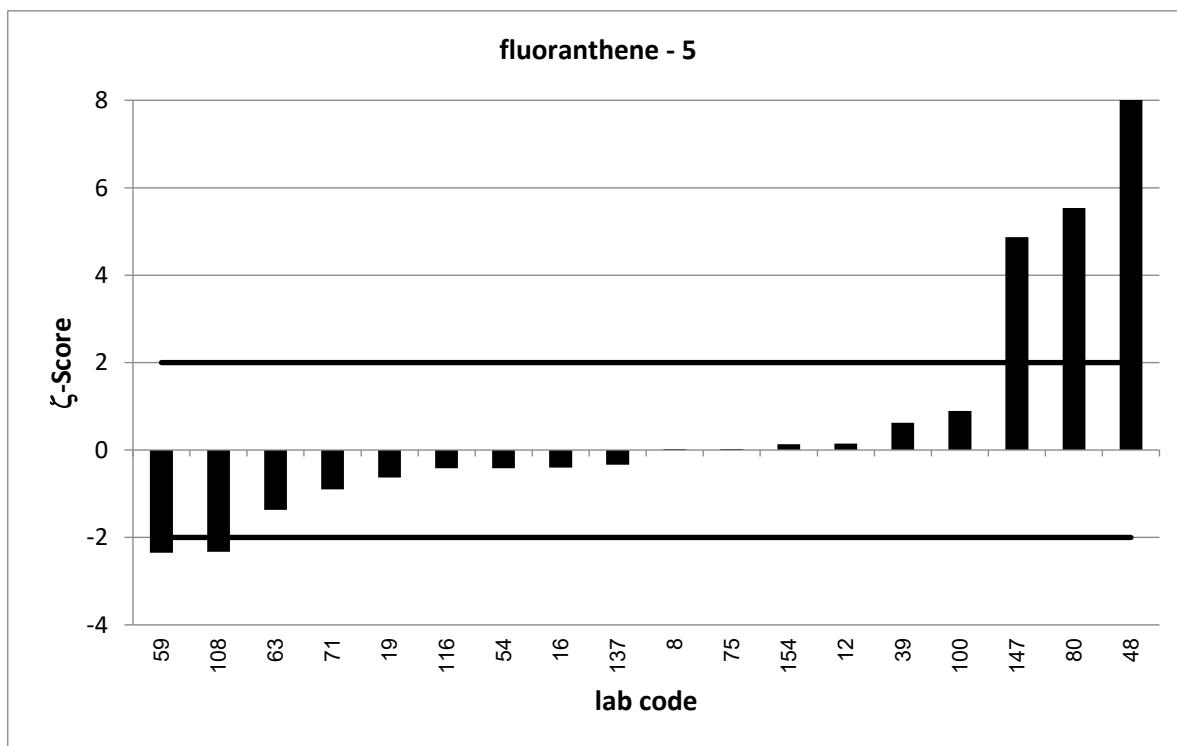


Strongly deviating values are not shown in the diagram.





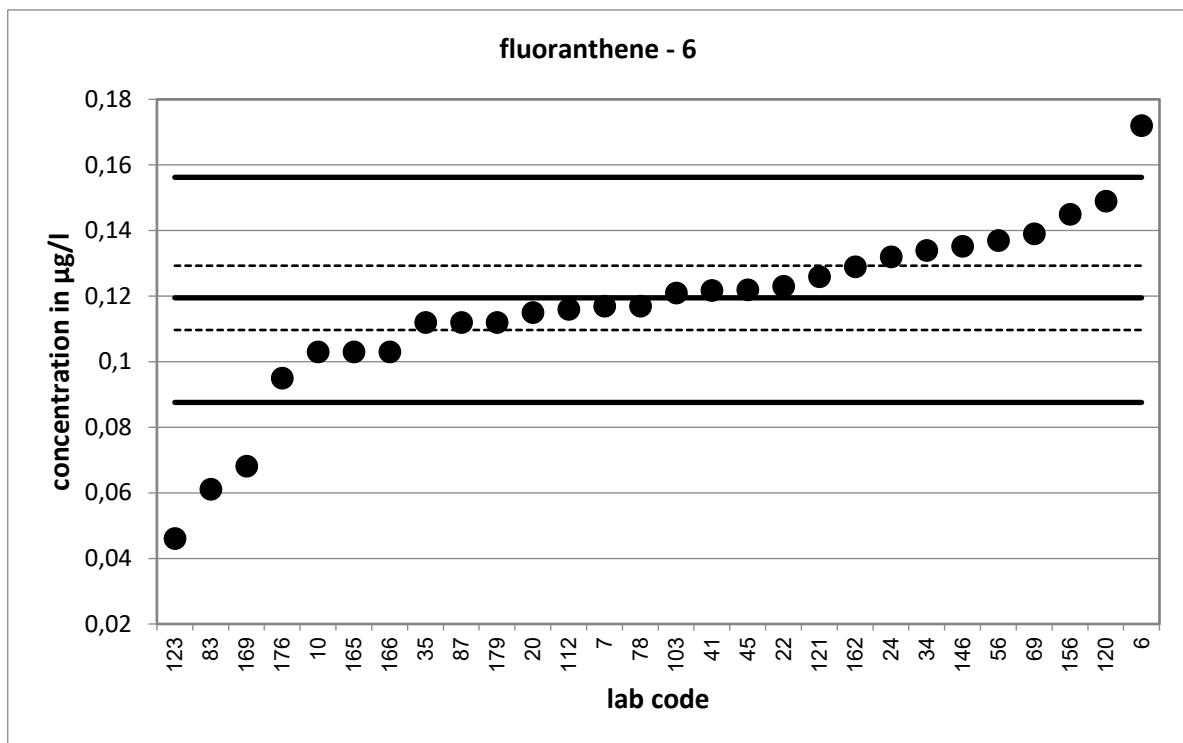
Strongly deviating values are not correctly shown in the diagram.



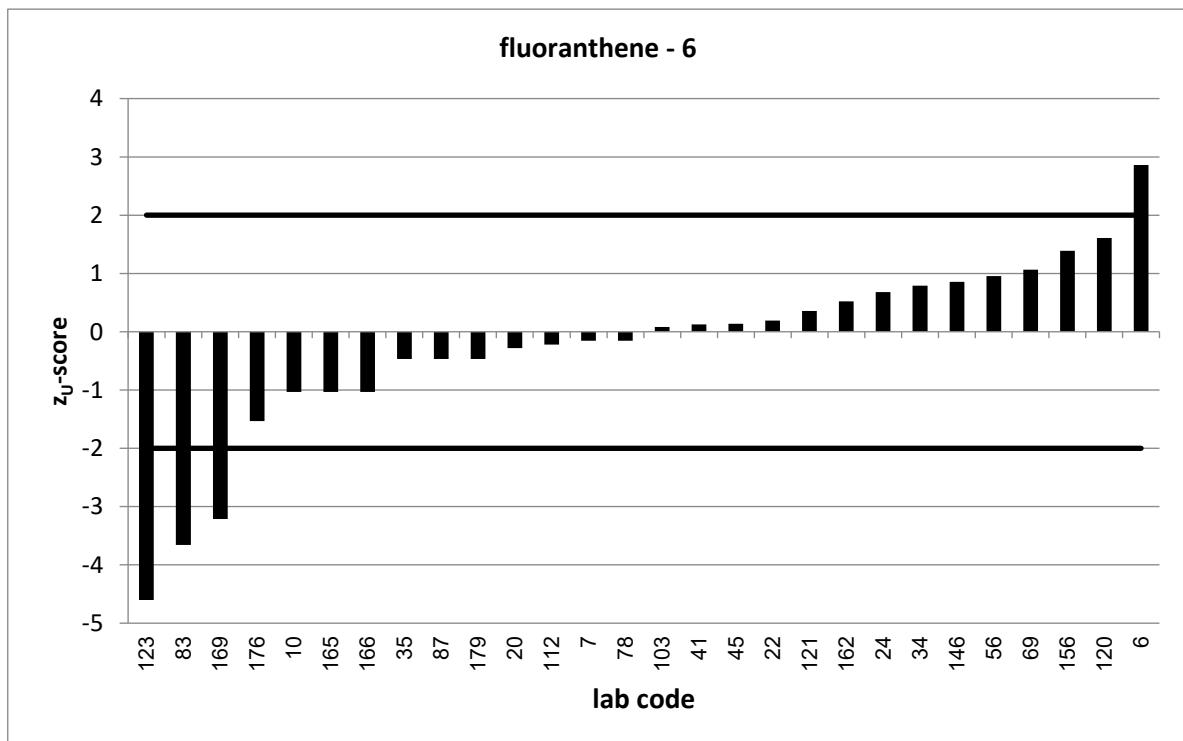
PT 3/24		fluoranthene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,1195 \pm 0,0098$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1562			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,08757			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,172	0,066	1,6	2,9	q
7	0,117	0,022	-0,2	-0,2	s
10	0,103	0,019	-1,5	-1,0	s
20	0,115	0,035	-0,2	-0,3	s
22	0,123	0,049	0,1	0,2	s
24	0,132			0,7	s
34	0,134	0,01	2,1	0,8	s
35	0,112	0,034	-0,4	-0,5	s
41	0,1218			0,1	s
45	0,122			0,1	s
56	0,137	0,017	1,8	1,0	s
69	0,139	0,024	1,5	1,1	s
78	0,117			-0,2	s
83	0,0611			-3,7	u
87	0,112	0,034	-0,4	-0,5	s
103	0,121	0,013	0,2	0,1	s
112	0,116	0,02	-0,3	-0,2	s
120	0,149	0,011	4,0	1,6	s
121	0,126	0,044	0,3	0,4	s
123	0,0461			-4,6	u
146	0,1352	0,03	1,0	0,9	s
156	0,145	0,015	2,9	1,4	s
162	0,129	0,039	0,5	0,5	s
165	0,103			-1,0	s
166	0,103			-1,0	s
169	0,0682	0,024	-4,0	-3,2	u
176	0,095			-1,5	s
179	0,112	0,033	-0,4	-0,5	s

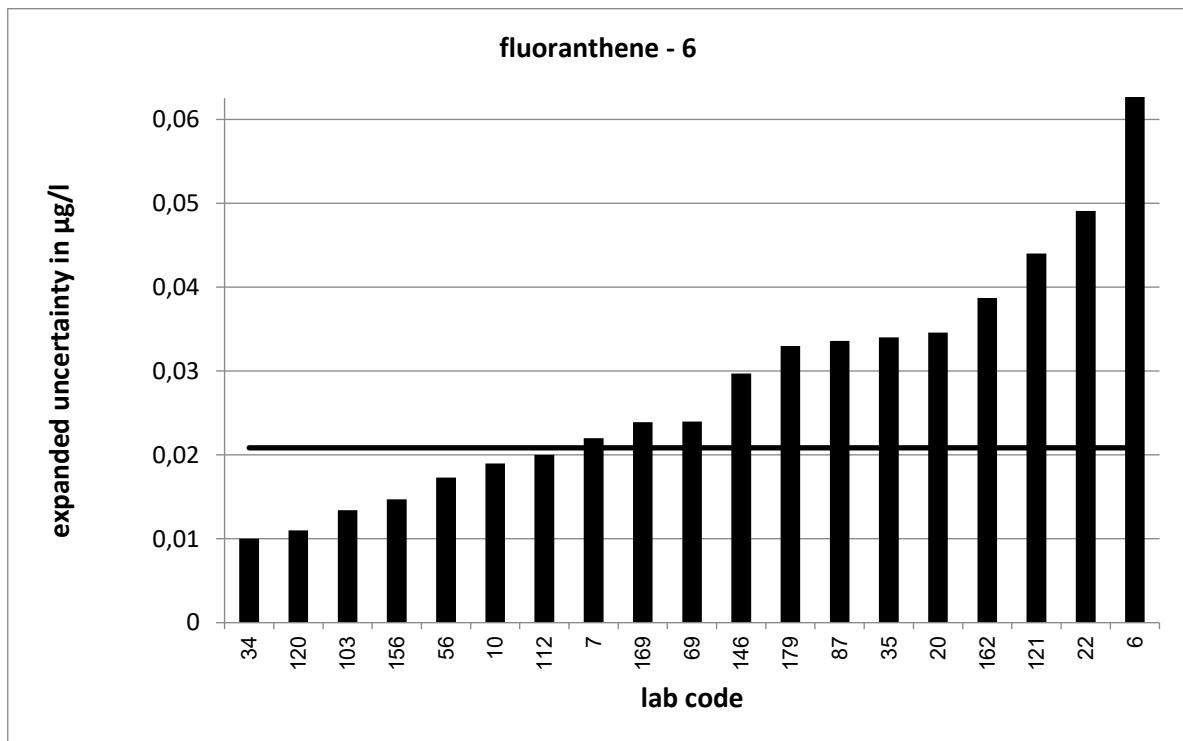
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

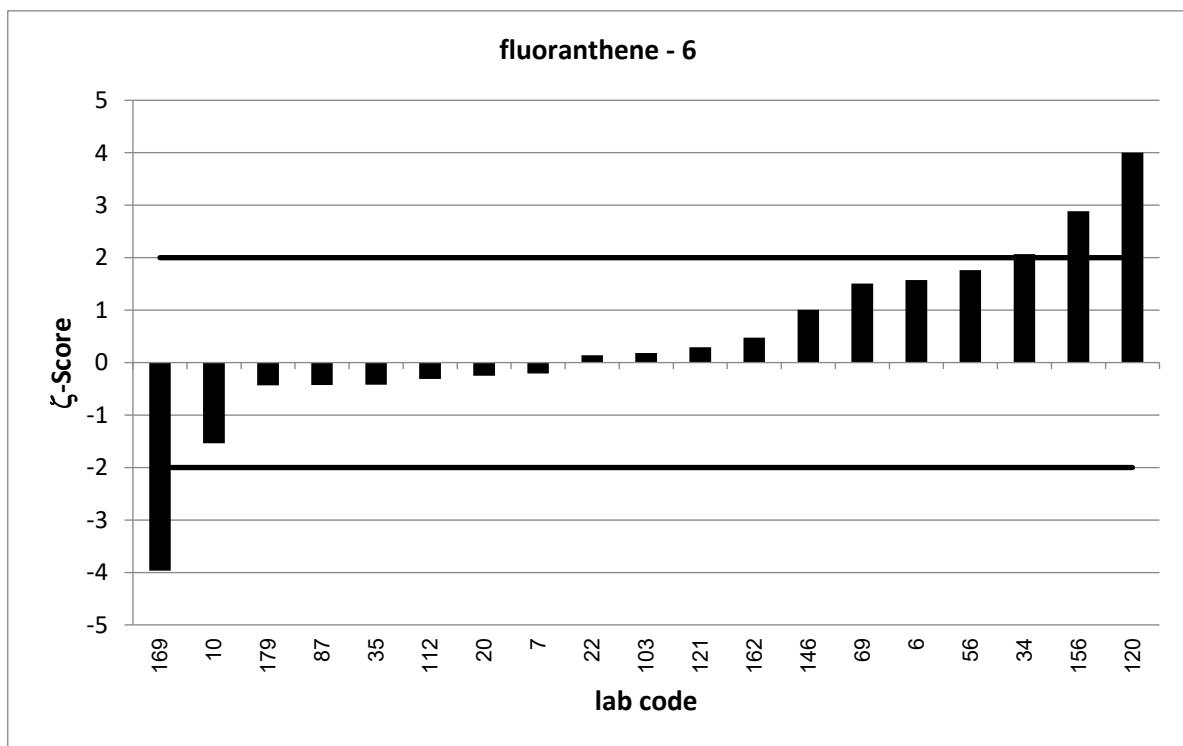


Strongly deviating values are not shown in the diagram.





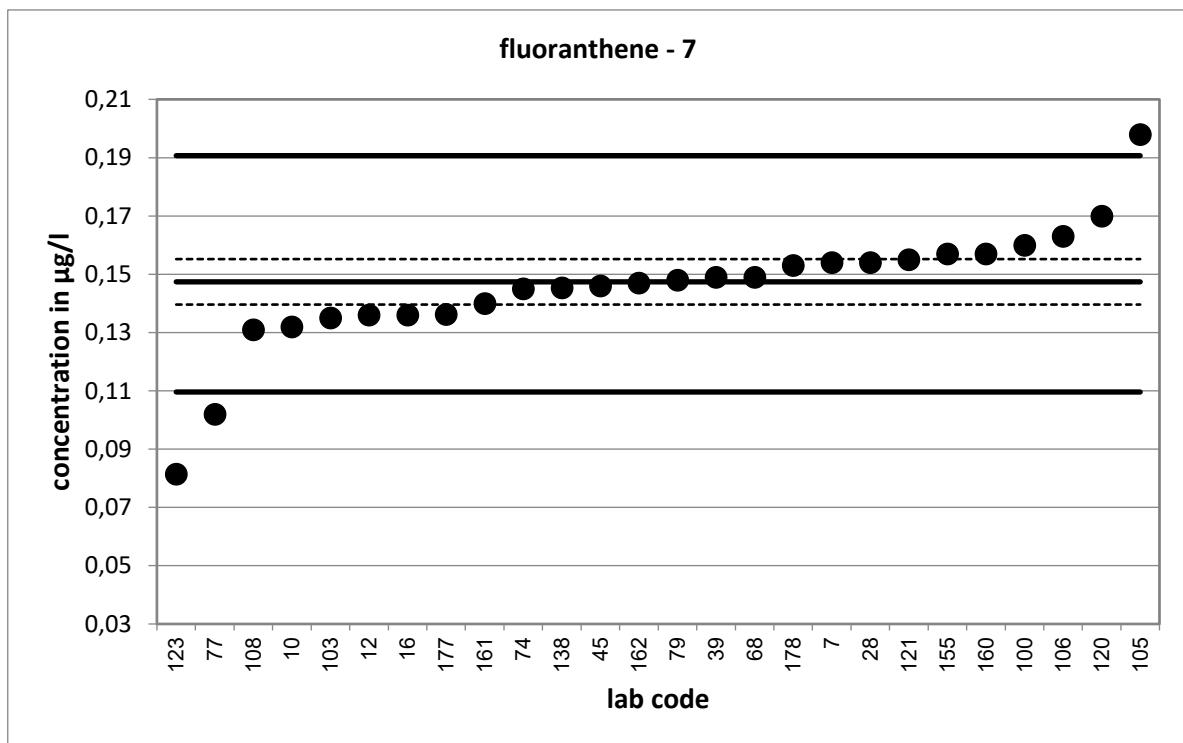
Strongly deviating values are not correctly shown in the diagram.



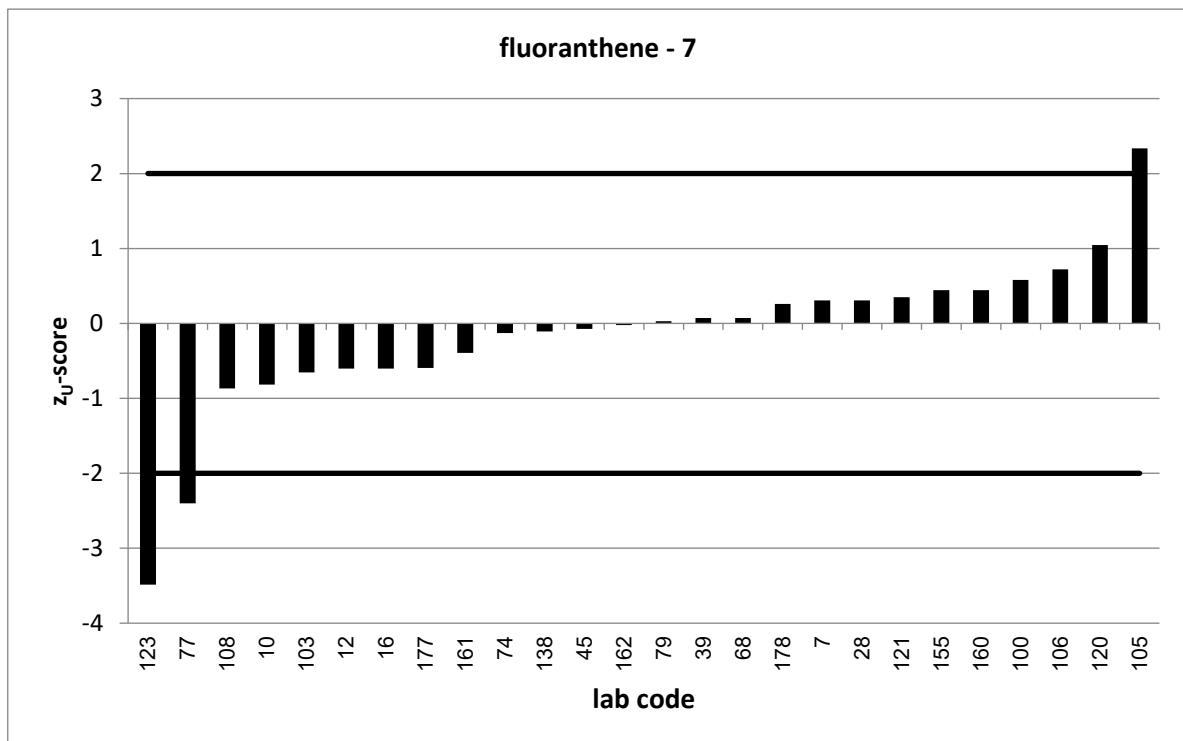
PT 3/24		fluoranthene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,1474 \pm 0,0078$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1907			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1096			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,154	0,022	0,6	0,3	s
10	0,132	0,024	-1,2	-0,8	s
12	0,136	0,041	-0,5	-0,6	s
16	0,136	0,024	-0,9	-0,6	s
28	0,154	0,017	0,7	0,3	s
39	0,149	0,024	0,1	0,1	s
45	0,146			-0,1	s
68	0,149			0,1	s
74	0,145	0,04	-0,1	-0,1	s
77	0,102	0,036	-2,5	-2,4	q
79	0,148			0,0	s
100	0,16	0,032	0,8	0,6	s
103	0,135	0,015	-1,5	-0,7	s
105	0,198			2,3	q
106	0,163			0,7	s
108	0,131	0,028	-1,1	-0,9	s
120	0,17	0,016	2,5	1,0	s
121	0,155	0,053	0,3	0,4	s
123	0,0815			-3,5	u
138	0,1454			-0,1	s
155	0,157			0,4	s
160	0,157			0,4	s
161	0,14			-0,4	s
162	0,147	0,044	0,0	0,0	s
177	0,1362			-0,6	s
178	0,153			0,3	s

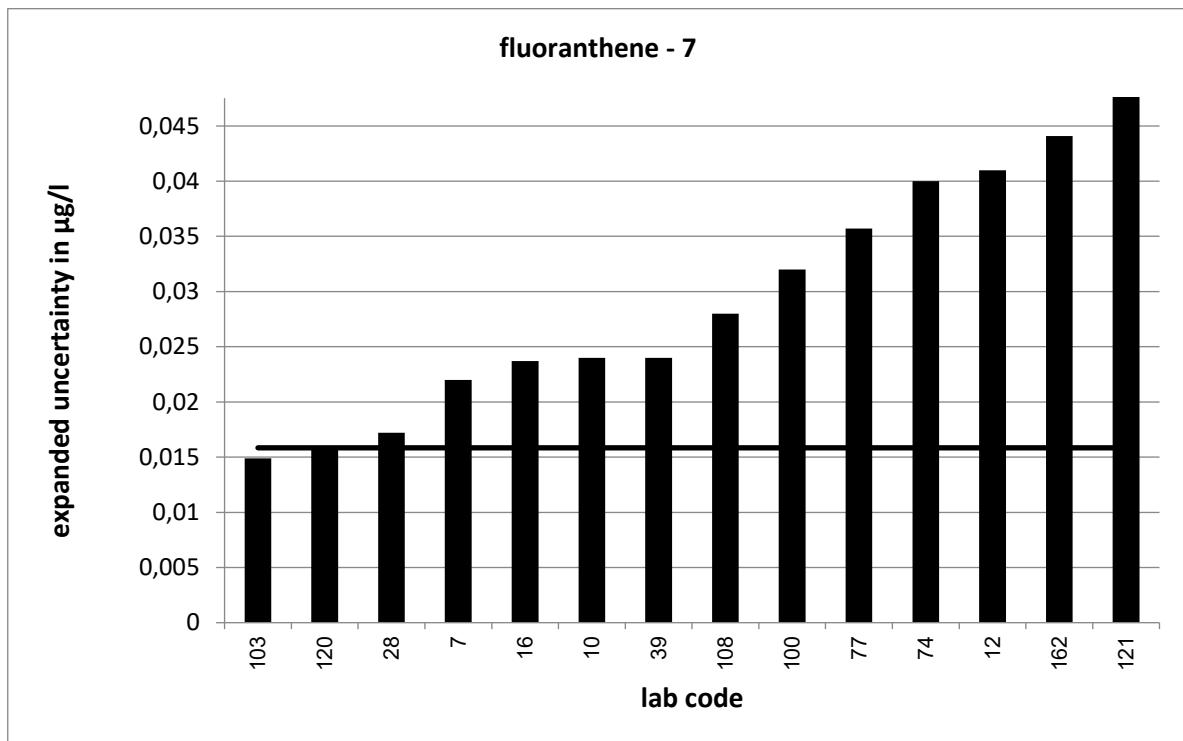
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

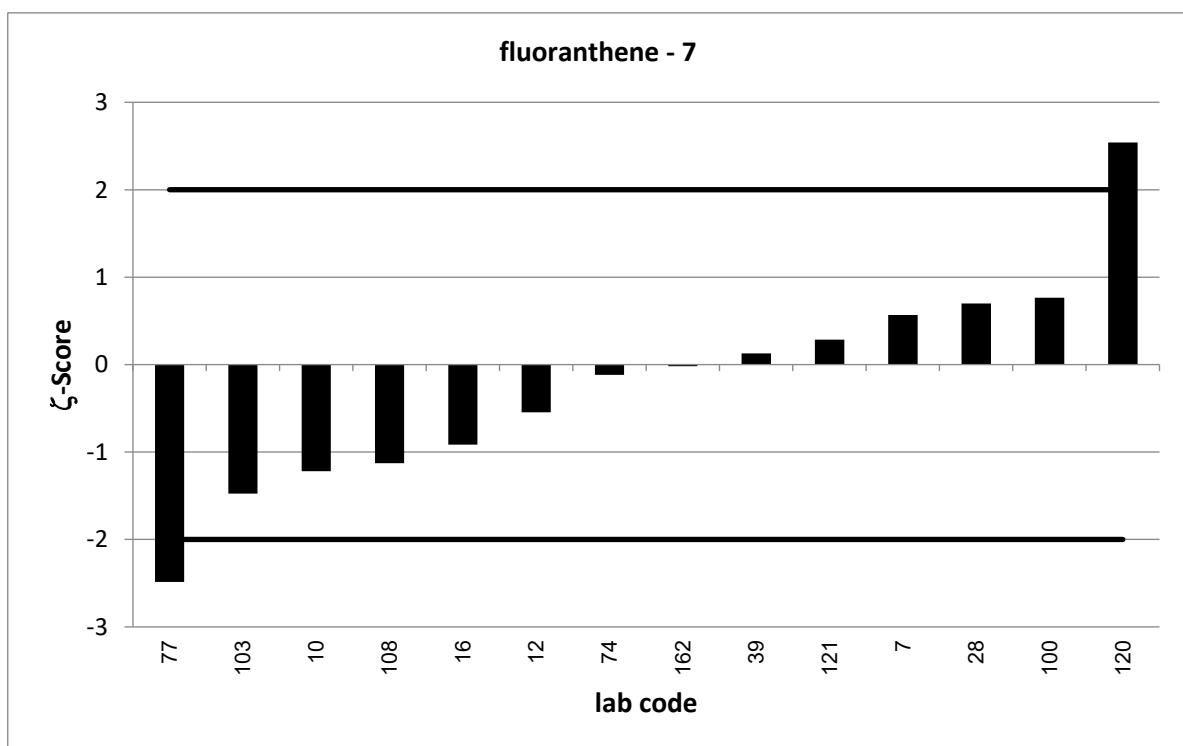


Strongly deviating values are not shown in the diagram.





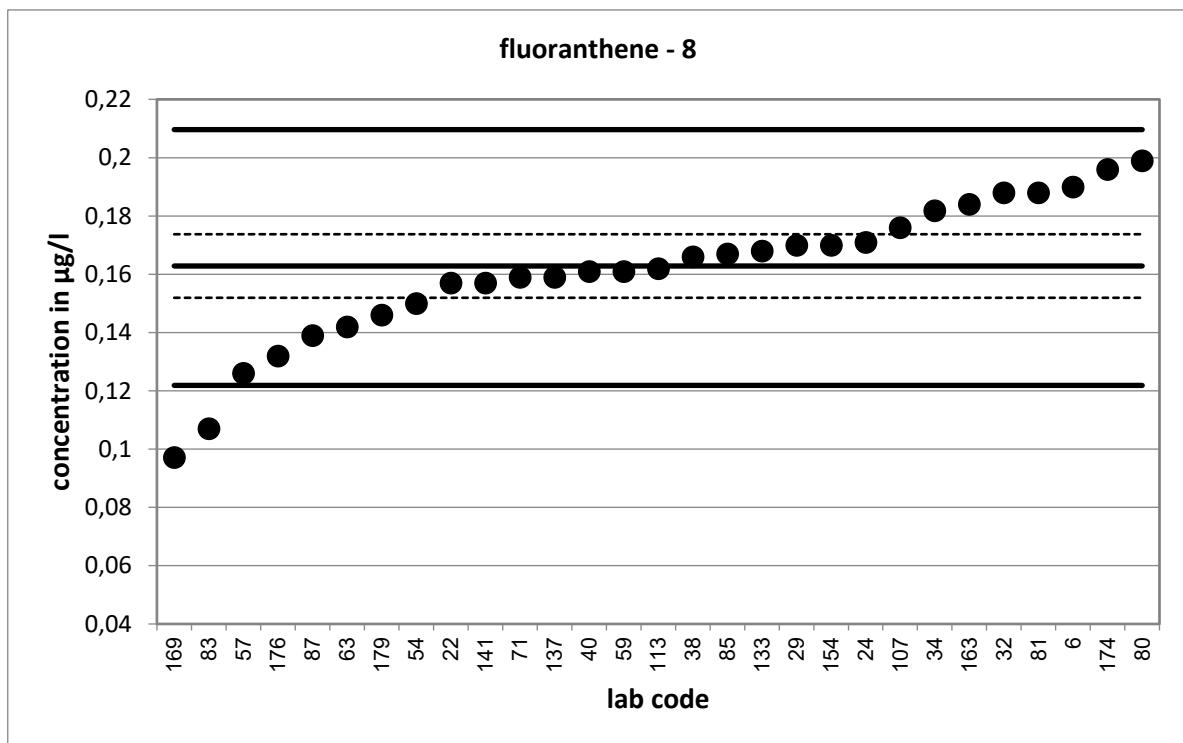
Strongly deviating values are not correctly shown in the diagram.



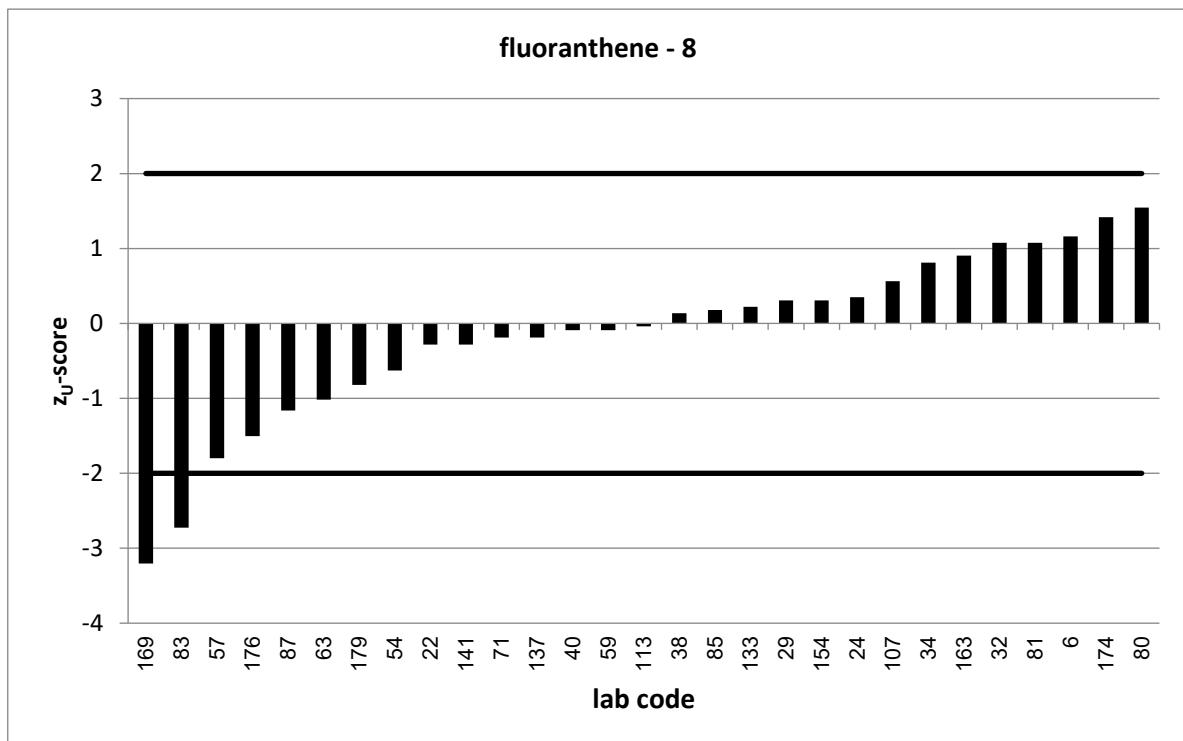
PT 3/24		fluoranthene - 8			
assigned value [ $\mu\text{g/l}$ ]*		$0,1628 \pm 0,0109$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2096			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1219			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,19	0,073	0,7	1,2	s
22	0,157	0,063	-0,2	-0,3	s
24	0,171			0,3	s
29	0,17	0,034	0,4	0,3	s
32	0,188			1,1	s
34	0,1818	0,02	1,7	0,8	s
38	0,166			0,1	s
40	0,161			-0,1	s
54	0,15	0,045	-0,6	-0,6	s
57	0,126			-1,8	s
59	0,161	0,032	-0,1	-0,1	s
63	0,142	0,043	-0,9	-1,0	s
71	0,159	0,027	-0,3	-0,2	s
80	0,199	0,02	3,2	1,5	s
81	0,188			1,1	s
83	0,107			-2,7	q
85	0,167	0,002	0,8	0,2	s
87	0,139	0,042	-1,1	-1,2	s
107	0,176	0,046	0,6	0,6	s
113	0,162			0,0	s
133	0,168			0,2	s
137	0,159	0,024	-0,3	-0,2	s
141	0,157	0,071	-0,2	-0,3	s
154	0,17	0,085	0,2	0,3	s
163	0,184			0,9	s
169	0,0972	0,034	-3,7	-3,2	u
174	0,196			1,4	s
176	0,132			-1,5	s
179	0,146	0,044	-0,7	-0,8	s

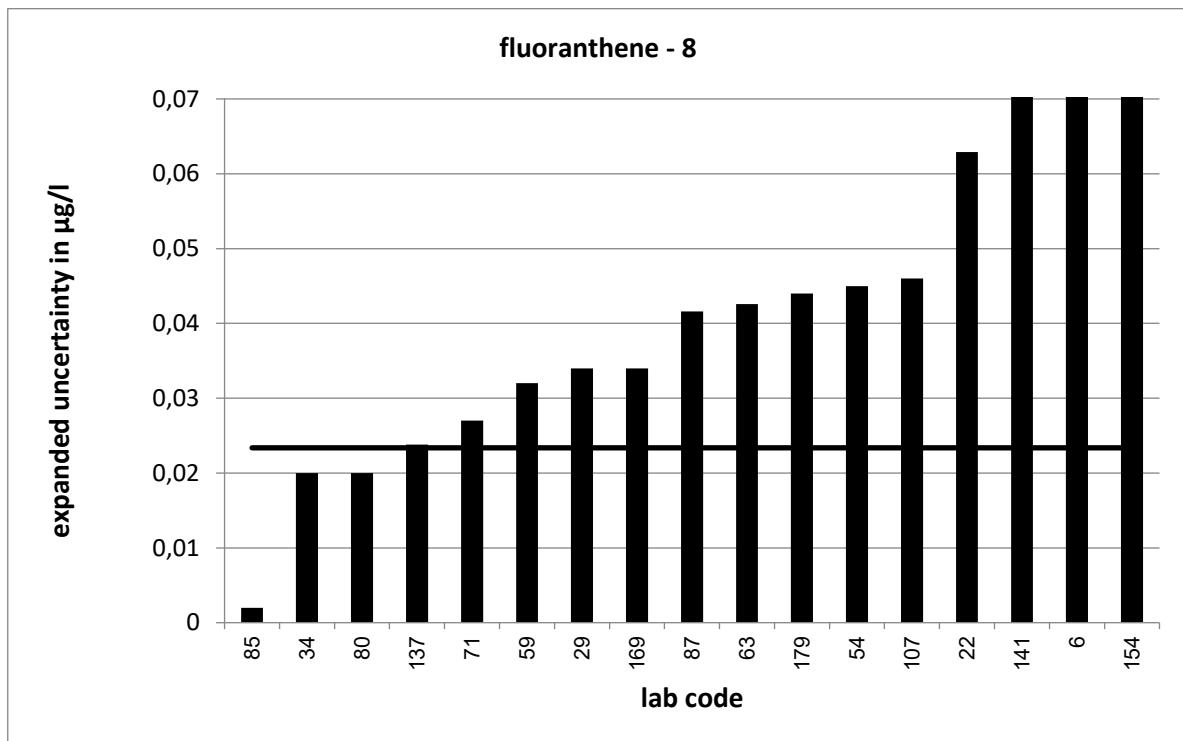
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

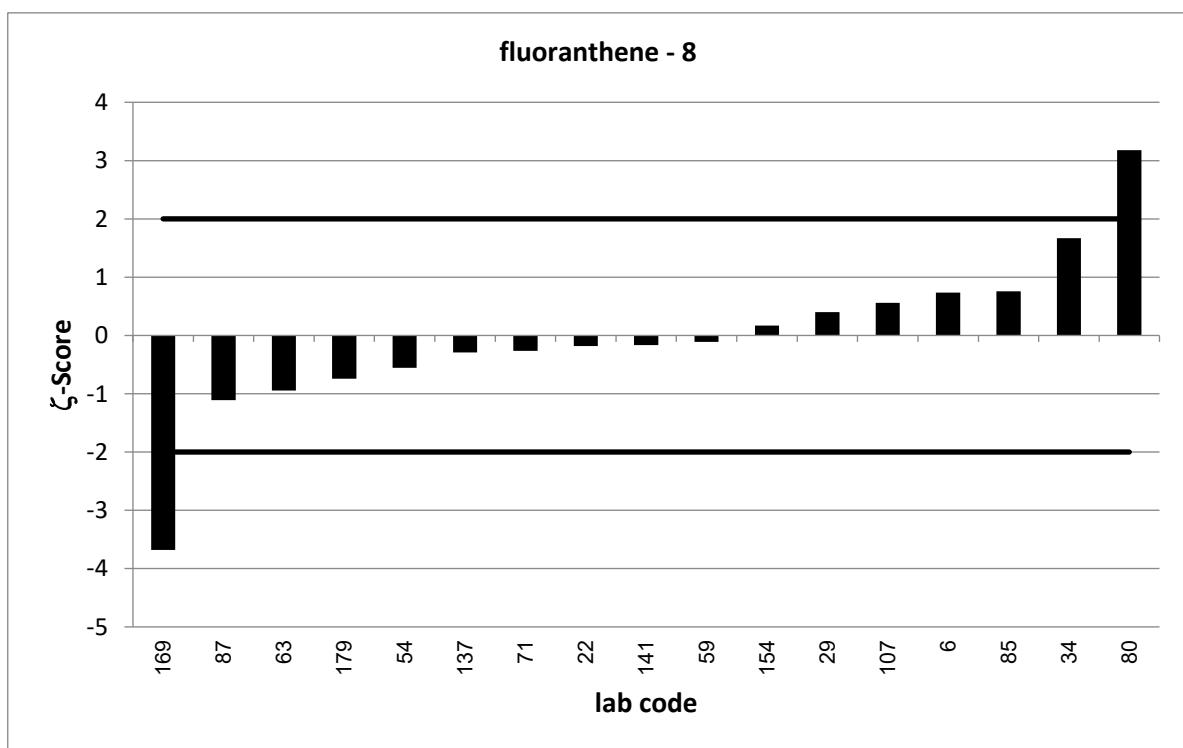


Strongly deviating values are not shown in the diagram.





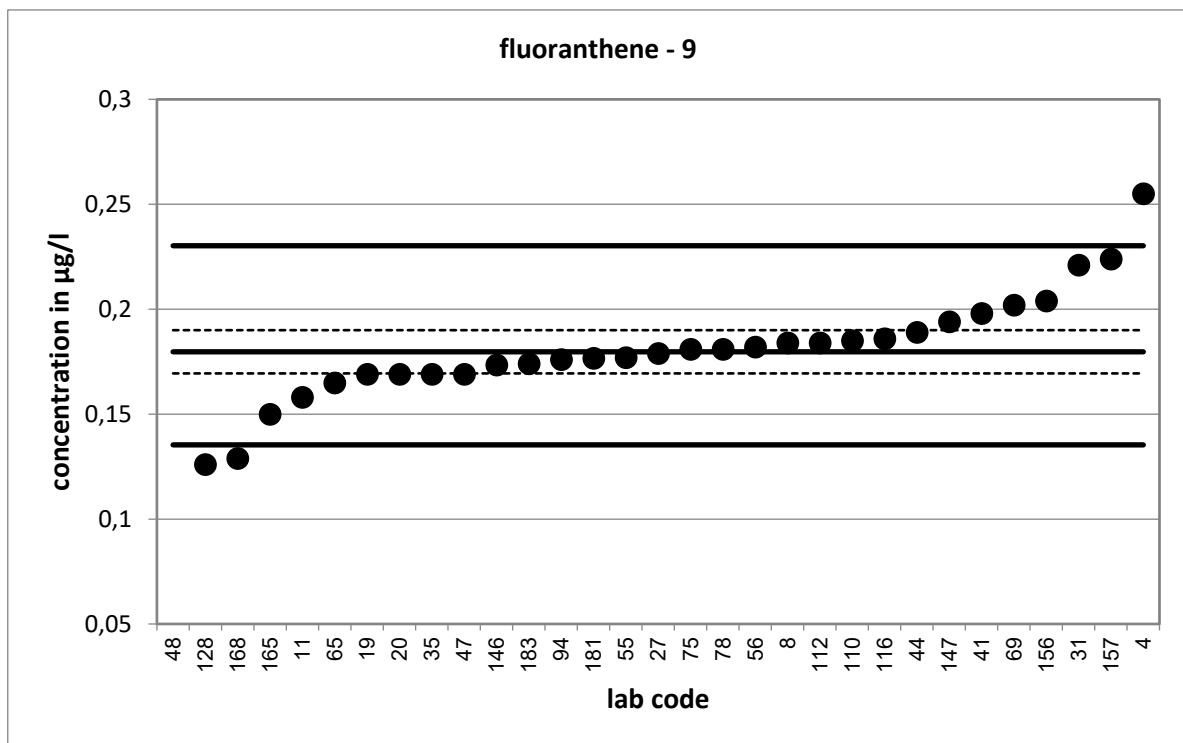
Strongly deviating values are not correctly shown in the diagram.



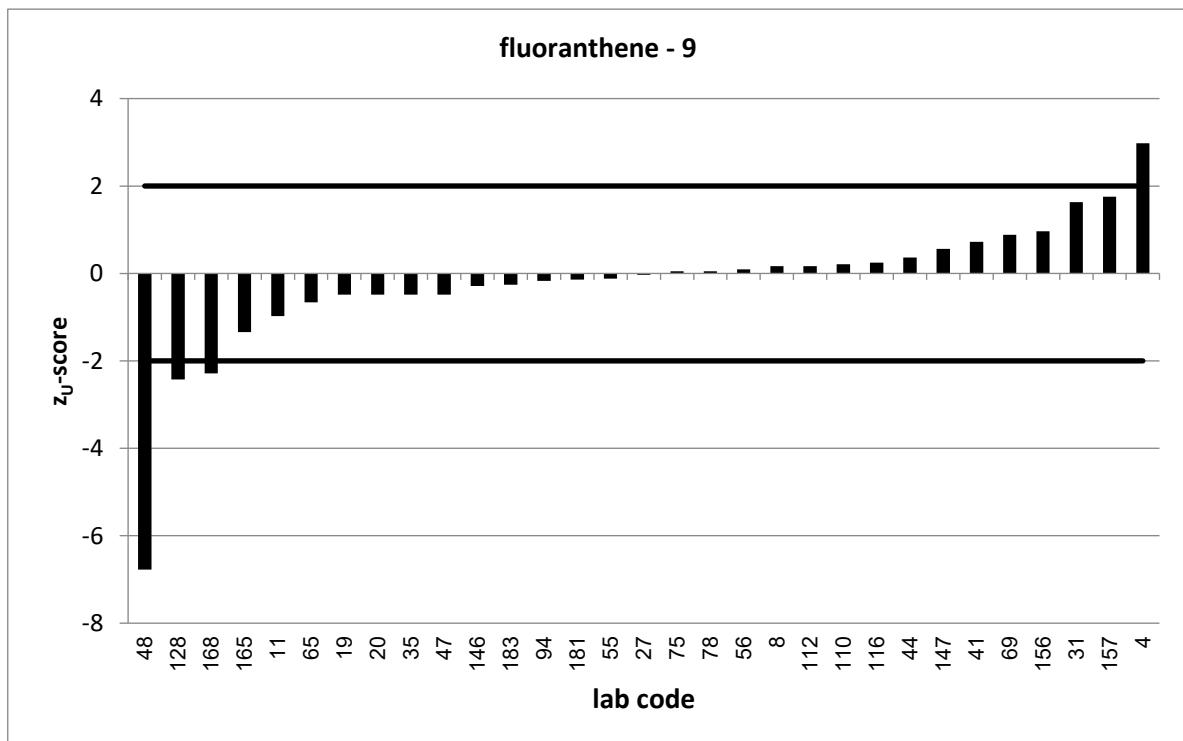
PT 3/24		fluoranthene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,1797 \pm 0,0103$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2302			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1354			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,255			3,0	u
8	0,184	0,044	0,2	0,2	s
11	0,158	0,035	-1,2	-1,0	s
19	0,169	0,059	-0,4	-0,5	s
20	0,169	0,051	-0,4	-0,5	s
27	0,179			0,0	s
31	0,221	0,077	1,1	1,6	s
35	0,169	0,051	-0,4	-0,5	s
41	0,198			0,7	s
44	0,189	0,033	0,5	0,4	s
47	0,169			-0,5	s
48	0,0294	6E-04	-29,2	-6,8	u
55	0,177	0,08	-0,1	-0,1	s
56	0,182			0,1	s
65	0,165			-0,7	s
69	0,202	0,035	1,2	0,9	s
75	0,181	0,036	0,1	0,1	s
78	0,181			0,1	s
94	0,176			-0,2	s
110	0,185			0,2	s
112	0,184	0,032	0,3	0,2	s
116	0,186	0,024	0,5	0,2	s
128	0,126			-2,4	q
146	0,1734	0,038	-0,3	-0,3	s
147	0,194	0,006	2,4	0,6	s
156	0,204	0,021	2,1	1,0	s
157	0,224			1,8	s
165	0,15			-1,3	s
168	0,129	0,02	-4,5	-2,3	q
181	0,1766	0,023	-0,2	-0,1	s
183	0,174			-0,3	s

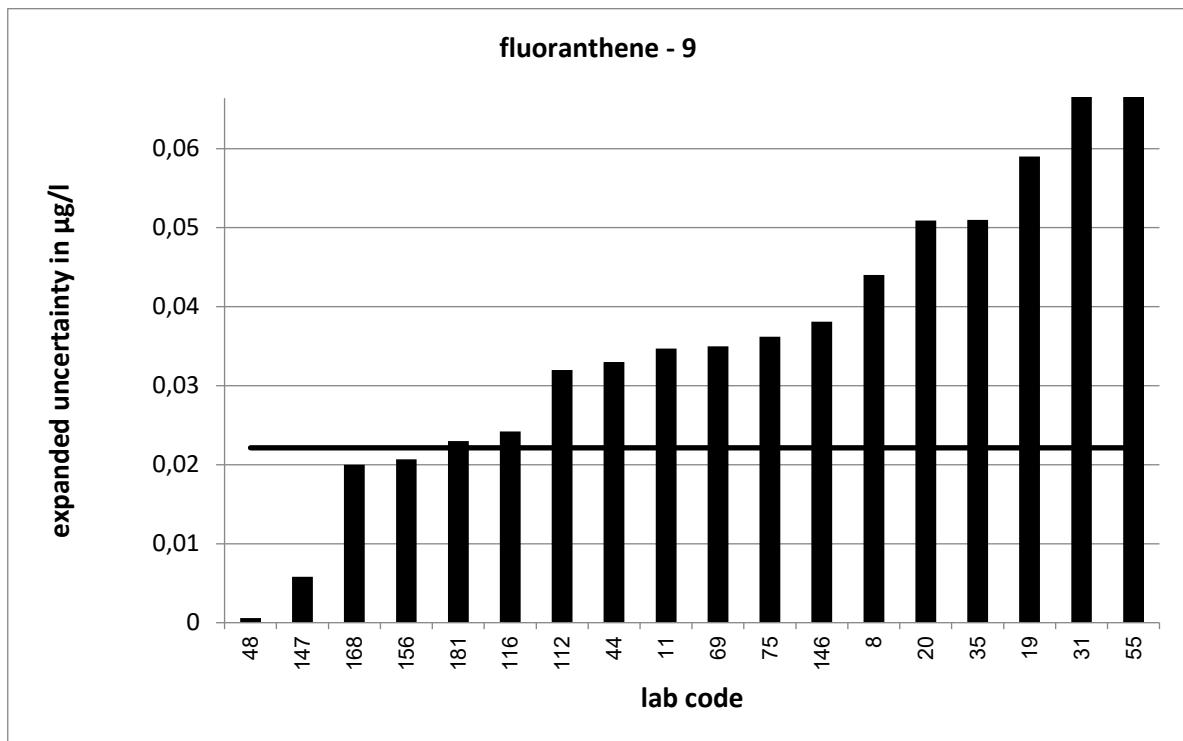
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

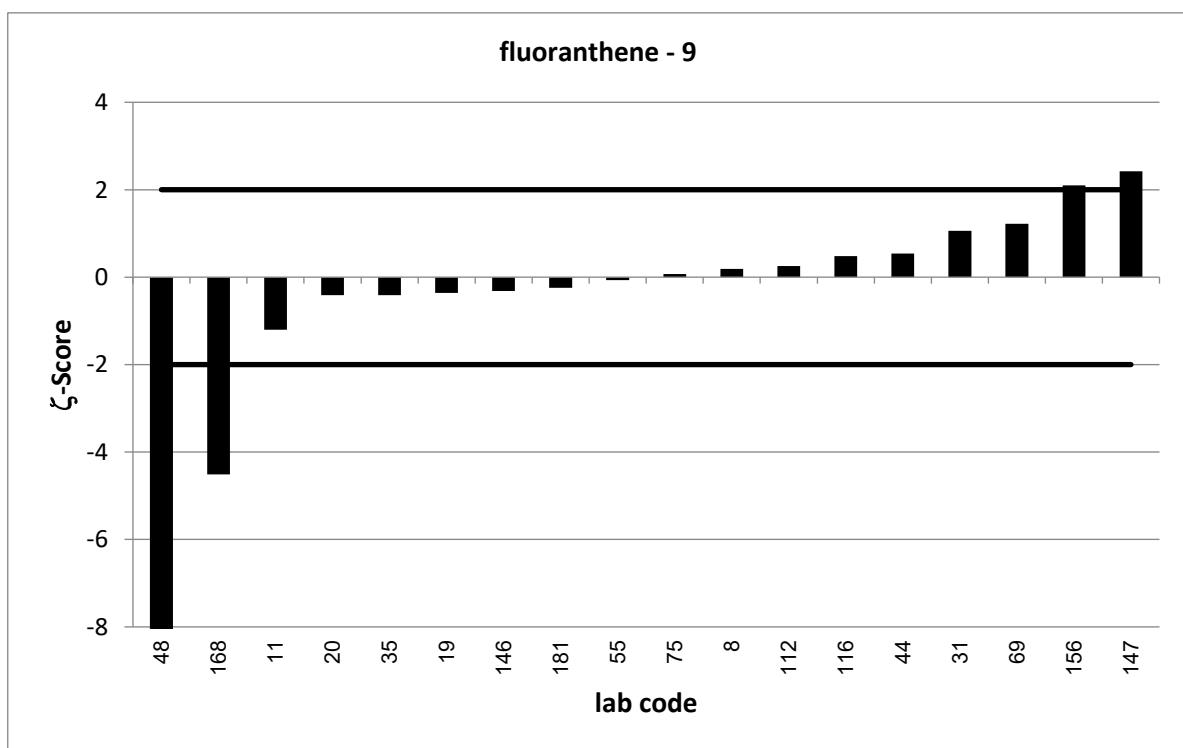


Strongly deviating values are not shown in the diagram.





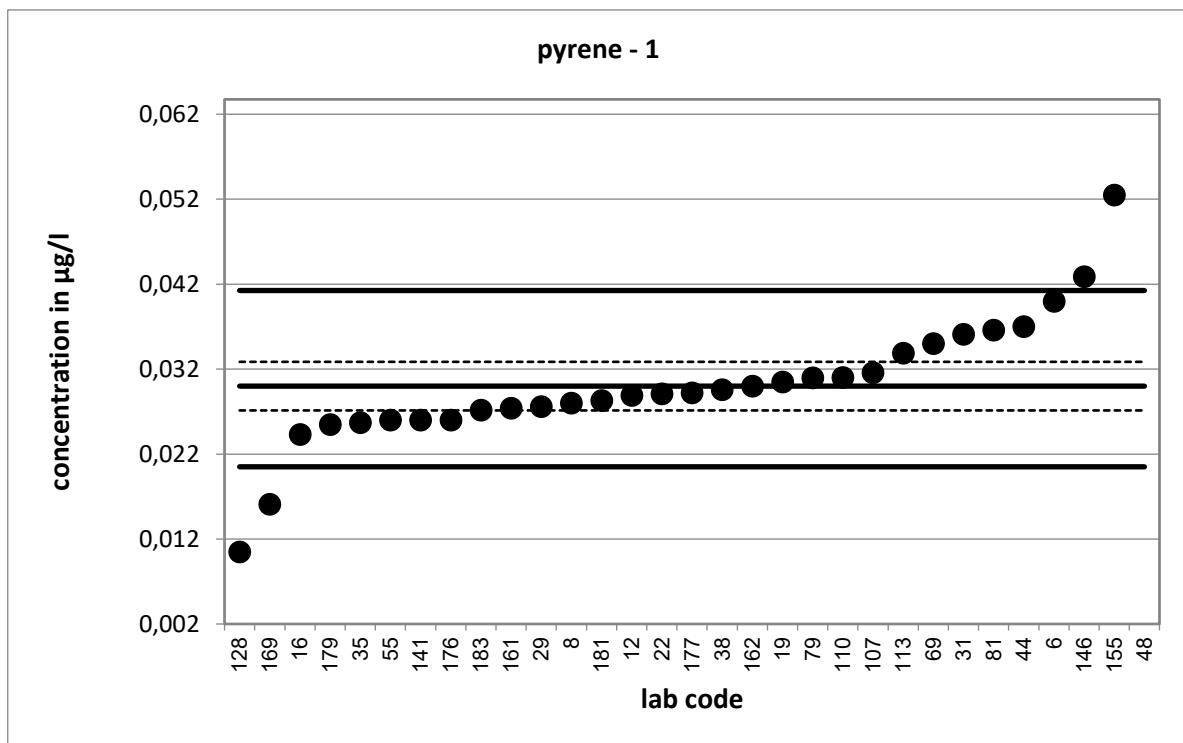
Strongly deviating values are not correctly shown in the diagram.



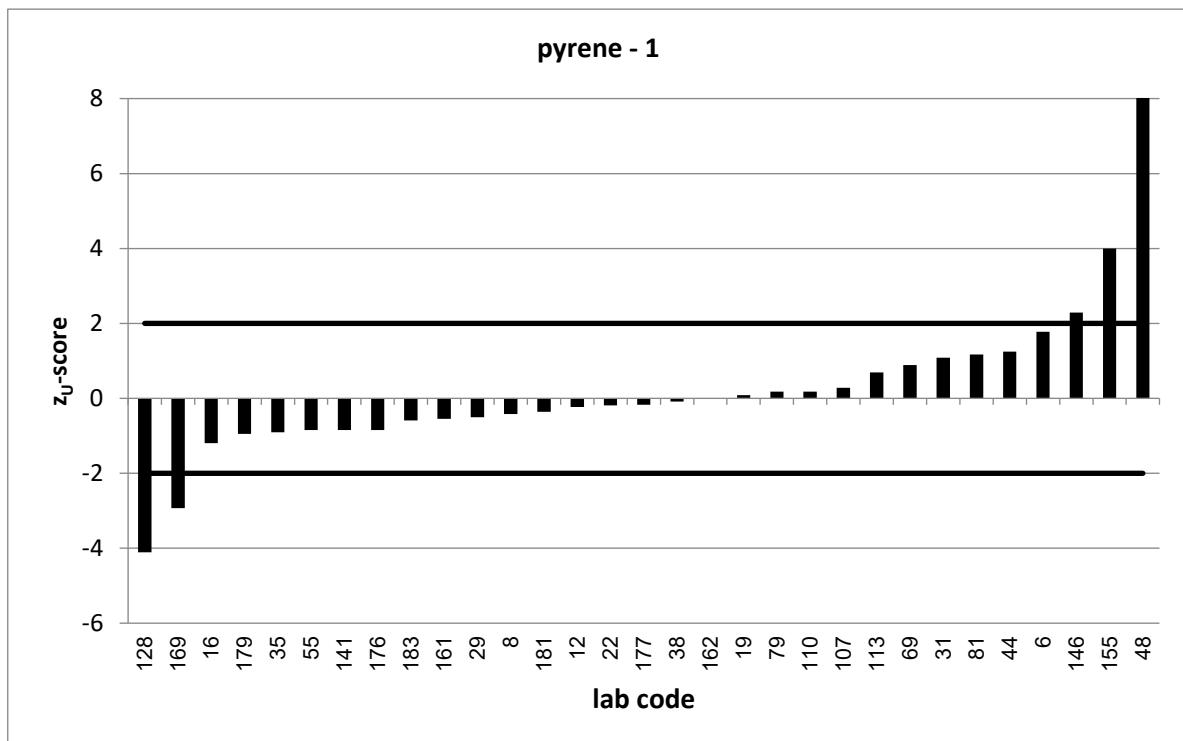
PT 3/24		pyrene - 1			
assigned value [ $\mu\text{g/l}$ ]*			0,03	$\pm 0,00286$	
upper tolerance limit [ $\mu\text{g/l}$ ]			0,04125		
lower tolerance limit [ $\mu\text{g/l}$ ]			0,0205		
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,04	0,013	1,5	1,8	s
8	0,028	0,007	-0,5	-0,4	s
12	0,0289	0,009	-0,2	-0,2	s
16	0,0243	0,004	-2,5	-1,2	s
19	0,0305	0,009	0,1	0,1	s
22	0,0291	0,012	-0,1	-0,2	s
29	0,0276	0,004	-1,0	-0,5	s
31	0,0361	0,013	0,9	1,1	s
35	0,0257	0,008	-1,0	-0,9	s
38	0,0296			-0,1	s
44	0,037	0,011	1,2	1,2	s
48	0,117	0,008	20,3	15,5	u
55	0,026	0,012	-0,7	-0,8	s
69	0,035	0,006	1,5	0,9	s
79	0,031			0,2	s
81	0,0366			1,2	s
107	0,0316	0,008	0,4	0,3	s
110	0,03102			0,2	s
113	0,0339			0,7	s
128	0,0105			-4,1	u
141	0,026	0,012	-0,7	-0,8	s
146	0,04289	0,011	2,3	2,3	q
155	0,0525			4,0	u
161	0,0274			-0,5	s
162	0,03	0,003	0,0	0,0	s
169	0,0161	0,004	-5,3	-2,9	q
176	0,026			-0,8	s
177	0,0292			-0,2	s
179	0,0255	0,008	-1,1	-0,9	s
181	0,0283	0,004	-0,7	-0,4	s
183	0,0272			-0,6	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

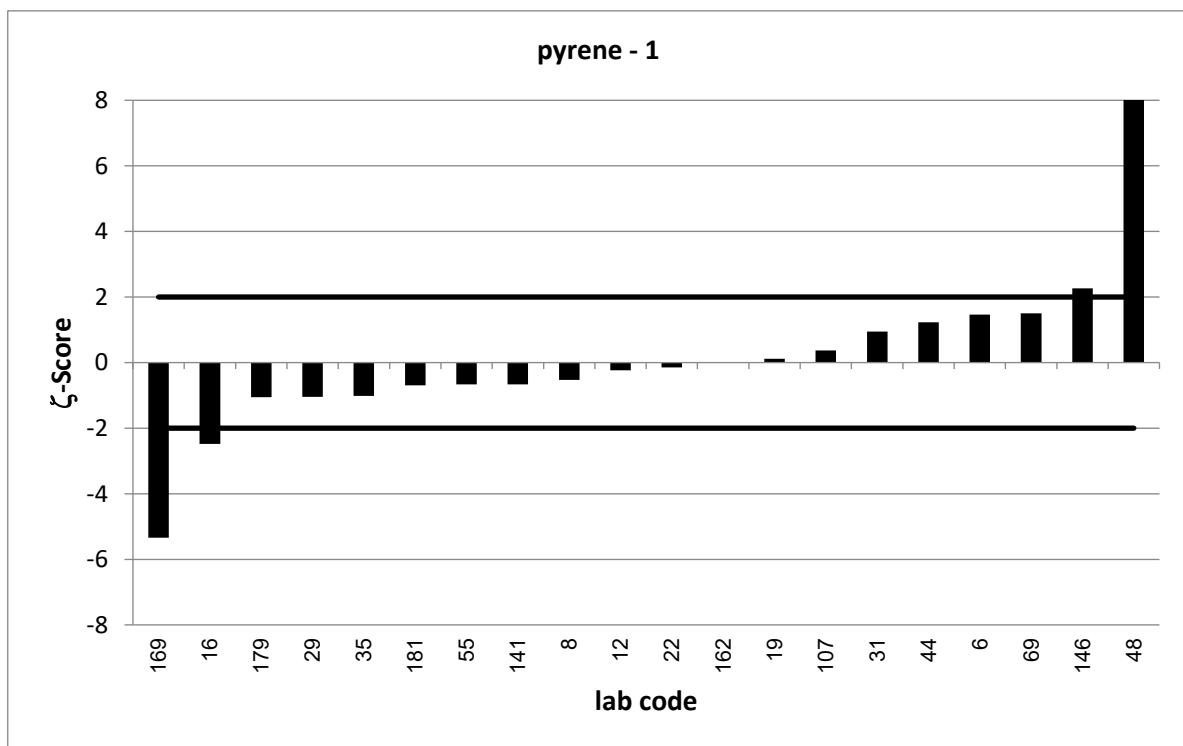
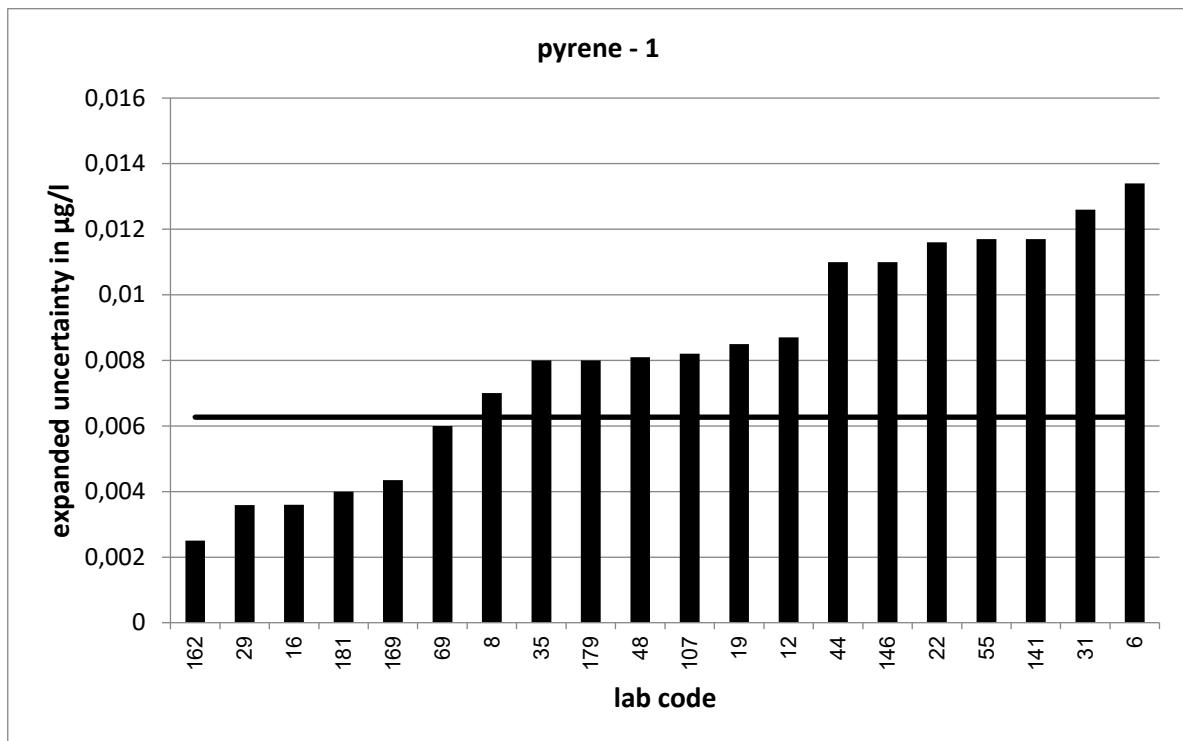
\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.



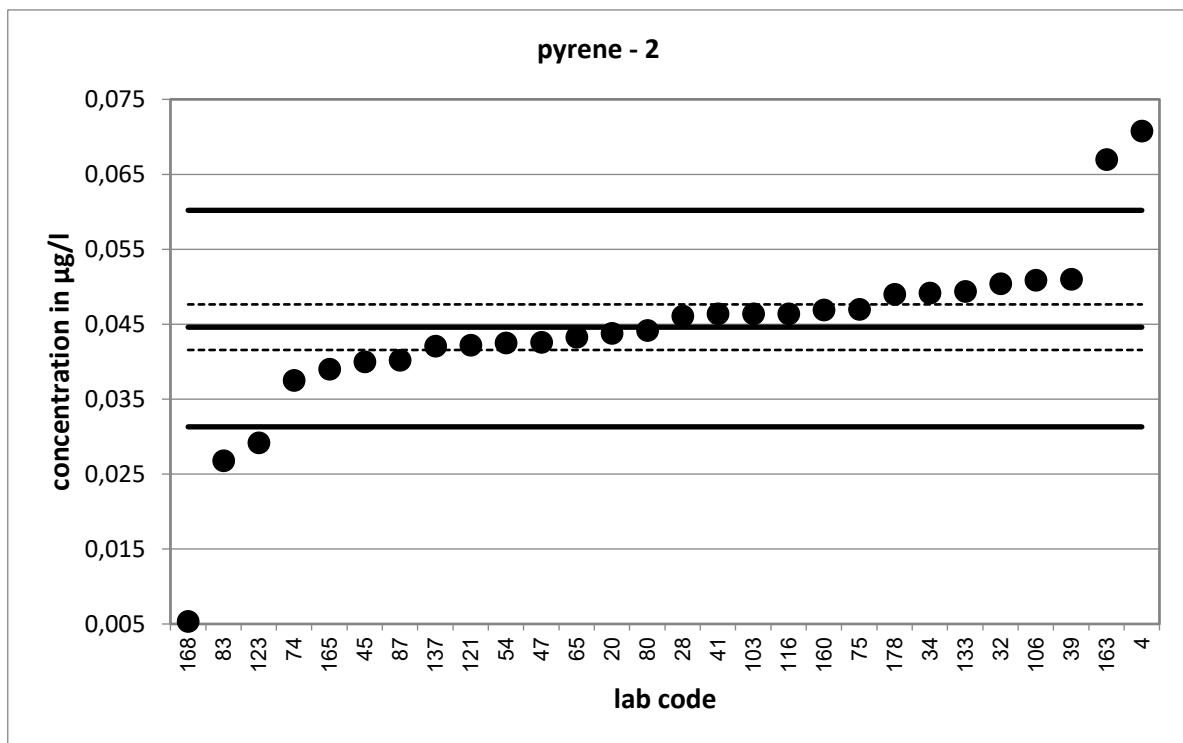
Strongly deviating values are not correctly shown in the diagram.



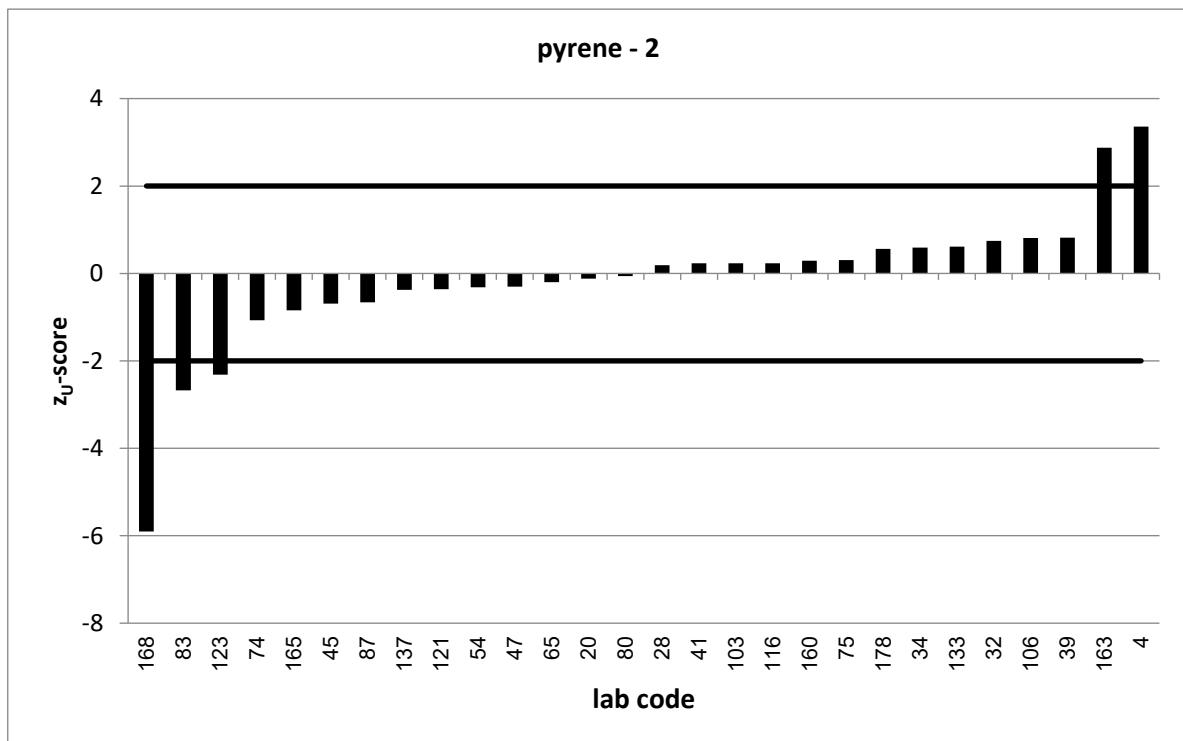
PT 3/24		pyrene - 2			
assigned value [ $\mu\text{g/l}$ ]*		0,0446 $\pm$ 0,00304			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,0602			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,03131			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0708			3,4	u
20	0,0438	0,013	-0,1	-0,1	s
28	0,0461	0,008	0,4	0,2	s
32	0,0504			0,7	s
34	0,0492	0,003	2,2	0,6	s
39	0,051	0,008	1,5	0,8	s
41	0,0464			0,2	s
45	0,04			-0,7	s
47	0,0426			-0,3	s
54	0,0425	0,013	-0,3	-0,3	s
65	0,0433			-0,2	s
74	0,0375	0,01	-1,4	-1,1	s
75	0,047	0,009	0,5	0,3	s
80	0,0442	0,008	-0,1	-0,1	s
83	0,0268			-2,7	q
87	0,0402	0,012	-0,7	-0,7	s
103	0,0464	0,006	0,5	0,2	s
106	0,0509			0,8	s
116	0,0464	0,01	0,4	0,2	s
121	0,0422	0,004	-0,9	-0,4	s
123	0,0292			-2,3	q
133	0,0494			0,6	s
137	0,0421	0,006	-0,7	-0,4	s
160	0,0469			0,3	s
163	0,067			2,9	q
165	0,039			-0,8	s
168	0,00535	0,002	-21,6	-5,9	u
178	0,049			0,6	s

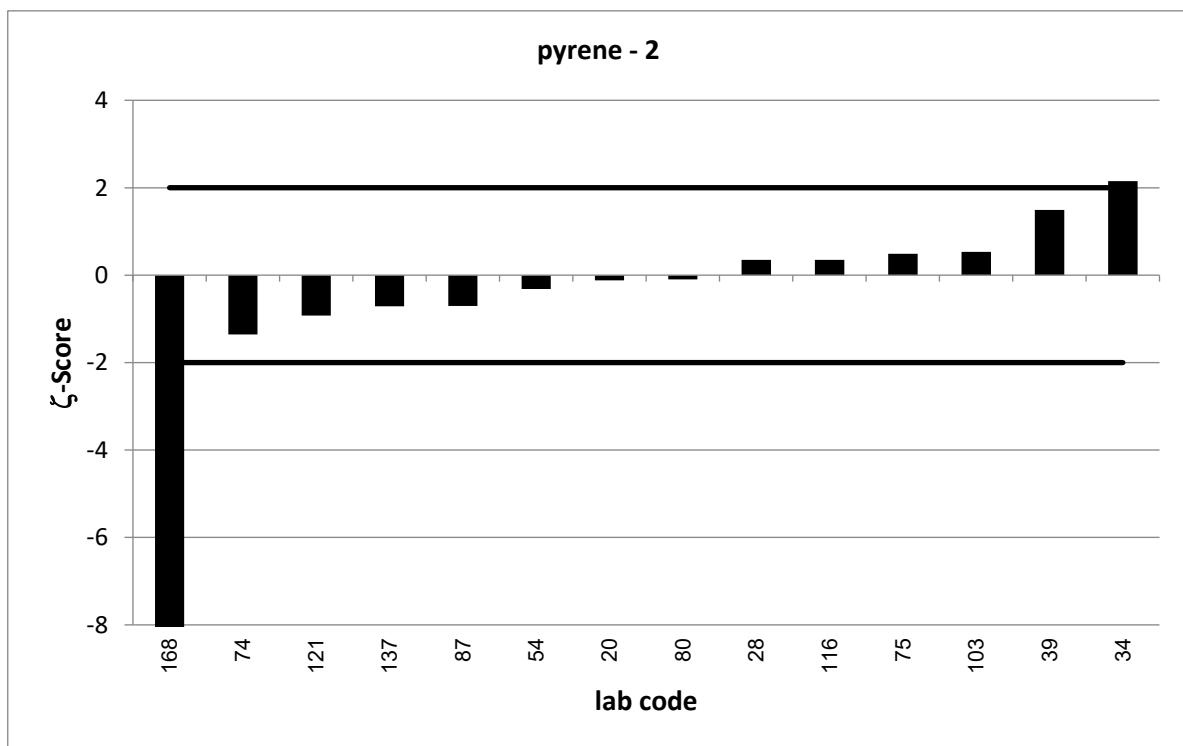
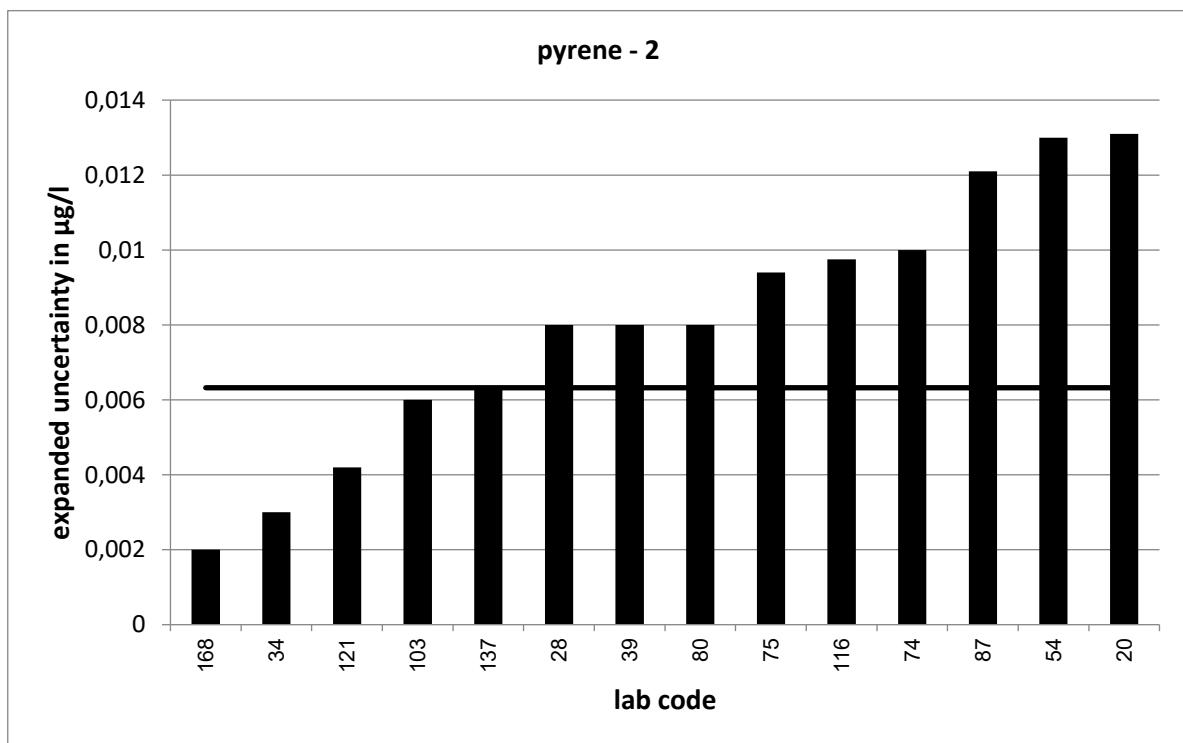
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

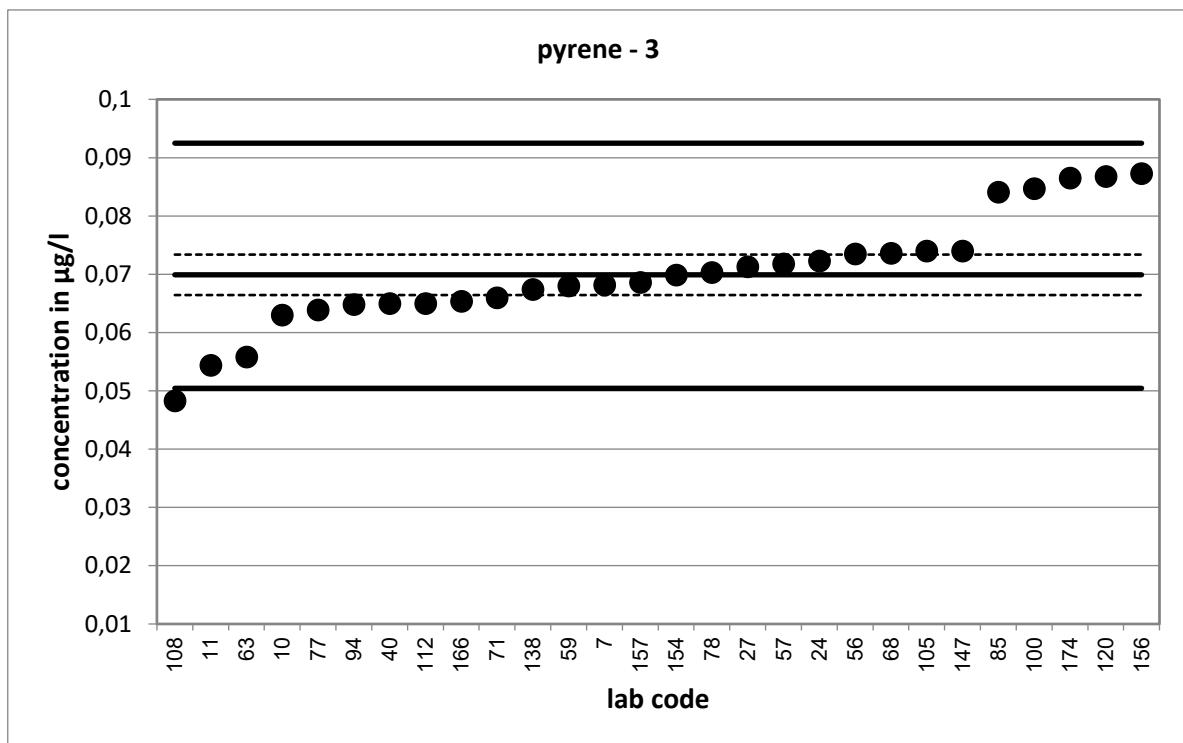




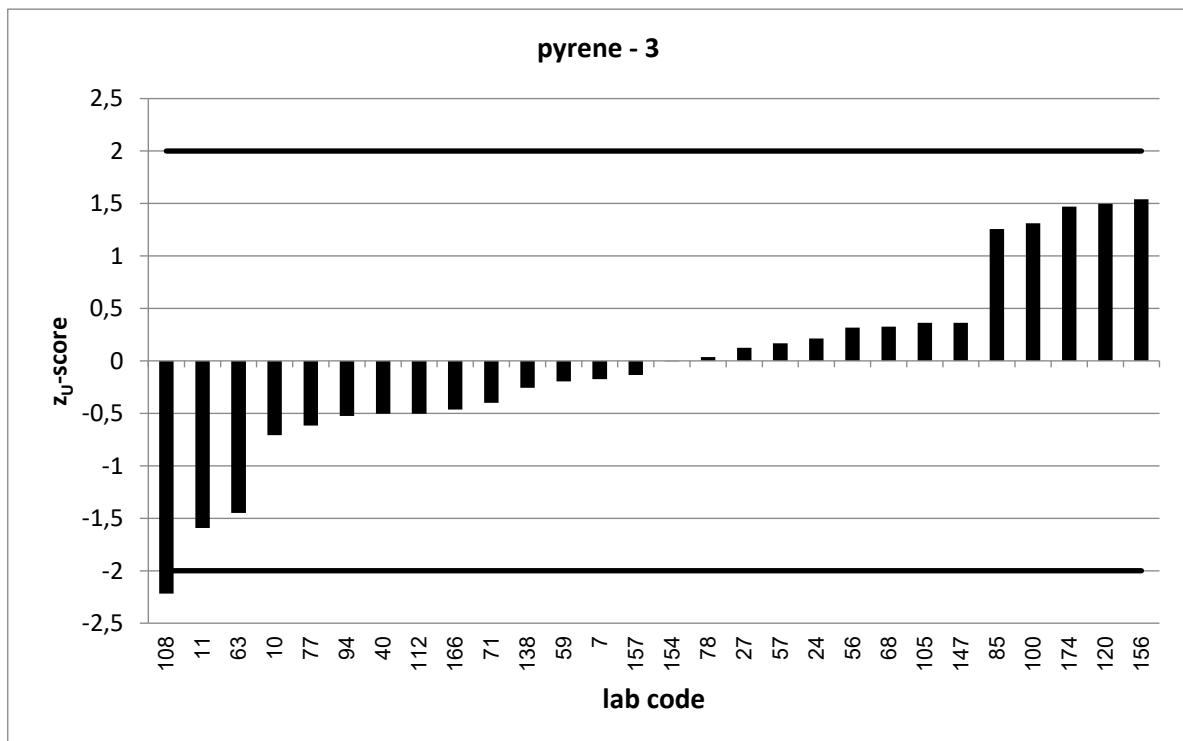
PT 3/24		pyrene - 3			
assigned value [ $\mu\text{g/l}$ ]*		0,0699 $\pm$ 0,00347			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,09248			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,05043			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0682	0,013	-0,3	-0,2	s
10	0,063	0,012	-1,1	-0,7	s
11	0,0544	0,012	-2,5	-1,6	s
24	0,0723			0,2	s
27	0,0713			0,1	s
40	0,065			-0,5	s
56	0,0735	0,011	0,6	0,3	s
57	0,0718			0,2	s
59	0,068	0,014	-0,3	-0,2	s
63	0,0558	0,017	-1,6	-1,4	s
68	0,0736			0,3	s
71	0,066	0,011	-0,7	-0,4	s
77	0,0639	0,022	-0,5	-0,6	s
78	0,0703			0,0	s
85	0,0841	0,002	7,1	1,3	s
94	0,0648			-0,5	s
100	0,0847	0,013	2,2	1,3	s
105	0,074			0,4	s
108	0,0483	0,009	-4,5	-2,2	q
112	0,065	0,007	-1,3	-0,5	s
120	0,0868	0,005	5,6	1,5	s
138	0,0674			-0,3	s
147	0,074	0,002	2,0	0,4	s
154	0,0699	0,035	0,0	0,0	s
156	0,0873	0,009	3,6	1,5	s
157	0,0686			-0,1	s
166	0,0654			-0,5	s
174	0,0865			1,5	s

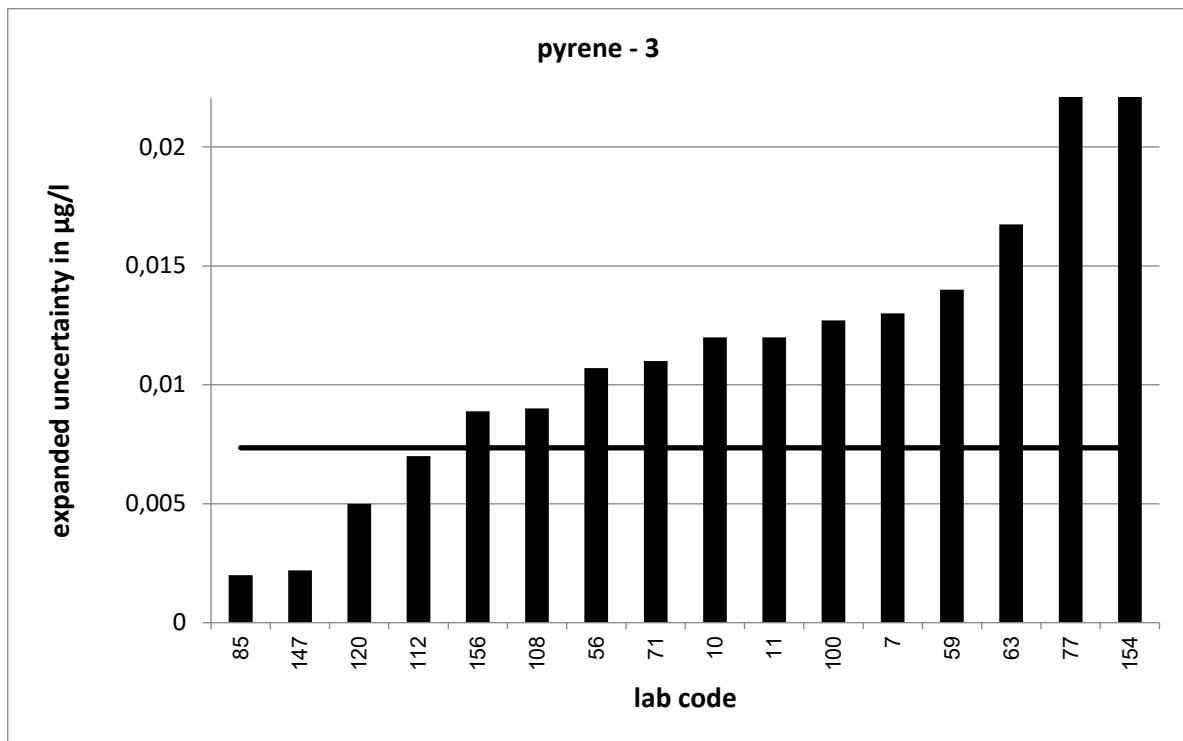
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor k=2 corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

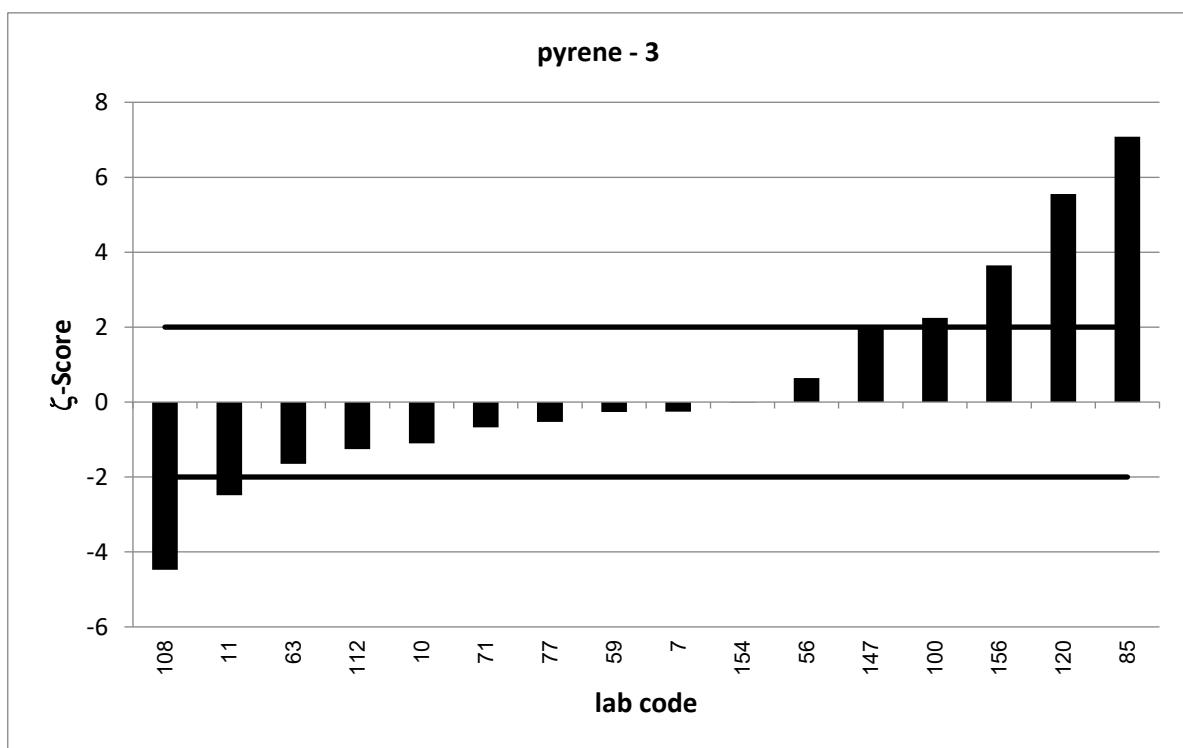


Strongly deviating values are not shown in the diagram.





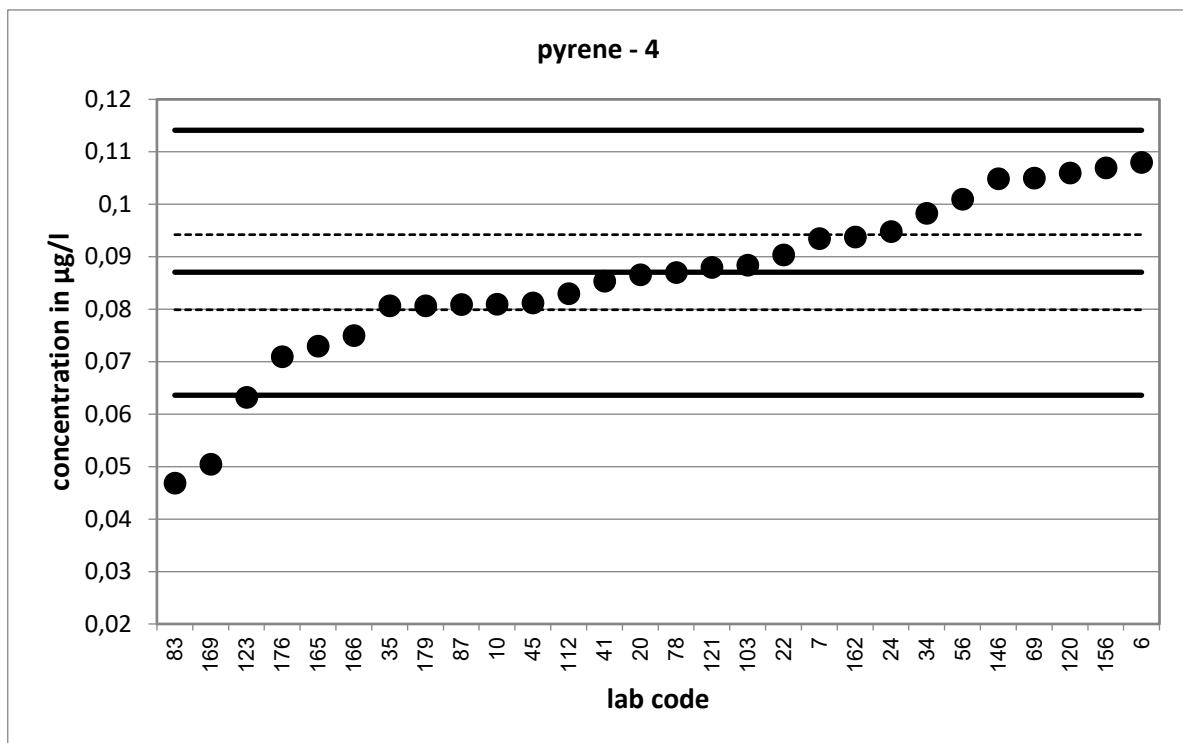
Strongly deviating values are not correctly shown in the diagram.



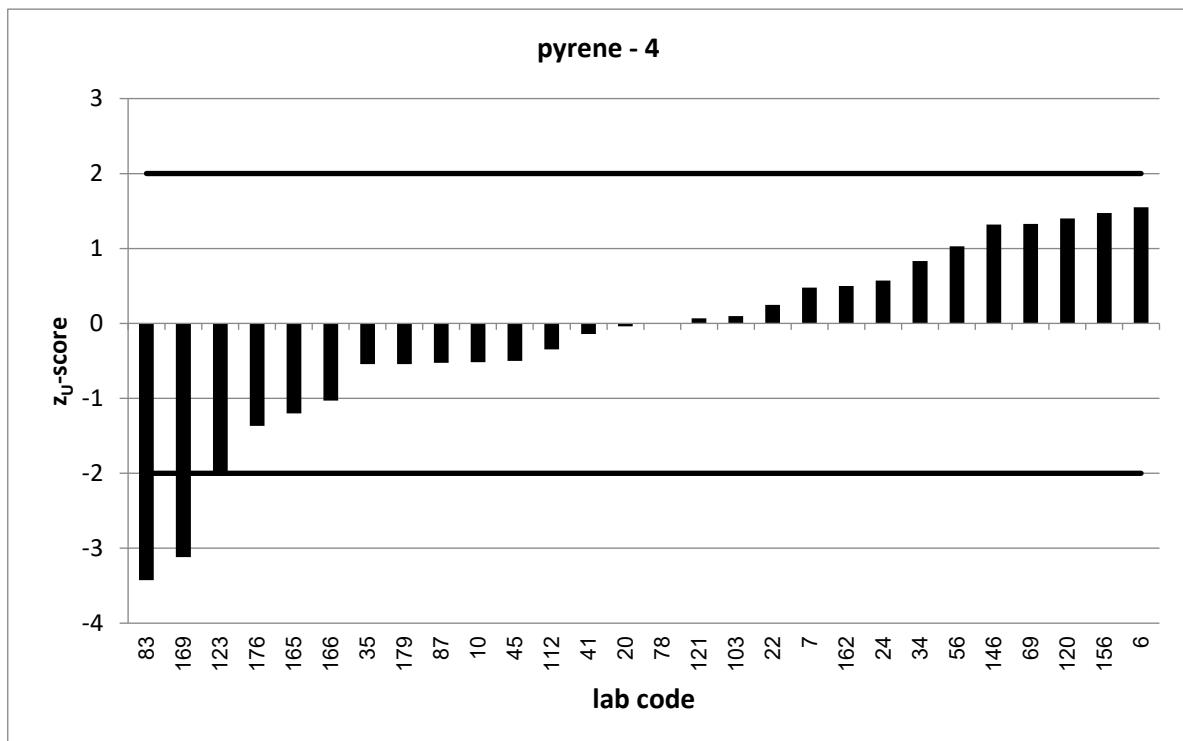
PT 3/24		pyrene - 4			
assigned value [ $\mu\text{g/l}$ ]*		0,08706 $\pm$ 0,00716			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1141			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0636			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,108	0,036	1,1	1,5	s
7	0,0935	0,017	0,7	0,5	s
10	0,081	0,016	-0,7	-0,5	s
20	0,0866	0,026	0,0	0,0	s
22	0,0904	0,036	0,2	0,2	s
24	0,0948			0,6	s
34	0,0983	0,007	2,2	0,8	s
35	0,0807	0,024	-0,5	-0,5	s
41	0,0854			-0,1	s
45	0,0812			-0,5	s
56	0,101	0,015	1,7	1,0	s
69	0,105	0,018	1,9	1,3	s
78	0,087			0,0	s
83	0,0469			-3,4	u
87	0,0809	0,024	-0,5	-0,5	s
103	0,0884	0,012	0,2	0,1	s
112	0,083	0,009	-0,7	-0,3	s
120	0,106	0,007	3,8	1,4	s
121	0,088	0,009	0,2	0,1	s
123	0,0632			-2,0	s
146	0,1049	0,026	1,3	1,3	s
156	0,107	0,011	3,1	1,5	s
162	0,0938	0,028	0,5	0,5	s
165	0,073			-1,2	s
166	0,075			-1,0	s
169	0,0505	0,014	-4,8	-3,1	u
176	0,071			-1,4	s
179	0,0807	0,024	-0,5	-0,5	s

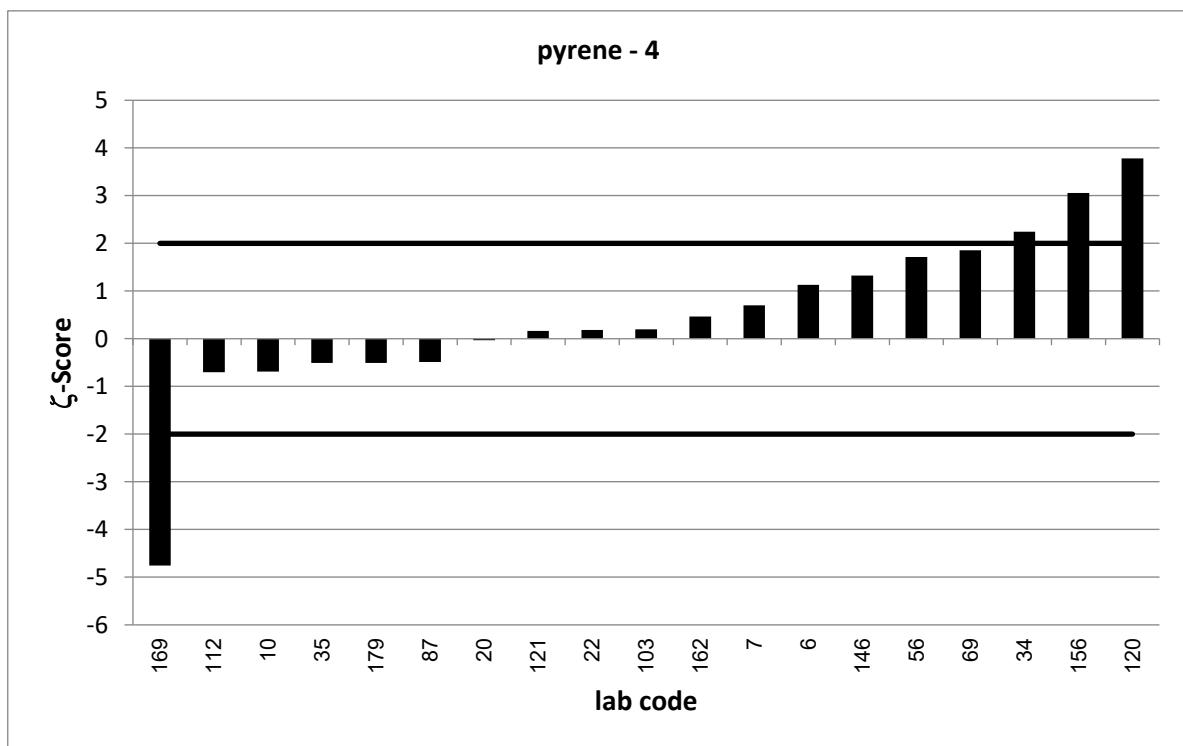
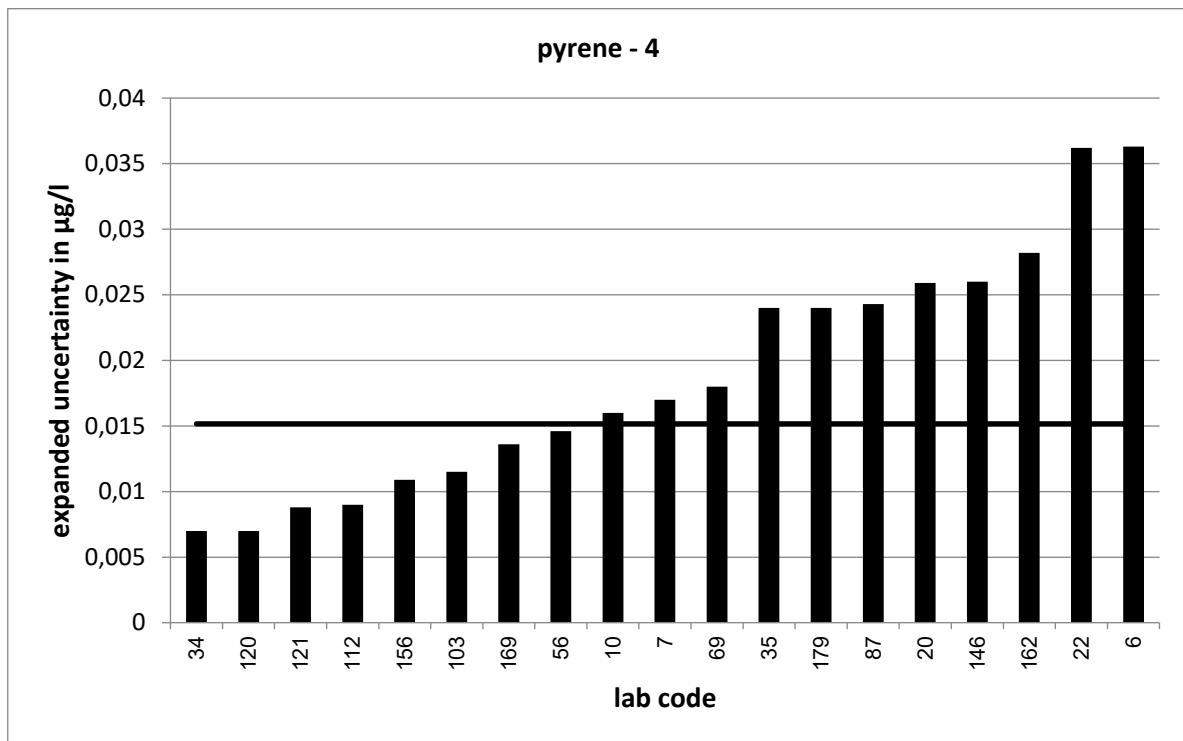
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

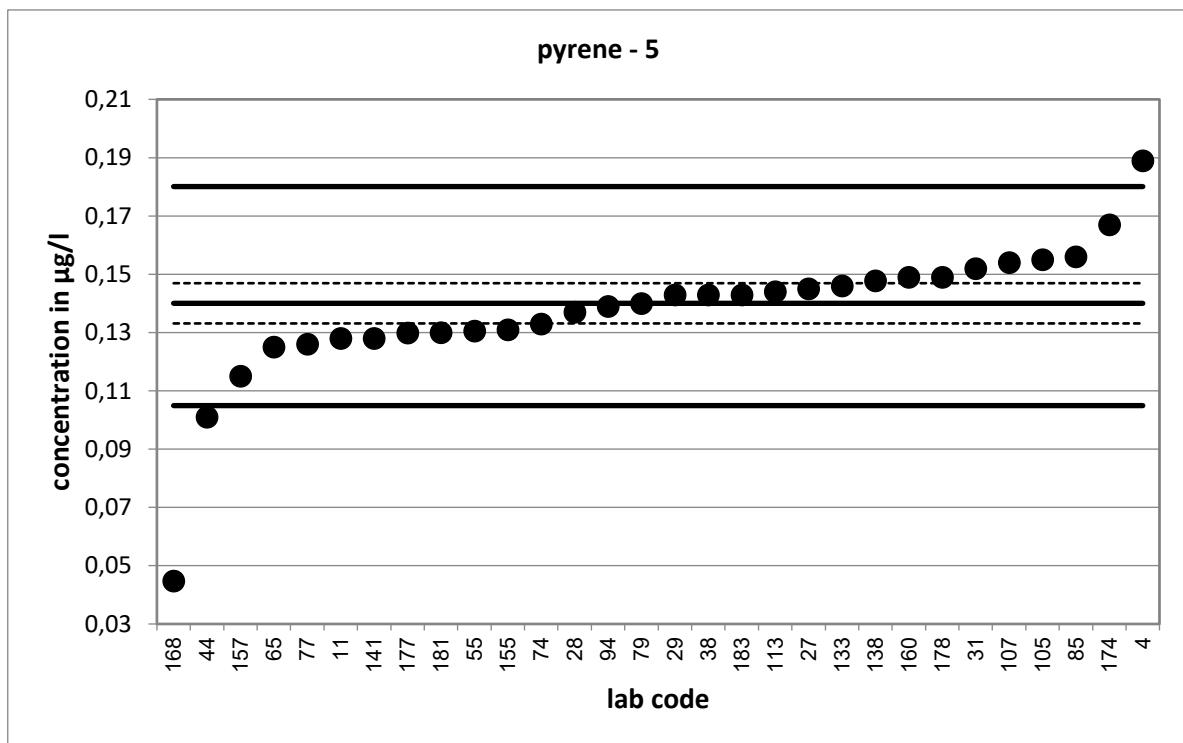




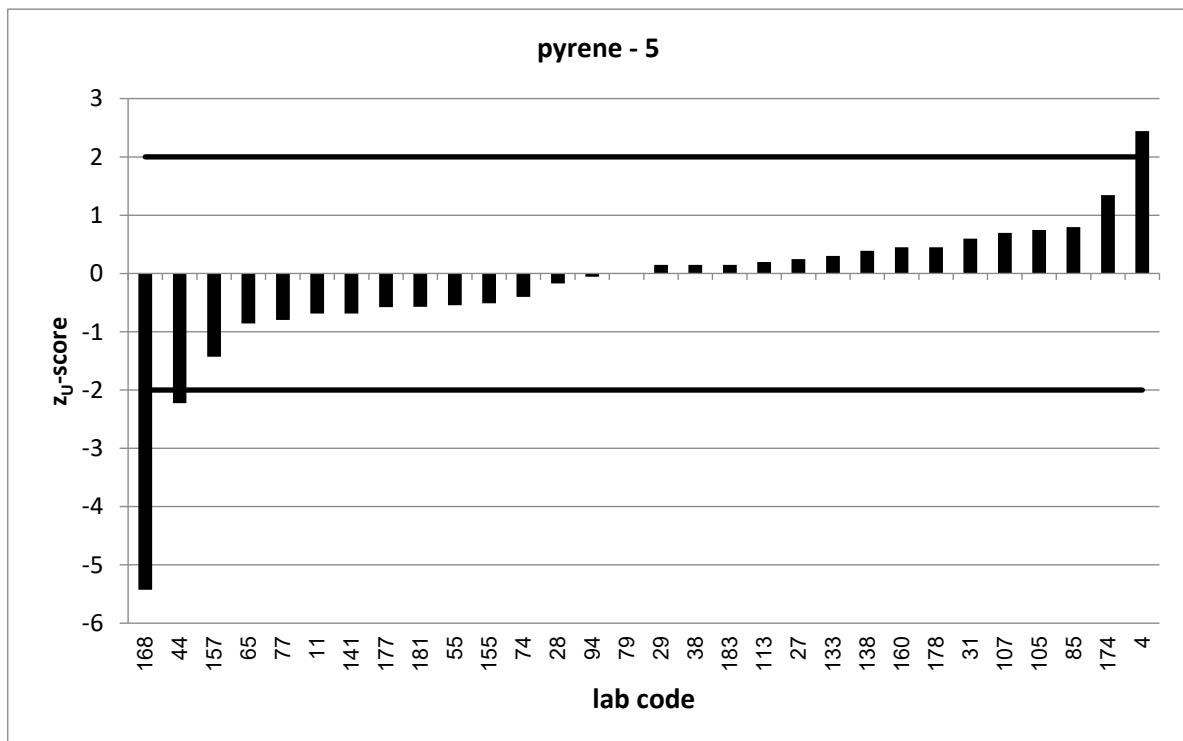
PT 3/24		pyrene - 5			
assigned value [ $\mu\text{g/l}$ ]*		0,14		$\pm 0,0069$	
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1801			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1049			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,189			2,4	q
11	0,128	0,028	-0,8	-0,7	s
27	0,145			0,2	s
28	0,137	0,024	-0,2	-0,2	s
29	0,143	0,019	0,3	0,1	s
31	0,152	0,053	0,4	0,6	s
38	0,143			0,1	s
44	0,101	0,015	-4,7	-2,2	q
55	0,1305	0,059	-0,3	-0,5	s
65	0,125			-0,9	s
74	0,133	0,036	-0,4	-0,4	s
77	0,126	0,044	-0,6	-0,8	s
79	0,14			0,0	s
85	0,156	0,002	4,4	0,8	s
94	0,139			-0,1	s
105	0,155			0,7	s
107	0,154	0,04	0,7	0,7	s
113	0,144			0,2	s
133	0,146			0,3	s
138	0,1478			0,4	s
141	0,128	0,058	-0,4	-0,7	s
155	0,131			-0,5	s
157	0,115			-1,4	s
160	0,149			0,4	s
168	0,0448	0,015	-11,5	-5,4	u
174	0,167			1,3	s
177	0,1299			-0,6	s
178	0,149			0,4	s
181	0,13	0,017	-1,1	-0,6	s
183	0,143			0,1	s

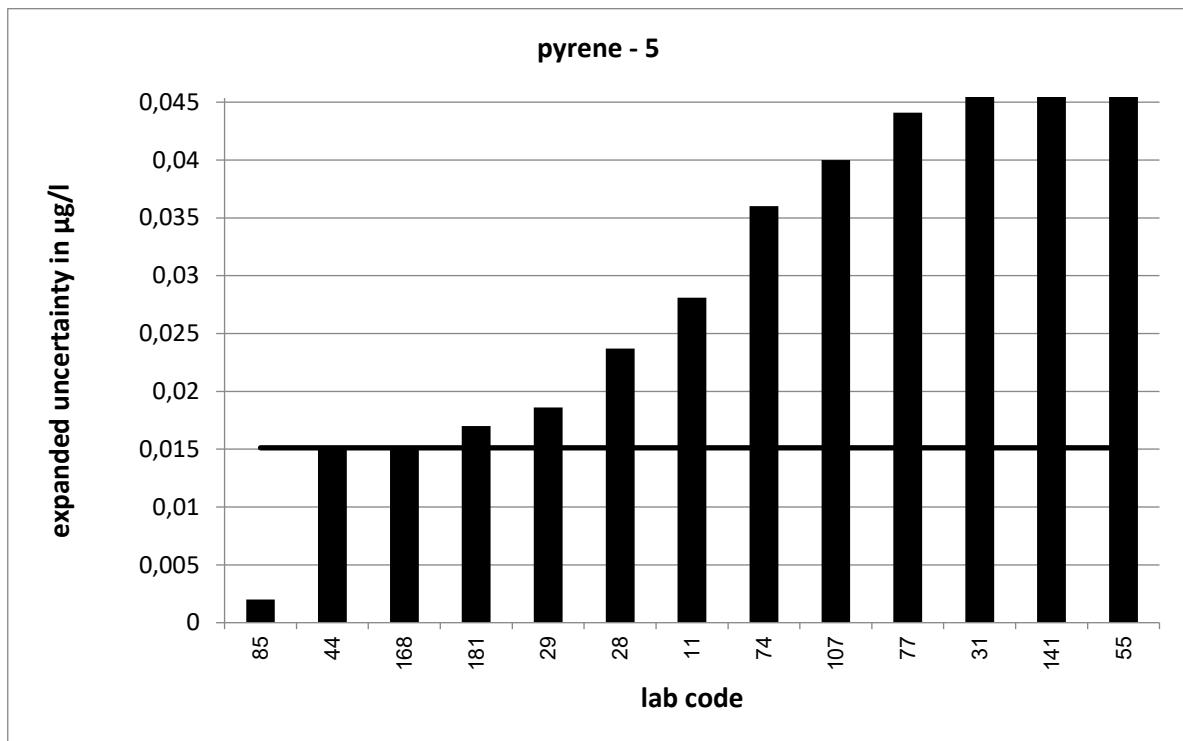
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

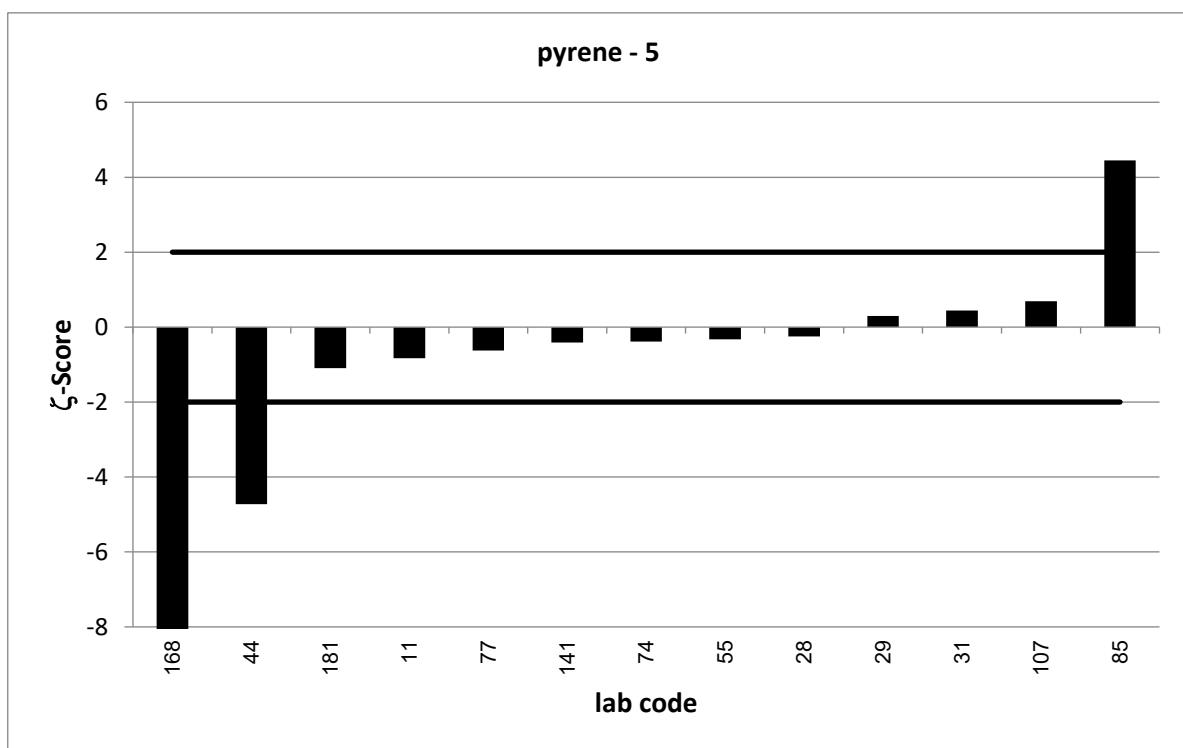


Strongly deviating values are not shown in the diagram.





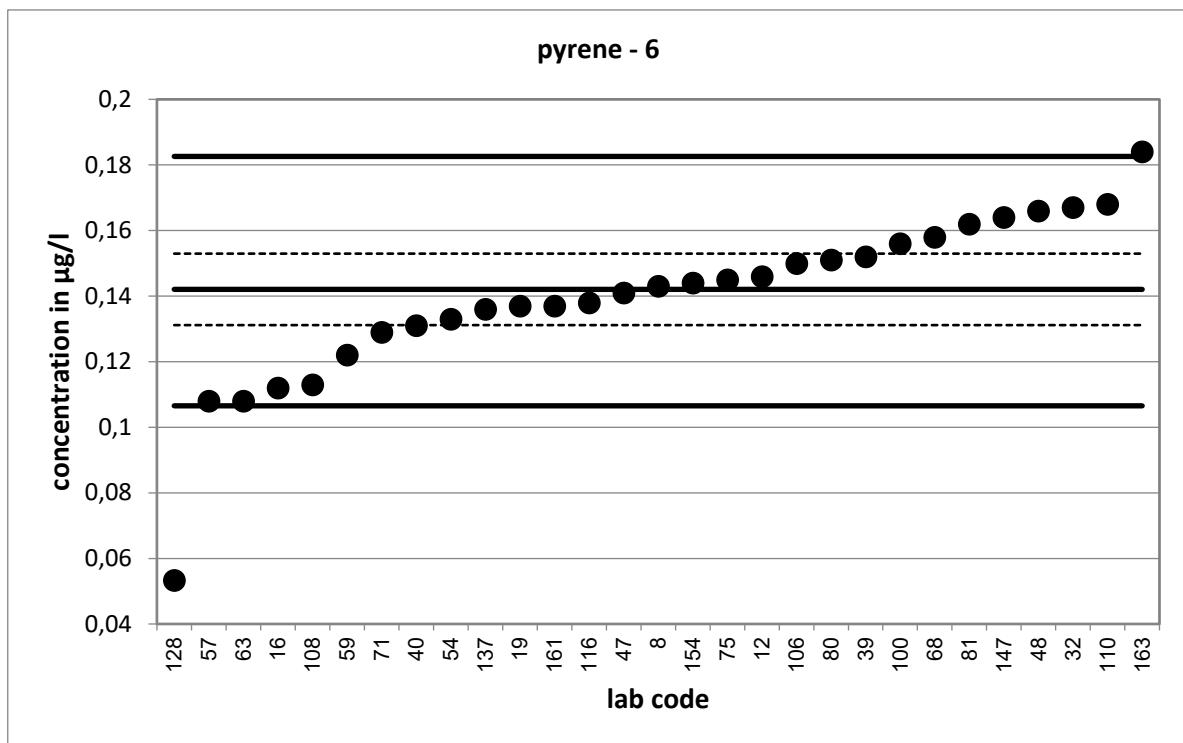
Strongly deviating values are not correctly shown in the diagram.



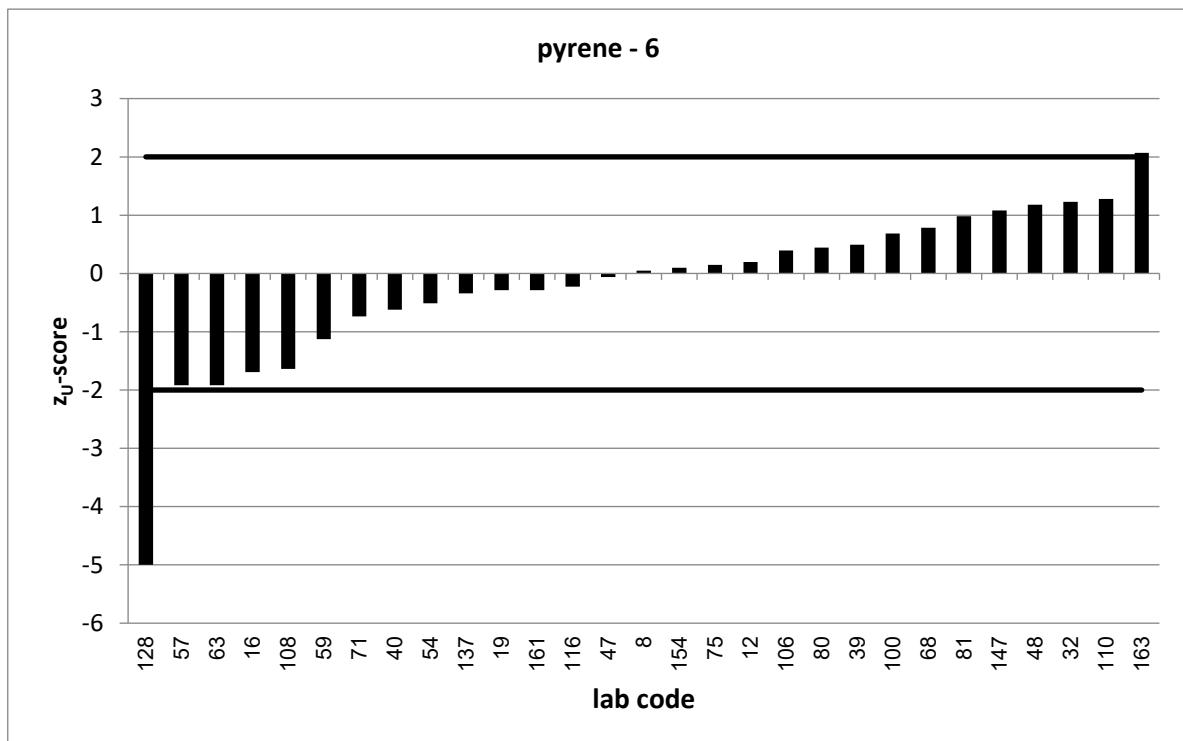
PT 3/24		pyrene - 6			
assigned value [ $\mu\text{g/l}$ ]*		0,1421	$\pm 0,0109$		
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1826			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1065			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,143	0,034	0,1	0,0	s
12	0,146	0,044	0,2	0,2	s
16	0,112	0,016	-3,1	-1,7	s
19	0,137	0,038	-0,3	-0,3	s
32	0,167			1,2	s
39	0,152	0,024	0,8	0,5	s
40	0,131			-0,6	s
47	0,141			-0,1	s
48	0,166	0,01	3,3	1,2	s
54	0,133	0,04	-0,4	-0,5	s
57	0,108			-1,9	s
59	0,122	0,024	-1,5	-1,1	s
63	0,108	0,032	-2,0	-1,9	s
68	0,158			0,8	s
71	0,129	0,022	-1,1	-0,7	s
75	0,145	0,029	0,2	0,1	s
80	0,151	0,02	0,8	0,4	s
81	0,162			1,0	s
100	0,156	0,023	1,1	0,7	s
106	0,15			0,4	s
108	0,113	0,021	-2,5	-1,6	s
110	0,168			1,3	s
116	0,138	0,029	-0,3	-0,2	s
128	0,0533			-5,0	u
137	0,136	0,02	-0,5	-0,3	s
147	0,164	0,005	3,7	1,1	s
154	0,144	0,072	0,1	0,1	s
161	0,137			-0,3	s
163	0,184			2,1	q

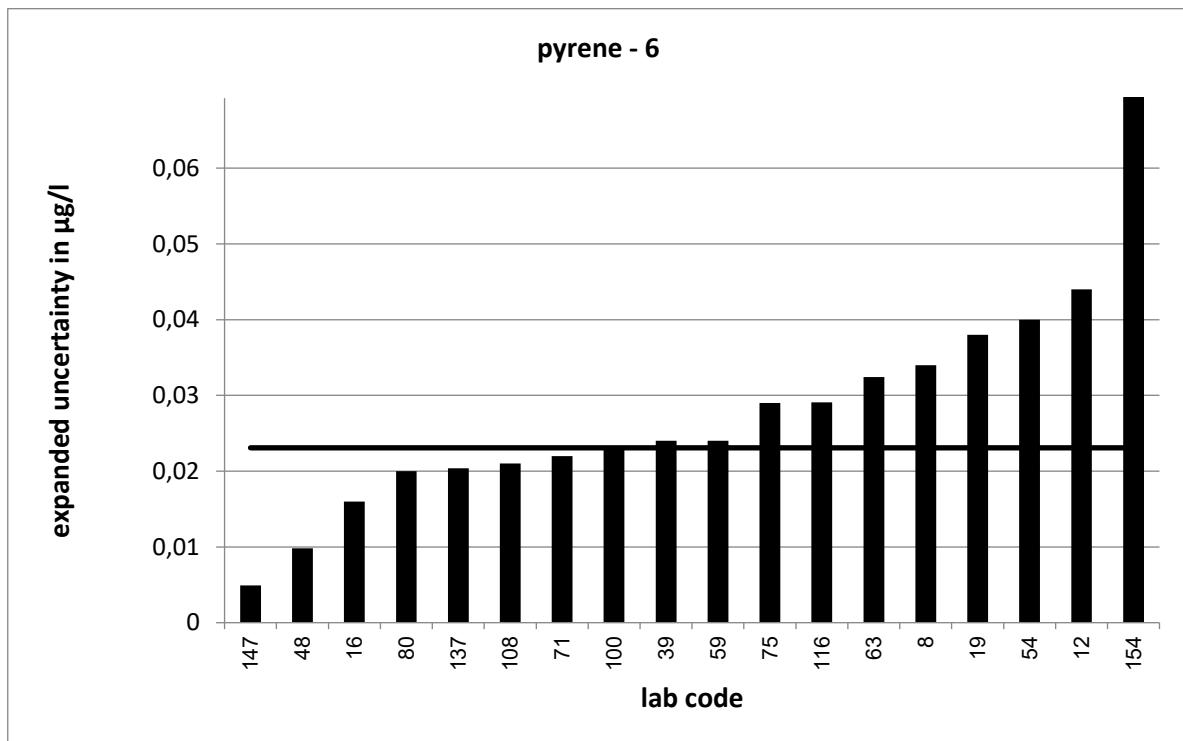
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

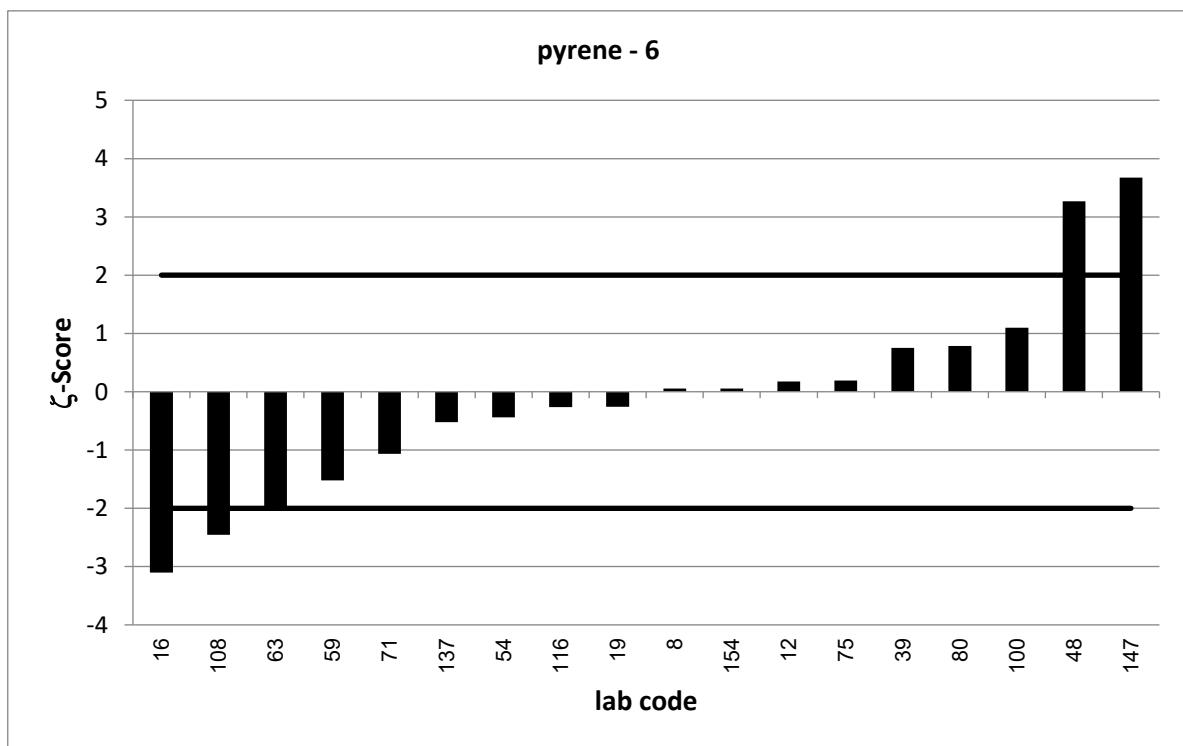


Strongly deviating values are not shown in the diagram.





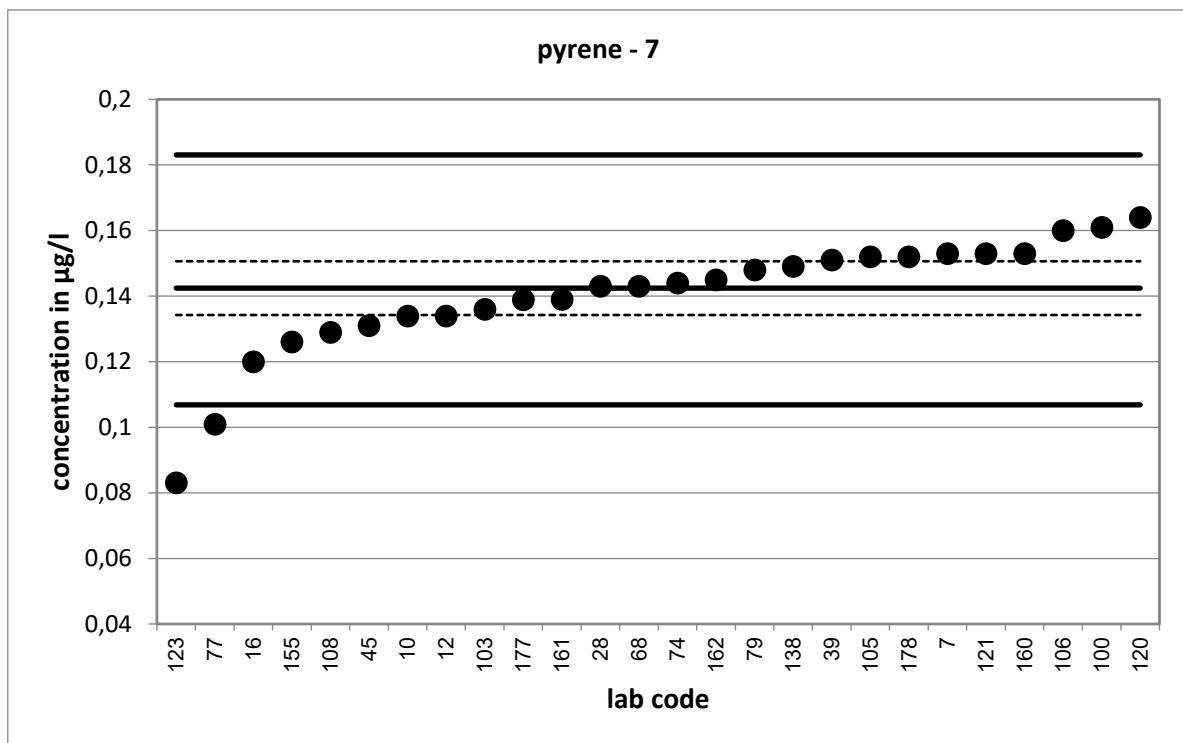
Strongly deviating values are not correctly shown in the diagram.



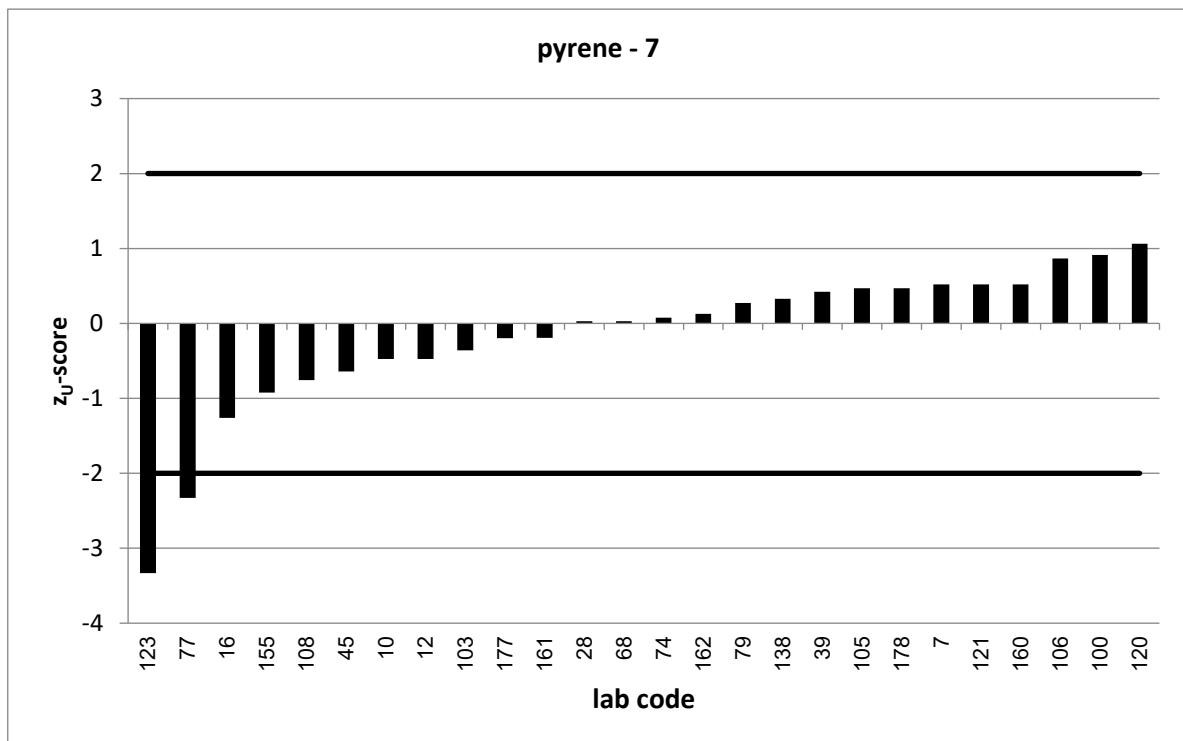
PT 3/24		pyrene - 7			
assigned value [ $\mu\text{g/l}$ ]*		0,1424 $\pm$ 0,0082			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1831			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1068			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,153	0,014	1,3	0,5	s
10	0,134	0,026	-0,6	-0,5	s
12	0,134	0,04	-0,4	-0,5	s
16	0,12	0,018	-2,3	-1,3	s
28	0,143	0,025	0,0	0,0	s
39	0,151	0,024	0,7	0,4	s
45	0,131			-0,6	s
68	0,143			0,0	s
74	0,144	0,039	0,1	0,1	s
77	0,101	0,035	-2,3	-2,3	q
79	0,148			0,3	s
100	0,161	0,024	1,5	0,9	s
103	0,136	0,018	-0,7	-0,4	s
105	0,152			0,5	s
106	0,16			0,9	s
108	0,129	0,025	-1,0	-0,8	s
120	0,164	0,016	2,4	1,1	s
121	0,153	0,015	1,2	0,5	s
123	0,0831			-3,3	u
138	0,1491			0,3	s
155	0,126			-0,9	s
160	0,153			0,5	s
161	0,139			-0,2	s
162	0,145	0,043	0,1	0,1	s
177	0,1389			-0,2	s
178	0,152			0,5	s

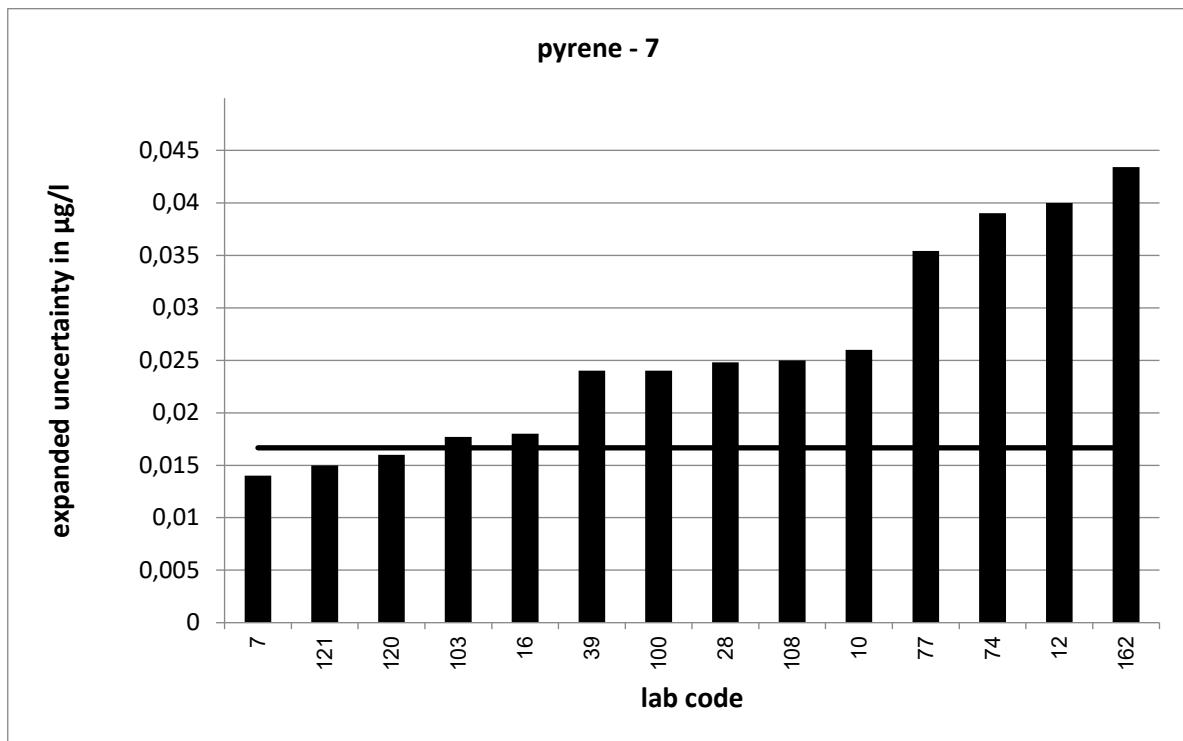
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

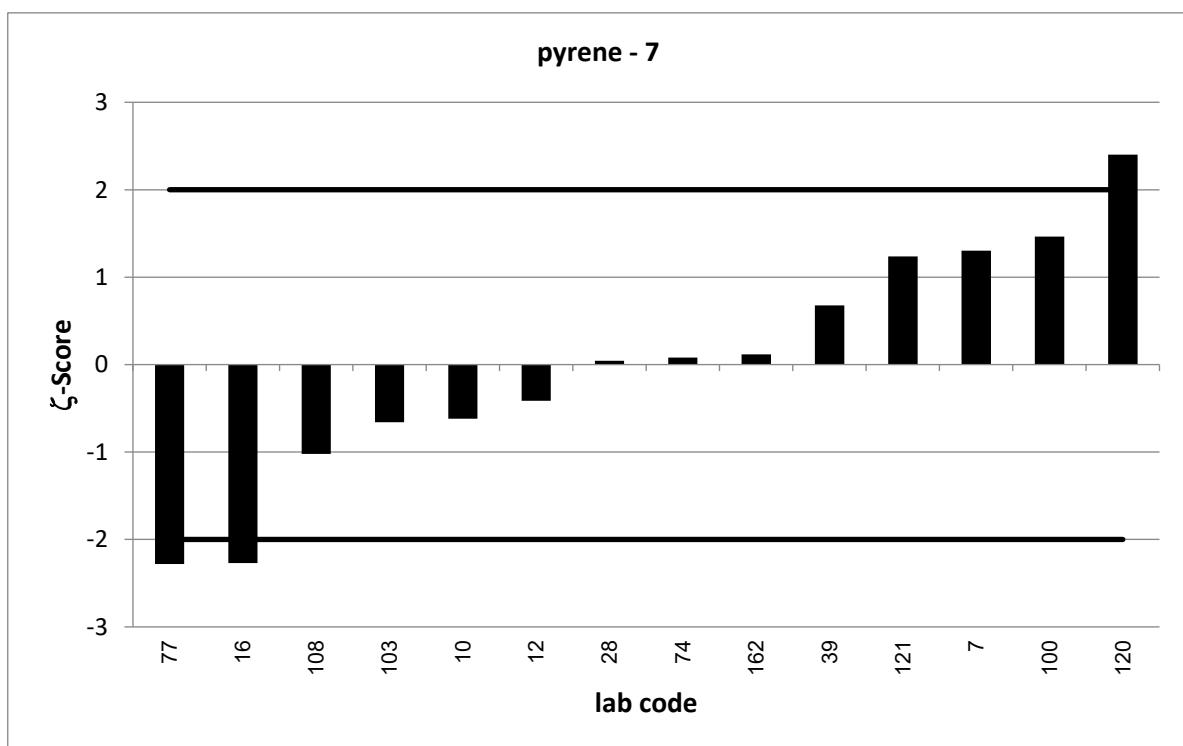


Strongly deviating values are not shown in the diagram.





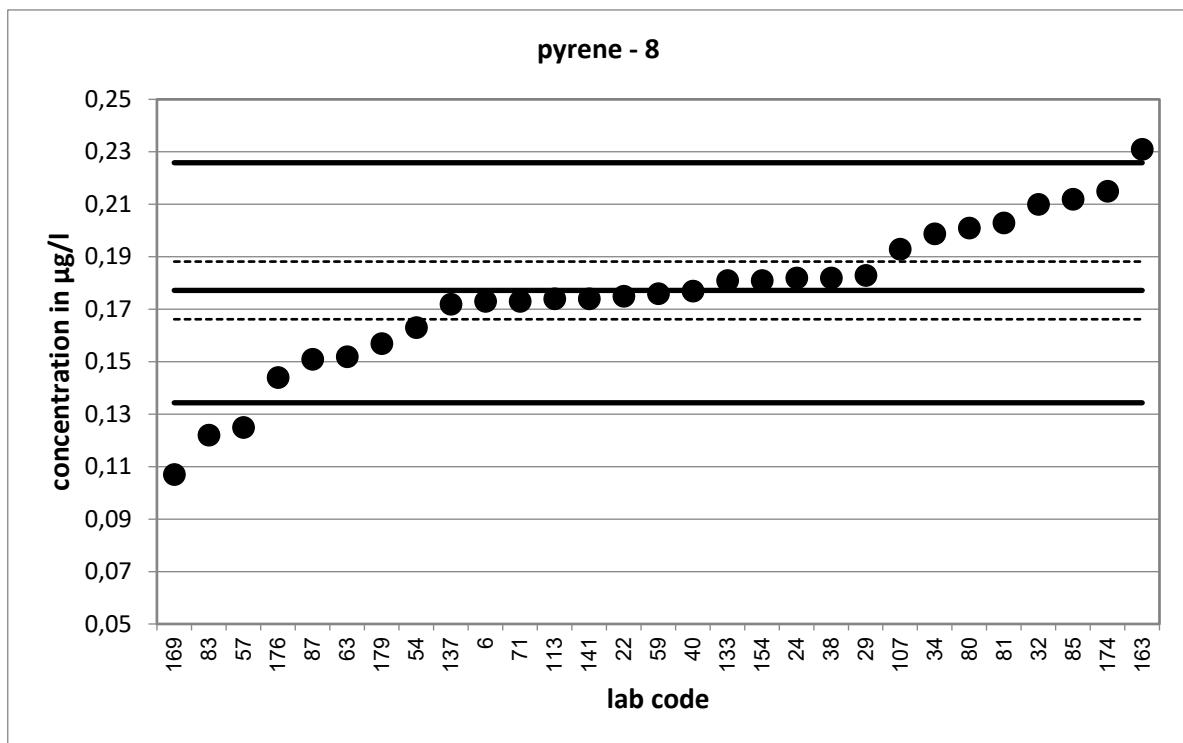
Strongly deviating values are not correctly shown in the diagram.



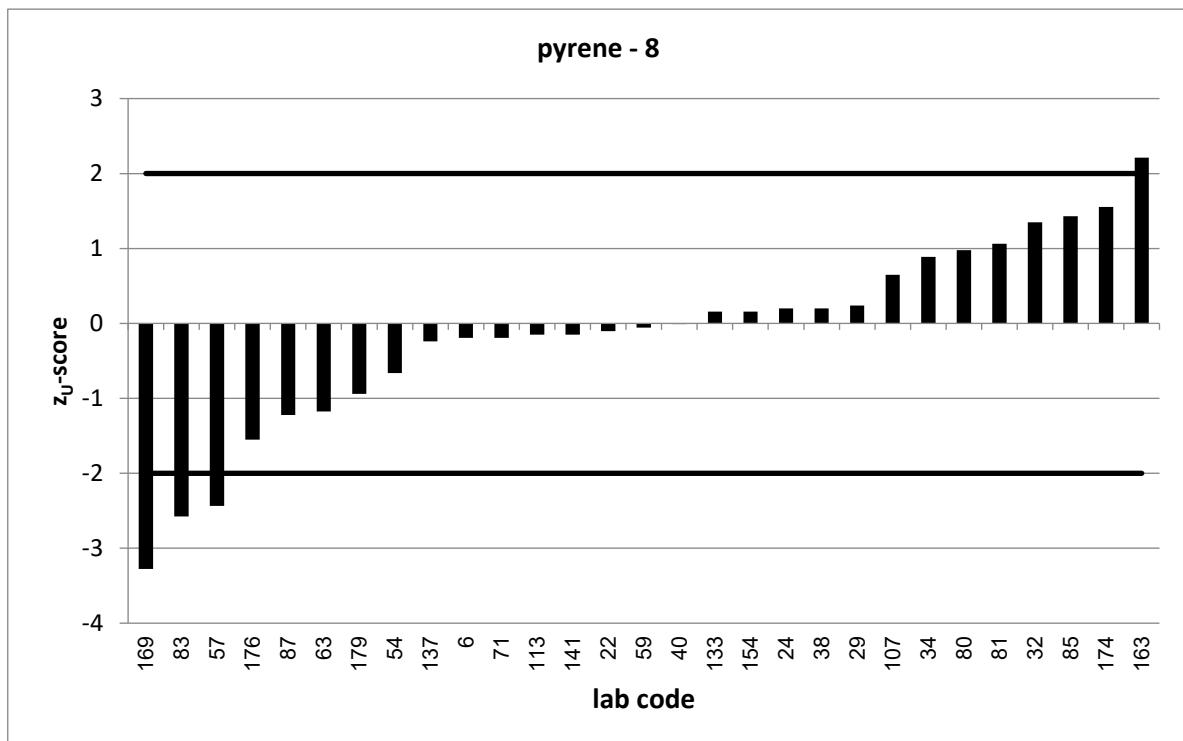
PT 3/24		pyrene - 8			
assigned value [ $\mu\text{g/l}$ ]*		0,1772	$\pm 0,011$		
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2258			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1343			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,173	0,058	-0,1	-0,2	s
22	0,175	0,07	-0,1	-0,1	s
24	0,182			0,2	s
29	0,183	0,024	0,4	0,2	s
32	0,21			1,3	s
34	0,1988	0,01	2,9	0,9	s
38	0,182			0,2	s
40	0,177			0,0	s
54	0,163	0,049	-0,6	-0,7	s
57	0,125			-2,4	q
59	0,176	0,035	-0,1	-0,1	s
63	0,152	0,046	-1,1	-1,2	s
71	0,173	0,029	-0,3	-0,2	s
80	0,201	0,02	2,1	1,0	s
81	0,203			1,1	s
83	0,122			-2,6	q
85	0,212	0,002	6,2	1,4	s
87	0,151	0,045	-1,1	-1,2	s
107	0,193	0,05	0,6	0,7	s
113	0,174			-0,1	s
133	0,181			0,2	s
137	0,172	0,026	-0,4	-0,2	s
141	0,174	0,078	-0,1	-0,1	s
154	0,181	0,09	0,1	0,2	s
163	0,231			2,2	q
169	0,107	0,03	-4,4	-3,3	u
174	0,215			1,6	s
176	0,144			-1,5	s
179	0,157	0,047	-0,8	-0,9	s

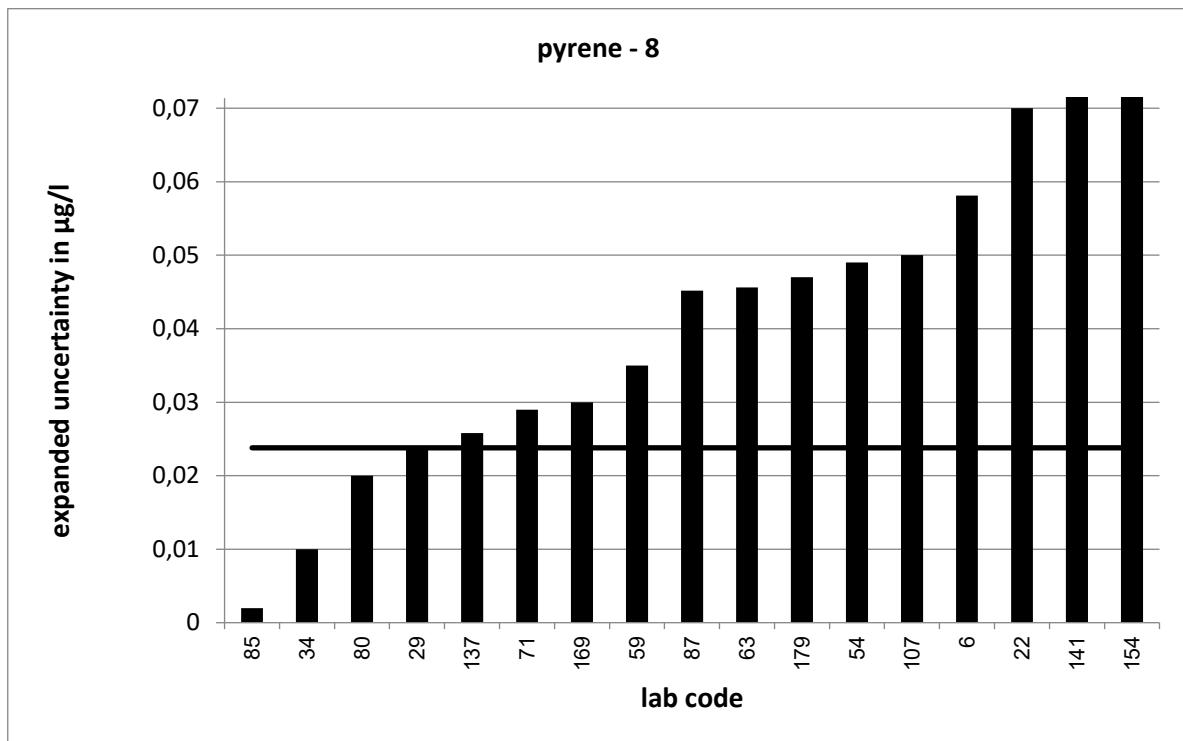
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

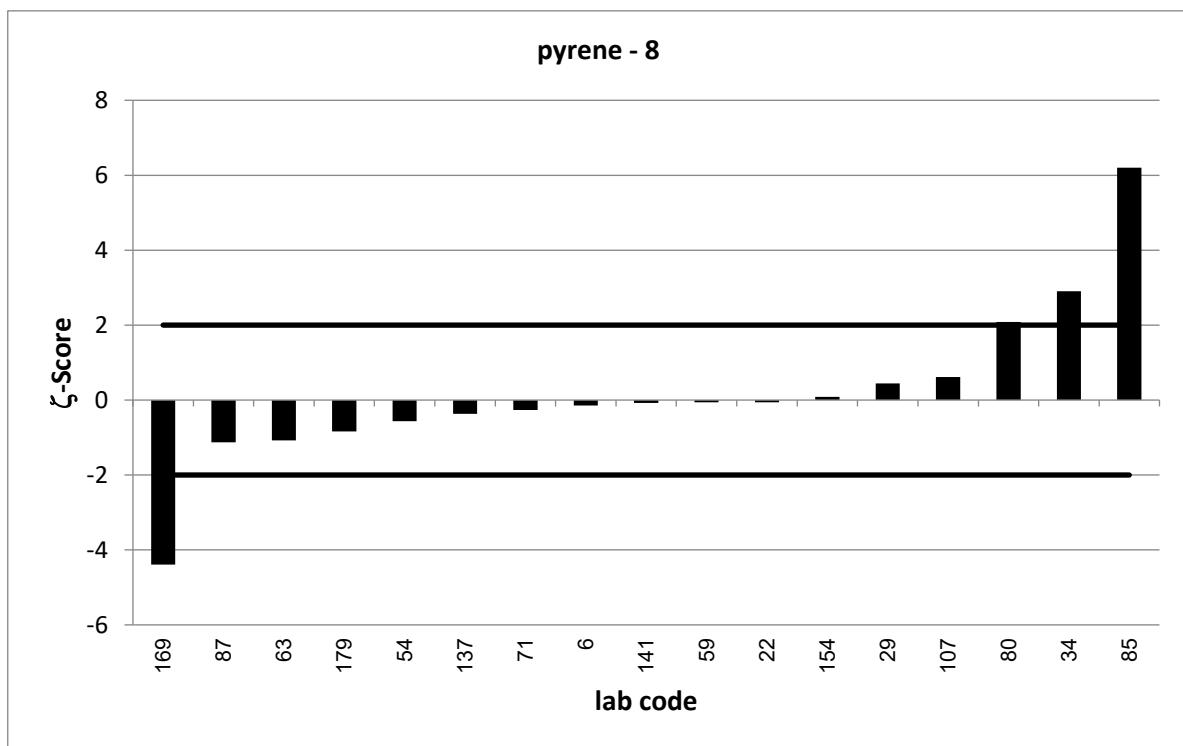


Strongly deviating values are not shown in the diagram.





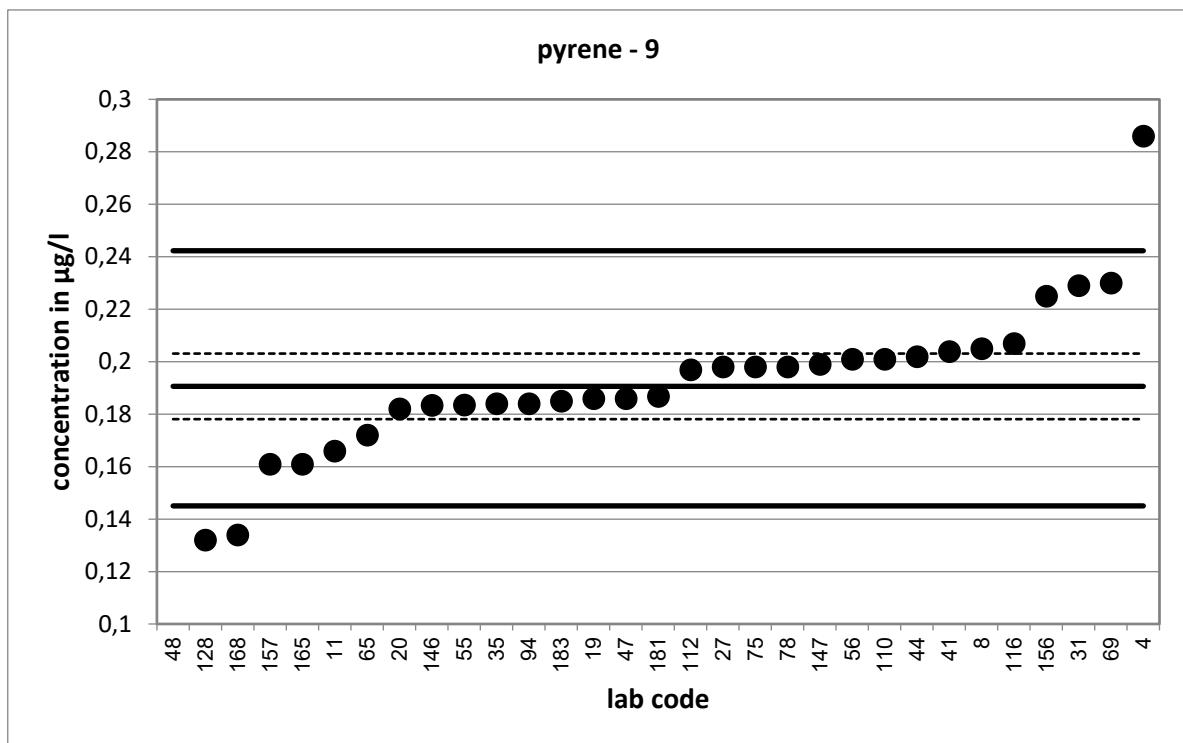
Strongly deviating values are not correctly shown in the diagram.



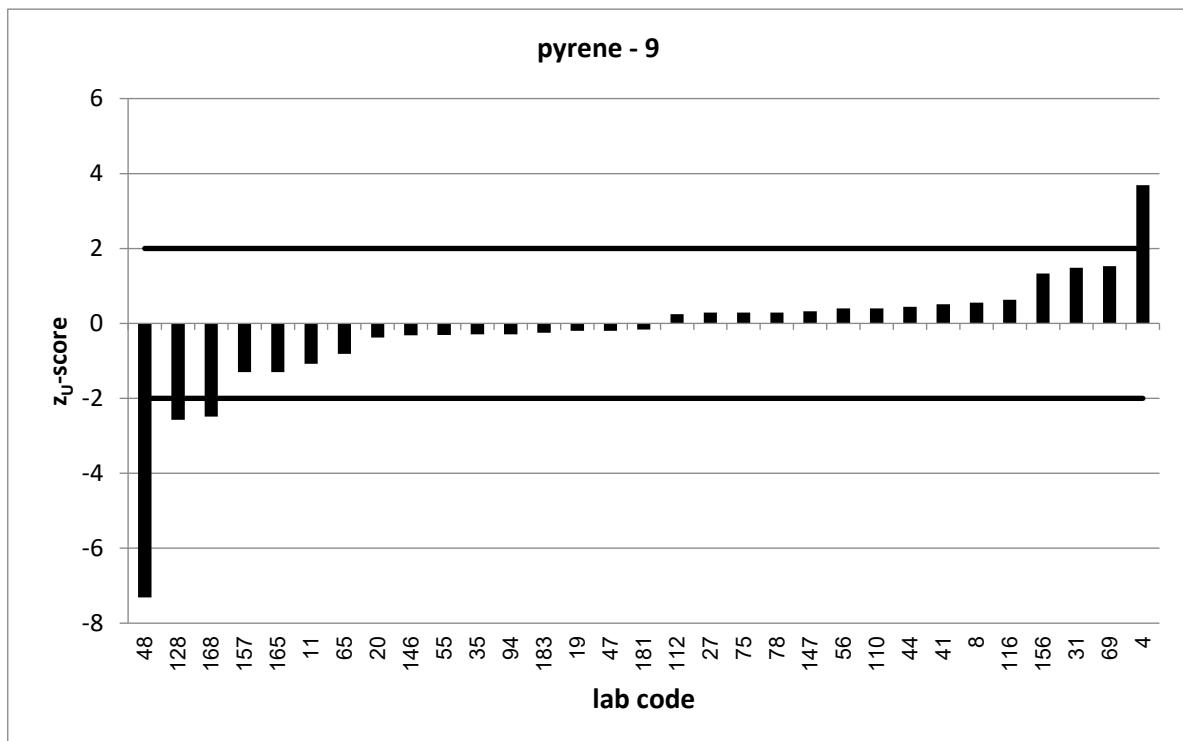
PT 3/24		pyrene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,1906 \pm 0,0125$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2423			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,145			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,286			3,7	u
8	0,205	0,049	0,6	0,6	s
11	0,166	0,037	-1,3	-1,1	s
19	0,186	0,052	-0,2	-0,2	s
20	0,182	0,055	-0,3	-0,4	s
27	0,198			0,3	s
31	0,229	0,08	0,9	1,5	s
35	0,184	0,055	-0,2	-0,3	s
41	0,2039			0,5	s
44	0,202	0,028	0,7	0,4	s
47	0,186			-0,2	s
48	0,024	0,002	-26,3	-7,3	u
55	0,1835	0,083	-0,2	-0,3	s
56	0,201	0,029	0,7	0,4	s
65	0,172			-0,8	s
69	0,23	0,04	1,9	1,5	s
75	0,198	0,04	0,4	0,3	s
78	0,198			0,3	s
94	0,184			-0,3	s
110	0,201			0,4	s
112	0,197	0,022	0,5	0,2	s
116	0,207	0,043	0,7	0,6	s
128	0,132			-2,6	q
146	0,1834	0,046	-0,3	-0,3	s
147	0,199	0,006	1,2	0,3	s
156	0,225	0,023	2,6	1,3	s
157	0,161			-1,3	s
165	0,161			-1,3	s
168	0,134	0,03	-3,5	-2,5	q
181	0,1868	0,024	-0,3	-0,2	s
183	0,185			-0,2	s

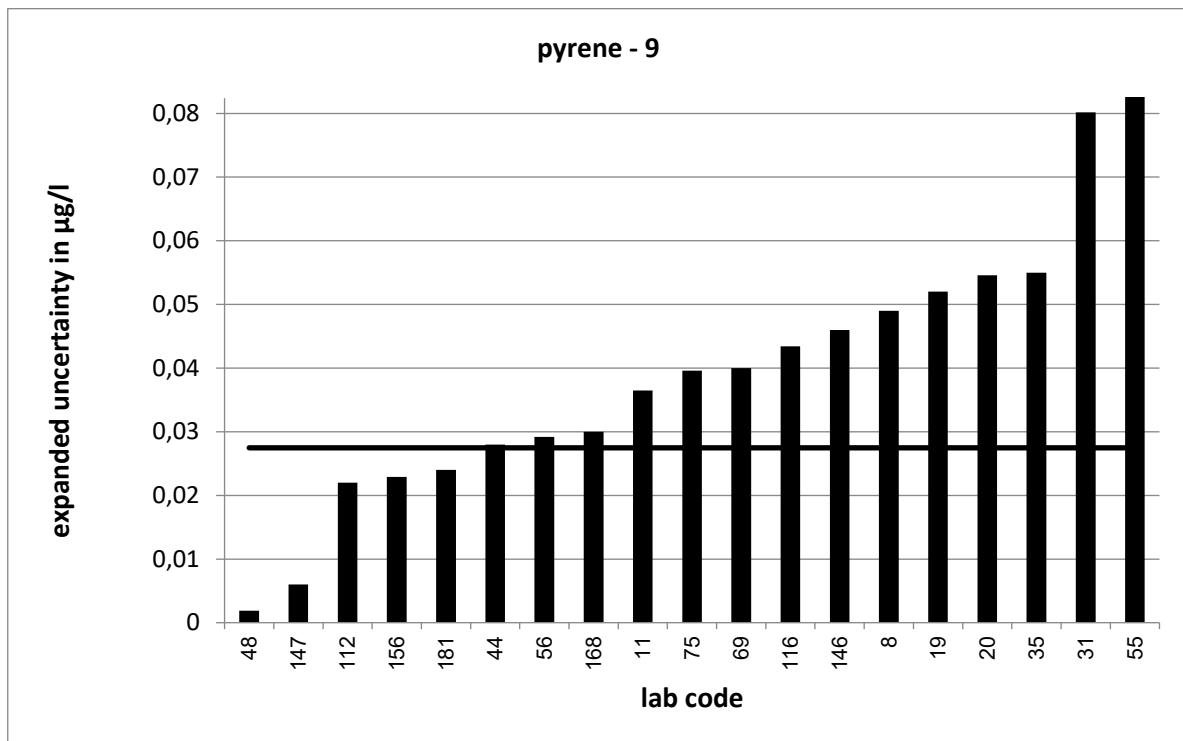
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

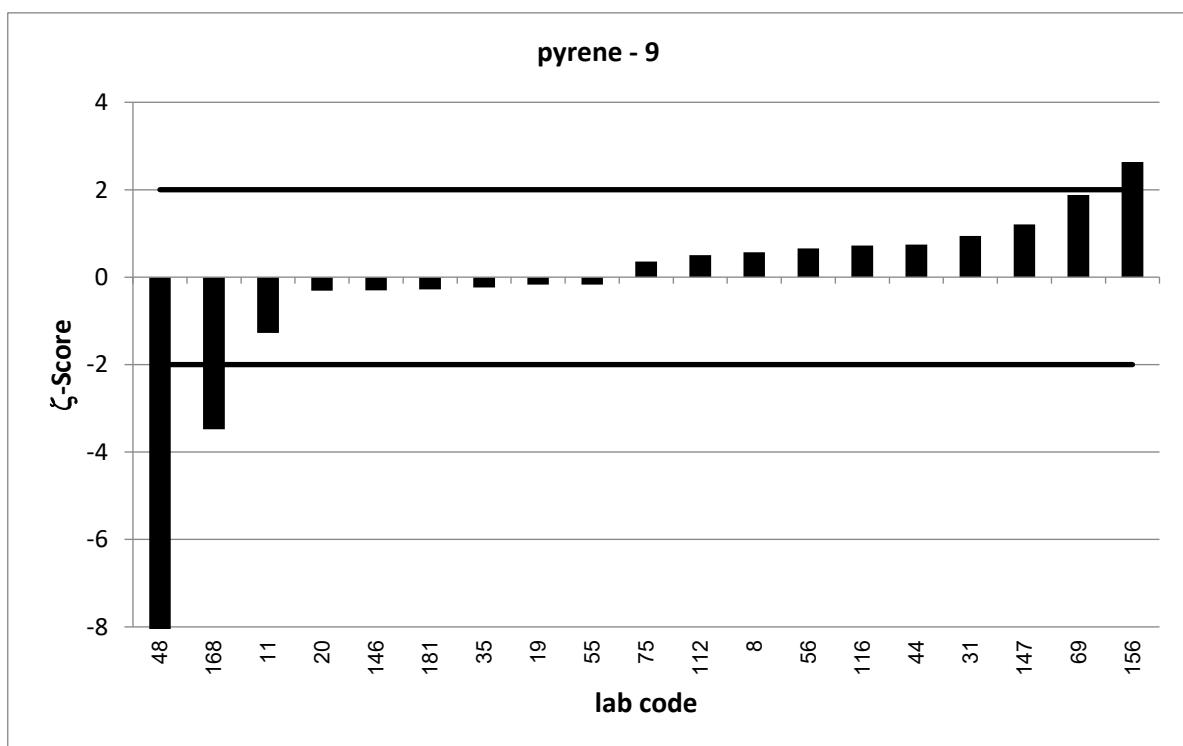


Strongly deviating values are not shown in the diagram.





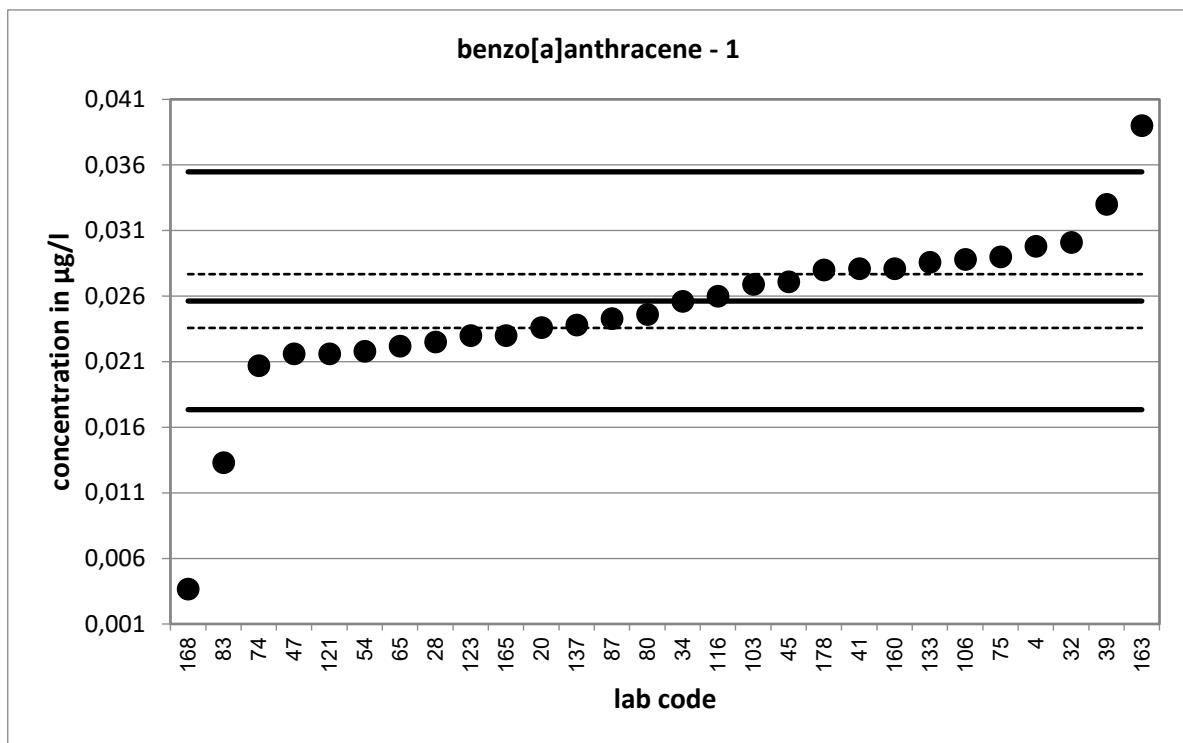
Strongly deviating values are not correctly shown in the diagram.



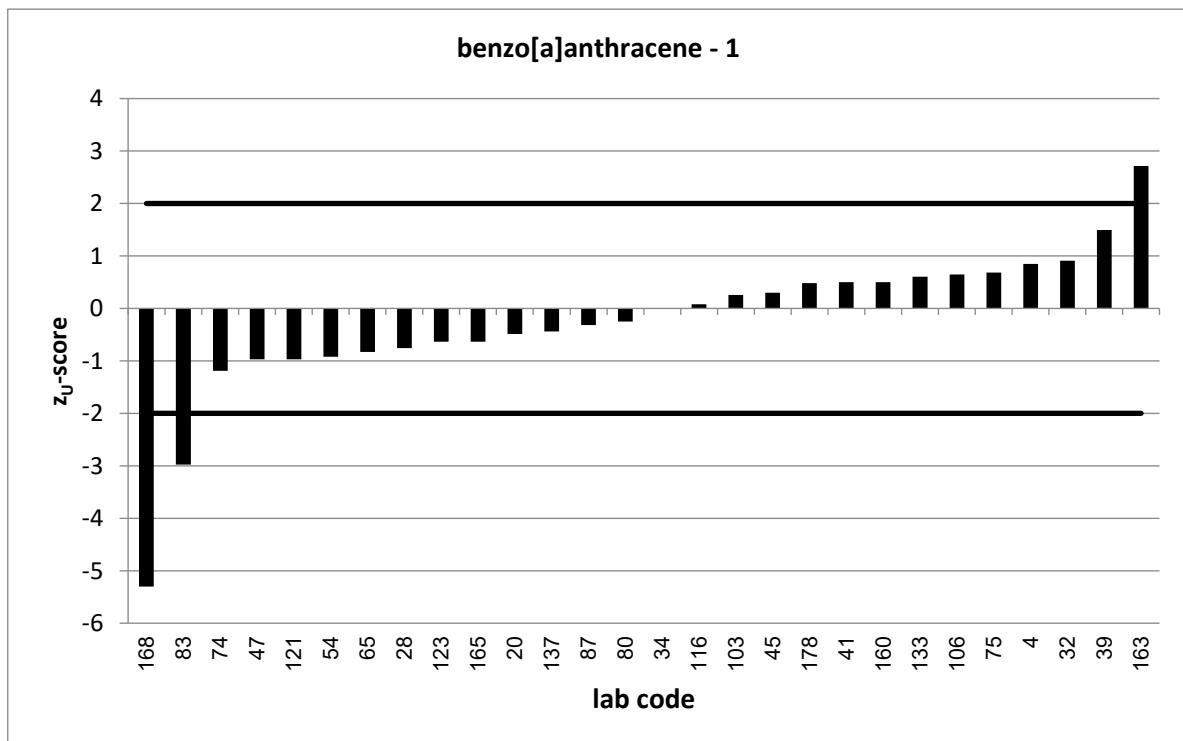
PT 3/24		benzo[a]anthracene - 1			
assigned value [ $\mu\text{g/l}$ ]*		$0,02562 \pm 0,00205$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,03547$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,01734$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0298			0,8	s
20	0,0236	0,007	-0,6	-0,5	s
28	0,0225	0,008	-0,8	-0,8	s
32	0,0301			0,9	s
34	0,0256	0,004	0,0	0,0	s
39	0,033	0,005	2,7	1,5	s
41	0,0281			0,5	s
45	0,0271			0,3	s
47	0,0216			-1,0	s
54	0,0218	0,007	-1,0	-0,9	s
65	0,0222			-0,8	s
74	0,0207	0,005	-1,7	-1,2	s
75	0,029	0,006	1,1	0,7	s
80	0,0246	0,008	-0,2	-0,2	s
83	0,0133			-3,0	u
87	0,0243	0,007	-0,3	-0,3	s
103	0,0269	0,005	0,5	0,3	s
106	0,0288			0,6	s
116	0,026	0,003	0,2	0,1	s
121	0,0216	0,006	-1,3	-1,0	s
123	0,023			-0,6	s
133	0,0286			0,6	s
137	0,0238	0,004	-0,9	-0,4	s
160	0,0281			0,5	s
163	0,039			2,7	q
165	0,023			-0,6	s
168	0,00368	0,002	-17,3	-5,3	u
178	0,028			0,5	s

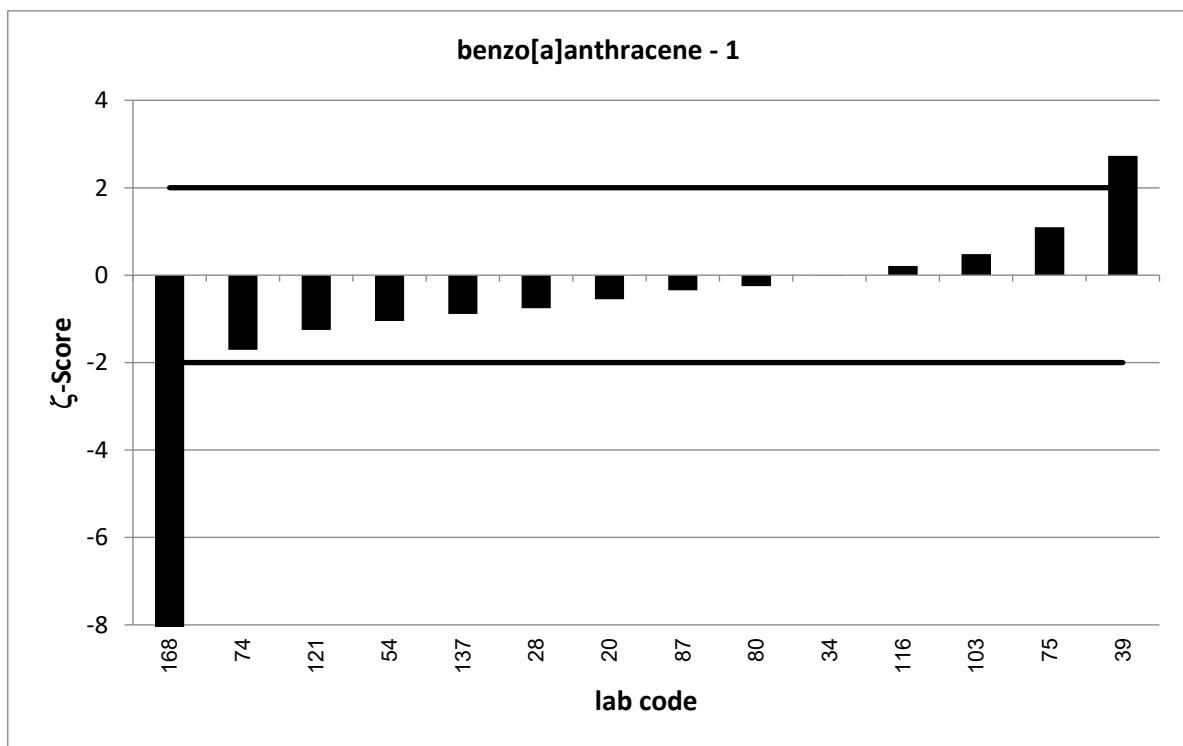
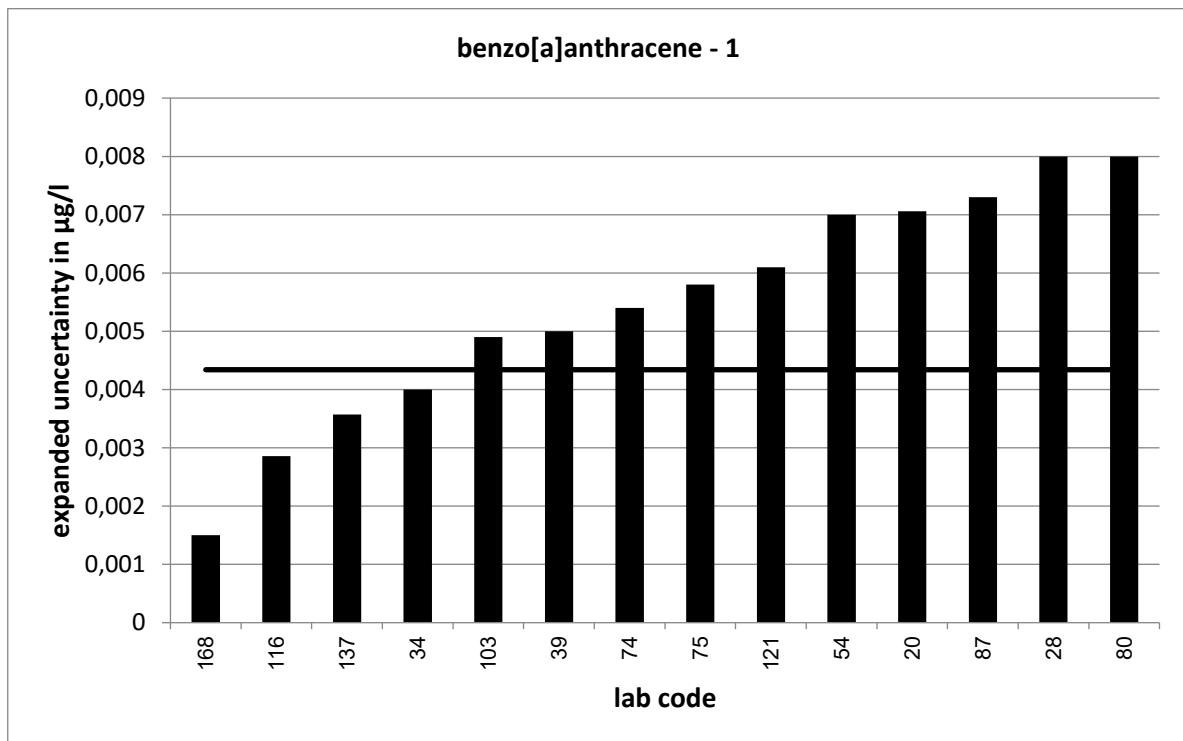
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

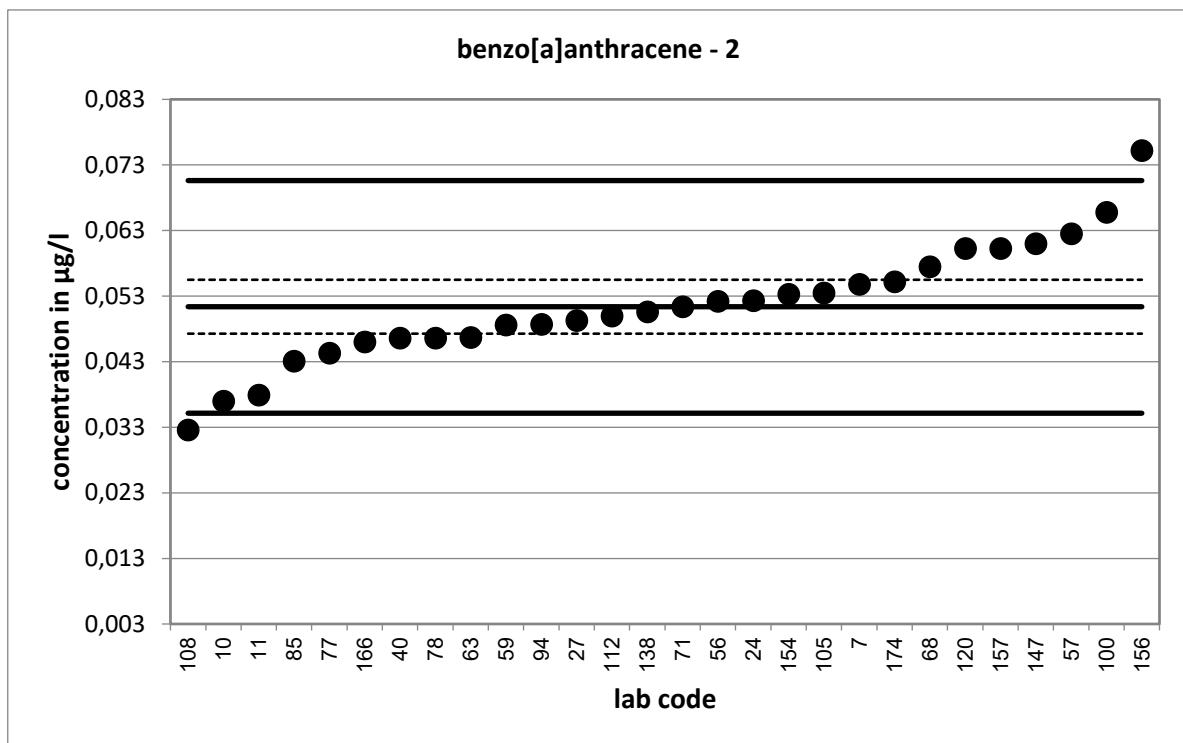




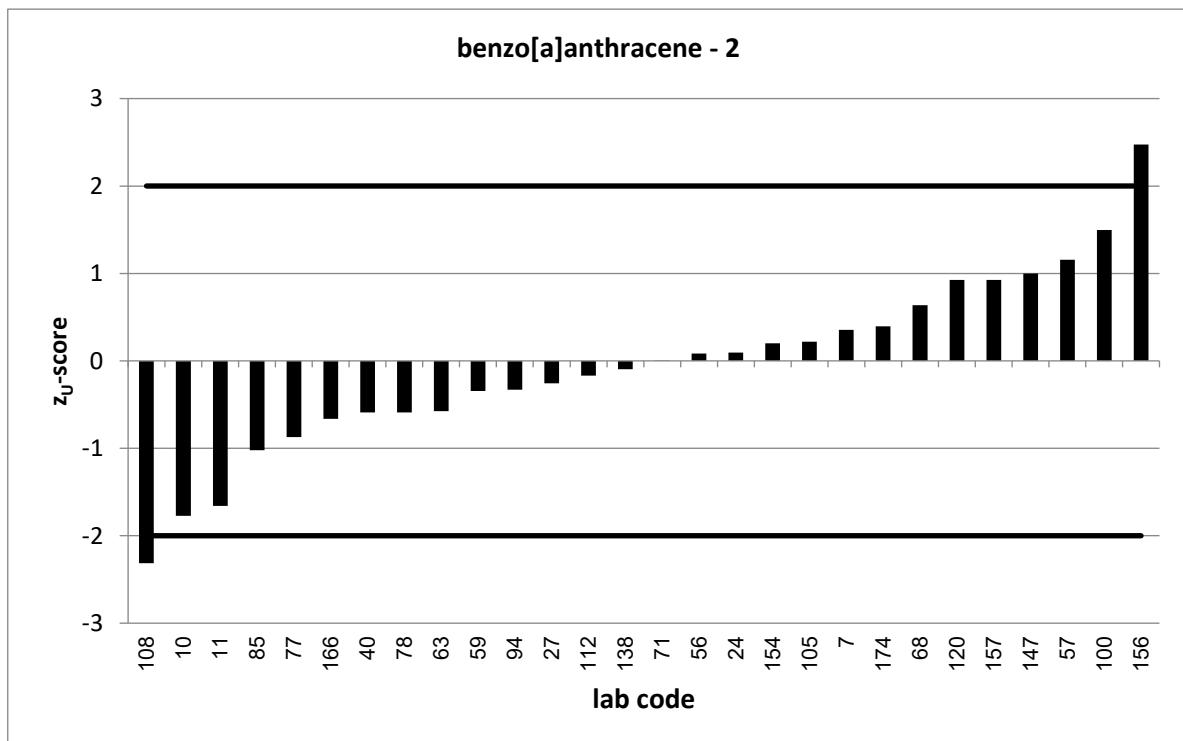
PT 3/24		benzo[a]anthracene - 2			
assigned value [ $\mu\text{g/l}$ ]*		$0,05138 \pm 0,00411$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,07062			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,03514			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0548	0,01	0,6	0,4	s
10	0,037	0,007	-3,5	-1,8	s
11	0,0379	0,008	-2,9	-1,7	s
24	0,0523			0,1	s
27	0,0493			-0,3	s
40	0,0466			-0,6	s
56	0,0522	0,007	0,2	0,1	s
57	0,0625			1,2	s
59	0,0486	0,01	-0,5	-0,3	s
63	0,0467	0,014	-0,6	-0,6	s
68	0,0575			0,6	s
71	0,0514	0,01	0,0	0,0	s
77	0,0443	0,016	-0,9	-0,9	s
78	0,0466			-0,6	s
85	0,0431			-1,0	s
94	0,0487			-0,3	s
100	0,0658	0,013	2,1	1,5	s
105	0,0535			0,2	s
108	0,0326	0,007	-4,6	-2,3	q
112	0,05	0,003	-0,5	-0,2	s
120	0,0603	0,005	2,8	0,9	s
138	0,0506			-0,1	s
147	0,061	0,002	4,3	1,0	s
154	0,0533	0,027	0,1	0,2	s
156	0,0752	0,011	3,9	2,5	q
157	0,0603			0,9	s
166	0,046			-0,7	s
174	0,0552			0,4	s

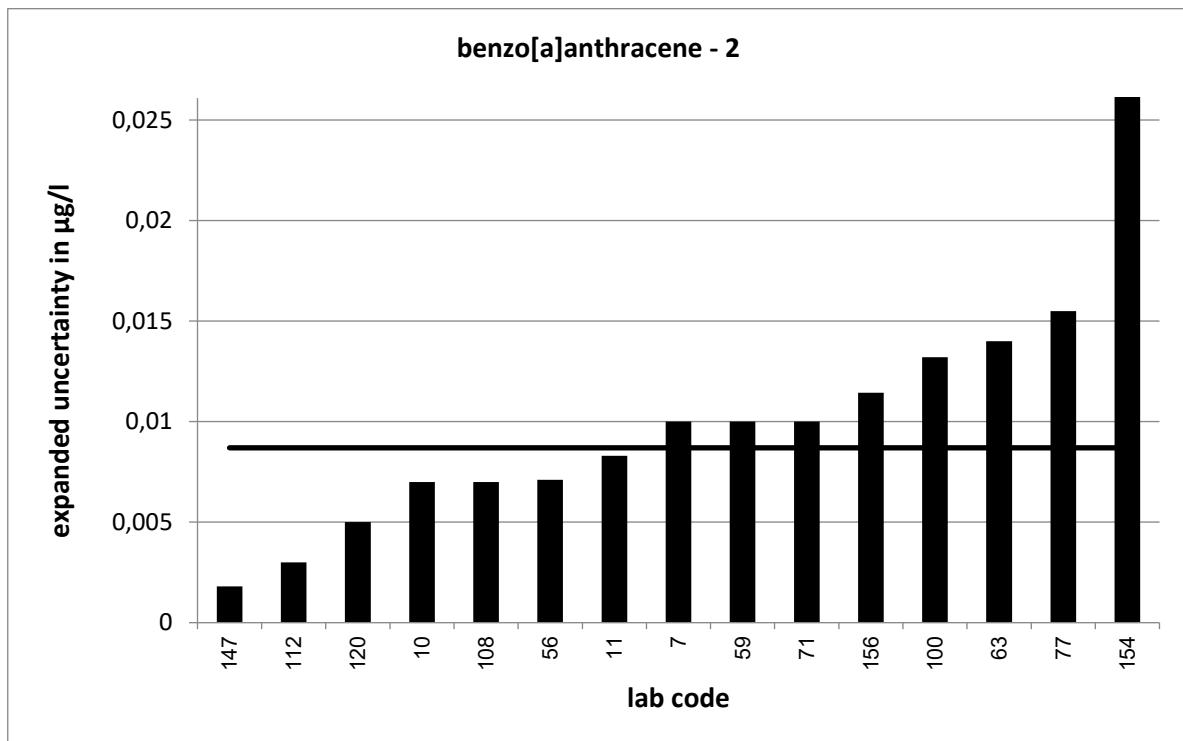
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor k=2 corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

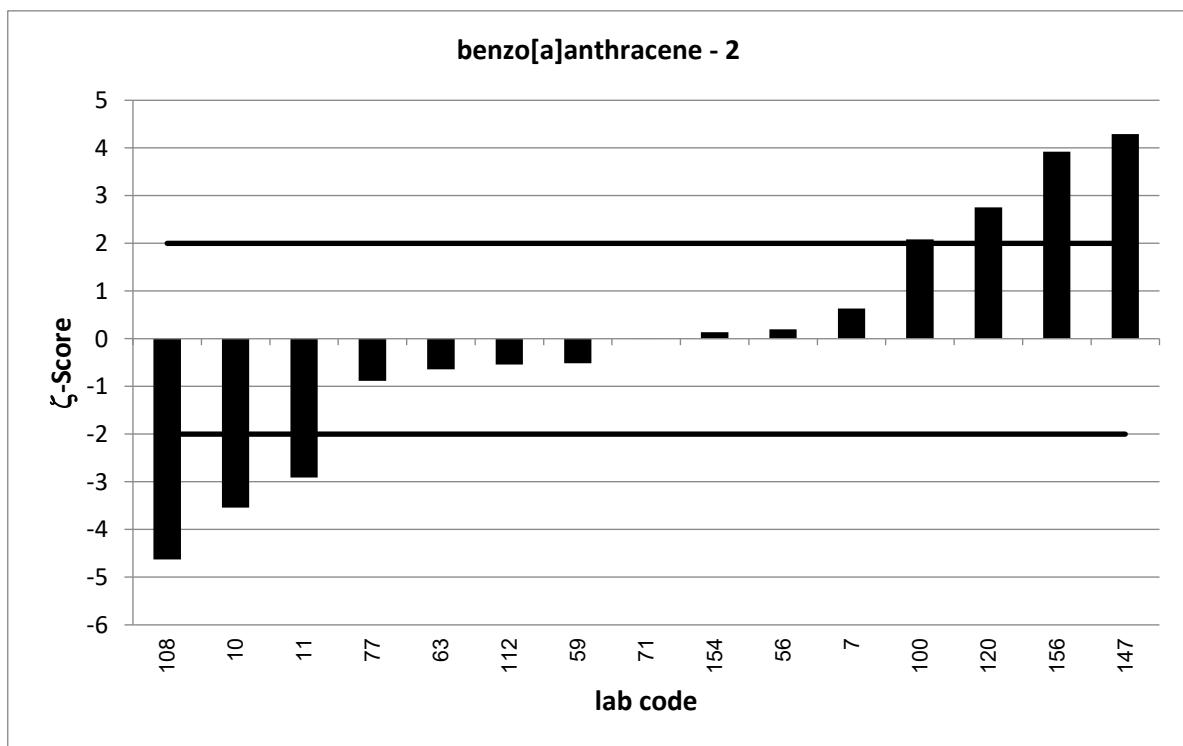


Strongly deviating values are not shown in the diagram.





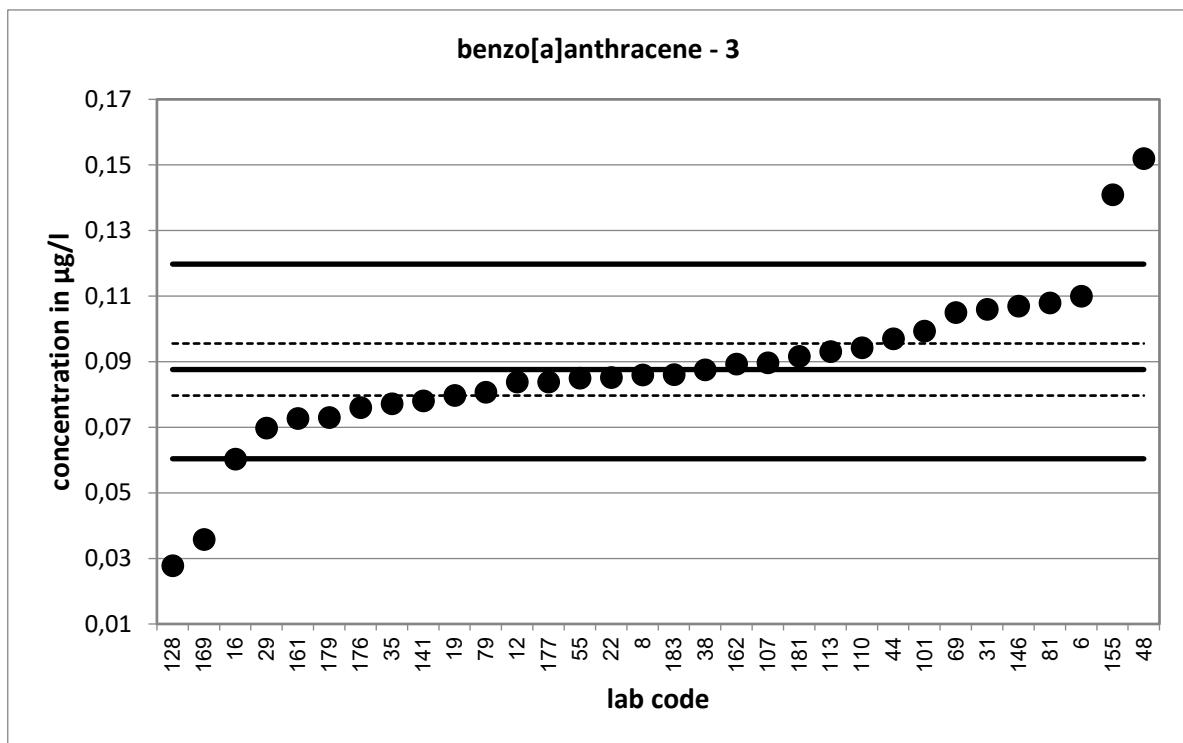
Strongly deviating values are not correctly shown in the diagram.



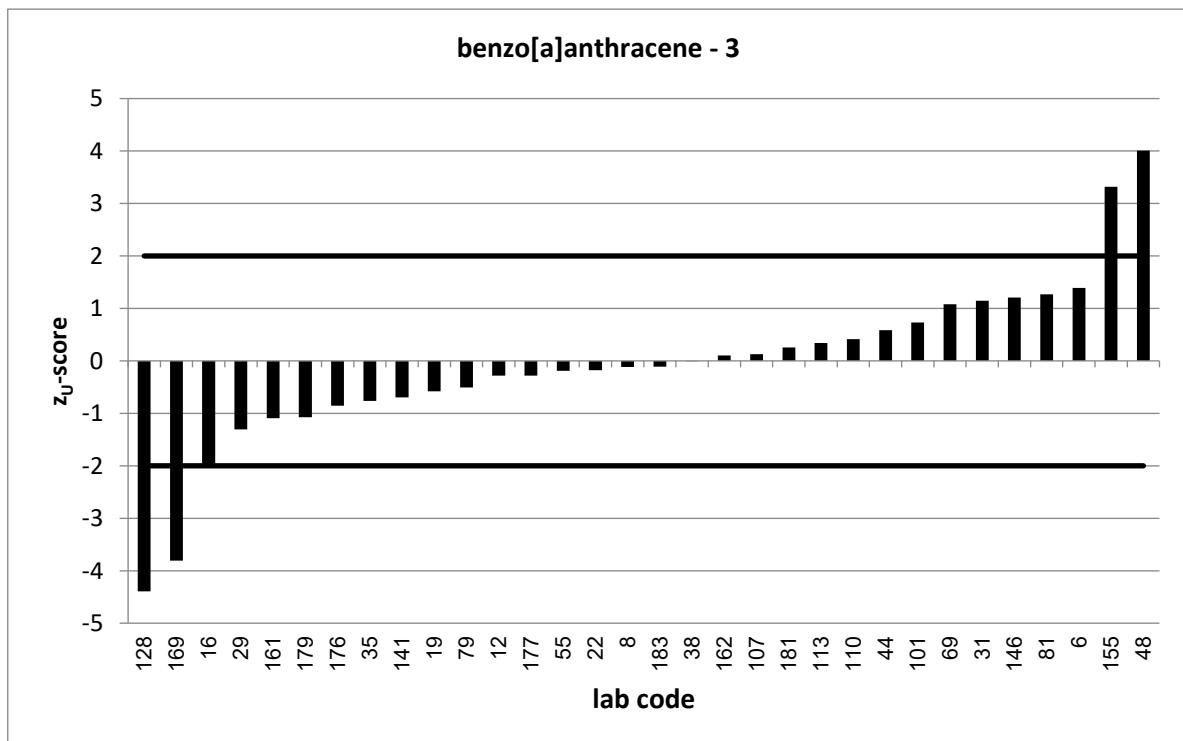
PT 3/24		benzo[a]anthracene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,08761 \pm 0,00794$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1198			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,06039			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,11	0,033	1,3	1,4	s
8	0,086	0,021	-0,1	-0,1	s
12	0,0838	0,025	-0,3	-0,3	s
16	0,0603	0,012	-3,8	-2,0	s
19	0,0797	0,02	-0,8	-0,6	s
22	0,0852	0,034	-0,1	-0,2	s
29	0,0698	0,014	-2,2	-1,3	s
31	0,106	0,037	1,0	1,1	s
35	0,0772	0,023	-0,9	-0,8	s
38	0,0876			0,0	s
44	0,097	0,017	1,0	0,6	s
48	0,152	0,006	12,9	4,0	u
55	0,085	0,038	-0,1	-0,2	s
69	0,105	0,018	1,8	1,1	s
79	0,0807			-0,5	s
81	0,108			1,3	s
101	0,0994	0,03	0,8	0,7	s
107	0,0897	0,023	0,2	0,1	s
110	0,0943			0,4	s
113	0,0931			0,3	s
128	0,0278			-4,4	u
141	0,0781	0,035	-0,5	-0,7	s
146	0,107	0,025	1,5	1,2	s
155	0,141			3,3	u
161	0,0727			-1,1	s
162	0,0893	0,027	0,1	0,1	s
169	0,0358	0,007	-9,9	-3,8	u
176	0,076			-0,9	s
177	0,0838			-0,3	s
179	0,073	0,022	-1,2	-1,1	s
181	0,0917	0,008	0,7	0,3	s
183	0,0861	0,026	-0,1	-0,1	s

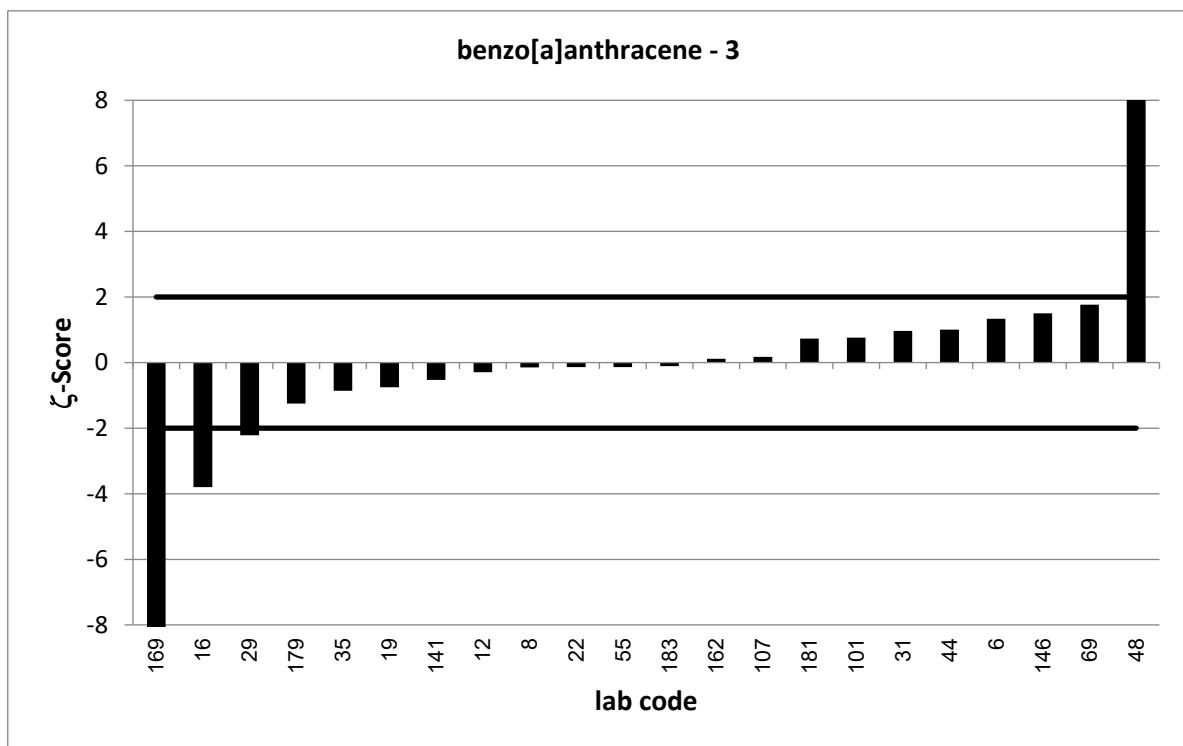
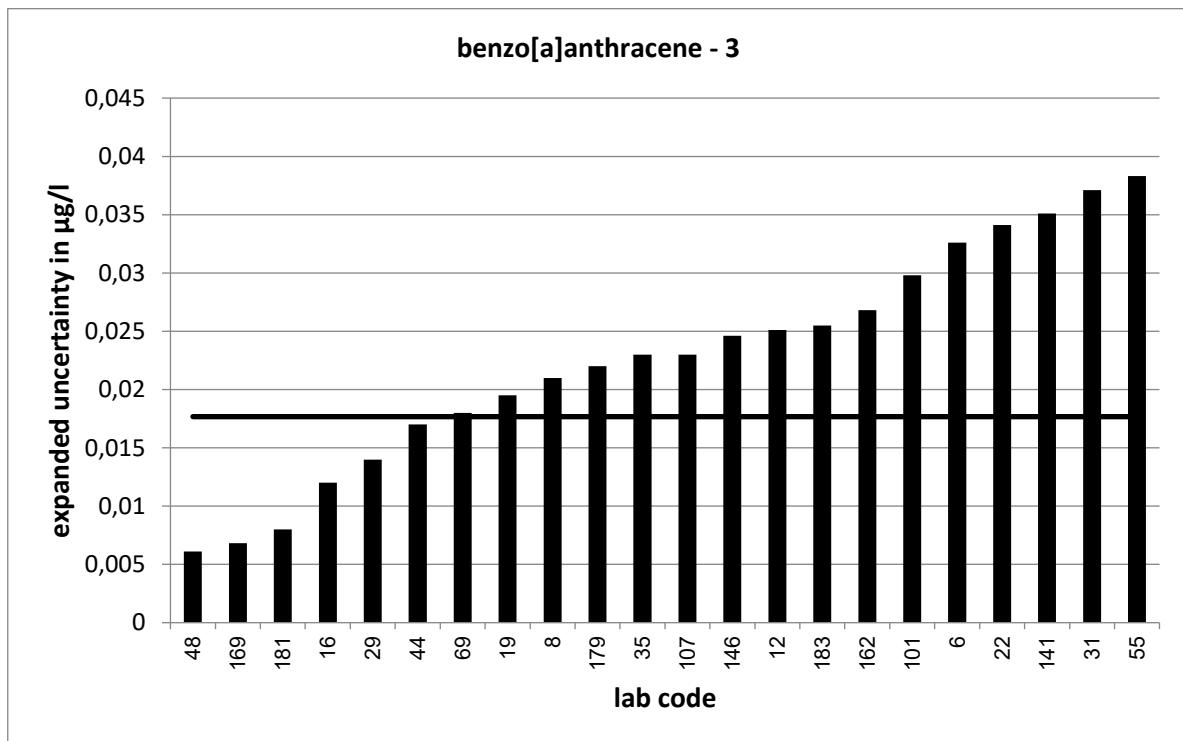
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

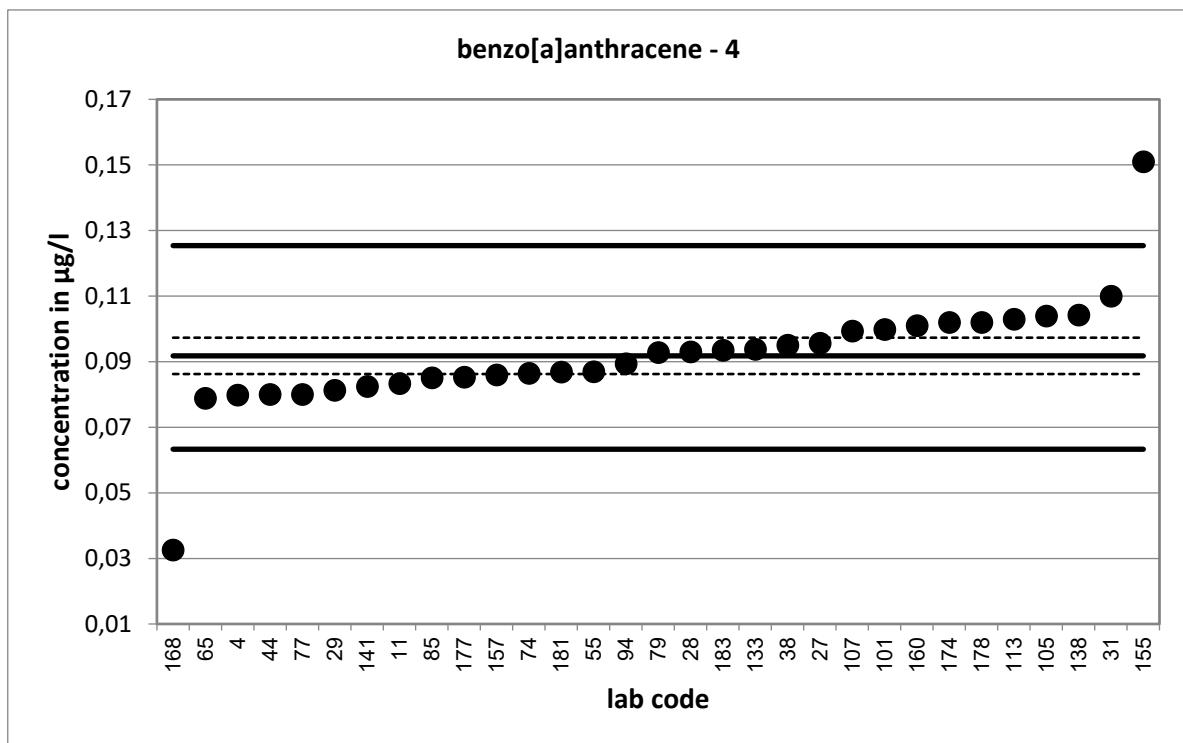




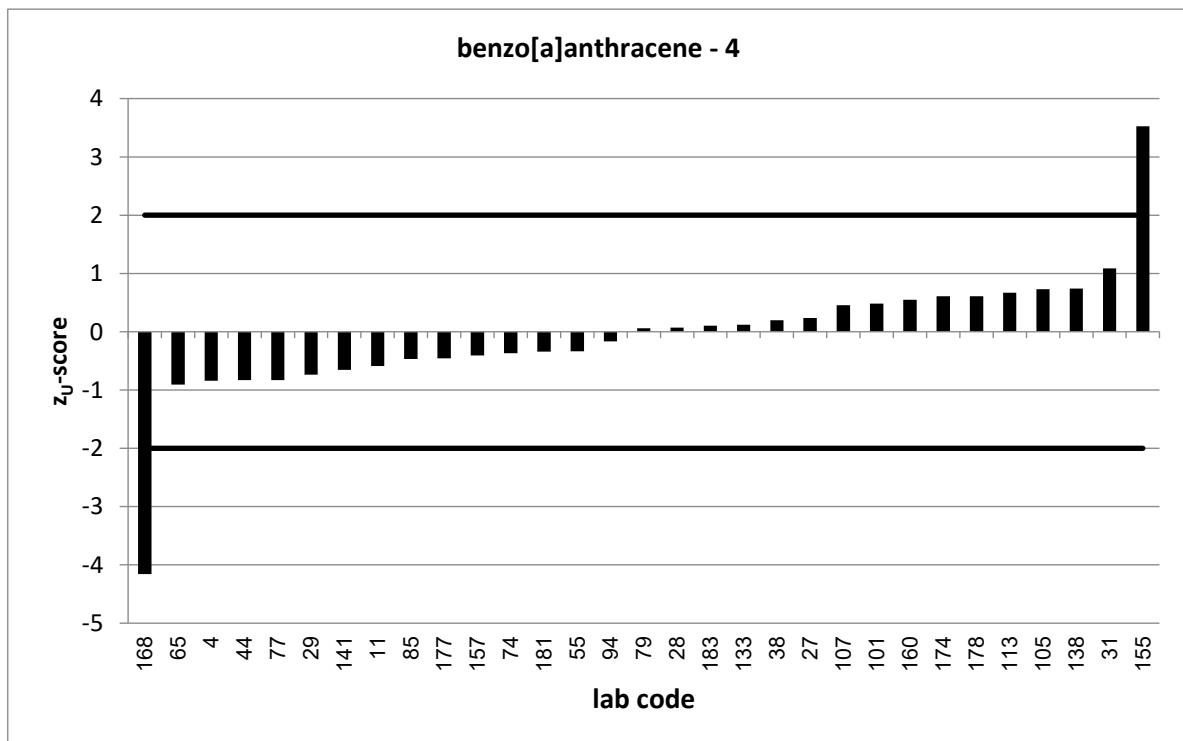
PT 3/24		benzo[a]anthracene - 4			
assigned value [ $\mu\text{g/l}$ ]*		$0,09178 \pm 0,00554$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1254			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,06331			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0798			-0,8	s
11	0,0834	0,018	-0,9	-0,6	s
27	0,0957			0,2	s
28	0,093	0,033	0,1	0,1	s
29	0,0813	0,016	-1,2	-0,7	s
31	0,11	0,039	0,9	1,1	s
38	0,0951			0,2	s
44	0,08	0,016	-1,4	-0,8	s
55	0,087	0,039	-0,2	-0,3	s
65	0,0789			-0,9	s
74	0,0865	0,022	-0,5	-0,4	s
77	0,08	0,028	-0,8	-0,8	s
79	0,0928			0,1	s
85	0,0851			-0,5	s
94	0,0894			-0,2	s
101	0,0999	0,03	0,5	0,5	s
105	0,104			0,7	s
107	0,0994	0,026	0,6	0,5	s
113	0,103			0,7	s
133	0,0938			0,1	s
138	0,1042			0,7	s
141	0,0825	0,037	-0,5	-0,7	s
155	0,151			3,5	u
157	0,086			-0,4	s
160	0,101			0,5	s
168	0,0326	0,01	-10,4	-4,2	u
174	0,102			0,6	s
177	0,0853			-0,5	s
178	0,102			0,6	s
181	0,0869	0,008	-1,0	-0,3	s
183	0,0935	0,028	0,1	0,1	s

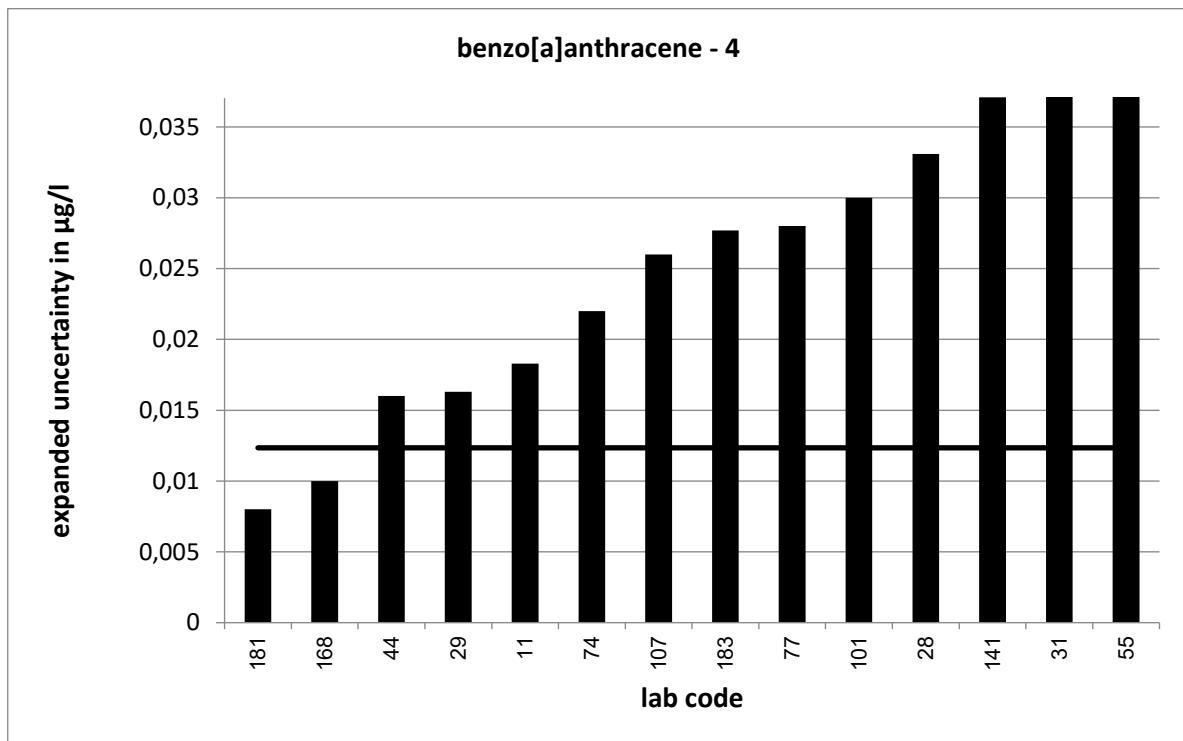
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

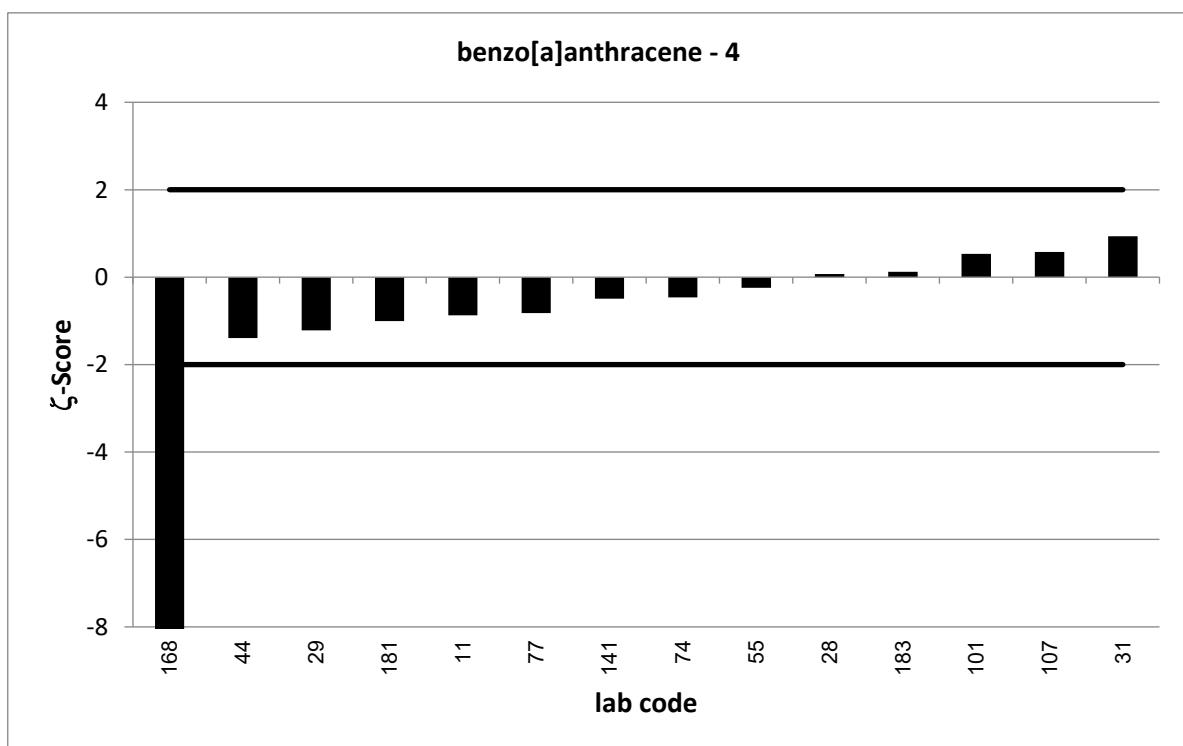


Strongly deviating values are not shown in the diagram.





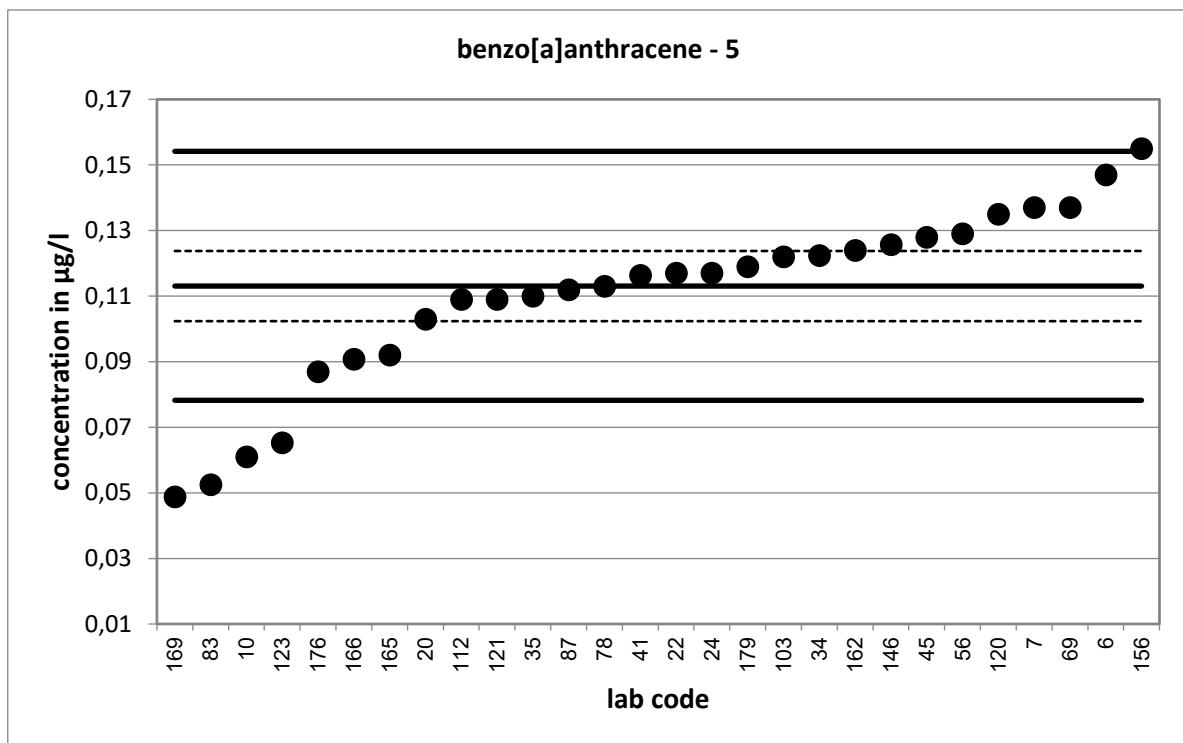
Strongly deviating values are not correctly shown in the diagram.



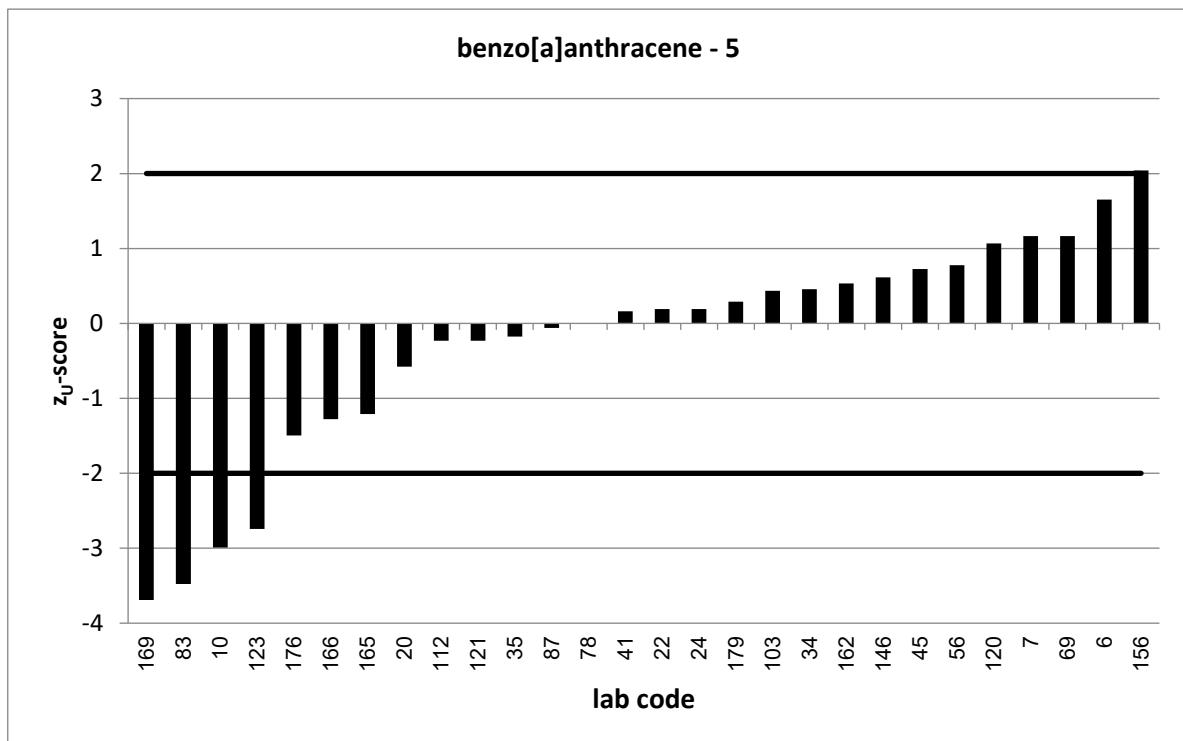
PT 3/24		benzo[a]anthracene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,1131 \pm 0,0107$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,1542$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,07822$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,147	0,044	1,5	1,7	s
7	0,137	0,013	2,8	1,2	s
10	0,061	0,012	-6,5	-3,0	u
20	0,103	0,031	-0,6	-0,6	s
22	0,117	0,047	0,2	0,2	s
24	0,117			0,2	s
34	0,1224	0,02	0,8	0,5	s
35	0,11	0,033	-0,2	-0,2	s
41	0,1164			0,2	s
45	0,128			0,7	s
56	0,129	0,018	1,6	0,8	s
69	0,137	0,024	1,8	1,2	s
78	0,113			0,0	s
83	0,0525			-3,5	u
87	0,112	0,034	-0,1	-0,1	s
103	0,122	0,022	0,7	0,4	s
112	0,109	0,006	-0,7	-0,2	s
120	0,135	0,01	3,0	1,1	s
121	0,109	0,031	-0,2	-0,2	s
123	0,0653			-2,7	q
146	0,1257	0,029	0,8	0,6	s
156	0,155	0,024	3,2	2,0	s
162	0,124	0,037	0,6	0,5	s
165	0,092			-1,2	s
166	0,0908			-1,3	s
169	0,0488	0,009	-9,1	-3,7	u
176	0,087			-1,5	s
179	0,119	0,036	0,3	0,3	s

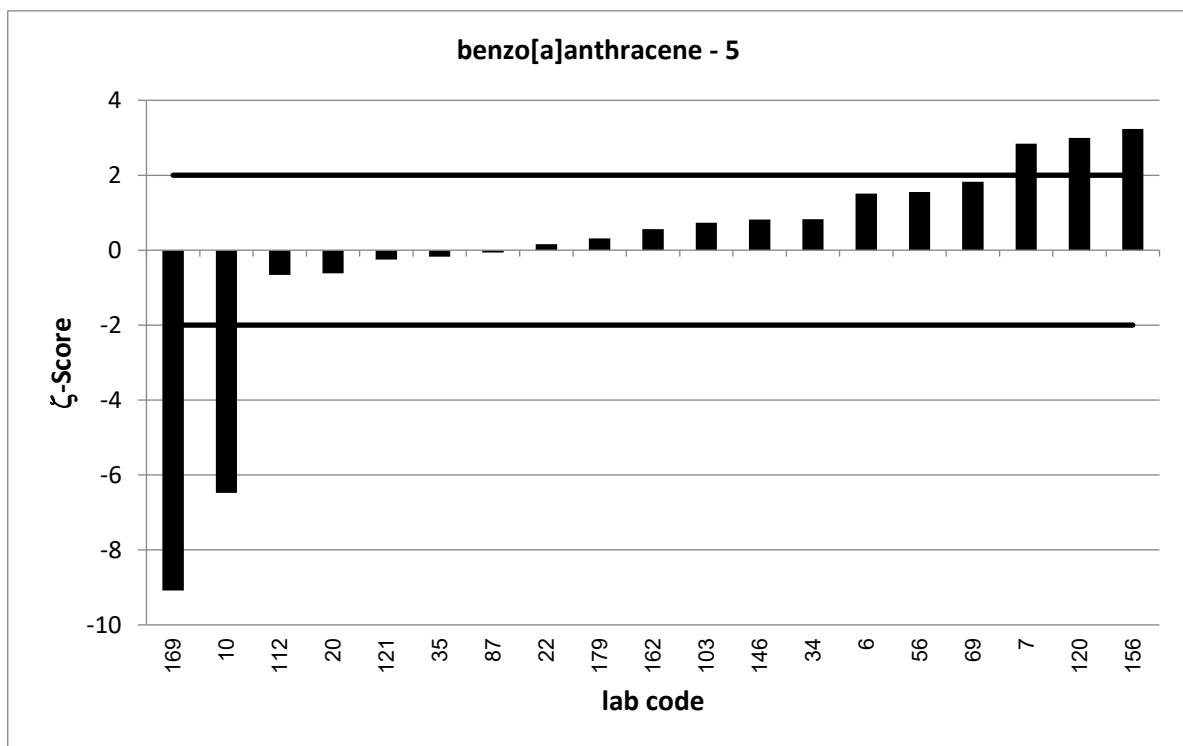
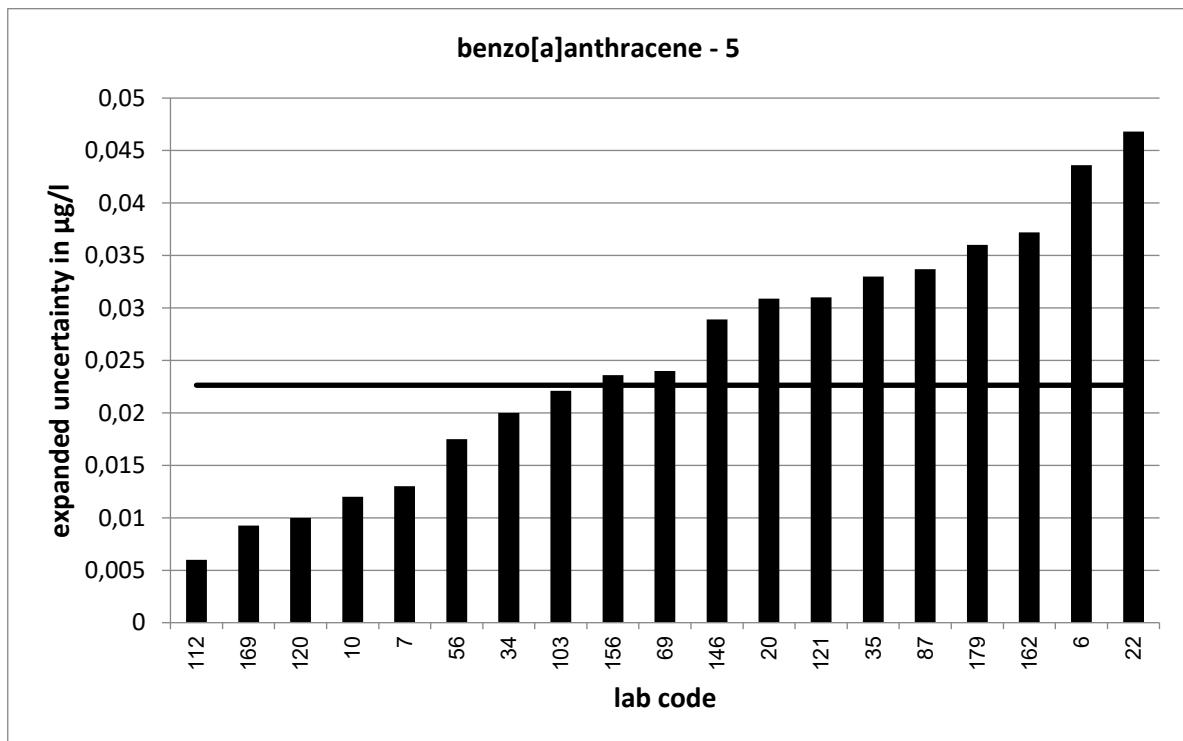
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

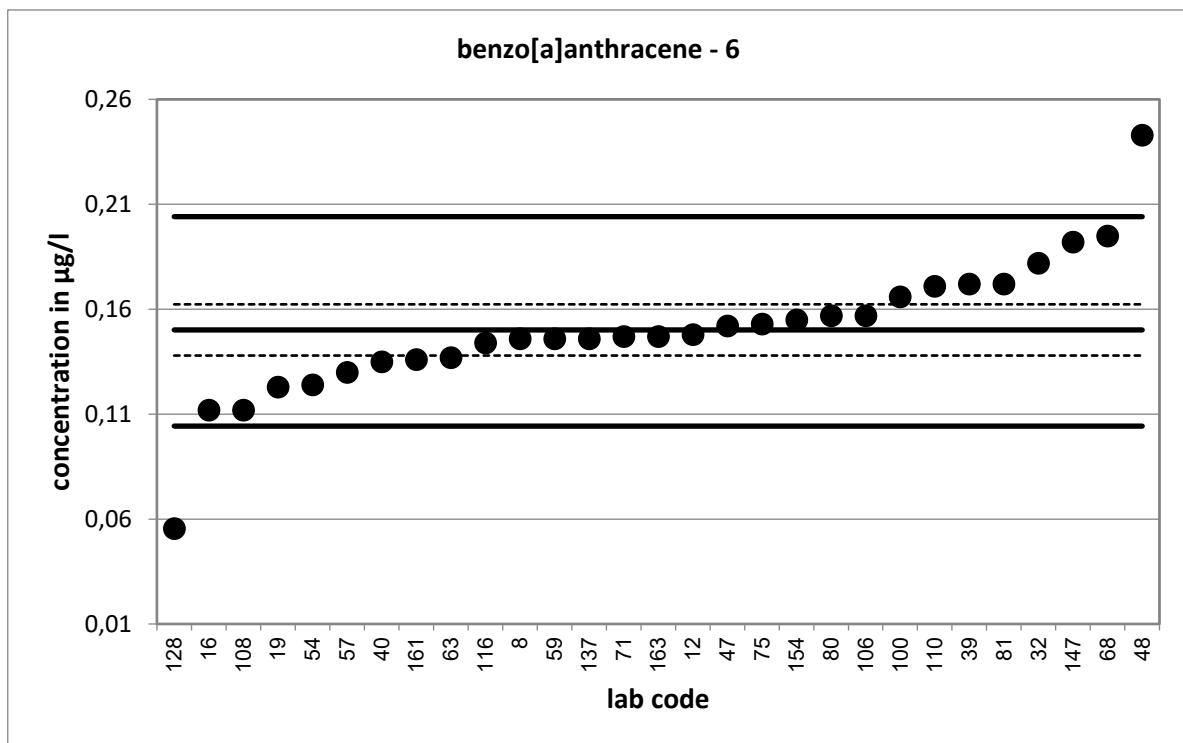




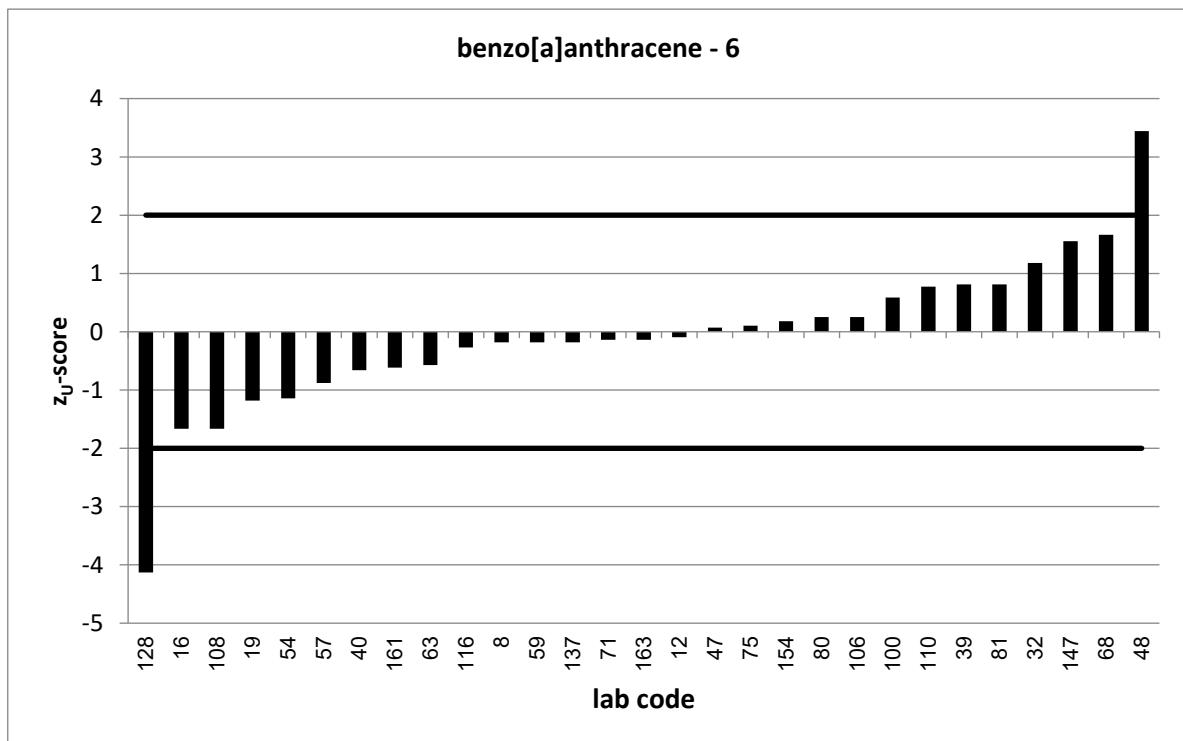
PT 3/24		benzo[a]anthracene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,1501 \pm 0,0122$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,2041$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,1043$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,146	0,035	-0,2	-0,2	s
12	0,148	0,044	-0,1	-0,1	s
16	0,112	0,021	-3,1	-1,7	s
19	0,123	0,03	-1,7	-1,2	s
32	0,182			1,2	s
39	0,172	0,027	1,5	0,8	s
40	0,135			-0,7	s
47	0,152			0,1	s
48	0,243	0,027	6,3	3,4	u
54	0,124	0,037	-1,3	-1,1	s
57	0,13			-0,9	s
59	0,146	0,029	-0,3	-0,2	s
63	0,137	0,041	-0,6	-0,6	s
68	0,195			1,7	s
71	0,147	0,028	-0,2	-0,1	s
75	0,153	0,031	0,2	0,1	s
80	0,157	0,02	0,6	0,3	s
81	0,172			0,8	s
100	0,166	0,033	0,9	0,6	s
106	0,157			0,3	s
108	0,112	0,024	-2,8	-1,7	s
110	0,171			0,8	s
116	0,144	0,016	-0,6	-0,3	s
128	0,0555			-4,1	u
137	0,146	0,022	-0,3	-0,2	s
147	0,192	0,006	6,2	1,6	s
154	0,155	0,078	0,1	0,2	s
161	0,136			-0,6	s
163	0,147			-0,1	s

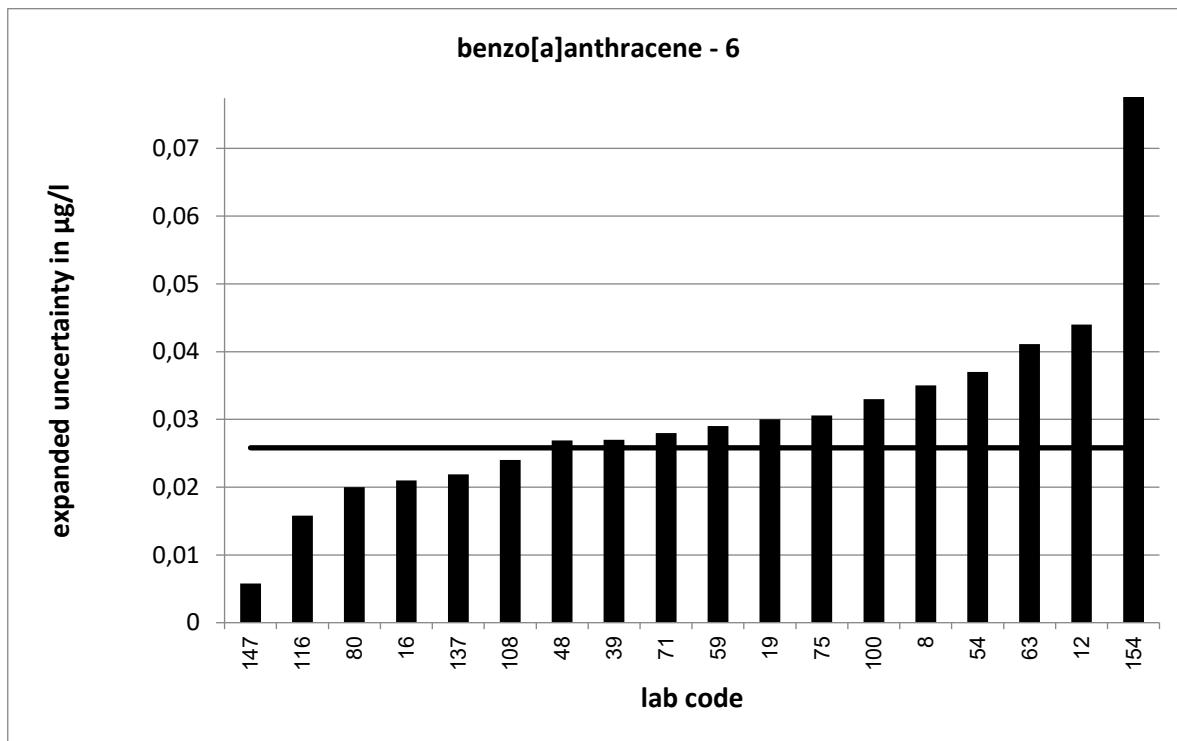
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

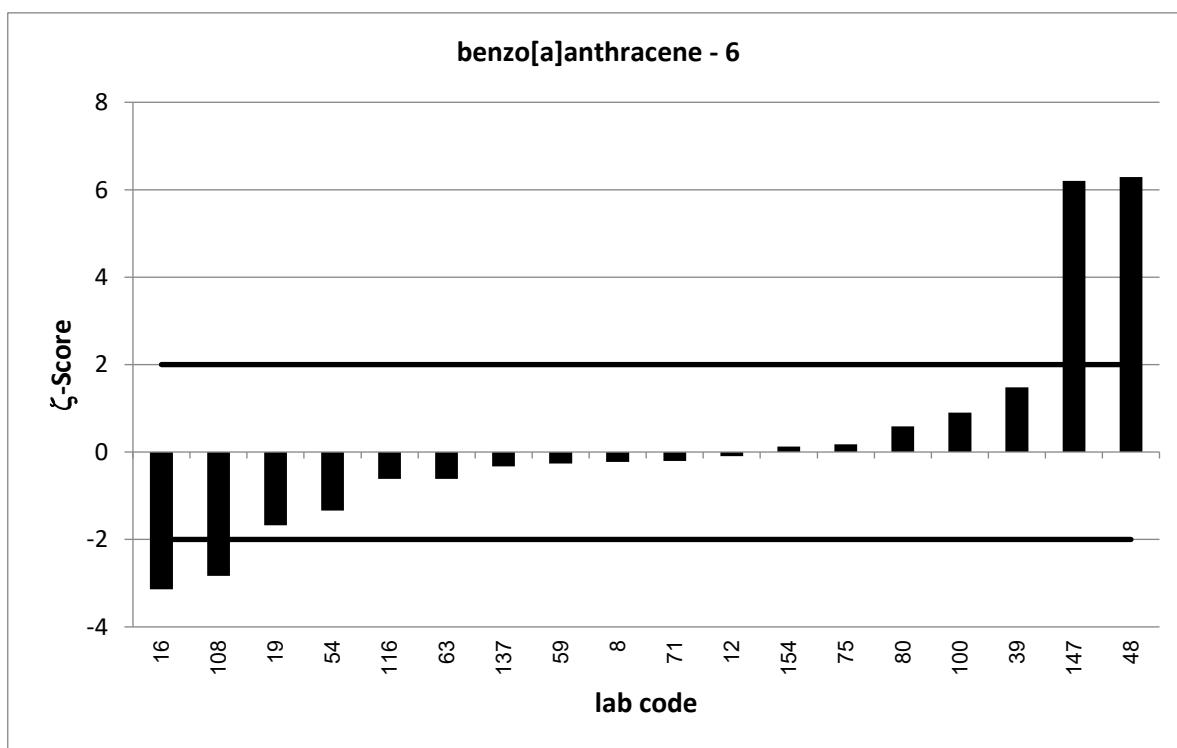


Strongly deviating values are not shown in the diagram.





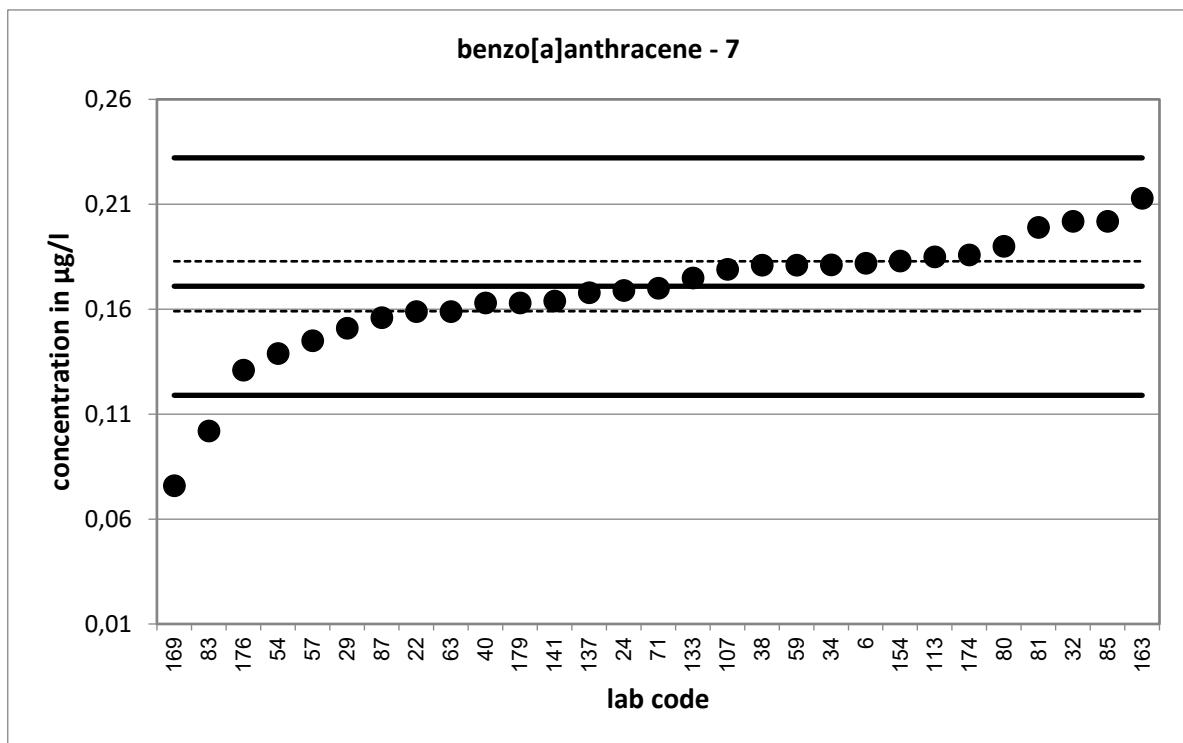
Strongly deviating values are not correctly shown in the diagram.



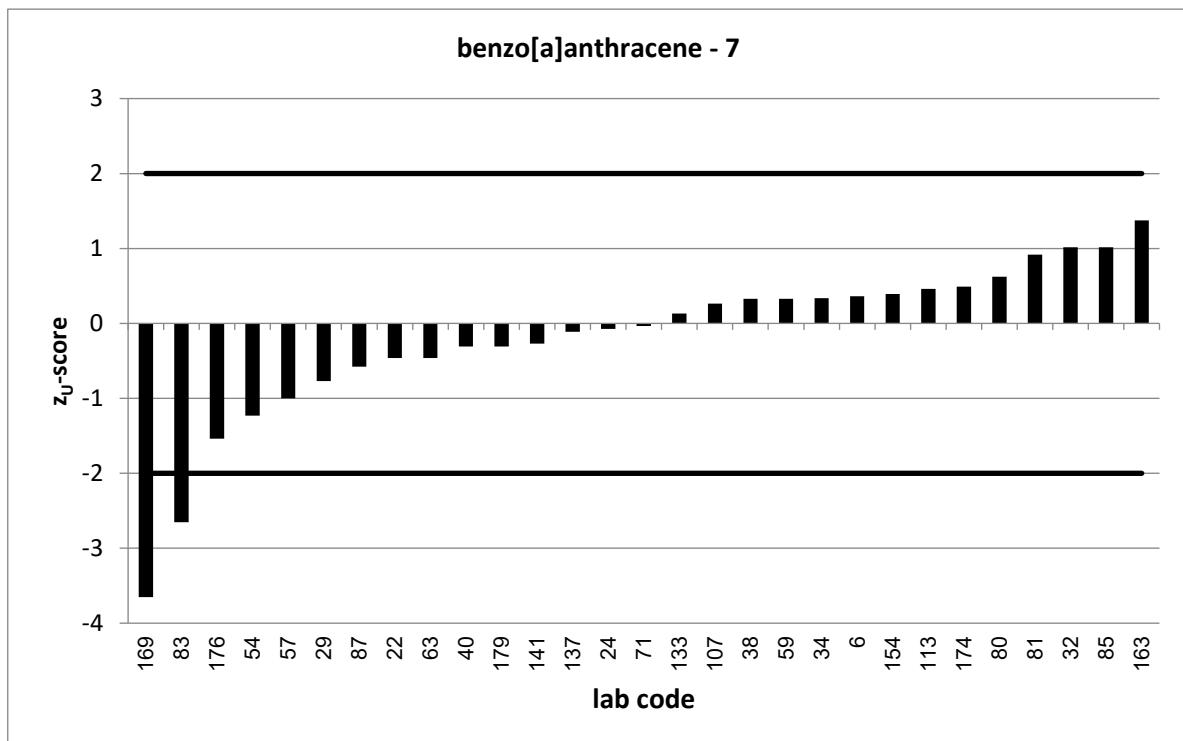
PT 3/24		benzo[a]anthracene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,171 \pm 0,0119$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2321			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,119			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,182	0,054	0,4	0,4	s
22	0,159	0,064	-0,4	-0,5	s
24	0,169			-0,1	s
29	0,151	0,03	-1,2	-0,8	s
32	0,202			1,0	s
34	0,1812	0,03	0,6	0,3	s
38	0,181			0,3	s
40	0,163			-0,3	s
54	0,139	0,042	-1,5	-1,2	s
57	0,145			-1,0	s
59	0,181	0,036	0,5	0,3	s
63	0,159	0,048	-0,5	-0,5	s
71	0,17	0,032	-0,1	0,0	s
80	0,19	0,02	1,6	0,6	s
81	0,199			0,9	s
83	0,102			-2,7	q
85	0,202			1,0	s
87	0,156	0,047	-0,6	-0,6	s
107	0,179	0,047	0,3	0,3	s
113	0,185			0,5	s
133	0,175			0,1	s
137	0,168	0,025	-0,2	-0,1	s
141	0,164	0,074	-0,2	-0,3	s
154	0,183	0,092	0,3	0,4	s
163	0,213			1,4	s
169	0,076	0,014	-10,2	-3,7	u
174	0,186			0,5	s
176	0,131			-1,5	s
179	0,163	0,049	-0,3	-0,3	s

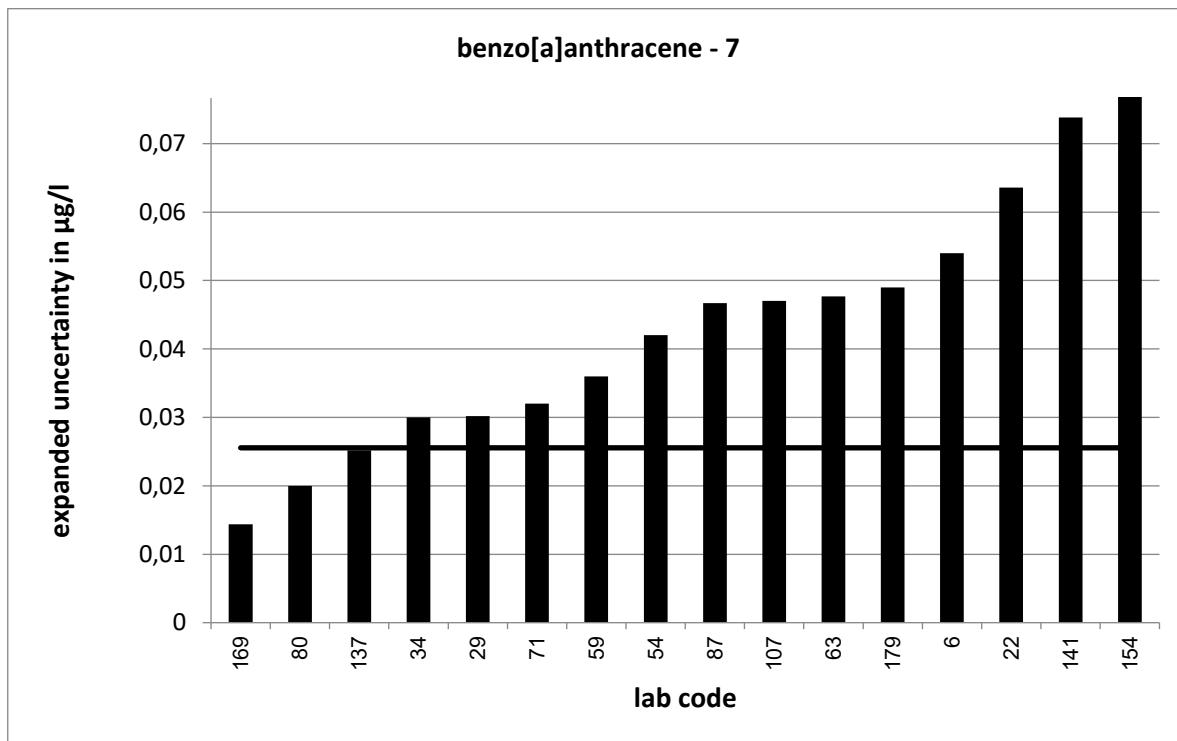
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

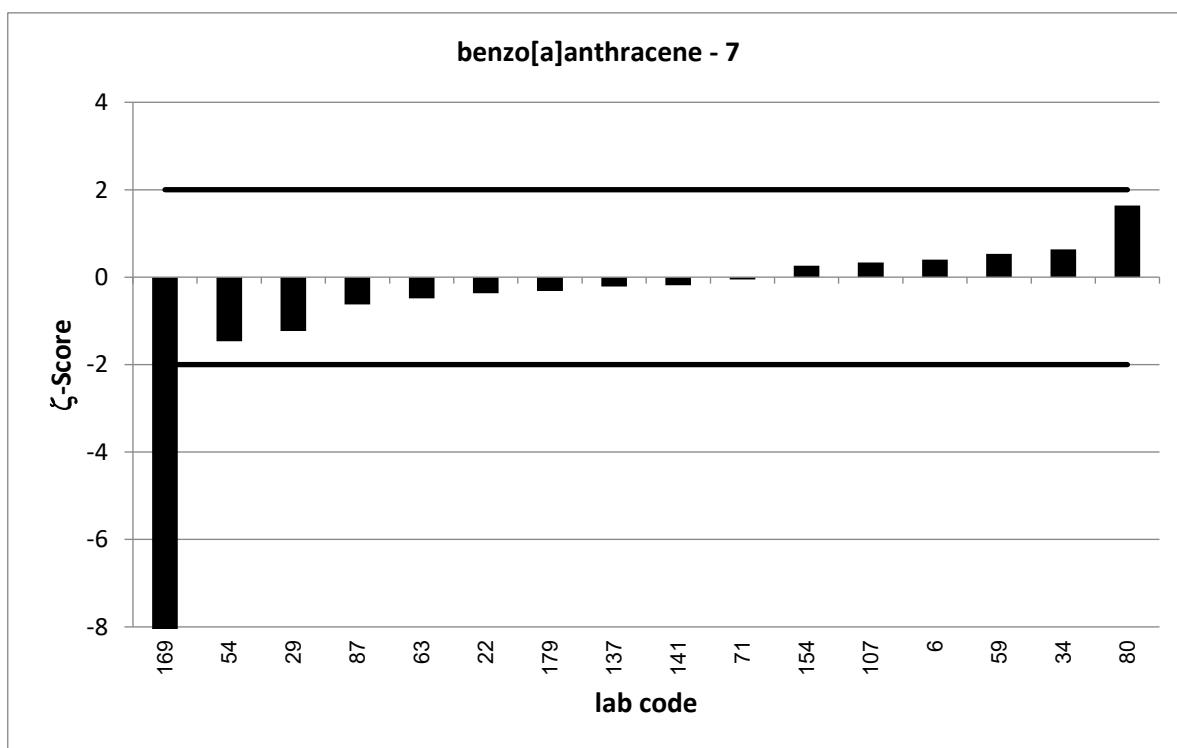


Strongly deviating values are not shown in the diagram.





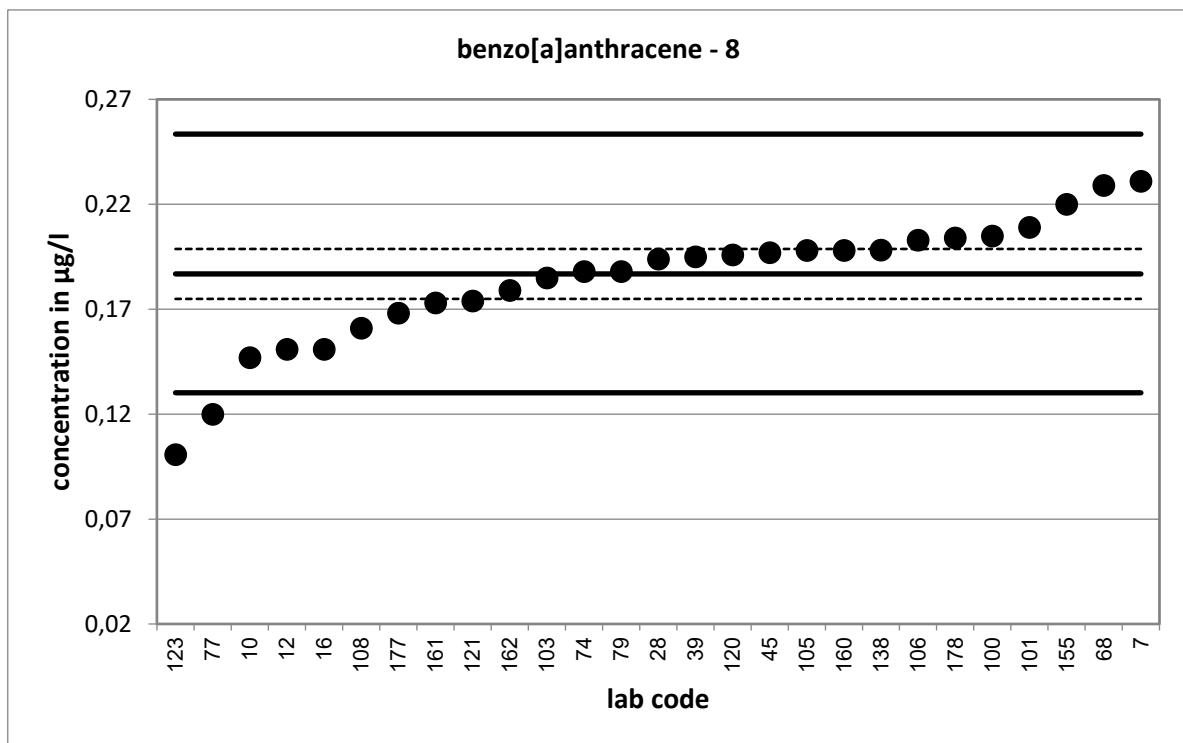
Strongly deviating values are not correctly shown in the diagram.



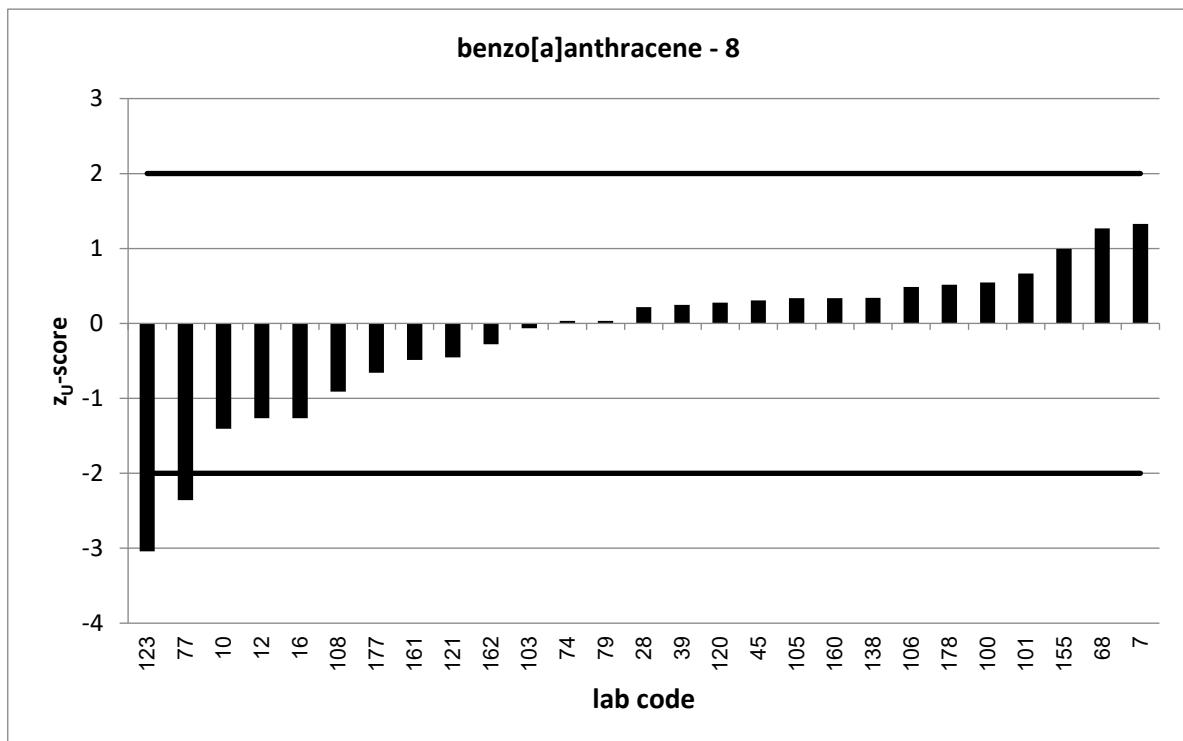
PT 3/24		benzo[a]anthracene - 8			
assigned value [ $\mu\text{g/l}$ ]*		$0,1868 \pm 0,0119$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2534			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1302			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,231	0,032	2,6	1,3	s
10	0,147	0,029	-2,5	-1,4	s
12	0,151	0,045	-1,5	-1,3	s
16	0,151	0,029	-2,3	-1,3	s
28	0,194	0,069	0,2	0,2	s
39	0,195	0,031	0,5	0,2	s
45	0,197			0,3	s
68	0,229			1,3	s
74	0,188	0,049	0,0	0,0	s
77	0,12	0,042	-3,1	-2,4	q
79	0,188			0,0	s
100	0,205	0,041	0,9	0,5	s
101	0,209	0,063	0,7	0,7	s
103	0,185	0,034	-0,1	-0,1	s
105	0,198			0,3	s
106	0,203			0,5	s
108	0,161	0,034	-1,4	-0,9	s
120	0,196	0,03	0,6	0,3	s
121	0,174	0,049	-0,5	-0,5	s
123	0,1007			-3,0	u
138	0,1982			0,3	s
155	0,22			1,0	s
160	0,198			0,3	s
161	0,173			-0,5	s
162	0,179	0,054	-0,3	-0,3	s
177	0,1682			-0,7	s
178	0,204			0,5	s

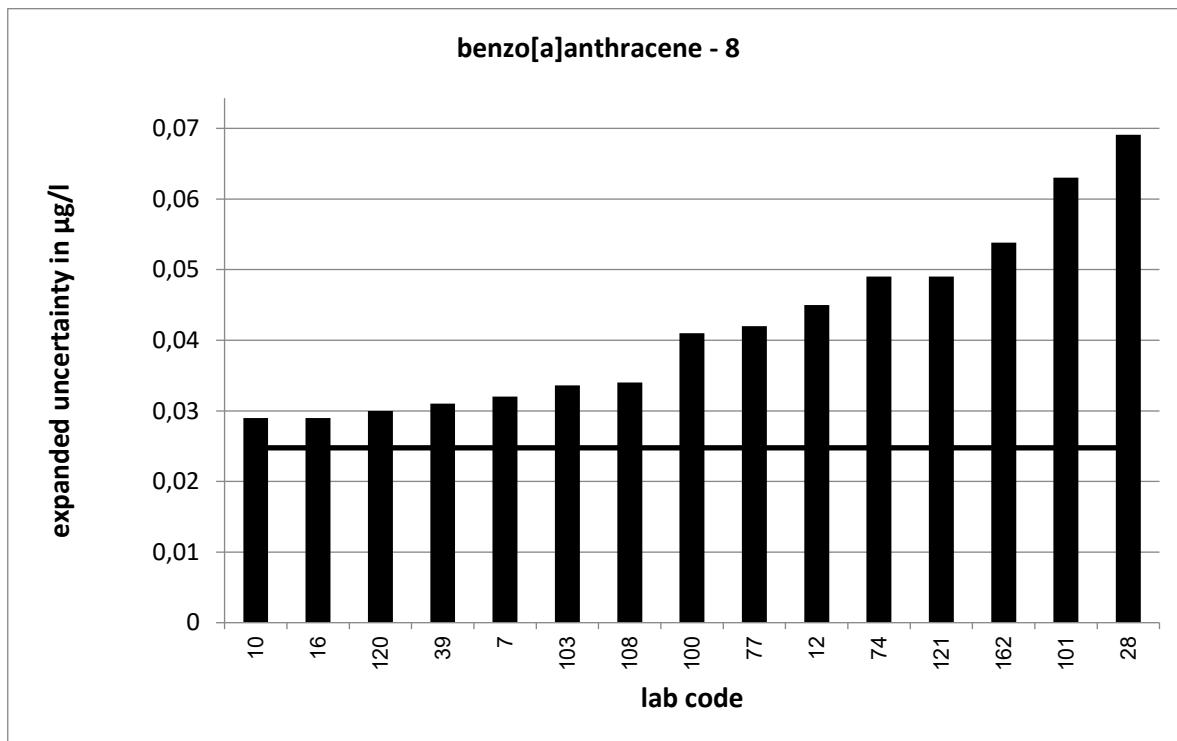
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

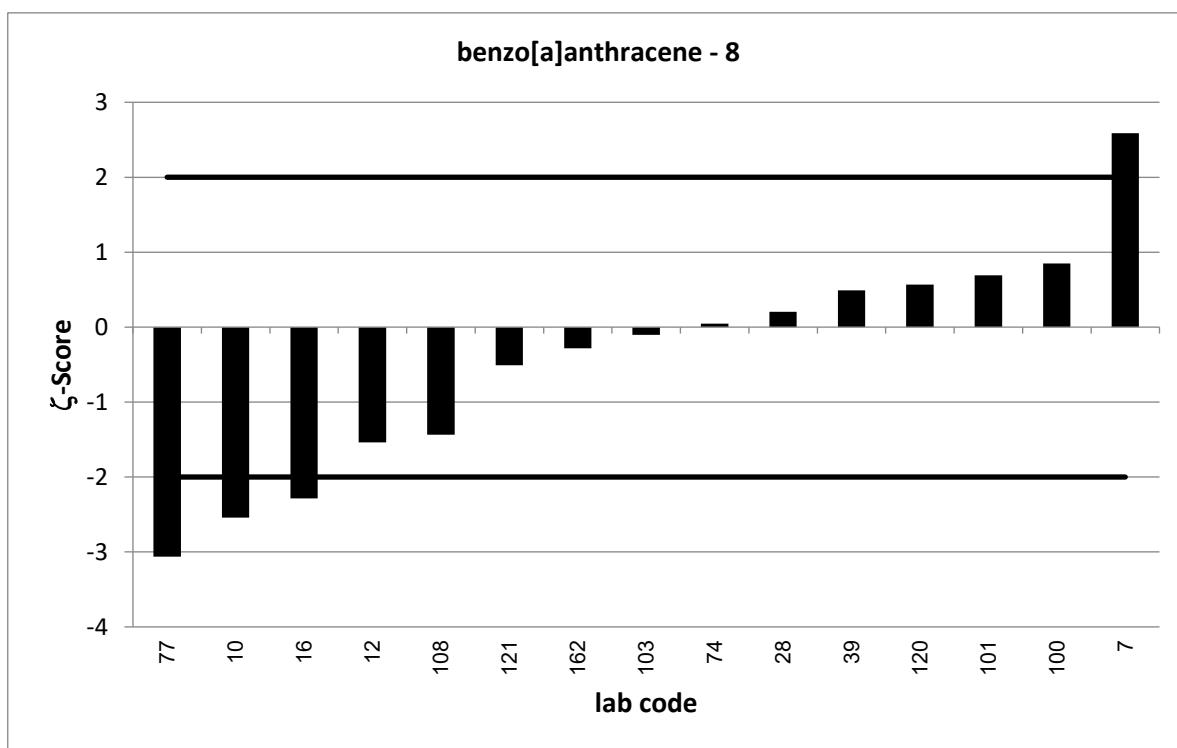


Strongly deviating values are not shown in the diagram.





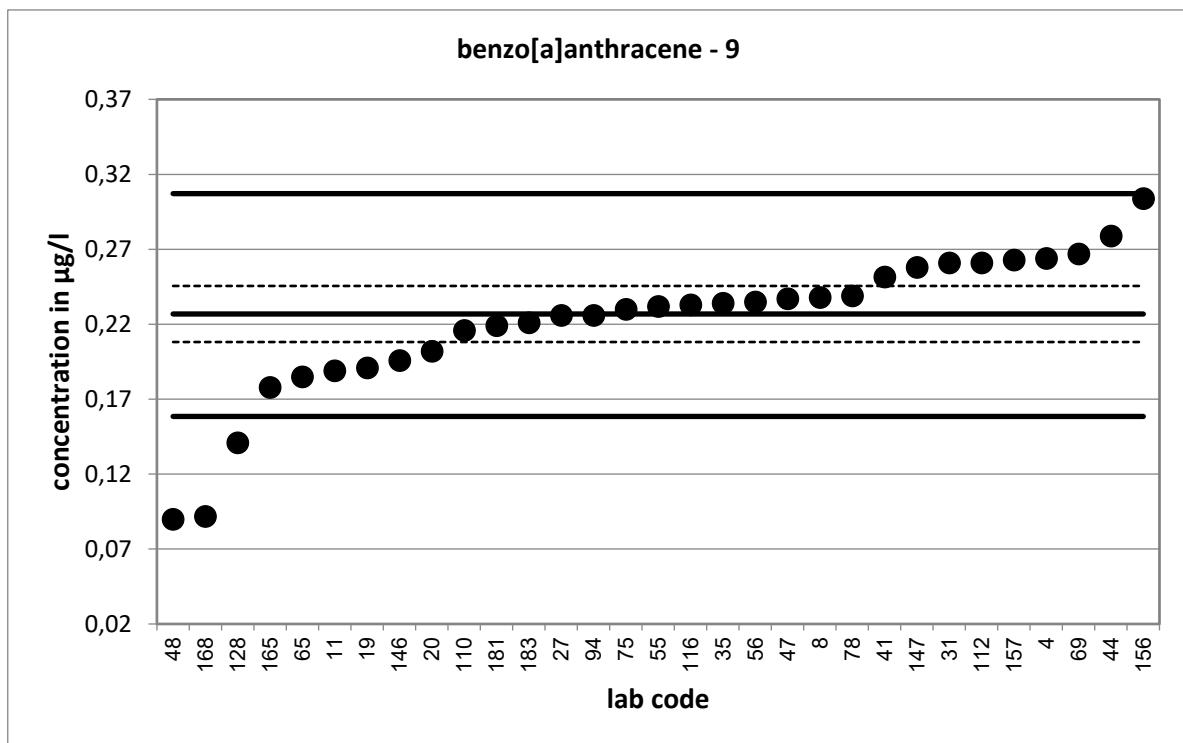
Strongly deviating values are not correctly shown in the diagram.



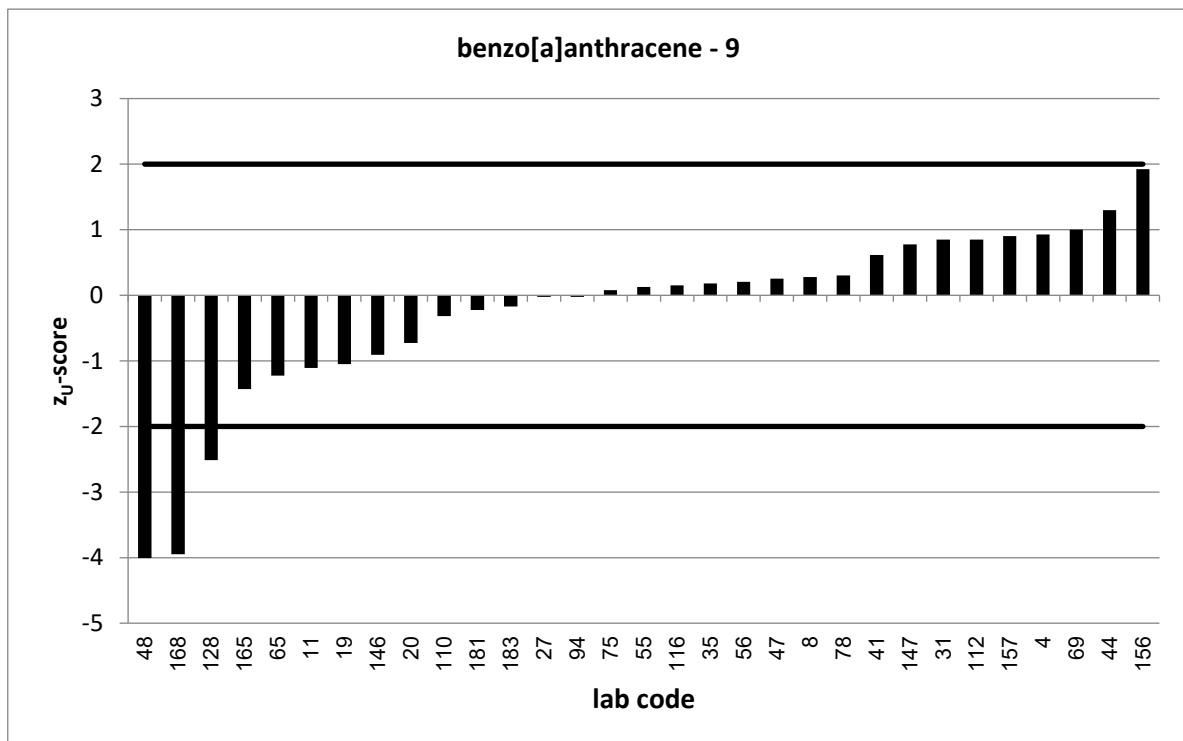
PT 3/24		benzo[a]anthracene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,2268 \pm 0,0187$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,3071			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1585			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,264			0,9	s
8	0,238	0,057	0,4	0,3	s
11	0,189	0,042	-1,7	-1,1	s
19	0,191	0,047	-1,4	-1,0	s
20	0,202	0,061	-0,8	-0,7	s
27	0,226			0,0	s
31	0,261	0,091	0,7	0,9	s
35	0,234	0,07	0,2	0,2	s
41	0,2515			0,6	s
44	0,279	0,042	2,3	1,3	s
47	0,237			0,3	s
48	0,0899	0,005	-14,1	-4,0	u
55	0,232	0,104	0,1	0,1	s
56	0,235	0,032	0,4	0,2	s
65	0,185			-1,2	s
69	0,267	0,047	1,6	1,0	s
75	0,23	0,046	0,1	0,1	s
78	0,239			0,3	s
94	0,226			0,0	s
110	0,216			-0,3	s
112	0,261	0,015	2,9	0,9	s
116	0,233	0,026	0,4	0,2	s
128	0,141			-2,5	q
146	0,1958	0,045	-1,3	-0,9	s
147	0,258	0,008	3,1	0,8	s
156	0,304	0,046	3,1	1,9	s
157	0,263			0,9	s
165	0,178			-1,4	s
168	0,0919	0,02	-9,9	-3,9	u
181	0,2191	0,019	-0,6	-0,2	s
183	0,221	0,066	-0,2	-0,2	s

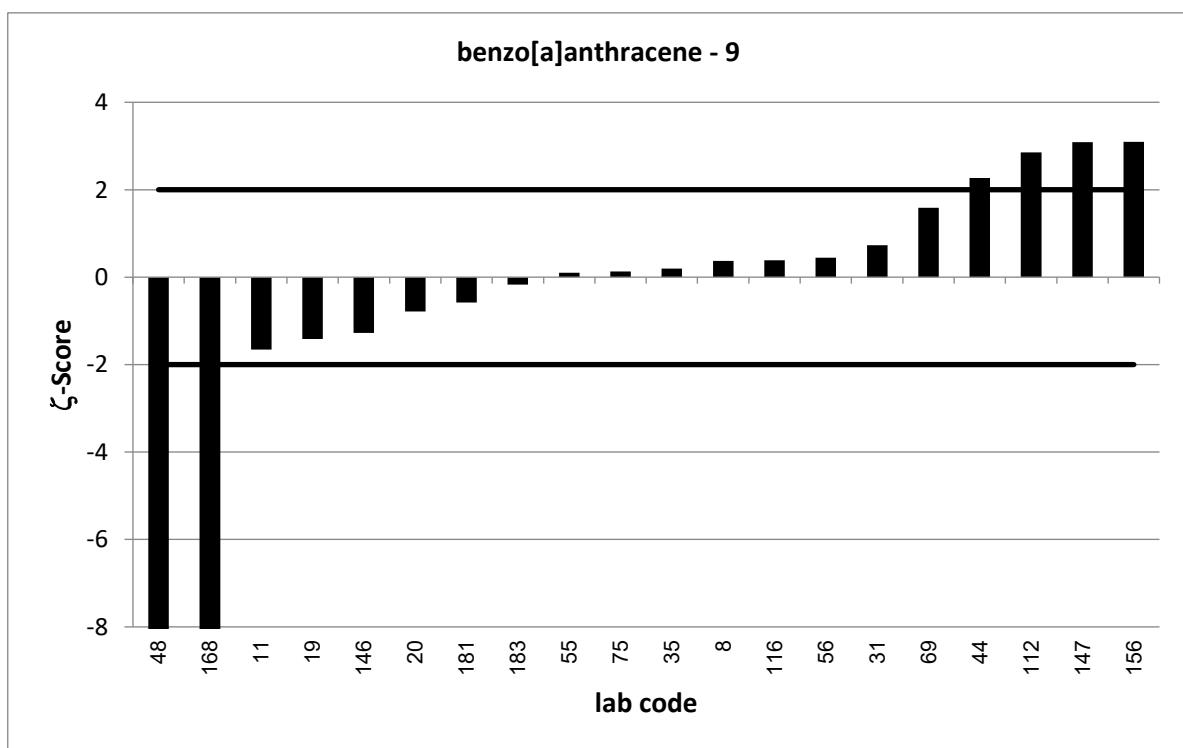
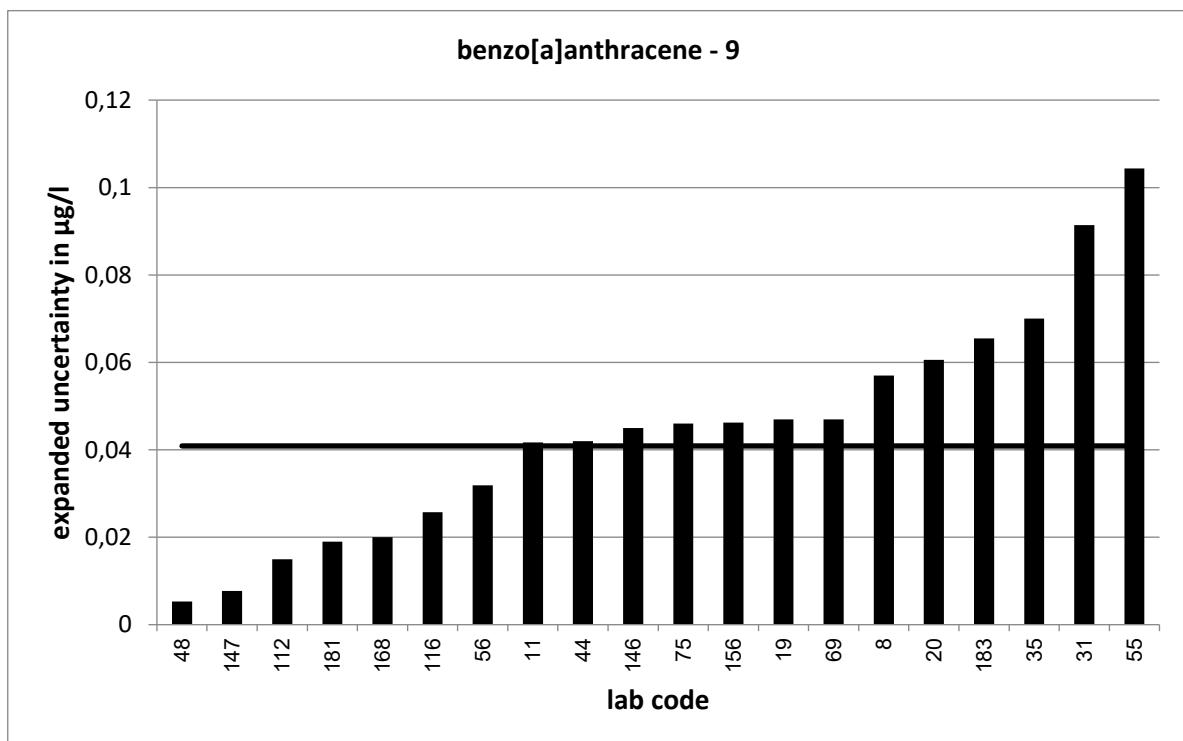
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

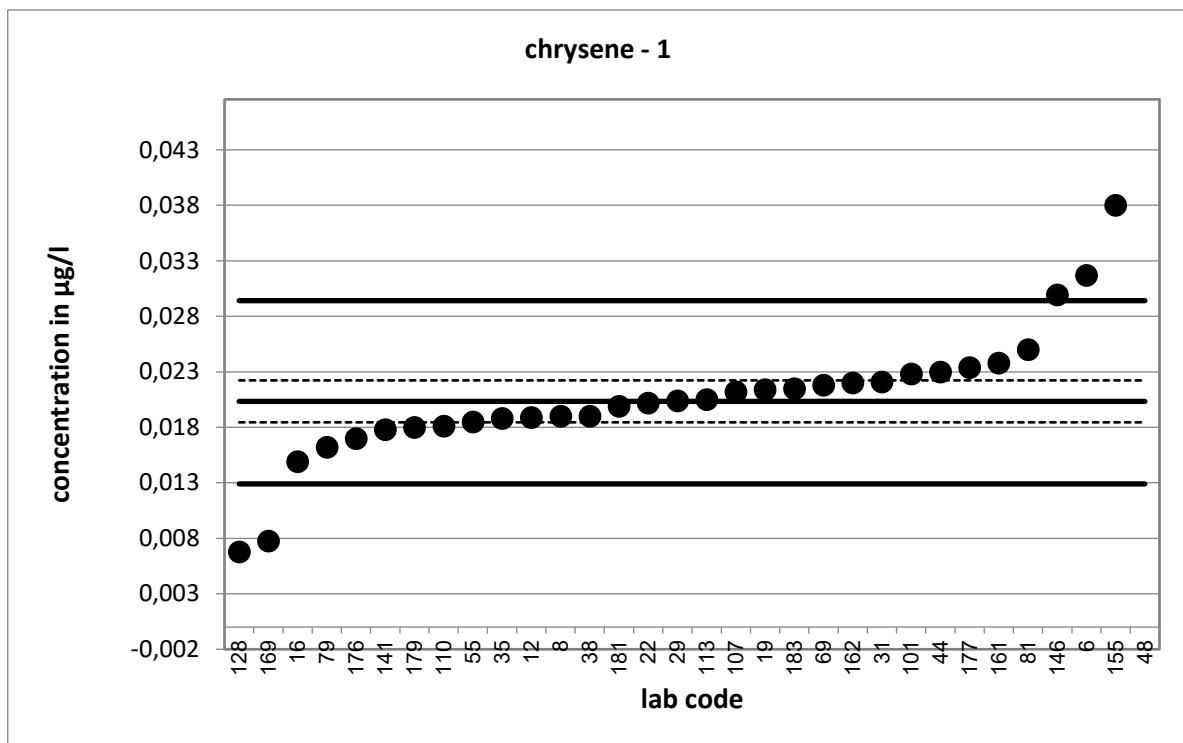




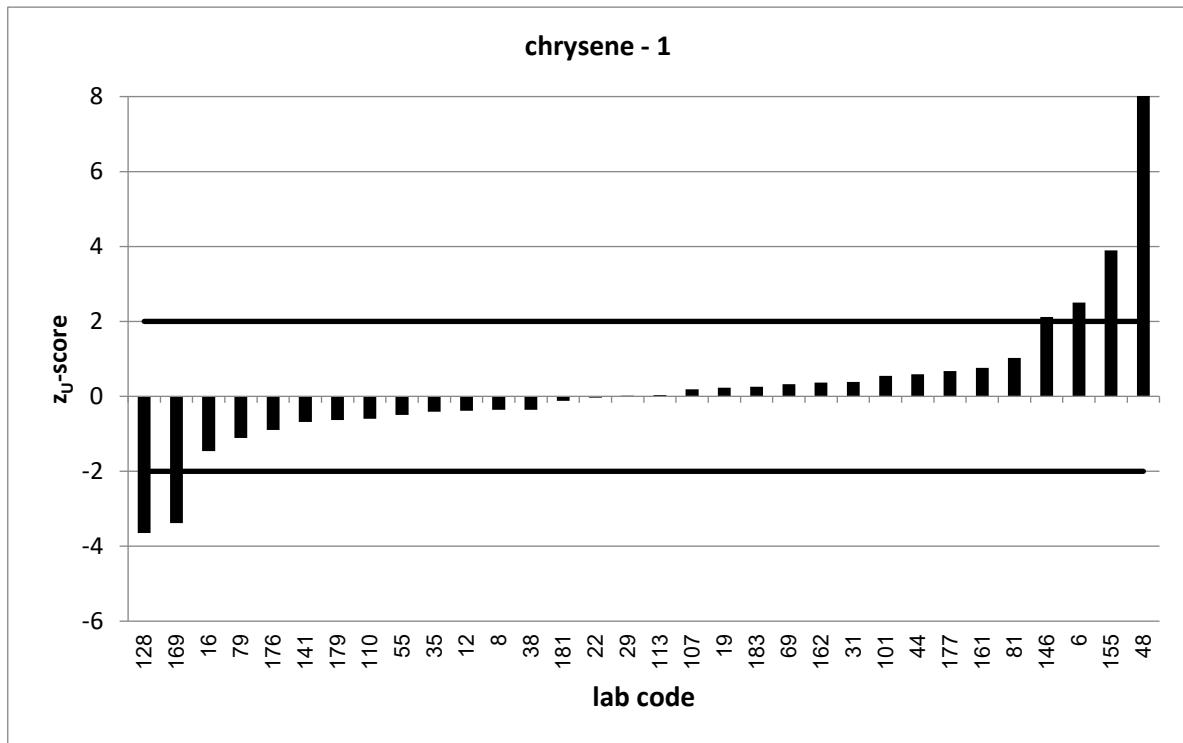
PT 3/24		chrysene - 1			
assigned value [ $\mu\text{g/l}$ ]*		0,02034 $\pm$ 0,00189			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,02941			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0129			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0317	0,008	2,7	2,5	q
8	0,019	0,004	-0,6	-0,4	s
12	0,0189	0,006	-0,5	-0,4	s
16	0,0149	0,003	-2,9	-1,5	s
19	0,0214	0,006	0,3	0,2	s
22	0,0202	0,008	0,0	0,0	s
29	0,0204	0,004	0,0	0,0	s
31	0,0221	0,008	0,4	0,4	s
35	0,0188	0,006	-0,5	-0,4	s
38	0,019			-0,4	s
44	0,023	0,008	0,6	0,6	s
48	0,0943	0,002	49,7	16,3	u
55	0,0185	0,008	-0,4	-0,5	s
69	0,0218	0,004	0,7	0,3	s
79	0,0162			-1,1	s
81	0,025			1,0	s
101	0,0228	0,007	0,7	0,5	s
107	0,0212	0,006	0,3	0,2	s
110	0,0181			-0,6	s
113	0,0205			0,0	s
128	0,00677			-3,6	u
141	0,0178	0,008	-0,6	-0,7	s
146	0,02993	0,008	2,4	2,1	q
155	0,038			3,9	u
161	0,0238			0,8	s
162	0,022	0,007	0,5	0,4	s
169	0,00777	0,002	-9,5	-3,4	u
176	0,017			-0,9	s
177	0,0234			0,7	s
179	0,018	0,005	-0,9	-0,6	s
181	0,0199	0,002	-0,3	-0,1	s
183	0,0215	0,006	0,4	0,3	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

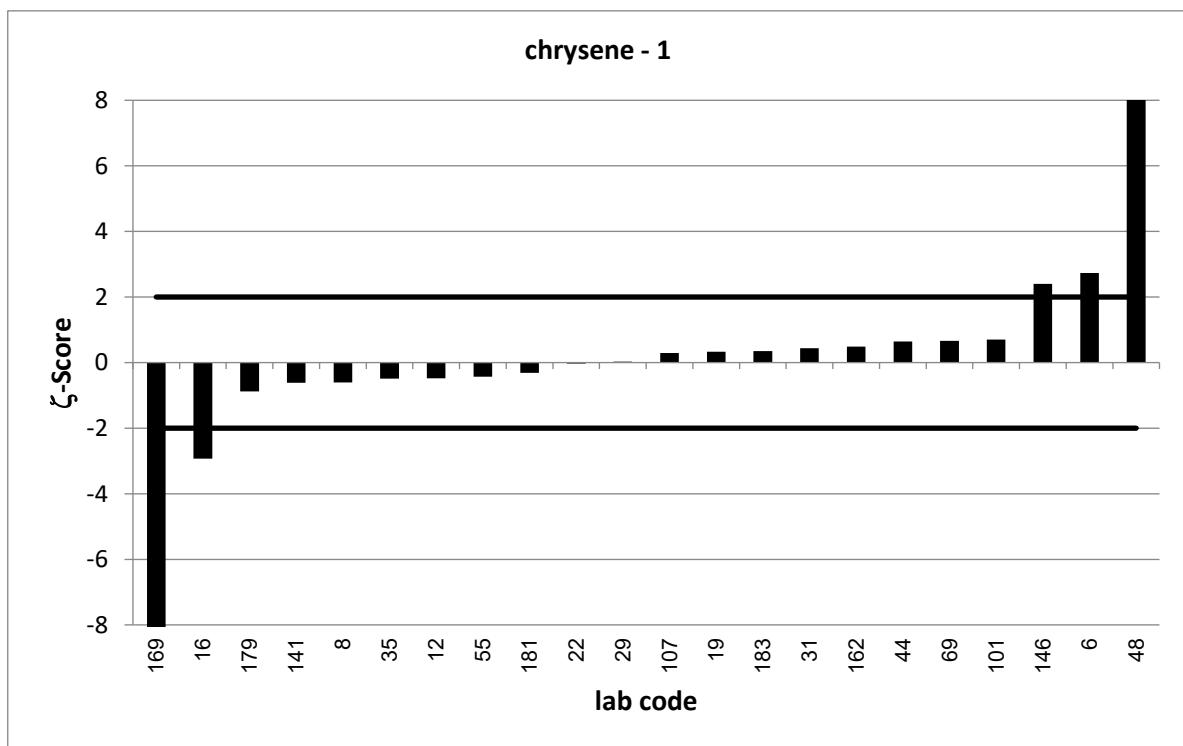
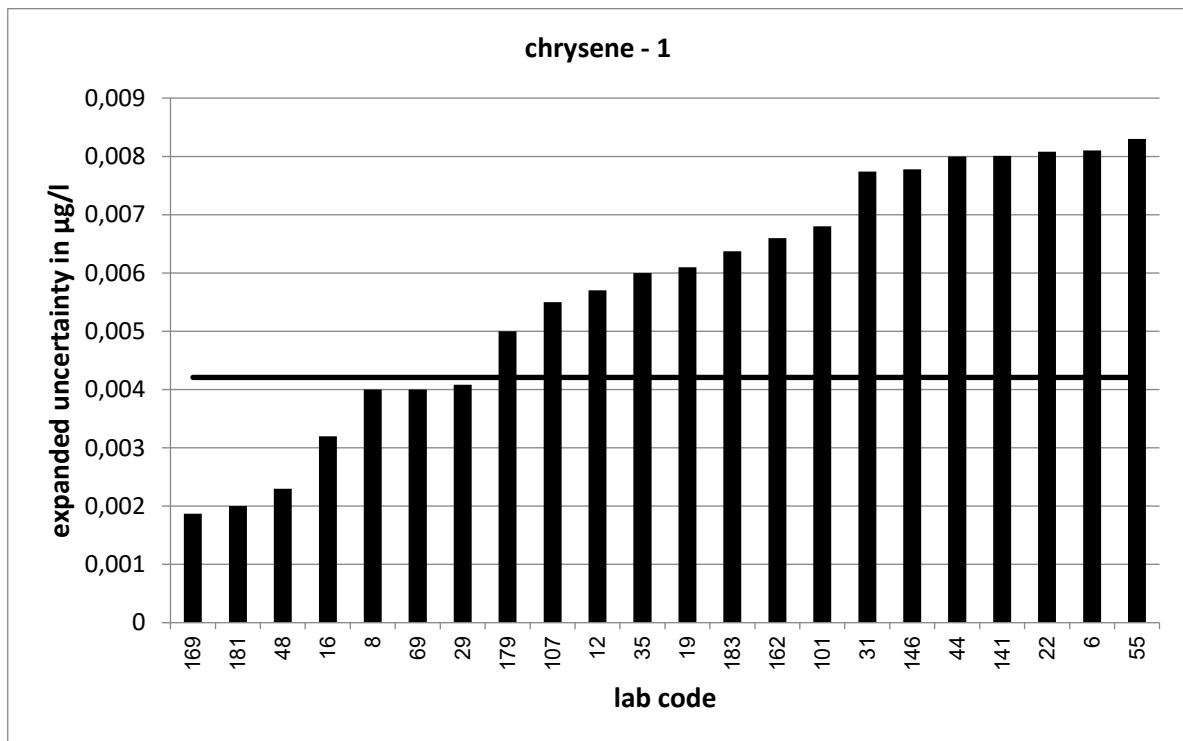
\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.



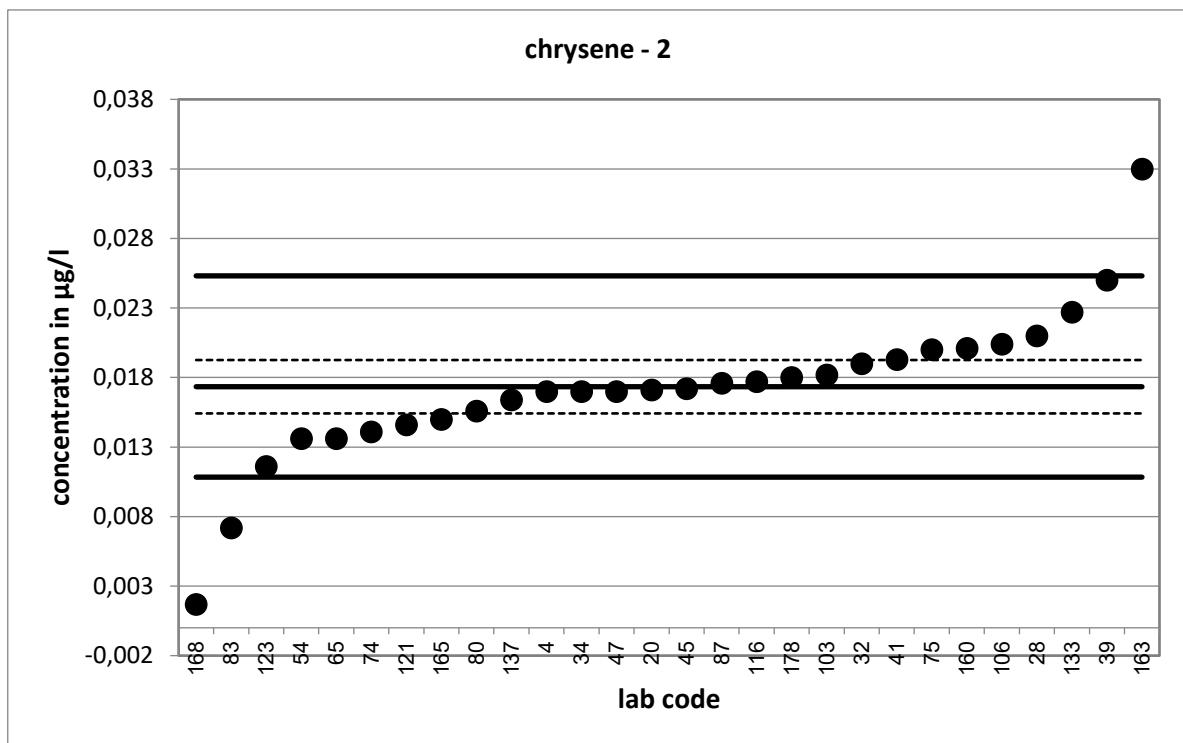
Strongly deviating values are not correctly shown in the diagram.



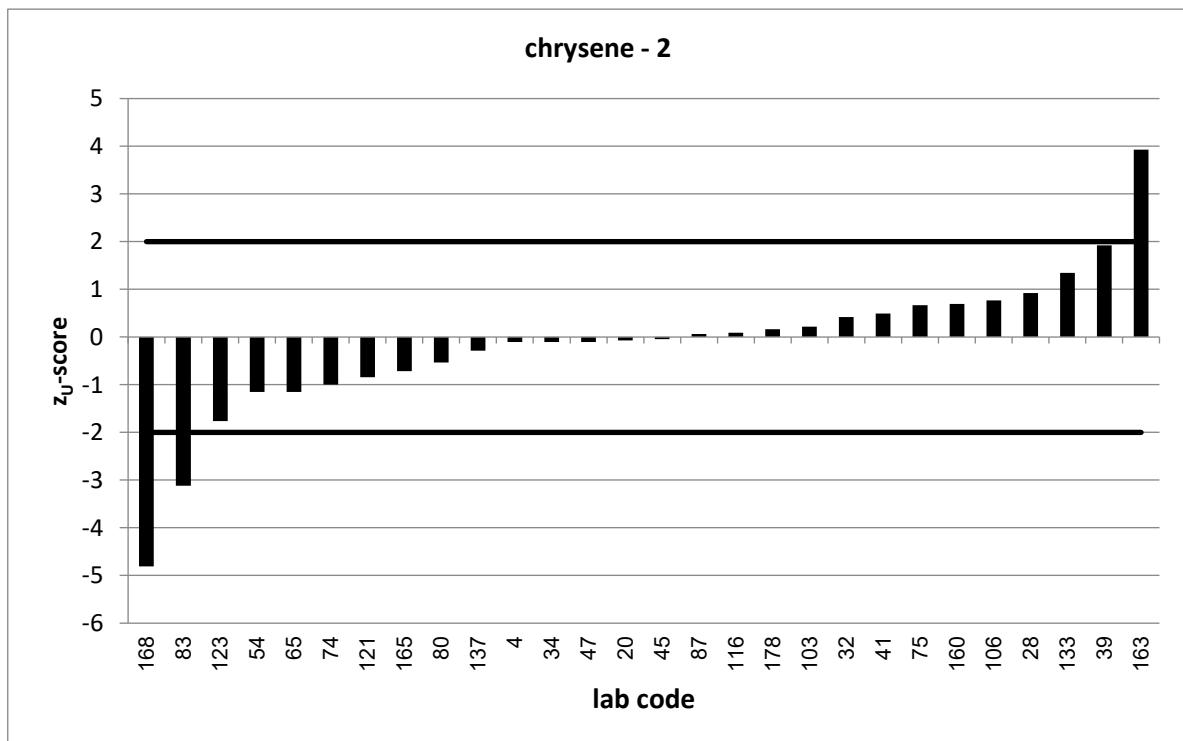
PT 3/24		chrysene - 2			
assigned value [ $\mu\text{g/l}$ ]*		$0,01734 \pm 0,00192$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,02531$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,01083$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,017			-0,1	s
20	0,0171	0,005	-0,1	-0,1	s
28	0,021	0,005	1,4	0,9	s
32	0,019			0,4	s
34	0,017	0,002	-0,2	-0,1	s
39	0,025	0,004	3,5	1,9	s
41	0,0193			0,5	s
45	0,0172			0,0	s
47	0,017			-0,1	s
54	0,0136	0,004	-1,7	-1,1	s
65	0,0136			-1,1	s
74	0,0141	0,003	-1,7	-1,0	s
75	0,02	0,004	1,2	0,7	s
80	0,0156	0,005	-0,6	-0,5	s
83	0,0072			-3,1	u
87	0,0176	0,005	0,1	0,1	s
103	0,0182	0,003	0,5	0,2	s
106	0,0204			0,8	s
116	0,0177	0,002	0,3	0,1	s
121	0,0146	0,003	-1,7	-0,8	s
123	0,0116			-1,8	s
133	0,0227			1,3	s
137	0,0164	0,002	-0,6	-0,3	s
160	0,0201			0,7	s
163	0,033			3,9	u
165	0,015			-0,7	s
168	0,00169	8E-04	-15,1	-4,8	u
178	0,018			0,2	s

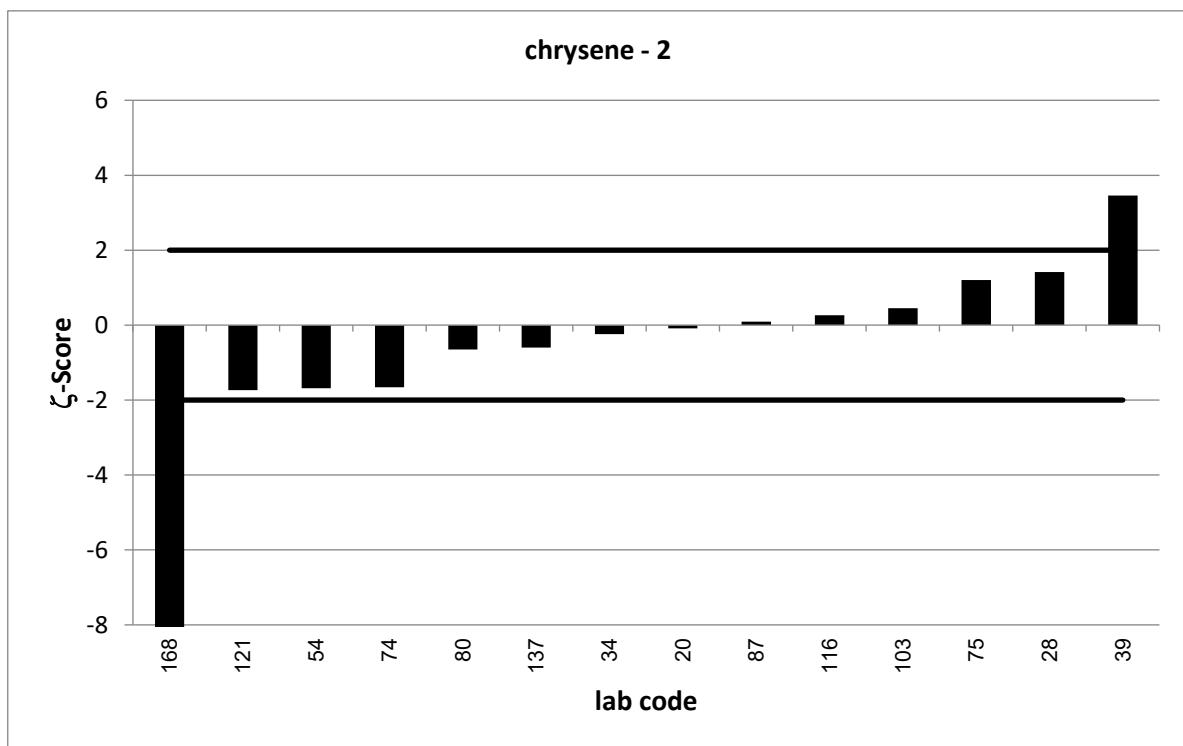
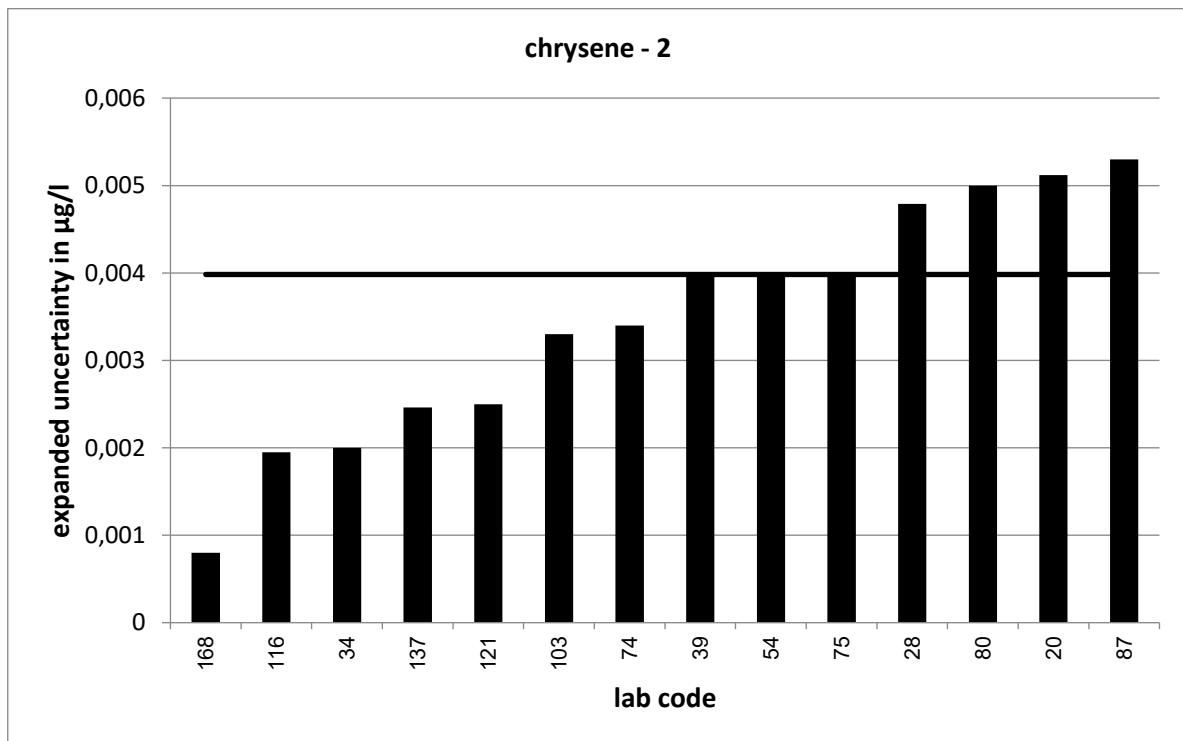
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

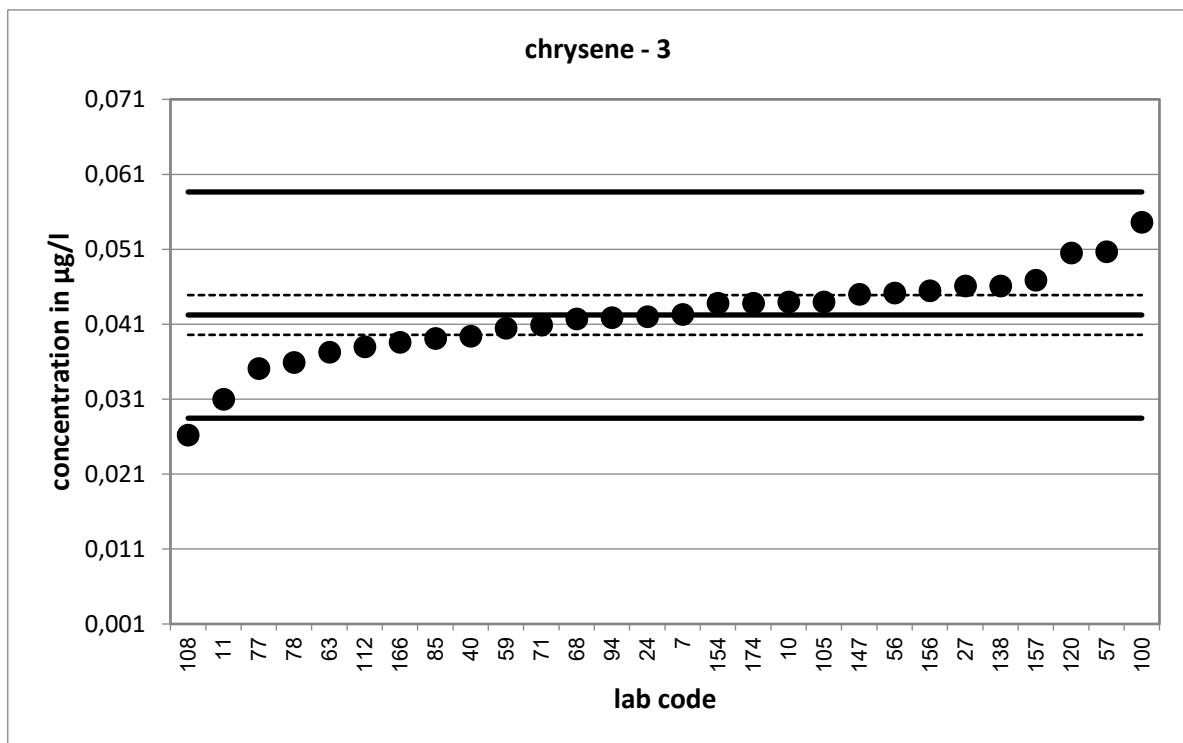




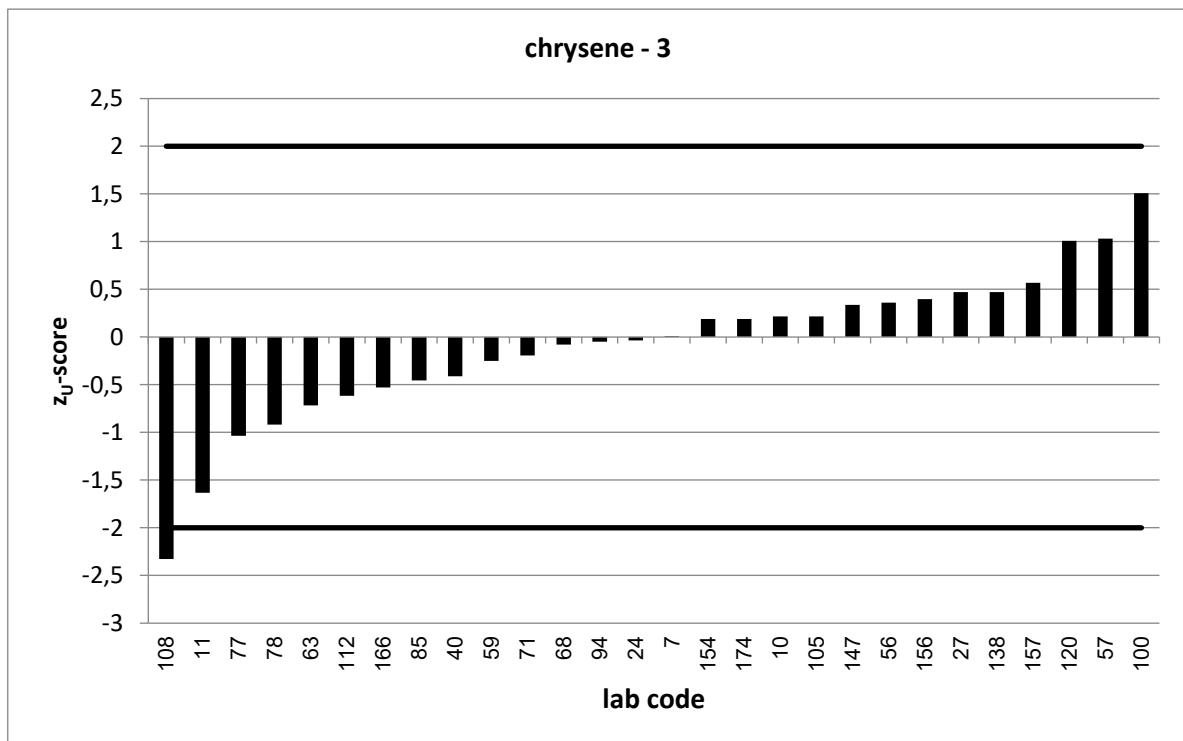
PT 3/24		chrysene - 3			
assigned value [ $\mu\text{g/l}$ ]*		0,04223 $\pm$ 0,00265			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,05865			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,02846			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0423	0,009	0,0	0,0	s
10	0,044	0,013	0,3	0,2	s
11	0,031	0,007	-3,1	-1,6	s
24	0,042			0,0	s
27	0,0461			0,5	s
40	0,0394			-0,4	s
56	0,0452	0,006	0,9	0,4	s
57	0,0507			1,0	s
59	0,0405	0,008	-0,4	-0,3	s
63	0,0373	0,011	-0,9	-0,7	s
68	0,0417			-0,1	s
71	0,0409	0,008	-0,3	-0,2	s
77	0,0351	0,012	-1,1	-1,0	s
78	0,0359			-0,9	s
85	0,0391			-0,5	s
94	0,0419			0,0	s
100	0,0546	0,008	2,9	1,5	s
105	0,044			0,2	s
108	0,0262	0,005	-5,7	-2,3	q
112	0,038	0,004	-1,8	-0,6	s
120	0,0505	0,003	4,1	1,0	s
138	0,0461			0,5	s
147	0,045	0,001	1,9	0,3	s
154	0,0438	0,022	0,1	0,2	s
156	0,0455	0,004	1,4	0,4	s
157	0,0469			0,6	s
166	0,0386			-0,5	s
174	0,0438			0,2	s

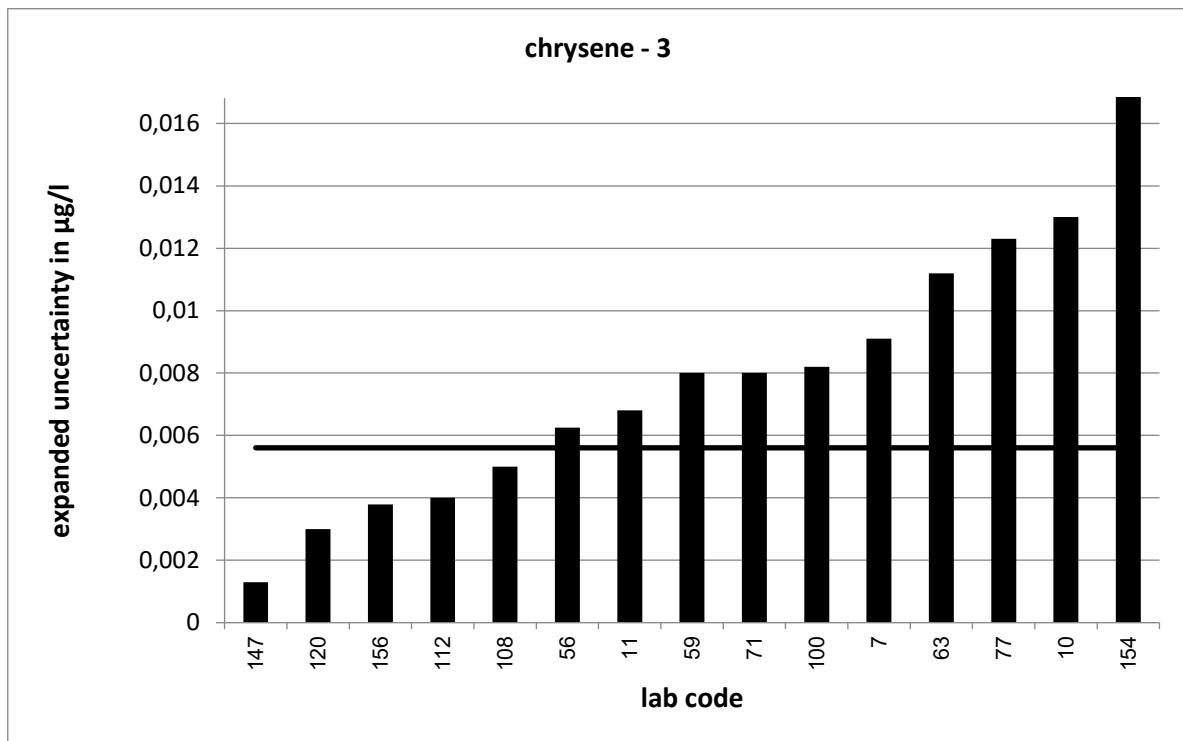
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor k=2 corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

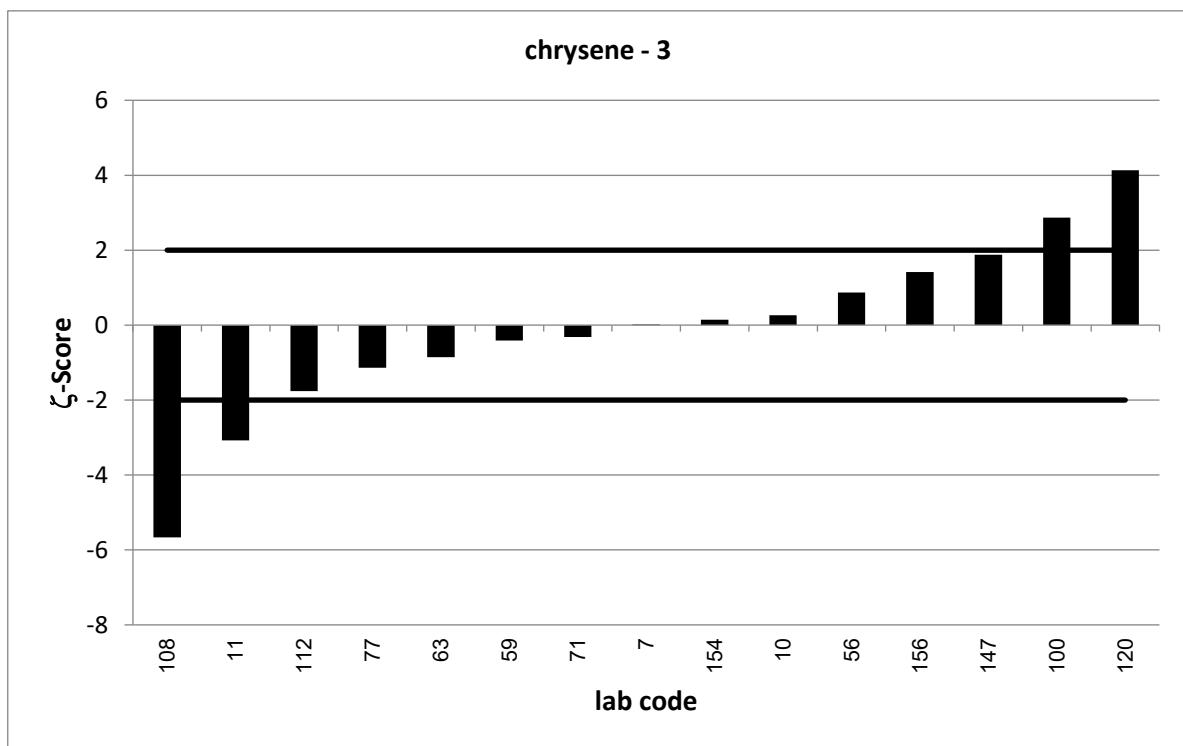


Strongly deviating values are not shown in the diagram.





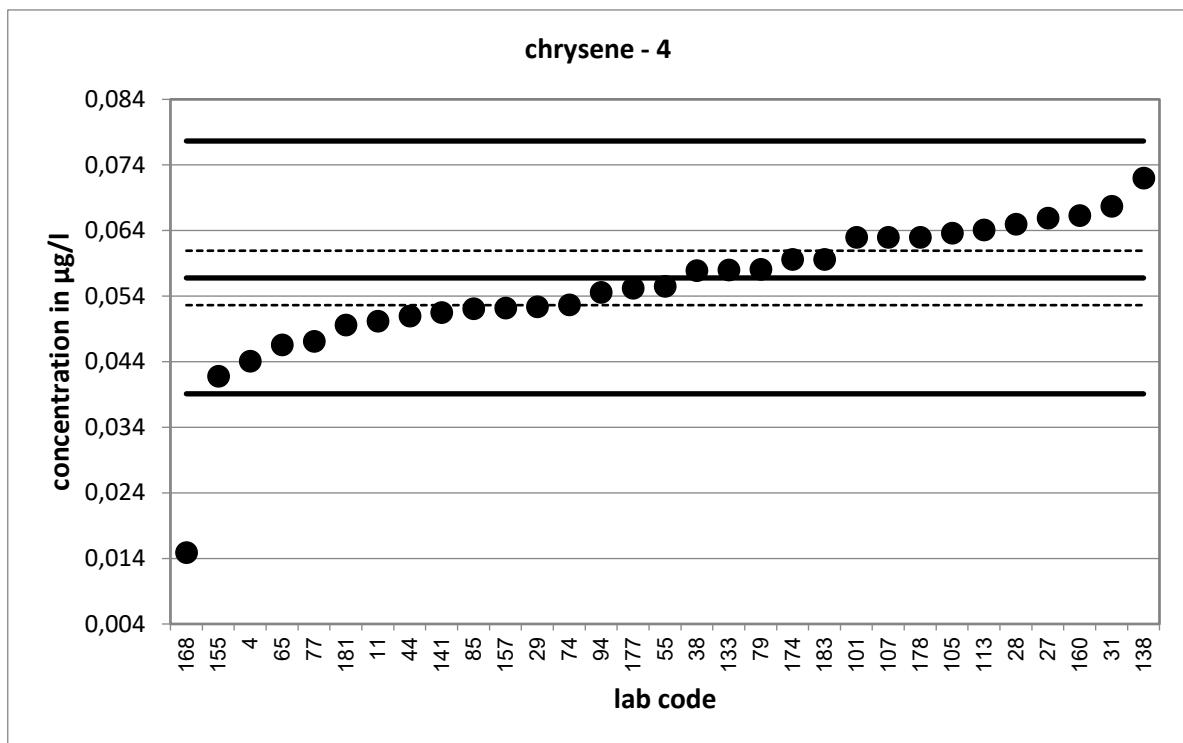
Strongly deviating values are not correctly shown in the diagram.



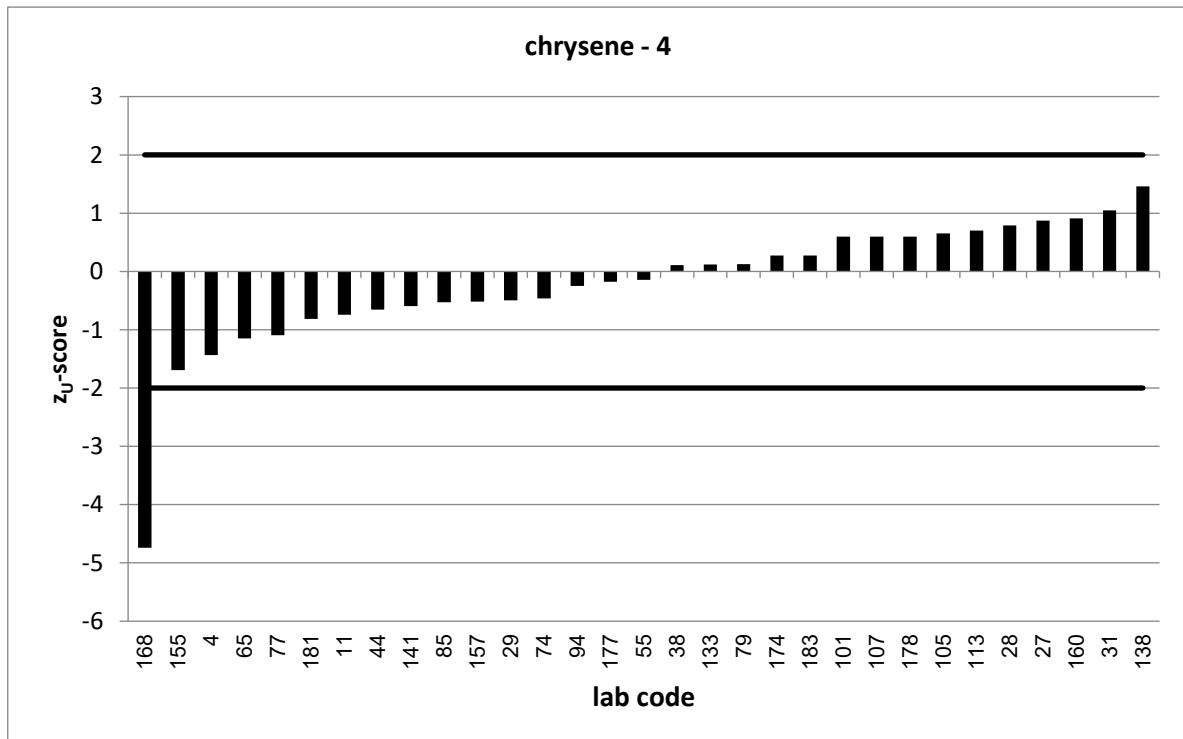
PT 3/24		chrysene - 4			
assigned value [ $\mu\text{g/l}$ ]*		0,05677	$\pm 0,00415$		
upper tolerance limit [ $\mu\text{g/l}$ ]		0,07765			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0391			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0441			-1,4	s
11	0,0502	0,011	-1,1	-0,7	s
27	0,0659			0,9	s
28	0,065	0,015	1,1	0,8	s
29	0,0524	0,011	-0,8	-0,5	s
31	0,0677	0,024	0,9	1,0	s
38	0,0579			0,1	s
44	0,051	0,012	-0,9	-0,7	s
55	0,0555	0,025	-0,1	-0,1	s
65	0,0466			-1,2	s
74	0,0527	0,013	-0,6	-0,5	s
77	0,0471	0,017	-1,1	-1,1	s
79	0,0581			0,1	s
85	0,0521			-0,5	s
94	0,0546			-0,2	s
101	0,063	0,019	0,6	0,6	s
105	0,0636			0,7	s
107	0,063	0,016	0,8	0,6	s
113	0,0641			0,7	s
133	0,058			0,1	s
138	0,072			1,5	s
141	0,0515	0,023	-0,4	-0,6	s
155	0,0418			-1,7	s
157	0,0522			-0,5	s
160	0,0663			0,9	s
168	0,0149	0,004	-14,5	-4,7	u
174	0,0596			0,3	s
177	0,0552			-0,2	s
178	0,063			0,6	s
181	0,0496	0,005	-2,2	-0,8	s
183	0,0596	0,018	0,3	0,3	s

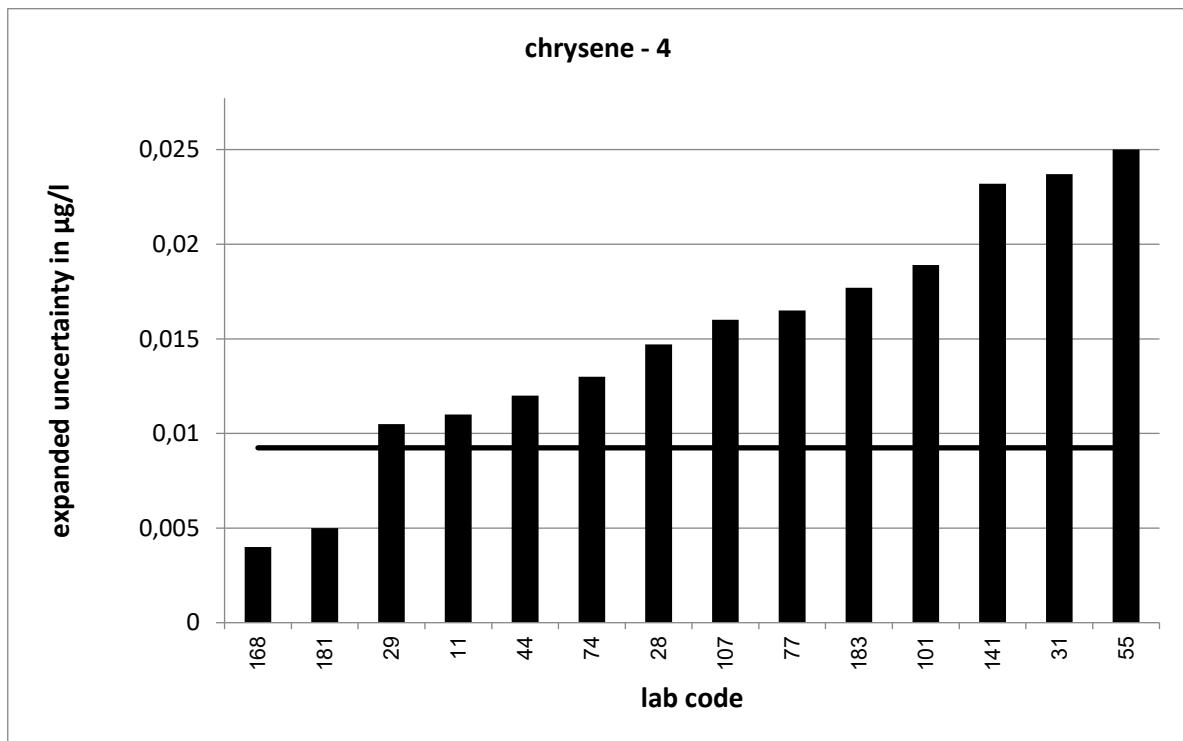
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

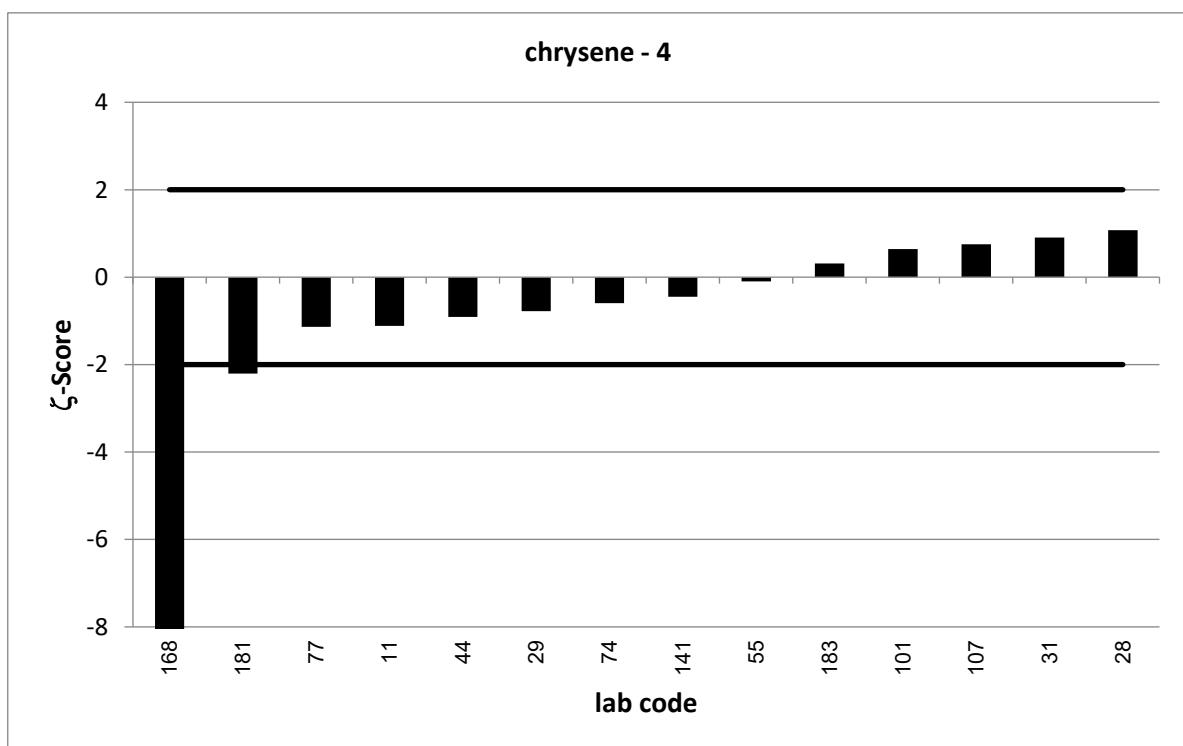


Strongly deviating values are not shown in the diagram.





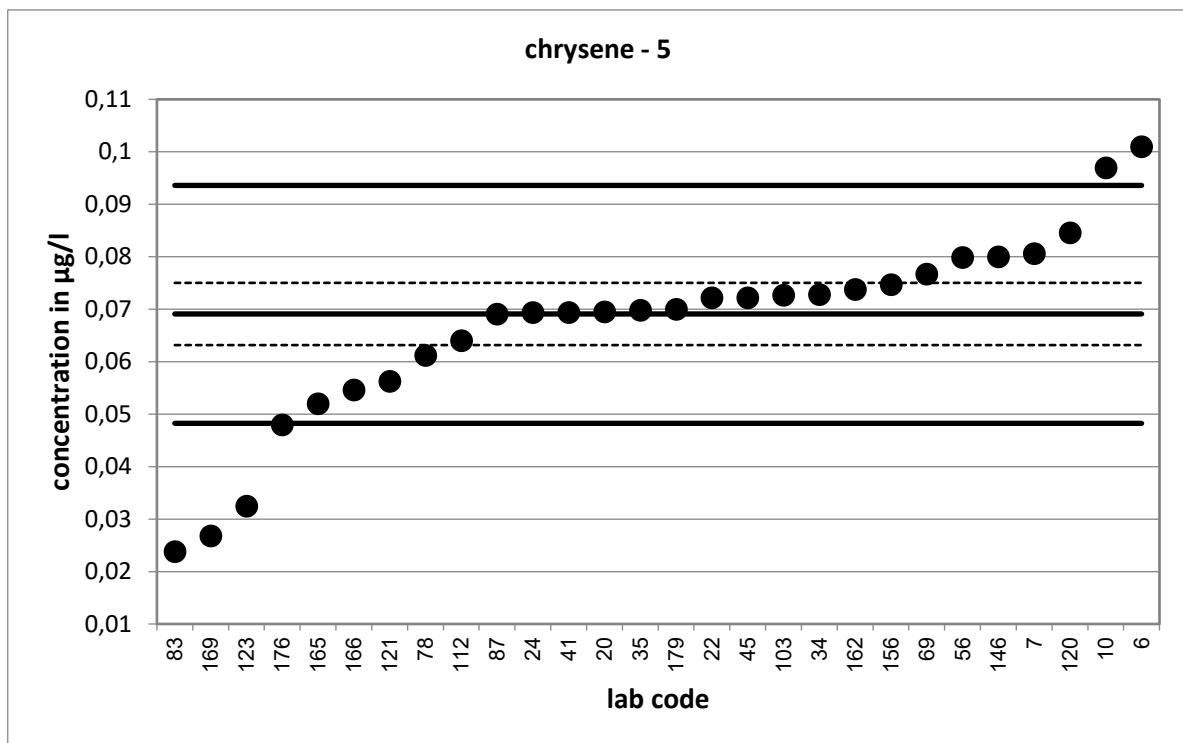
Strongly deviating values are not correctly shown in the diagram.



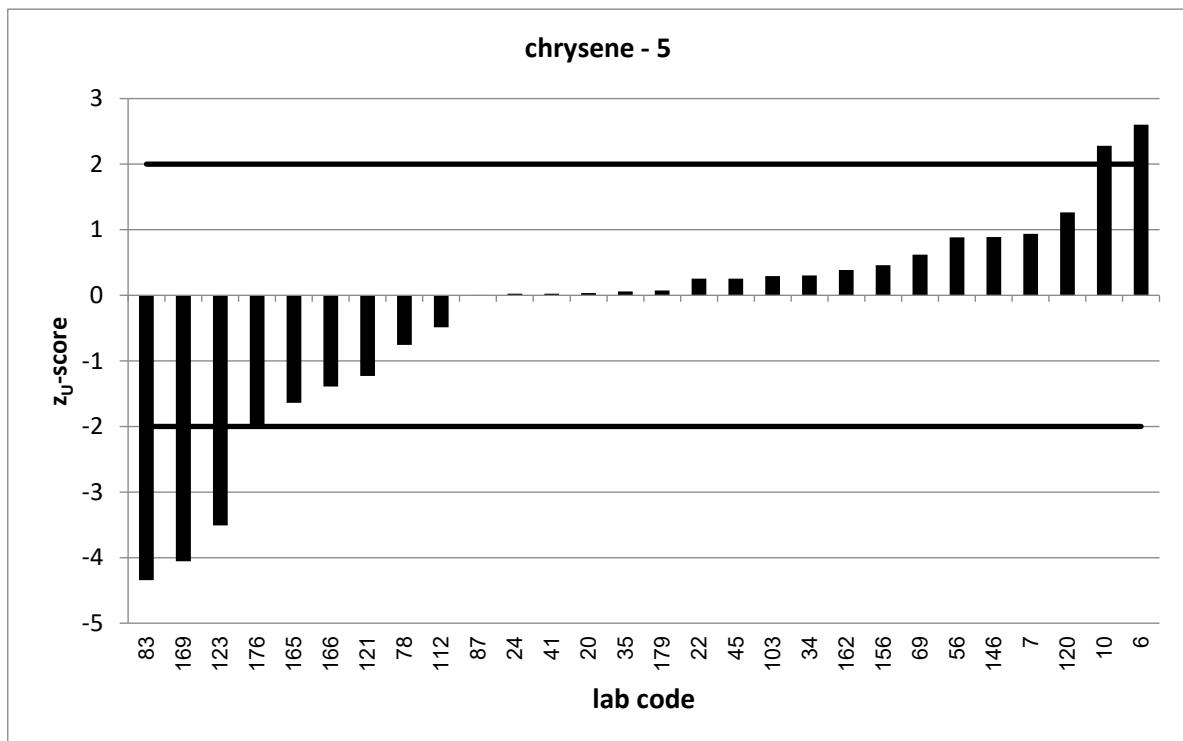
PT 3/24		chrysene - 5			
assigned value [ $\mu\text{g/l}$ ]*			0,0691	$\pm 0,00593$	
upper tolerance limit [ $\mu\text{g/l}$ ]			0,0936		
lower tolerance limit [ $\mu\text{g/l}$ ]			0,04825		
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,101	0,026	2,4	2,6	q
7	0,0806	0,016	1,3	0,9	s
10	0,097	0,028	1,9	2,3	q
20	0,0695	0,021	0,0	0,0	s
22	0,0722	0,029	0,2	0,3	s
24	0,0694			0,0	s
34	0,0728	0,008	0,7	0,3	s
35	0,0698	0,021	0,1	0,1	s
41	0,0694			0,0	s
45	0,0722			0,3	s
56	0,0799	0,011	1,7	0,9	s
69	0,0767	0,013	1,1	0,6	s
78	0,0612			-0,8	s
83	0,0238			-4,3	u
87	0,0691	0,021	0,0	0,0	s
103	0,0727	0,013	0,5	0,3	s
112	0,064	0,006	-1,2	-0,5	s
120	0,0846	0,003	4,7	1,3	s
121	0,0563	0,01	-2,3	-1,2	s
123	0,0325			-3,5	u
146	0,07999	0,021	1,0	0,9	s
156	0,0747	0,006	1,3	0,5	s
162	0,0738	0,022	0,4	0,4	s
165	0,052			-1,6	s
166	0,0546			-1,4	s
169	0,0268	0,006	-9,7	-4,1	u
176	0,048			-2,0	s
179	0,07	0,021	0,1	0,1	s

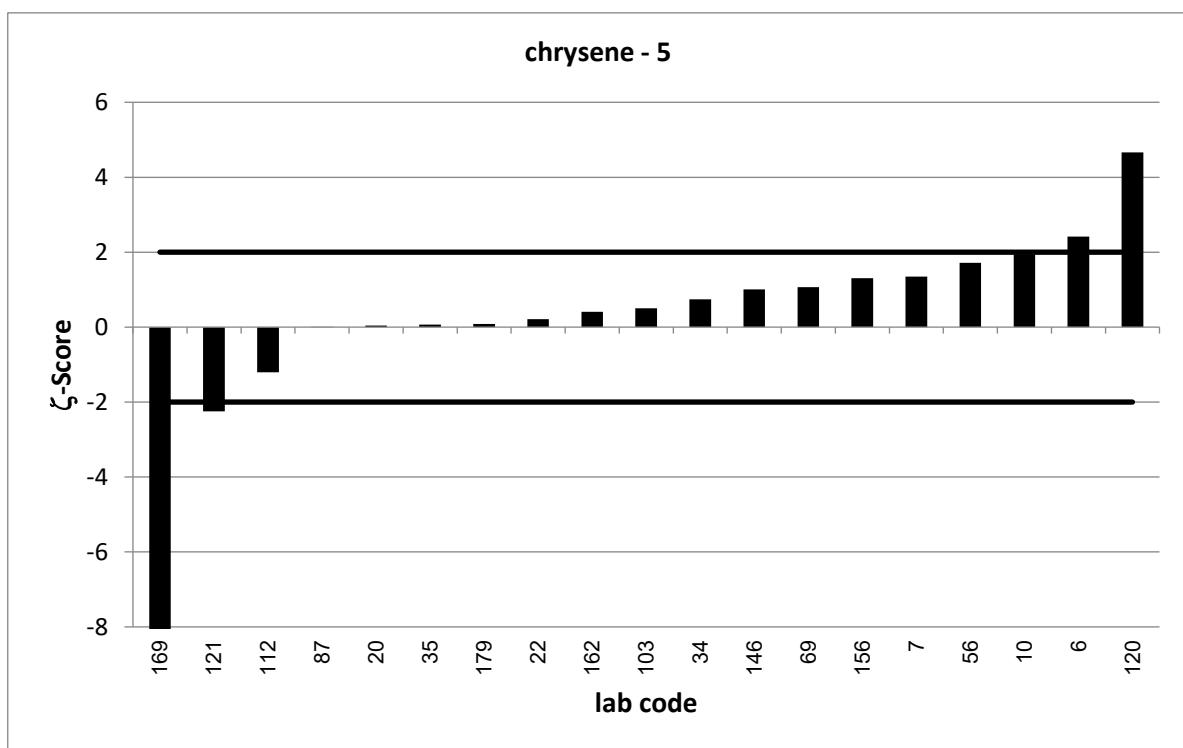
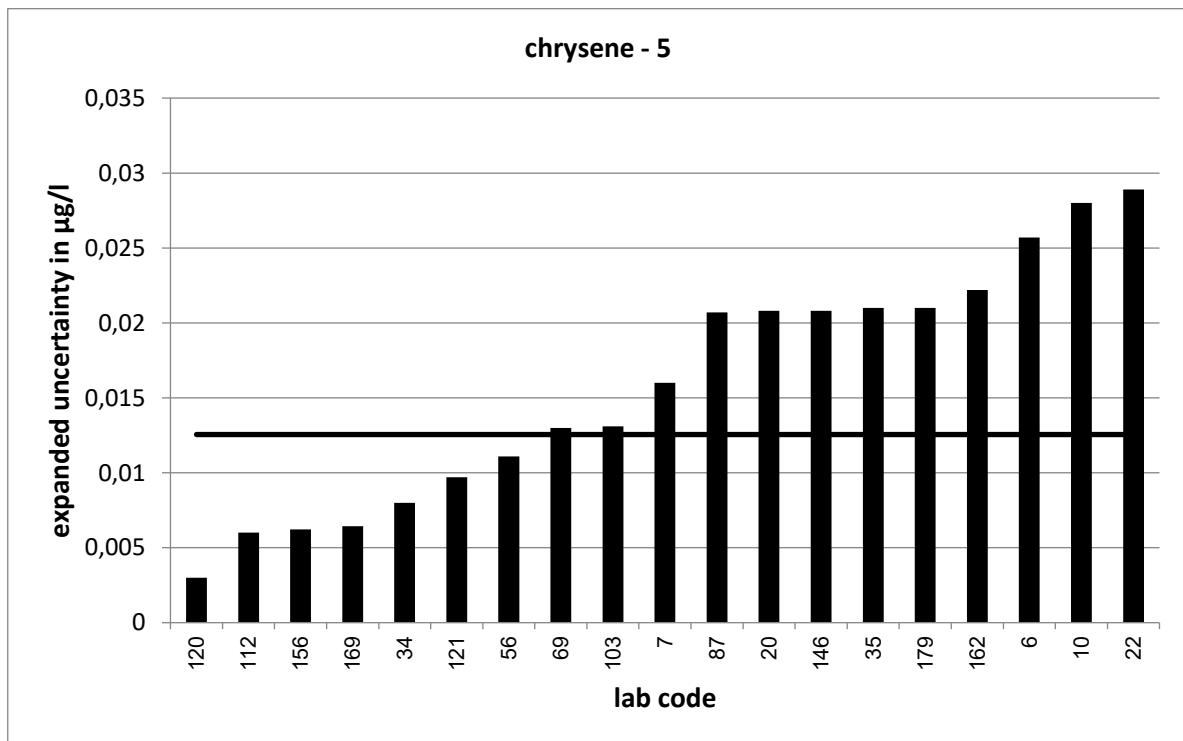
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

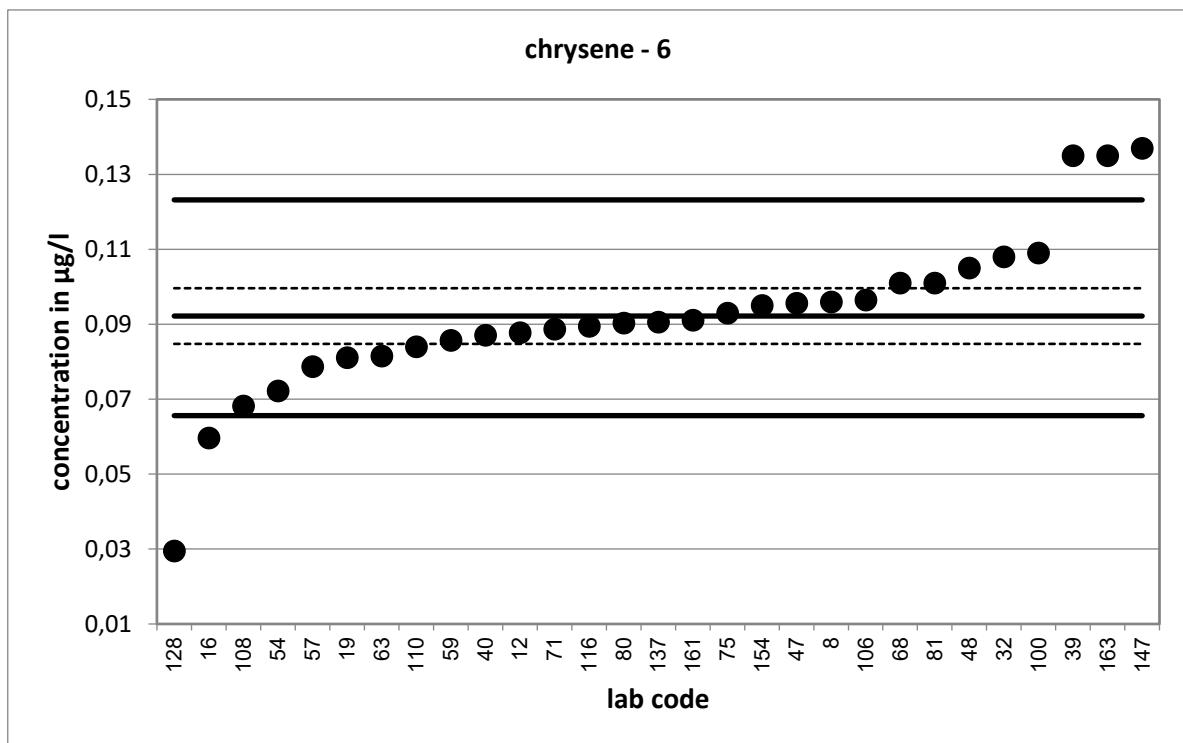




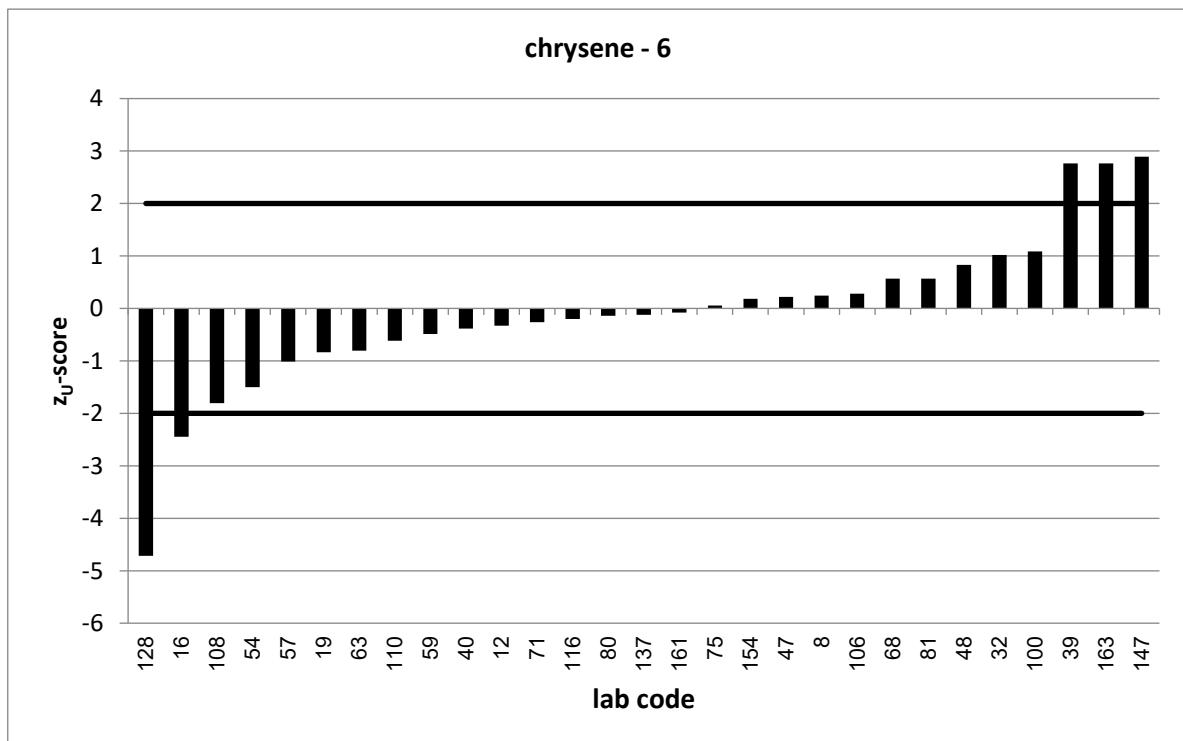
PT 3/24		chrysene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,09218 \pm 0,00743$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1232			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0656			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,096	0,023	0,3	0,2	s
12	0,0878	0,026	-0,3	-0,3	s
16	0,0597	0,013	-4,3	-2,4	q
19	0,0811	0,023	-0,9	-0,8	s
32	0,108			1,0	s
39	0,135	0,022	3,7	2,8	q
40	0,0871			-0,4	s
47	0,0956			0,2	s
48	0,105	0,006	2,7	0,8	s
54	0,0722	0,022	-1,7	-1,5	s
57	0,0787			-1,0	s
59	0,0857	0,017	-0,7	-0,5	s
63	0,0815	0,025	-0,8	-0,8	s
68	0,101			0,6	s
71	0,0887	0,017	-0,4	-0,3	s
75	0,093	0,019	0,1	0,1	s
80	0,0903	0,01	-0,3	-0,1	s
81	0,101			0,6	s
100	0,109	0,016	1,9	1,1	s
106	0,0965			0,3	s
108	0,0682	0,012	-3,4	-1,8	s
110	0,08399			-0,6	s
116	0,0895	0,01	-0,4	-0,2	s
128	0,0295			-4,7	u
137	0,0906	0,014	-0,2	-0,1	s
147	0,137	0,004	10,6	2,9	q
154	0,095	0,048	0,1	0,2	s
161	0,0911			-0,1	s
163	0,135			2,8	q

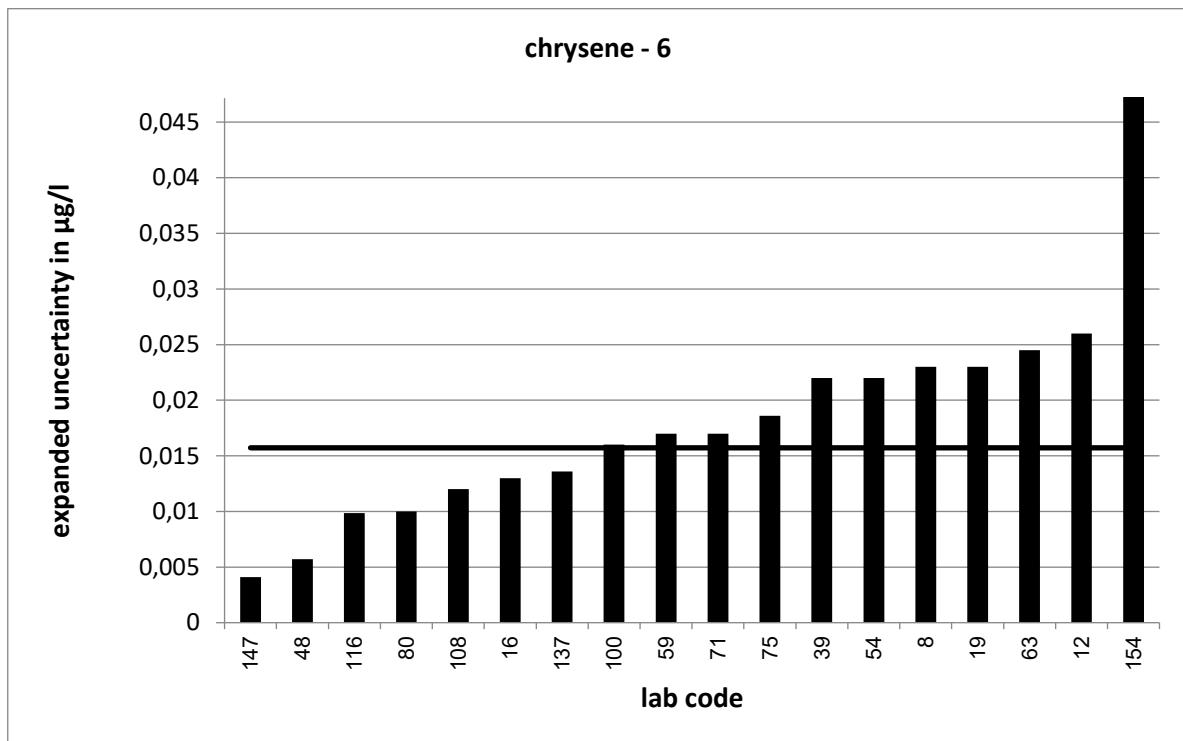
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

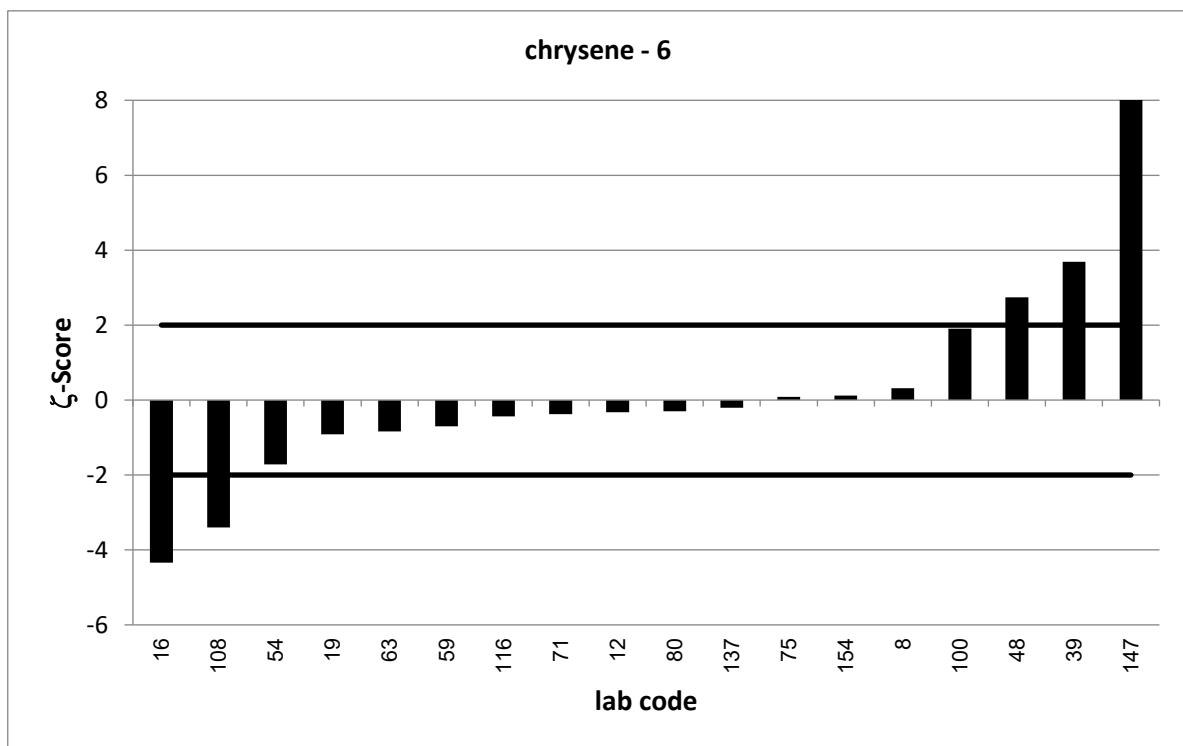


Strongly deviating values are not shown in the diagram.





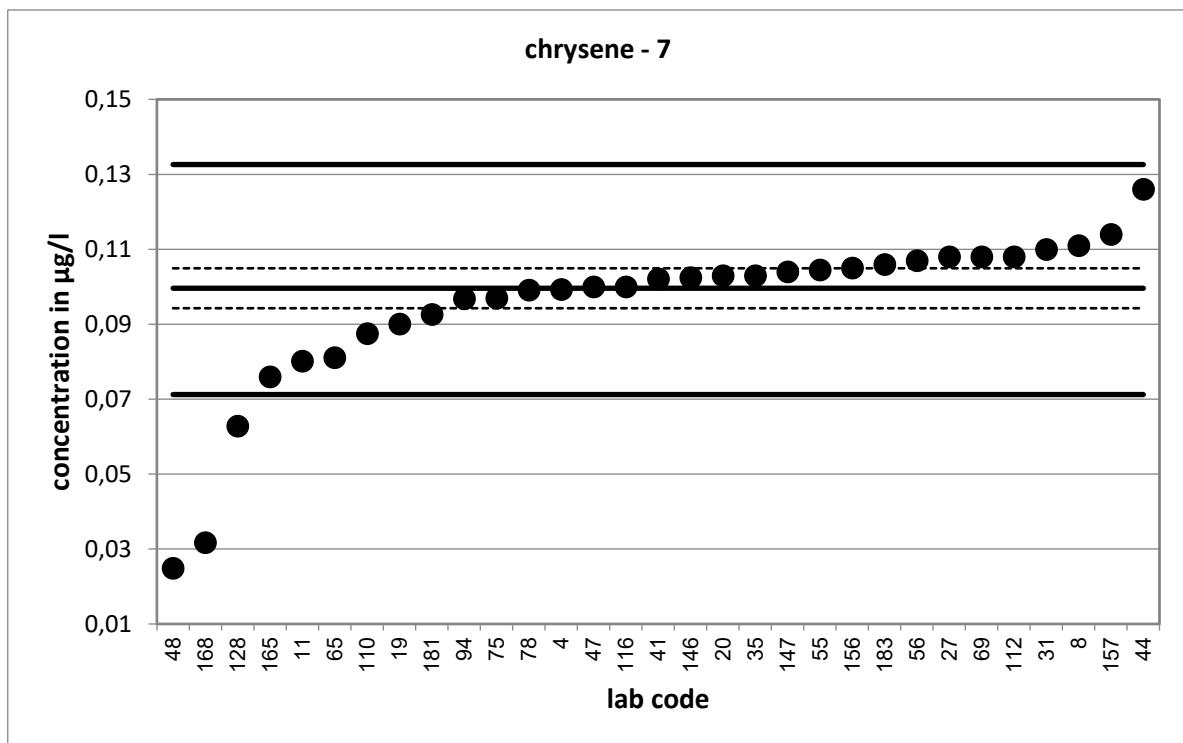
Strongly deviating values are not correctly shown in the diagram.



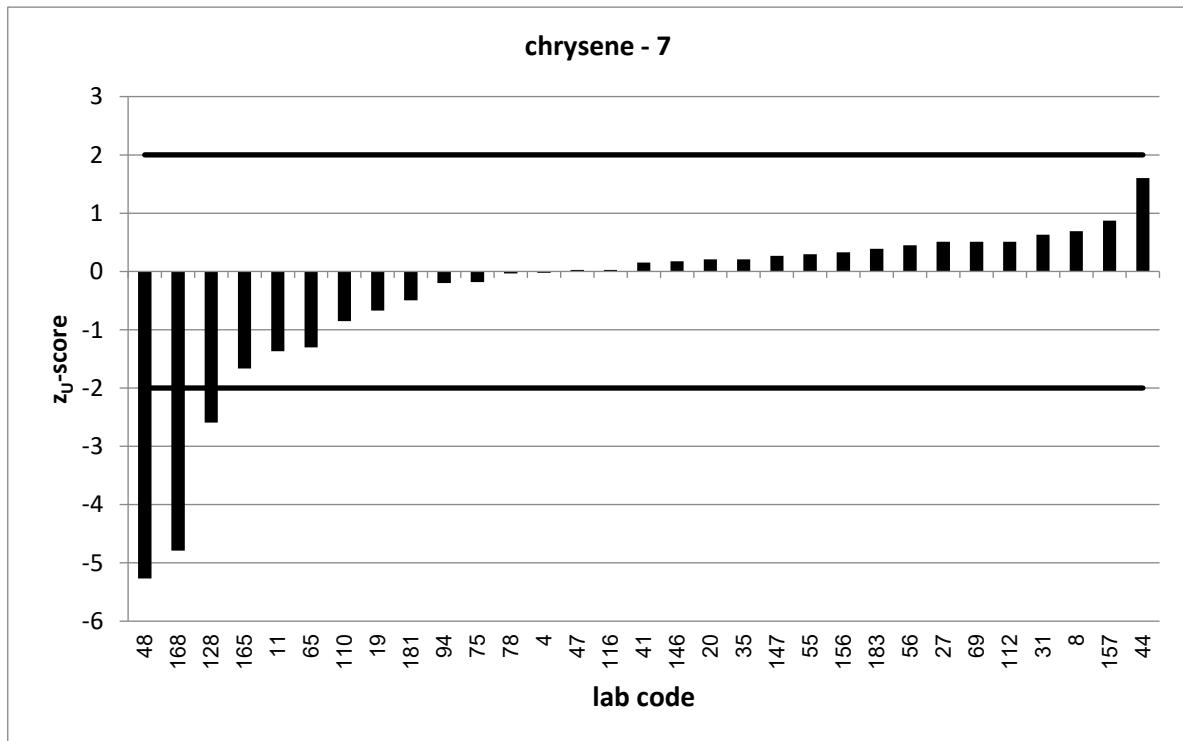
PT 3/24		chrysene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,0996 \pm 0,00533$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1326			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,07123			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0993			0,0	s
8	0,111	0,027	0,8	0,7	s
11	0,0802	0,018	-2,1	-1,4	s
19	0,0901	0,026	-0,7	-0,7	s
20	0,103	0,031	0,2	0,2	s
27	0,108			0,5	s
31	0,11	0,039	0,5	0,6	s
35	0,103	0,031	0,2	0,2	s
41	0,1021			0,2	s
44	0,126	0,029	1,8	1,6	s
47	0,1			0,0	s
48	0,0249	0,003	-25,2	-5,3	u
55	0,1045	0,047	0,2	0,3	s
56	0,107			0,4	s
65	0,0811			-1,3	s
69	0,108	0,019	0,9	0,5	s
75	0,097	0,019	-0,3	-0,2	s
78	0,0991			0,0	s
94	0,0968			-0,2	s
110	0,0875			-0,9	s
112	0,108	0,01	1,5	0,5	s
116	0,1	0,011	0,1	0,0	s
128	0,0628			-2,6	q
146	0,1025	0,027	0,2	0,2	s
147	0,104	0,003	1,4	0,3	s
156	0,105	0,009	1,1	0,3	s
157	0,114			0,9	s
165	0,076			-1,7	s
168	0,0317	0,008	-14,1	-4,8	u
181	0,0926	0,008	-1,5	-0,5	s
183	0,106	0,031	0,4	0,4	s

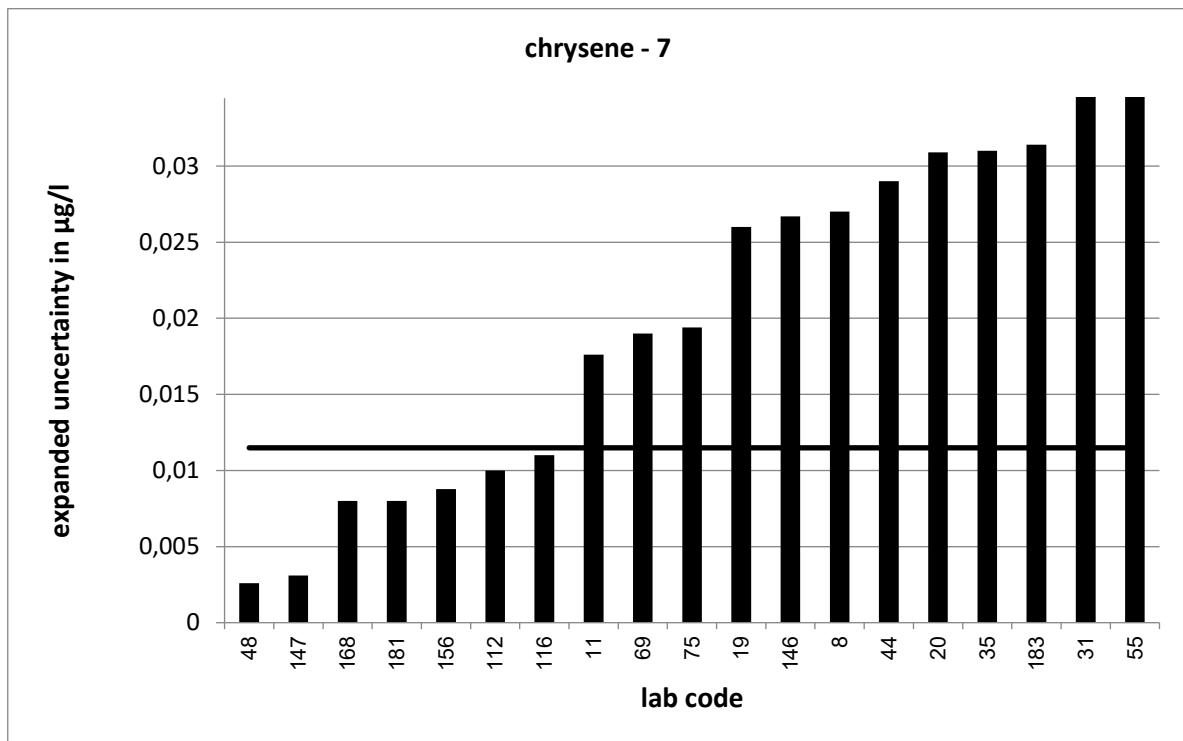
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

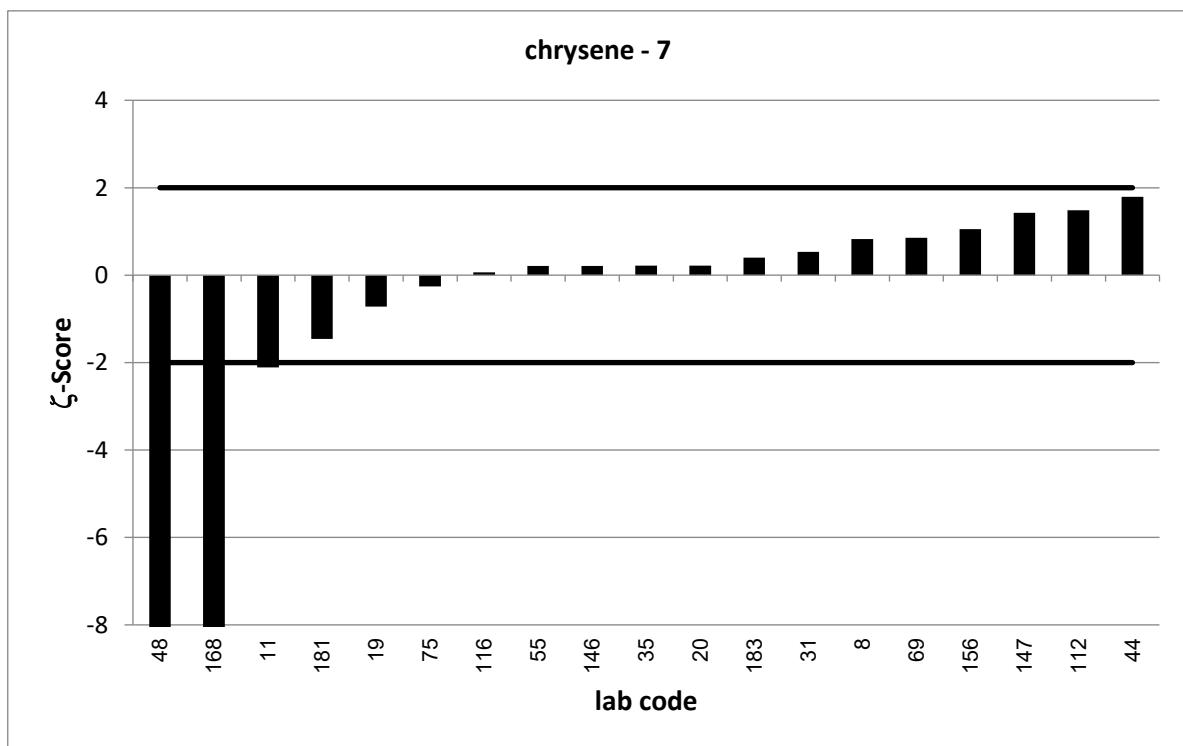


Strongly deviating values are not shown in the diagram.





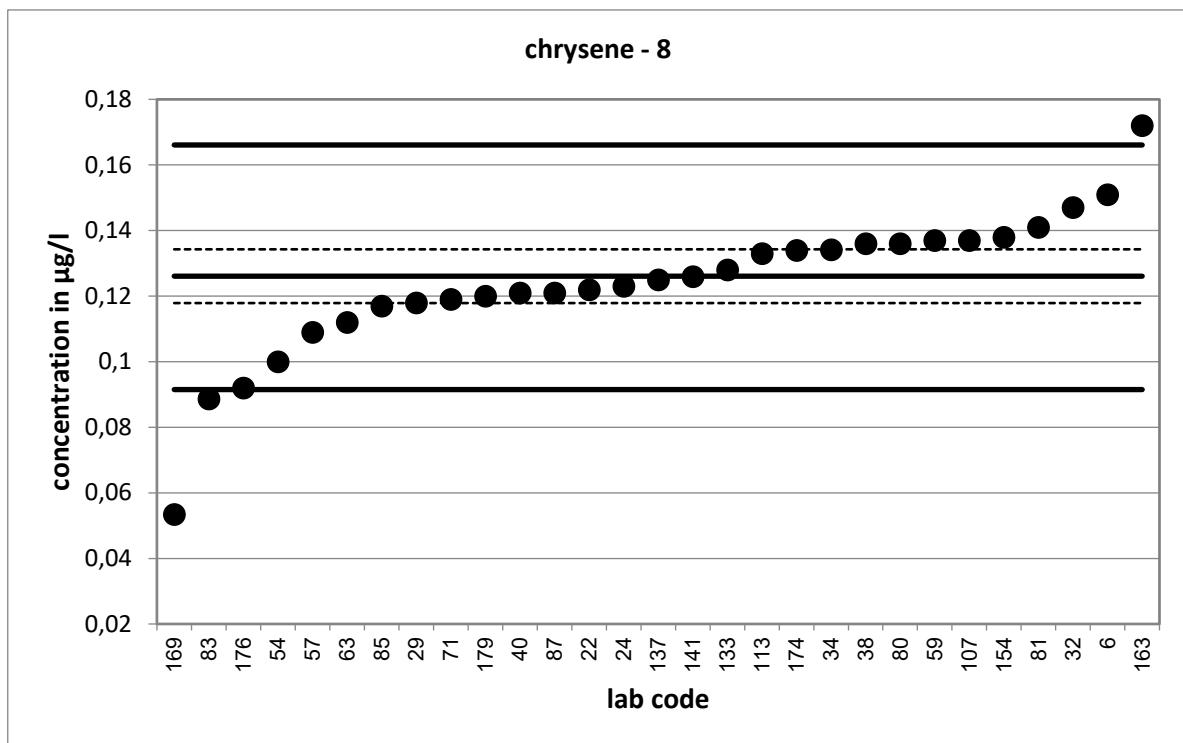
Strongly deviating values are not correctly shown in the diagram.



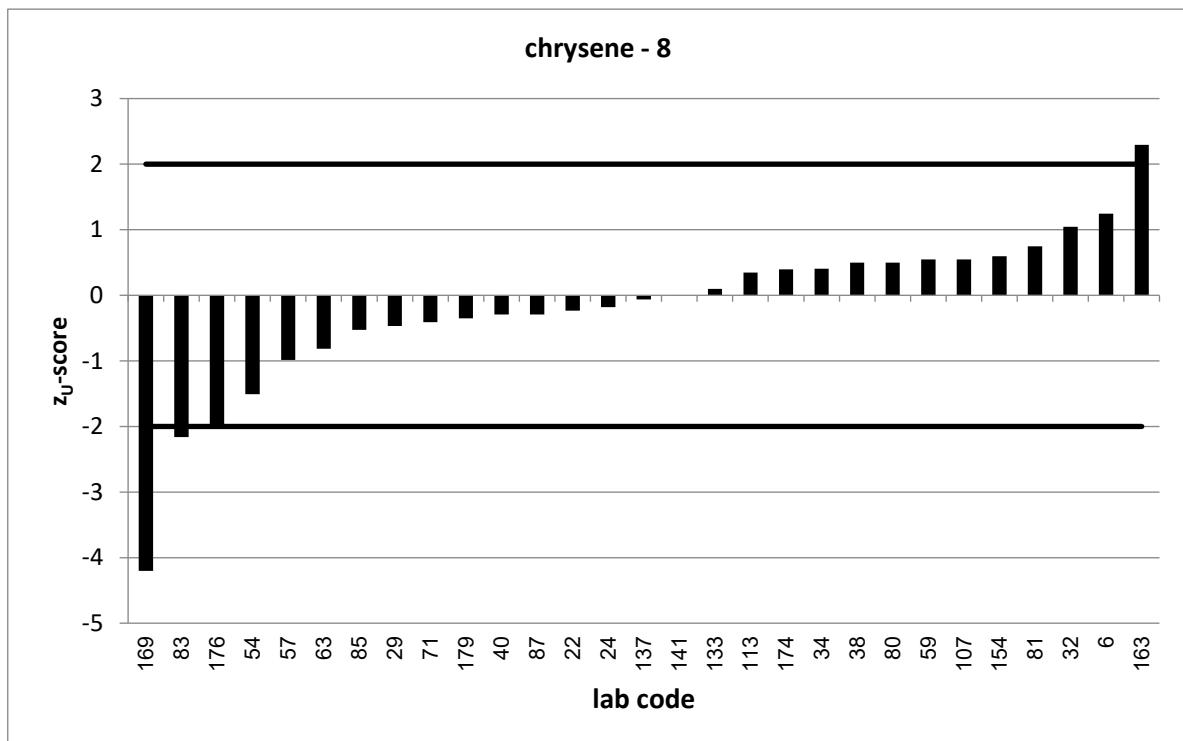
PT 3/24		chrysene - 8			
assigned value [ $\mu\text{g/l}$ ]*		0,1261 $\pm$ 0,0082			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1661			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,09149			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,151	0,038	1,3	1,2	s
22	0,122	0,049	-0,2	-0,2	s
24	0,123			-0,2	s
29	0,118	0,024	-0,6	-0,5	s
32	0,147			1,0	s
34	0,1342	0,01	1,3	0,4	s
38	0,136			0,5	s
40	0,121			-0,3	s
54	0,1	0,03	-1,7	-1,5	s
57	0,109			-1,0	s
59	0,137	0,027	0,8	0,5	s
63	0,112	0,034	-0,8	-0,8	s
71	0,119	0,023	-0,6	-0,4	s
80	0,136	0,02	0,9	0,5	s
81	0,141			0,7	s
83	0,0887			-2,2	q
85	0,117			-0,5	s
87	0,121	0,036	-0,3	-0,3	s
107	0,137	0,036	0,6	0,5	s
113	0,133			0,3	s
133	0,128			0,1	s
137	0,125	0,019	-0,1	-0,1	s
141	0,126	0,057	0,0	0,0	s
154	0,138	0,069	0,3	0,6	s
163	0,172			2,3	q
169	0,0534	0,013	-9,6	-4,2	u
174	0,134			0,4	s
176	0,092			-2,0	s
179	0,12	0,036	-0,3	-0,4	s

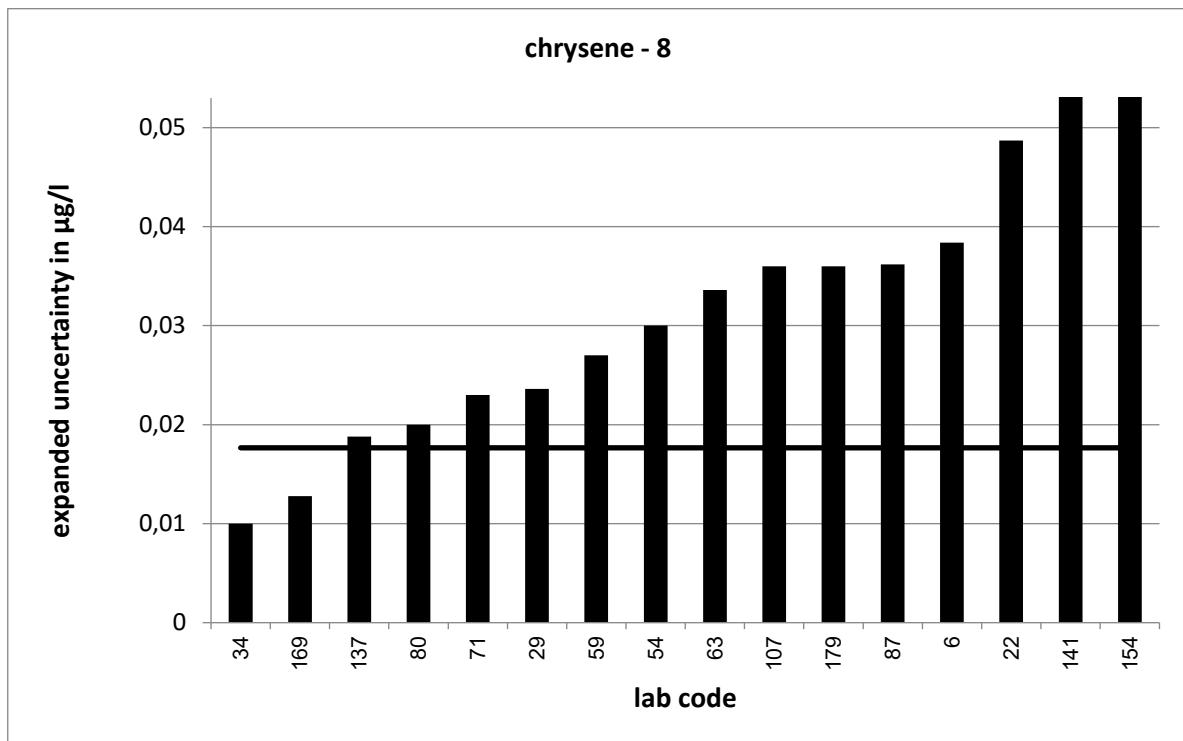
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

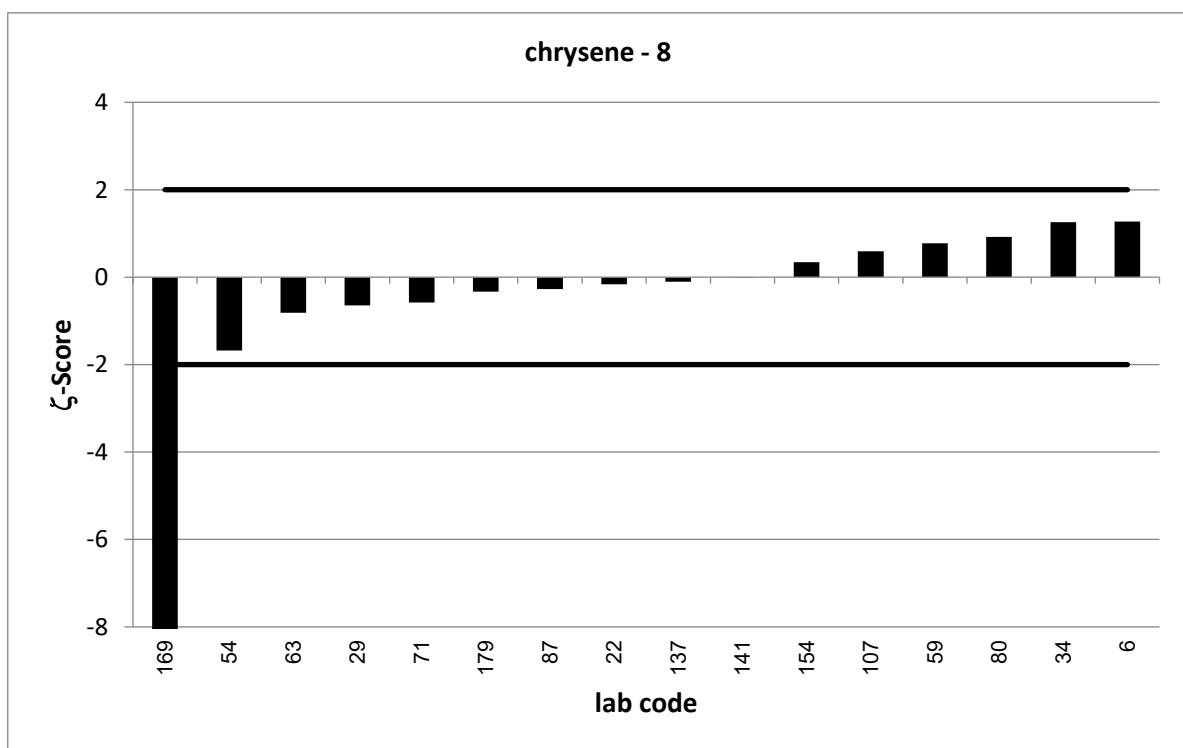


Strongly deviating values are not shown in the diagram.





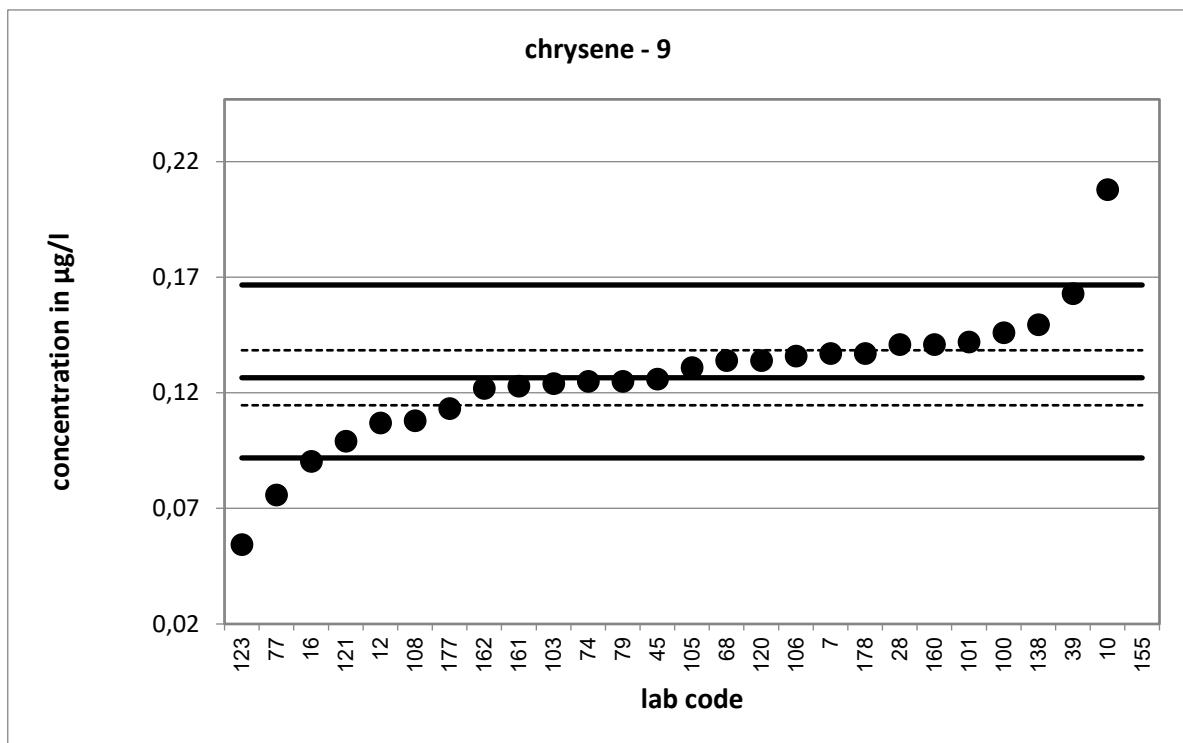
Strongly deviating values are not correctly shown in the diagram.



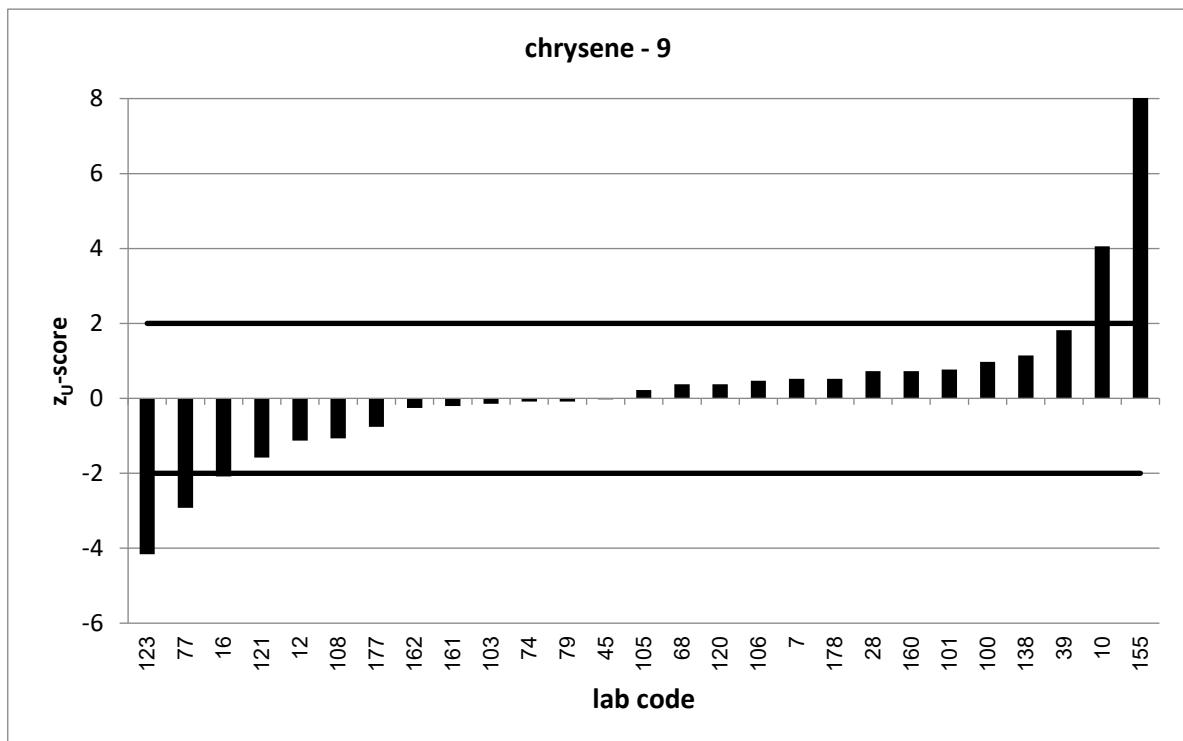
PT 3/24		chrysene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,1265 \pm 0,0119$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1666			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,09183			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,137	0,027	0,7	0,5	s
10	0,208	0,061	2,6	4,1	u
12	0,107	0,032	-1,1	-1,1	s
16	0,0904	0,02	-3,1	-2,1	q
28	0,141	0,032	0,8	0,7	s
39	0,163	0,026	2,6	1,8	s
45	0,126			0,0	s
68	0,134			0,4	s
74	0,125	0,03	-0,1	-0,1	s
77	0,0759	0,027	-3,5	-2,9	q
79	0,125			-0,1	s
100	0,146	0,022	1,6	1,0	s
101	0,142	0,043	0,7	0,8	s
103	0,124	0,022	-0,2	-0,1	s
105	0,131			0,2	s
106	0,136			0,5	s
108	0,108	0,019	-1,7	-1,1	s
120	0,134	0,02	0,6	0,4	s
121	0,0991	0,017	-2,6	-1,6	s
123	0,0544			-4,2	u
138	0,1495			1,1	s
155	0,992			43,1	u
160	0,141			0,7	s
161	0,123			-0,2	s
162	0,122	0,037	-0,2	-0,3	s
177	0,1133			-0,8	s
178	0,137			0,5	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

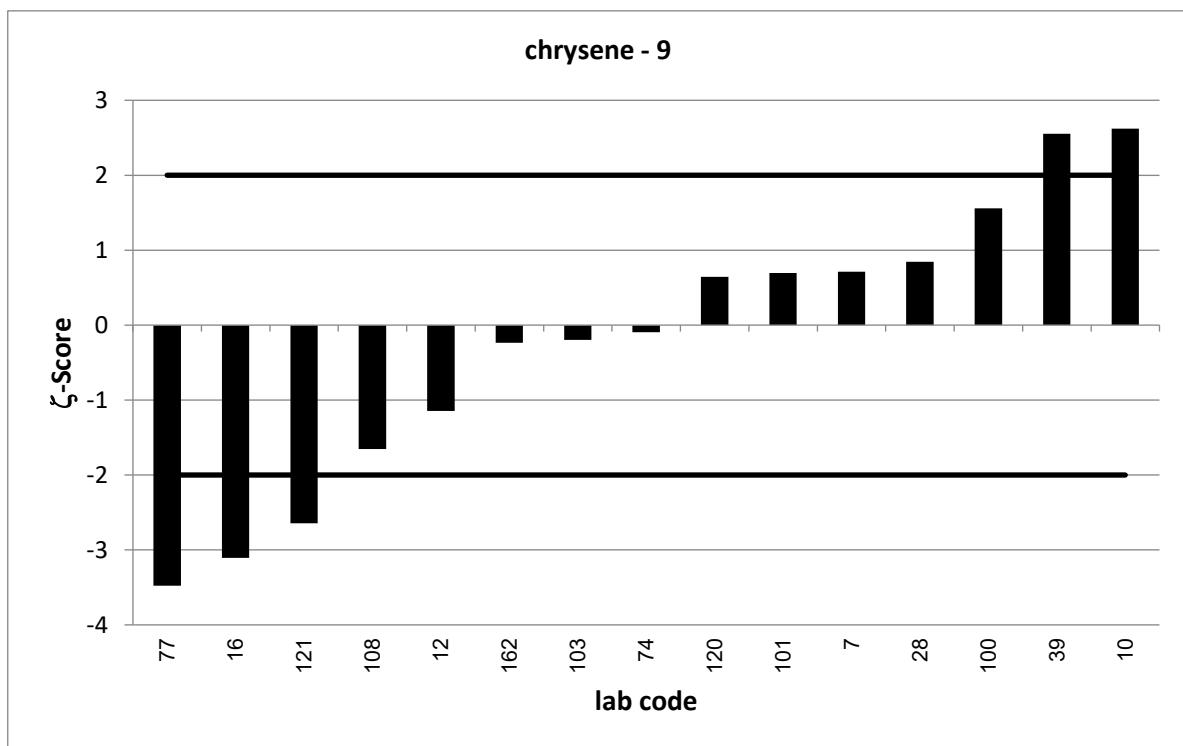
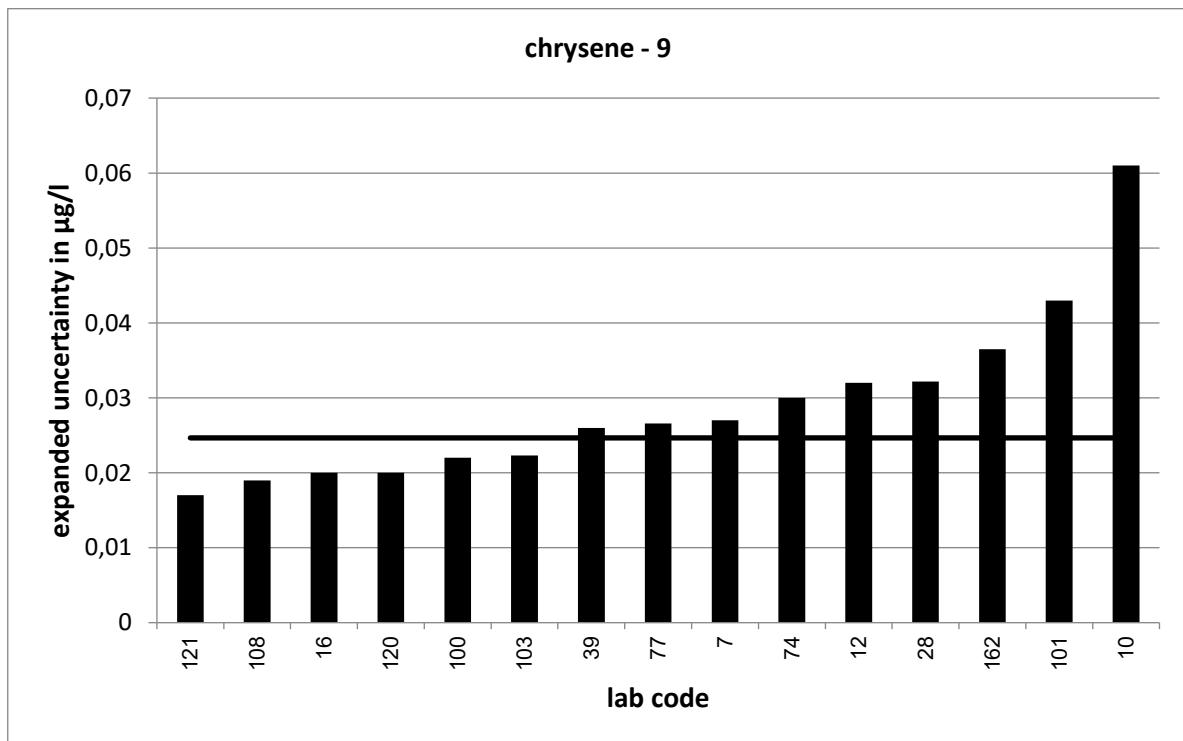
\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.



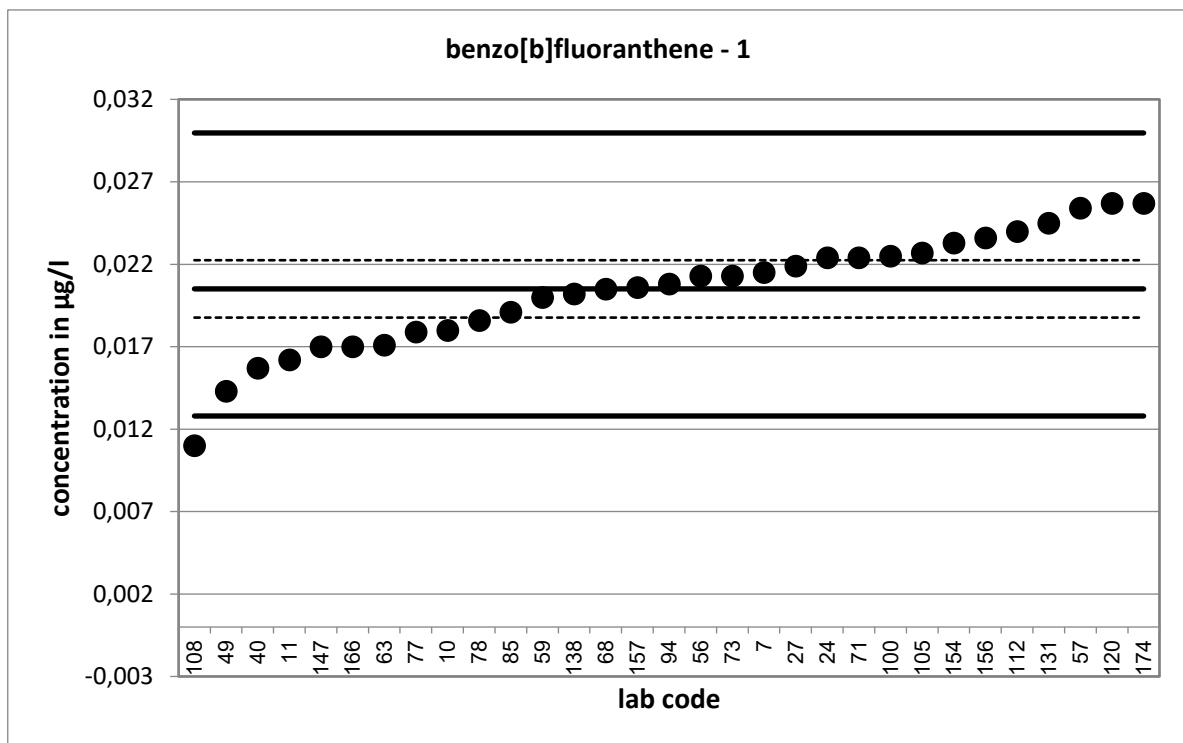
Strongly deviating values are not correctly shown in the diagram.



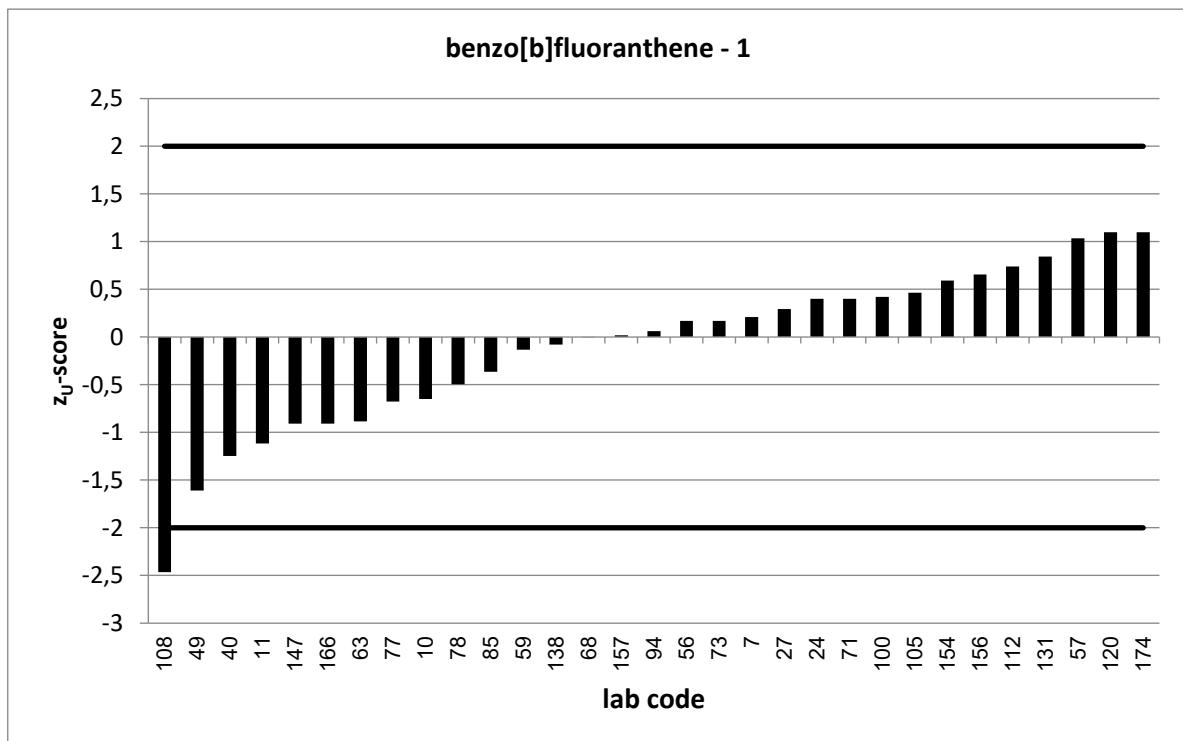
PT 3/24		benzo[b]fluoranthene - 1			
assigned value [ $\mu\text{g/l}$ ]*		0,02051 $\pm$ 0,00174			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,02996			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0128			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0215	0,003	0,6	0,2	s
10	0,018	0,004	-1,1	-0,7	s
11	0,0162	0,004	-2,2	-1,1	s
24	0,0224			0,4	s
27	0,0219			0,3	s
40	0,0157			-1,2	s
49	0,0143			-1,6	s
56	0,0213	0,004	0,4	0,2	s
57	0,0254			1,0	s
59	0,02	0,004	-0,2	-0,1	s
63	0,0171	0,005	-1,3	-0,9	s
68	0,0205			0,0	s
71	0,0224	0,005	0,7	0,4	s
73	0,0213			0,2	s
77	0,0179	0,006	-0,8	-0,7	s
78	0,0186			-0,5	s
85	0,0191			-0,4	s
94	0,0208			0,1	s
100	0,0225	0,005	0,8	0,4	s
105	0,0227			0,5	s
108	0,011	0,002	-7,2	-2,5	q
112	0,024	0,001	3,5	0,7	s
120	0,0257	0,002	3,9	1,1	s
131	0,0245	0,006	1,4	0,8	s
138	0,0202			-0,1	s
147	0,017	3E-04	-4,0	-0,9	s
154	0,0233	0,012	0,5	0,6	s
156	0,0236	0,004	1,5	0,7	s
157	0,0206			0,0	s
166	0,017			-0,9	s
174	0,0257			1,1	s

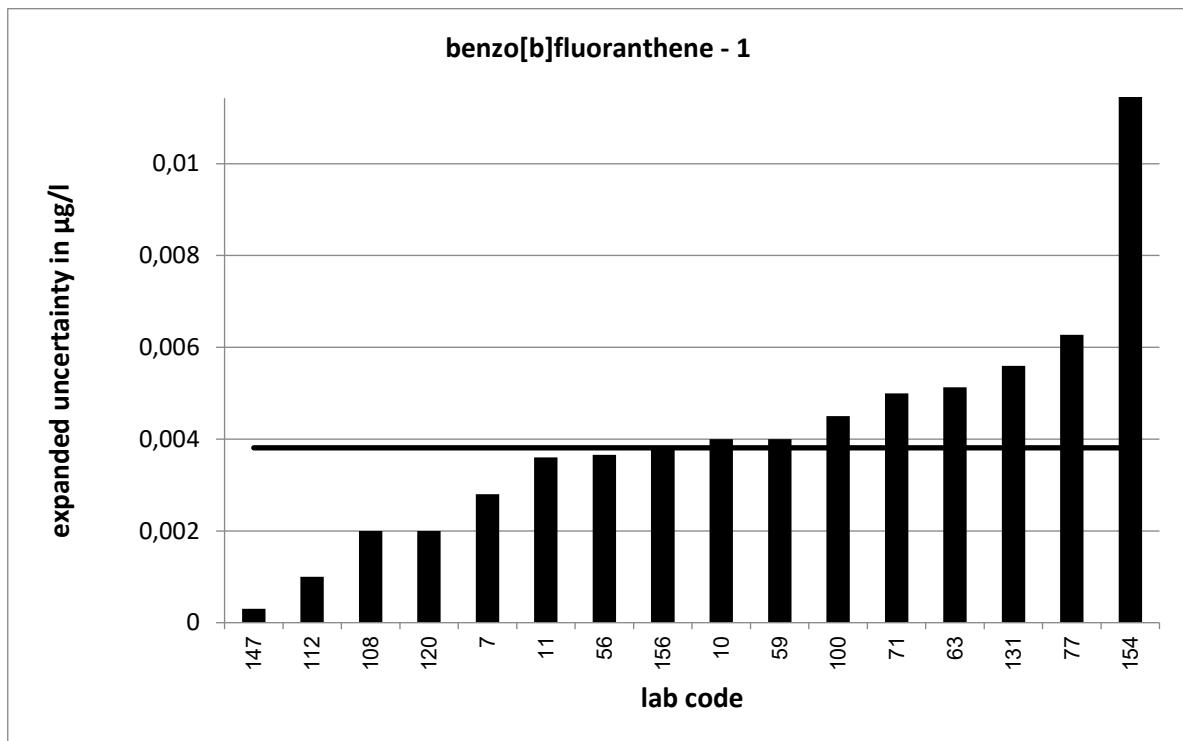
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

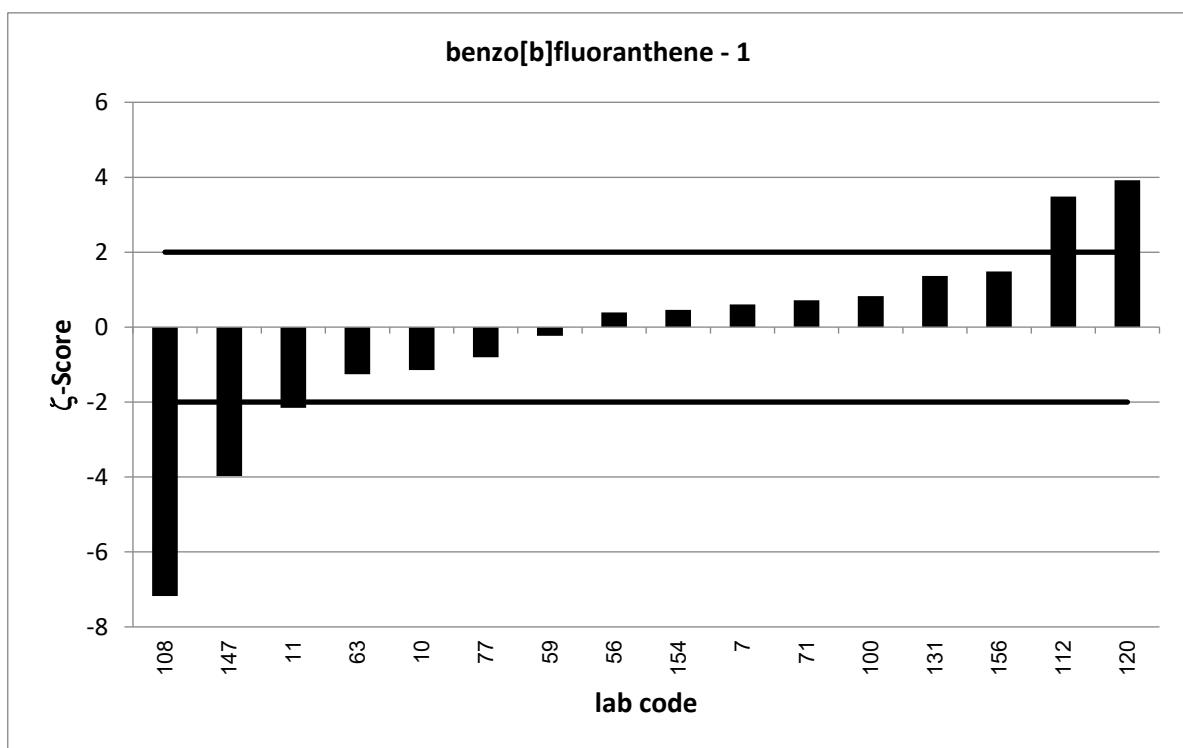


Strongly deviating values are not shown in the diagram.





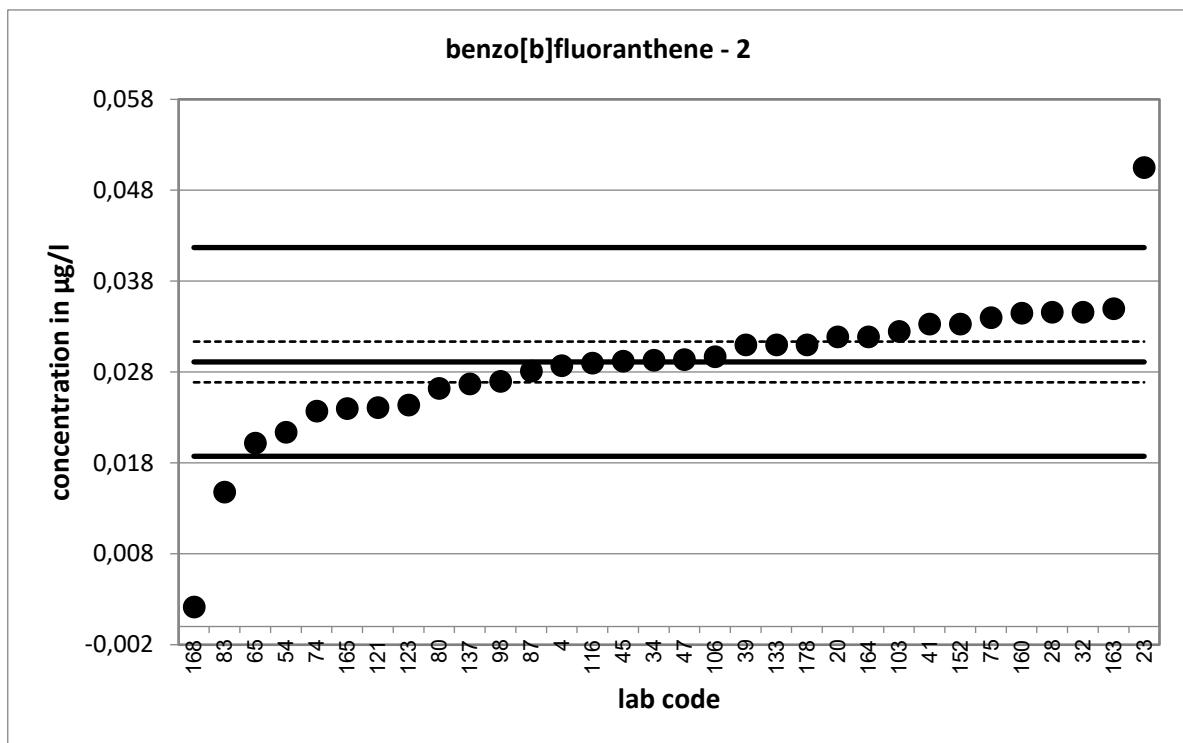
Strongly deviating values are not correctly shown in the diagram.



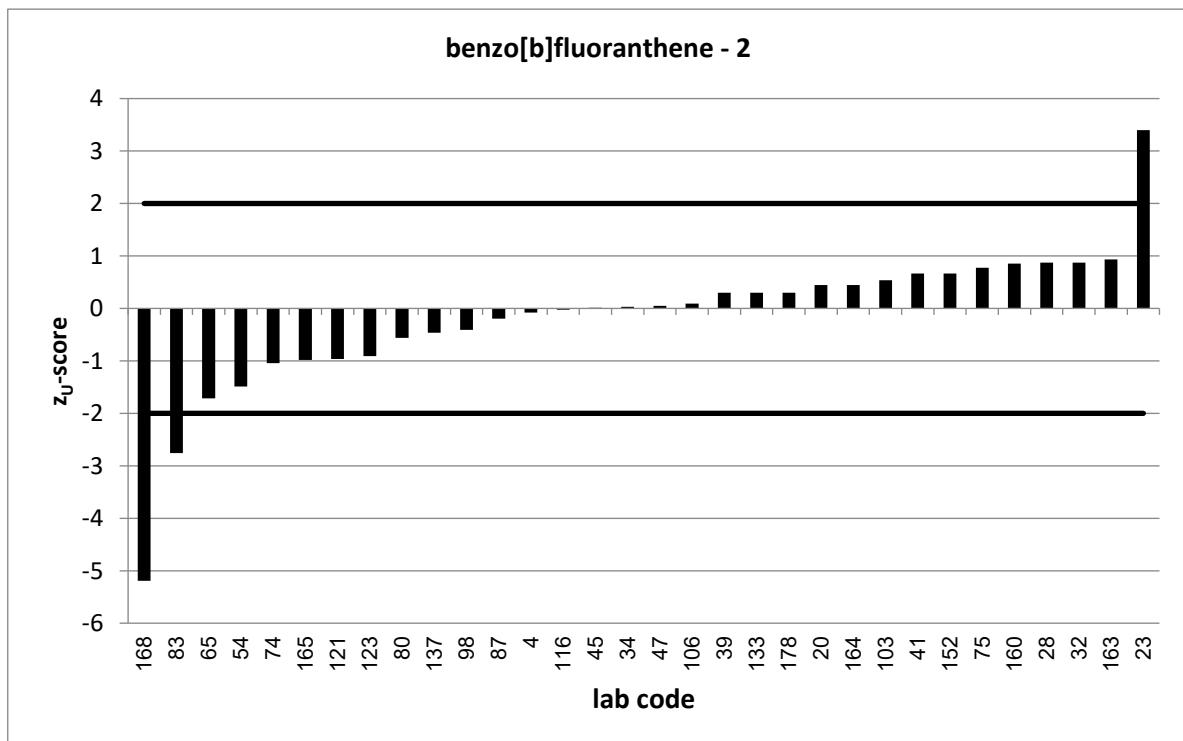
PT 3/24		benzo[b]fluoranthene - 2			
assigned value [ $\mu\text{g/l}$ ]*		$0,02911 \pm 0,00224$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,0417			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,01873			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0287			-0,1	s
20	0,0319	0,01	0,6	0,4	s
23	0,0505			3,4	u
28	0,0346	0,014	0,8	0,9	s
32	0,0346			0,9	s
34	0,0293	0,006	0,1	0,0	s
39	0,031	0,005	0,7	0,3	s
41	0,0333			0,7	s
45	0,0292			0,0	s
47	0,0294			0,0	s
54	0,0214	0,006	-2,4	-1,5	s
65	0,0202			-1,7	s
74	0,0237	0,007	-1,5	-1,0	s
75	0,034	0,007	1,4	0,8	s
80	0,0262	0,008	-0,7	-0,6	s
83	0,0148			-2,8	q
87	0,0281	0,008	-0,2	-0,2	s
98	0,027			-0,4	s
103	0,0325	0,005	1,2	0,5	s
106	0,0297			0,1	s
116	0,029	0,006	0,0	0,0	s
121	0,0241	0,004	-2,0	-1,0	s
123	0,0244			-0,9	s
133	0,031			0,3	s
137	0,0267	0,004	-1,0	-0,5	s
152	0,0333	0,004	1,7	0,7	s
160	0,0345			0,9	s
163	0,035			0,9	s
164	0,0319	0,01	0,6	0,4	s
165	0,024			-1,0	s
168	0,00216	0,001	-21,9	-5,2	u
178	0,031			0,3	s

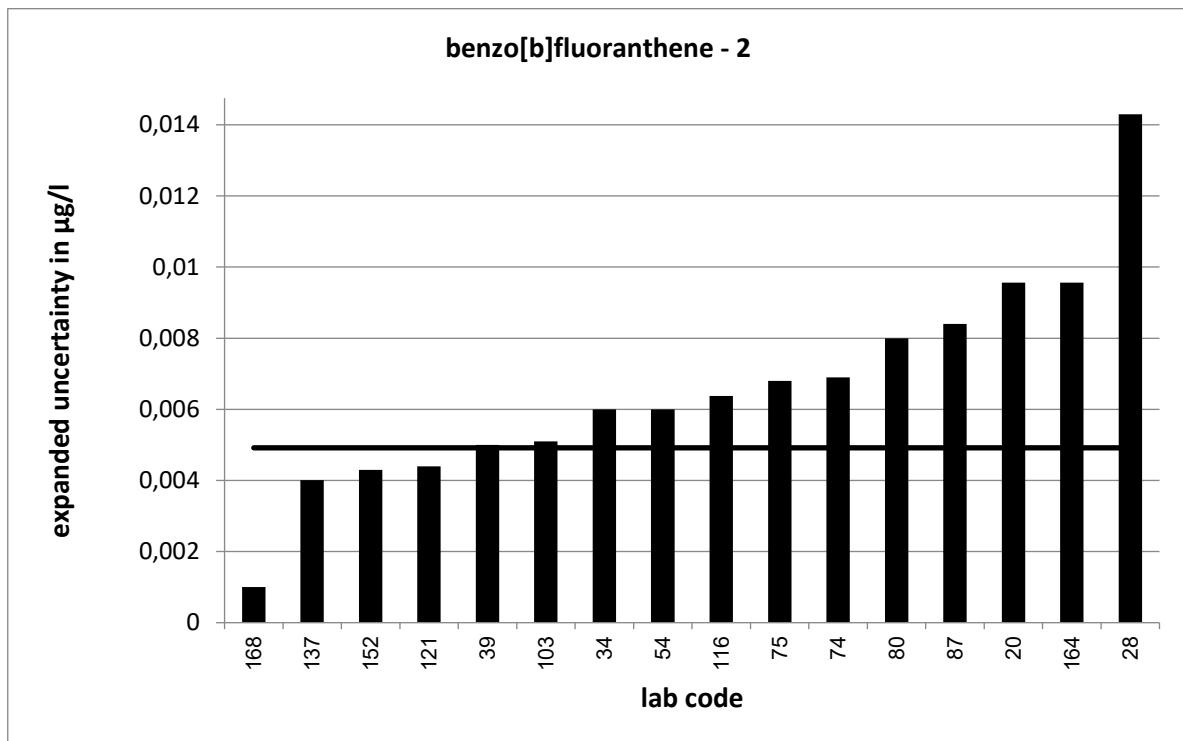
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

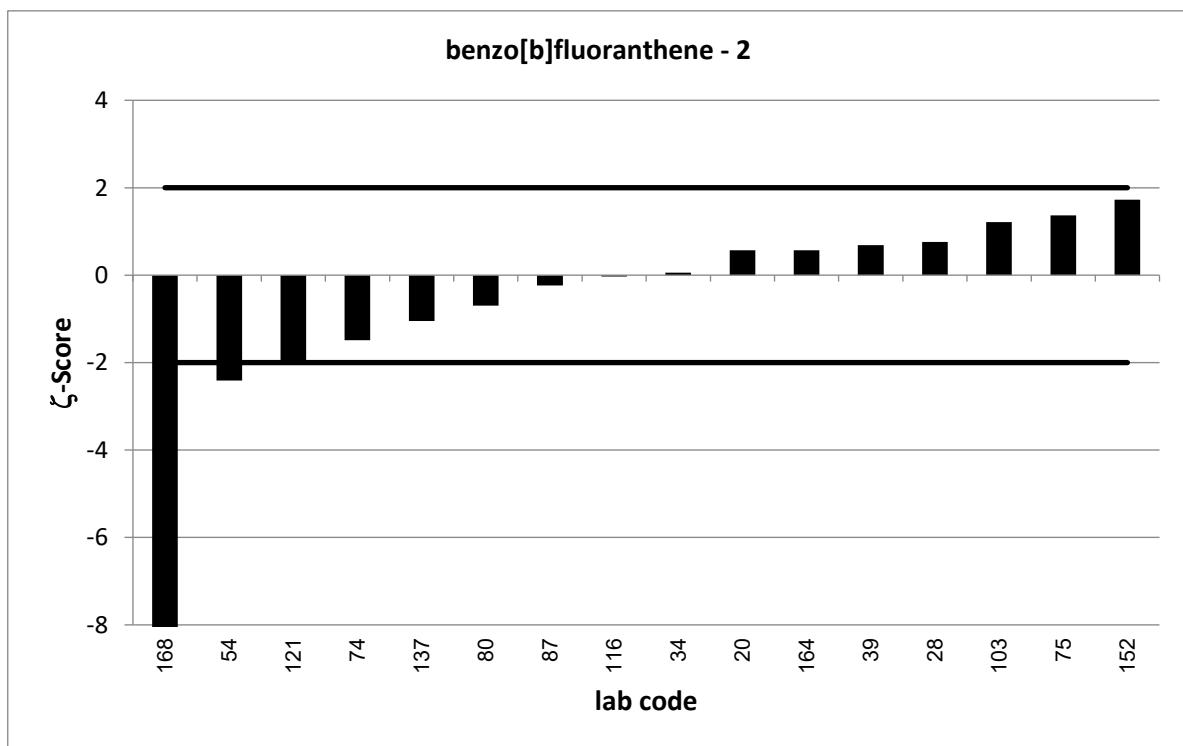


Strongly deviating values are not shown in the diagram.





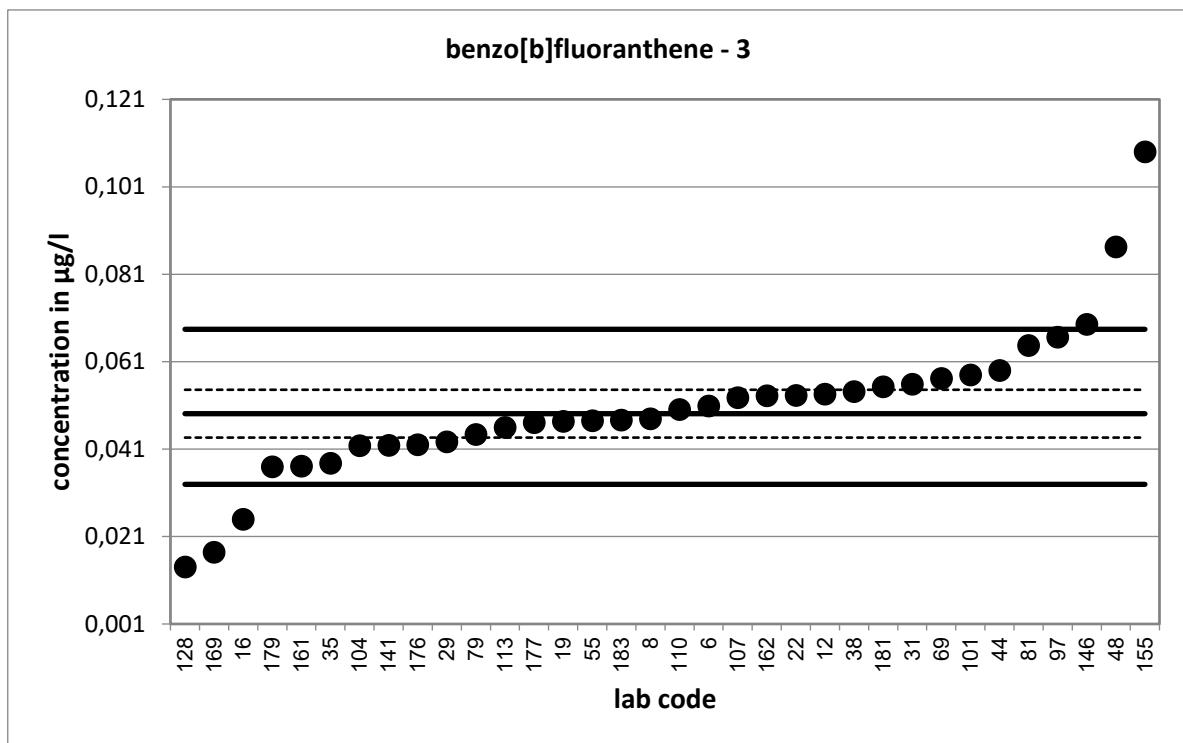
Strongly deviating values are not correctly shown in the diagram.



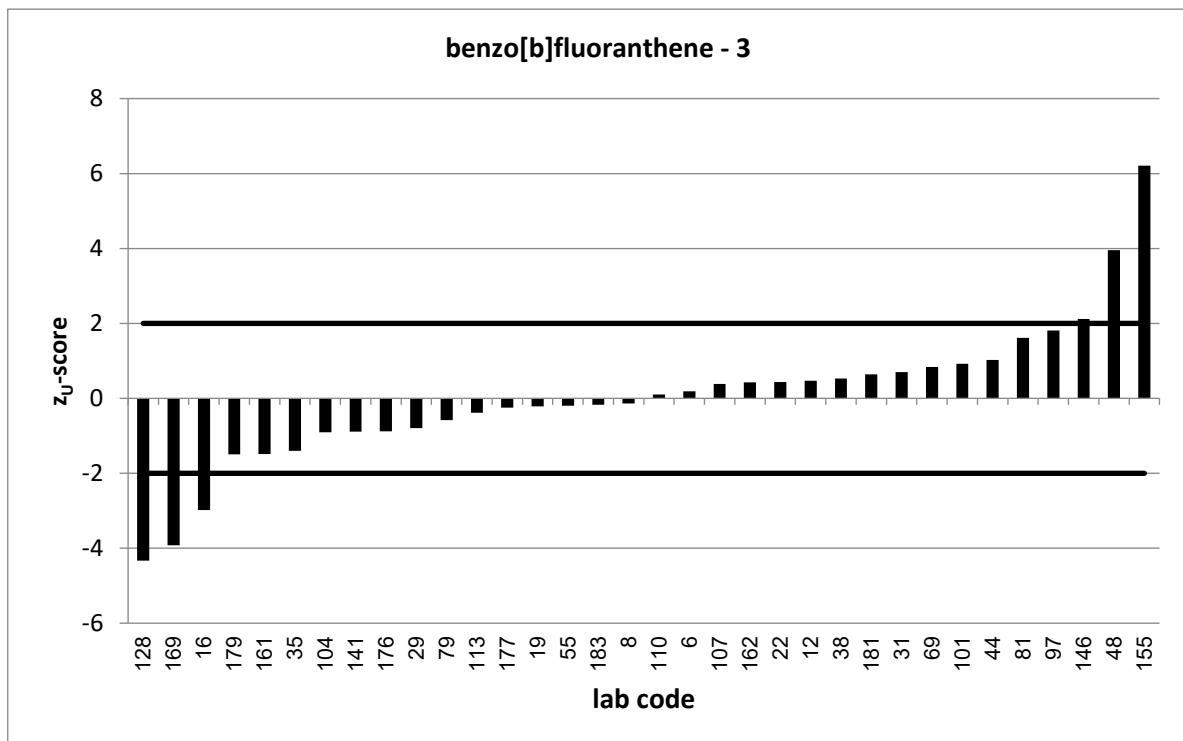
PT 3/24		benzo[b]fluoranthene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,04911 \pm 0,00547$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,06841			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,03294			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0509	0,02	0,2	0,2	s
8	0,048	0,012	-0,2	-0,1	s
12	0,0536	0,016	0,5	0,5	s
16	0,025	0,006	-6,2	-3,0	u
19	0,0474	0,011	-0,3	-0,2	s
22	0,0533	0,021	0,4	0,4	s
29	0,0427	0,01	-1,1	-0,8	s
31	0,0559	0,02	0,7	0,7	s
35	0,0378	0,011	-1,8	-1,4	s
38	0,0542			0,5	s
44	0,059	0,012	1,5	1,0	s
48	0,0873	0,009	7,5	4,0	u
55	0,0475	0,021	-0,1	-0,2	s
69	0,0572	0,01	1,4	0,8	s
79	0,0444			-0,6	s
81	0,0647			1,6	s
97	0,0666	0,008	3,6	1,8	s
101	0,058	0,017	1,0	0,9	s
104	0,0418			-0,9	s
107	0,0528	0,014	0,5	0,4	s
110	0,0501			0,1	s
113	0,046			-0,4	s
128	0,0141			-4,3	u
141	0,0419	0,019	-0,7	-0,9	s
146	0,06957	0,017	2,3	2,1	q
155	0,109			6,2	u
161	0,0371			-1,5	s
162	0,0532	0,016	0,5	0,4	s
169	0,0174	0,002	-10,7	-3,9	u
176	0,042			-0,9	s
177	0,0471			-0,2	s
179	0,037	0,011	-2,0	-1,5	s
181	0,0553	0,005	1,7	0,6	s
183	0,0477	0,014	-0,2	-0,2	s

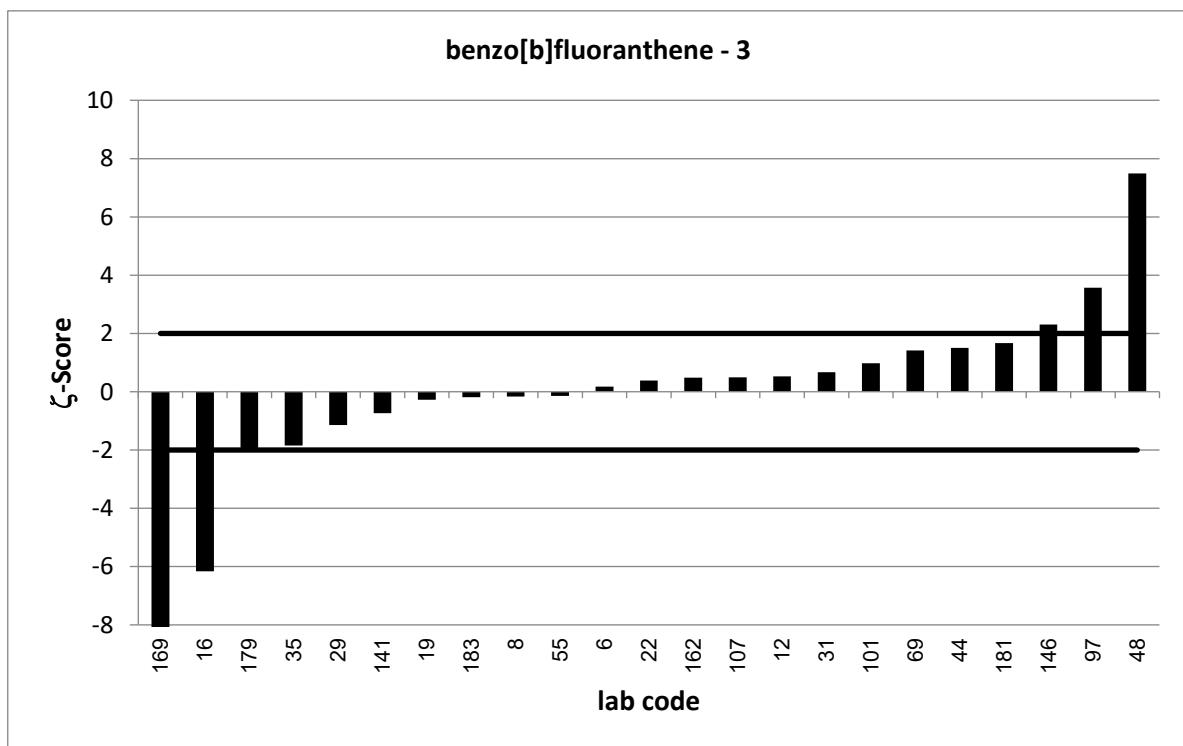
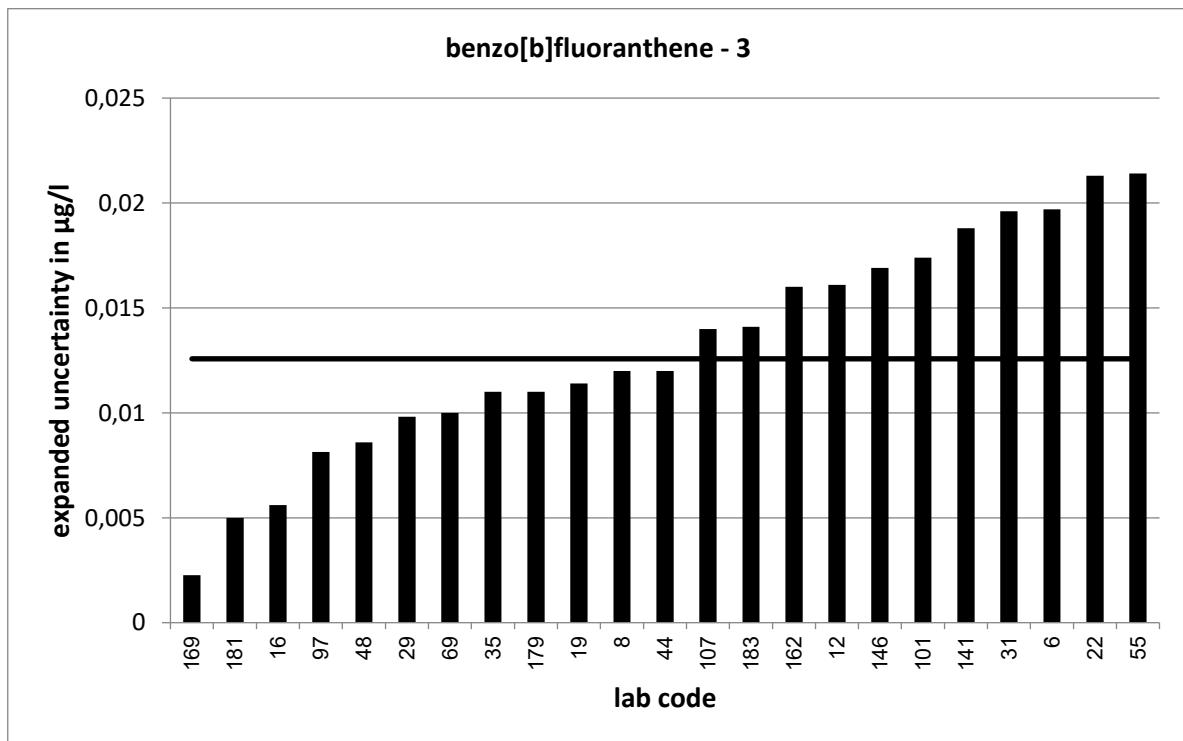
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

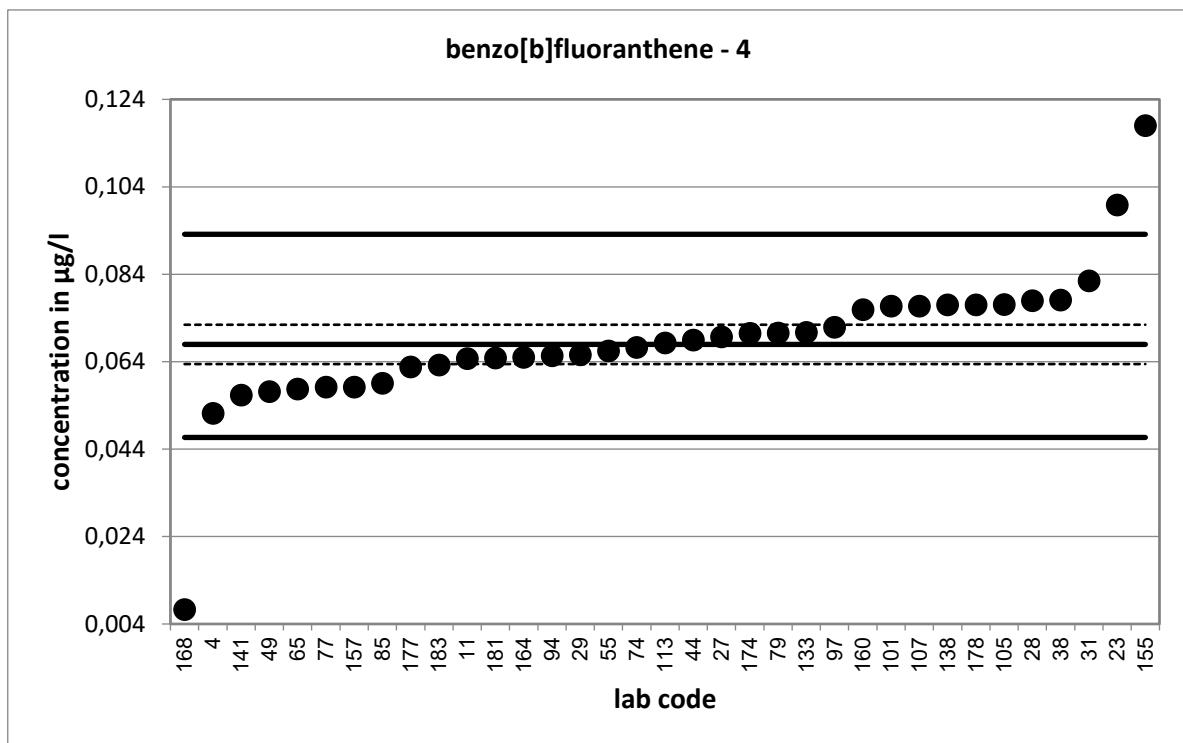




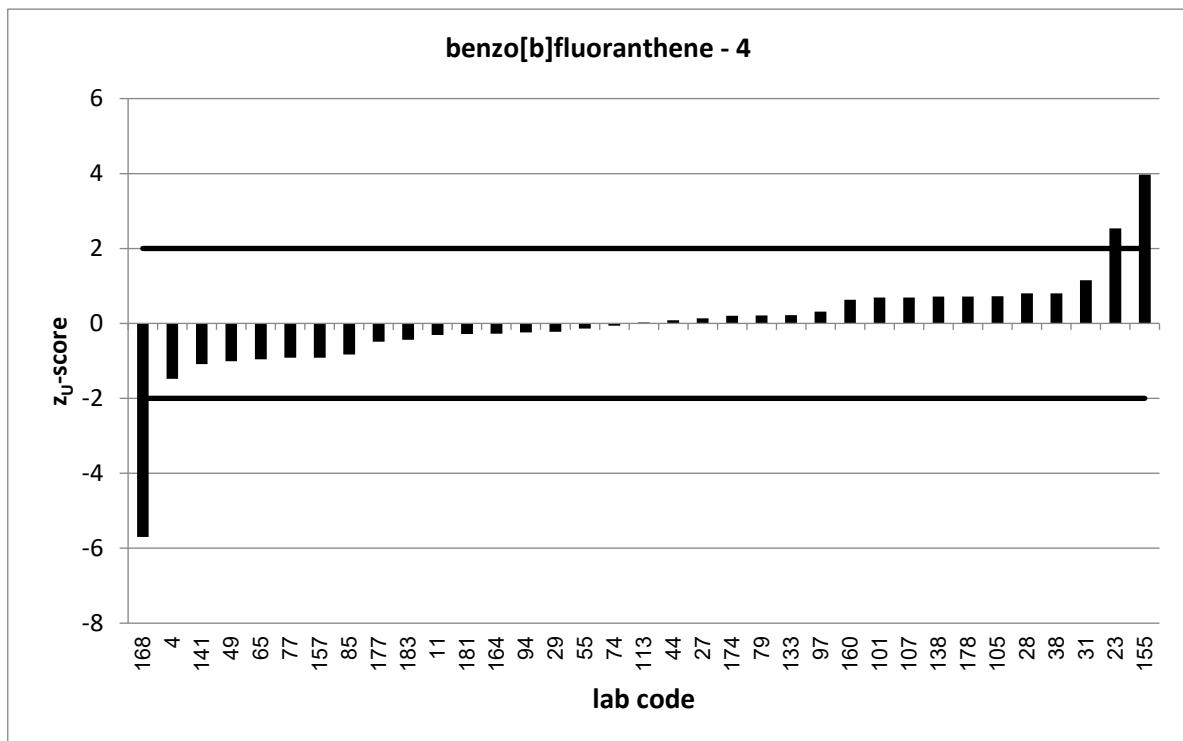
PT 3/24		benzo[b]fluoranthene - 4			
assigned value [ $\mu\text{g/l}$ ]*		$0,06796 \pm 0,0045$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,09314			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,04667			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0522			-1,5	s
11	0,0647	0,014	-0,4	-0,3	s
23	0,0999			2,5	q
27	0,0697			0,1	s
28	0,078	0,032	0,6	0,8	s
29	0,0656	0,015	-0,3	-0,2	s
31	0,0825	0,029	1,0	1,2	s
38	0,0781			0,8	s
44	0,069	0,014	0,1	0,1	s
49	0,0572			-1,0	s
55	0,0665	0,03	-0,1	-0,1	s
65	0,0578			-1,0	s
74	0,0673	0,019	-0,1	-0,1	s
77	0,0582	0,02	-0,9	-0,9	s
79	0,0706			0,2	s
85	0,0591	0,002	-3,6	-0,8	s
94	0,0654			-0,2	s
97	0,0719	0,009	0,8	0,3	s
101	0,0767	0,023	0,7	0,7	s
105	0,0771			0,7	s
107	0,0767	0,02	0,9	0,7	s
113	0,0683			0,0	s
133	0,0707			0,2	s
138	0,077			0,7	s
141	0,0564	0,025	-0,9	-1,1	s
155	0,118			4,0	u
157	0,0582			-0,9	s
160	0,0759			0,6	s
164	0,065	0,02	-0,3	-0,3	s
168	0,00734	0,002	-24,6	-5,7	u
174	0,0705			0,2	s
177	0,0628			-0,5	s
178	0,077			0,7	s
181	0,0649	0,006	-0,8	-0,3	s
183	0,0633	0,019	-0,5	-0,4	s

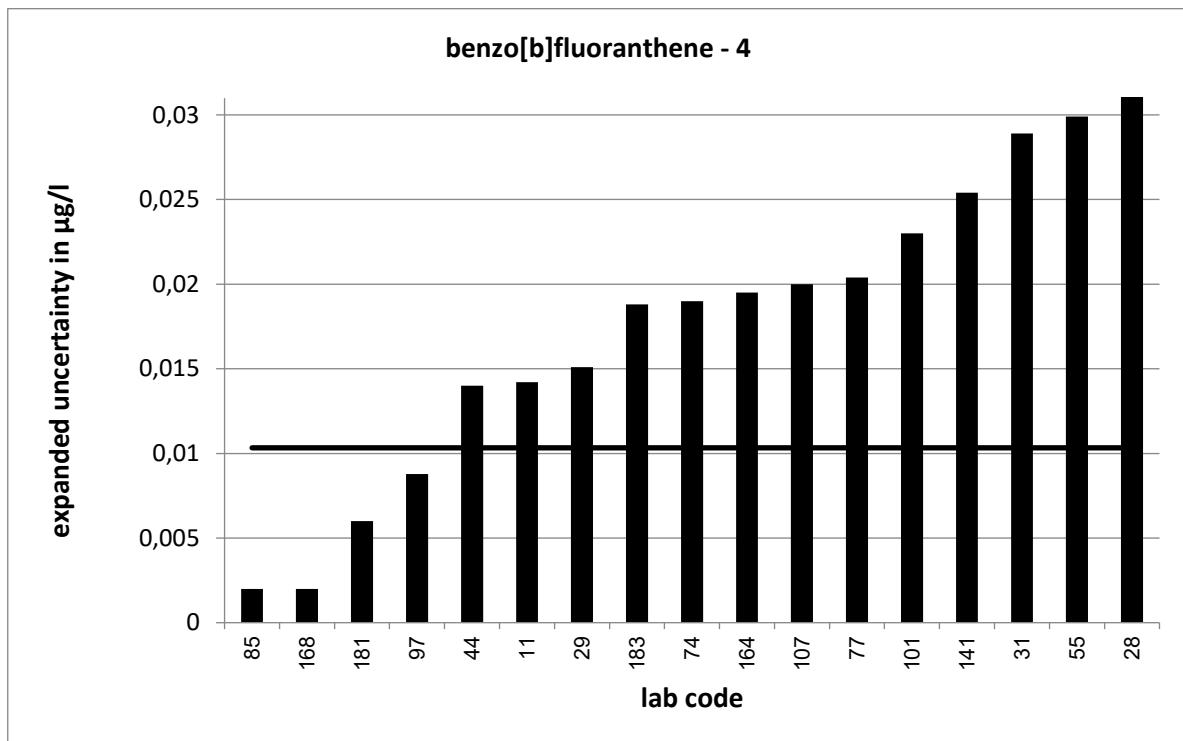
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

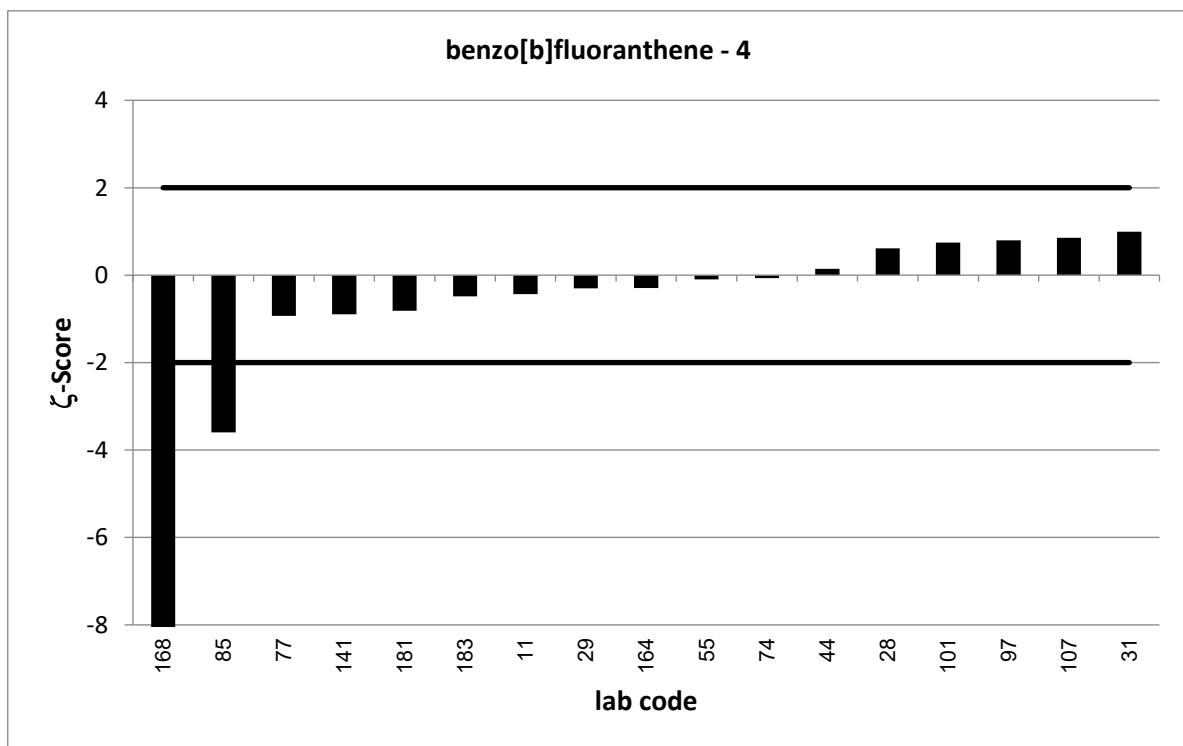


Strongly deviating values are not shown in the diagram.





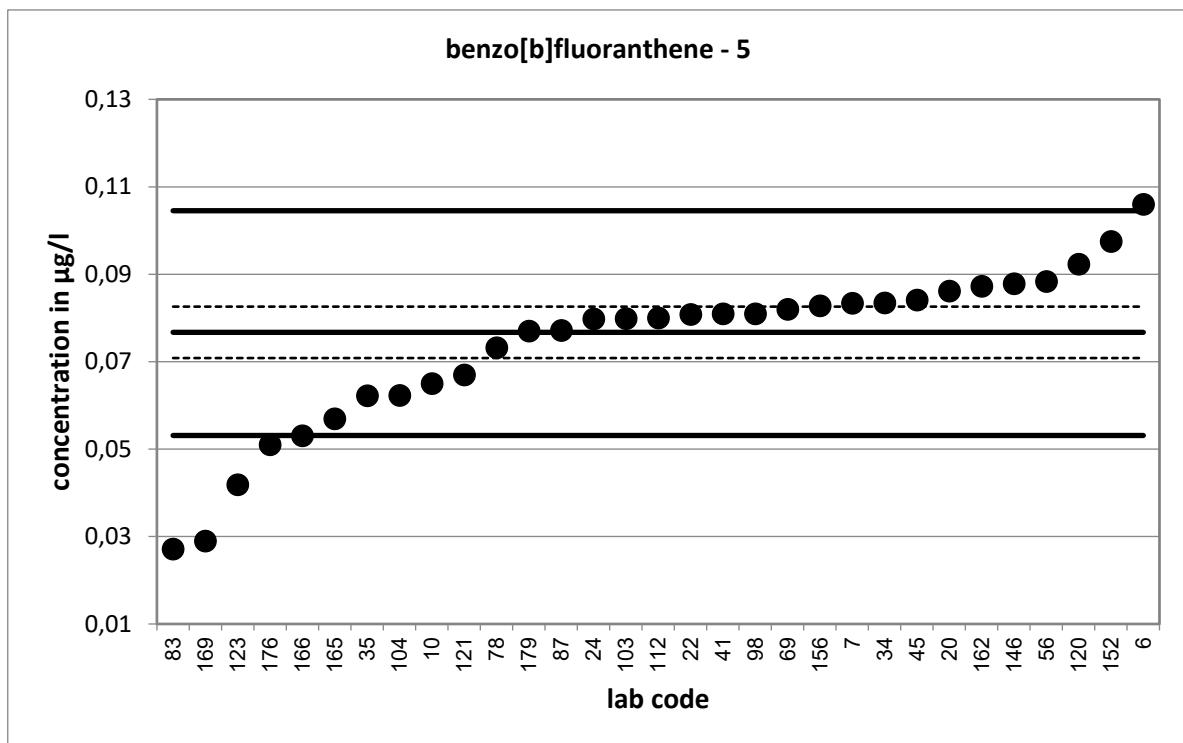
Strongly deviating values are not correctly shown in the diagram.



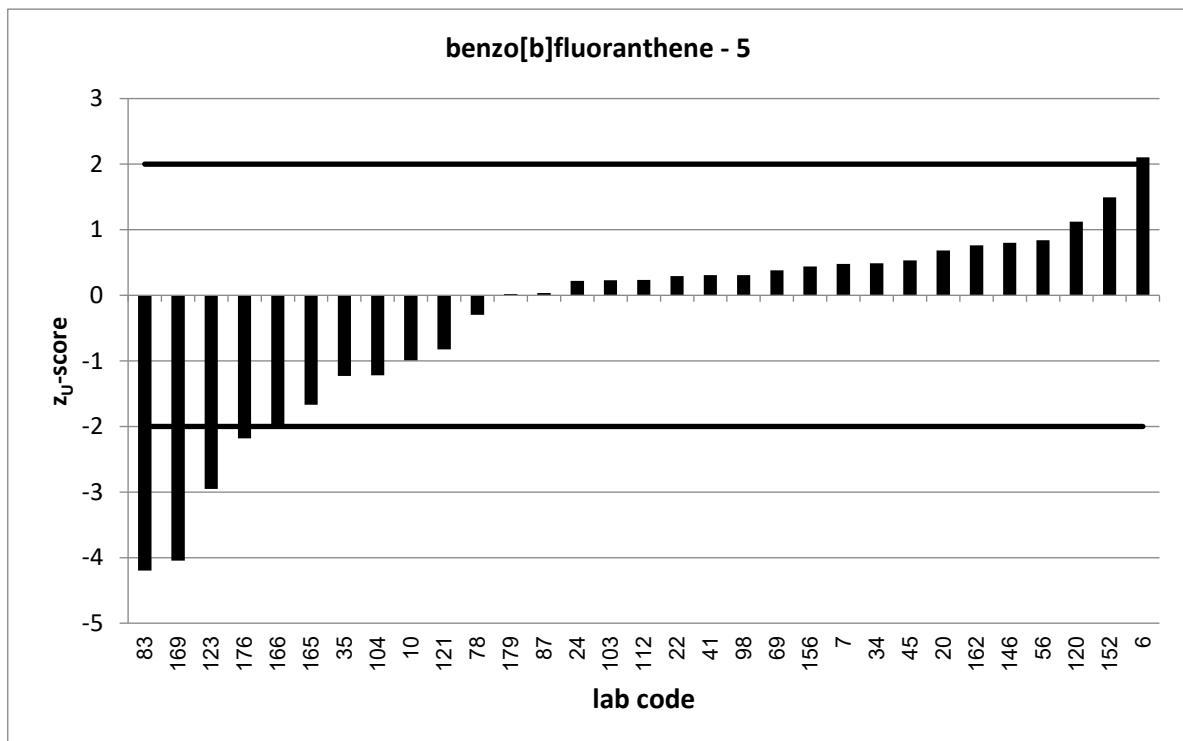
PT 3/24		benzo[b]fluoranthene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,07671 \pm 0,00588$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1045			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,05312			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,106	0,041	1,4	2,1	q
7	0,0834	0,015	0,8	0,5	s
10	0,065	0,013	-1,6	-1,0	s
20	0,0862	0,026	0,7	0,7	s
22	0,0808	0,032	0,2	0,3	s
24	0,0798			0,2	s
34	0,0835	0,02	0,7	0,5	s
35	0,0622	0,019	-1,5	-1,2	s
41	0,081			0,3	s
45	0,0841			0,5	s
56	0,0884	0,015	1,4	0,8	s
69	0,082	0,014	0,7	0,4	s
78	0,0732			-0,3	s
83	0,0272			-4,2	u
87	0,0772	0,023	0,0	0,0	s
98	0,081			0,3	s
103	0,0799	0,013	0,5	0,2	s
104	0,0623			-1,2	s
112	0,08	0,004	0,9	0,2	s
120	0,0923	0,006	3,7	1,1	s
121	0,067	0,012	-1,5	-0,8	s
123	0,0419			-3,0	u
146	0,08788	0,021	1,0	0,8	s
152	0,0975	0,013	2,9	1,5	s
156	0,0828	0,013	0,8	0,4	s
162	0,0873	0,026	0,8	0,8	s
165	0,057			-1,7	s
166	0,0531			-2,0	s
169	0,029	0,004	-13,7	-4,0	u
176	0,051			-2,2	q
179	0,077	0,023	0,0	0,0	s

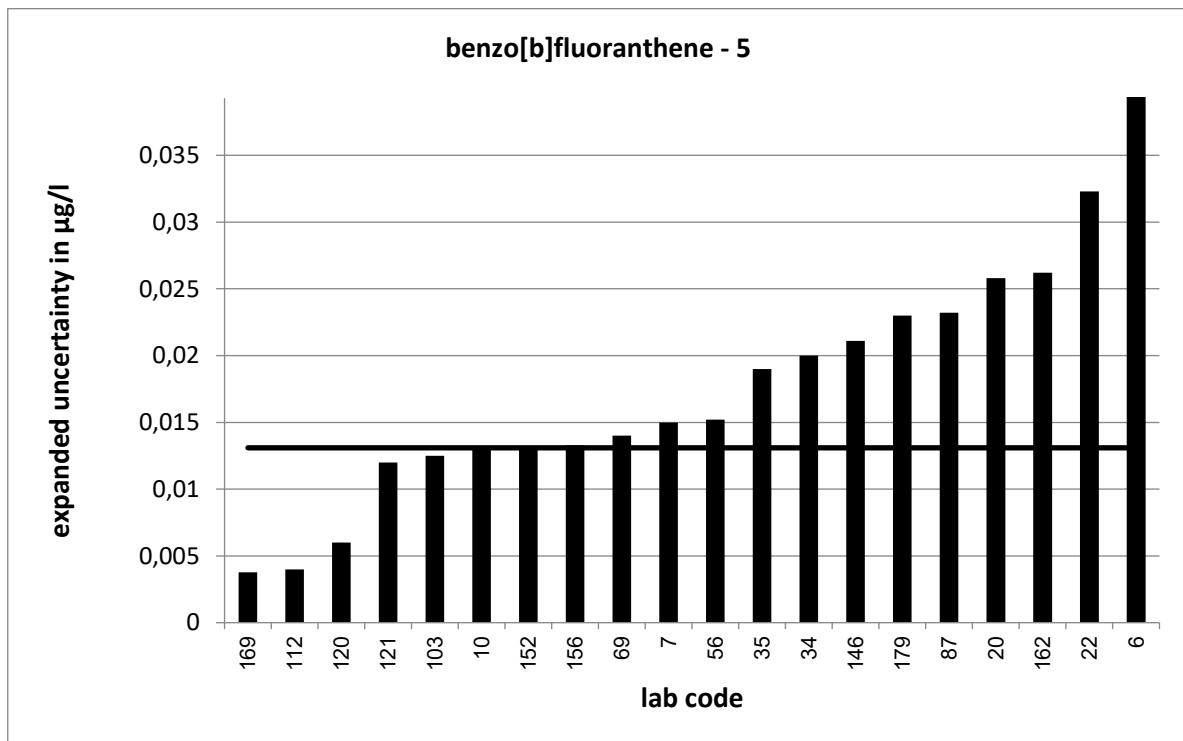
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

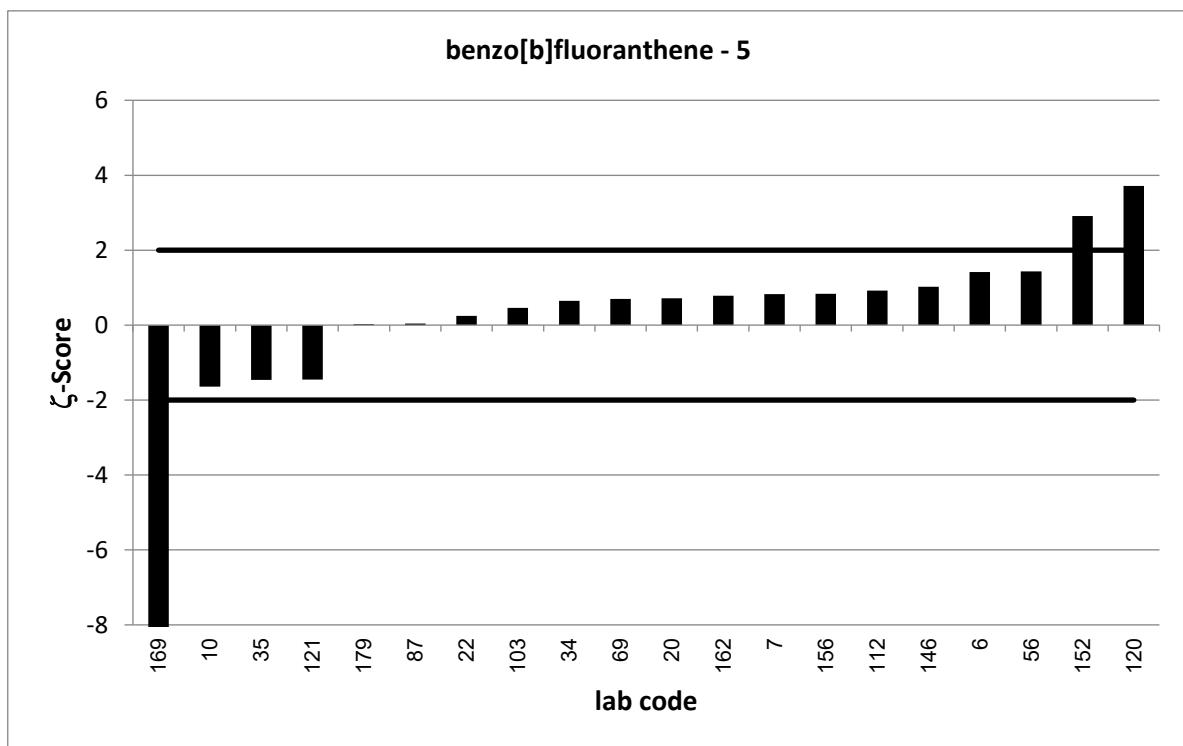


Strongly deviating values are not shown in the diagram.





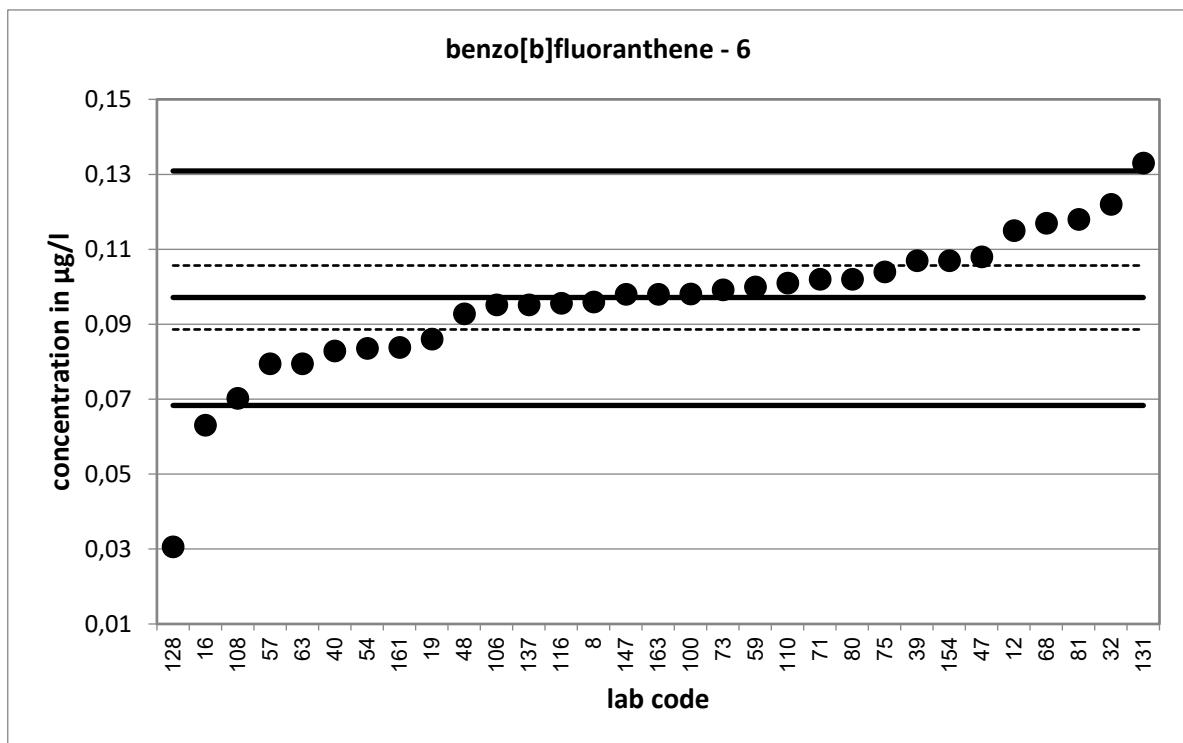
Strongly deviating values are not correctly shown in the diagram.



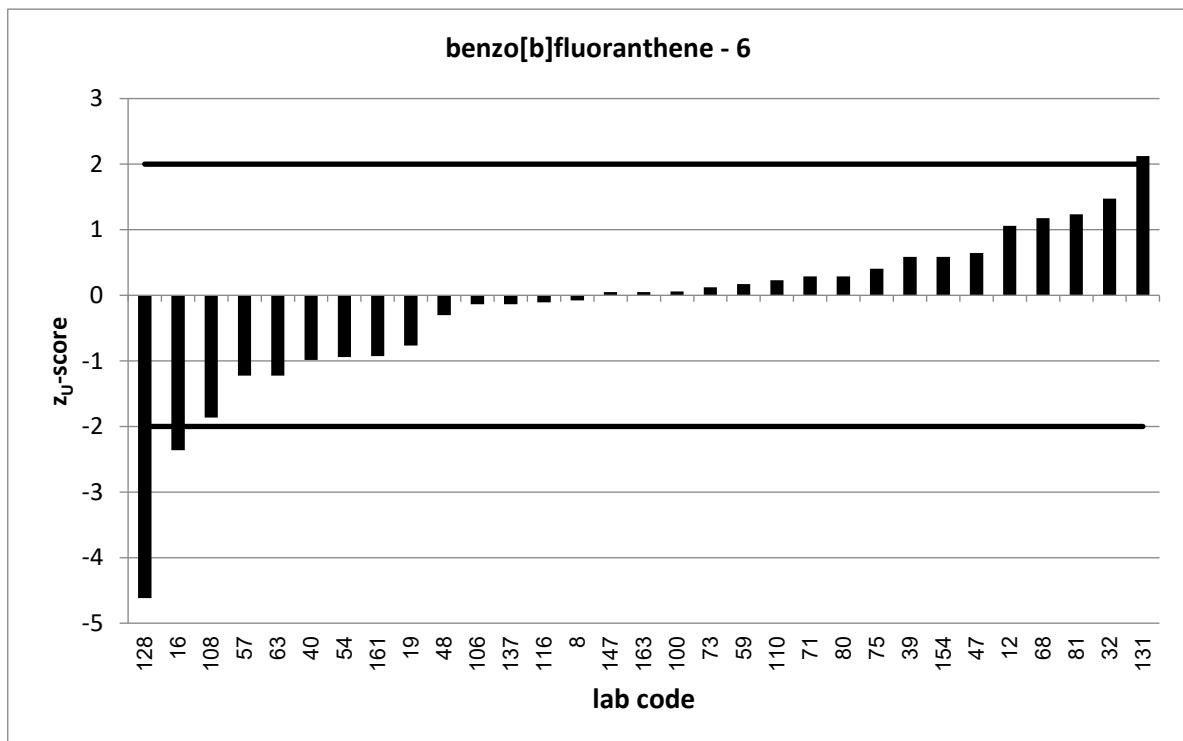
PT 3/24		benzo[b]fluoranthene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,09713 \pm 0,00853$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1309			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,06832			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,096	0,023	-0,1	-0,1	s
12	0,115	0,034	1,0	1,1	s
16	0,0631	0,014	-4,2	-2,4	q
19	0,0861	0,021	-1,0	-0,8	s
32	0,122			1,5	s
39	0,107	0,017	1,0	0,6	s
40	0,0829			-1,0	s
47	0,108			0,6	s
48	0,0928	0,01	-0,7	-0,3	s
54	0,0836	0,025	-1,0	-0,9	s
57	0,0795			-1,2	s
59	0,1	0,02	0,3	0,2	s
63	0,0795	0,024	-1,4	-1,2	s
68	0,117			1,2	s
71	0,102	0,024	0,4	0,3	s
73	0,0992			0,1	s
75	0,104	0,021	0,6	0,4	s
80	0,102	0,01	0,7	0,3	s
81	0,118			1,2	s
100	0,0981	0,02	0,1	0,1	s
106	0,0952			-0,1	s
108	0,0703	0,014	-3,3	-1,9	s
110	0,101			0,2	s
116	0,0956	0,021	-0,1	-0,1	s
128	0,0306			-4,6	u
131	0,133	0,031	2,2	2,1	q
137	0,0952	0,014	-0,2	-0,1	s
147	0,098	0,002	0,2	0,1	s
154	0,107	0,053	0,4	0,6	s
161	0,0838			-0,9	s
163	0,098			0,1	s

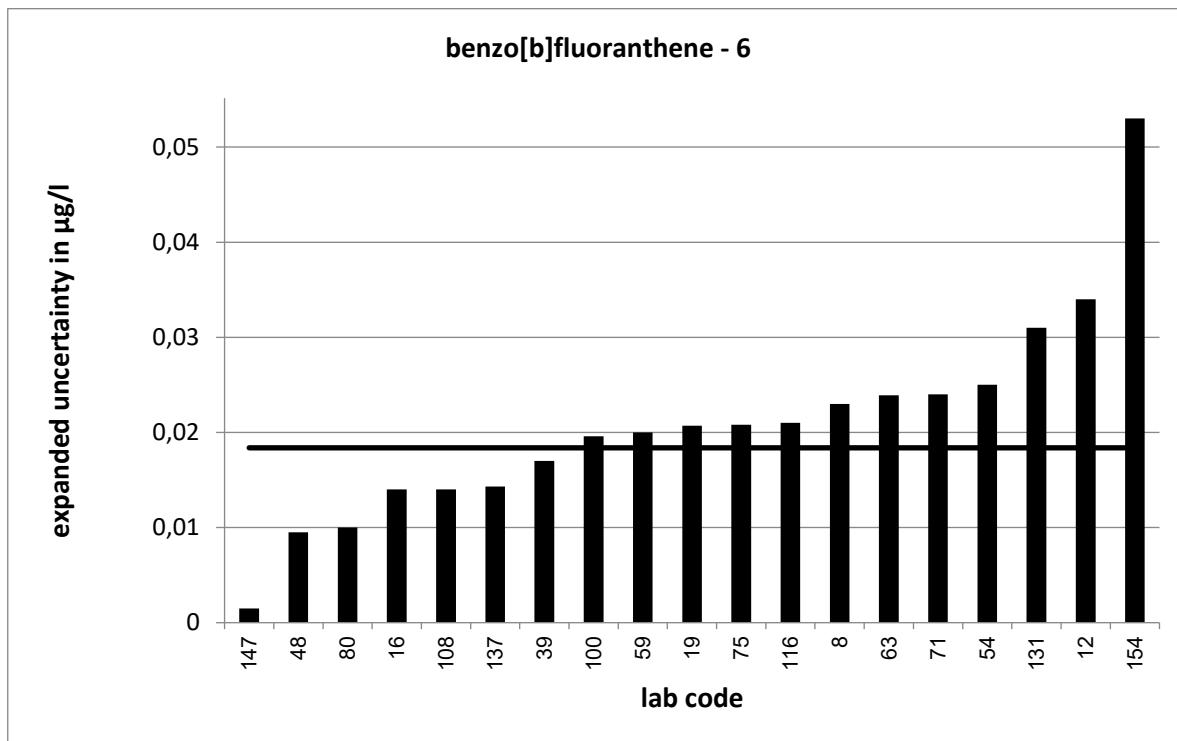
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

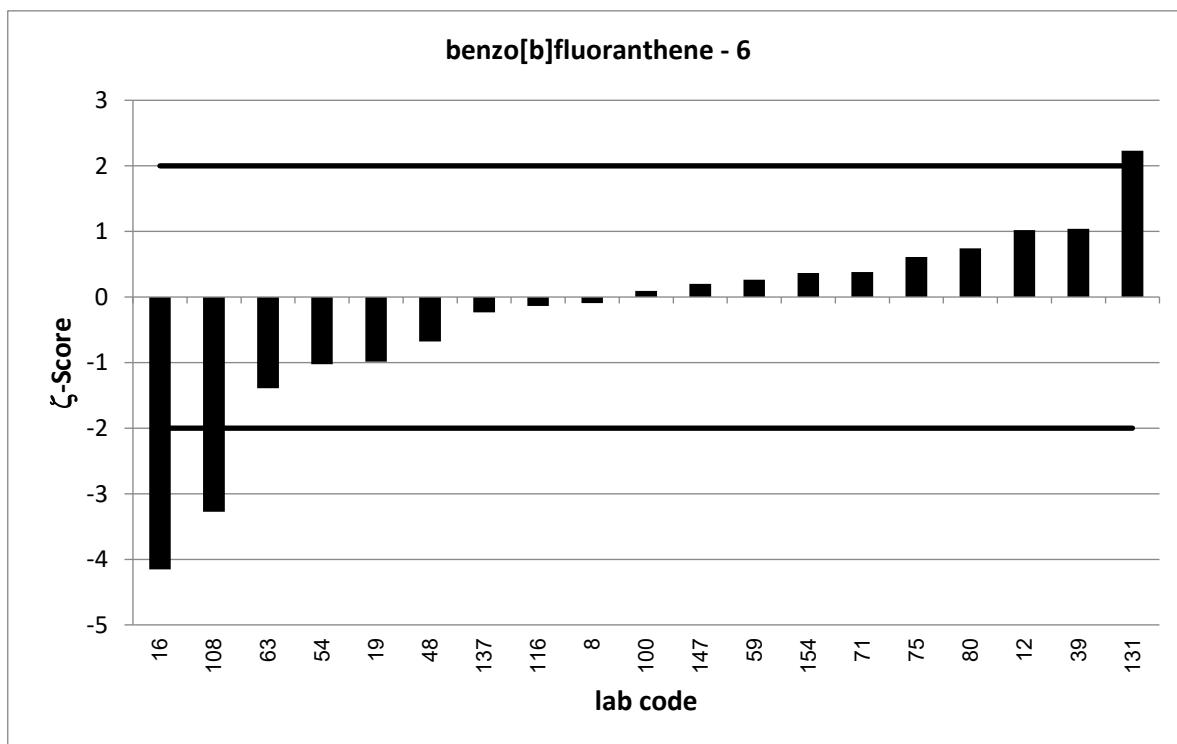


Strongly deviating values are not shown in the diagram.





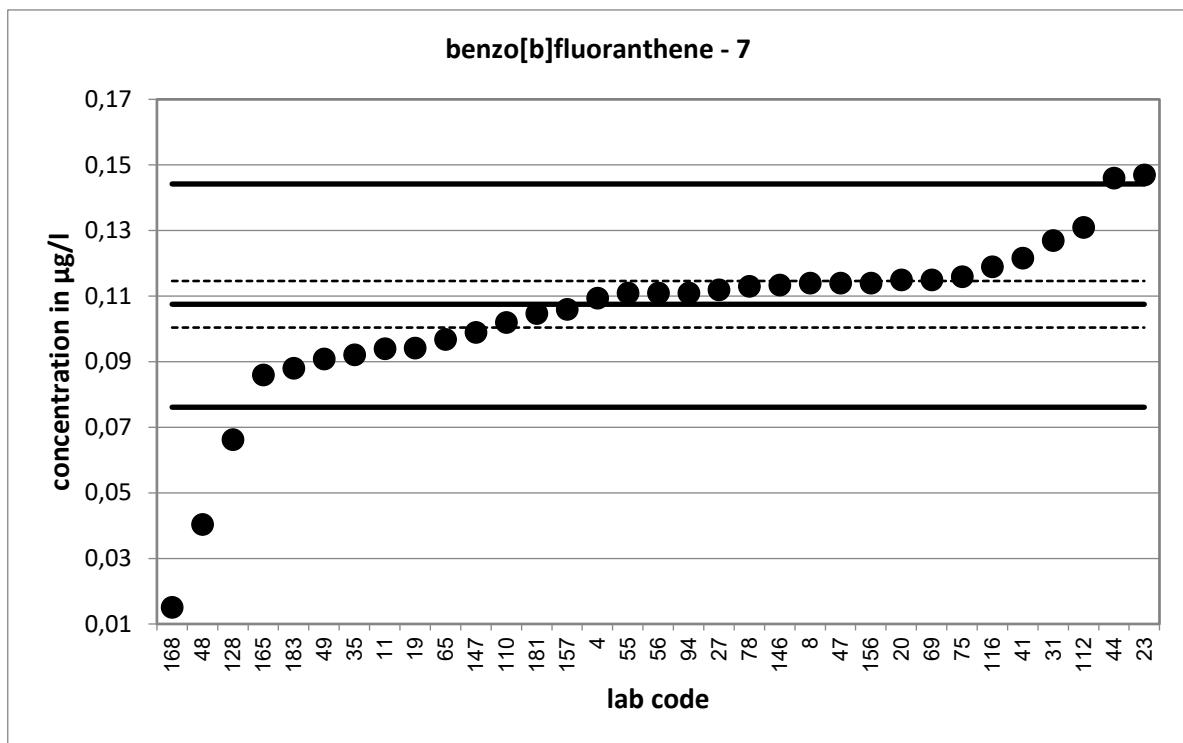
Strongly deviating values are not correctly shown in the diagram.



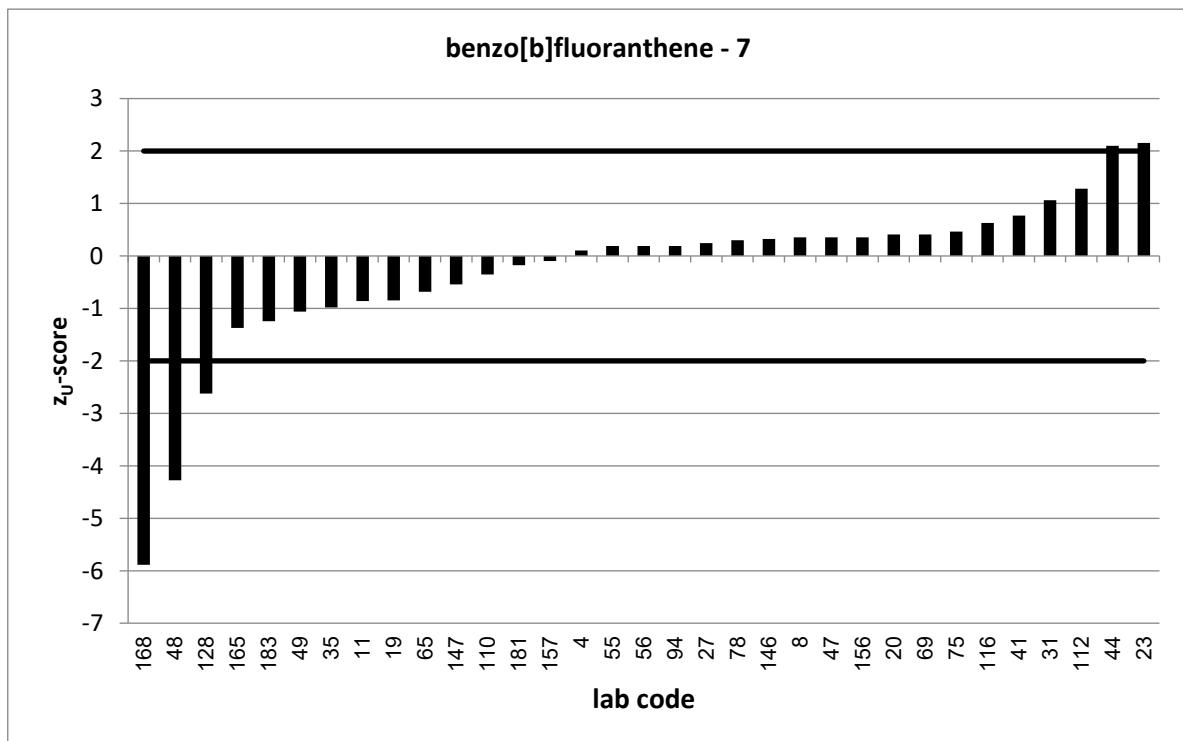
PT 3/24		benzo[b]fluoranthene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,1075 \pm 0,0071$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1442			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,07611			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,1094			0,1	s
8	0,114	0,027	0,5	0,4	s
11	0,094	0,021	-1,2	-0,9	s
19	0,0942	0,023	-1,1	-0,8	s
20	0,115	0,034	0,4	0,4	s
23	0,147			2,2	q
27	0,112			0,2	s
31	0,127	0,045	0,9	1,1	s
35	0,0921	0,028	-1,1	-1,0	s
41	0,1216			0,8	s
44	0,146	0,028	2,7	2,1	q
47	0,114			0,4	s
48	0,0404	0,004	-16,9	-4,3	u
49	0,0909			-1,1	s
55	0,111	0,05	0,1	0,2	s
56	0,111	0,019	0,3	0,2	s
65	0,0968			-0,7	s
69	0,115	0,02	0,7	0,4	s
75	0,116	0,023	0,7	0,5	s
78	0,113			0,3	s
94	0,111			0,2	s
110	0,102			-0,4	s
112	0,131	0,006	5,0	1,3	s
116	0,119	0,026	0,8	0,6	s
128	0,0663			-2,6	q
146	0,1134	0,027	0,4	0,3	s
147	0,099	0,002	-2,3	-0,5	s
156	0,114	0,018	0,7	0,4	s
157	0,106			-0,1	s
165	0,086			-1,4	s
168	0,0151	0,005	-21,2	-5,9	u
181	0,1047	0,009	-0,5	-0,2	s
183	0,088	0,026	-1,4	-1,2	s

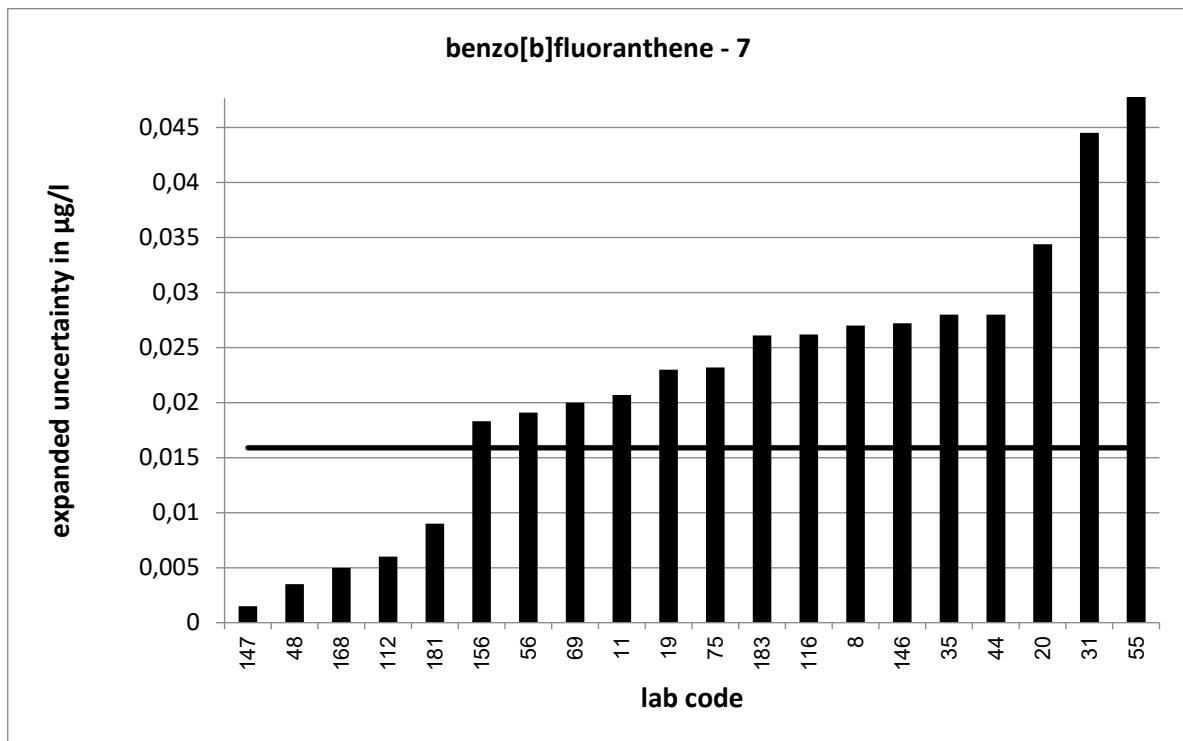
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

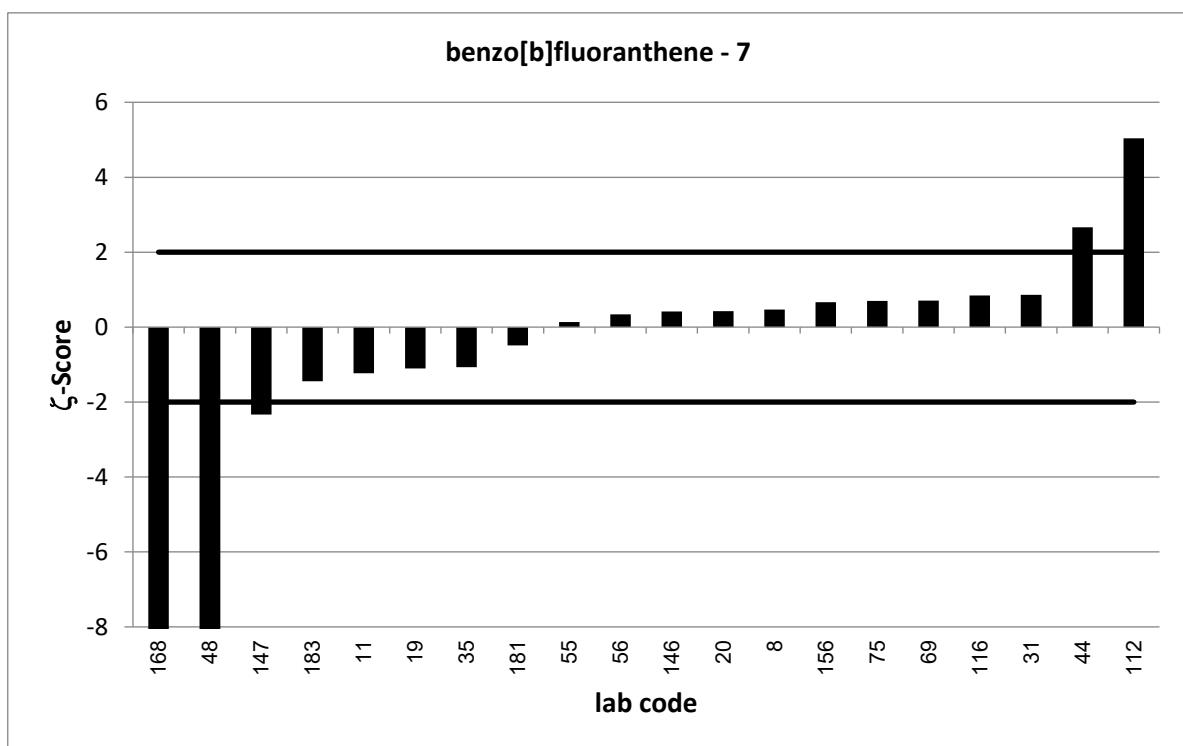


Strongly deviating values are not shown in the diagram.





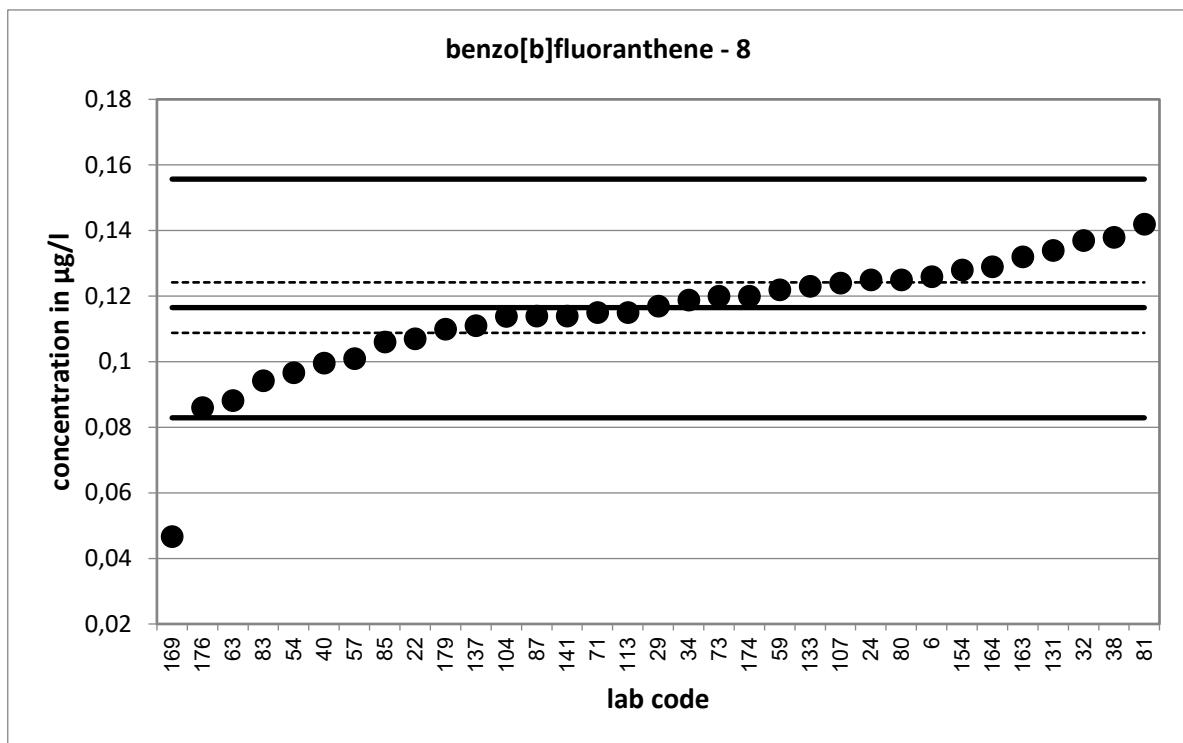
Strongly deviating values are not correctly shown in the diagram.



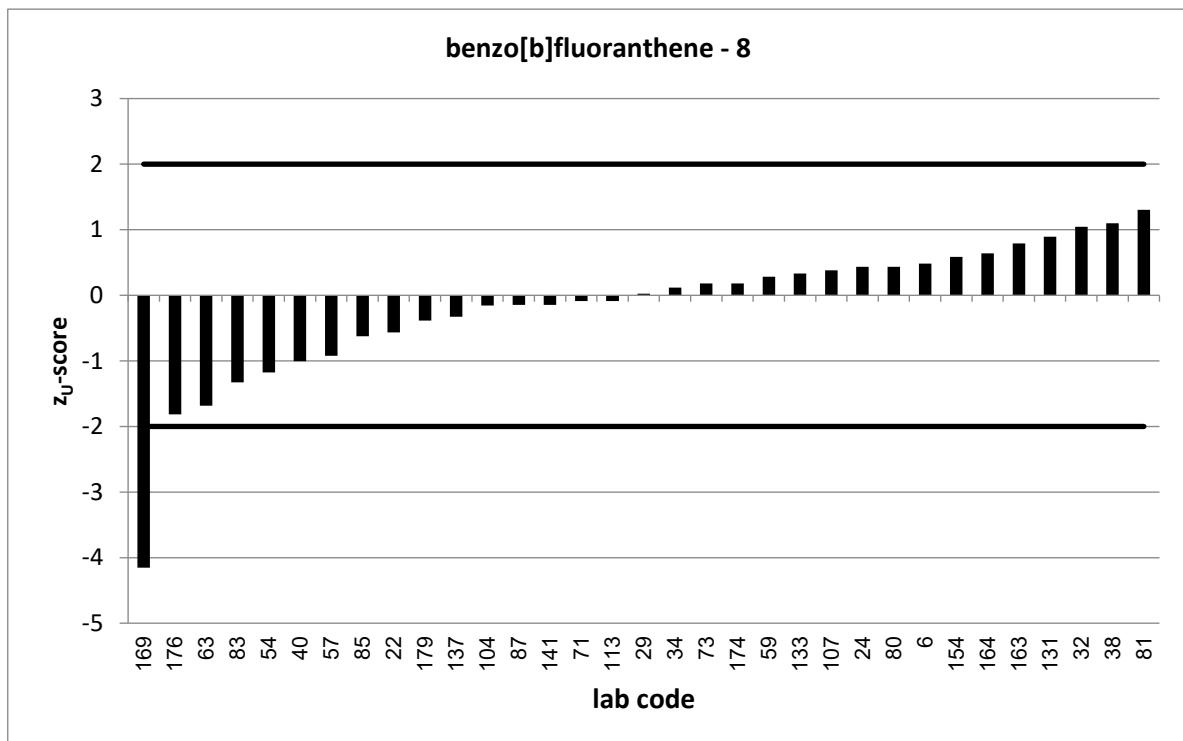
PT 3/24		benzo[b]fluoranthene - 8			
assigned value [ $\mu\text{g/l}$ ]*		$0,1165 \pm 0,0077$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1557			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,08289			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,126	0,049	0,4	0,5	s
22	0,107	0,043	-0,4	-0,6	s
24	0,125			0,4	s
29	0,117	0,027	0,0	0,0	s
32	0,137			1,0	s
34	0,1188	0,02	0,2	0,1	s
38	0,138			1,1	s
40	0,0996			-1,0	s
54	0,0967	0,029	-1,3	-1,2	s
57	0,101			-0,9	s
59	0,122	0,024	0,4	0,3	s
63	0,0882	0,027	-2,1	-1,7	s
71	0,115	0,028	-0,1	-0,1	s
73	0,12			0,2	s
80	0,125	0,02	0,8	0,4	s
81	0,142			1,3	s
83	0,0942			-1,3	s
85	0,106	0,002	-2,7	-0,6	s
87	0,114	0,034	-0,1	-0,1	s
104	0,1139			-0,2	s
107	0,124	0,032	0,5	0,4	s
113	0,115			-0,1	s
131	0,134	0,031	1,1	0,9	s
133	0,123			0,3	s
137	0,111	0,017	-0,6	-0,3	s
141	0,114	0,051	-0,1	-0,1	s
154	0,128	0,064	0,4	0,6	s
163	0,132			0,8	s
164	0,129	0,038	0,6	0,6	s
169	0,0467	0,006	-14,3	-4,2	u
174	0,12			0,2	s
176	0,086			-1,8	s
179	0,11	0,033	-0,4	-0,4	s

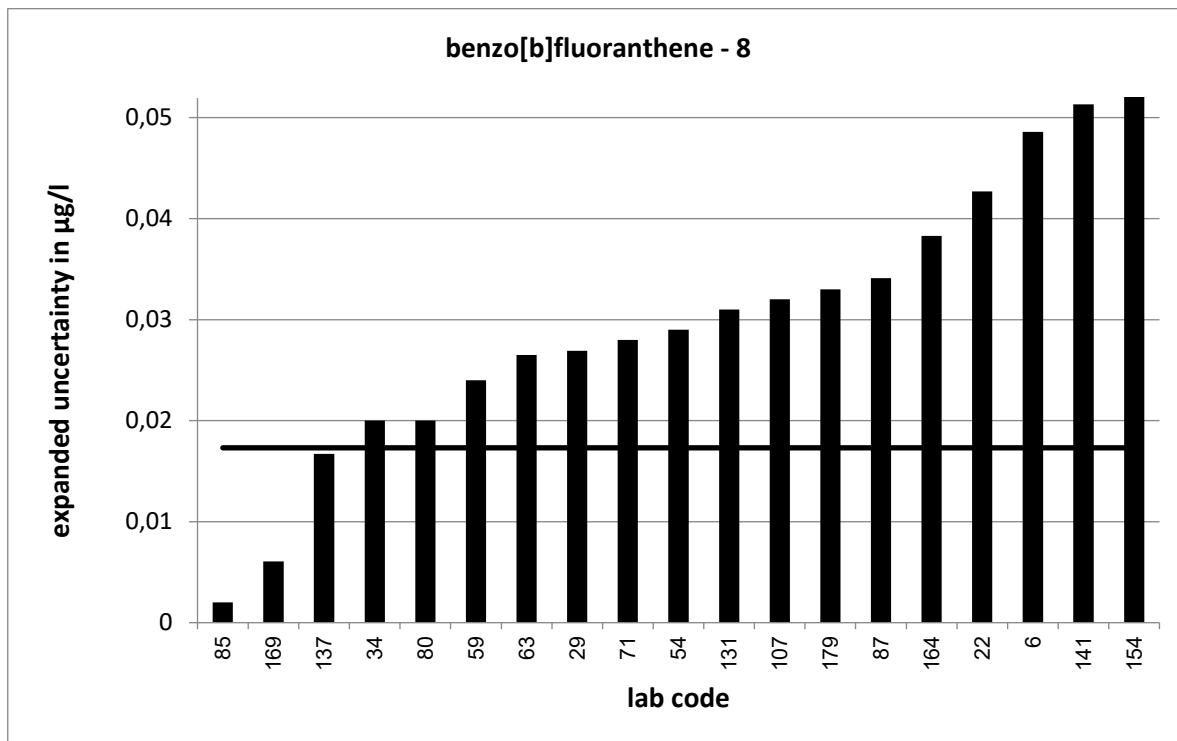
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

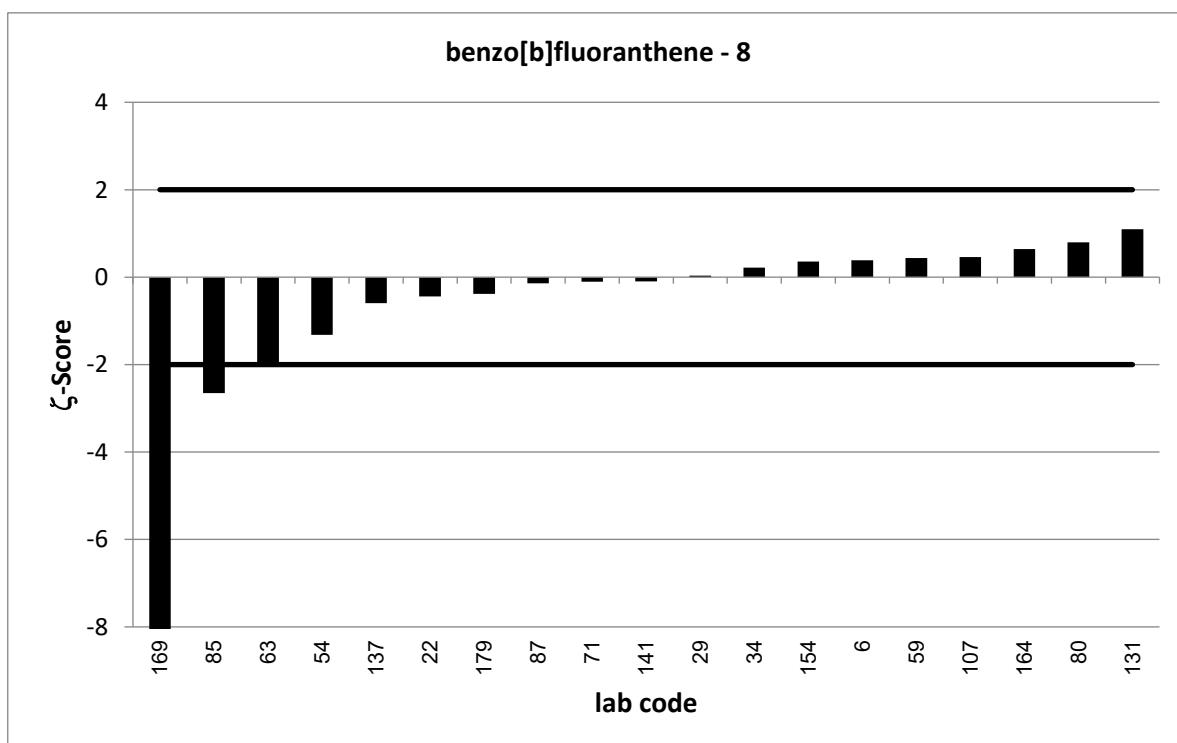


Strongly deviating values are not shown in the diagram.





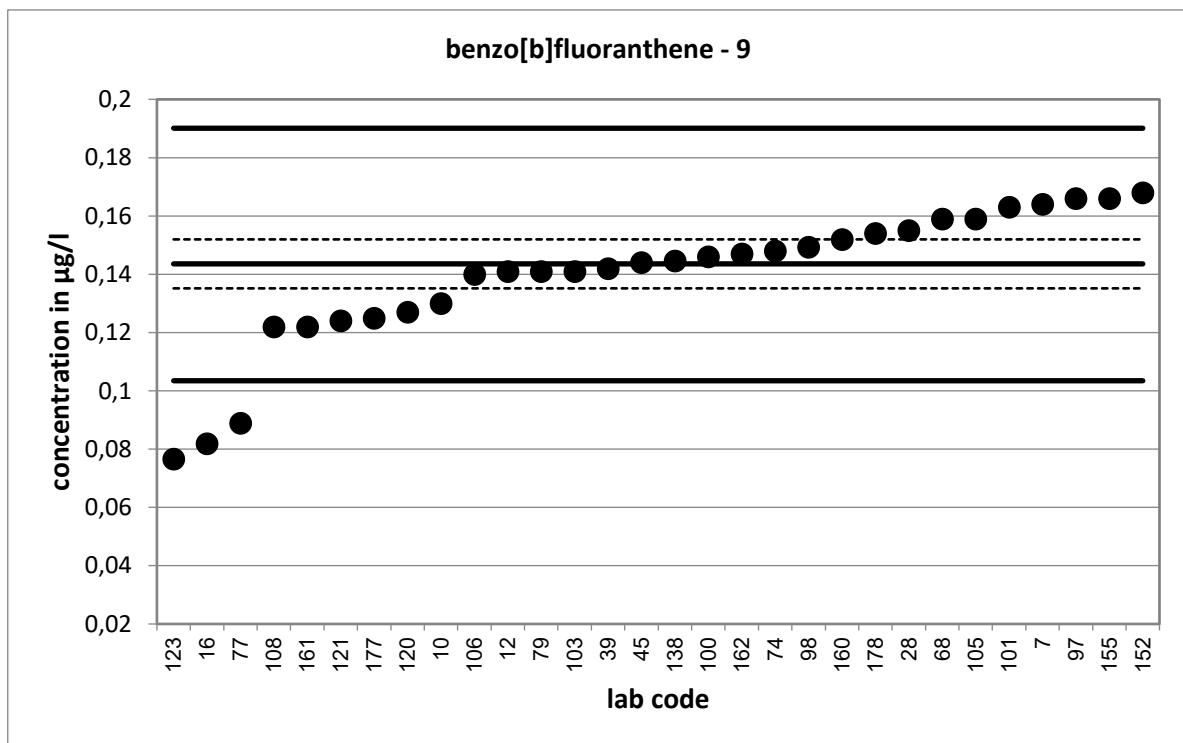
Strongly deviating values are not correctly shown in the diagram.



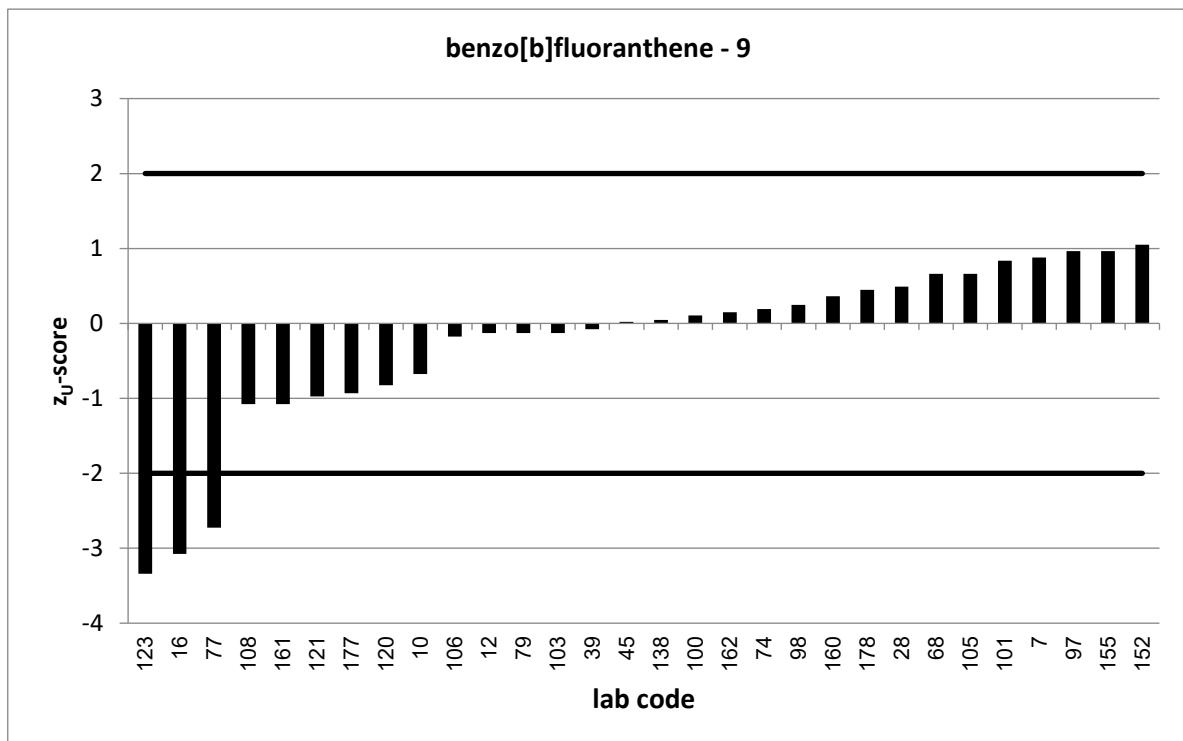
PT 3/24		benzo[b]fluoranthene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,1436 \pm 0,0084$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1901			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1035			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,164	0,019	2,0	0,9	s
10	0,13	0,025	-1,0	-0,7	s
12	0,141	0,042	-0,1	-0,1	s
16	0,0819	0,018	-6,2	-3,1	u
28	0,155	0,064	0,4	0,5	s
39	0,142	0,023	-0,1	-0,1	s
45	0,144			0,0	s
68	0,159			0,7	s
74	0,148	0,043	0,2	0,2	s
77	0,0889	0,031	-3,4	-2,7	q
79	0,141			-0,1	s
97	0,166	0,02	2,0	1,0	s
98	0,1493			0,2	s
100	0,146	0,029	0,2	0,1	s
101	0,163	0,049	0,8	0,8	s
103	0,141	0,022	-0,2	-0,1	s
105	0,159			0,7	s
106	0,14			-0,2	s
108	0,122	0,024	-1,7	-1,1	s
120	0,127	0,036	-0,9	-0,8	s
121	0,124	0,023	-1,6	-1,0	s
123	0,0766			-3,3	u
138	0,1446			0,0	s
152	0,168	0,022	2,1	1,1	s
155	0,166			1,0	s
160	0,152			0,4	s
161	0,122			-1,1	s
162	0,147	0,044	0,2	0,1	s
177	0,1249			-0,9	s
178	0,154			0,4	s

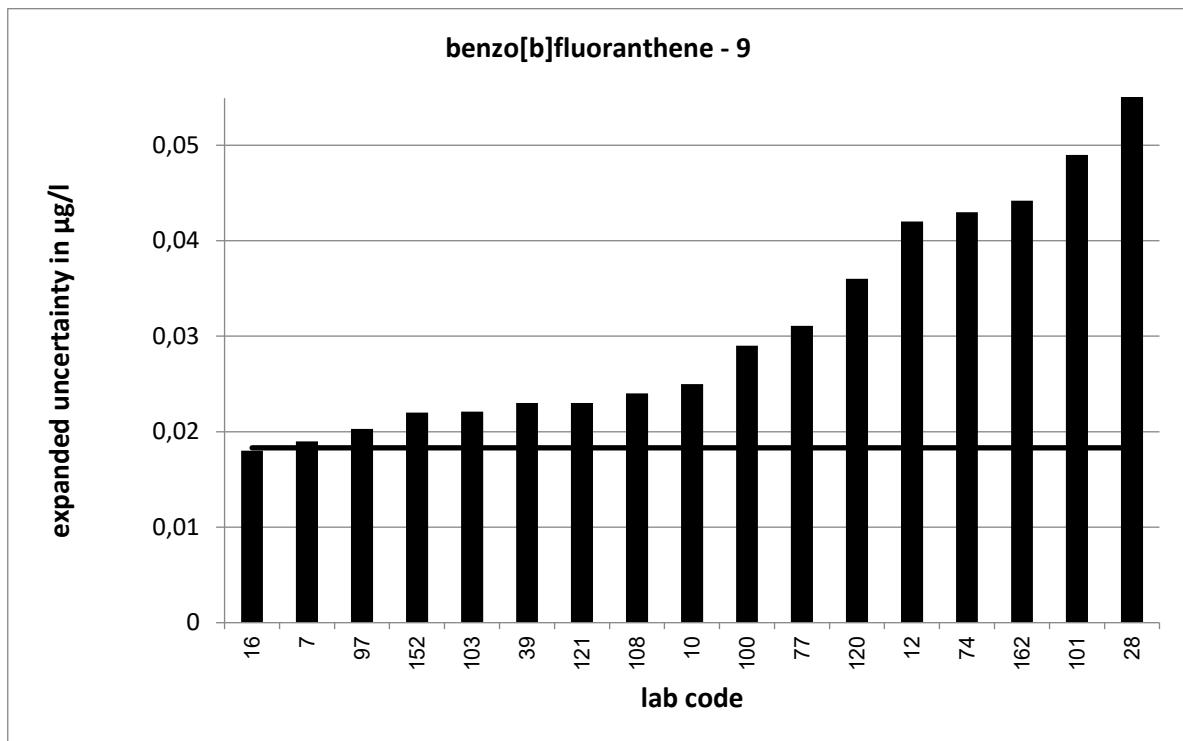
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

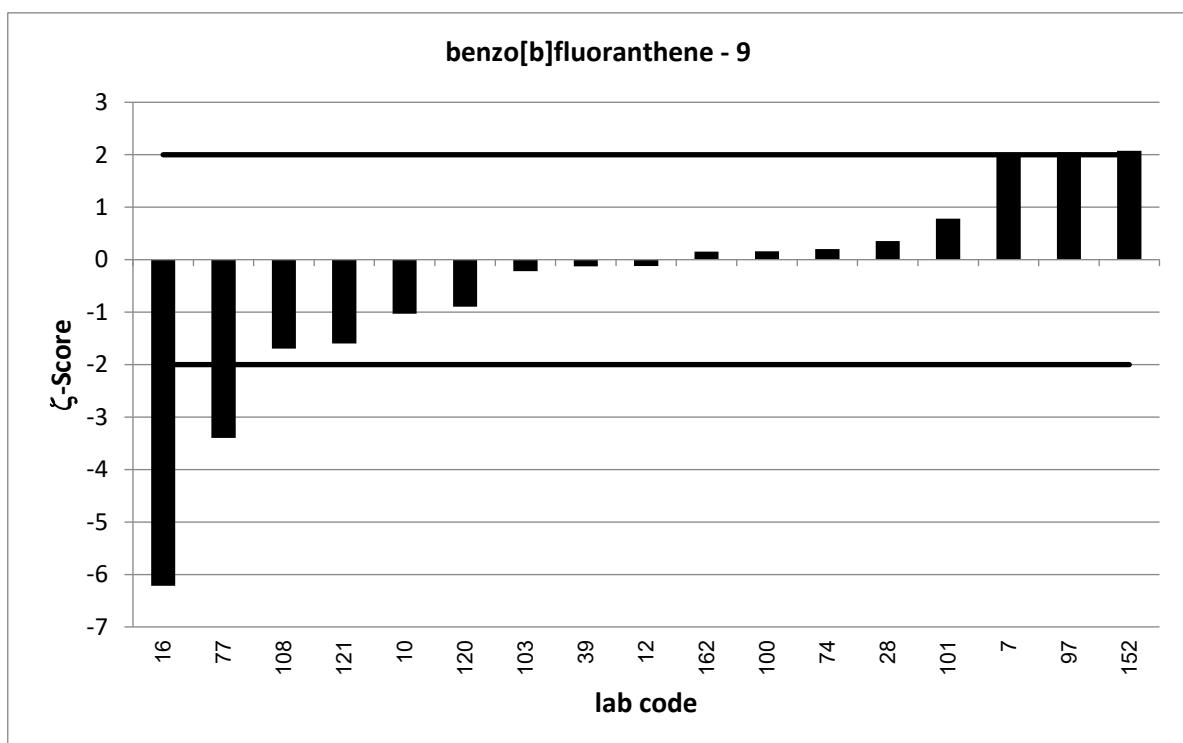


Strongly deviating values are not shown in the diagram.





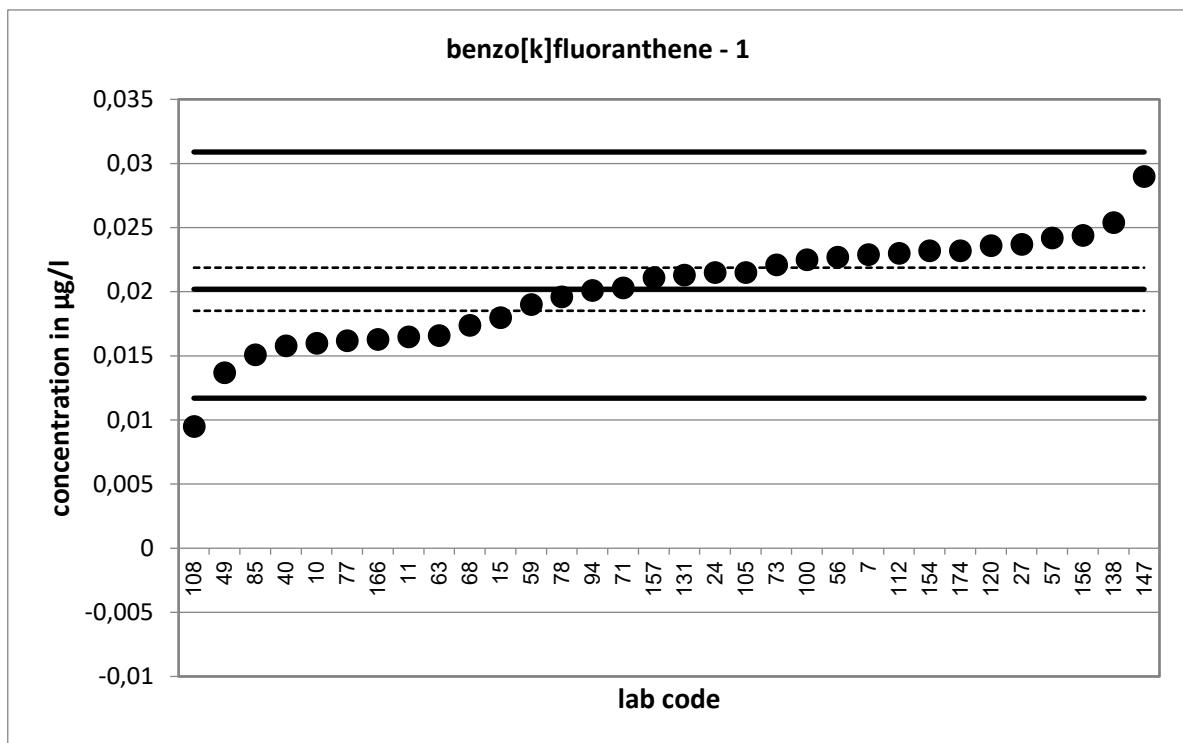
Strongly deviating values are not correctly shown in the diagram.



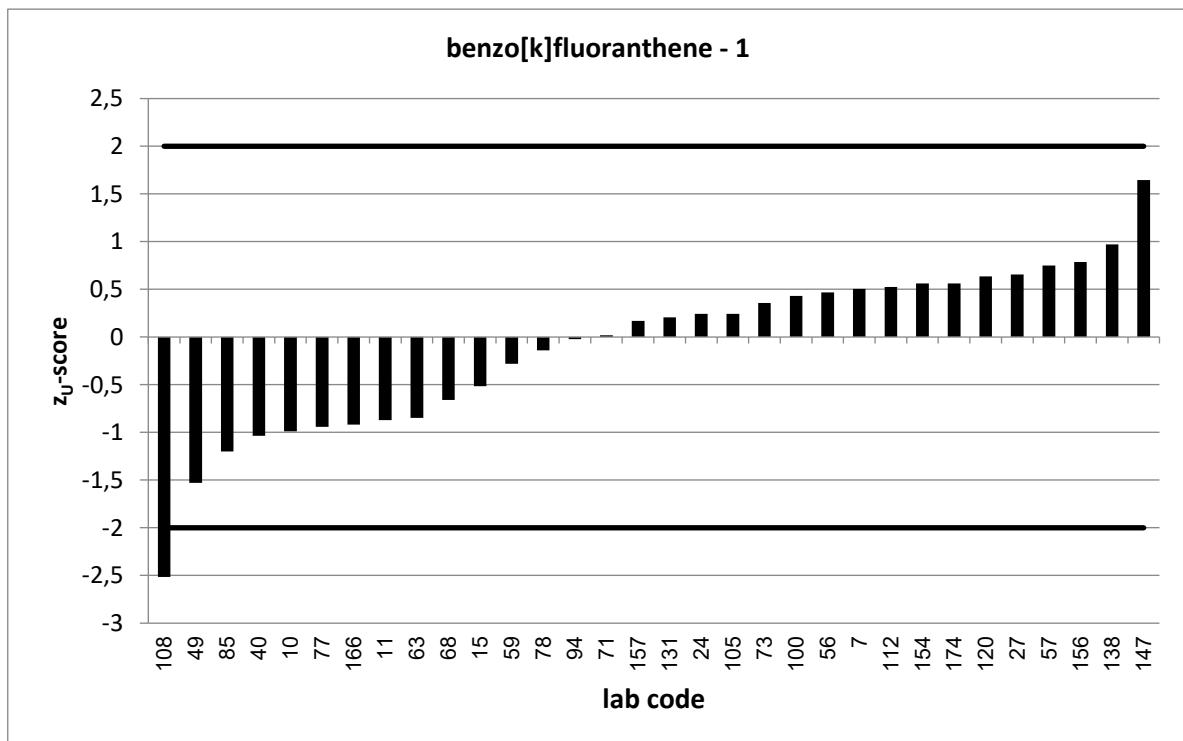
PT 3/24		benzo[k]fluoranthene - 1			
assigned value [ $\mu\text{g/l}$ ]*		0,0202	$\pm 0,00168$		
upper tolerance limit [ $\mu\text{g/l}$ ]		0,0309			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0117			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0229	0,003	1,5	0,5	s
10	0,016	0,003	-2,4	-1,0	s
11	0,0165	0,004	-1,9	-0,9	s
15	0,018			-0,5	s
24	0,0215			0,2	s
27	0,0237			0,7	s
40	0,0158			-1,0	s
49	0,0137			-1,5	s
56	0,0227	0,004	1,2	0,5	s
57	0,0242			0,7	s
59	0,019	0,004	-0,6	-0,3	s
63	0,0166	0,005	-1,4	-0,8	s
68	0,0174			-0,7	s
71	0,0203	0,005	0,0	0,0	s
73	0,0221			0,4	s
77	0,0162	0,006	-1,4	-0,9	s
78	0,0196			-0,1	s
85	0,0151			-1,2	s
94	0,0201			0,0	s
100	0,0225	0,005	1,0	0,4	s
105	0,0215			0,2	s
108	0,00951	0,002	-8,2	-2,5	q
112	0,023	0,001	2,9	0,5	s
120	0,0236	0,004	1,6	0,6	s
131	0,0213	0,006	0,4	0,2	s
138	0,0254			1,0	s
147	0,029	5E-04	10,0	1,6	s
154	0,0232	0,012	0,5	0,6	s
156	0,0244	0,002	3,2	0,8	s
157	0,0211			0,2	s
166	0,0163			-0,9	s
174	0,0232			0,6	s

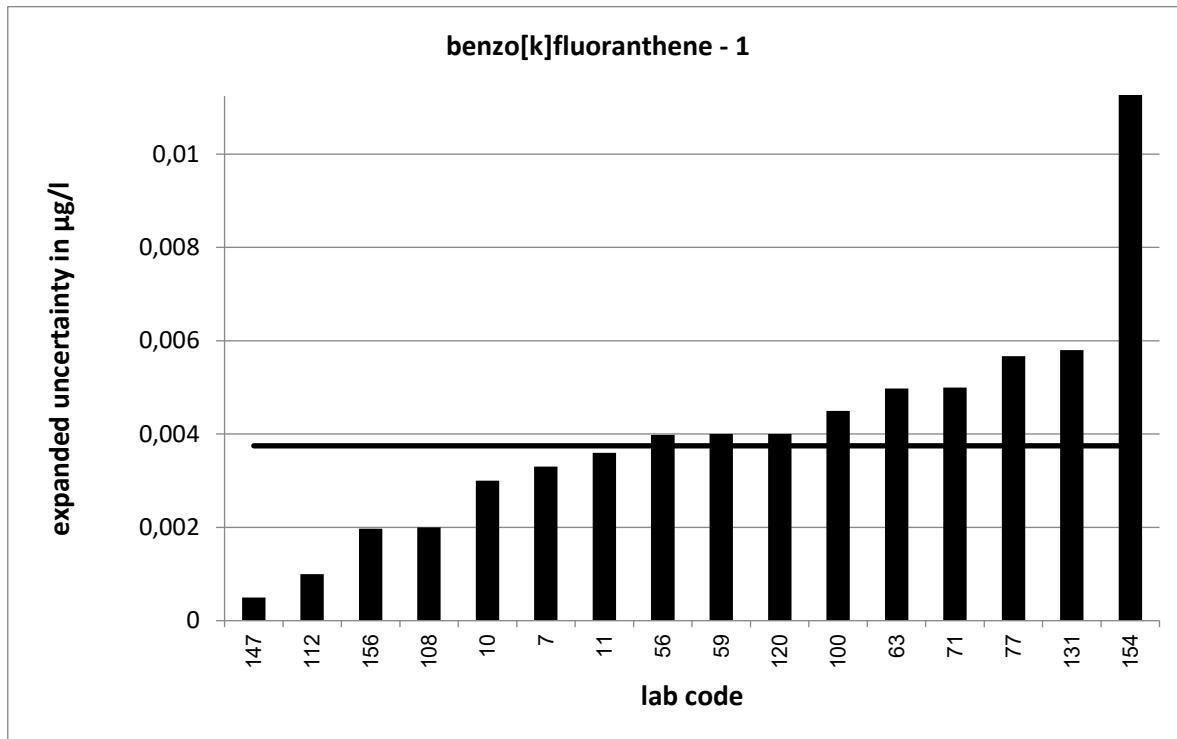
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

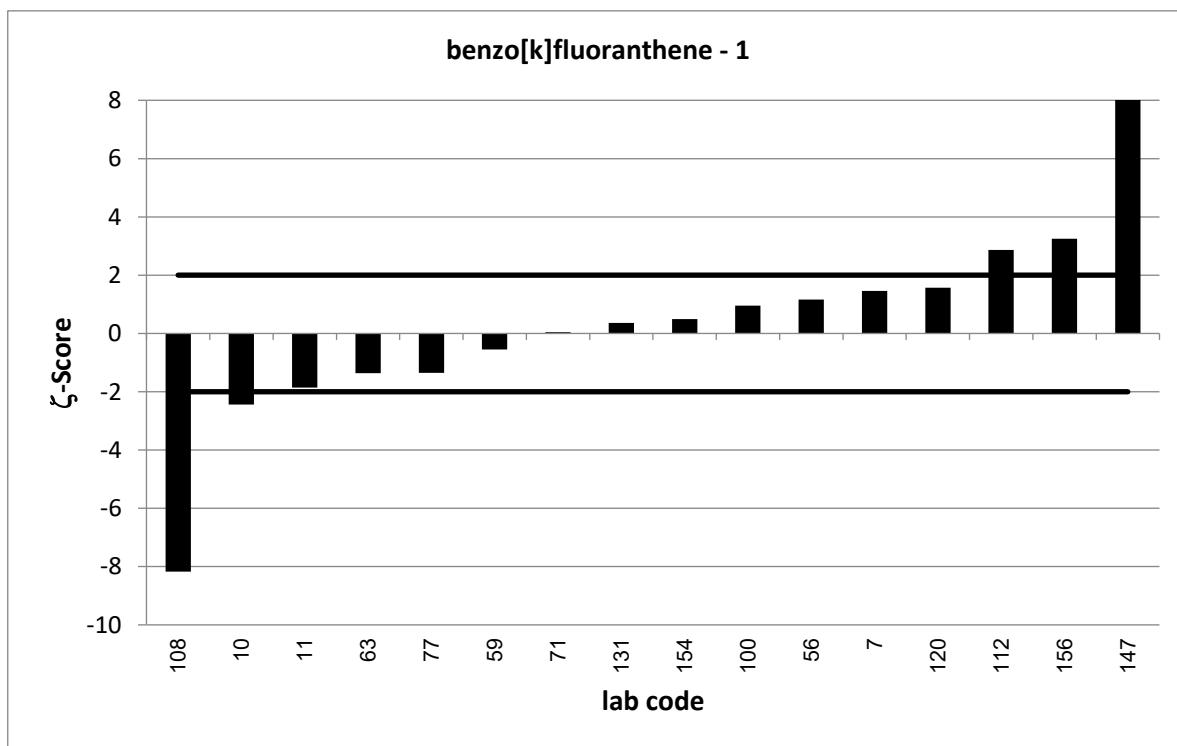


Strongly deviating values are not shown in the diagram.





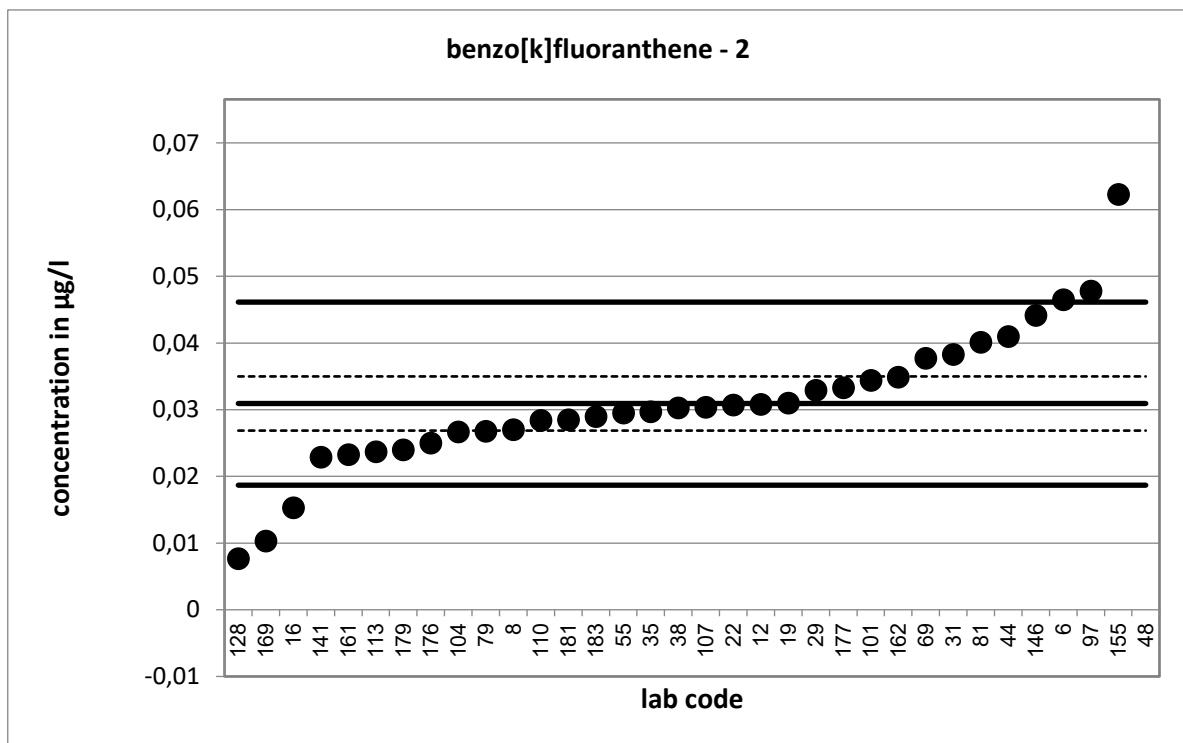
Strongly deviating values are not correctly shown in the diagram.



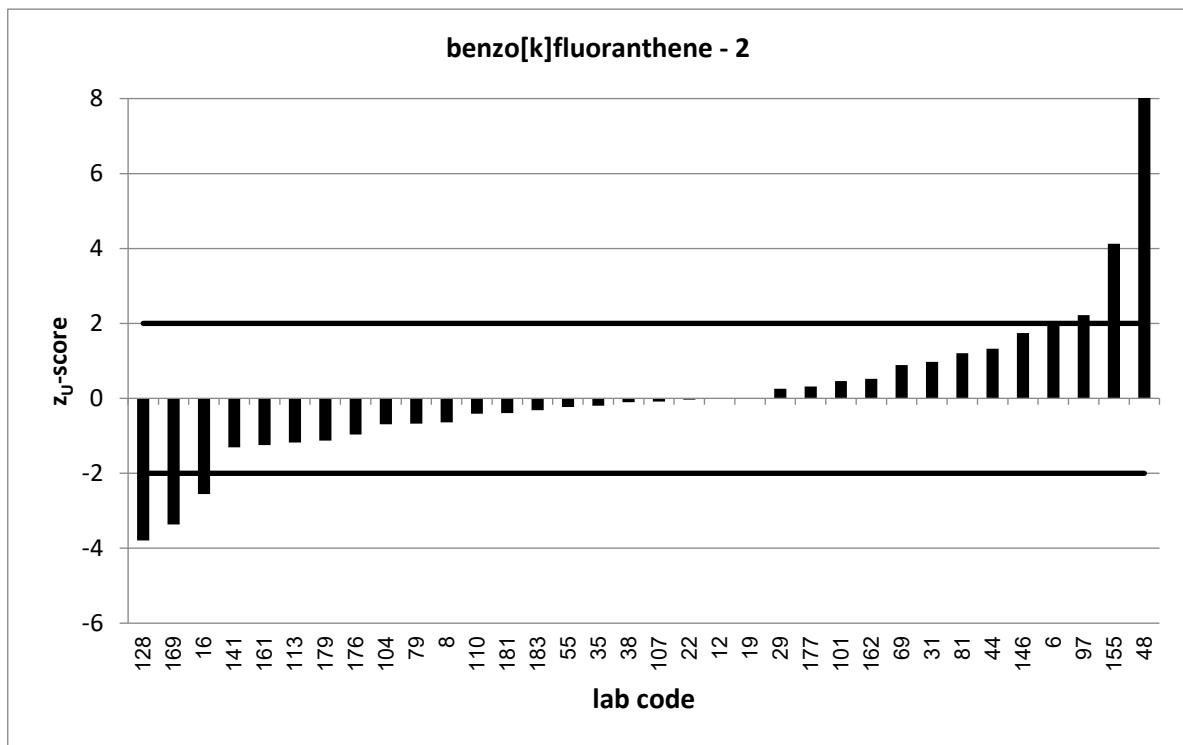
PT 3/24		benzo[k]fluoranthene - 2			
assigned value [ $\mu\text{g/l}$ ]*		$0,03093 \pm 0,00406$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,04613			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,01868			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0465	0,018	1,7	2,0	s
8	0,027	0,006	-1,1	-0,6	s
12	0,0308	0,009	0,0	0,0	s
16	0,0153	0,005	-5,0	-2,6	q
19	0,031	0,008	0,0	0,0	s
22	0,0307	0,012	0,0	0,0	s
29	0,0329	0,007	0,5	0,3	s
31	0,0383	0,013	1,1	1,0	s
35	0,0297	0,009	-0,2	-0,2	s
38	0,0303			-0,1	s
44	0,041	0,011	1,7	1,3	s
48	0,117	0,012	13,7	11,3	u
55	0,0295	0,013	-0,2	-0,2	s
69	0,0377	0,007	1,7	0,9	s
79	0,0268			-0,7	s
81	0,0401			1,2	s
97	0,0478			2,2	q
101	0,0344	0,01	0,6	0,5	s
104	0,0267			-0,7	s
107	0,0304	0,008	-0,1	-0,1	s
110	0,0284			-0,4	s
113	0,0237			-1,2	s
128	0,00769			-3,8	u
141	0,0229	0,01	-1,4	-1,3	s
146	0,04417	0,01	2,5	1,7	s
155	0,0623			4,1	u
161	0,0233			-1,2	s
162	0,0349	0,011	0,7	0,5	s
169	0,0103	0,003	-8,4	-3,4	u
176	0,025			-1,0	s
177	0,0333			0,3	s
179	0,024	0,007	-1,7	-1,1	s
181	0,0285	0,003	-1,0	-0,4	s
183	0,029	0,009	-0,4	-0,3	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

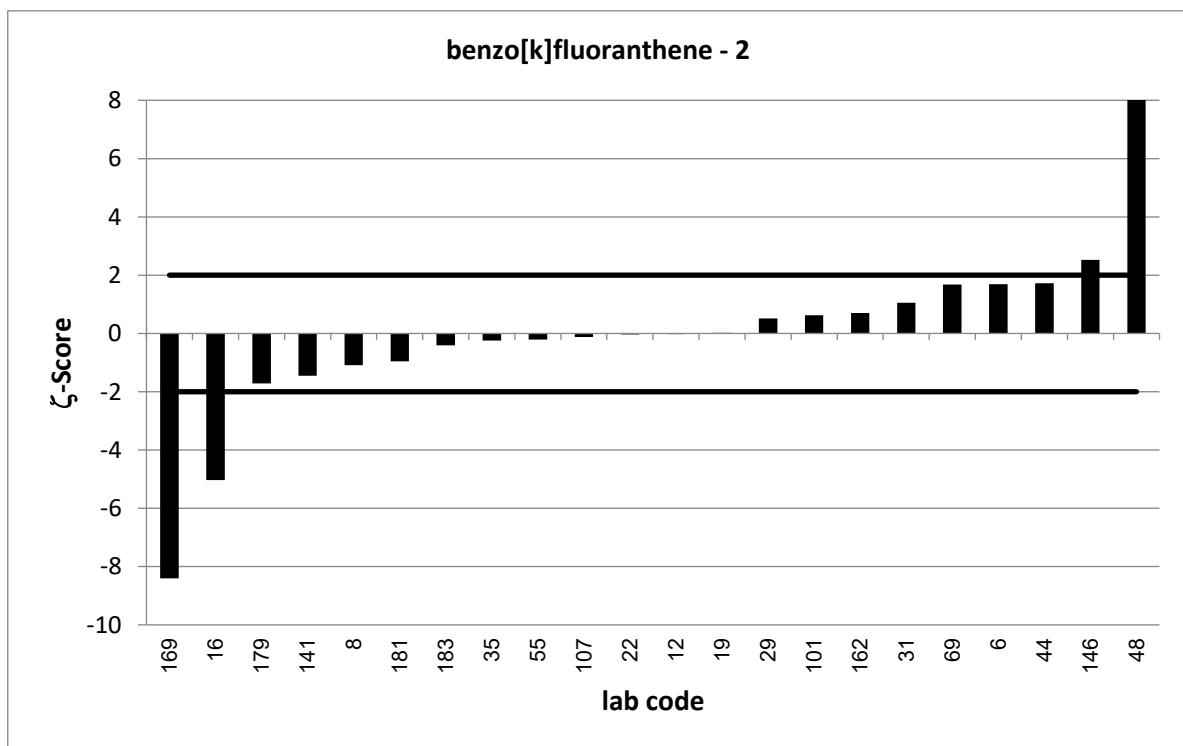
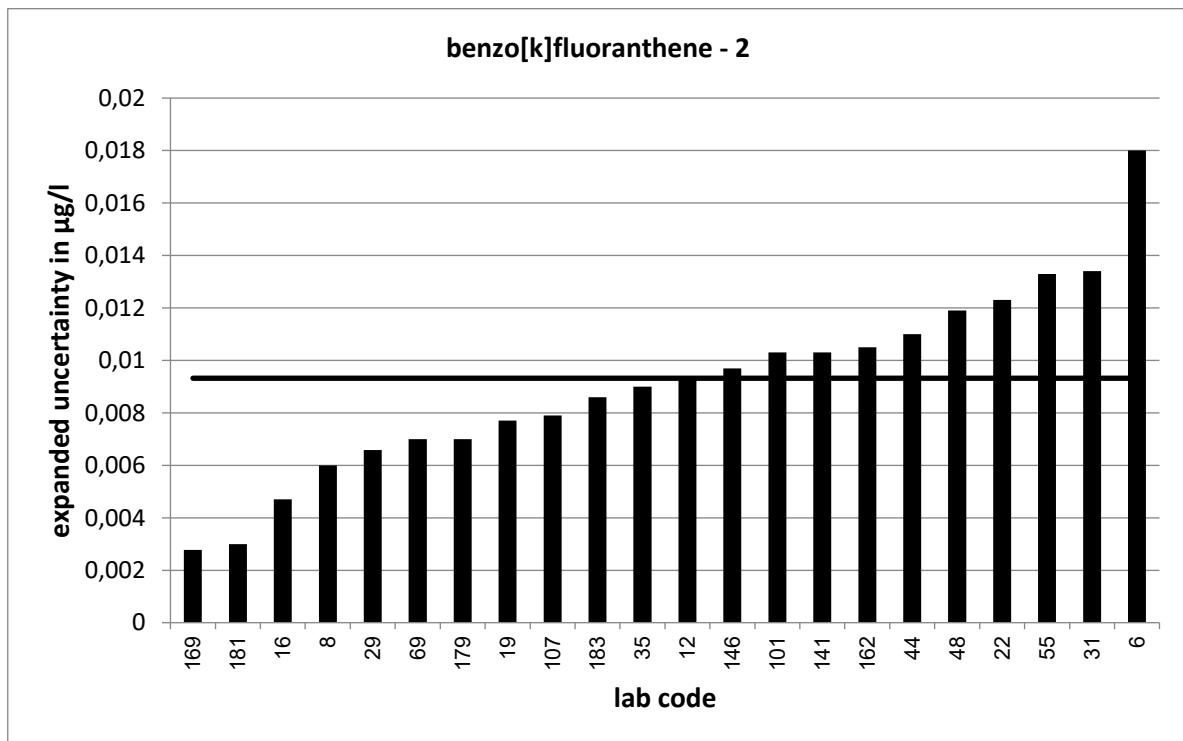
\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.



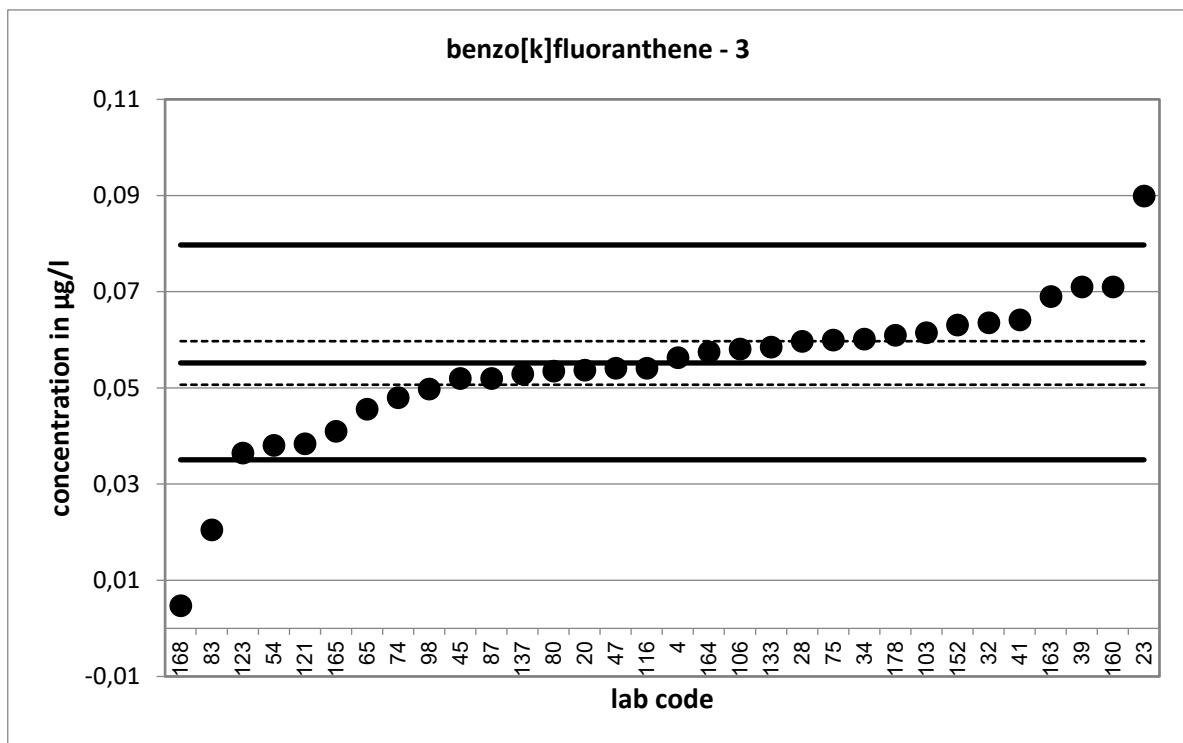
Strongly deviating values are not correctly shown in the diagram.



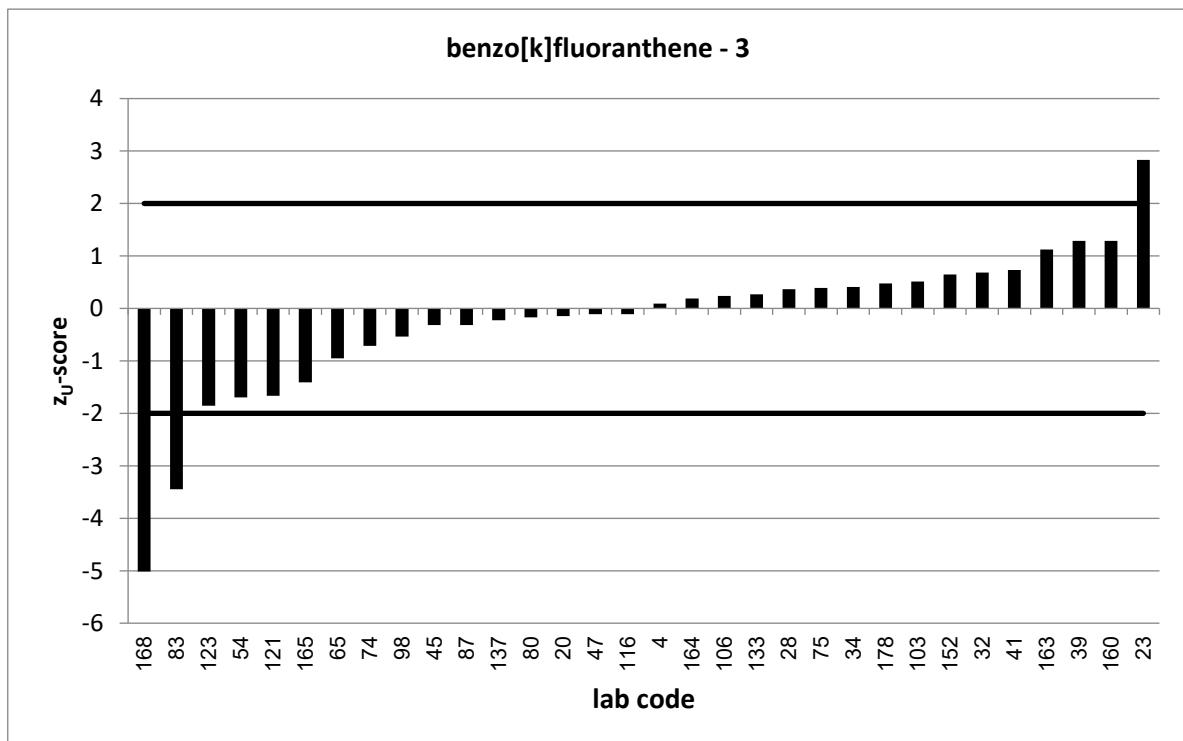
PT 3/24		benzo[k]fluoranthene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,05519 \pm 0,00453$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,07973			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,03506			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0563			0,1	s
20	0,0537	0,016	-0,2	-0,1	s
23	0,0899			2,8	q
28	0,0597	0,017	0,5	0,4	s
32	0,0636			0,7	s
34	0,0602	0,009	1,0	0,4	s
39	0,071	0,011	2,7	1,3	s
41	0,0642			0,7	s
45	0,052			-0,3	s
47	0,0541			-0,1	s
54	0,0381	0,011	-2,9	-1,7	s
65	0,0456			-1,0	s
74	0,048	0,013	-1,0	-0,7	s
75	0,06	0,012	0,8	0,4	s
80	0,0535	0,01	-0,3	-0,2	s
83	0,0205			-3,4	u
87	0,052	0,016	-0,4	-0,3	s
98	0,0498			-0,5	s
103	0,0615	0,009	1,2	0,5	s
106	0,0581			0,2	s
116	0,0541	0,012	-0,2	-0,1	s
121	0,0384	0,006	-4,4	-1,7	s
123	0,0365			-1,9	s
133	0,0585			0,3	s
137	0,0529	0,008	-0,5	-0,2	s
152	0,0631	0,018	0,9	0,6	s
160	0,071			1,3	s
163	0,069			1,1	s
164	0,0575	0,017	0,3	0,2	s
165	0,041			-1,4	s
168	0,00473	0,001	-21,8	-5,0	u
178	0,061			0,5	s

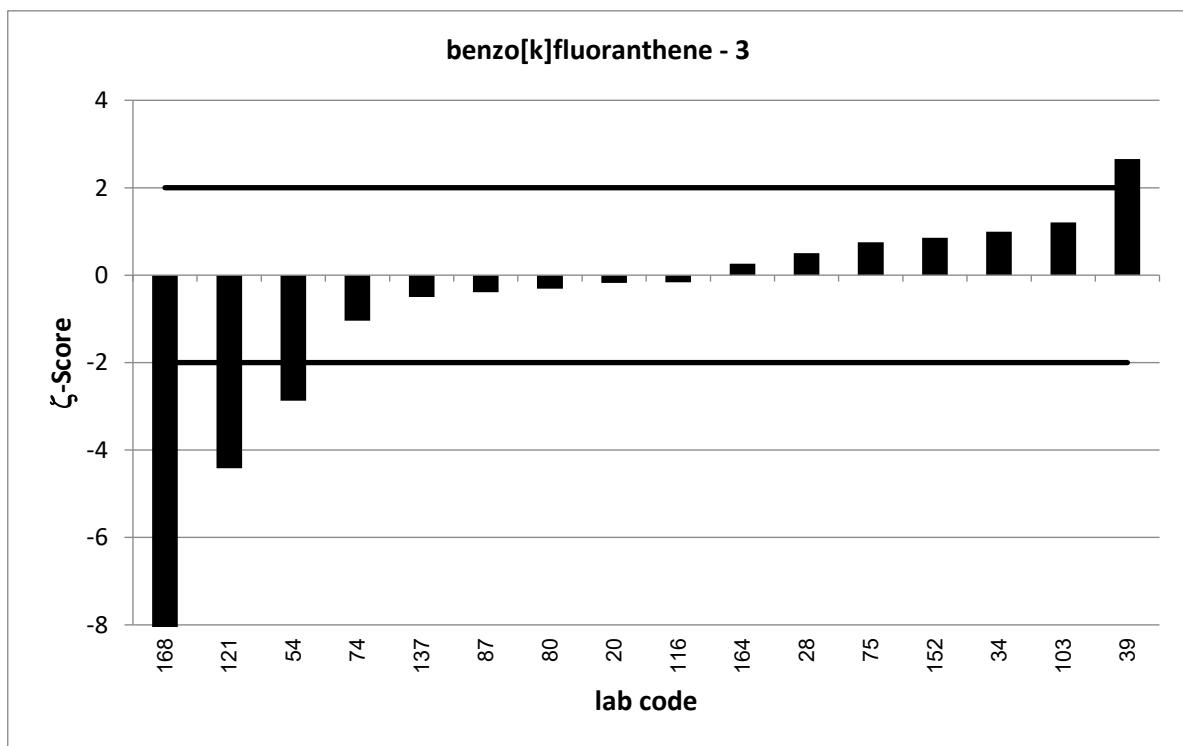
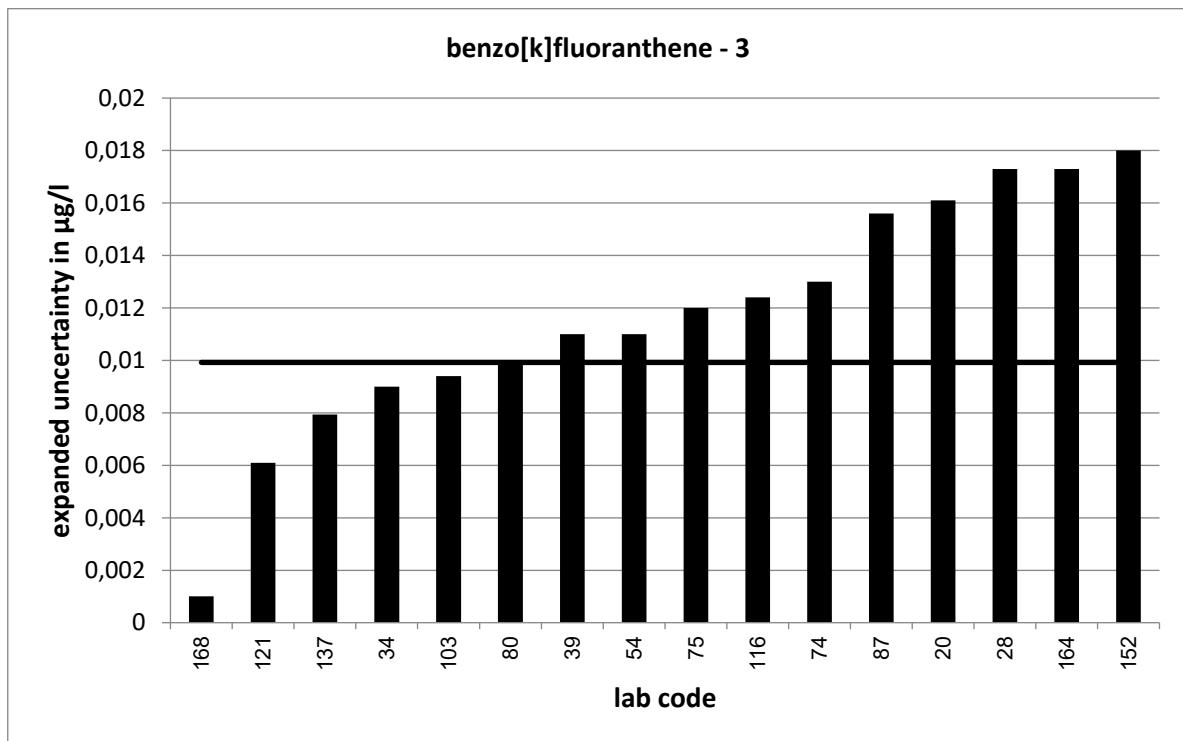
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

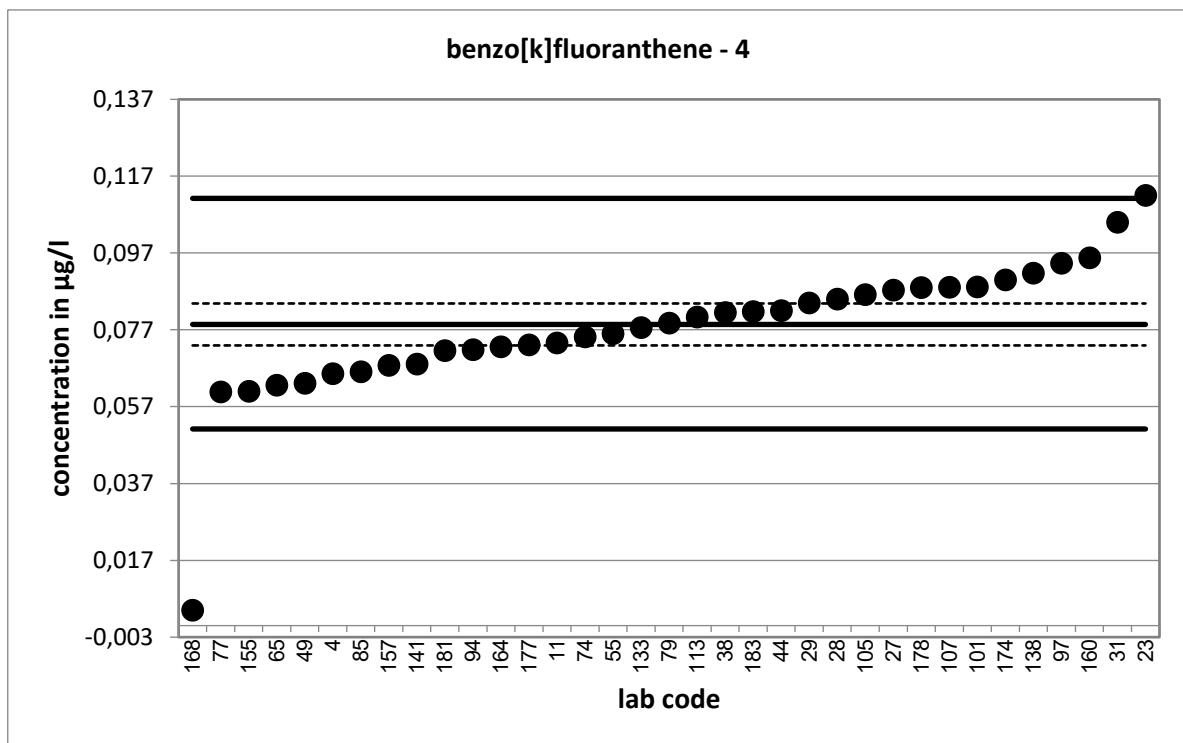




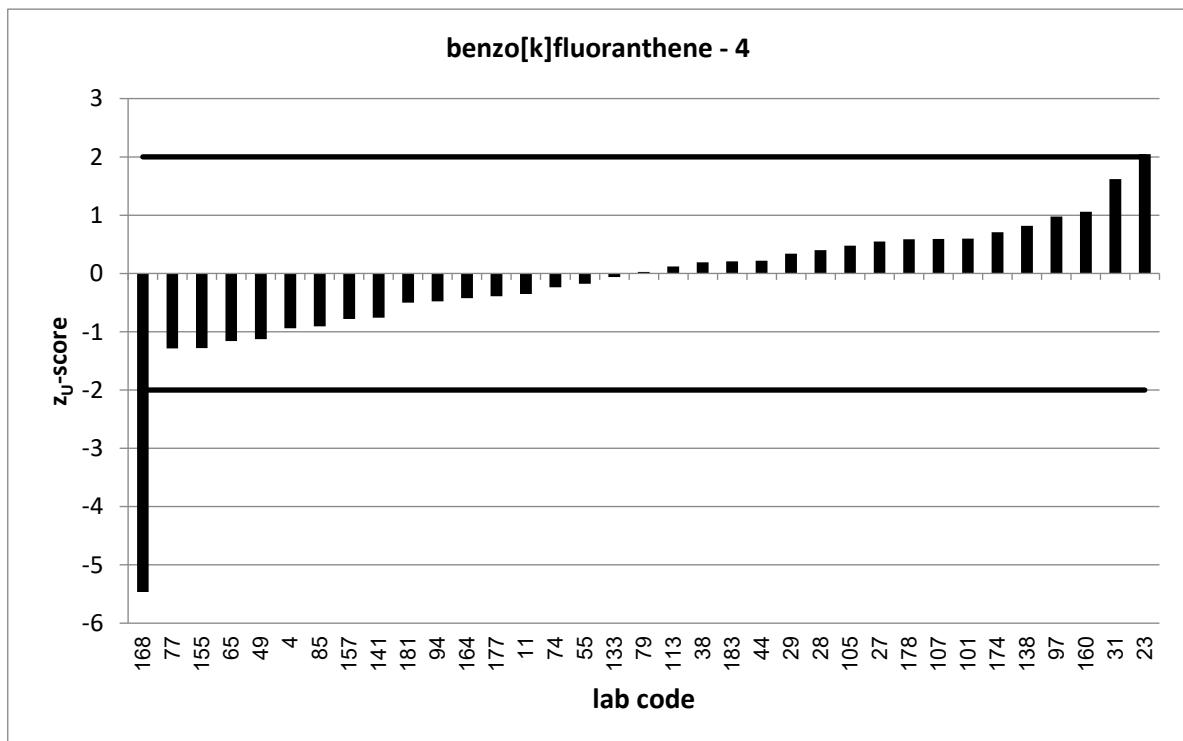
PT 3/24		benzo[k]fluoranthene - 4			
assigned value [ $\mu\text{g/l}$ ]*		$0,07841 \pm 0,00546$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1112			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0512			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0656			-0,9	s
11	0,0736	0,016	-0,6	-0,4	s
23	0,112			2,0	s
27	0,0874			0,5	s
28	0,085	0,025	0,5	0,4	s
29	0,084	0,017	0,6	0,3	s
31	0,105	0,037	1,4	1,6	s
38	0,0815			0,2	s
44	0,082	0,016	0,4	0,2	s
49	0,0631			-1,1	s
55	0,076	0,034	-0,1	-0,2	s
65	0,0626			-1,2	s
74	0,0752	0,02	-0,3	-0,2	s
77	0,0609	0,021	-1,6	-1,3	s
79	0,0788			0,0	s
85	0,0661			-0,9	s
94	0,0719			-0,5	s
97	0,0944			1,0	s
101	0,0882	0,027	0,7	0,6	s
105	0,0862			0,5	s
107	0,0881	0,023	0,8	0,6	s
113	0,0804			0,1	s
133	0,0776			-0,1	s
138	0,0918			0,8	s
141	0,0681	0,031	-0,7	-0,8	s
155	0,061			-1,3	s
157	0,0678			-0,8	s
160	0,0958			1,1	s
164	0,0726	0,022	-0,5	-0,4	s
168	0,00408	0,002	-26,3	-5,5	u
174	0,09			0,7	s
177	0,0731			-0,4	s
178	0,088			0,6	s
181	0,0716	0,007	-1,5	-0,5	s
183	0,0818	0,024	0,3	0,2	s

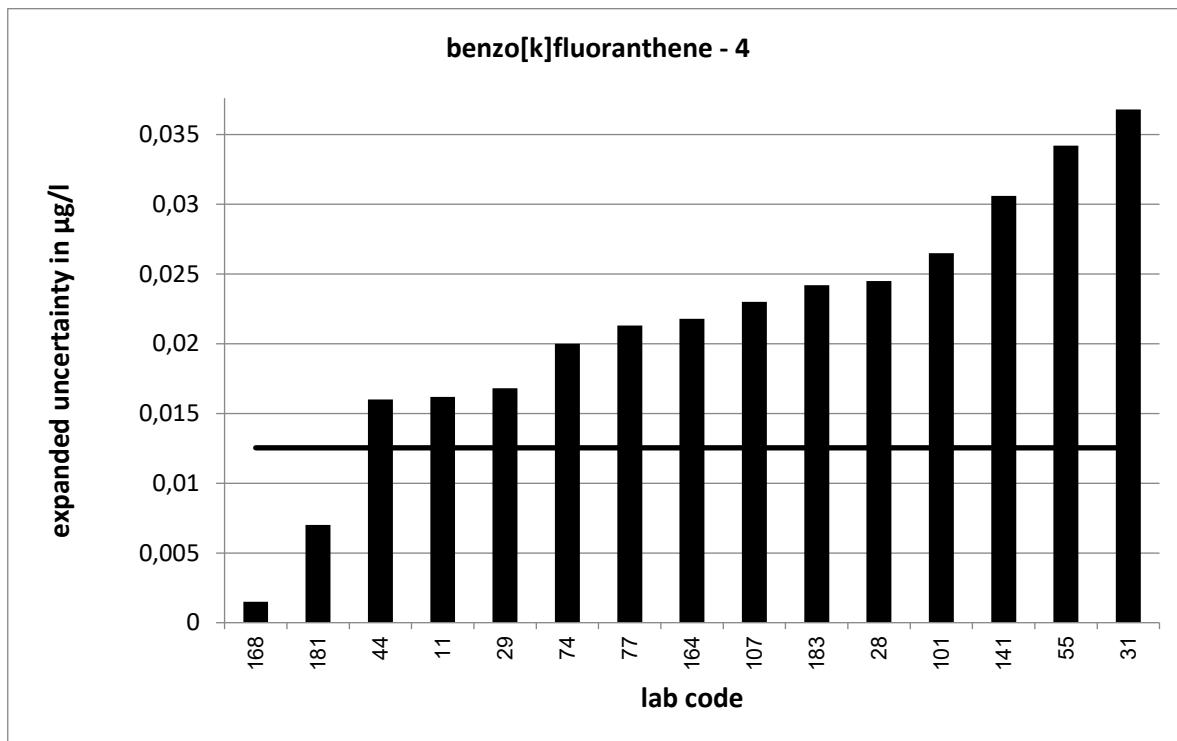
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

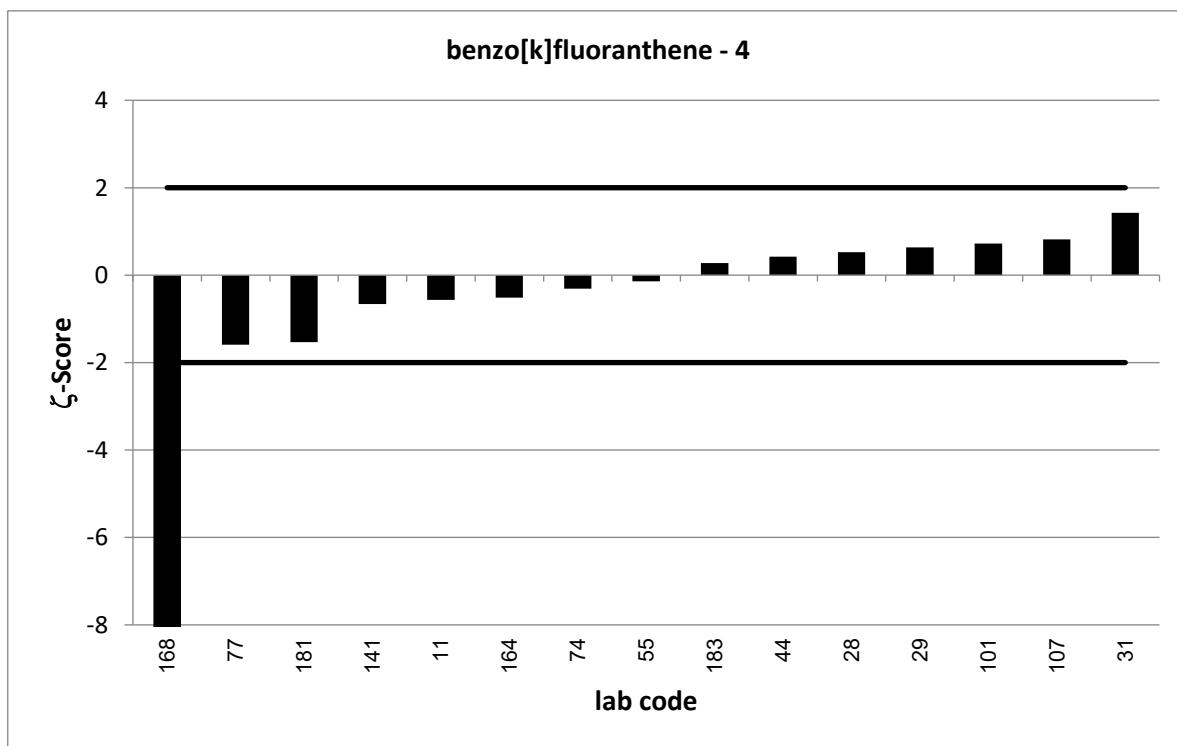


Strongly deviating values are not shown in the diagram.





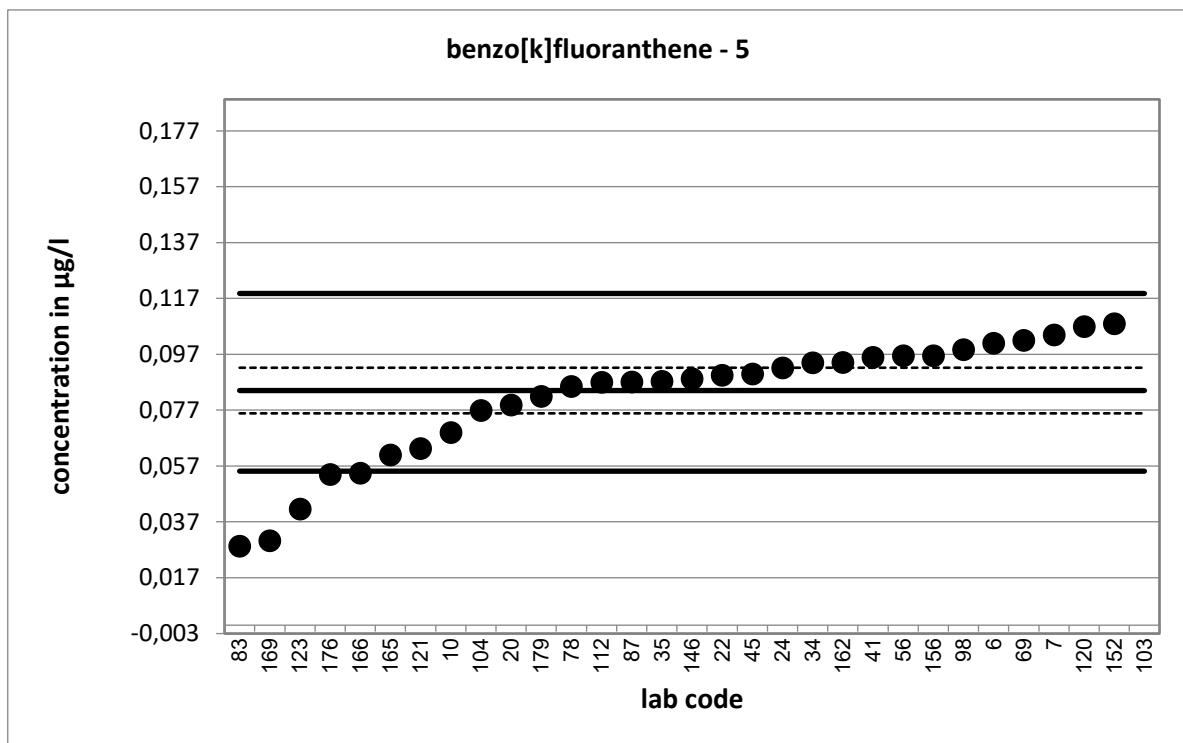
Strongly deviating values are not correctly shown in the diagram.



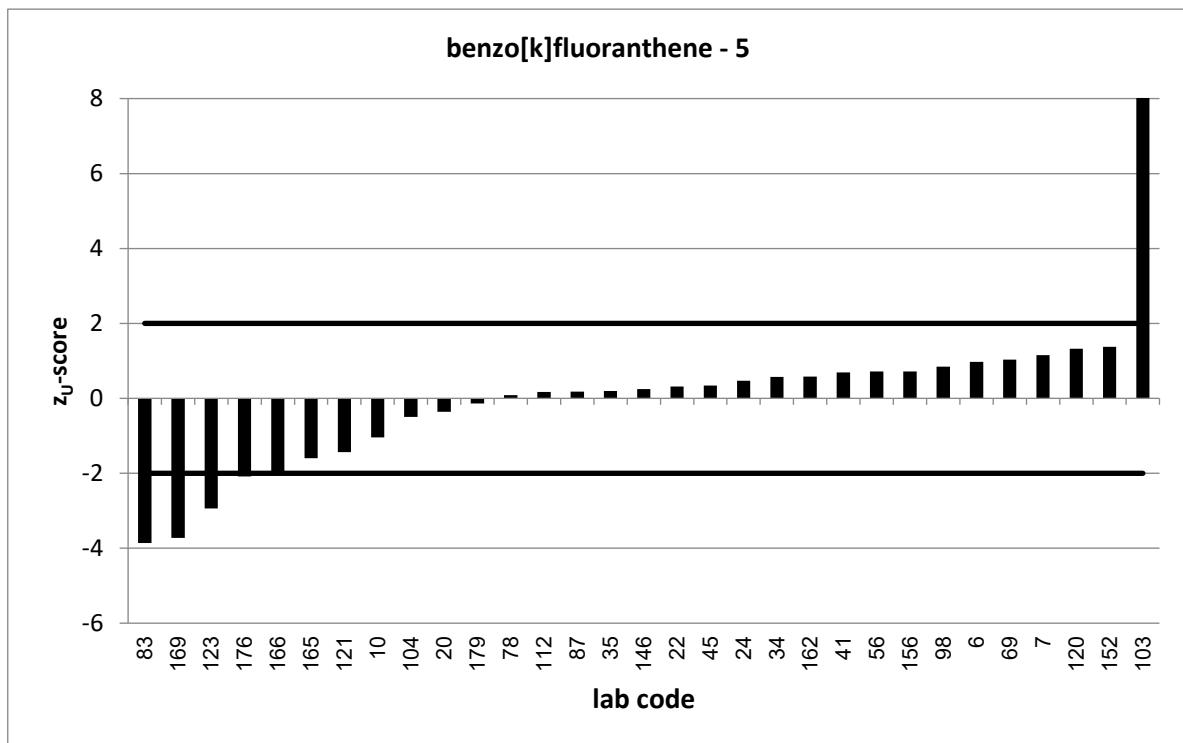
PT 3/24		benzo[k]fluoranthene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,08403 \pm 0,00817$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1188			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,05515			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,101	0,039	0,9	1,0	s
7	0,104	0,014	2,5	1,1	s
10	0,069	0,013	-2,0	-1,0	s
20	0,0789	0,024	-0,4	-0,4	s
22	0,0895	0,036	0,3	0,3	s
24	0,0922			0,5	s
34	0,094	0,01	1,5	0,6	s
35	0,0874	0,026	0,2	0,2	s
41	0,096			0,7	s
45	0,09			0,3	s
56	0,0965	0,017	1,3	0,7	s
69	0,102	0,018	1,8	1,0	s
78	0,0855			0,1	s
83	0,0283			-3,9	u
87	0,0871	0,026	0,2	0,2	s
98	0,0987			0,8	s
103	0,365	0,056	10,0	16,2	u
104	0,0769			-0,5	s
112	0,087	0,002	0,7	0,2	s
120	0,107	0,014	2,8	1,3	s
121	0,0633	0,01	-3,2	-1,4	s
123	0,0416			-2,9	q
146	0,08833	0,019	0,4	0,2	s
152	0,108	0,031	1,5	1,4	s
156	0,0965	0,008	2,2	0,7	s
162	0,0941	0,028	0,7	0,6	s
165	0,061			-1,6	s
166	0,0545			-2,0	s
169	0,0303	0,008	-9,3	-3,7	u
176	0,054			-2,1	q
179	0,082	0,025	-0,2	-0,1	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

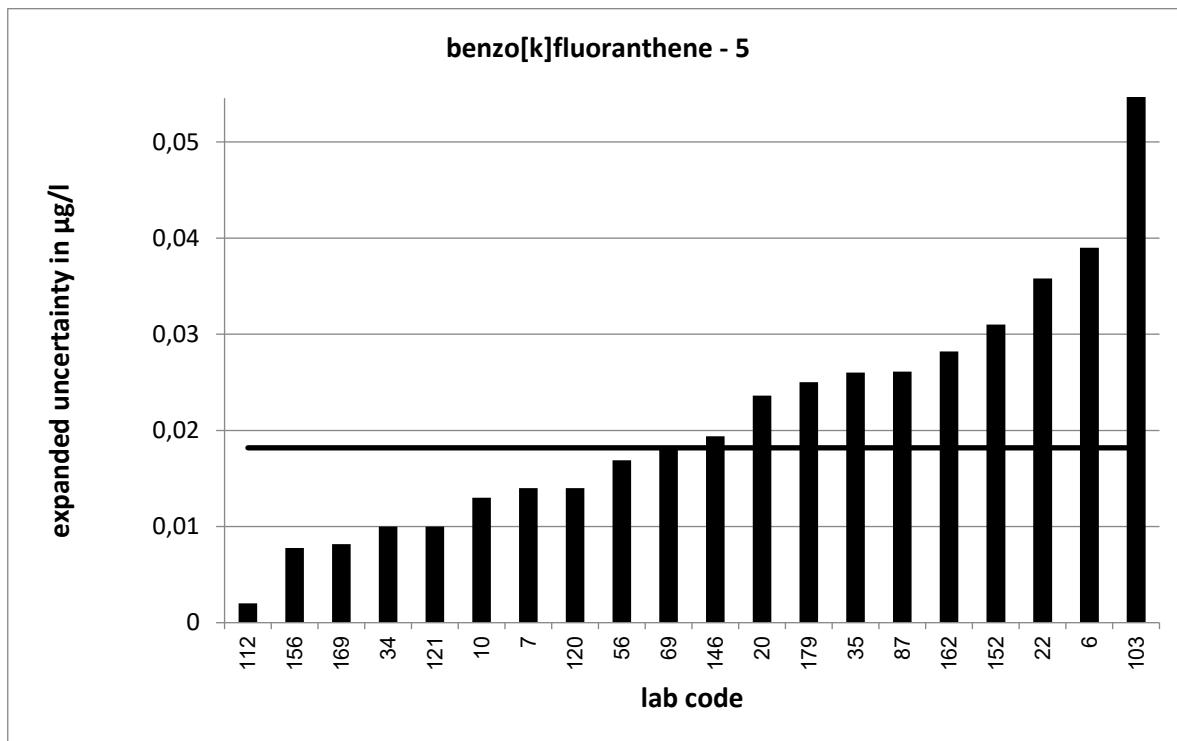
\*\* s = satisfactory, q = questionable, u = unsatisfactory



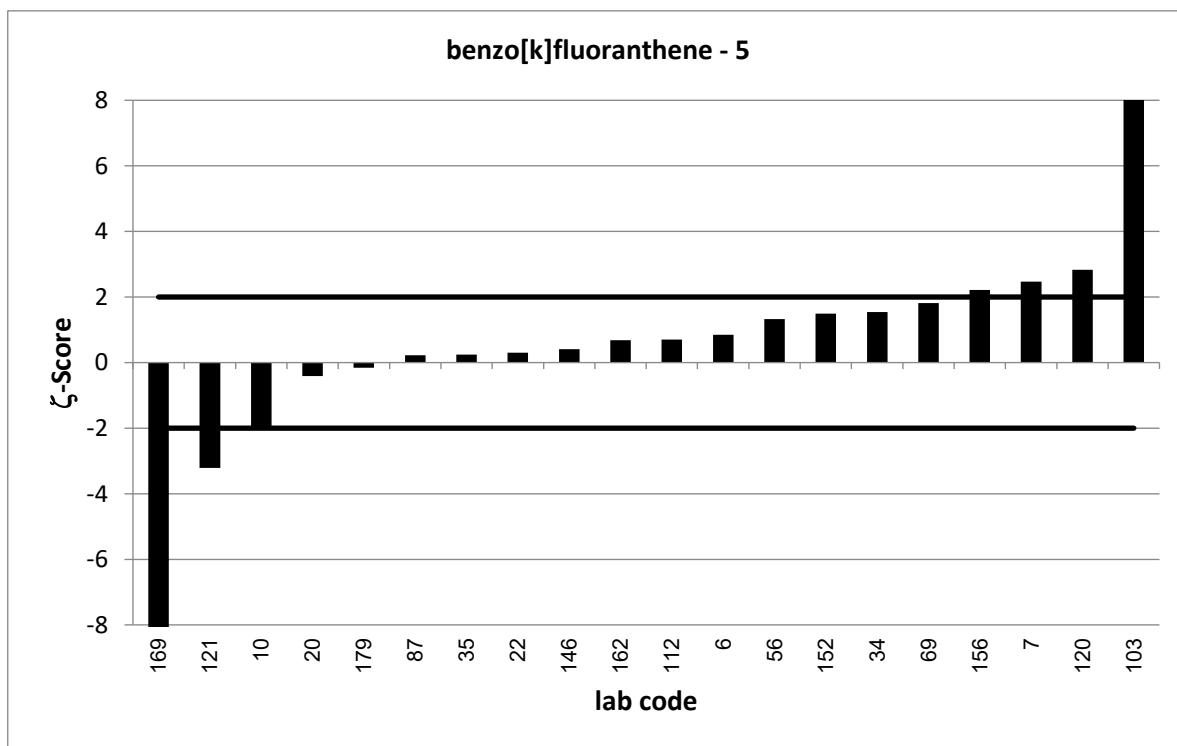
Strongly deviating values are not shown in the diagram.



Strongly deviating values are not correctly shown in the diagram.



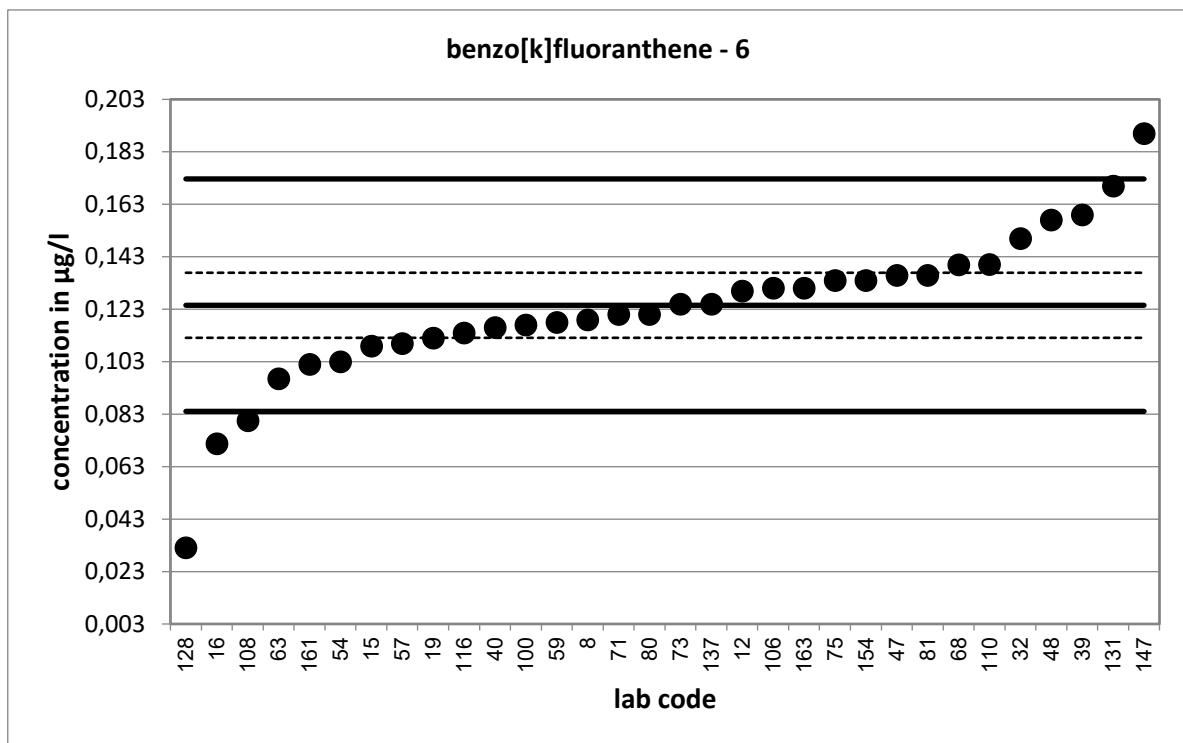
Strongly deviating values are not correctly shown in the diagram.



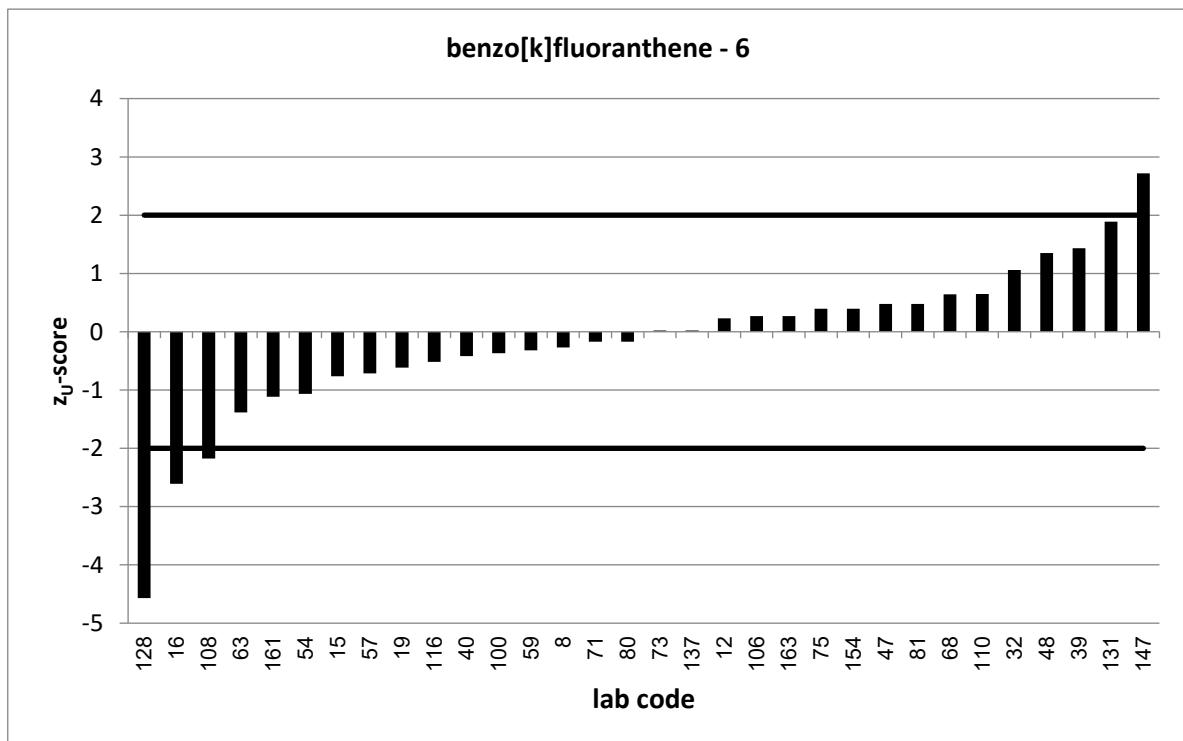
PT 3/24		benzo[k]fluoranthene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,1245 \pm 0,0124$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1727			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,08406			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,119	0,029	-0,3	-0,3	s
12	0,13	0,039	0,3	0,2	s
15	0,109			-0,8	s
16	0,0717	0,022	-4,2	-2,6	q
19	0,112	0,028	-0,8	-0,6	s
32	0,15			1,1	s
39	0,159	0,025	2,5	1,4	s
40	0,116			-0,4	s
47	0,136			0,5	s
48	0,157	0,016	3,3	1,3	s
54	0,103	0,031	-1,3	-1,1	s
57	0,11			-0,7	s
59	0,118	0,024	-0,5	-0,3	s
63	0,0965	0,029	-1,8	-1,4	s
68	0,14			0,6	s
71	0,121	0,029	-0,2	-0,2	s
73	0,125			0,0	s
75	0,134	0,027	0,6	0,4	s
80	0,121	0,01	-0,4	-0,2	s
81	0,136			0,5	s
100	0,117	0,023	-0,6	-0,4	s
106	0,131			0,3	s
108	0,0805	0,021	-3,6	-2,2	q
110	0,1401			0,6	s
116	0,114	0,026	-0,7	-0,5	s
128	0,0321			-4,6	u
131	0,17	0,05	1,8	1,9	s
137	0,125	0,019	0,0	0,0	s
147	0,19	0,003	10,2	2,7	q
154	0,134	0,067	0,3	0,4	s
161	0,102			-1,1	s
163	0,131			0,3	s

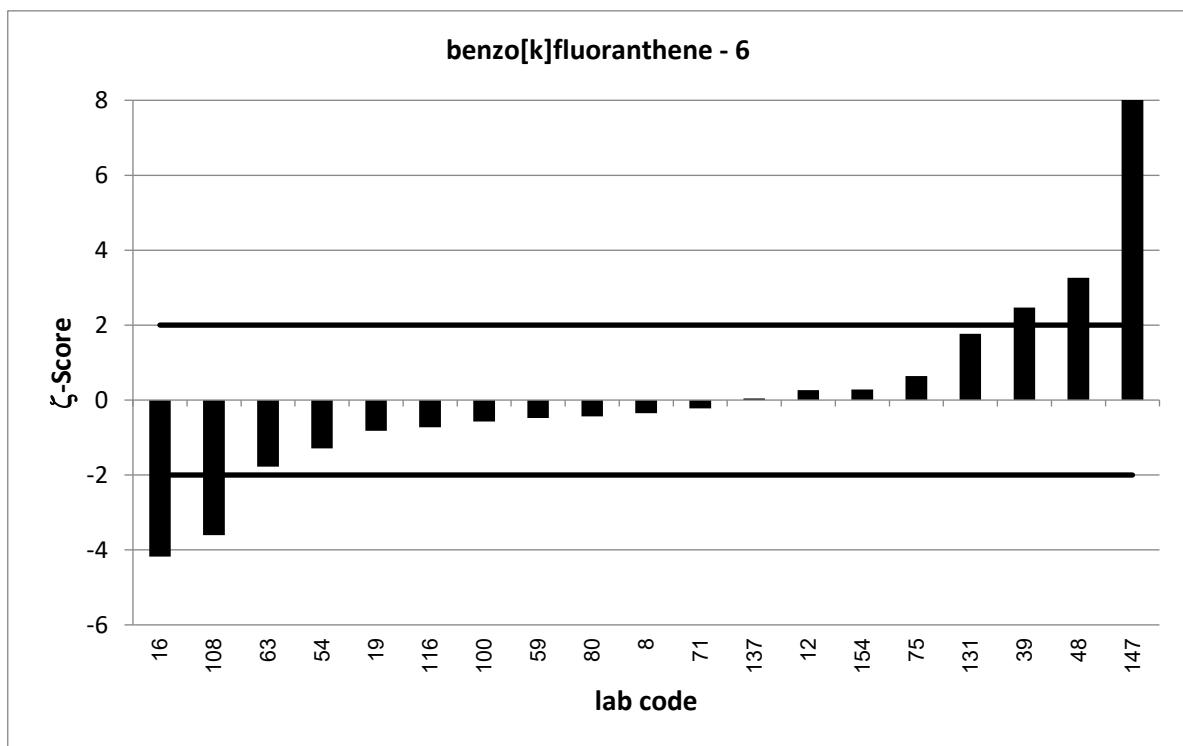
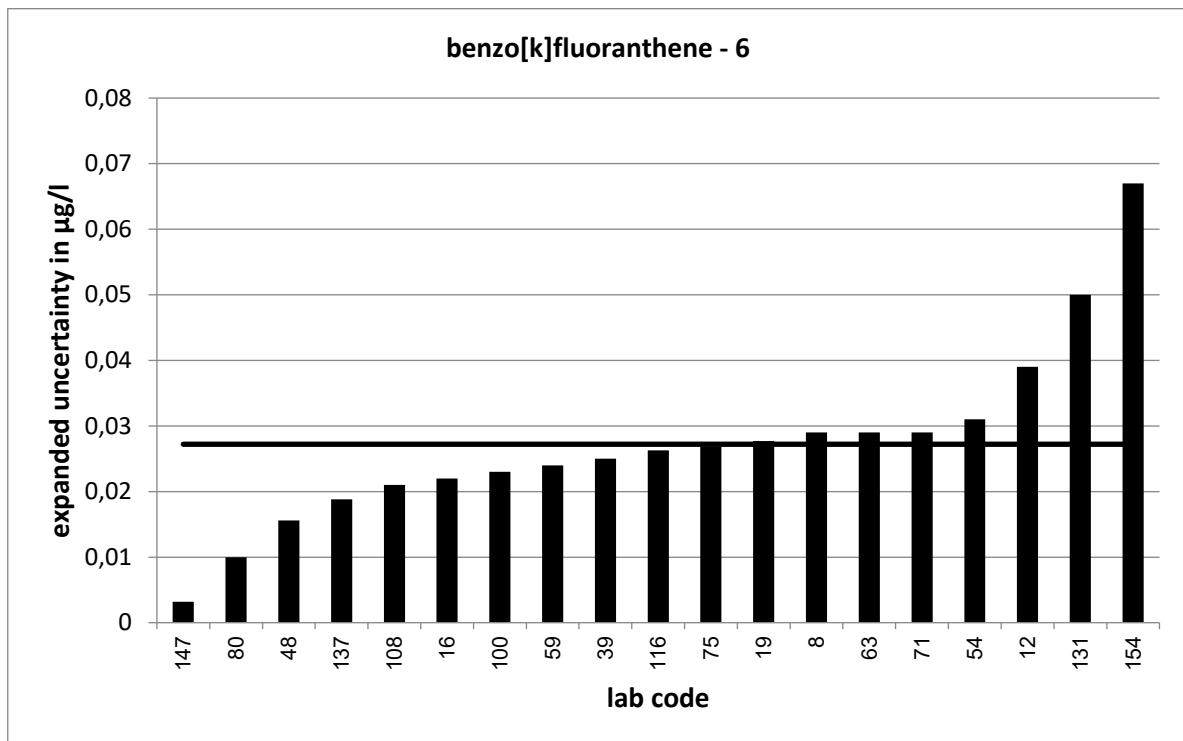
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\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

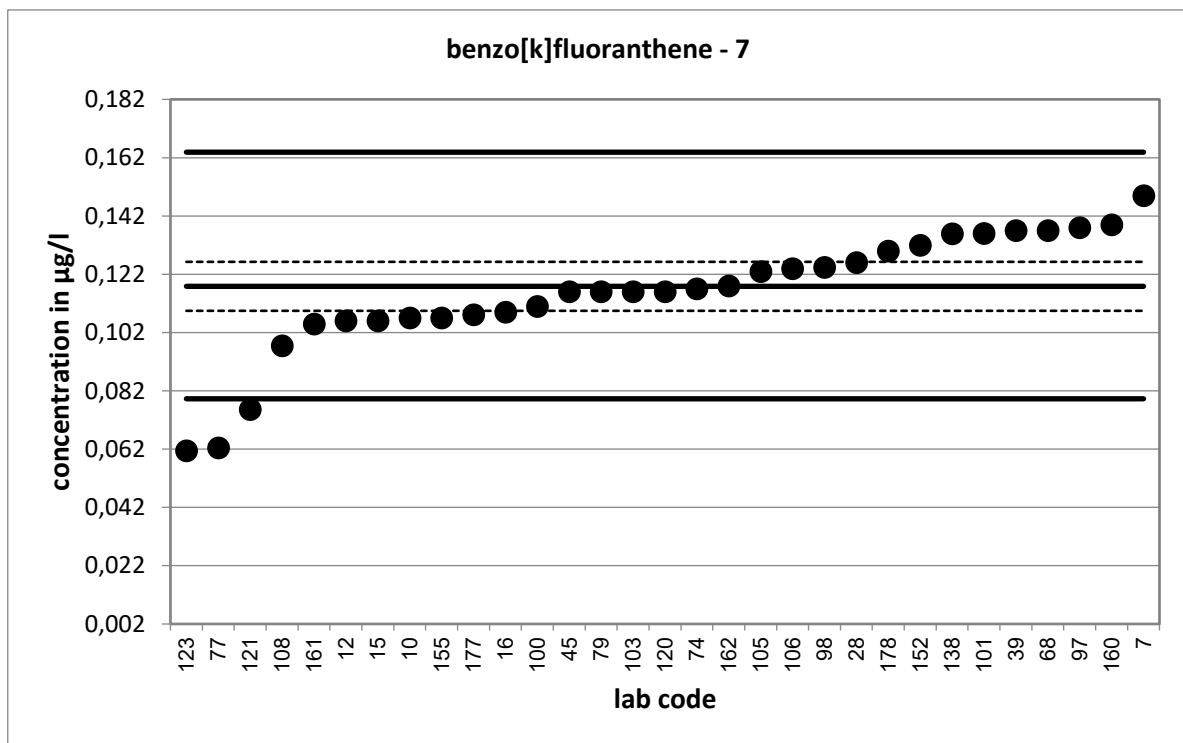




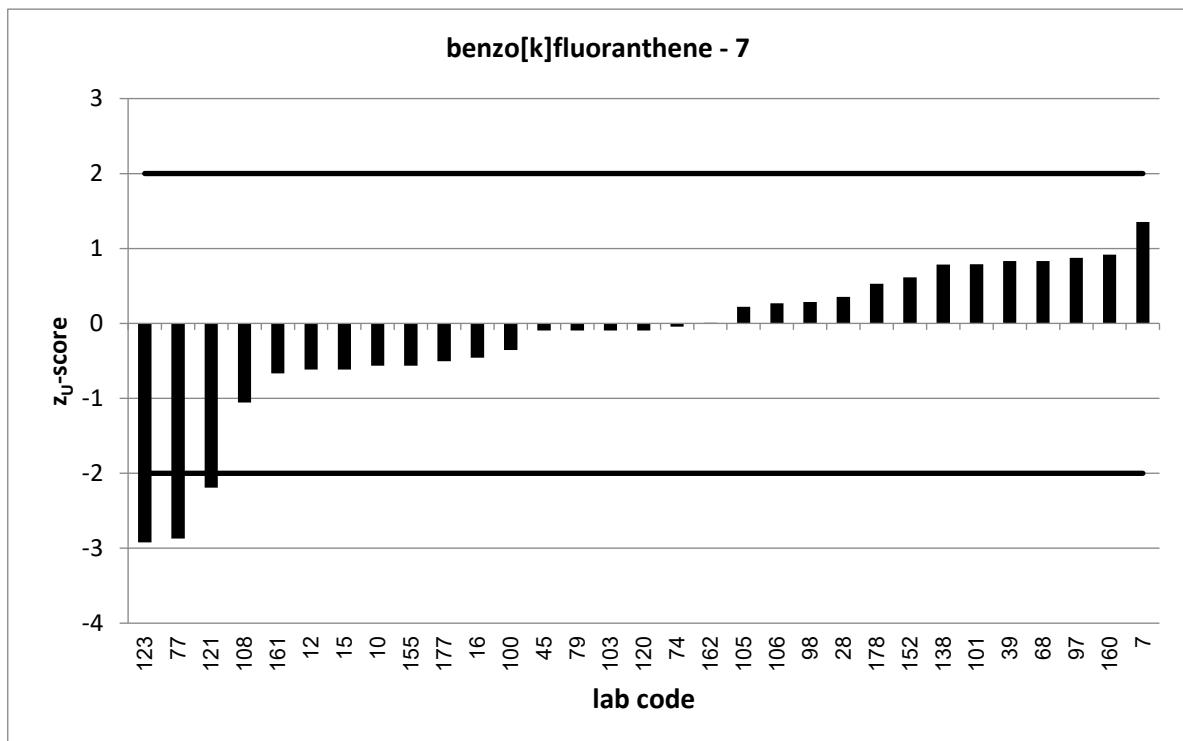
PT 3/24		benzo[k]fluoranthene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,1179 \pm 0,0084$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1639			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,07927			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,149	0,025	2,4	1,4	s
10	0,107	0,02	-1,0	-0,6	s
12	0,106	0,032	-0,7	-0,6	s
15	0,106			-0,6	s
16	0,109	0,033	-0,5	-0,5	s
28	0,126	0,037	0,4	0,4	s
39	0,137	0,022	1,6	0,8	s
45	0,116			-0,1	s
68	0,137			0,8	s
74	0,117	0,031	-0,1	0,0	s
77	0,0625	0,022	-4,7	-2,9	q
79	0,116			-0,1	s
97	0,138			0,9	s
98	0,1244			0,3	s
100	0,111	0,022	-0,6	-0,4	s
101	0,136	0,041	0,9	0,8	s
103	0,116	0,018	-0,2	-0,1	s
105	0,123			0,2	s
106	0,124			0,3	s
108	0,0975	0,025	-1,5	-1,1	s
120	0,116	0,012	-0,3	-0,1	s
121	0,0756	0,012	-5,8	-2,2	q
123	0,0615			-2,9	q
138	0,1359			0,8	s
152	0,132	0,038	0,7	0,6	s
155	0,107			-0,6	s
160	0,139			0,9	s
161	0,105			-0,7	s
162	0,118	0,035	0,0	0,0	s
177	0,1081			-0,5	s
178	0,13			0,5	s

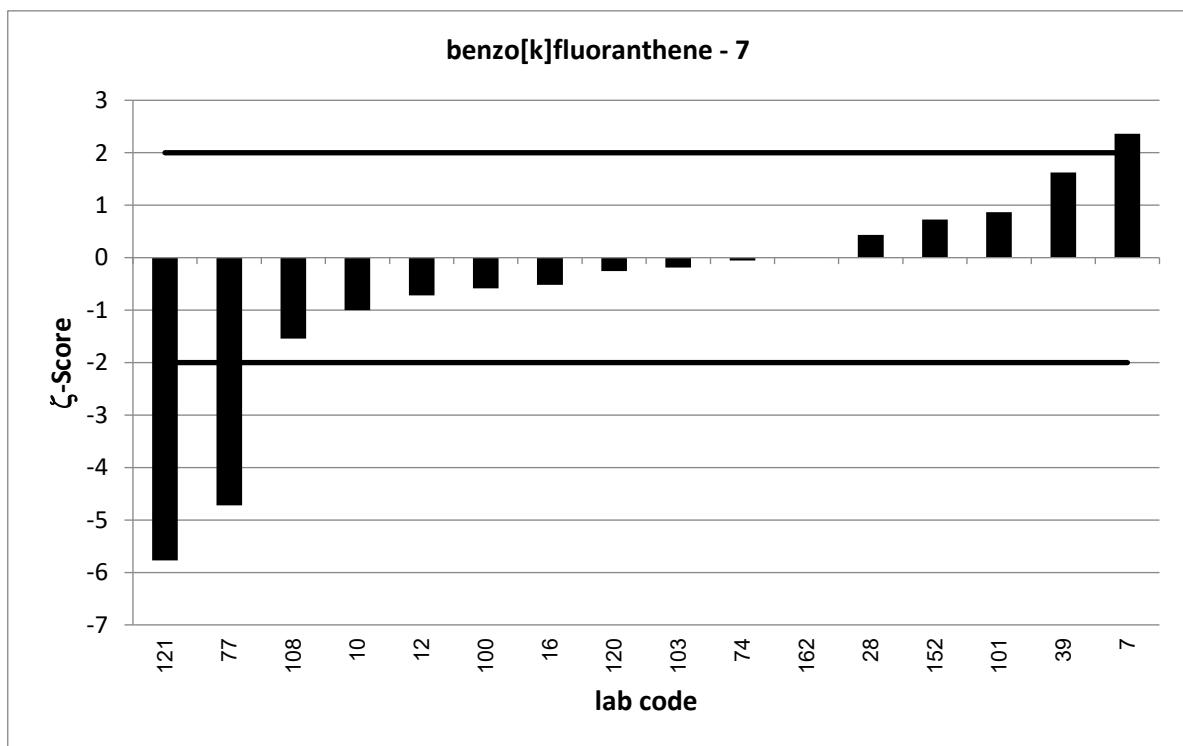
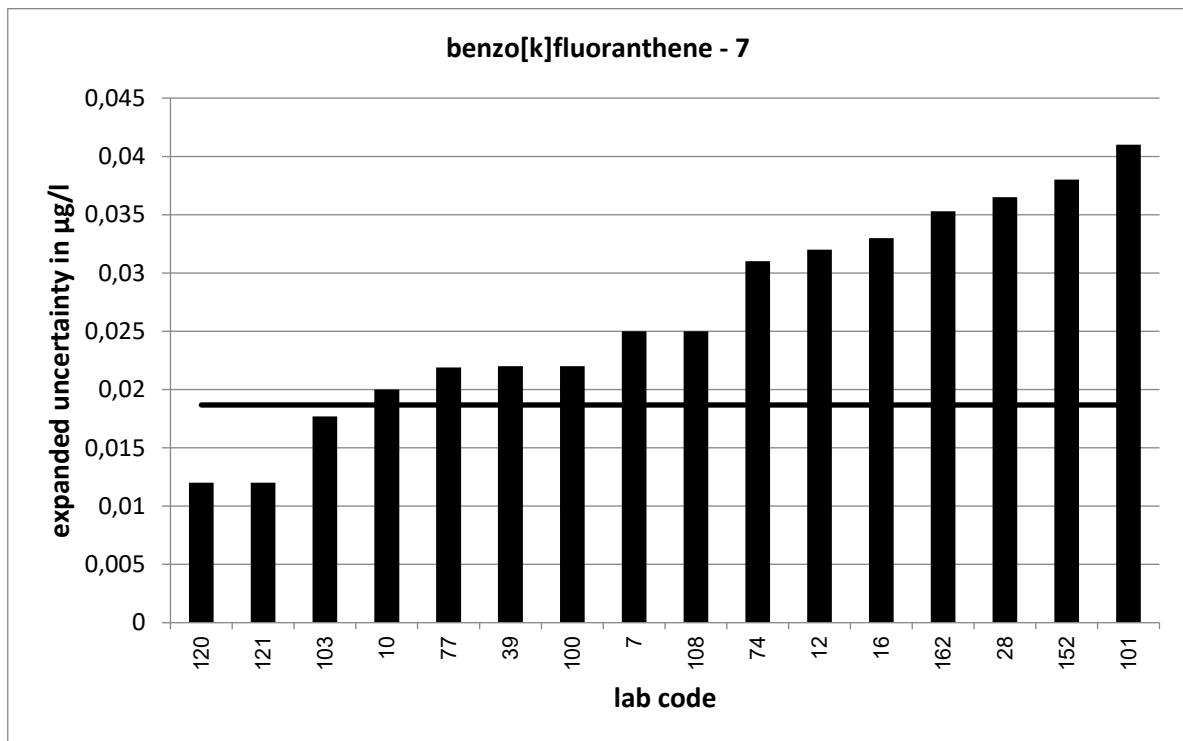
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\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

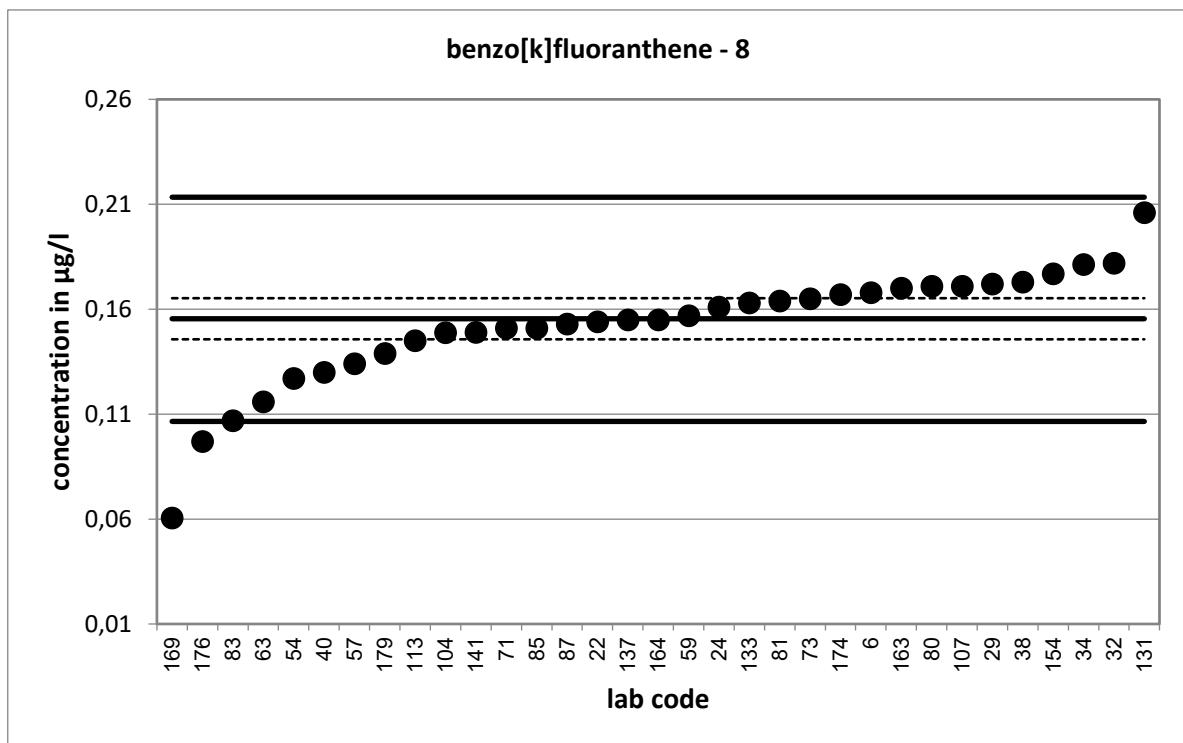




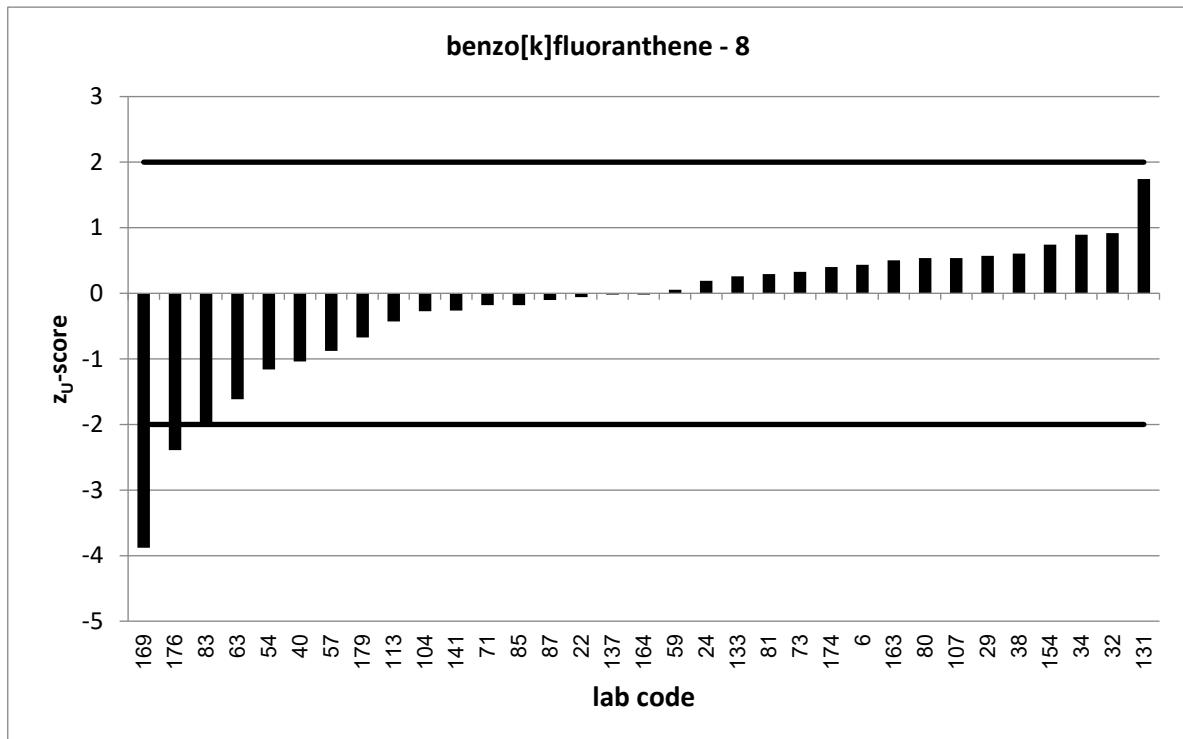
PT 3/24		benzo[k]fluoranthene - 8			
assigned value [ $\mu\text{g/l}$ ]*		$0,1555 \pm 0,0098$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2134			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1065			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,168	0,065	0,4	0,4	s
22	0,154	0,062	0,0	-0,1	s
24	0,161			0,2	s
29	0,172	0,034	0,9	0,6	s
32	0,182			0,9	s
34	0,1813	0,03	1,6	0,9	s
38	0,173			0,6	s
40	0,13			-1,0	s
54	0,127	0,038	-1,5	-1,2	s
57	0,134			-0,9	s
59	0,157	0,031	0,1	0,1	s
63	0,116	0,035	-2,2	-1,6	s
71	0,151	0,036	-0,2	-0,2	s
73	0,165			0,3	s
80	0,171	0,02	1,4	0,5	s
81	0,164			0,3	s
83	0,107			-2,0	s
85	0,151			-0,2	s
87	0,153	0,046	-0,1	-0,1	s
104	0,1488			-0,3	s
107	0,171	0,044	0,7	0,5	s
113	0,145			-0,4	s
131	0,206	0,058	1,7	1,7	s
133	0,163			0,3	s
137	0,155	0,023	0,0	0,0	s
141	0,149	0,067	-0,2	-0,3	s
154	0,177	0,088	0,5	0,7	s
163	0,17			0,5	s
164	0,155	0,046	0,0	0,0	s
169	0,0605	0,016	-10,0	-3,9	u
174	0,167			0,4	s
176	0,097			-2,4	q
179	0,139	0,042	-0,8	-0,7	s

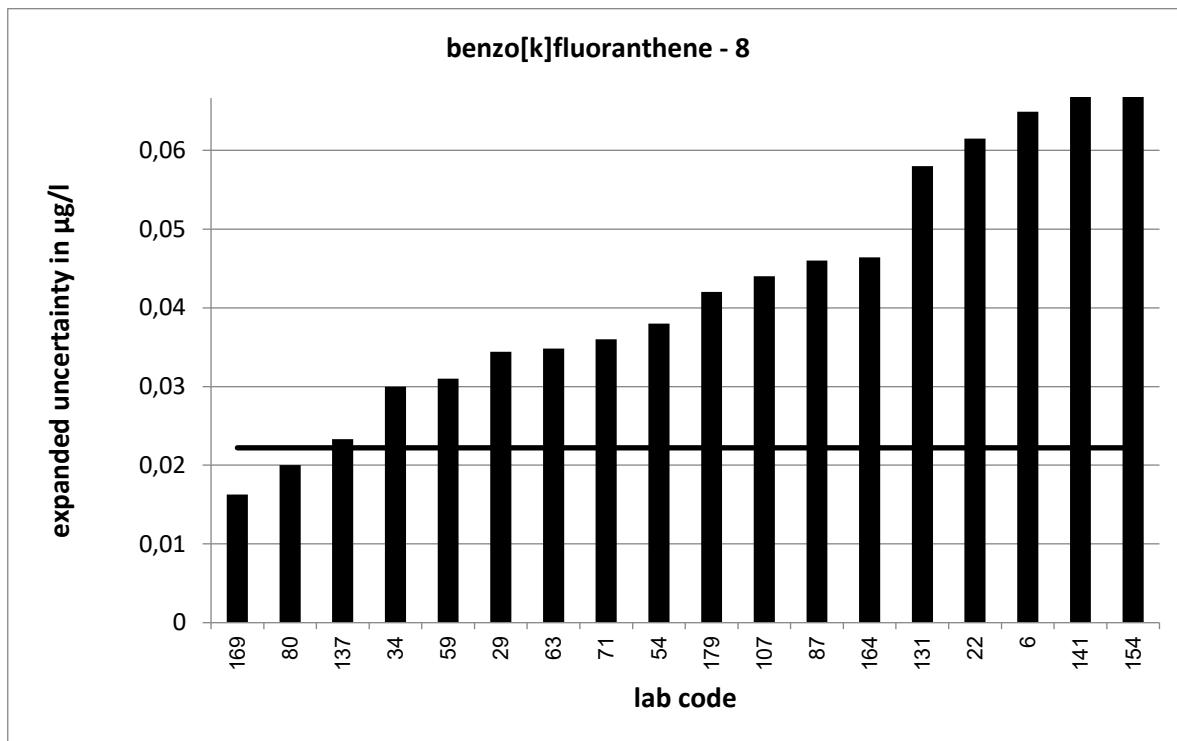
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor k=2 corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

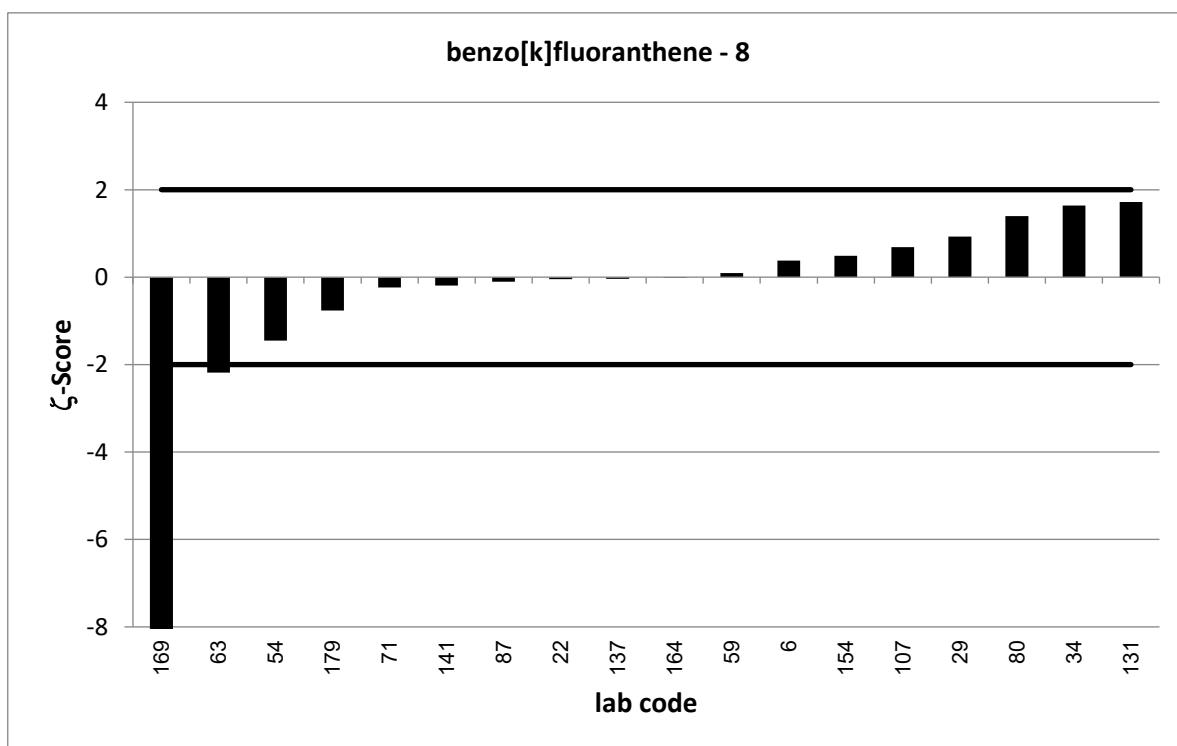


Strongly deviating values are not shown in the diagram.





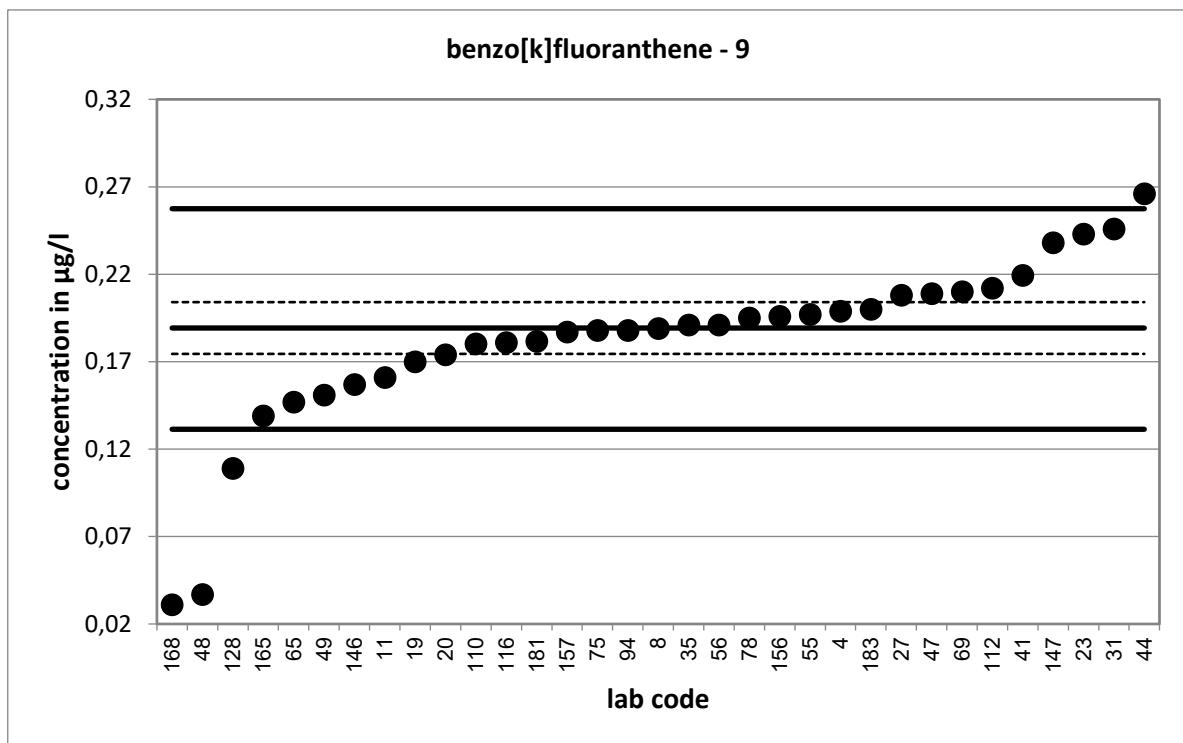
Strongly deviating values are not correctly shown in the diagram.



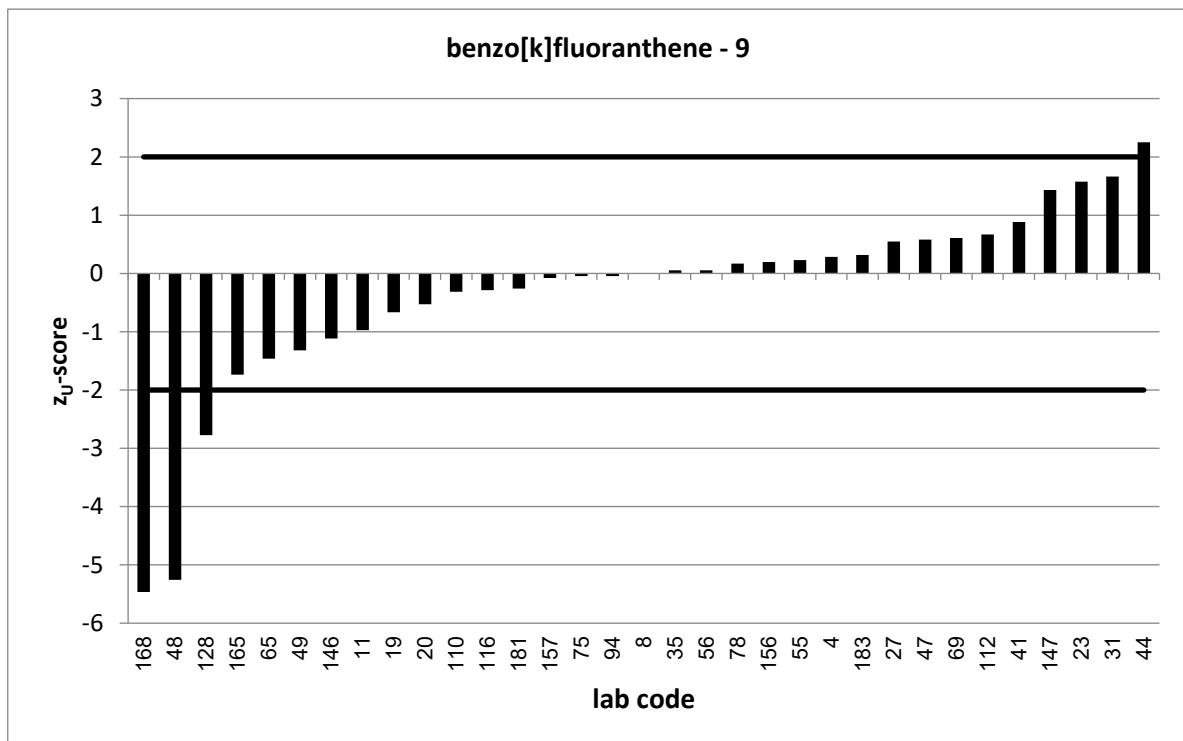
PT 3/24		benzo[k]fluoranthene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,1893 \pm 0,0148$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2575			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1313			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,199			0,3	s
8	0,189	0,045	0,0	0,0	s
11	0,161	0,035	-1,5	-1,0	s
19	0,17	0,042	-0,9	-0,7	s
20	0,174	0,052	-0,6	-0,5	s
23	0,243			1,6	s
27	0,208			0,5	s
31	0,246	0,086	1,3	1,7	s
35	0,191	0,057	0,1	0,1	s
41	0,2194			0,9	s
44	0,266	0,039	3,7	2,3	q
47	0,209			0,6	s
48	0,037	0,004	-20,0	-5,3	u
49	0,151			-1,3	s
55	0,197	0,089	0,2	0,2	s
56	0,191	0,034	0,1	0,1	s
65	0,147			-1,5	s
69	0,21	0,037	1,0	0,6	s
75	0,188	0,038	-0,1	0,0	s
78	0,195			0,2	s
94	0,188			0,0	s
110	0,1802			-0,3	s
112	0,212	0,006	2,9	0,7	s
116	0,181	0,042	-0,4	-0,3	s
128	0,109			-2,8	q
146	0,157	0,035	-1,7	-1,1	s
147	0,238	0,004	6,4	1,4	s
156	0,196	0,016	0,6	0,2	s
157	0,187			-0,1	s
165	0,139			-1,7	s
168	0,0311	0,008	-18,8	-5,5	u
181	0,1817	0,017	-0,7	-0,3	s
183	0,2	0,059	0,4	0,3	s

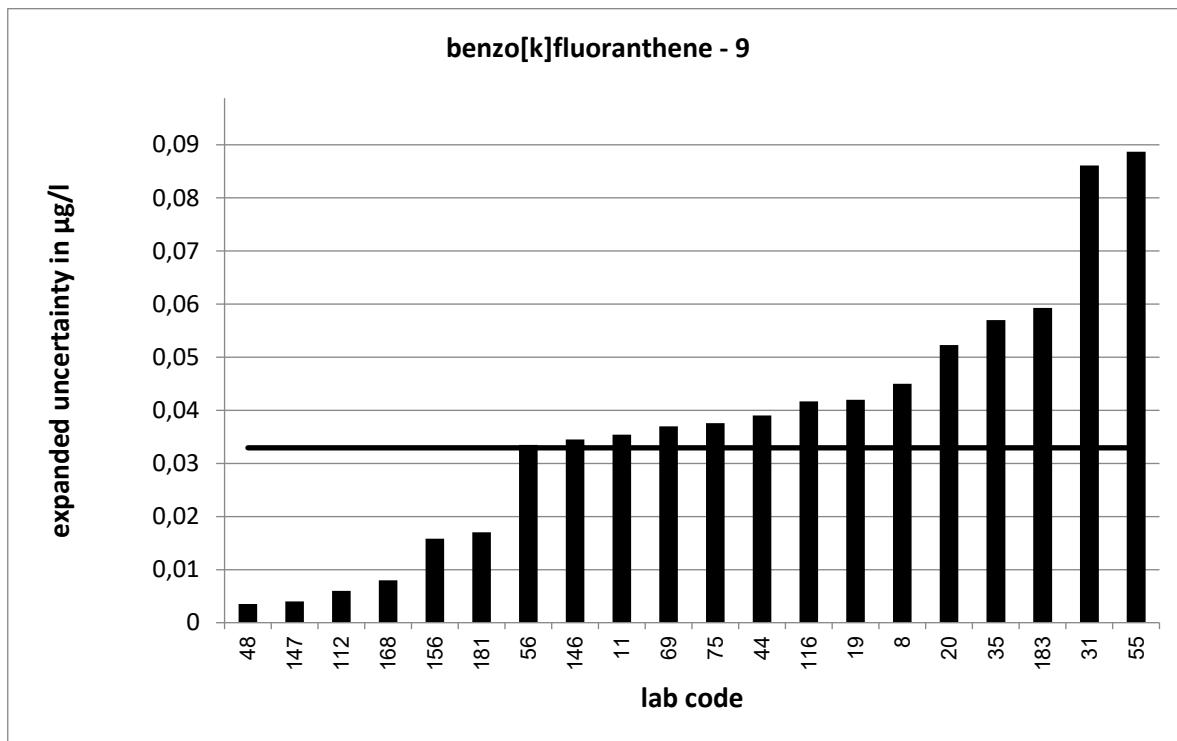
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor k=2 corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

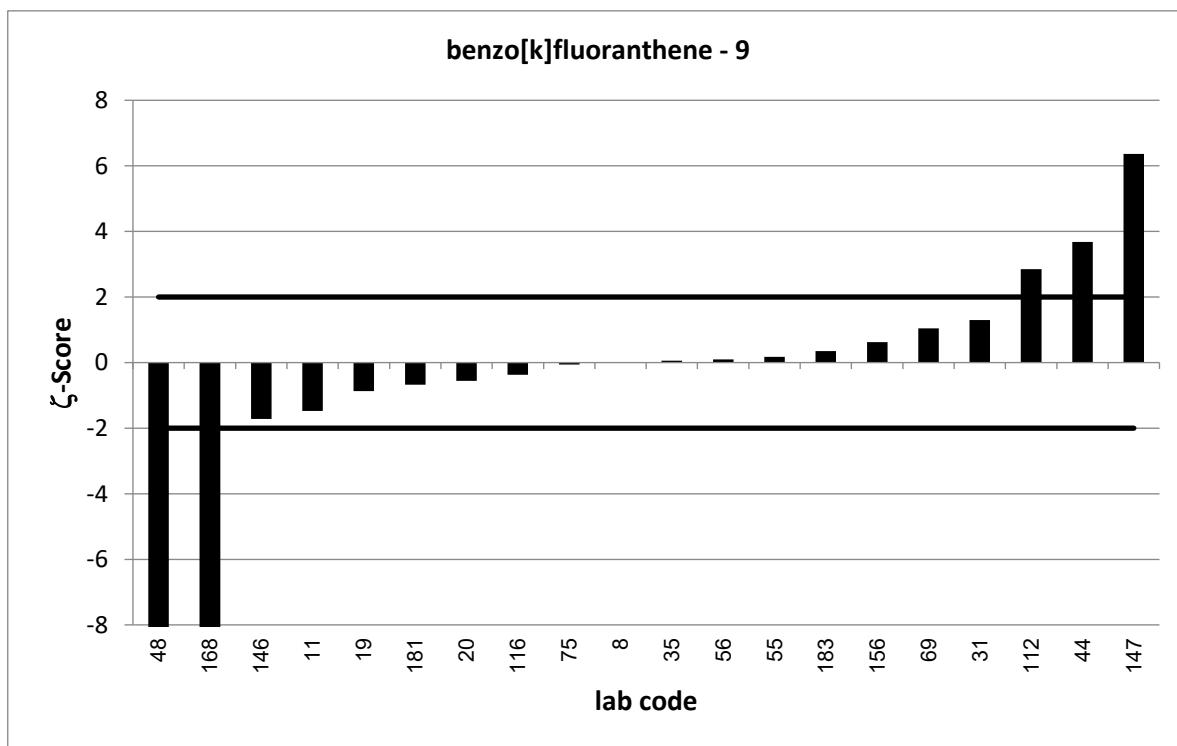


Strongly deviating values are not shown in the diagram.





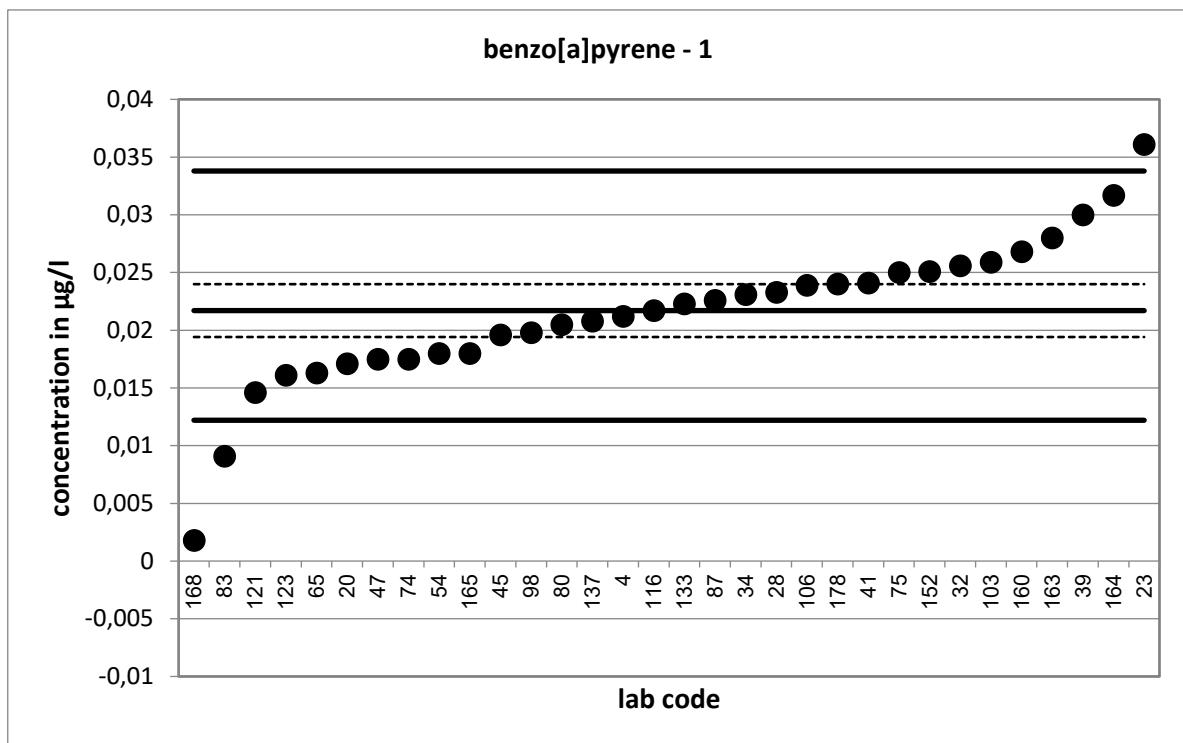
Strongly deviating values are not correctly shown in the diagram.



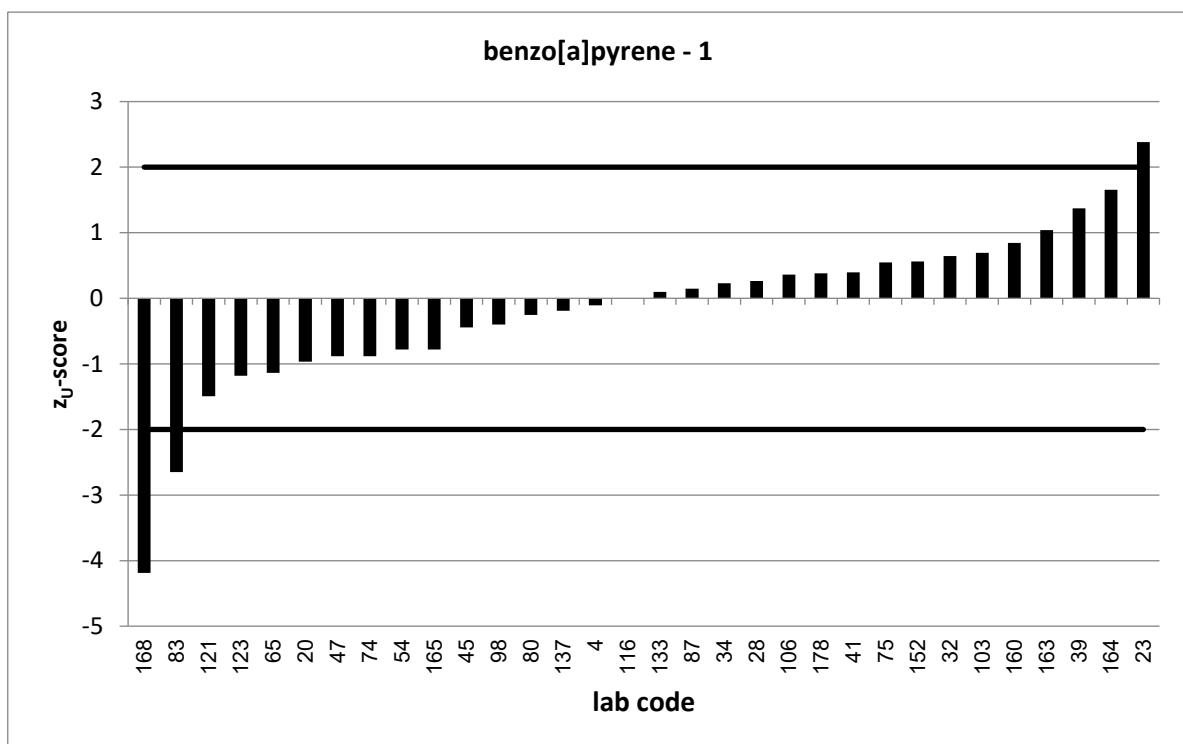
PT 3/24		benzo[a]pyrene - 1			
assigned value [ $\mu\text{g/l}$ ]*		0,0217 $\pm$ 0,00229			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,03379			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0122			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0212			-0,1	s
20	0,0171	0,005	-1,6	-1,0	s
23	0,0361			2,4	q
28	0,0233	0,006	0,5	0,3	s
32	0,0256			0,6	s
34	0,0231	0,003	0,7	0,2	s
39	0,03	0,005	3,0	1,4	s
41	0,0241			0,4	s
45	0,0196			-0,4	s
47	0,0175			-0,9	s
54	0,018	0,005	-1,3	-0,8	s
65	0,0163			-1,1	s
74	0,0175	0,004	-1,7	-0,9	s
75	0,025	0,005	1,2	0,5	s
80	0,0205	0,005	-0,4	-0,3	s
83	0,0091			-2,7	q
87	0,0226	0,007	0,3	0,1	s
98	0,0198			-0,4	s
103	0,0259	0,004	1,8	0,7	s
106	0,0239			0,4	s
116	0,0217	0,005	0,0	0,0	s
121	0,0146	0,004	-3,1	-1,5	s
123	0,0161			-1,2	s
133	0,0223			0,1	s
137	0,0208	0,003	-0,5	-0,2	s
152	0,0251	0,005	1,2	0,6	s
160	0,0268			0,8	s
163	0,028			1,0	s
164	0,0317	0,01	2,0	1,7	s
165	0,018			-0,8	s
168	0,00181	7E-04	-16,6	-4,2	u
178	0,024			0,4	s

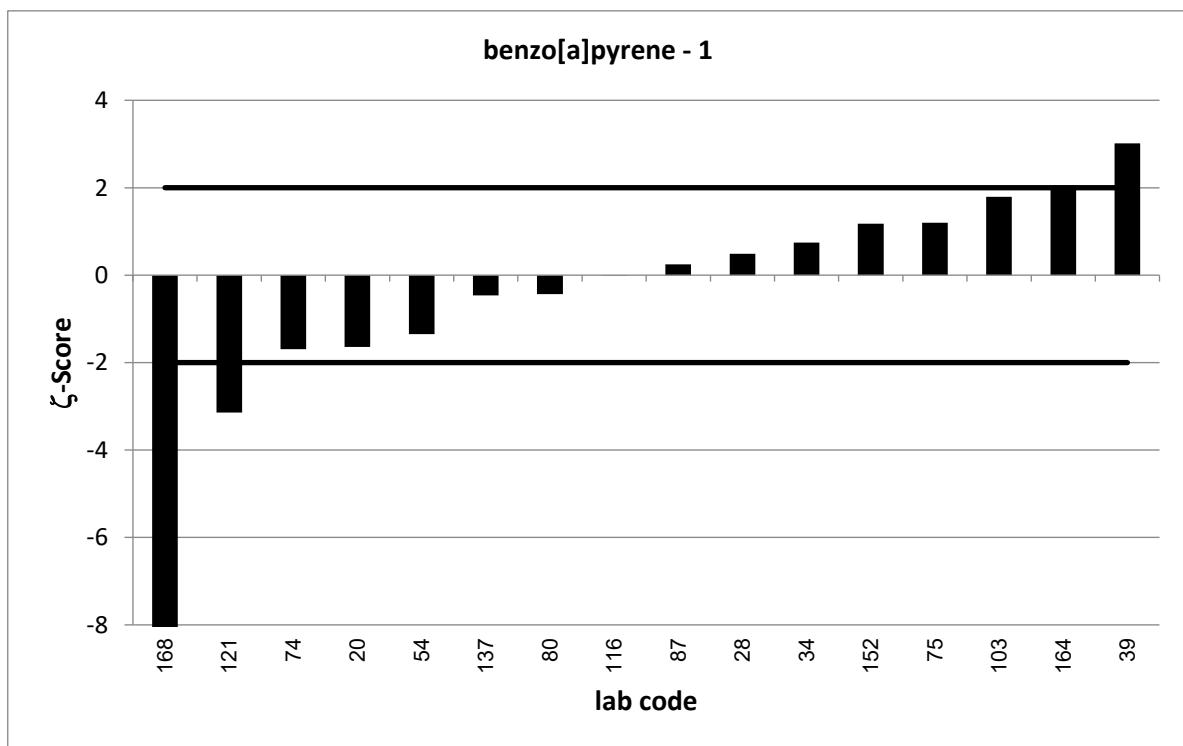
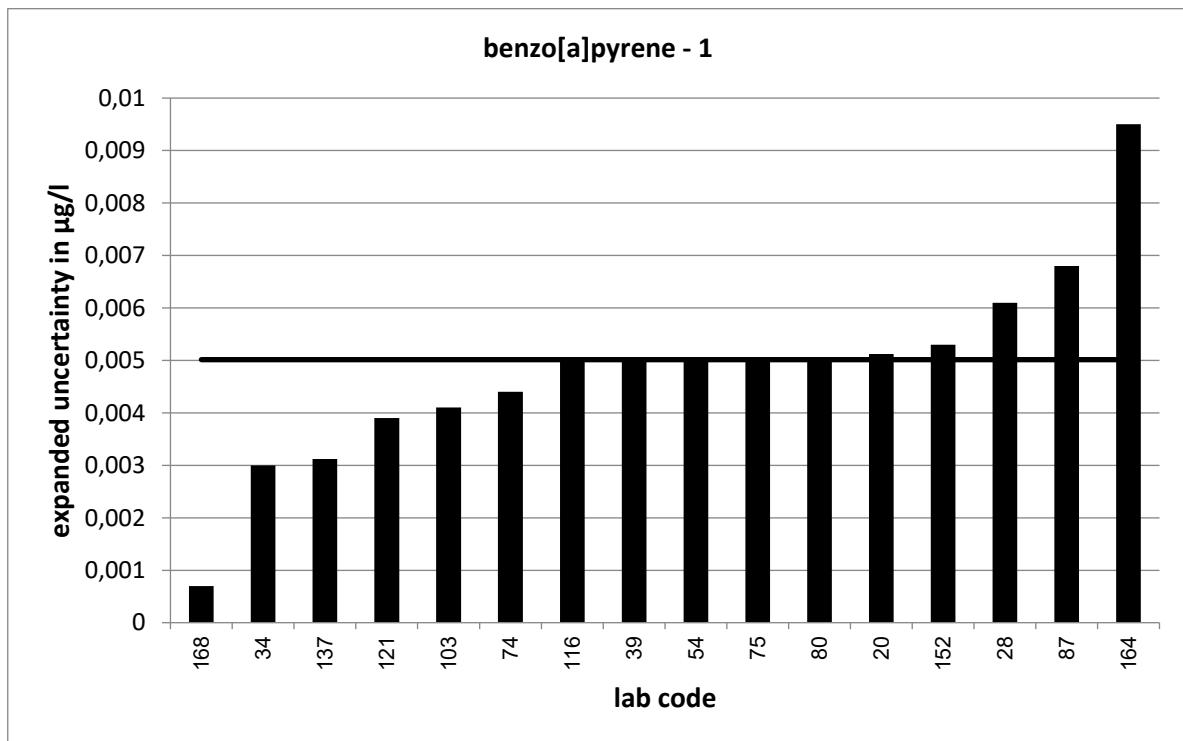
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

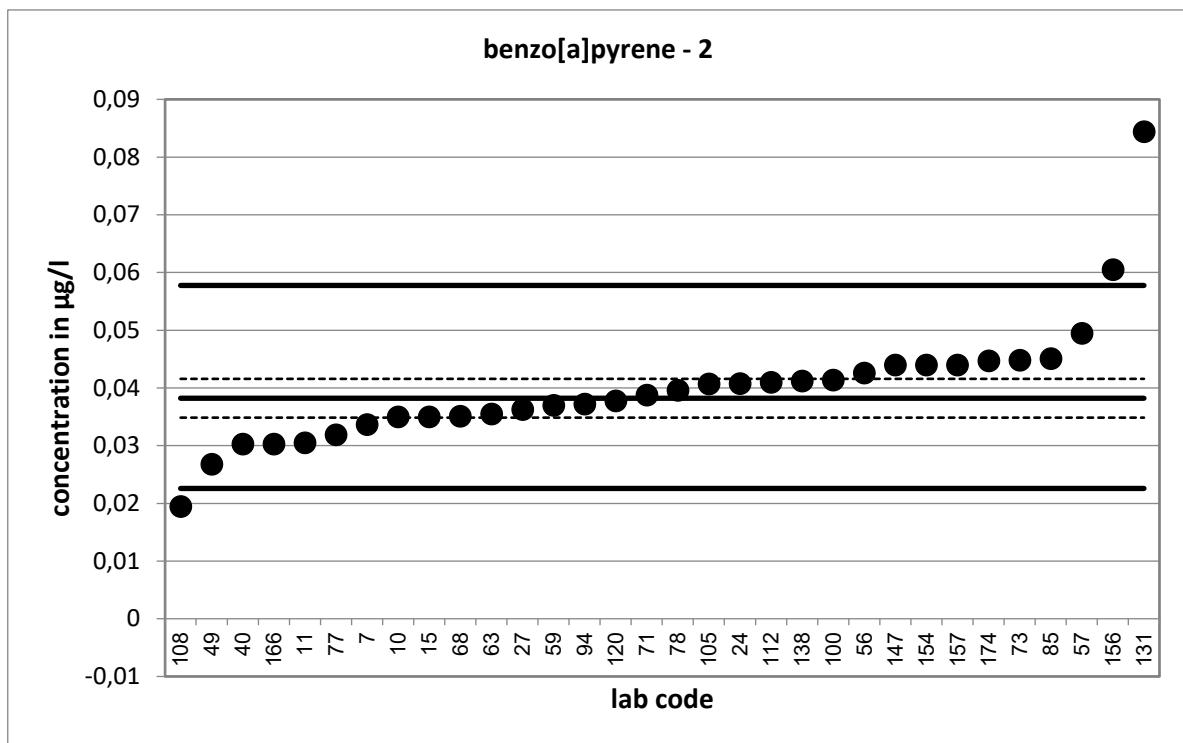




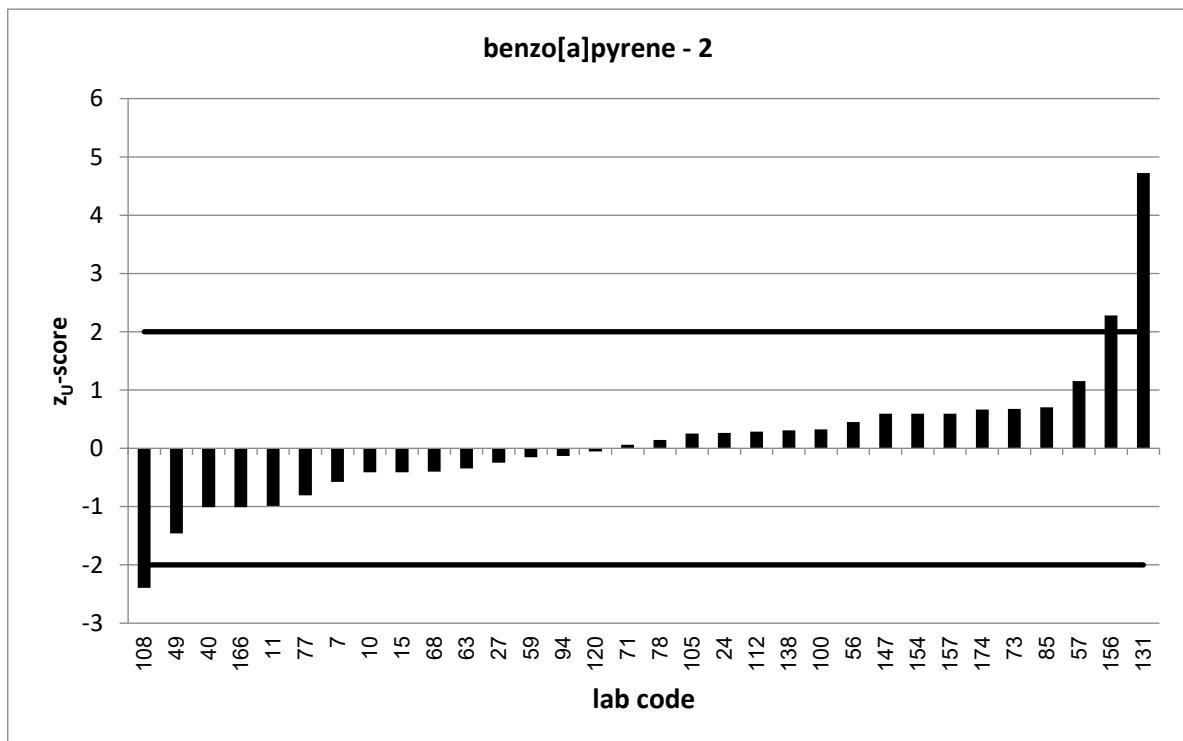
PT 3/24		benzo[a]pyrene - 2			
assigned value [ $\mu\text{g/l}$ ]*		$0,03821 \pm 0,00336$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,05776$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,02258$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0337	0,006	-1,3	-0,6	s
10	0,035	0,004	-1,2	-0,4	s
11	0,0305	0,007	-2,1	-1,0	s
15	0,035			-0,4	s
24	0,0408			0,3	s
27	0,0363			-0,2	s
40	0,0303			-1,0	s
49	0,0268			-1,5	s
56	0,0426	0,005	1,4	0,4	s
57	0,0495			1,2	s
59	0,037	0,007	-0,3	-0,2	s
63	0,0355	0,011	-0,5	-0,3	s
68	0,0351			-0,4	s
71	0,0388	0,01	0,1	0,1	s
73	0,0448			0,7	s
77	0,0319	0,016	-0,8	-0,8	s
78	0,0396			0,1	s
85	0,0451	0,002	3,5	0,7	s
94	0,0372			-0,1	s
100	0,0414	0,008	0,7	0,3	s
105	0,0407			0,3	s
108	0,0195	0,004	-7,2	-2,4	q
112	0,041	0,001	1,6	0,3	s
120	0,0378	0,003	-0,2	-0,1	s
131	0,0844	0,019	4,7	4,7	u
138	0,0412			0,3	s
147	0,044	7E-04	3,4	0,6	s
154	0,044	0,022	0,5	0,6	s
156	0,0605	0,009	4,8	2,3	q
157	0,044			0,6	s
166	0,0303			-1,0	s
174	0,0447			0,7	s

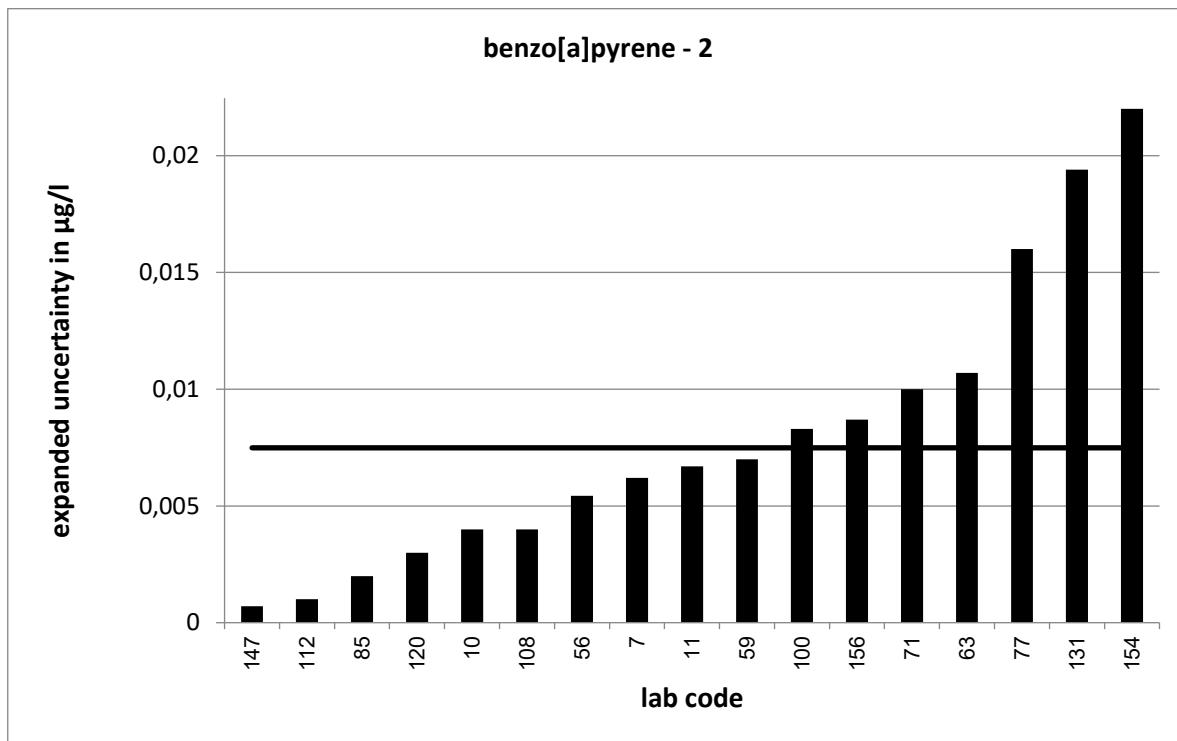
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

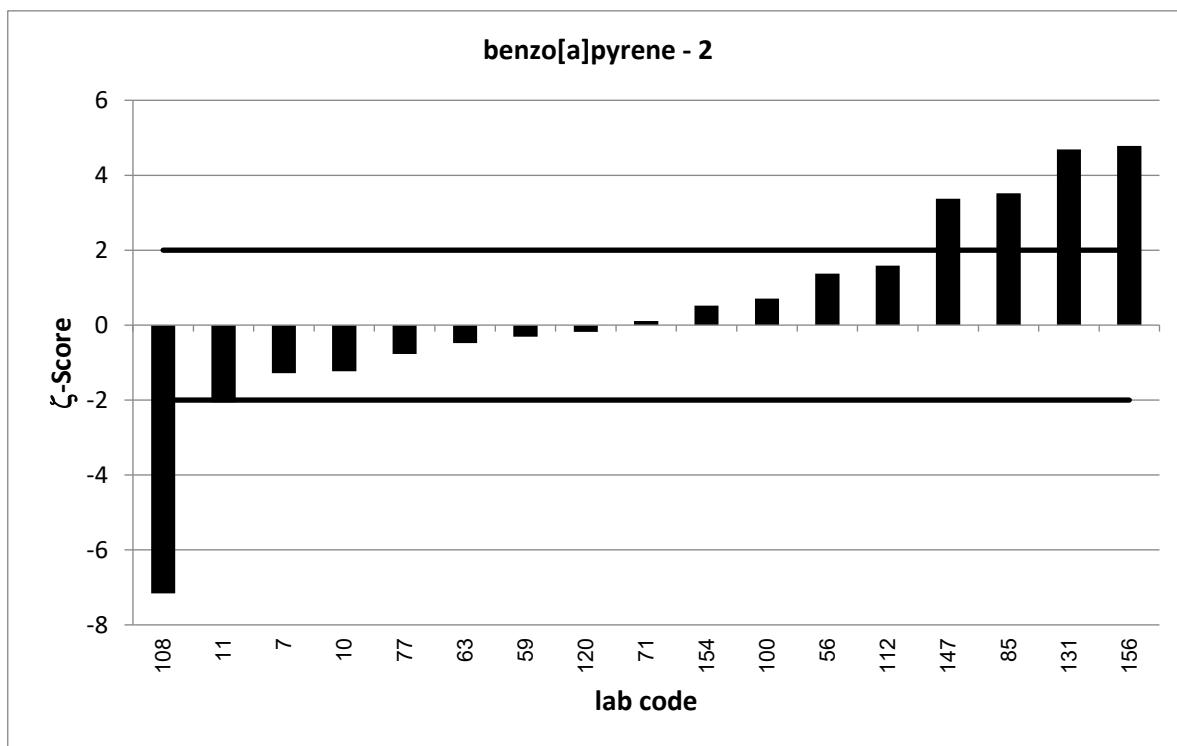


Strongly deviating values are not shown in the diagram.





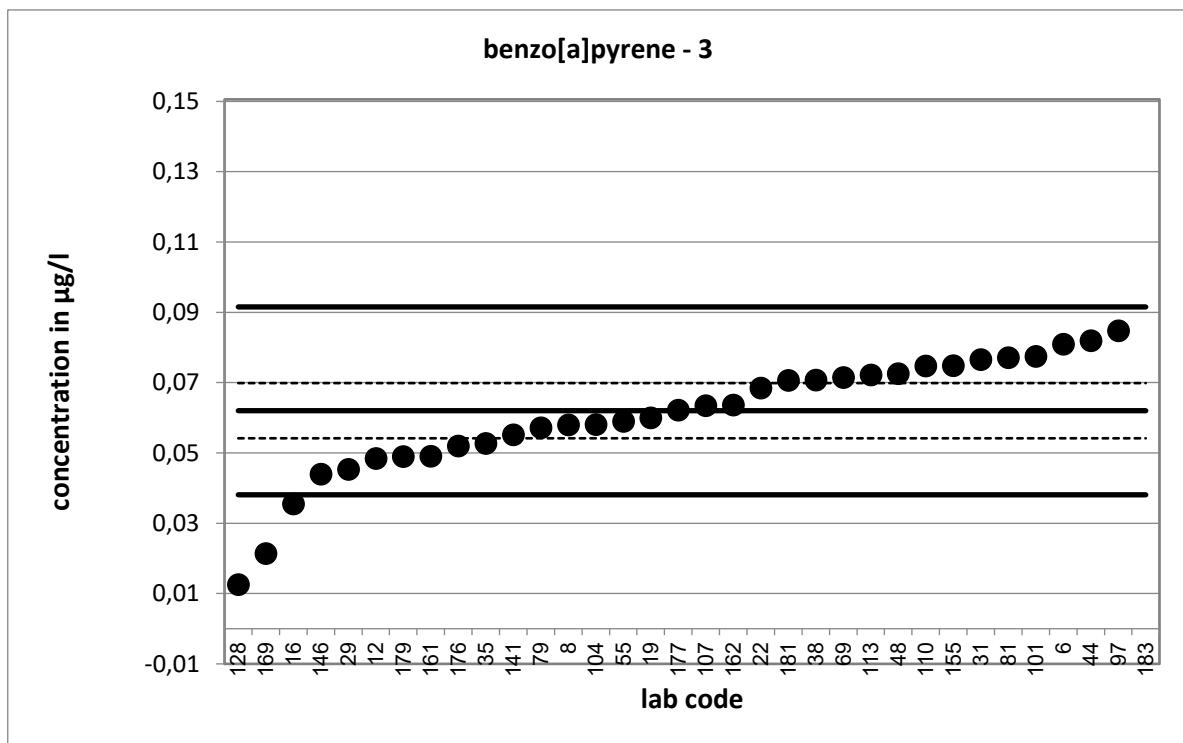
Strongly deviating values are not correctly shown in the diagram.



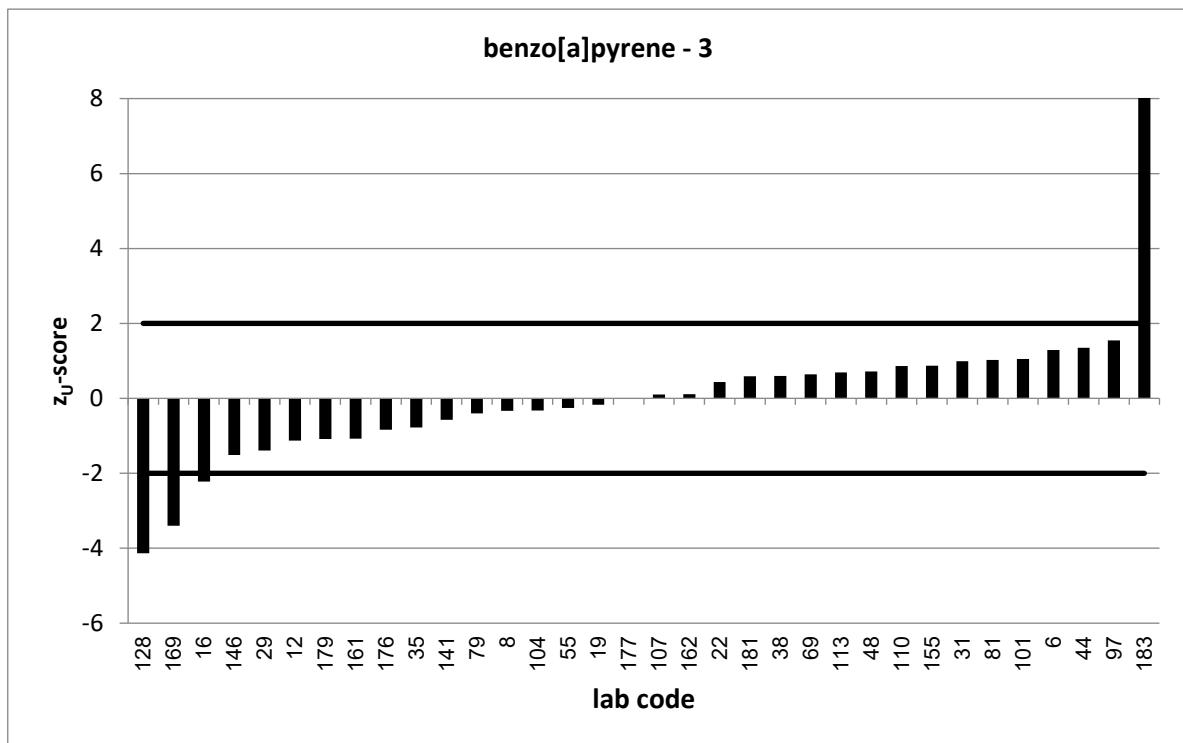
PT 3/24		benzo[a]pyrene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,06202 \pm 0,00785$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,09154			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0381			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,081	0,038	1,0	1,3	s
8	0,058	0,014	-0,5	-0,3	s
12	0,0485	0,015	-1,6	-1,1	s
16	0,0355	0,007	-5,1	-2,2	q
19	0,06	0,018	-0,2	-0,2	s
22	0,0685	0,027	0,5	0,4	s
29	0,0454	0,009	-2,8	-1,4	s
31	0,0766	0,038	0,7	1,0	s
35	0,0527	0,016	-1,0	-0,8	s
38	0,0708			0,6	s
44	0,082	0,017	2,1	1,4	s
48	0,0726	0,006	2,1	0,7	s
55	0,059	0,027	-0,2	-0,3	s
69	0,0715	0,013	1,2	0,6	s
79	0,0572			-0,4	s
81	0,0771			1,0	s
97	0,0848	0,012	3,1	1,5	s
101	0,0775	0,023	1,3	1,0	s
104	0,0581			-0,3	s
107	0,0635	0,017	0,2	0,1	s
110	0,0748			0,9	s
113	0,0722			0,7	s
128	0,0126			-4,1	u
141	0,0552	0,025	-0,5	-0,6	s
146	0,04396	0,011	-2,8	-1,5	s
155	0,0749			0,9	s
161	0,0491			-1,1	s
162	0,0637	0,019	0,2	0,1	s
169	0,0214	0,005	-8,8	-3,4	u
176	0,052			-0,8	s
177	0,0622			0,0	s
179	0,049	0,015	-1,5	-1,1	s
181	0,0707	0,007	1,7	0,6	s
183	0,34	0,101	5,5	18,8	u

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

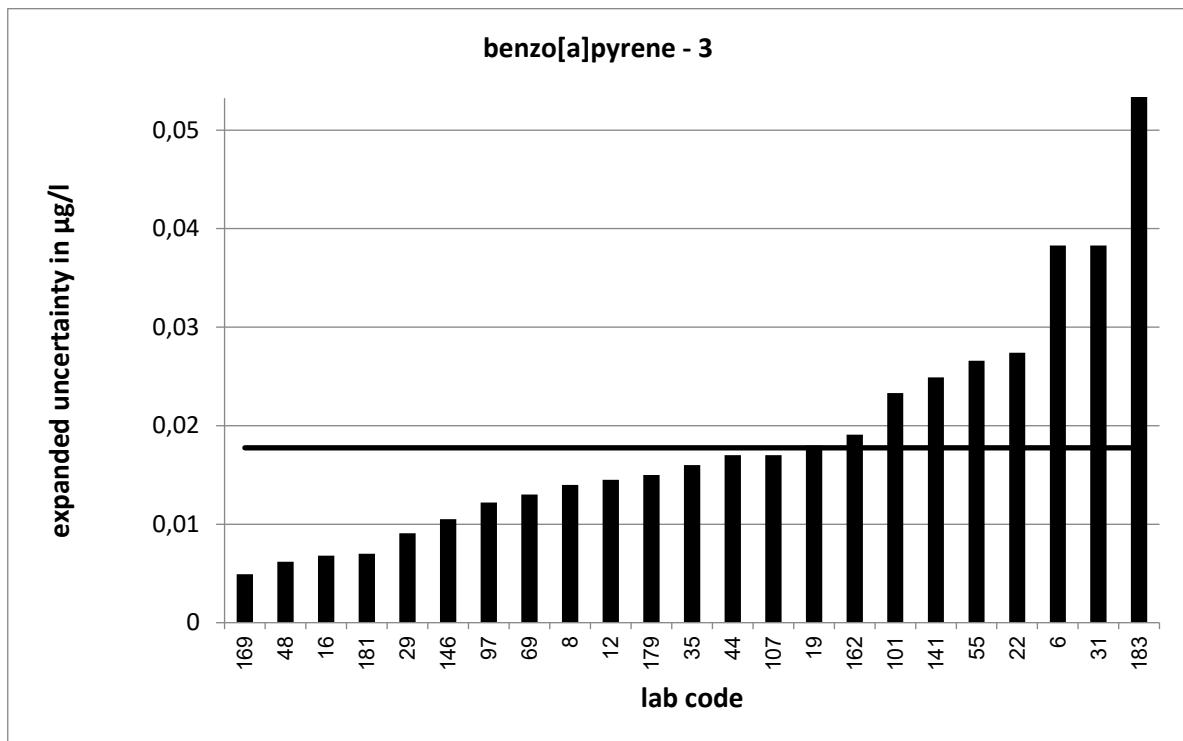
\*\* s = satisfactory, q = questionable, u = unsatisfactory



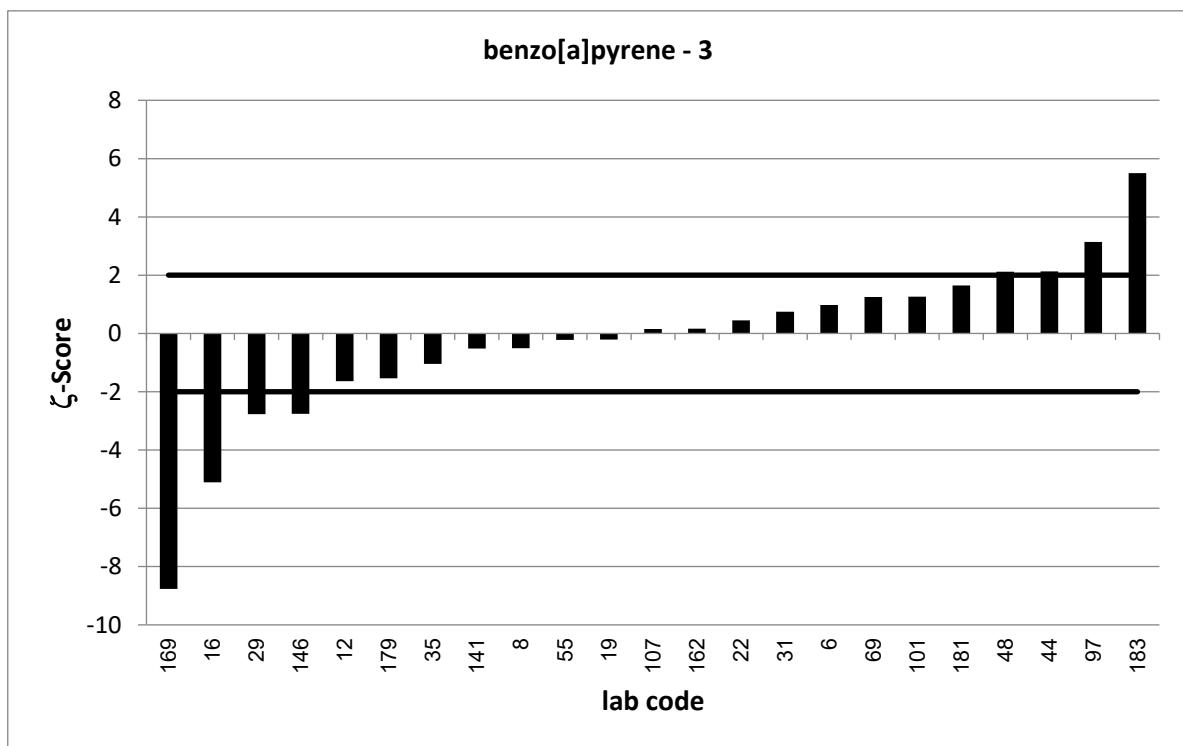
Strongly deviating values are not shown in the diagram.



Strongly deviating values are not correctly shown in the diagram.



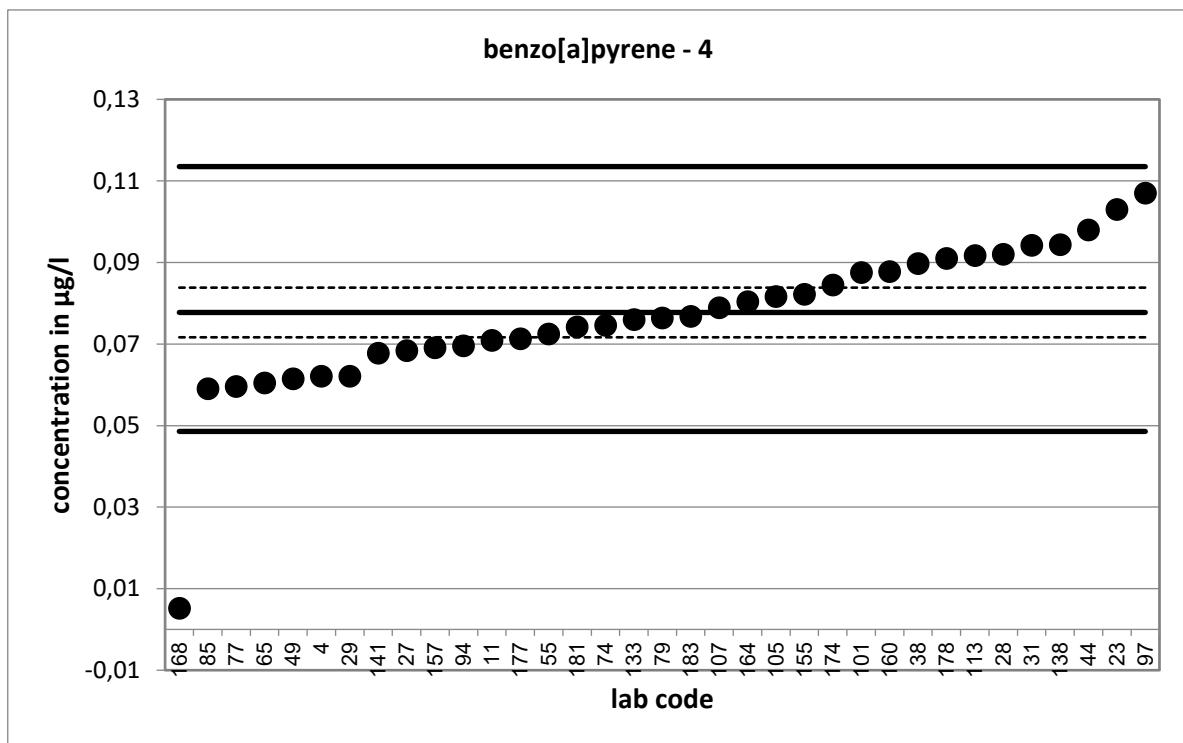
Strongly deviating values are not correctly shown in the diagram.



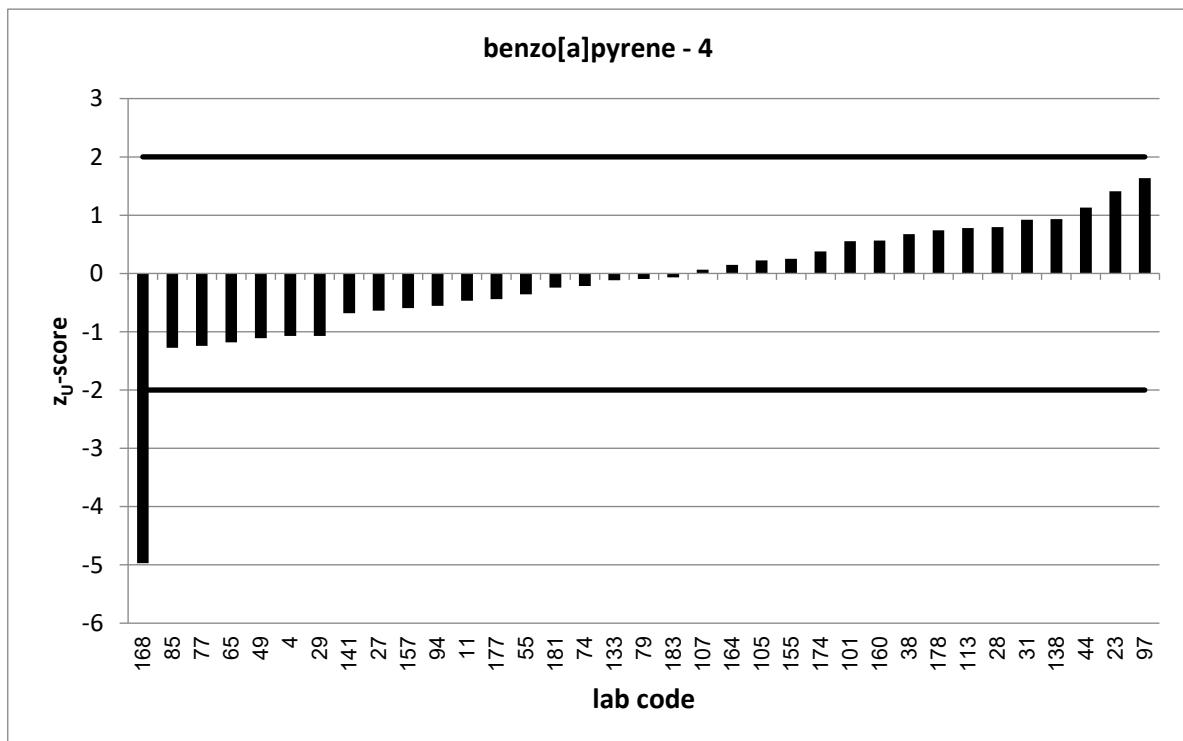
PT 3/24		benzo[a]pyrene - 4			
assigned value [ $\mu\text{g/l}$ ]*		$0,07774 \pm 0,00609$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1135			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,04856			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0621			-1,1	s
11	0,0709	0,016	-0,8	-0,5	s
23	0,103			1,4	s
27	0,0684			-0,6	s
28	0,092	0,024	1,1	0,8	s
29	0,0621	0,012	-2,3	-1,1	s
31	0,0942	0,047	0,7	0,9	s
38	0,0898			0,7	s
44	0,098	0,018	2,1	1,1	s
49	0,0615			-1,1	s
55	0,0725	0,033	-0,3	-0,4	s
65	0,0605			-1,2	s
74	0,0746	0,018	-0,3	-0,2	s
77	0,0596	0,03	-1,2	-1,2	s
79	0,0764			-0,1	s
85	0,0591	0,002	-5,8	-1,3	s
94	0,0696			-0,6	s
97	0,107	0,015	3,5	1,6	s
101	0,0876	0,026	0,7	0,6	s
105	0,0817			0,2	s
107	0,0789	0,021	0,1	0,1	s
113	0,0917			0,8	s
133	0,076			-0,1	s
138	0,0944			0,9	s
141	0,0678	0,031	-0,6	-0,7	s
155	0,0822			0,2	s
157	0,0691			-0,6	s
160	0,0878			0,6	s
164	0,0804	0,024	0,2	0,1	s
168	0,00521	0,002	-22,6	-5,0	u
174	0,0845			0,4	s
177	0,0713			-0,4	s
178	0,091			0,7	s
181	0,0742	0,008	-0,7	-0,2	s
183	0,0768	0,023	-0,1	-0,1	s

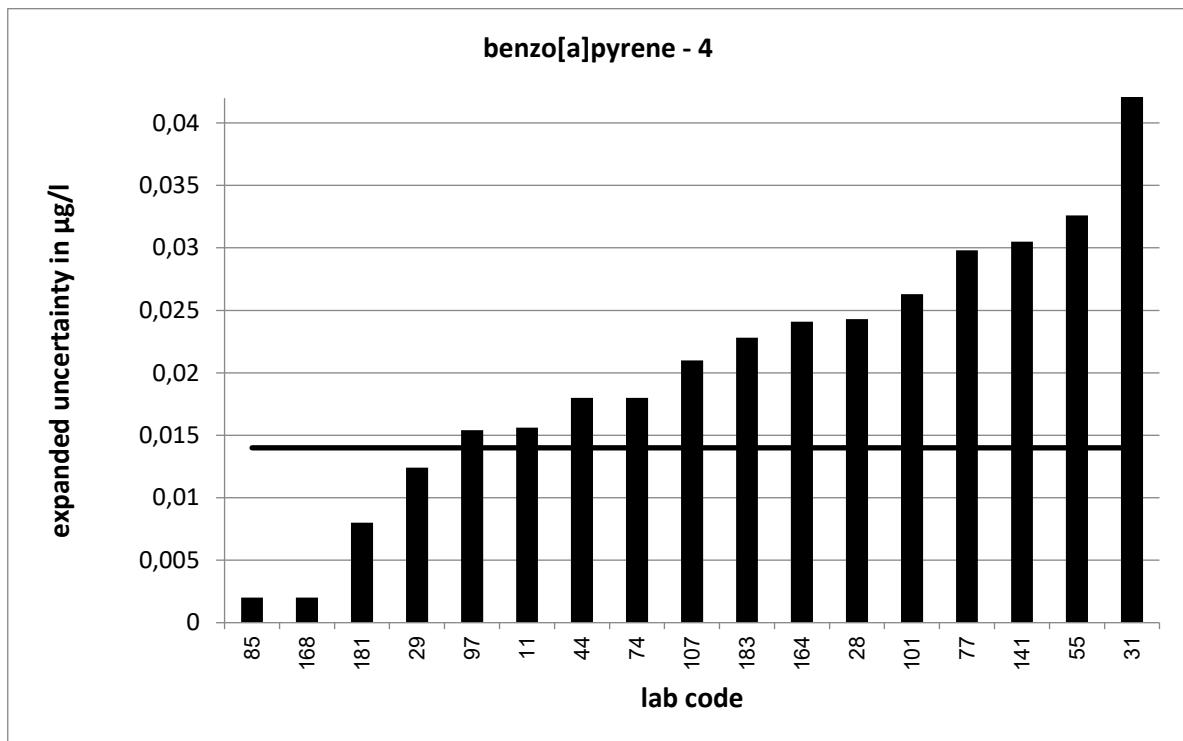
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

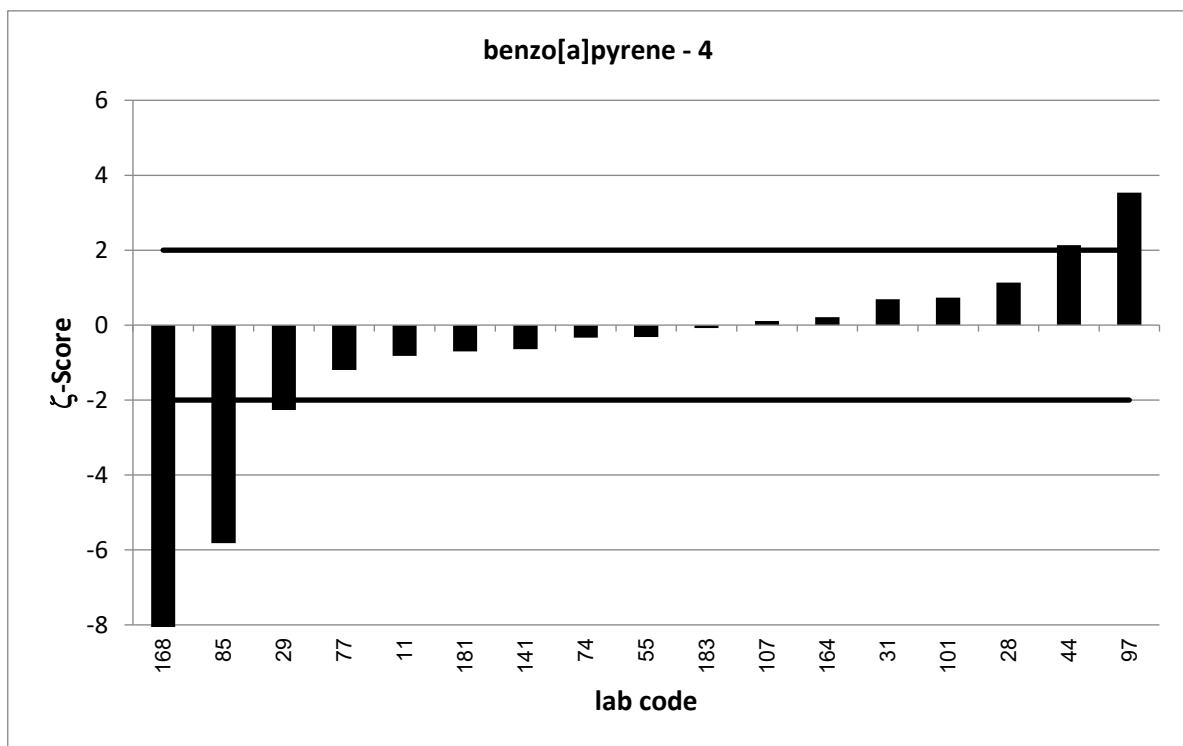


Strongly deviating values are not shown in the diagram.





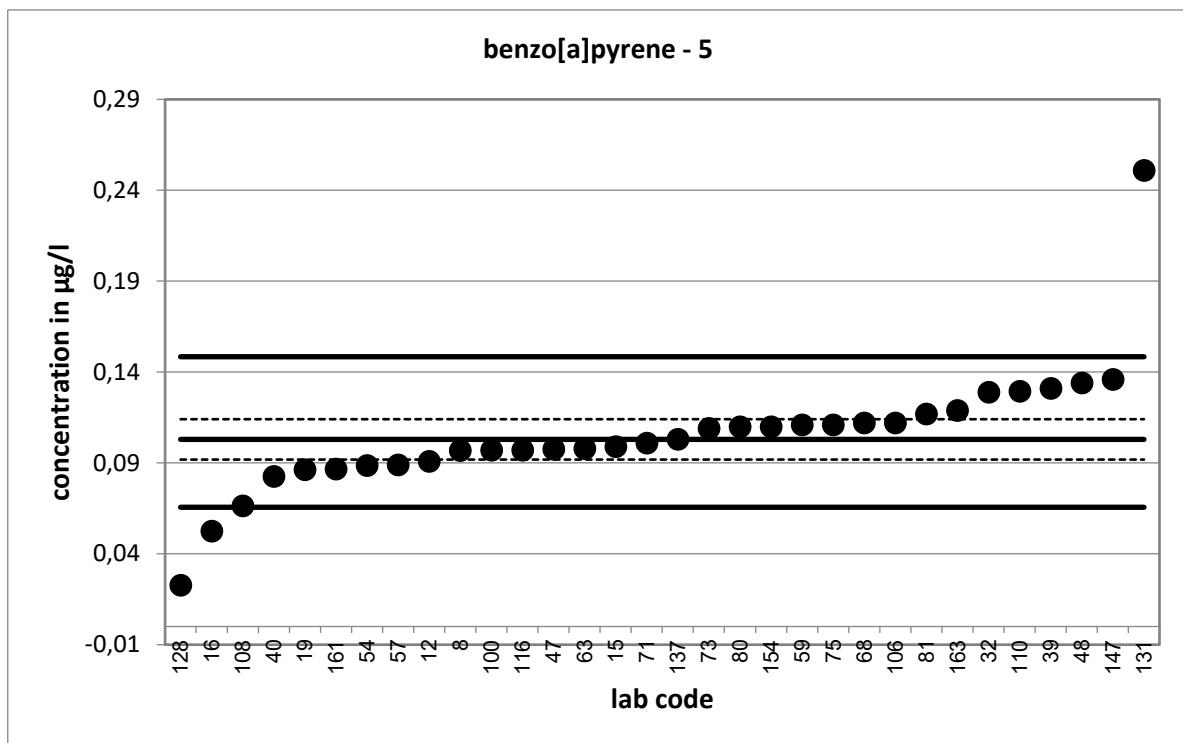
Strongly deviating values are not correctly shown in the diagram.



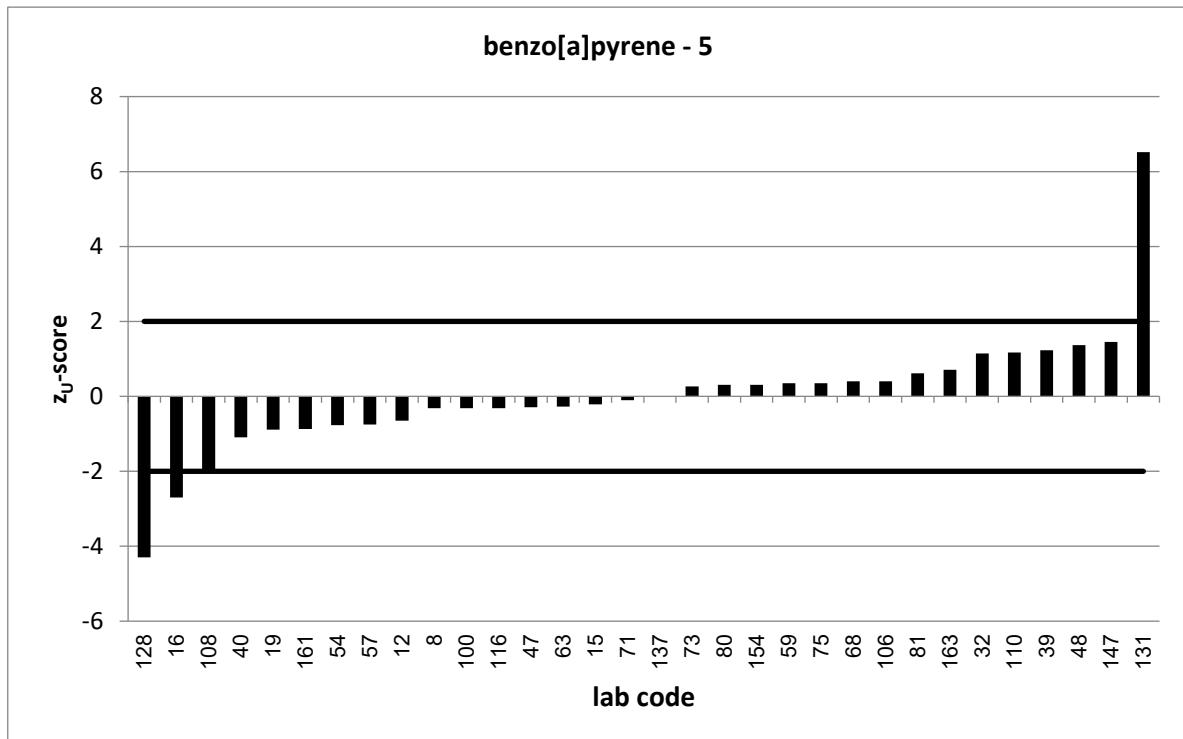
PT 3/24		benzo[a]pyrene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,103 \pm 0,0111$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1484			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,06561			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,097	0,023	-0,5	-0,3	s
12	0,0909	0,027	-0,8	-0,6	s
15	0,099			-0,2	s
16	0,0525	0,01	-6,8	-2,7	q
19	0,0863	0,026	-1,2	-0,9	s
32	0,129			1,1	s
39	0,131	0,021	2,4	1,2	s
40	0,0826			-1,1	s
47	0,0976			-0,3	s
48	0,134	0,007	4,7	1,4	s
54	0,0886	0,027	-1,0	-0,8	s
57	0,089			-0,7	s
59	0,111	0,022	0,7	0,4	s
63	0,0979	0,029	-0,3	-0,3	s
68	0,112			0,4	s
71	0,101	0,025	-0,1	-0,1	s
73	0,109			0,3	s
75	0,111	0,022	0,6	0,4	s
80	0,11	0,01	0,9	0,3	s
81	0,117			0,6	s
100	0,0971	0,019	-0,5	-0,3	s
106	0,112			0,4	s
108	0,0665	0,014	-4,1	-2,0	s
110	0,1295			1,2	s
116	0,0971	0,022	-0,5	-0,3	s
128	0,0228			-4,3	u
131	0,251	0,058	5,0	6,5	u
137	0,103	0,016	0,0	0,0	s
147	0,136	0,002	5,9	1,5	s
154	0,11	0,055	0,3	0,3	s
161	0,0867			-0,9	s
163	0,119			0,7	s

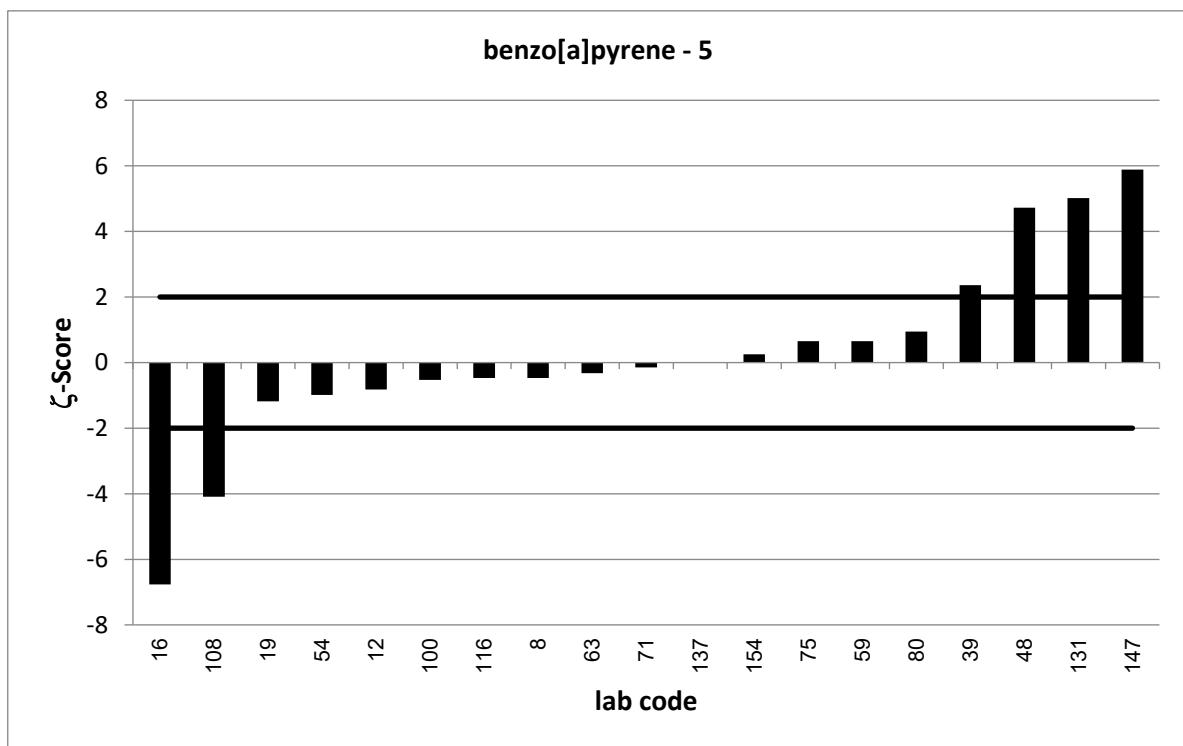
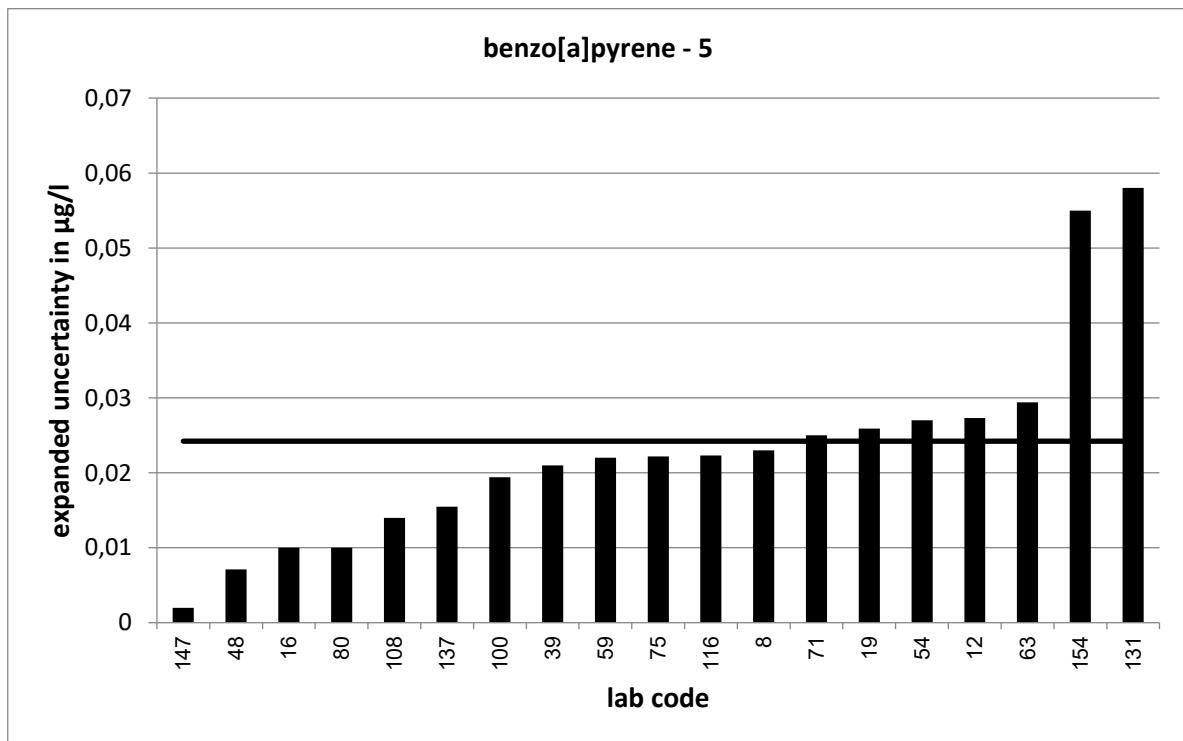
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

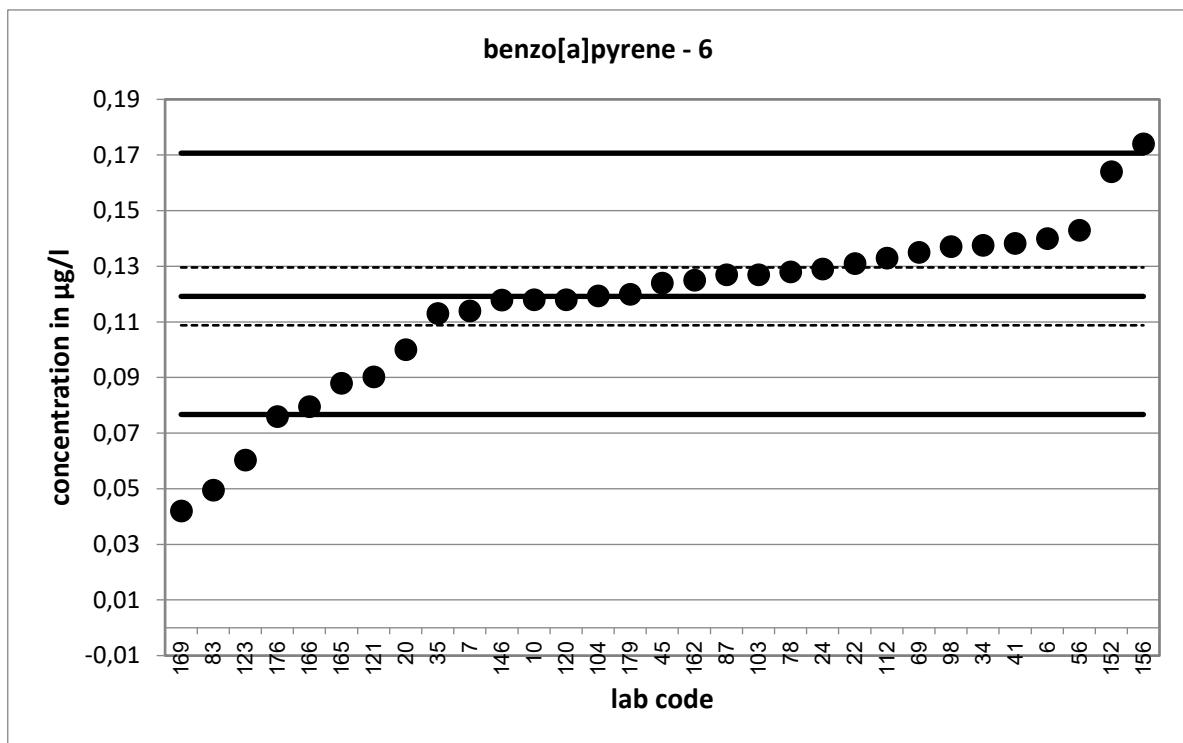




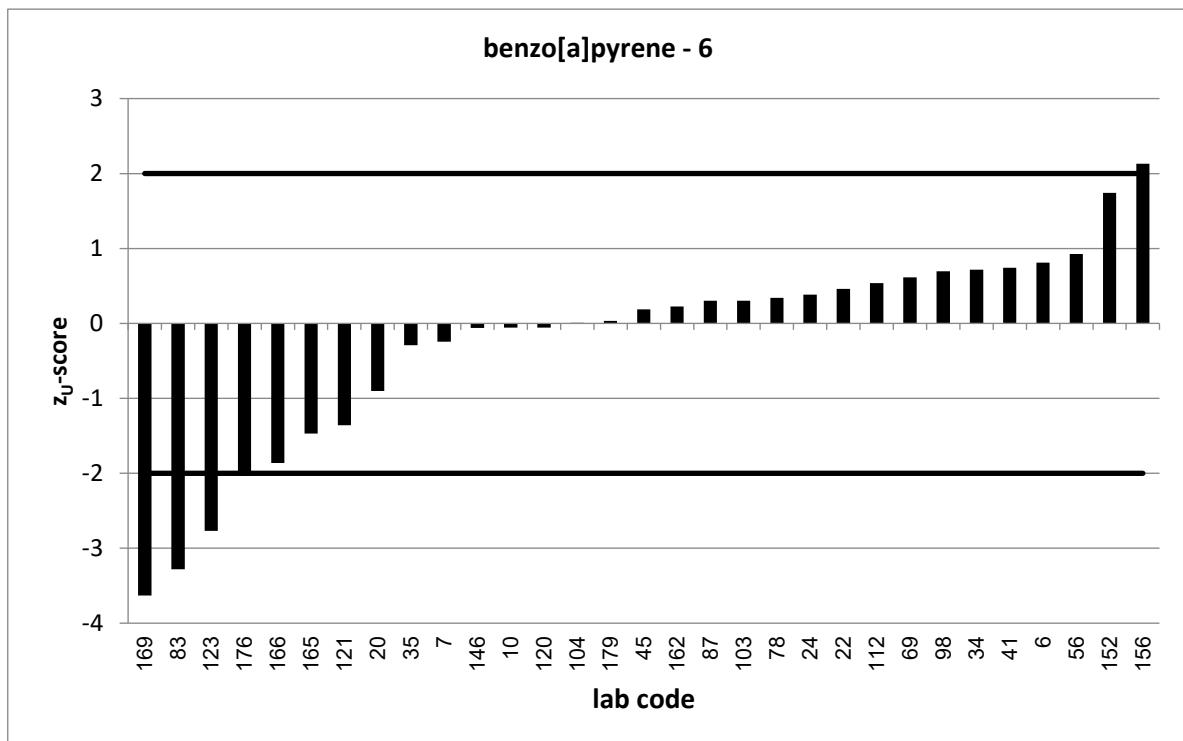
PT 3/24		benzo[a]pyrene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,1192 \pm 0,0104$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1707			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0767			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,14	0,066	0,6	0,8	s
7	0,114	0,022	-0,4	-0,2	s
10	0,118	0,014	-0,1	-0,1	s
20	0,1	0,03	-1,2	-0,9	s
22	0,131	0,053	0,4	0,5	s
24	0,129			0,4	s
34	0,1376	0,02	1,6	0,7	s
35	0,113	0,034	-0,3	-0,3	s
41	0,1383			0,7	s
45	0,124			0,2	s
56	0,143	0,018	2,3	0,9	s
69	0,135	0,024	1,2	0,6	s
78	0,128			0,3	s
83	0,0495			-3,3	u
87	0,127	0,038	0,4	0,3	s
98	0,1371			0,7	s
103	0,127	0,02	0,7	0,3	s
104	0,1194			0,0	s
112	0,133	0,004	2,5	0,5	s
120	0,118	0,011	-0,2	-0,1	s
121	0,0903	0,024	-2,2	-1,4	s
123	0,0604			-2,8	q
146	0,1179	0,028	-0,1	-0,1	s
152	0,164	0,035	2,5	1,7	s
156	0,174	0,025	4,1	2,1	q
162	0,125	0,038	0,3	0,2	s
165	0,088			-1,5	s
166	0,0796			-1,9	s
169	0,0421	0,01	-10,8	-3,6	u
176	0,076			-2,0	s
179	0,12	0,036	0,0	0,0	s

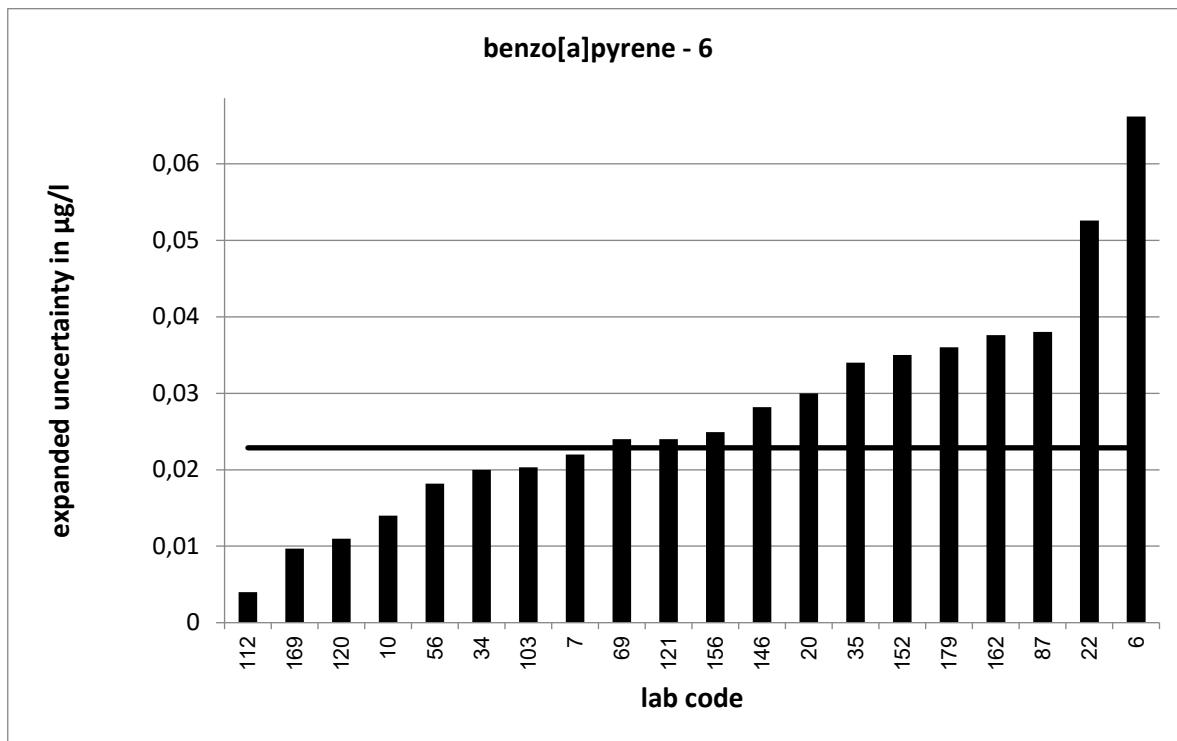
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

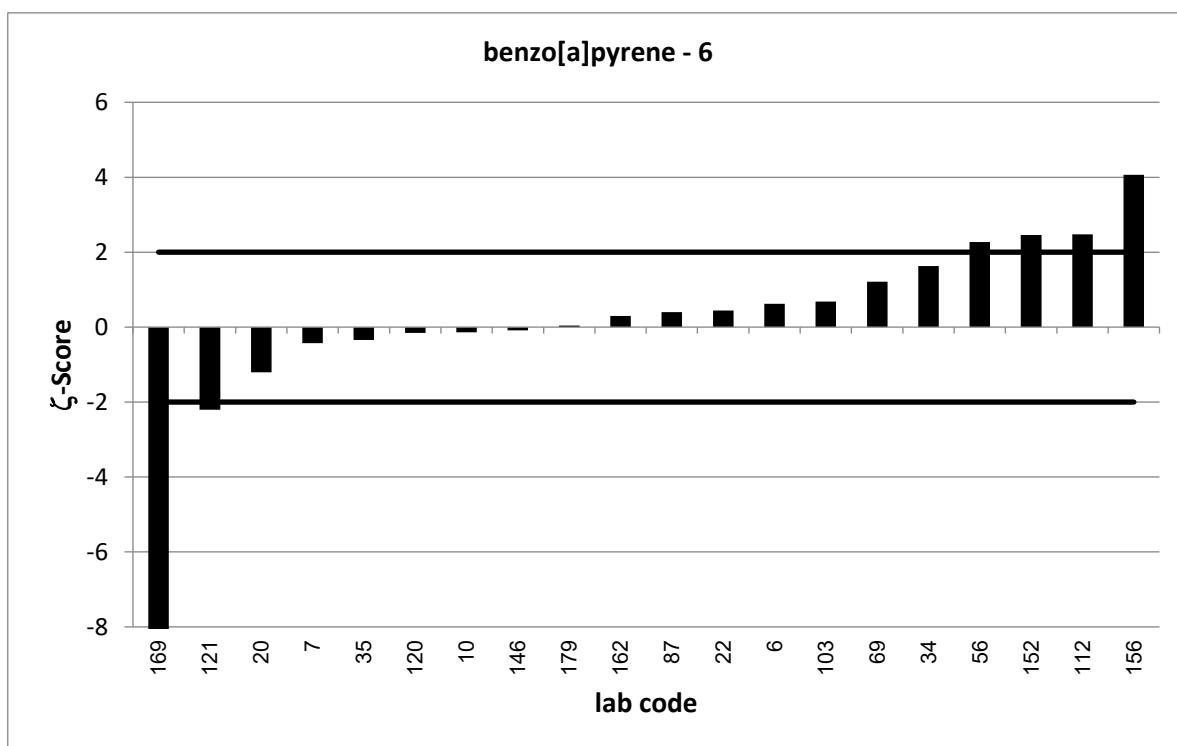


Strongly deviating values are not shown in the diagram.





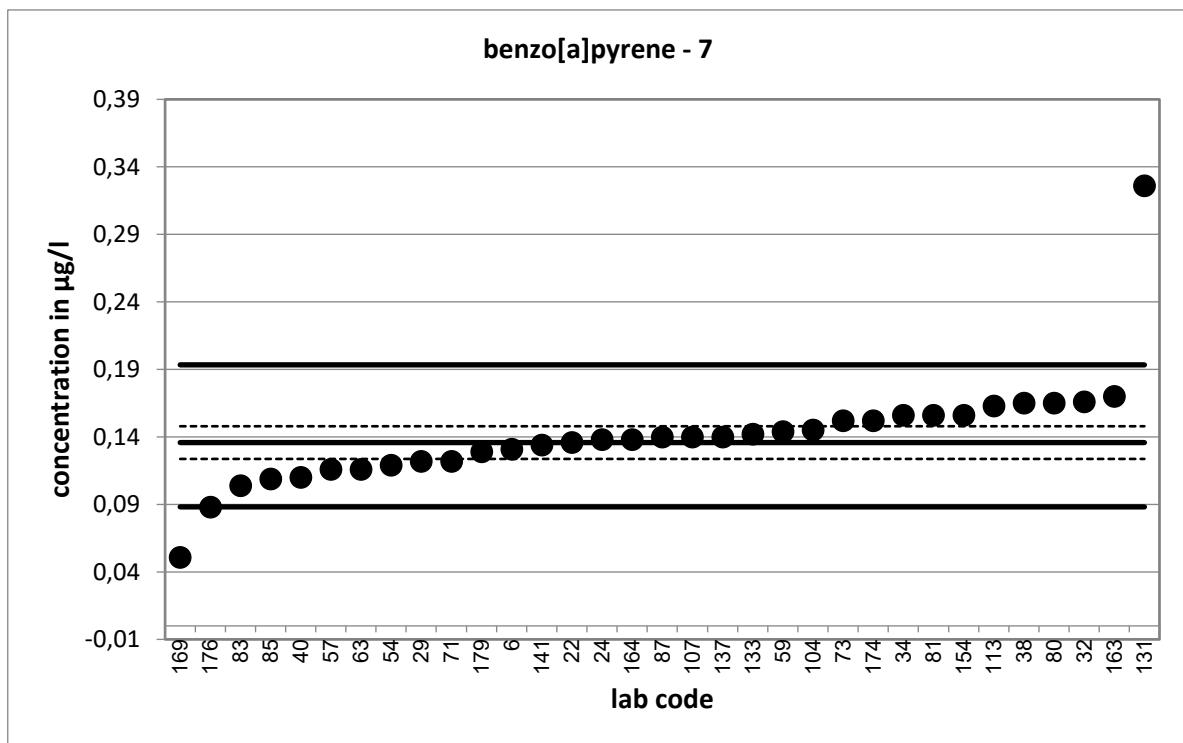
Strongly deviating values are not correctly shown in the diagram.



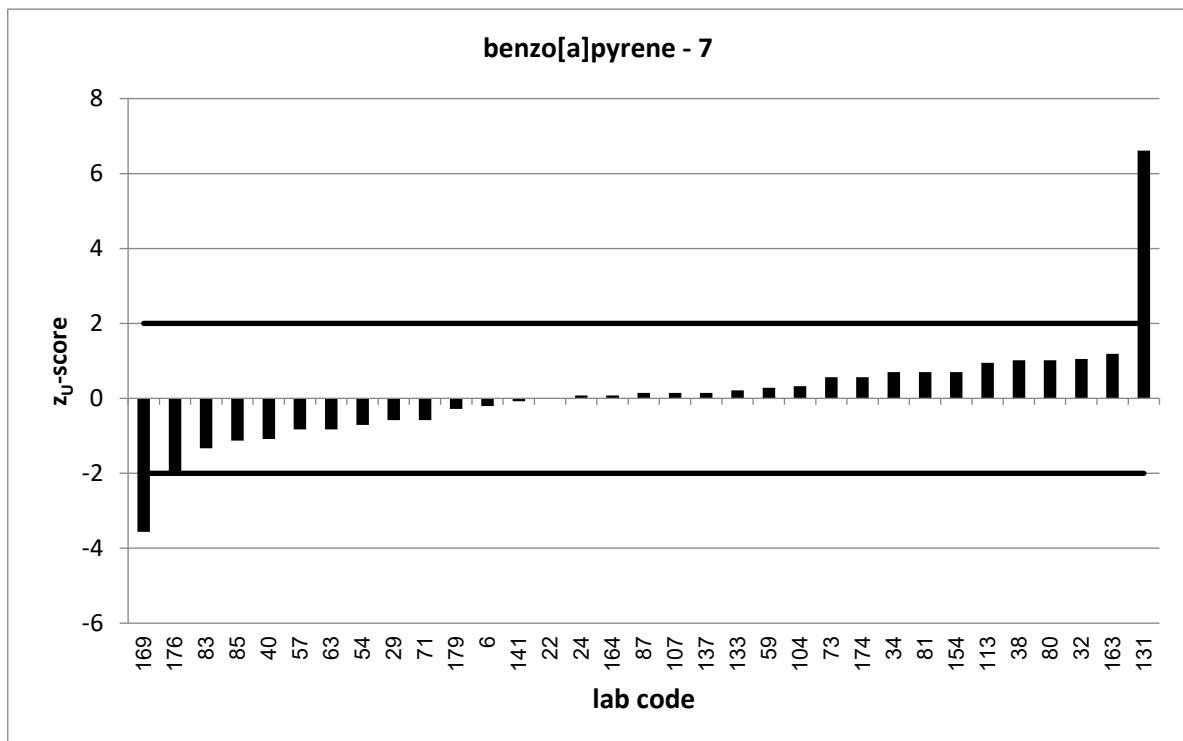
PT 3/24		benzo[a]pyrene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,1358 \pm 0,0121$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,1934$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,08816$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,131	0,062	-0,2	-0,2	s
22	0,136	0,054	0,0	0,0	s
24	0,138			0,1	s
29	0,122	0,024	-1,0	-0,6	s
32	0,166			1,0	s
34	0,156	0,02	1,7	0,7	s
38	0,165			1,0	s
40	0,11			-1,1	s
54	0,119	0,036	-0,9	-0,7	s
57	0,116			-0,8	s
59	0,144	0,029	0,5	0,3	s
63	0,116	0,035	-1,1	-0,8	s
71	0,122	0,03	-0,9	-0,6	s
73	0,152			0,6	s
80	0,165	0,02	2,5	1,0	s
81	0,156			0,7	s
83	0,104			-1,3	s
85	0,109	0,002	-4,4	-1,1	s
87	0,14	0,042	0,2	0,1	s
104	0,1452			0,3	s
107	0,14	0,036	0,2	0,1	s
113	0,163			0,9	s
131	0,326	0,078	4,8	6,6	u
133	0,142			0,2	s
137	0,14	0,021	0,3	0,1	s
141	0,134	0,06	-0,1	-0,1	s
154	0,156	0,078	0,5	0,7	s
163	0,17			1,2	s
164	0,138	0,046	0,1	0,1	s
169	0,0509	0,012	-10,1	-3,6	u
174	0,152			0,6	s
176	0,088			-2,0	s
179	0,129	0,039	-0,3	-0,3	s

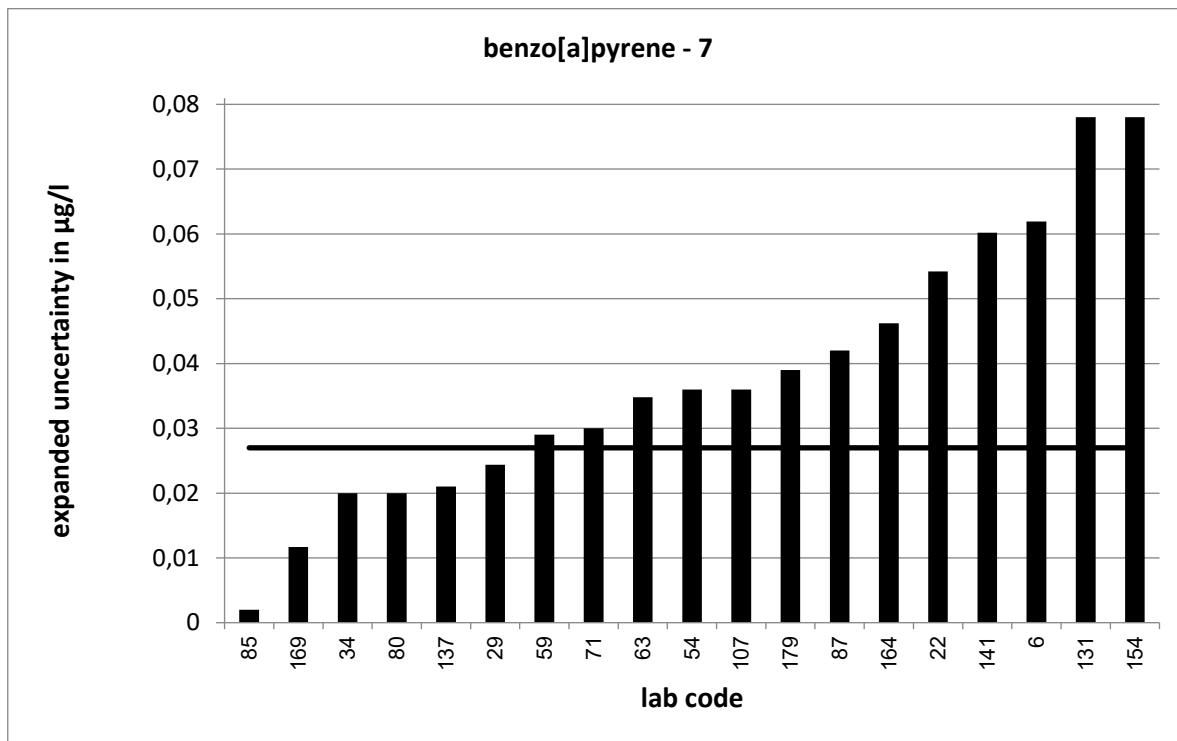
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

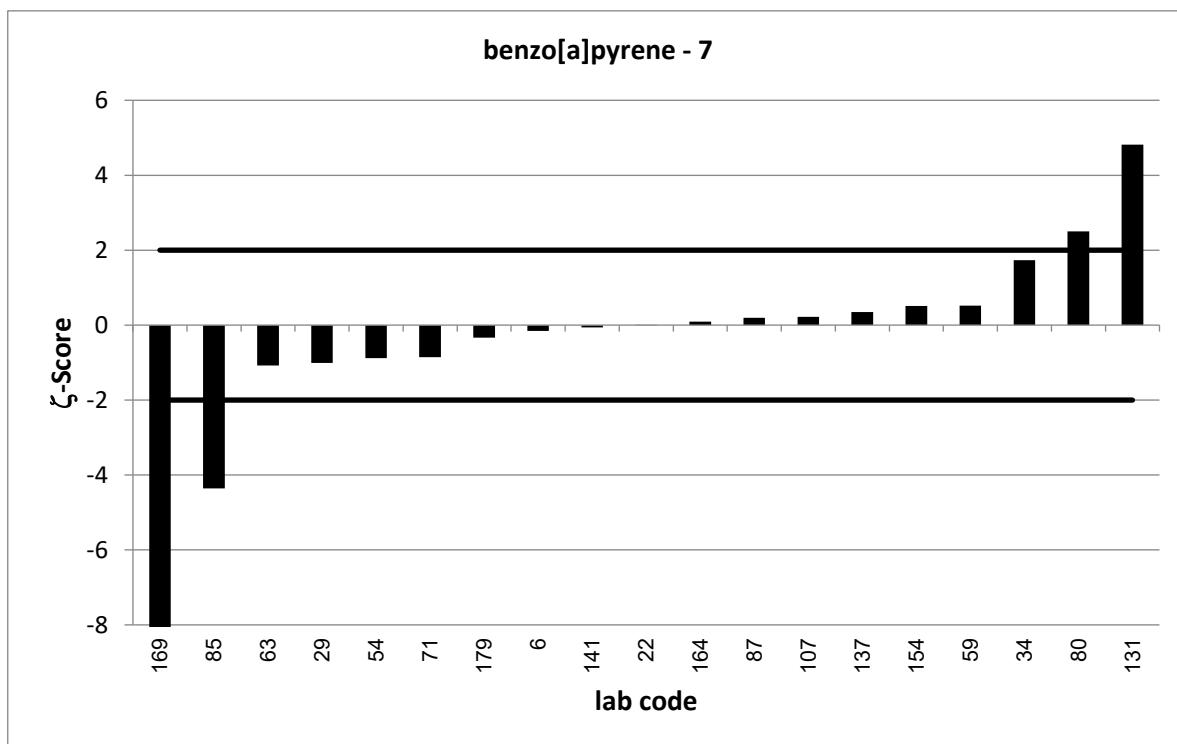


Strongly deviating values are not shown in the diagram.





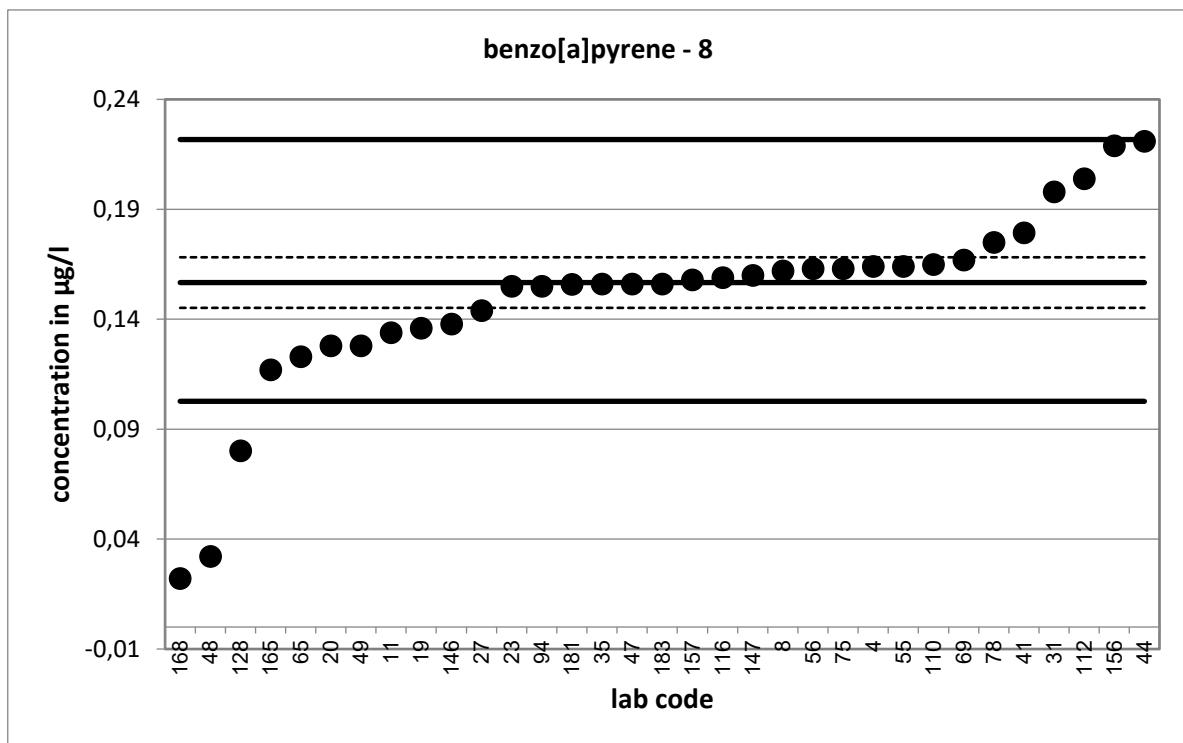
Strongly deviating values are not correctly shown in the diagram.



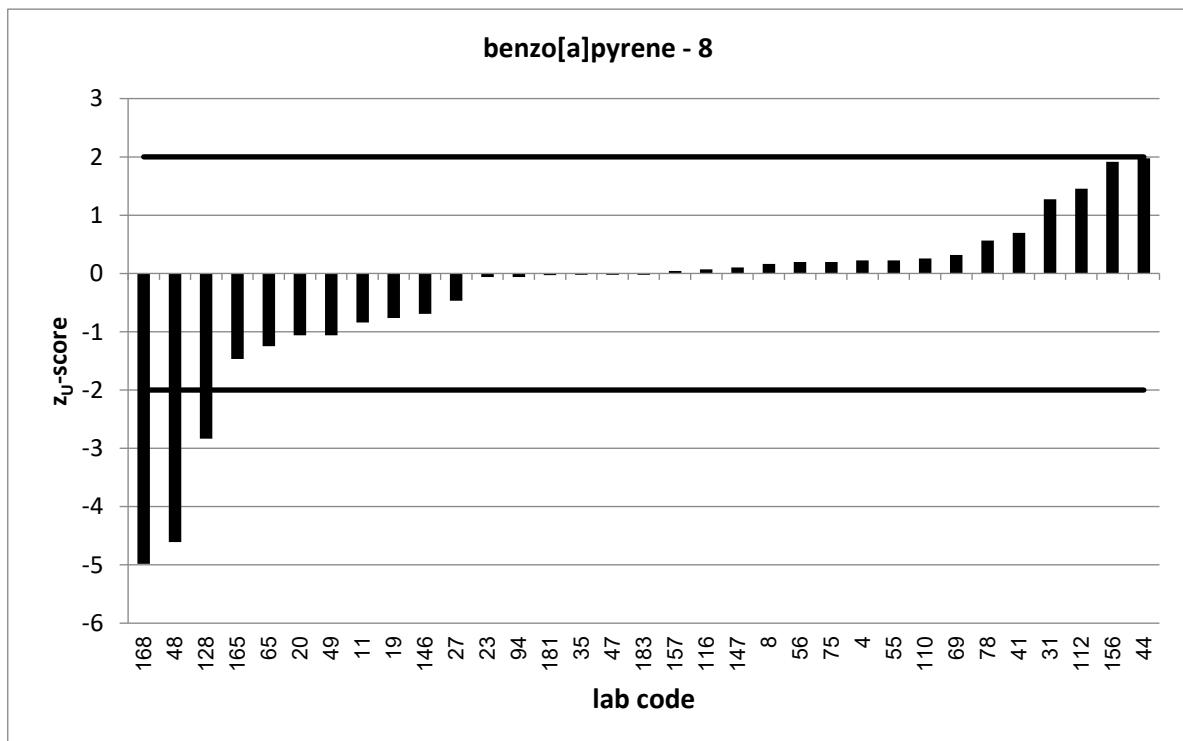
PT 3/24		benzo[a]pyrene - 8			
assigned value [ $\mu\text{g/l}$ ]*		$0,1567 \pm 0,0115$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2217			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1027			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,164			0,2	s
8	0,162	0,039	0,3	0,2	s
11	0,134	0,029	-1,4	-0,8	s
19	0,136	0,041	-1,0	-0,8	s
20	0,128	0,038	-1,4	-1,1	s
23	0,155			-0,1	s
27	0,144			-0,5	s
31	0,198	0,099	0,8	1,3	s
35	0,156	0,047	0,0	0,0	s
41	0,1793			0,7	s
44	0,221	0,038	3,2	2,0	s
47	0,156			0,0	s
48	0,0322	4E-04	-21,7	-4,6	u
49	0,128			-1,1	s
55	0,164	0,074	0,2	0,2	s
56	0,163	0,021	0,5	0,2	s
65	0,123			-1,2	s
69	0,167	0,029	0,7	0,3	s
75	0,163	0,033	0,4	0,2	s
78	0,175			0,6	s
94	0,155			-0,1	s
110	0,165			0,3	s
112	0,204	0,006	7,3	1,5	s
116	0,159	0,037	0,1	0,1	s
128	0,0802			-2,8	q
146	0,1379	0,034	-1,0	-0,7	s
147	0,16	0,002	0,6	0,1	s
156	0,219	0,032	3,7	1,9	s
157	0,158			0,0	s
165	0,117			-1,5	s
168	0,0221	0,005	-21,5	-5,0	u
181	0,1559	0,017	-0,1	0,0	s
183	0,156	0,046	0,0	0,0	s

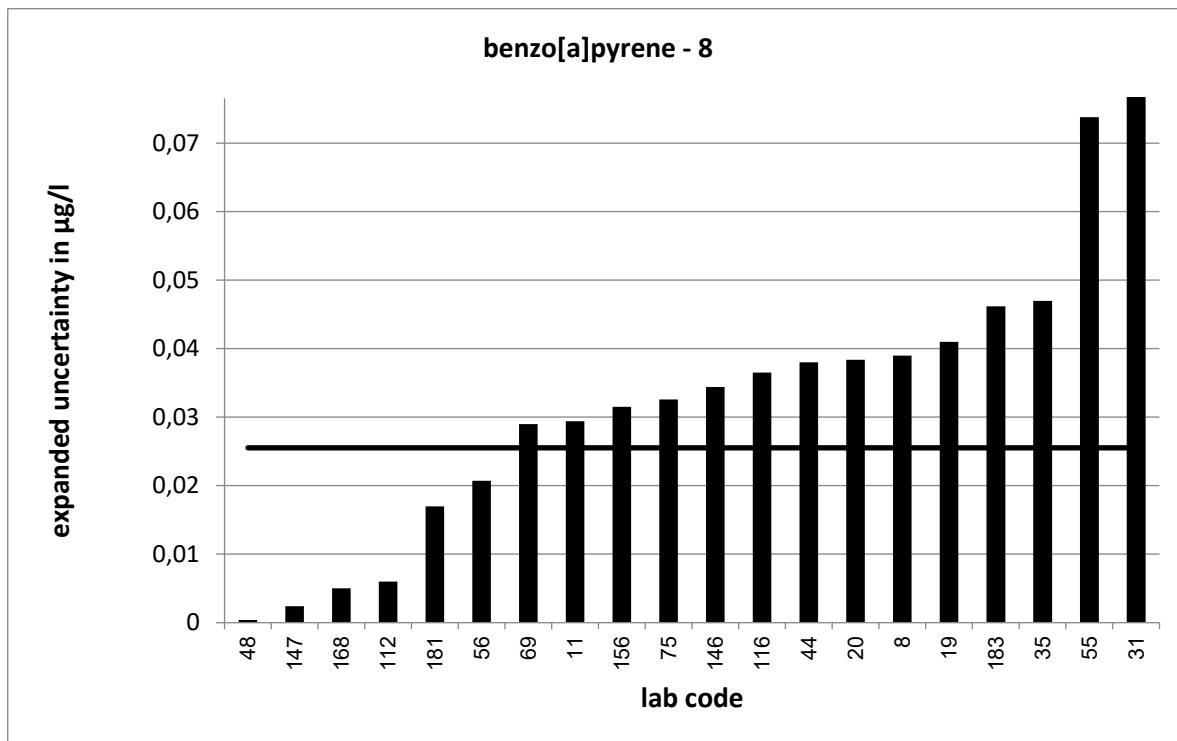
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

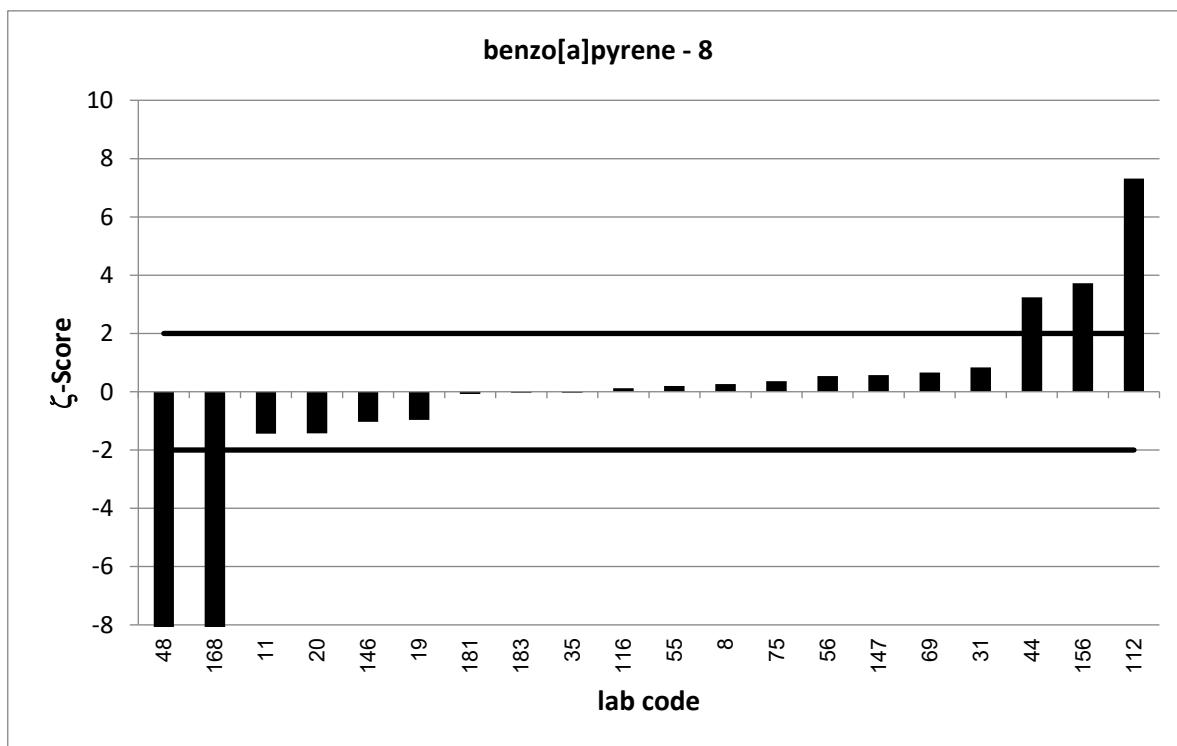


Strongly deviating values are not shown in the diagram.





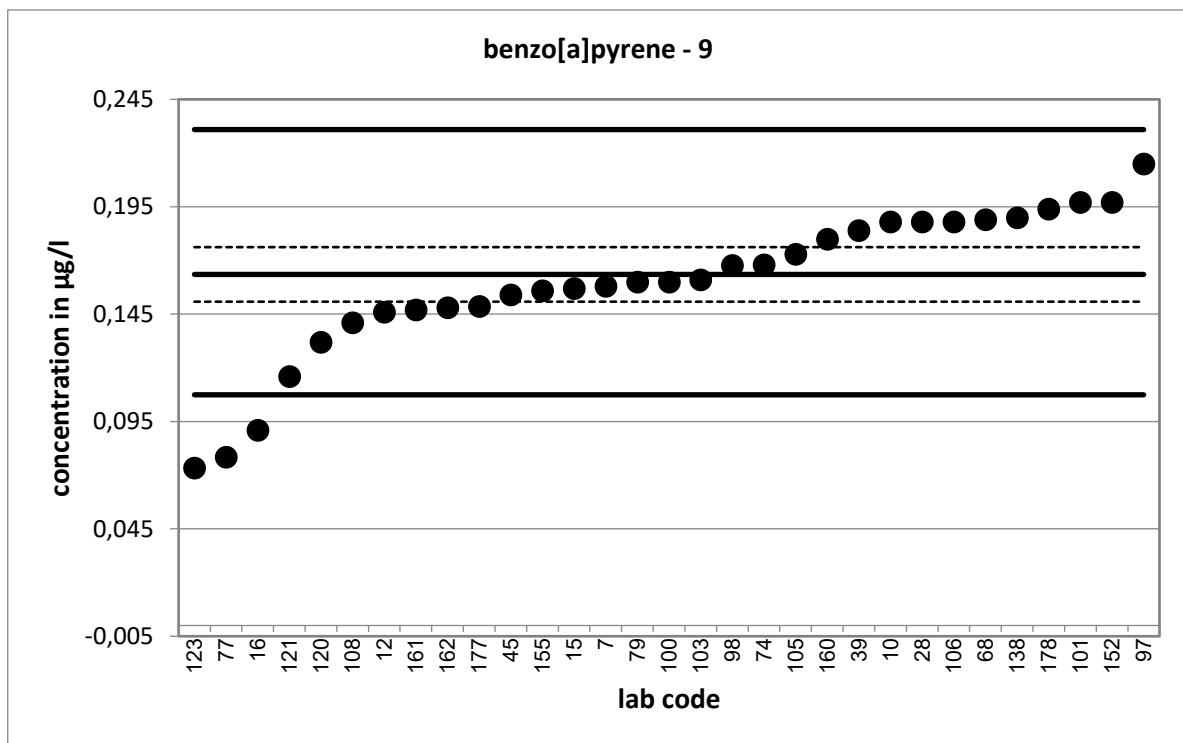
Strongly deviating values are not correctly shown in the diagram.



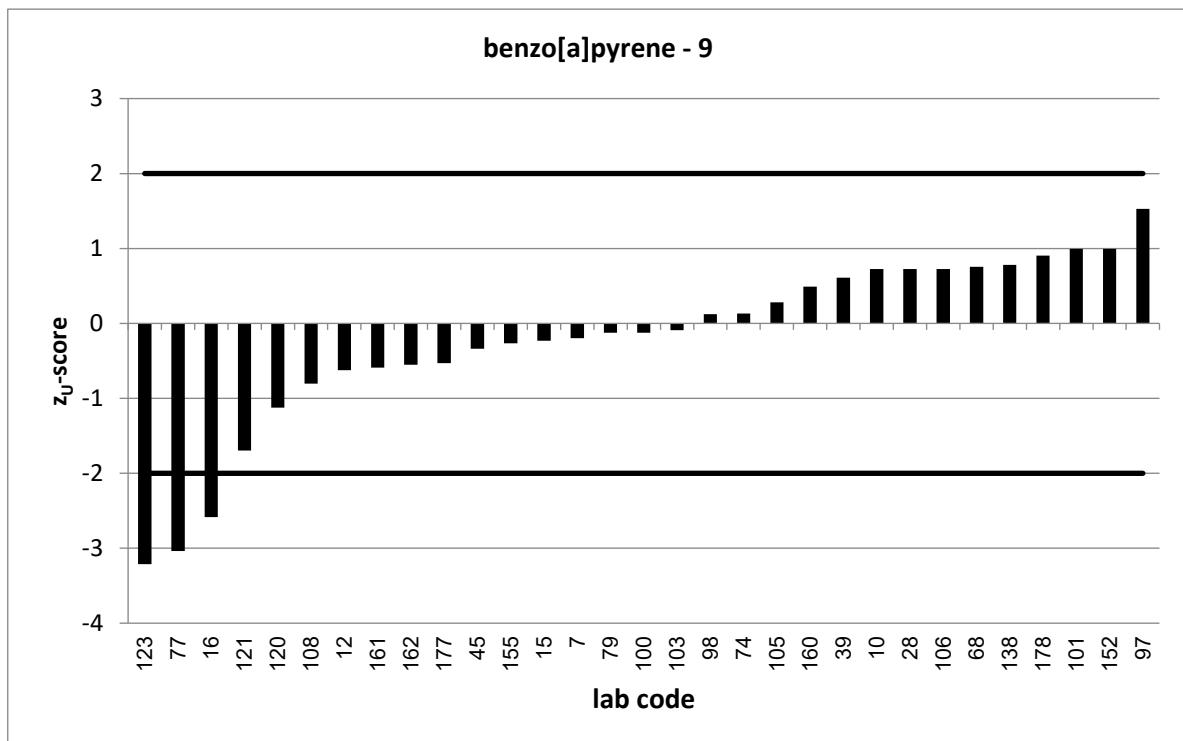
PT 3/24		benzo[a]pyrene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,1635 \pm 0,0127$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2309			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,1074			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,158	0,034	-0,3	-0,2	s
10	0,188	0,022	1,9	0,7	s
12	0,146	0,044	-0,8	-0,6	s
15	0,157			-0,2	s
16	0,091	0,018	-6,6	-2,6	q
28	0,188	0,05	1,0	0,7	s
39	0,184	0,029	1,3	0,6	s
45	0,154			-0,3	s
68	0,189			0,8	s
74	0,168	0,042	0,2	0,1	s
77	0,0784	0,039	-4,1	-3,0	u
79	0,16			-0,1	s
97	0,215	0,031	3,1	1,5	s
98	0,1677			0,1	s
100	0,16	0,032	-0,2	-0,1	s
101	0,197	0,059	1,1	1,0	s
103	0,161	0,026	-0,2	-0,1	s
105	0,173			0,3	s
106	0,188			0,7	s
108	0,141	0,03	-1,4	-0,8	s
120	0,132	0,026	-2,2	-1,1	s
121	0,116	0,031	-2,8	-1,7	s
123	0,0734			-3,2	u
138	0,1899			0,8	s
152	0,197	0,042	1,5	1,0	s
155	0,156			-0,3	s
160	0,18			0,5	s
161	0,147			-0,6	s
162	0,148	0,045	-0,7	-0,6	s
177	0,1486			-0,5	s
178	0,194			0,9	s

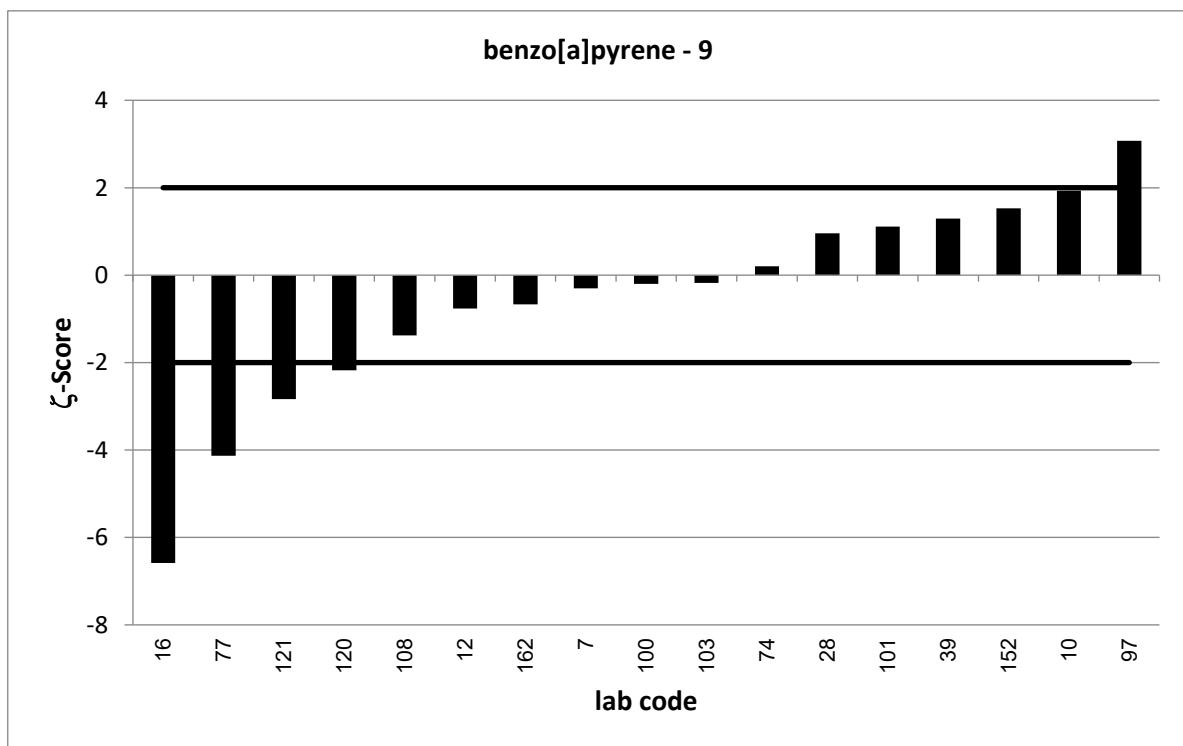
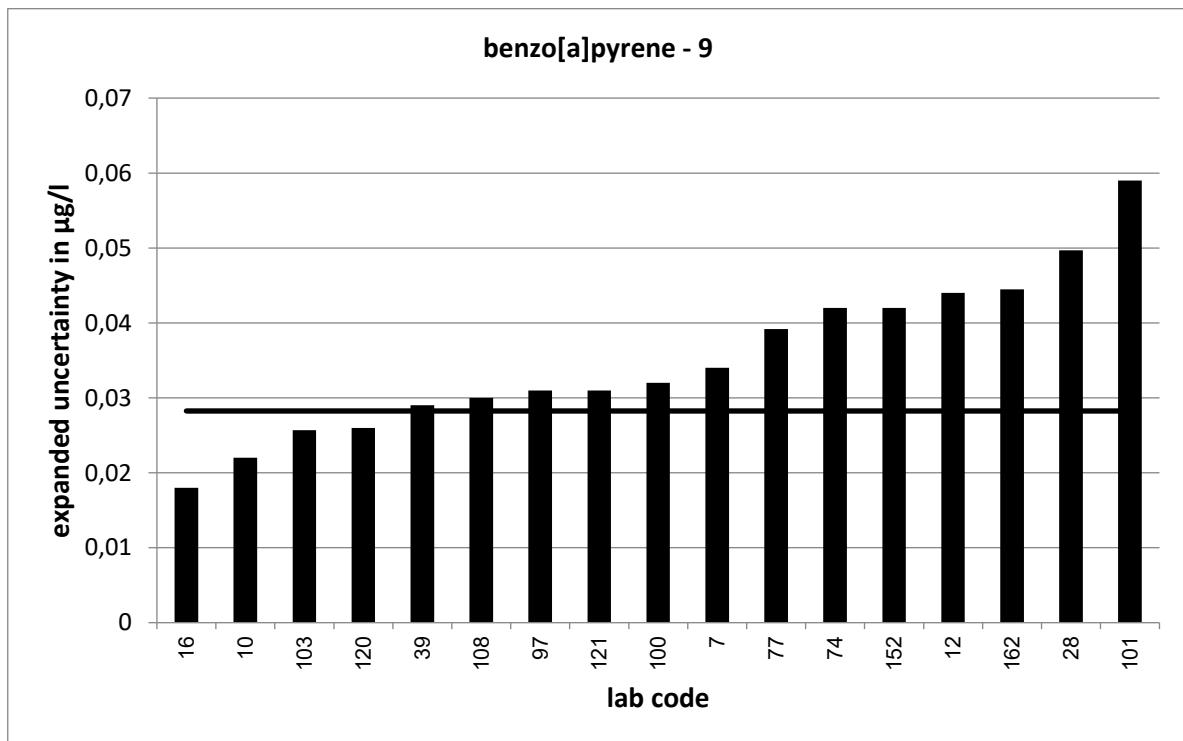
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

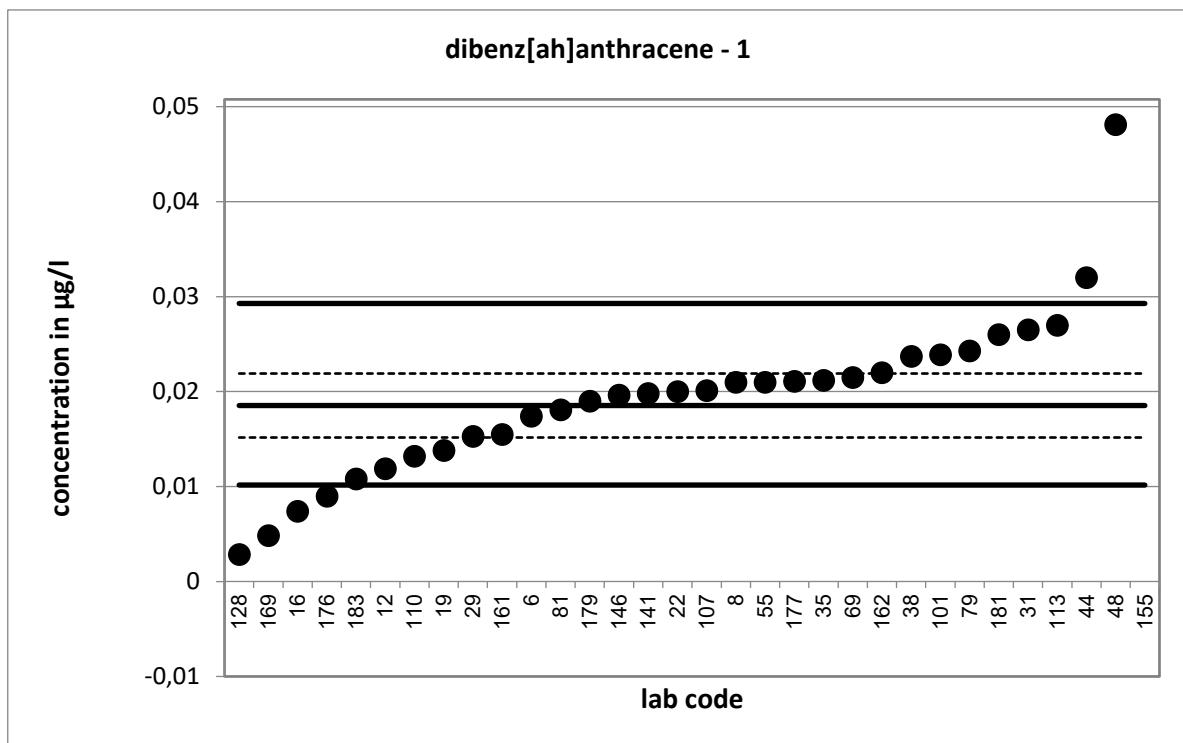




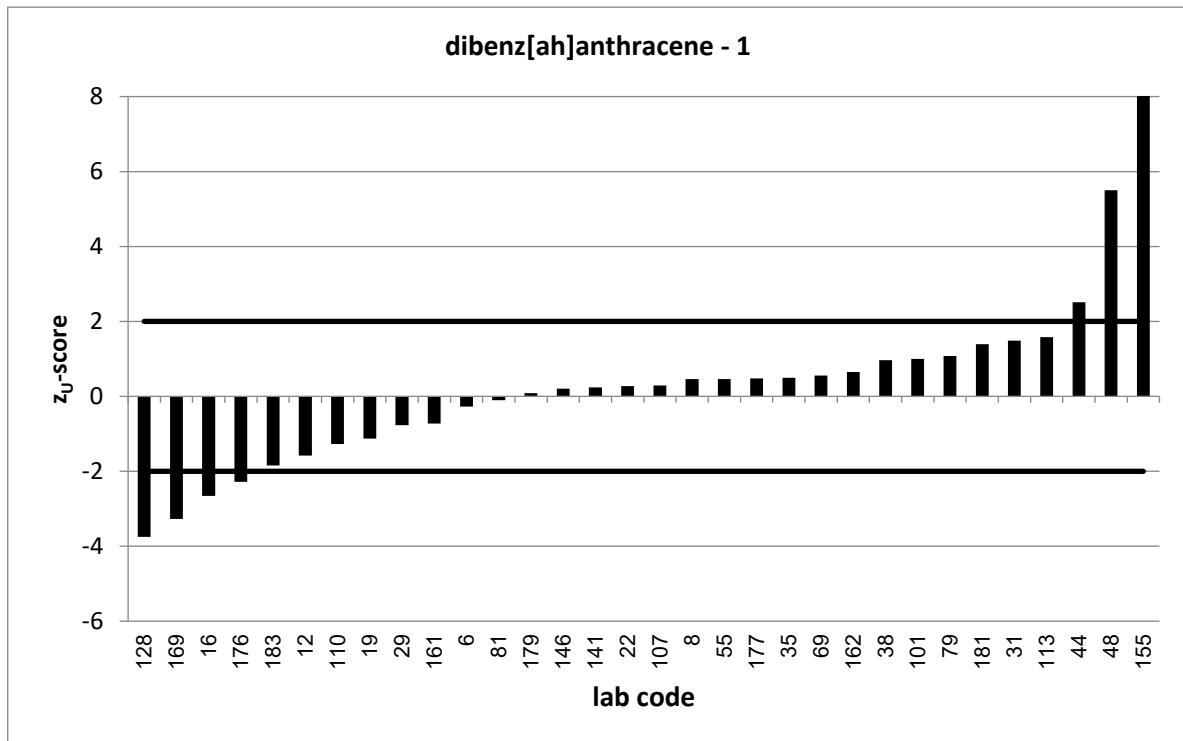
PT 3/24		dibenz[ah]anthracene - 1			
assigned value [ $\mu\text{g/l}$ ]*		$0,01853 \pm 0,00337$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,02927			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,01016			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0174	0,01	-0,2	-0,3	s
8	0,021	0,005	0,8	0,5	s
12	0,0119	0,004	-2,7	-1,6	s
16	0,0074	0,002	-6,0	-2,7	q
19	0,0138	0,004	-1,8	-1,1	s
22	0,02	0,008	0,3	0,3	s
29	0,0153	0,003	-1,4	-0,8	s
31	0,0265	0,009	1,6	1,5	s
35	0,0212	0,006	0,8	0,5	s
38	0,0237			1,0	s
44	0,032	0,008	3,1	2,5	q
48	0,0481	0,003	13,3	5,5	u
55	0,021	0,01	0,5	0,5	s
69	0,0215	0,004	1,1	0,6	s
79	0,0243			1,1	s
81	0,0181			-0,1	s
101	0,0239	0,007	1,4	1,0	s
107	0,0201	0,005	0,5	0,3	s
110	0,0132			-1,3	s
113	0,027			1,6	s
128	0,00284			-3,7	u
141	0,0198	0,009	0,3	0,2	s
146	0,01963	0,005	0,4	0,2	s
155	0,159			26,1	u
161	0,0155			-0,7	s
162	0,022	0,007	0,9	0,6	s
169	0,00483	0,002	-7,3	-3,3	u
176	0,009			-2,3	q
177	0,0211			0,5	s
179	0,019	0,006	0,1	0,1	s
181	0,026	0,003	3,3	1,4	s
183	0,0108	0,003	-3,3	-1,8	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

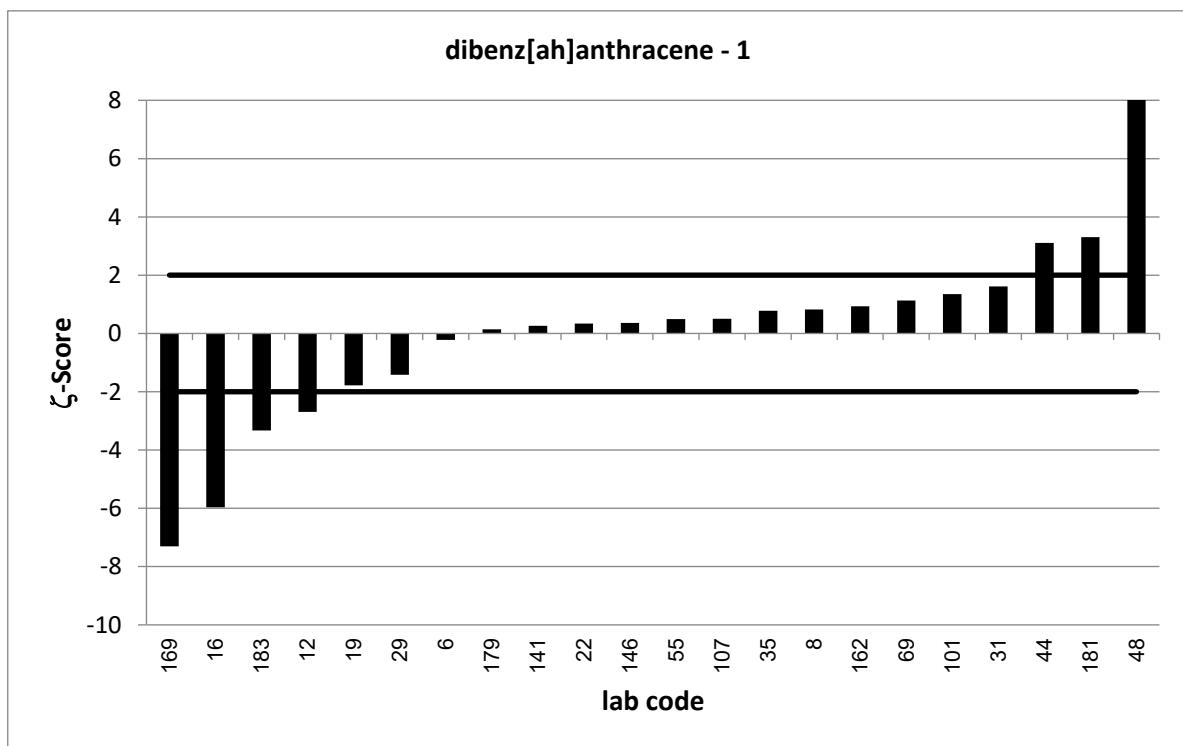
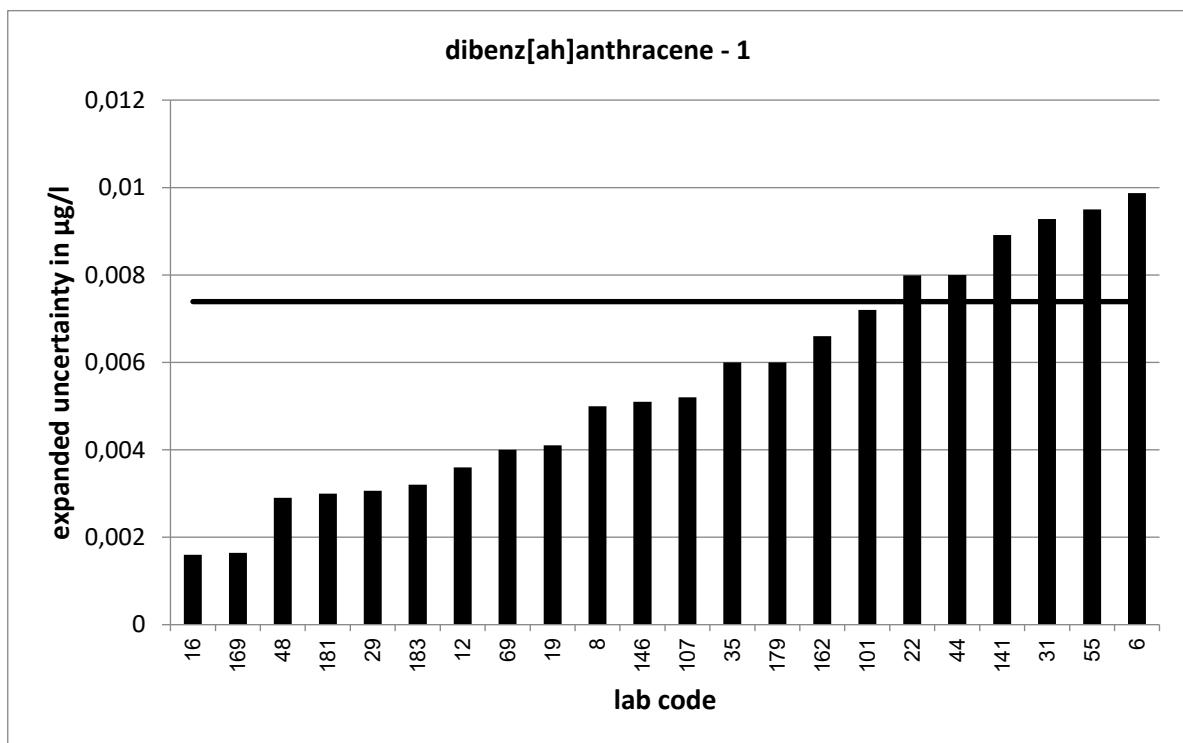
\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.



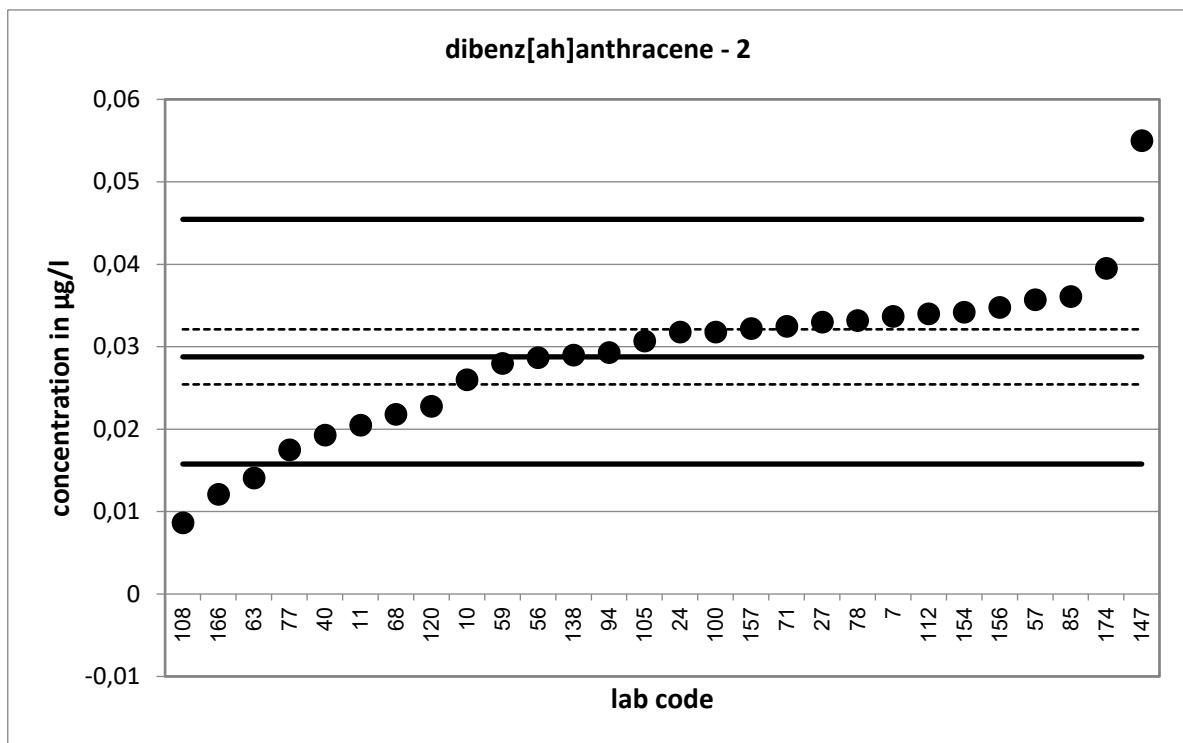
Strongly deviating values are not correctly shown in the diagram.



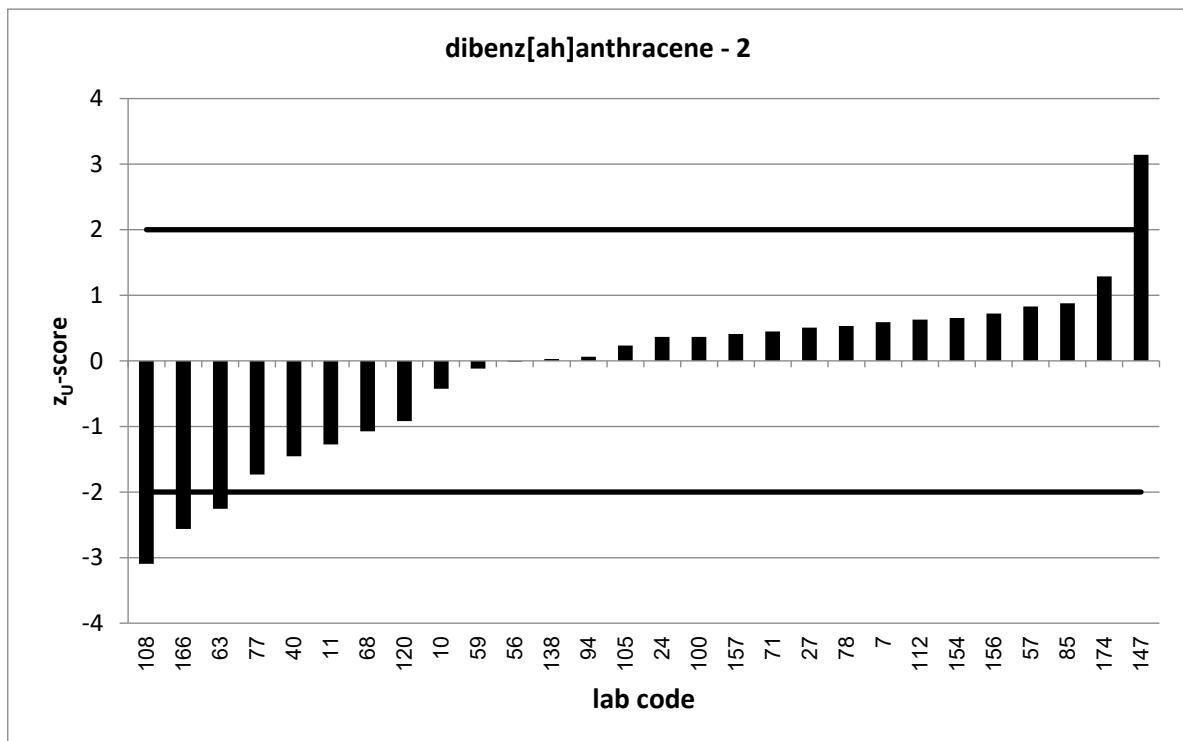
PT 3/24		dibenz[ah]anthracene - 2			
assigned value [ $\mu\text{g/l}$ ]*		0,02877 $\pm$ 0,00334			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,04545			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,01577			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0337	0,006	1,4	0,6	s
10	0,026	0,005	-0,9	-0,4	s
11	0,0205	0,005	-3,0	-1,3	s
24	0,0318			0,4	s
27	0,033			0,5	s
40	0,0193			-1,5	s
56	0,0287	0,005	0,0	0,0	s
57	0,0357			0,8	s
59	0,028	0,006	-0,2	-0,1	s
63	0,0141	0,002	-7,1	-2,3	q
68	0,0218			-1,1	s
71	0,0325	0,007	1,0	0,4	s
77	0,0175	0,006	-3,2	-1,7	s
78	0,0332			0,5	s
85	0,0361	0,002	3,8	0,9	s
94	0,0293			0,1	s
100	0,0318	0,006	0,8	0,4	s
105	0,0307			0,2	s
108	0,00866	0,002	-10,3	-3,1	u
112	0,034	0,001	3,0	0,6	s
120	0,0228	0,007	-1,5	-0,9	s
138	0,029			0,0	s
147	0,055	0,002	14,0	3,1	u
154	0,0342	0,017	0,6	0,7	s
156	0,0348	0,007	1,5	0,7	s
157	0,0322			0,4	s
166	0,0121			-2,6	q
174	0,0395			1,3	s

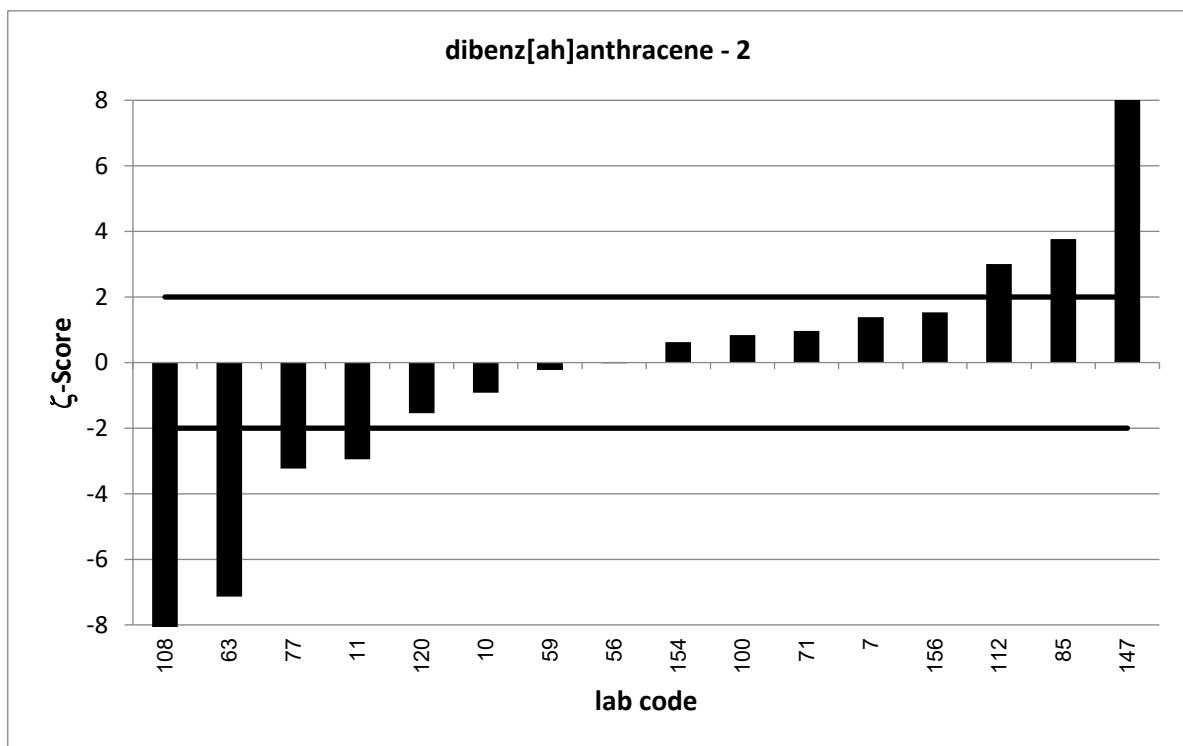
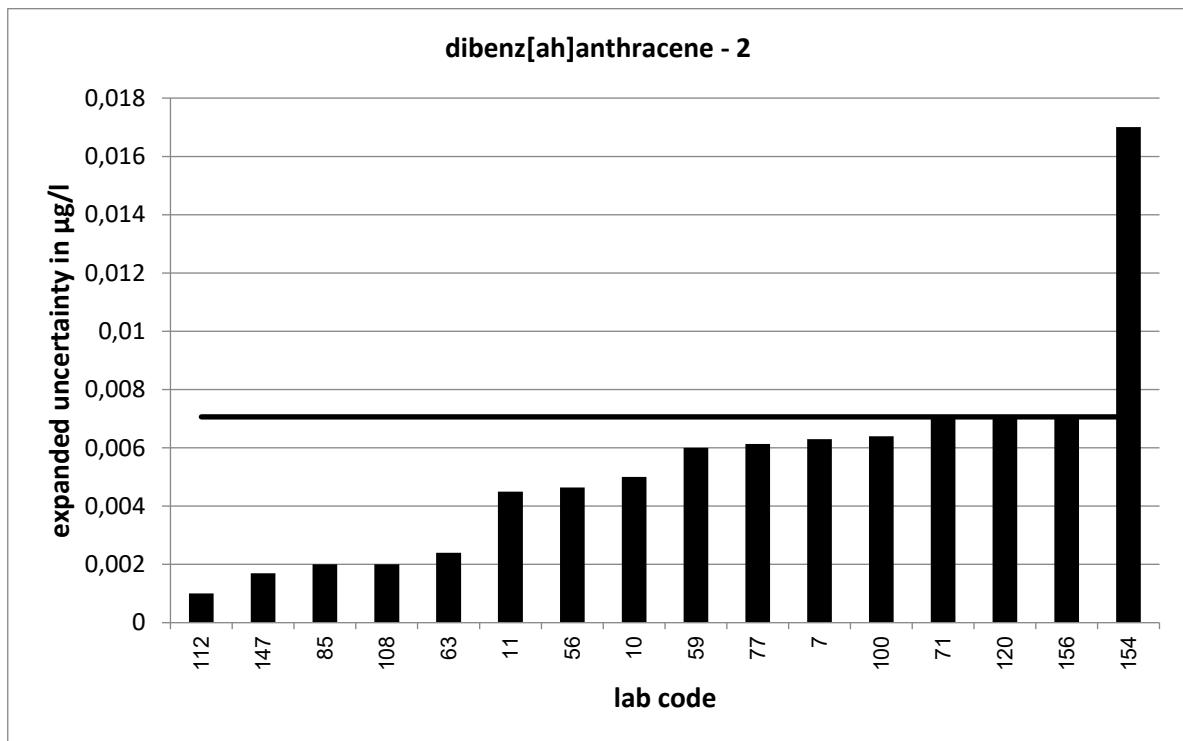
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor k=2 corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

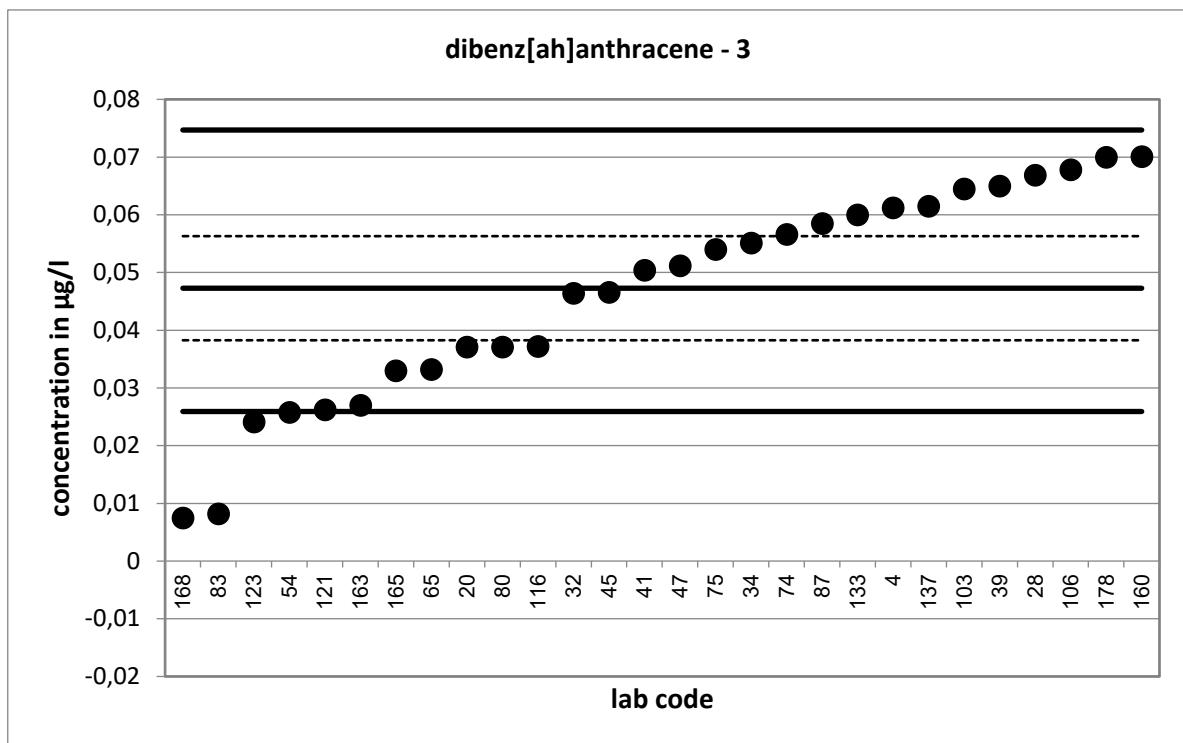




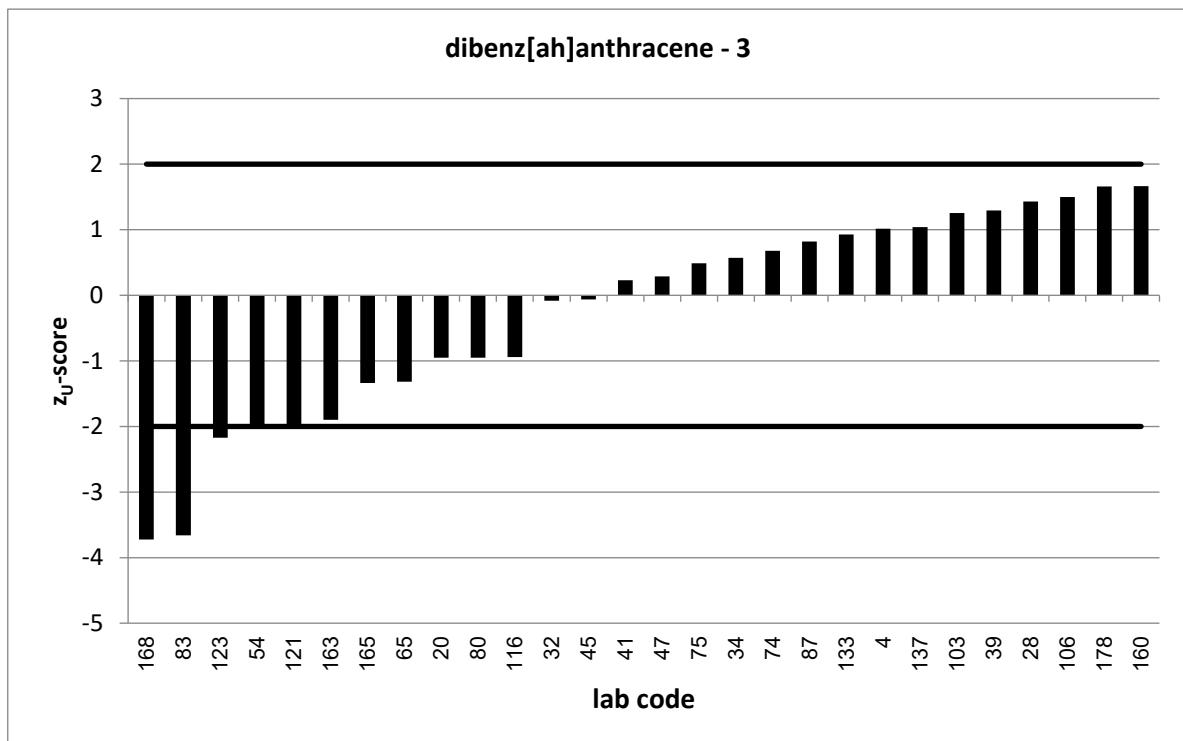
PT 3/24		dibenz[ah]anthracene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,04728 \pm 0,00902$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,07469			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,02591			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0612			1,0	s
20	0,0371	0,011	-1,4	-1,0	s
28	0,0669	0,019	1,9	1,4	s
32	0,0464			-0,1	s
34	0,0551	0,01	1,2	0,6	s
39	0,065	0,01	2,6	1,3	s
41	0,0504			0,2	s
45	0,0466			-0,1	s
47	0,0512			0,3	s
54	0,0258	0,008	-3,6	-2,0	s
65	0,0332			-1,3	s
74	0,0566	0,015	1,1	0,7	s
75	0,054	0,011	1,0	0,5	s
80	0,0371	0,005	-2,0	-1,0	s
83	0,0082			-3,7	u
87	0,0585	0,018	1,1	0,8	s
103	0,0645	0,015	2,0	1,3	s
106	0,0678			1,5	s
116	0,0372	0,014	-1,2	-0,9	s
121	0,0262	0,006	-3,9	-2,0	s
123	0,0241			-2,2	q
133	0,06			0,9	s
137	0,0615	0,011	2,0	1,0	s
160	0,0701			1,7	s
163	0,027			-1,9	s
165	0,033			-1,3	s
168	0,00749	0,002	-8,6	-3,7	u
178	0,07			1,7	s

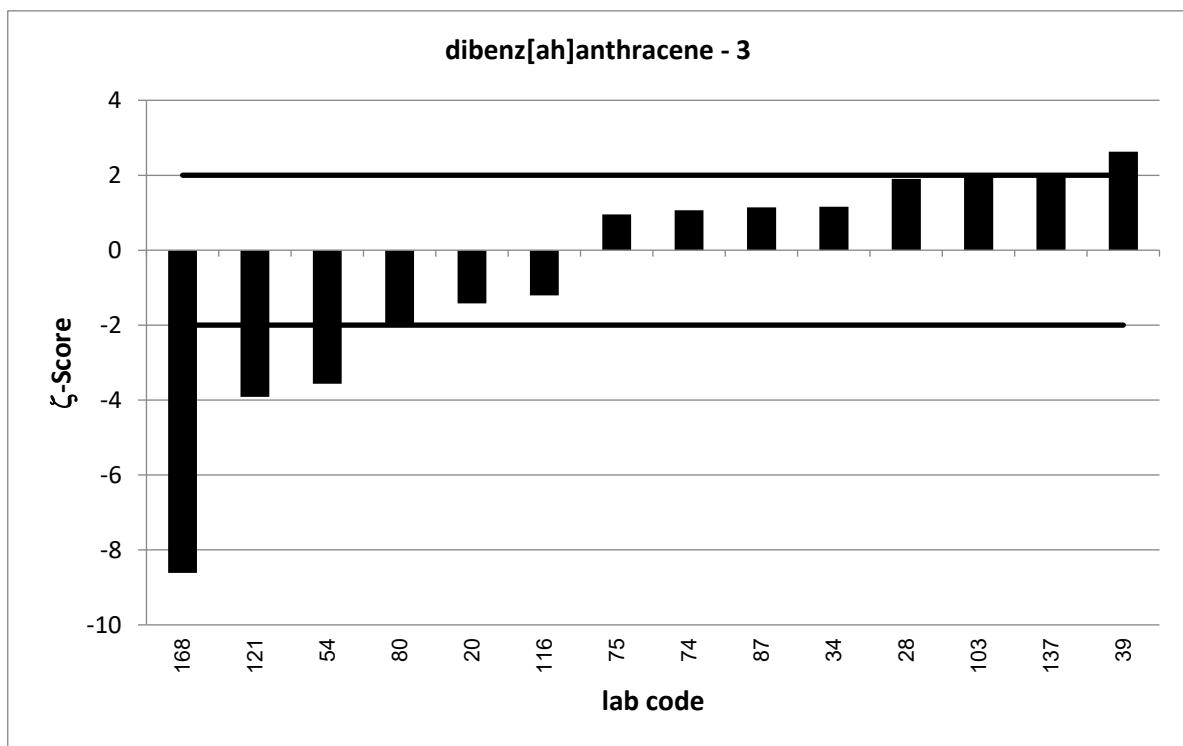
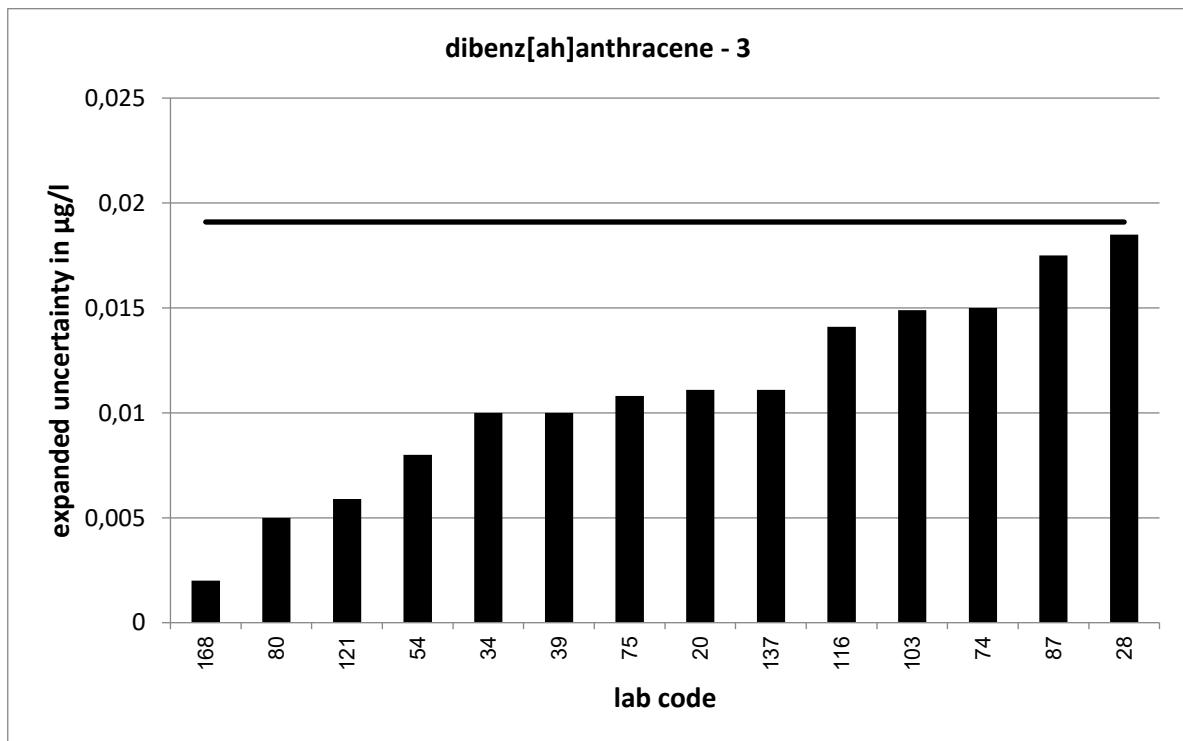
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor k=2 corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

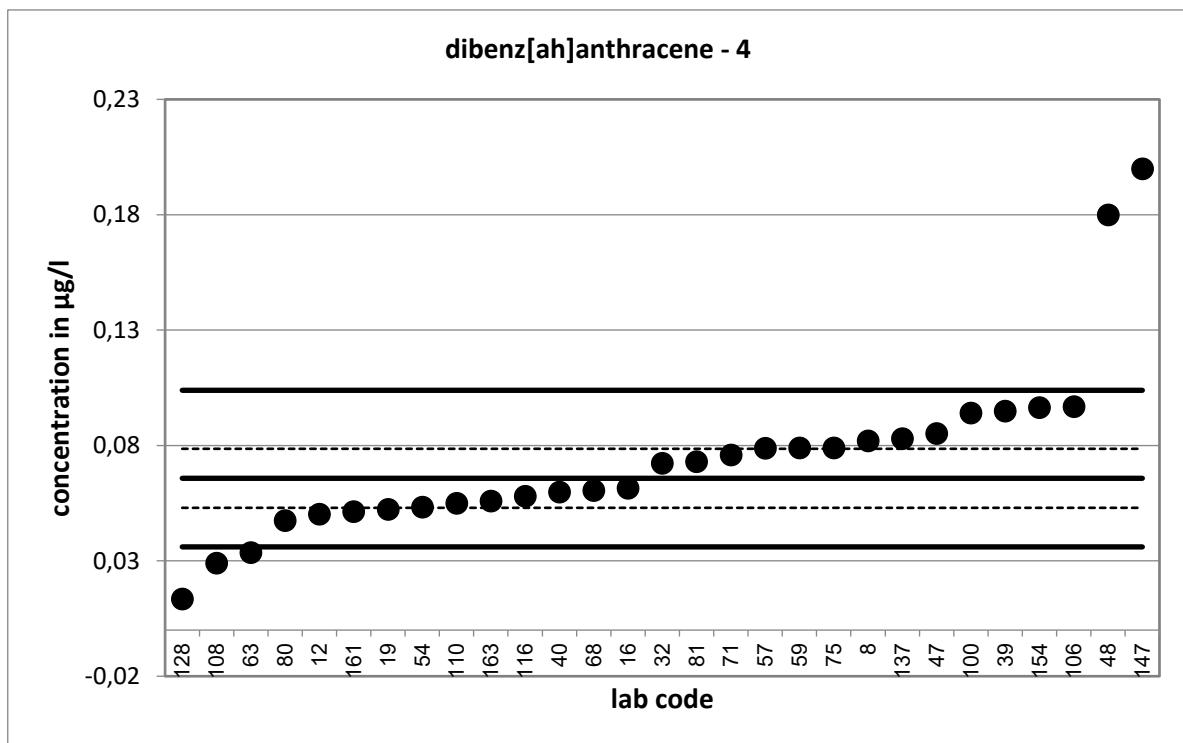




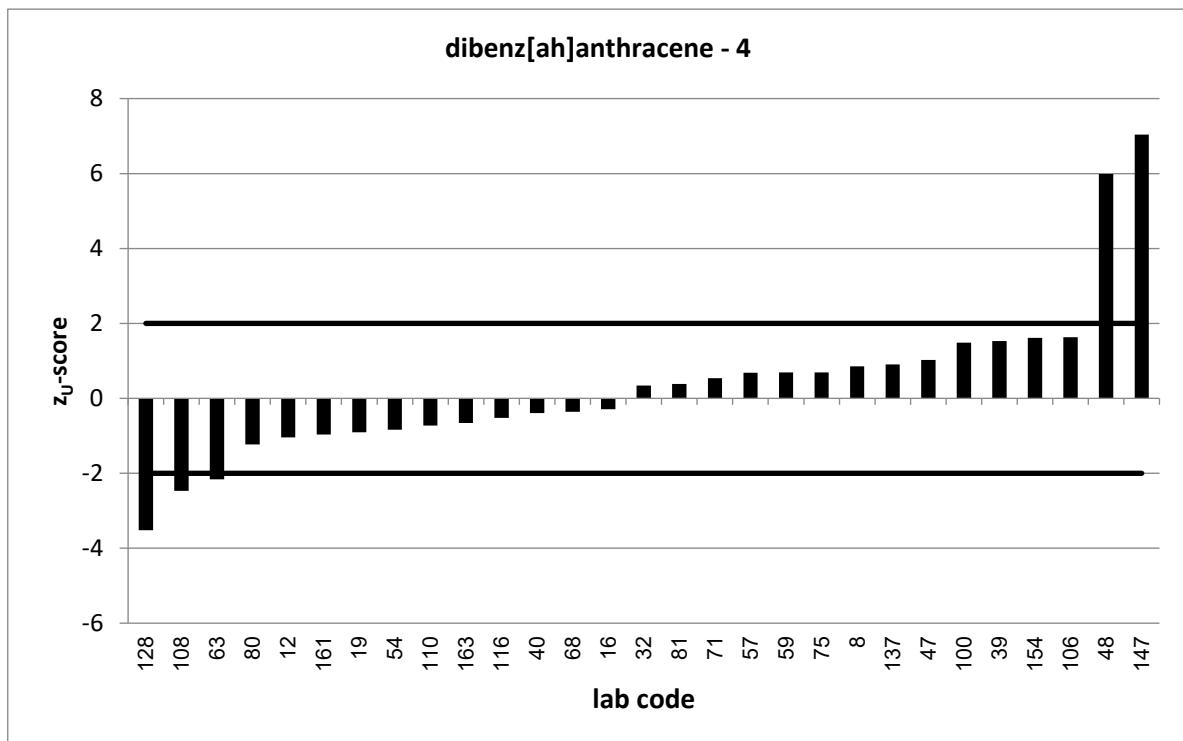
PT 3/24		dibenz[ah]anthracene - 4			
assigned value [ $\mu\text{g/l}$ ]*		$0,06578 \pm 0,01279$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1039			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,03605			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,082	0,02	1,4	0,9	s
12	0,0503	0,015	-1,6	-1,0	s
16	0,0615	0,013	-0,5	-0,3	s
19	0,0523	0,016	-1,3	-0,9	s
32	0,0723			0,3	s
39	0,095	0,015	3,0	1,5	s
40	0,0599			-0,4	s
47	0,0853			1,0	s
48	0,18	0,014	12,0	6,0	u
54	0,0533	0,016	-1,2	-0,8	s
57	0,0788			0,7	s
59	0,079	0,016	1,3	0,7	s
63	0,0336	0,006	-4,6	-2,2	q
68	0,0605			-0,4	s
71	0,076	0,015	1,0	0,5	s
75	0,079	0,016	1,3	0,7	s
80	0,0475	0,008	-2,4	-1,2	s
81	0,0731			0,4	s
100	0,0941	0,019	2,5	1,5	s
106	0,0969			1,6	s
108	0,0291	0,007	-5,0	-2,5	q
110	0,05503			-0,7	s
116	0,058	0,022	-0,6	-0,5	s
128	0,0135			-3,5	u
137	0,083	0,015	1,8	0,9	s
147	0,2	0,006	19,0	7,0	u
154	0,0965	0,048	1,2	1,6	s
161	0,0514			-1,0	s
163	0,056			-0,7	s

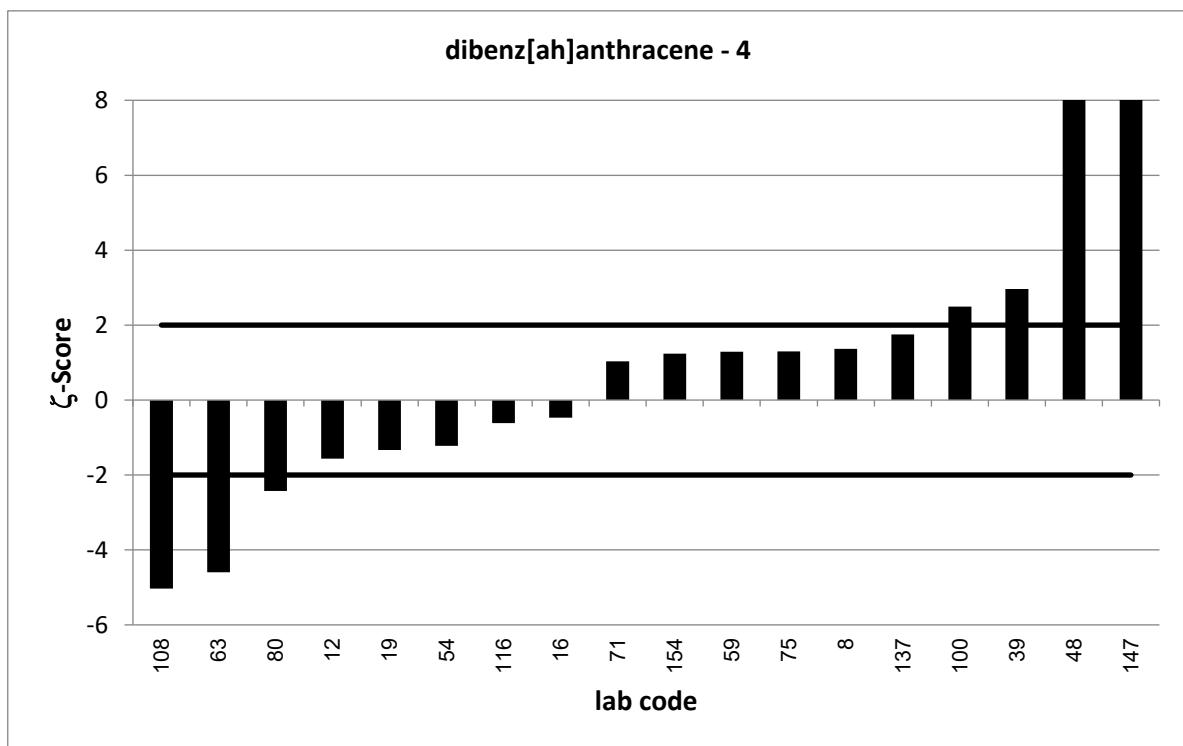
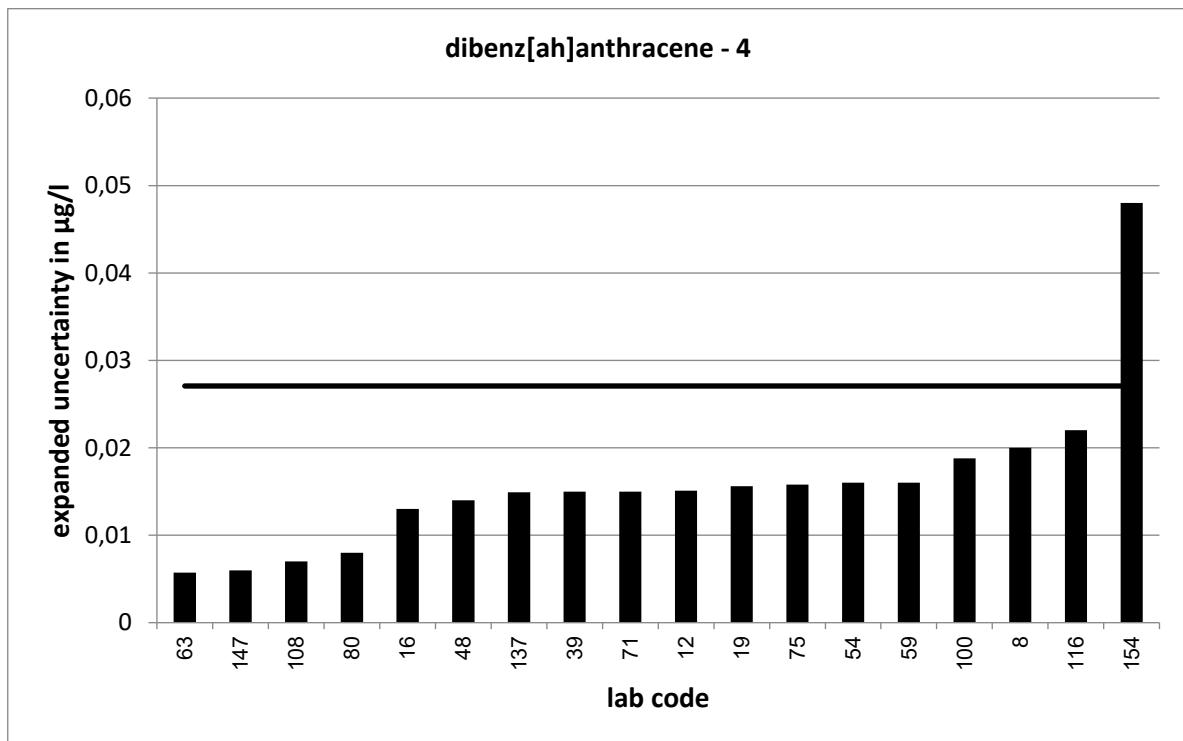
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

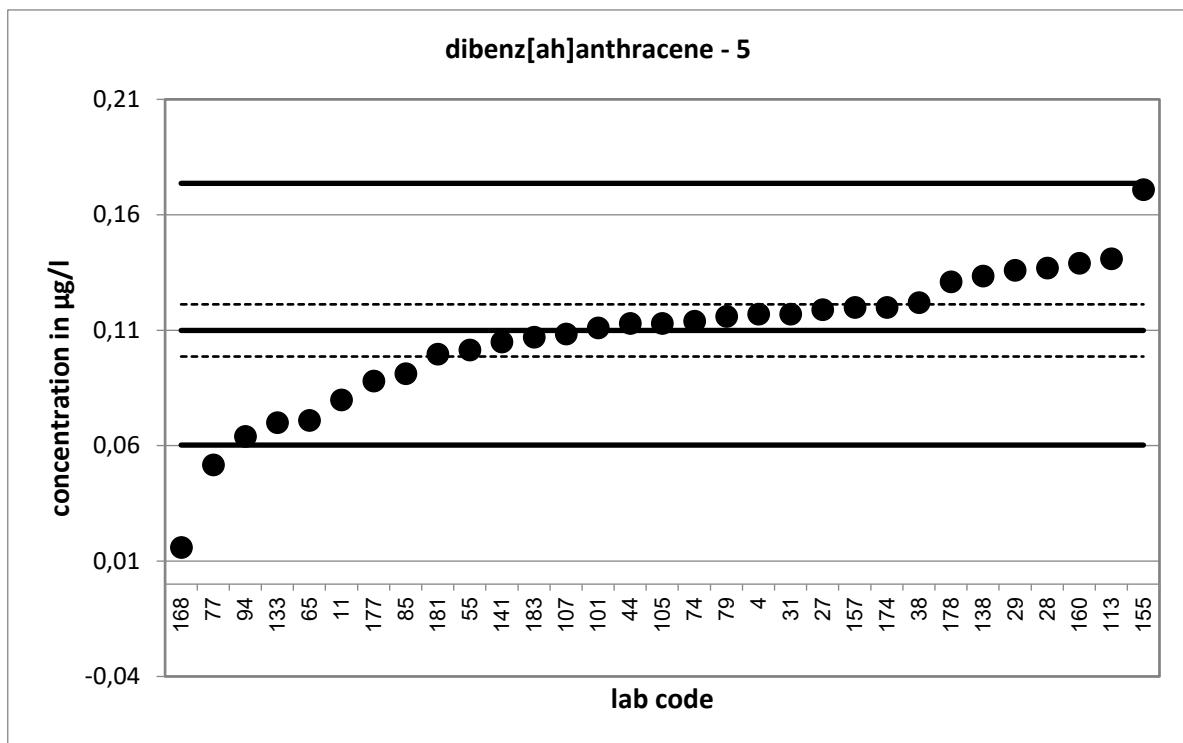




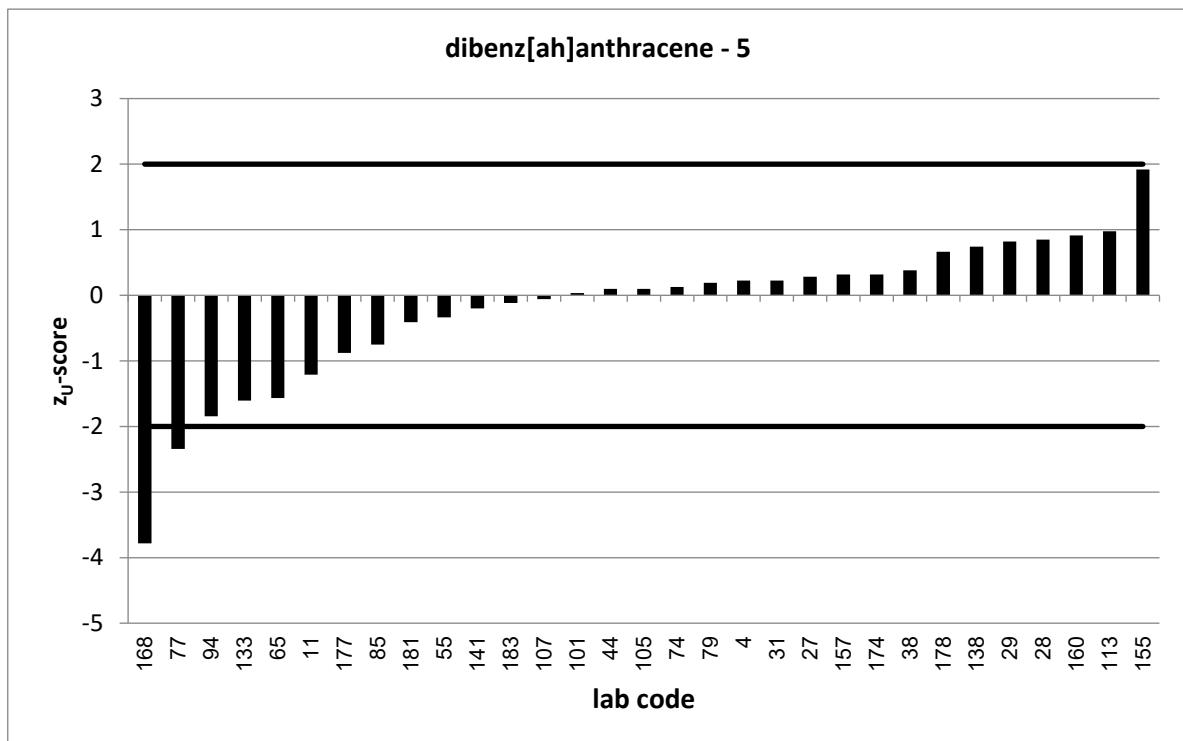
PT 3/24		dibenz[ah]anthracene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,1099 \pm 0,0113$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1736			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,06024			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,117			0,2	s
11	0,0798	0,018	-2,9	-1,2	s
27	0,119			0,3	s
28	0,137	0,038	1,4	0,9	s
29	0,136	0,027	1,8	0,8	s
31	0,117	0,041	0,3	0,2	s
38	0,122			0,4	s
44	0,113	0,018	0,3	0,1	s
55	0,1015	0,046	-0,4	-0,3	s
65	0,071			-1,6	s
74	0,114	0,031	0,2	0,1	s
77	0,0517	0,018	-5,5	-2,3	q
79	0,116			0,2	s
85	0,0912	0,002	-3,3	-0,8	s
94	0,0641			-1,8	s
101	0,111	0,033	0,1	0,0	s
105	0,113			0,1	s
107	0,1084	0,028	-0,1	-0,1	s
113	0,141			1,0	s
133	0,07			-1,6	s
138	0,1335			0,7	s
141	0,105	0,047	-0,2	-0,2	s
155	0,171			1,9	s
157	0,12			0,3	s
160	0,139			0,9	s
168	0,016	0,004	-15,7	-3,8	u
174	0,12			0,3	s
177	0,0881			-0,9	s
178	0,131			0,7	s
181	0,0997	0,012	-1,2	-0,4	s
183	0,107	0,032	-0,2	-0,1	s

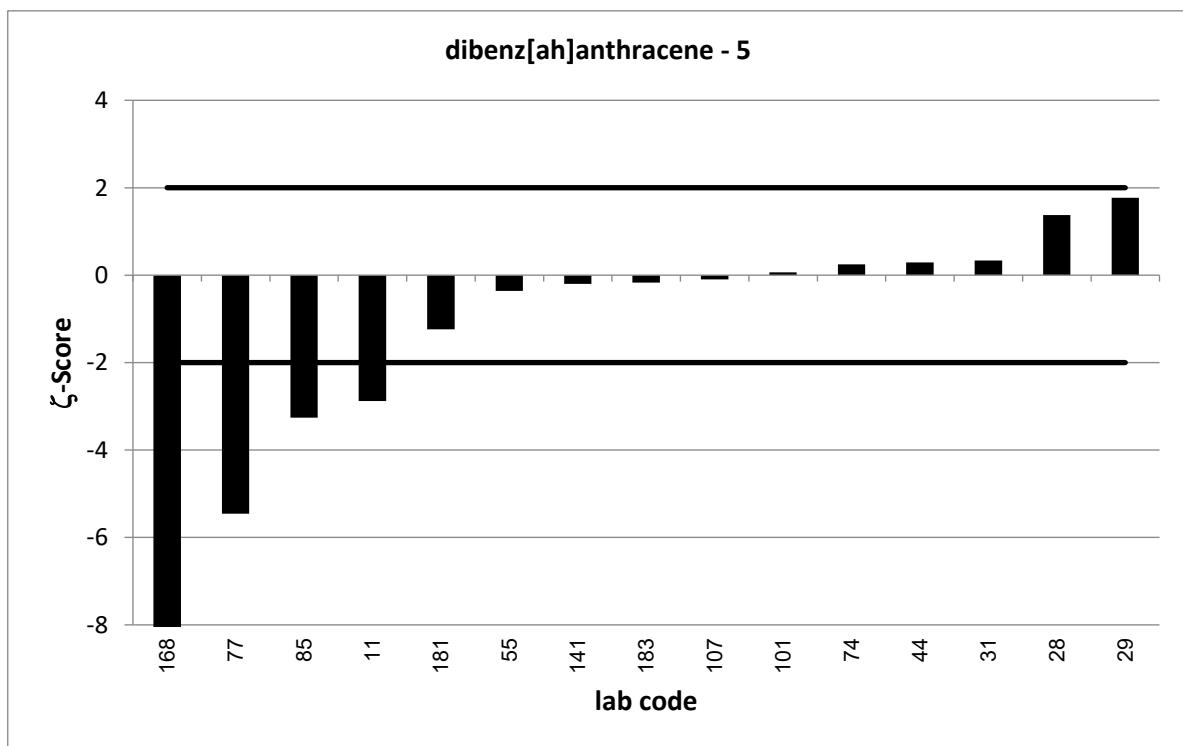
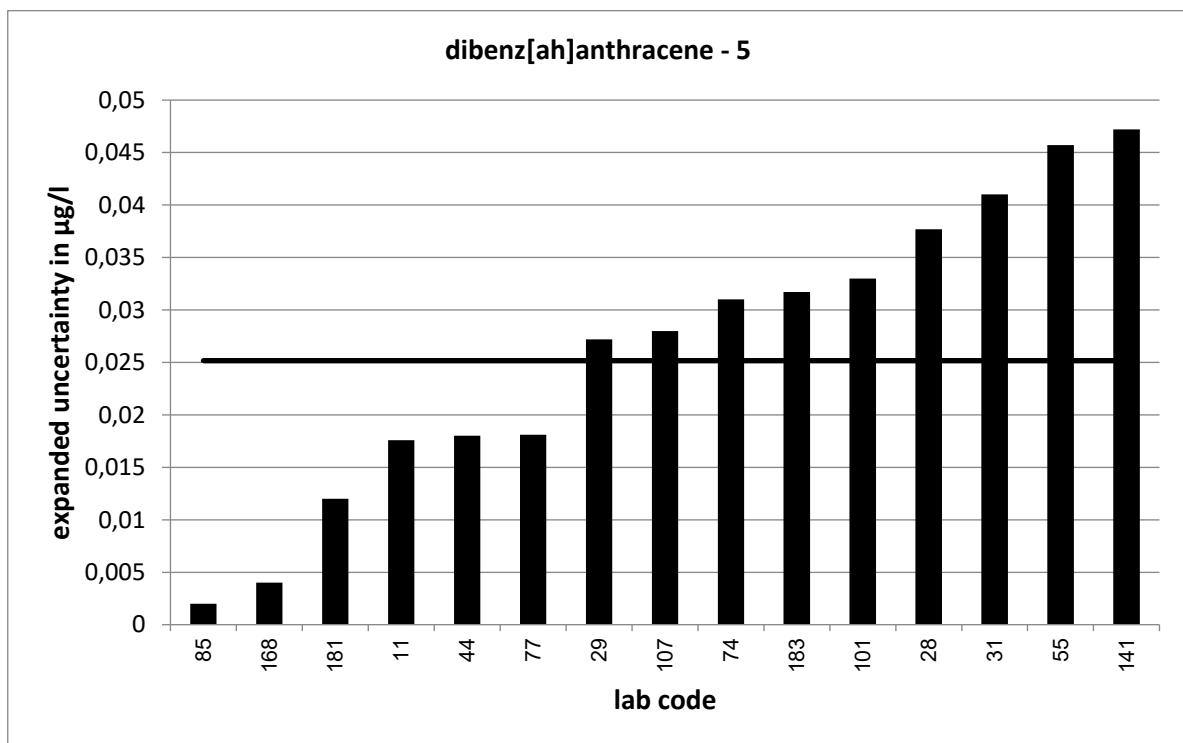
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

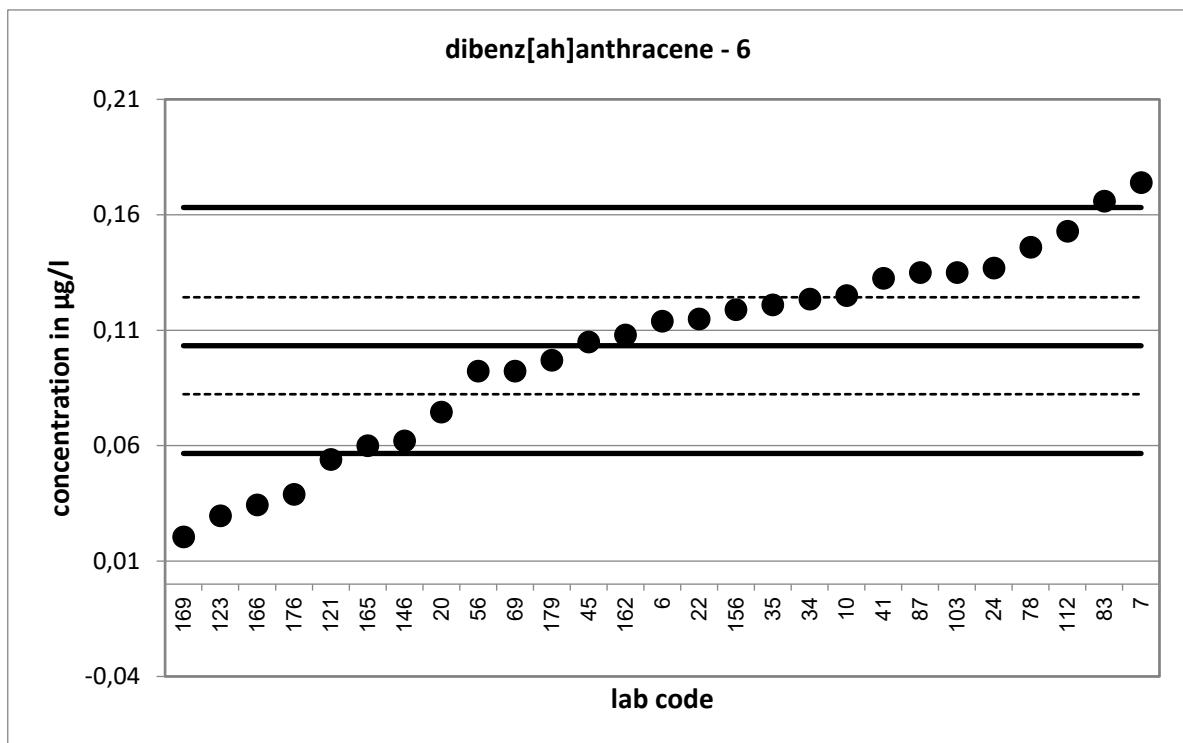




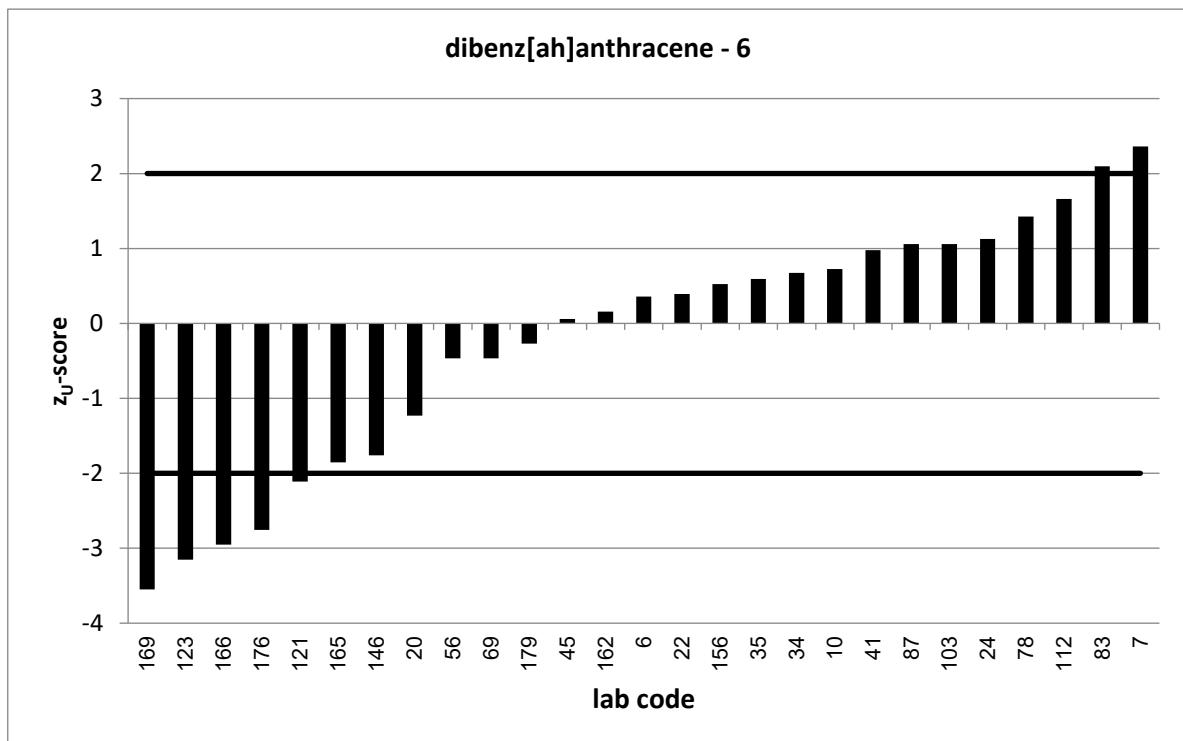
PT 3/24		dibenz[ah]anthracene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,1033 \pm 0,021$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1632			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,05661			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,114	0,065	0,3	0,4	s
7	0,174	0,02	4,9	2,4	q
10	0,125	0,024	1,4	0,7	s
20	0,0746	0,022	-1,9	-1,2	s
22	0,115	0,046	0,5	0,4	s
24	0,137			1,1	s
34	0,1235	0,03	1,1	0,7	s
35	0,121	0,036	0,9	0,6	s
41	0,1325			1,0	s
45	0,105			0,1	s
56	0,0924	0,015	-0,8	-0,5	s
69	0,0924	0,016	-0,8	-0,5	s
78	0,146			1,4	s
83	0,166			2,1	q
87	0,135	0,041	1,4	1,1	s
103	0,135	0,031	1,7	1,1	s
112	0,153	0,005	4,6	1,7	s
121	0,054	0,012	-4,1	-2,1	q
123	0,0297			-3,2	u
146	0,06216	0,016	-3,1	-1,8	s
156	0,119	0,024	1,0	0,5	s
162	0,108	0,033	0,2	0,2	s
165	0,06			-1,9	s
166	0,0344			-3,0	u
169	0,0205	0,007	-7,5	-3,5	u
176	0,039			-2,8	q
179	0,097	0,029	-0,4	-0,3	s

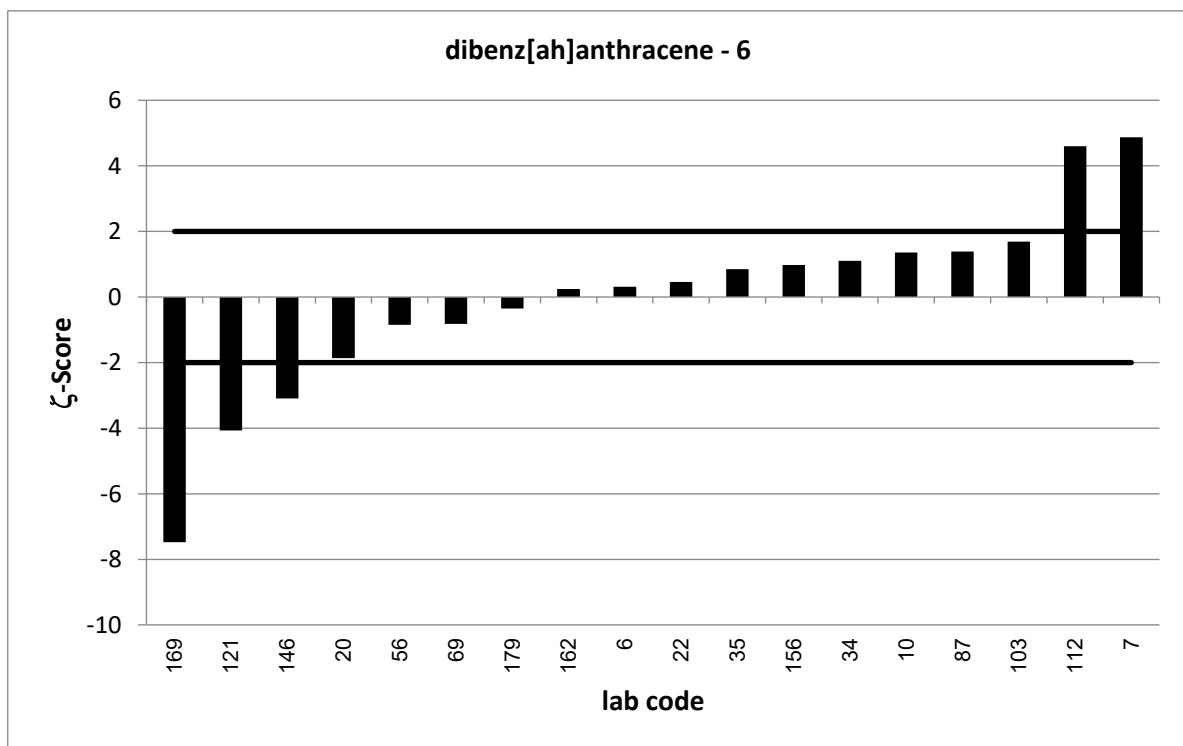
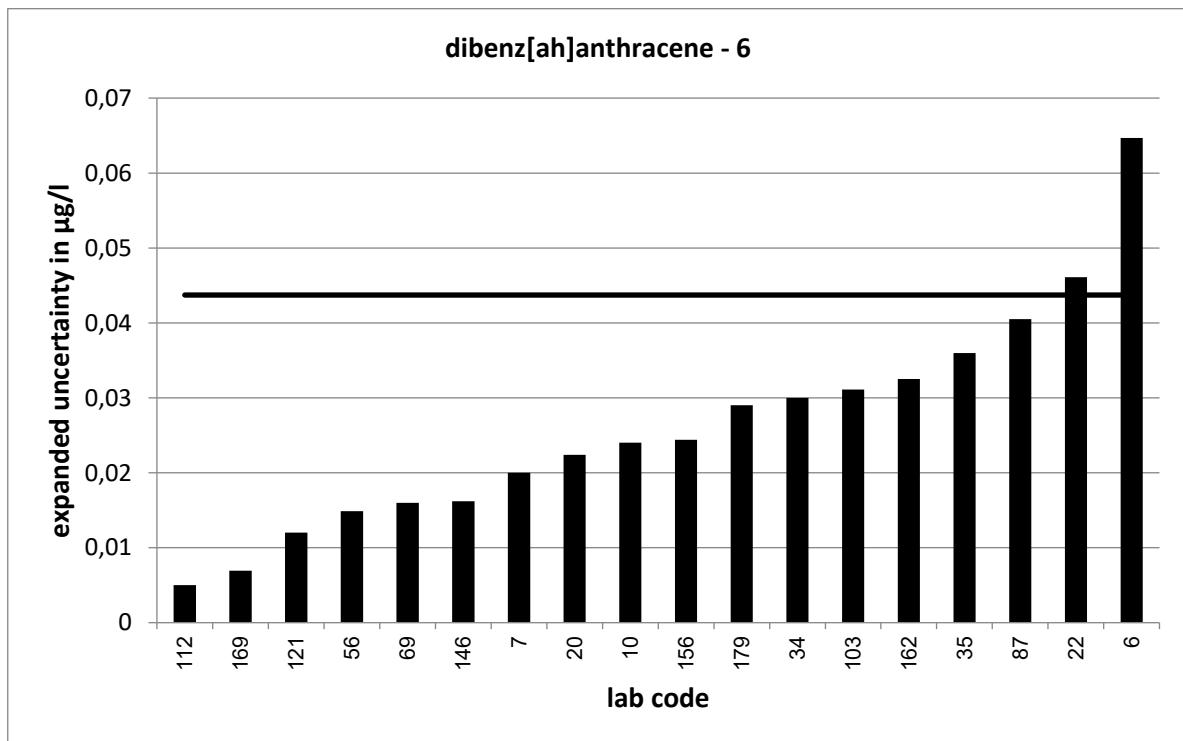
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

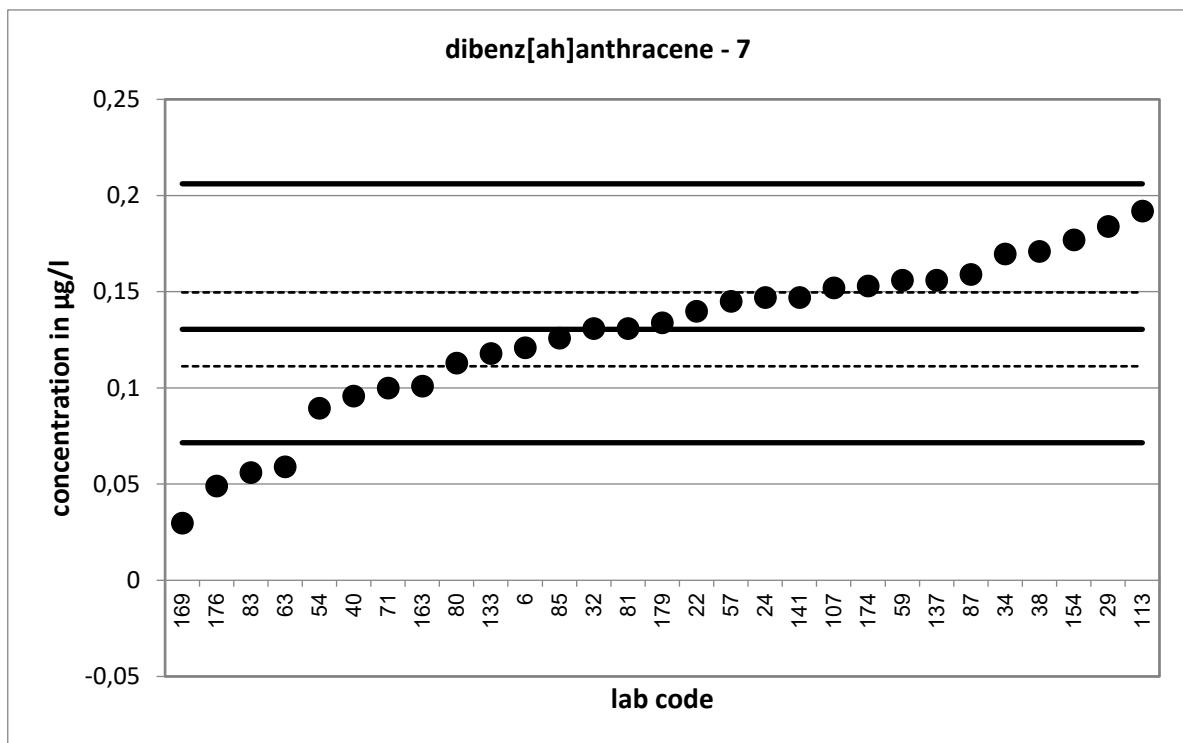




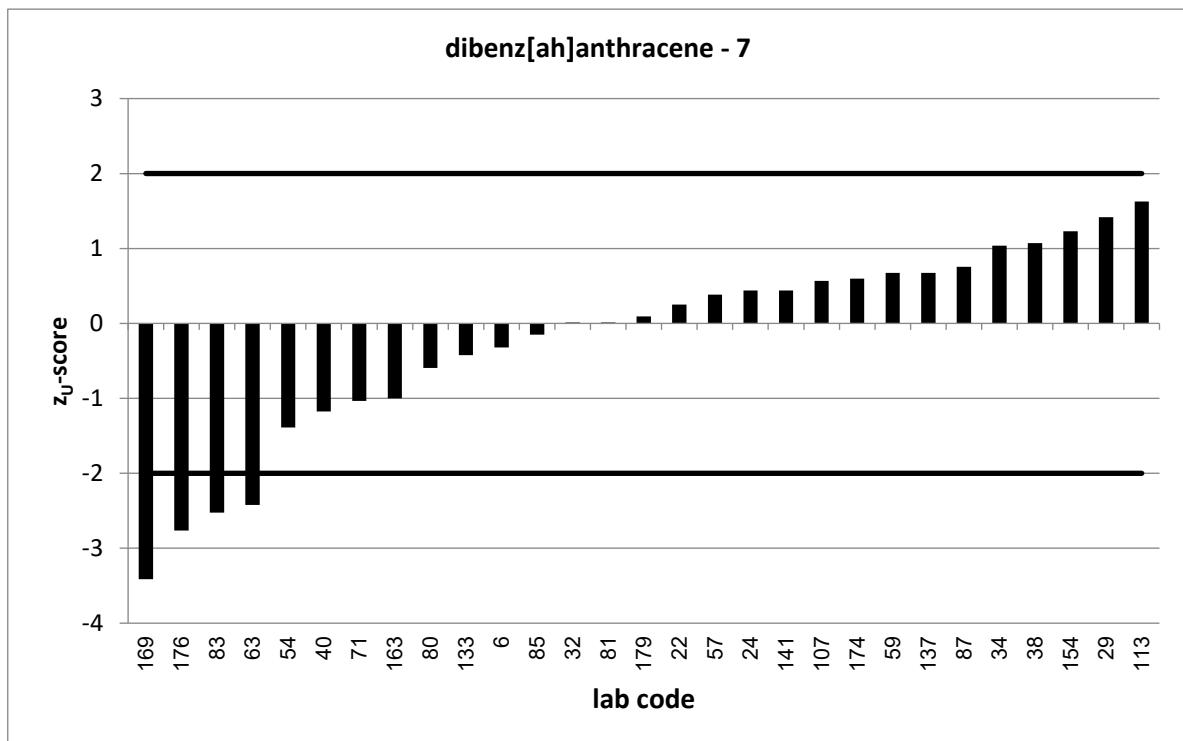
PT 3/24		dibenz[ah]anthracene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,1305 \pm 0,0192$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2061			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,07151			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,121	0,069	-0,3	-0,3	s
22	0,14	0,056	0,3	0,3	s
24	0,147			0,4	s
29	0,184	0,037	2,6	1,4	s
32	0,131			0,0	s
34	0,1697	0,04	1,8	1,0	s
38	0,171			1,1	s
40	0,0958			-1,2	s
54	0,0895	0,027	-2,5	-1,4	s
57	0,145			0,4	s
59	0,156	0,031	1,4	0,7	s
63	0,0591	0,01	-6,6	-2,4	q
71	0,1	0,02	-2,2	-1,0	s
80	0,113	0,01	-1,6	-0,6	s
81	0,131			0,0	s
83	0,056			-2,5	q
85	0,126	0,002	-0,5	-0,2	s
87	0,159	0,048	1,1	0,8	s
107	0,152	0,04	1,0	0,6	s
113	0,192			1,6	s
133	0,118			-0,4	s
137	0,156	0,028	1,5	0,7	s
141	0,147	0,066	0,5	0,4	s
154	0,177	0,088	1,0	1,2	s
163	0,101			-1,0	s
169	0,0298	0,01	-9,3	-3,4	u
174	0,153			0,6	s
176	0,049			-2,8	q
179	0,134	0,04	0,2	0,1	s

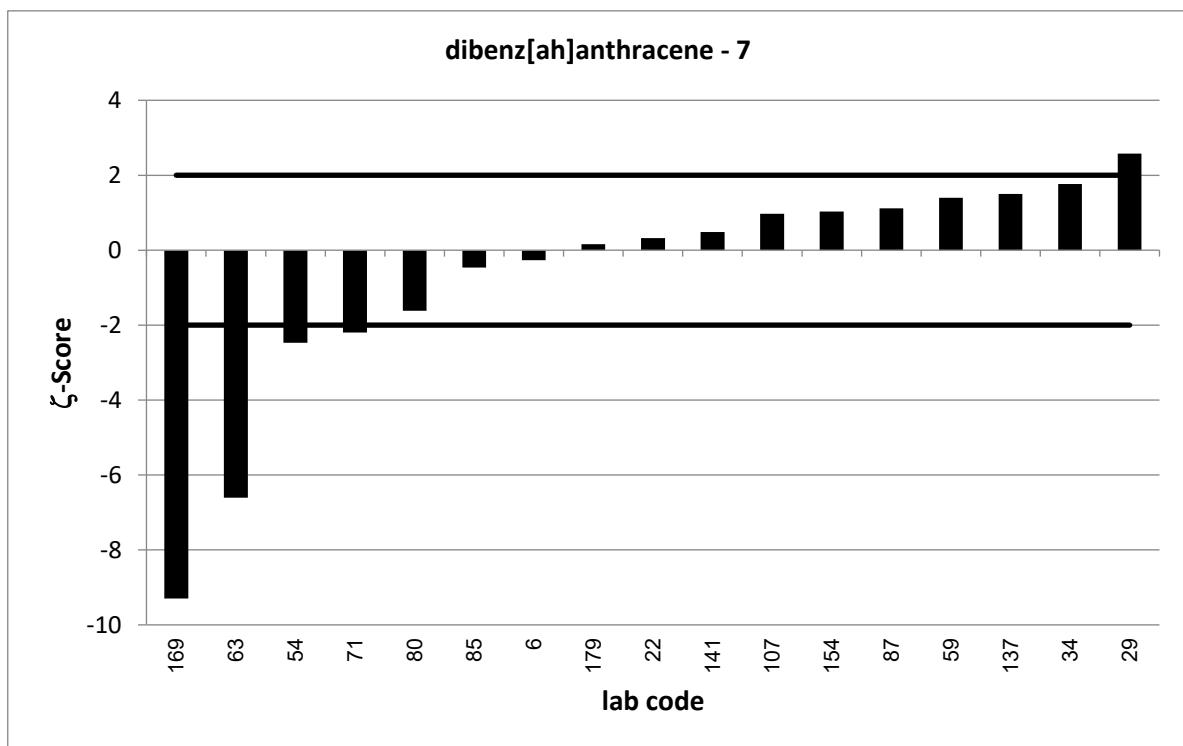
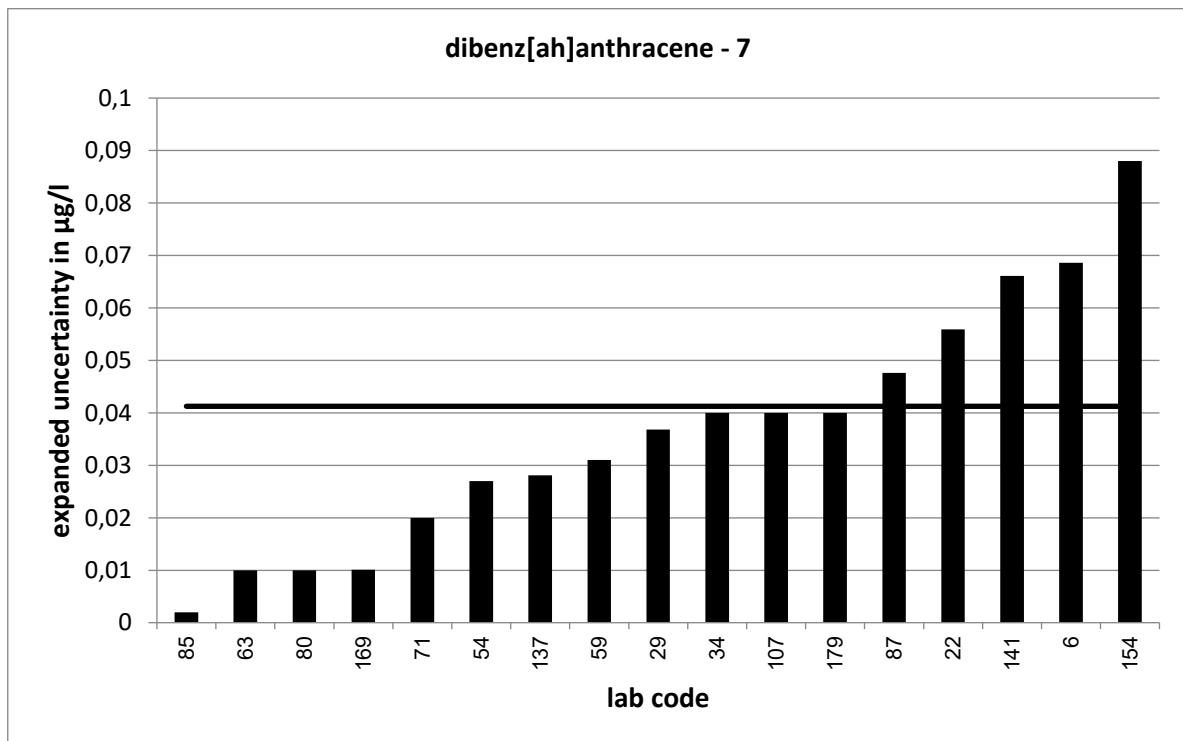
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

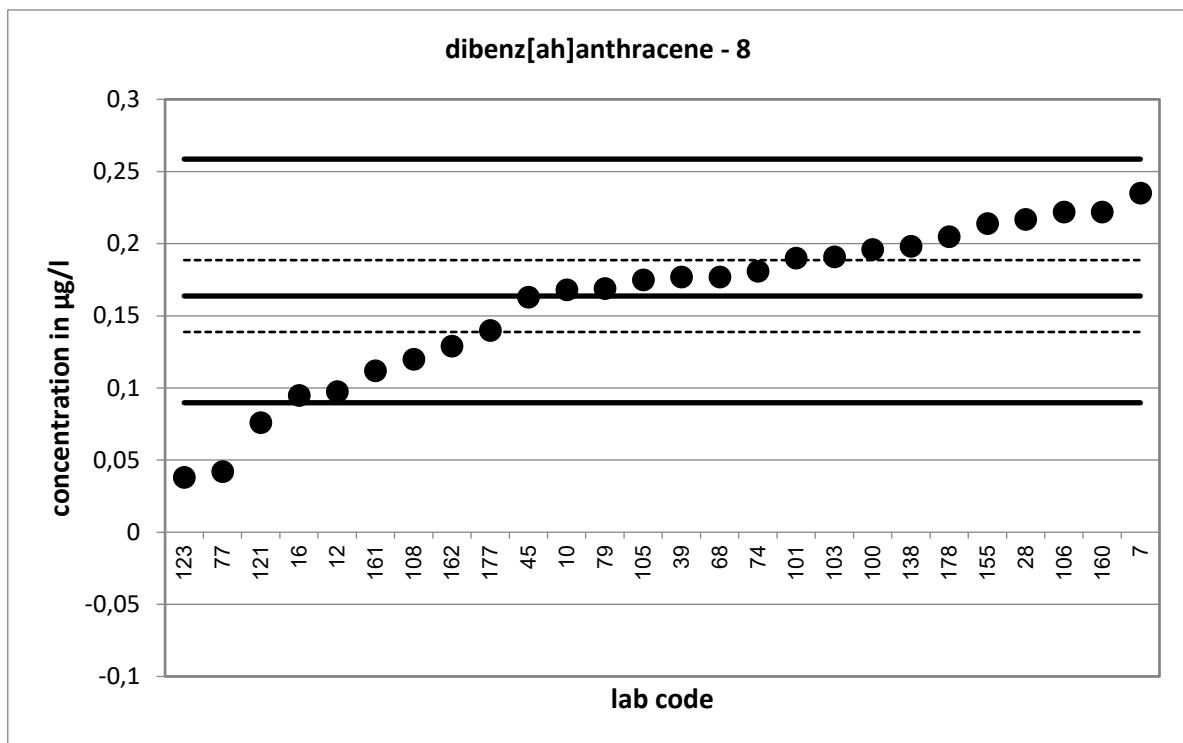




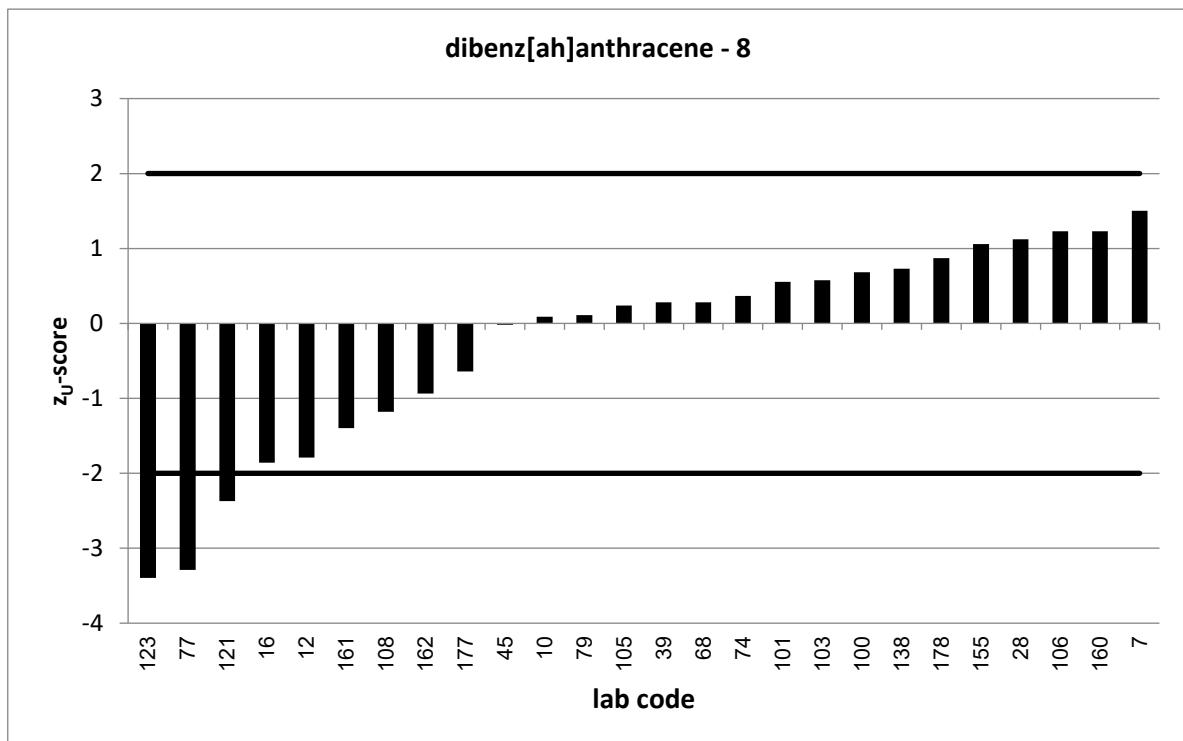
PT 3/24		dibenz[ah]anthracene - 8			
assigned value [ $\mu\text{g/l}$ ]*		$0,1637 \pm 0,0249$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2586			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,08972			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,235	0,041	3,0	1,5	s
10	0,168	0,033	0,2	0,1	s
12	0,0975	0,029	-3,4	-1,8	s
16	0,0949	0,02	-4,3	-1,9	s
28	0,217	0,06	1,6	1,1	s
39	0,177	0,028	0,7	0,3	s
45	0,163			0,0	s
68	0,177			0,3	s
74	0,181	0,05	0,6	0,4	s
77	0,042	0,015	-8,4	-3,3	u
79	0,169			0,1	s
100	0,196	0,039	1,4	0,7	s
101	0,19	0,057	0,8	0,6	s
103	0,191	0,044	1,1	0,6	s
105	0,175			0,2	s
106	0,222			1,2	s
108	0,12	0,028	-2,3	-1,2	s
121	0,076	0,017	-5,8	-2,4	q
123	0,0381			-3,4	u
138	0,1983			0,7	s
155	0,214			1,1	s
160	0,222			1,2	s
161	0,112			-1,4	s
162	0,129	0,039	-1,5	-0,9	s
177	0,14			-0,6	s
178	0,205			0,9	s

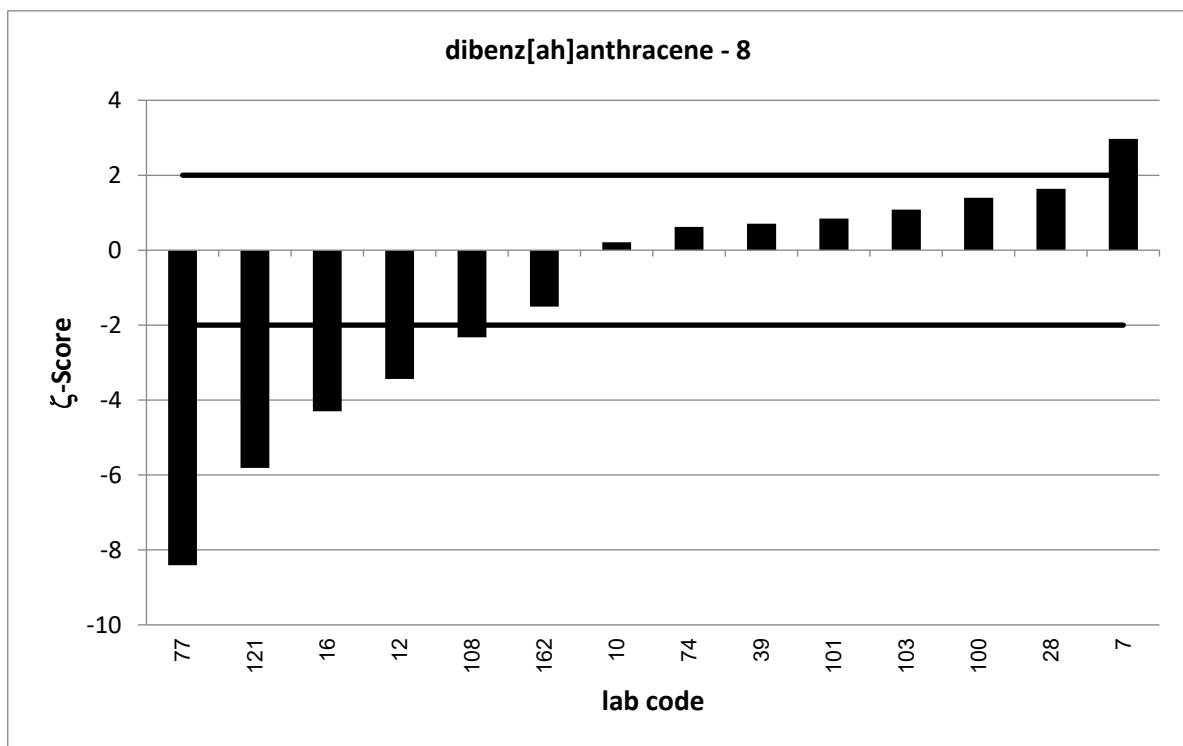
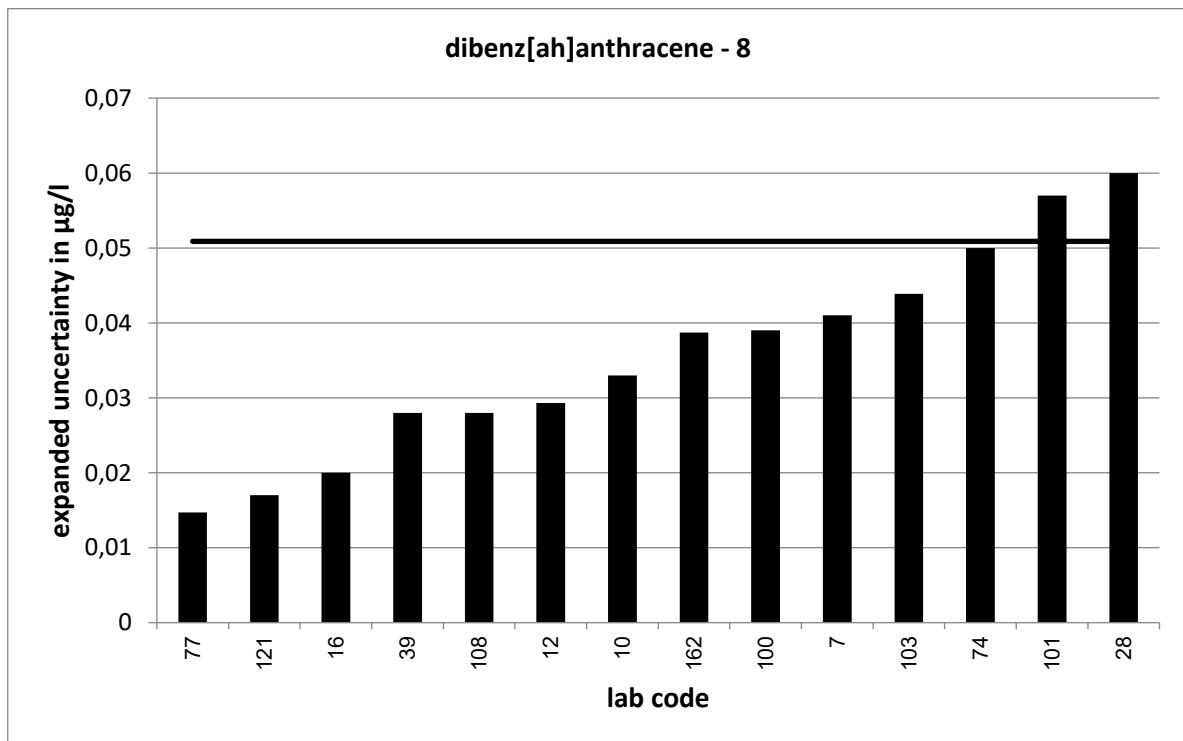
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

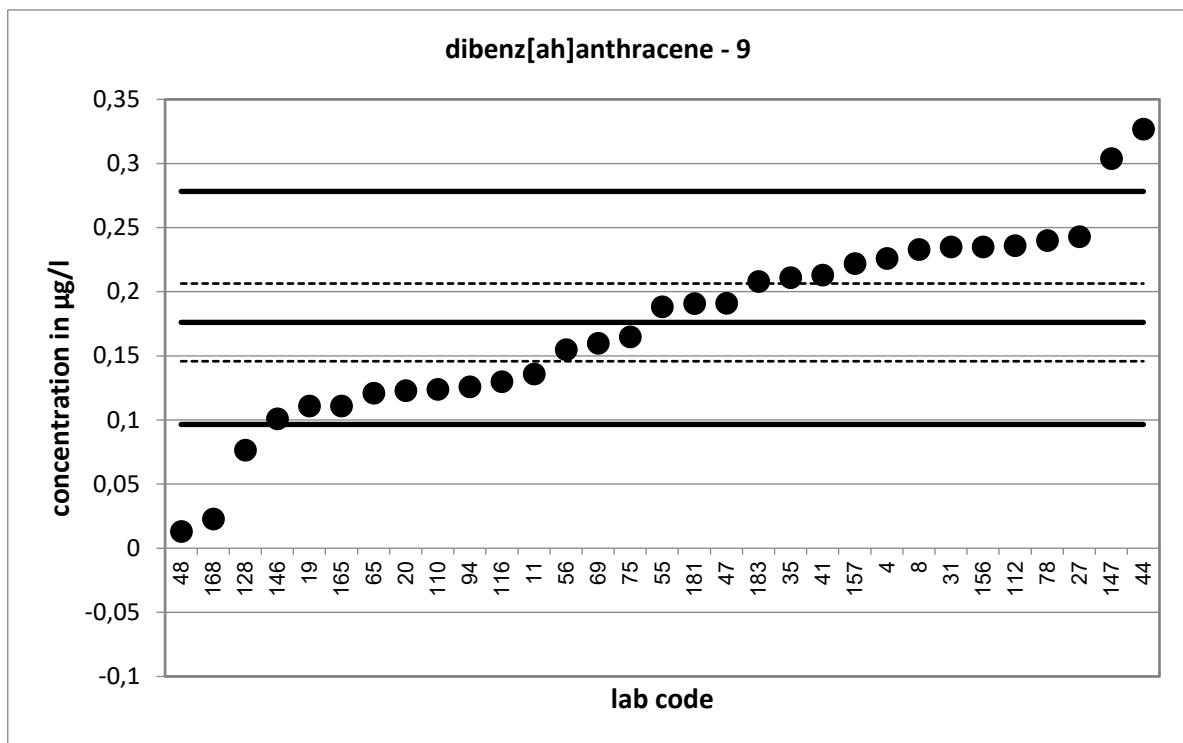




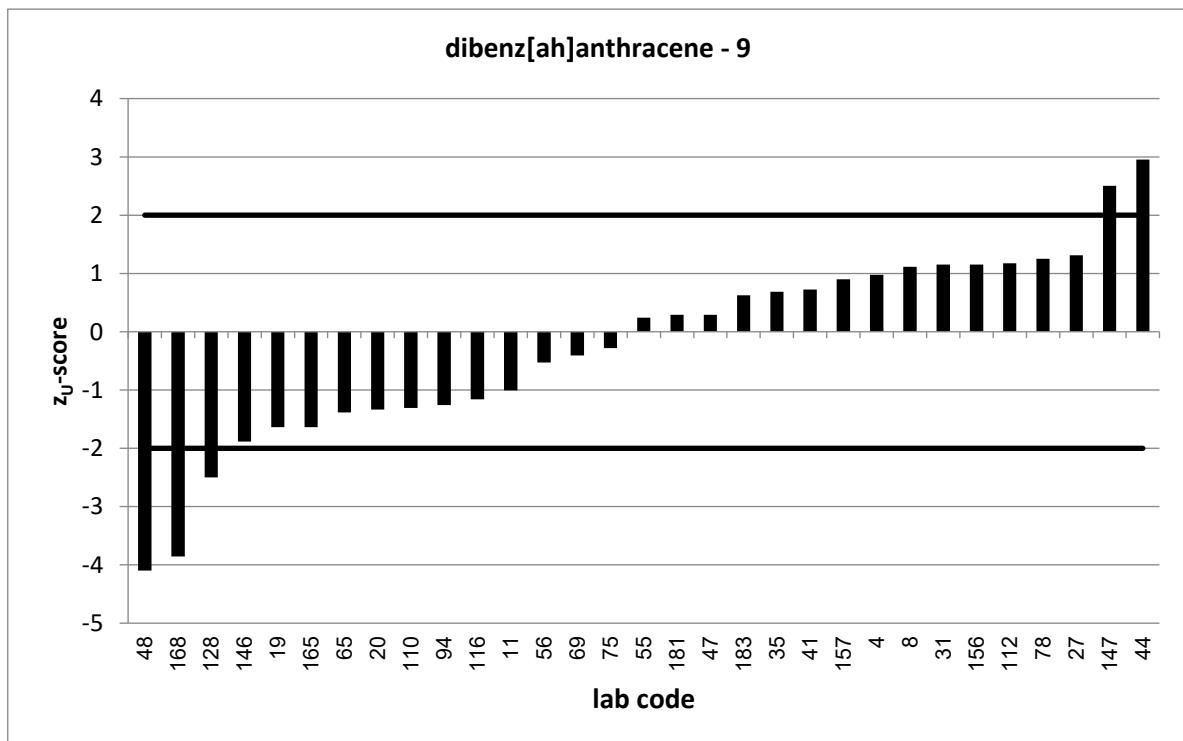
PT 3/24		dibenz[ah]anthracene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,1761 \pm 0,0303$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2782			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,09653			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,226			1,0	s
8	0,233	0,056	1,8	1,1	s
11	0,136	0,03	-1,9	-1,0	s
19	0,111	0,033	-2,9	-1,6	s
20	0,123	0,037	-2,2	-1,3	s
27	0,243			1,3	s
31	0,235	0,082	1,3	1,2	s
35	0,211	0,063	1,0	0,7	s
41	0,2132			0,7	s
44	0,327	0,046	5,5	3,0	u
47	0,191			0,3	s
48	0,0131	7E-04	-10,7	-4,1	u
55	0,1885	0,085	0,3	0,2	s
56	0,155	0,025	-1,1	-0,5	s
65	0,121			-1,4	s
69	0,16	0,028	-0,8	-0,4	s
75	0,165	0,033	-0,5	-0,3	s
78	0,24			1,3	s
94	0,126			-1,3	s
110	0,124			-1,3	s
112	0,236	0,008	3,8	1,2	s
116	0,13	0,049	-1,6	-1,2	s
128	0,0766			-2,5	q
146	0,1011	0,026	-3,7	-1,9	s
147	0,304	0,009	8,1	2,5	q
156	0,235	0,048	2,1	1,2	s
157	0,222			0,9	s
165	0,111			-1,6	s
168	0,0228	0,004	-10,0	-3,9	u
181	0,1908	0,024	0,8	0,3	s
183	0,208	0,062	0,9	0,6	s

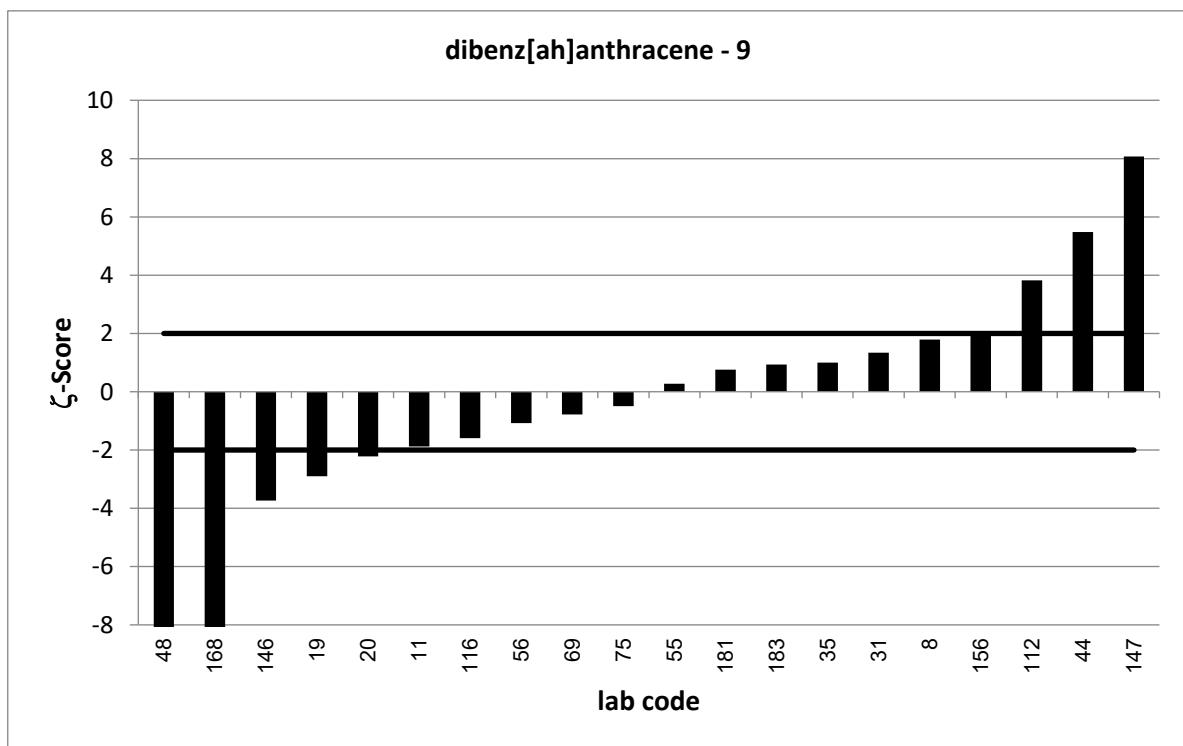
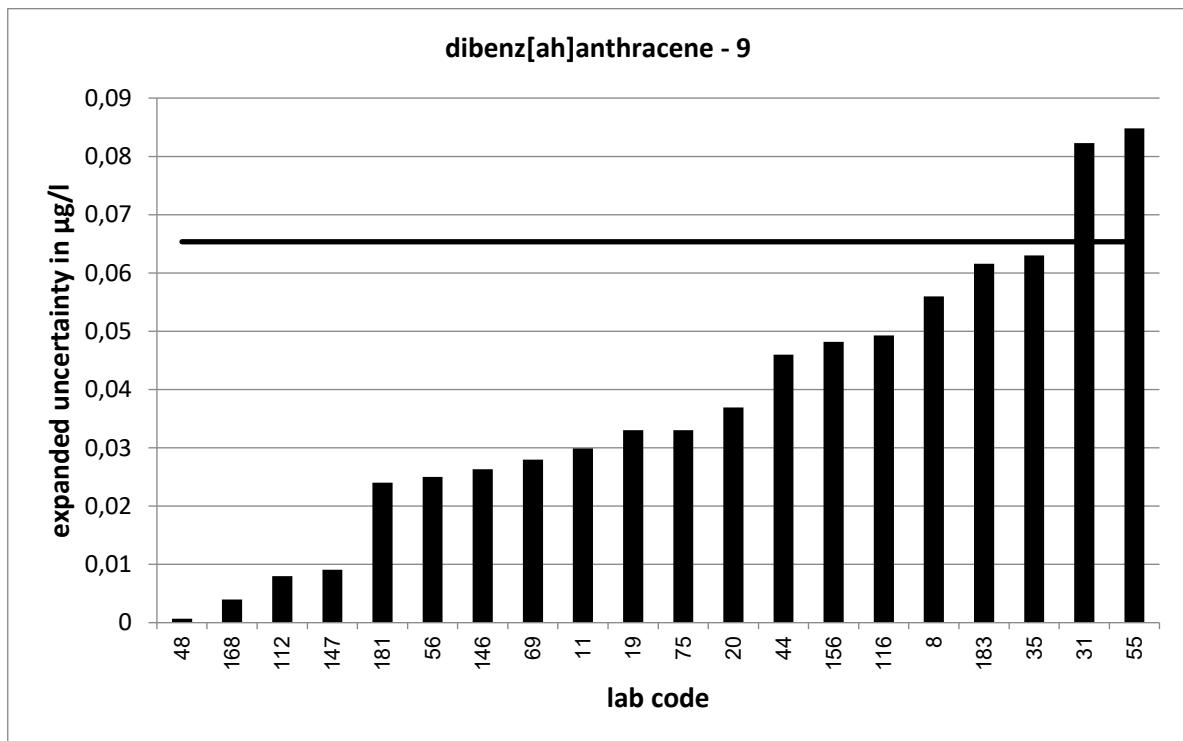
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

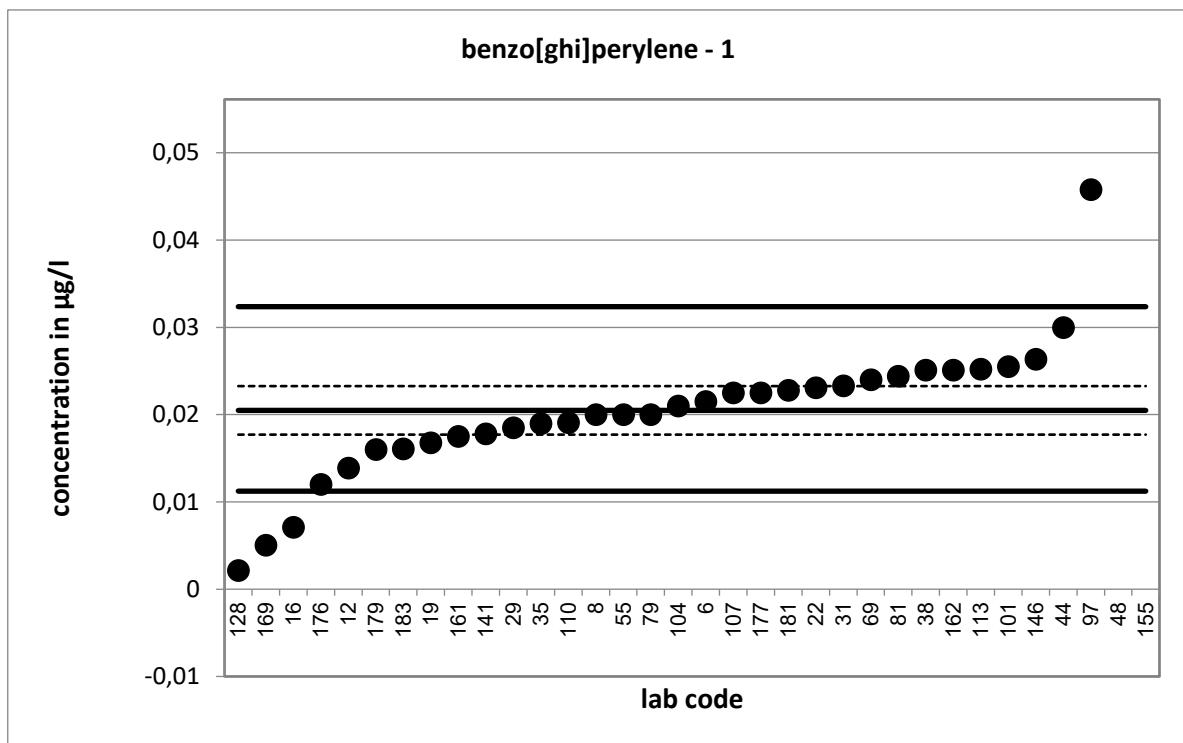




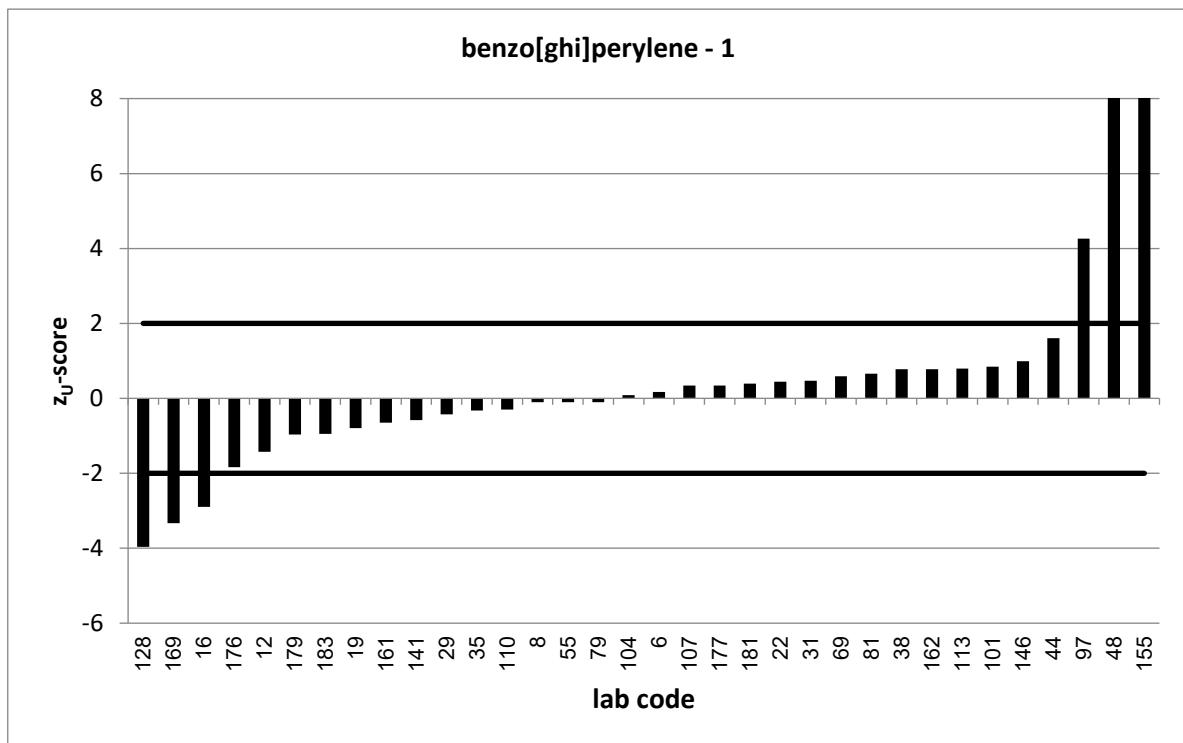
PT 3/24		benzo[ghi]perylene - 1			
assigned value [ $\mu\text{g/l}$ ]*		$0,02049 \pm 0,00278$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,03236$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,01123$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0215	0,01	0,2	0,2	s
8	0,02	0,005	-0,2	-0,1	s
12	0,0139	0,004	-2,6	-1,4	s
16	0,0071	0,002	-8,2	-2,9	q
19	0,0168	0,005	-1,3	-0,8	s
22	0,0231	0,009	0,5	0,4	s
29	0,0185	0,002	-1,1	-0,4	s
31	0,0233	0,008	0,7	0,5	s
35	0,019	0,006	-0,4	-0,3	s
38	0,0251			0,8	s
44	0,03	0,008	2,2	1,6	s
48	0,0863	0,005	23,4	11,1	u
55	0,02	0,009	-0,1	-0,1	s
69	0,024	0,004	1,4	0,6	s
79	0,02			-0,1	s
81	0,0244			0,7	s
97	0,0458	0,011	4,3	4,3	u
101	0,0255	0,008	1,2	0,8	s
104	0,021			0,1	s
107	0,0225	0,006	0,6	0,3	s
110	0,0191			-0,3	s
113	0,0252			0,8	s
128	0,00214			-4,0	u
141	0,0178	0,008	-0,6	-0,6	s
146	0,02637	0,007	1,6	1,0	s
155	0,124			17,4	u
161	0,0175			-0,6	s
162	0,0251	0,008	1,2	0,8	s
169	0,00505	0,001	-10,4	-3,3	u
176	0,012			-1,8	s
177	0,0225			0,3	s
179	0,016	0,005	-1,6	-1,0	s
181	0,0228	0,002	1,4	0,4	s
183	0,0161			-0,9	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

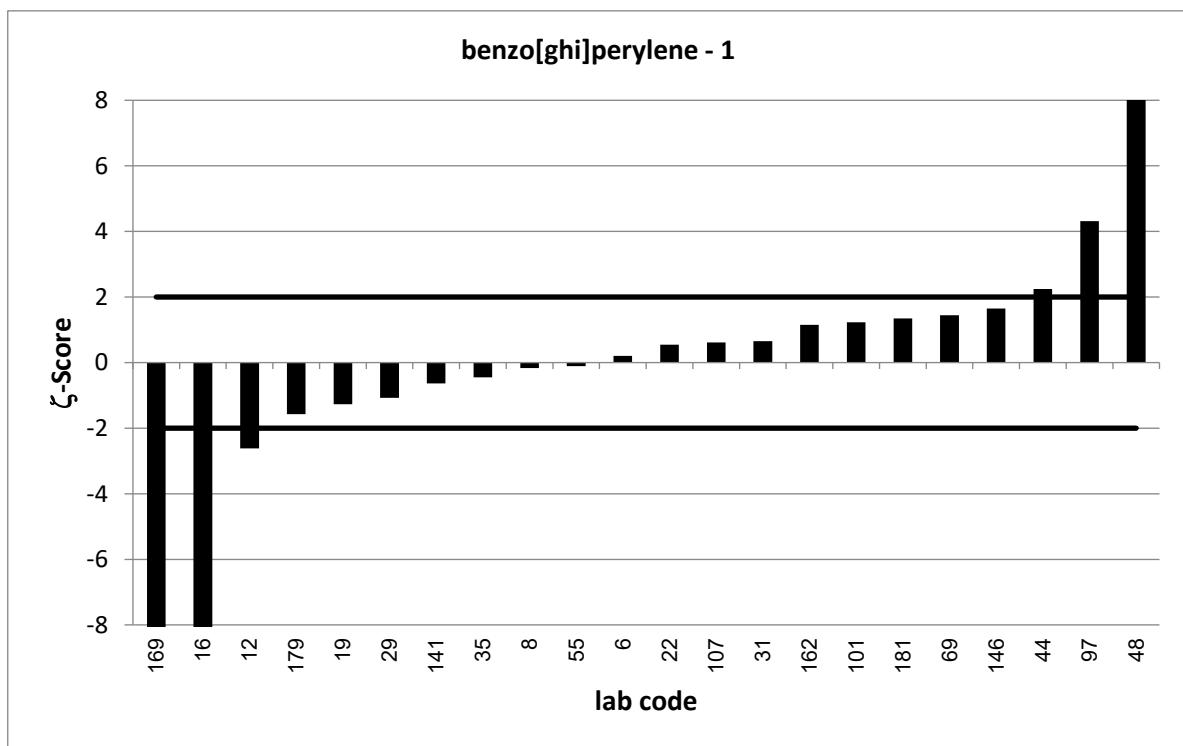
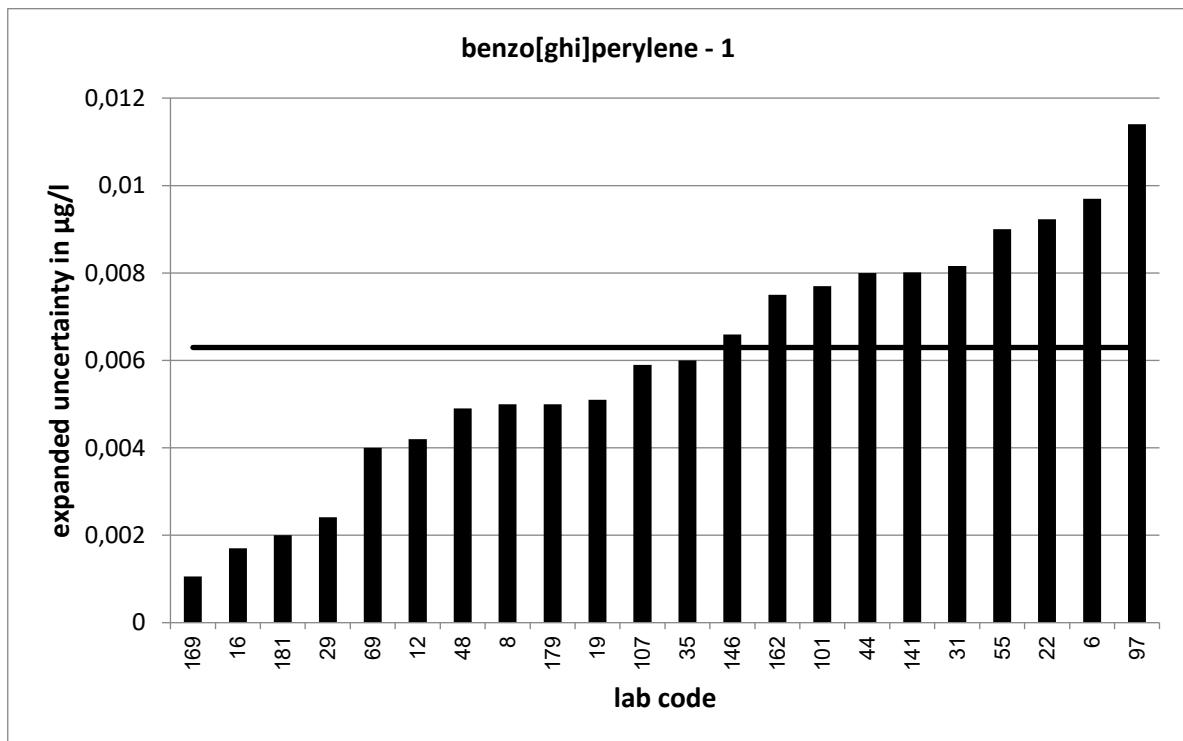
\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.



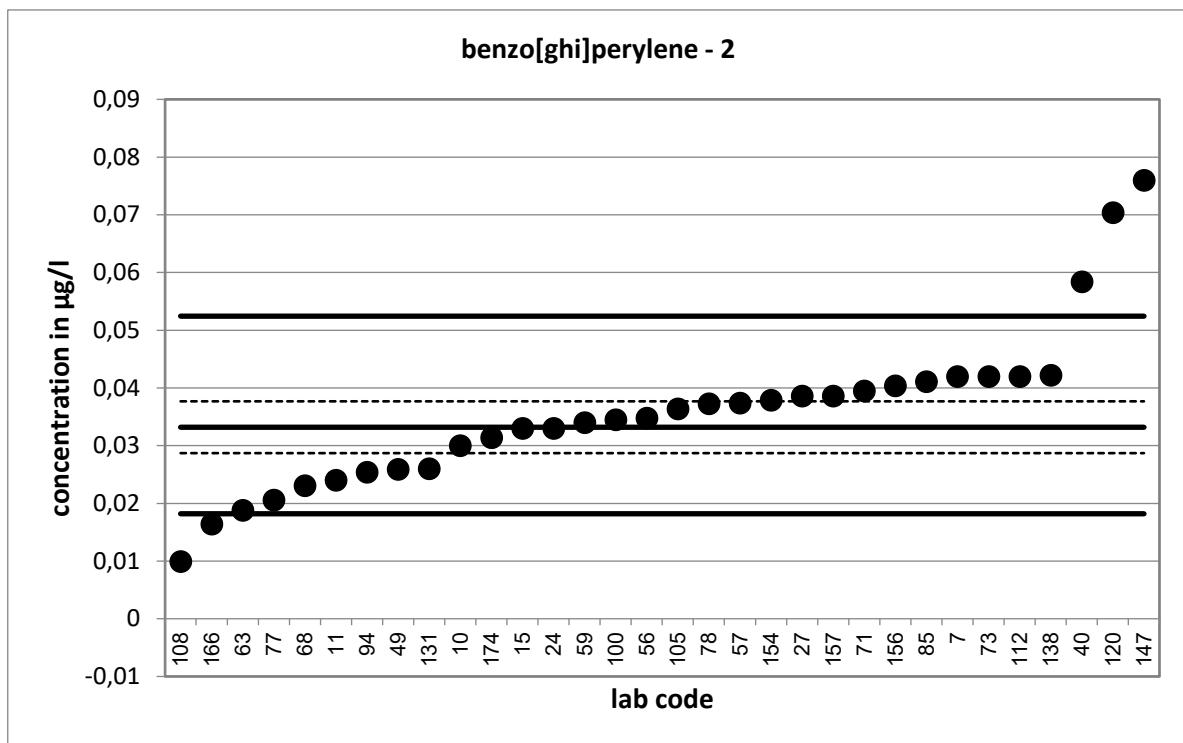
Strongly deviating values are not correctly shown in the diagram.



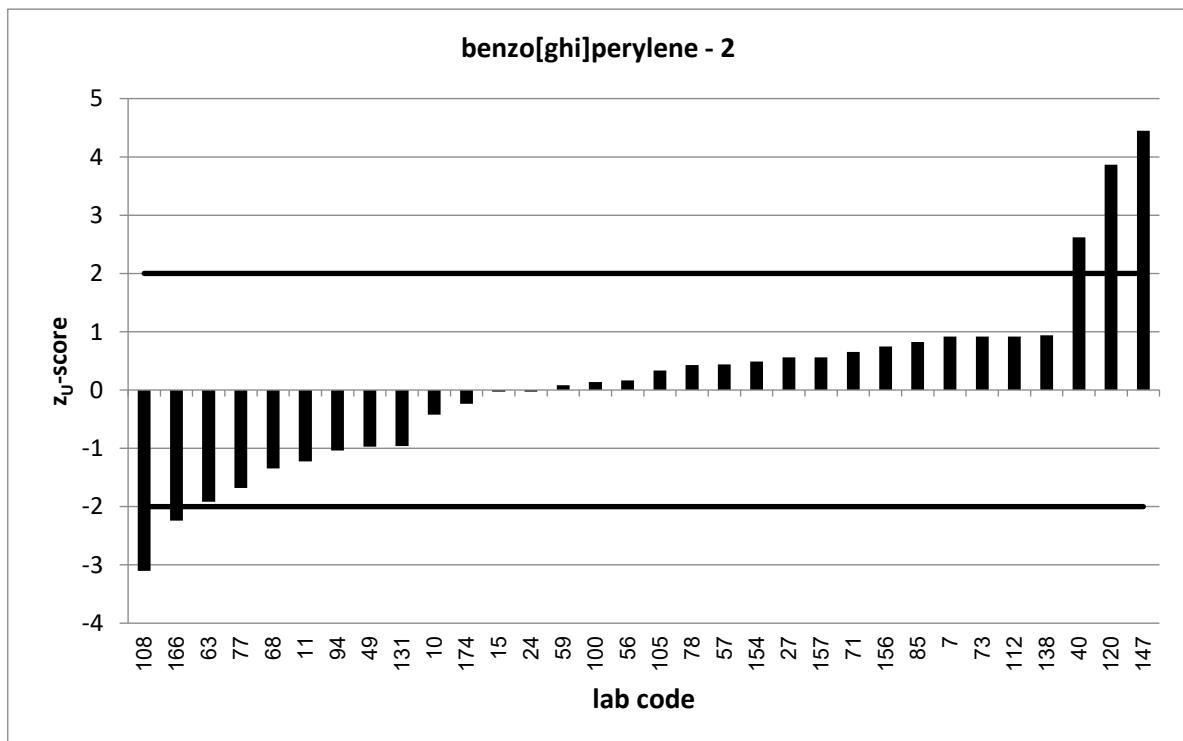
PT 3/24		benzo[ghi]perylene - 2			
assigned value [ $\mu\text{g/l}$ ]*		$0,03319 \pm 0,00449$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,05244			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,01819			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,042	0,007	2,0	0,9	s
10	0,03	0,004	-1,1	-0,4	s
11	0,024	0,005	-2,6	-1,2	s
15	0,033			0,0	s
24	0,033			0,0	s
27	0,0386			0,6	s
40	0,0584			2,6	q
49	0,0259			-1,0	s
56	0,0348	0,005	0,5	0,2	s
57	0,0374			0,4	s
59	0,034	0,007	0,2	0,1	s
63	0,0188	0,003	-5,2	-1,9	s
68	0,0231			-1,3	s
71	0,0395	0,013	0,9	0,7	s
73	0,042			0,9	s
77	0,0206	0,007	-3,0	-1,7	s
78	0,0373			0,4	s
85	0,0411			0,8	s
94	0,0254			-1,0	s
100	0,0345	0,007	0,3	0,1	s
105	0,0364			0,3	s
108	0,00992	0,002	-9,5	-3,1	u
112	0,042	0,004	2,9	0,9	s
120	0,0704	0,008	8,1	3,9	u
131	0,026	0,006	-1,9	-1,0	s
138	0,0422			0,9	s
147	0,076	0,002	17,1	4,4	u
154	0,0379	0,019	0,5	0,5	s
156	0,0404	0,007	1,8	0,7	s
157	0,0386			0,6	s
166	0,0164			-2,2	q
174	0,0314			-0,2	s

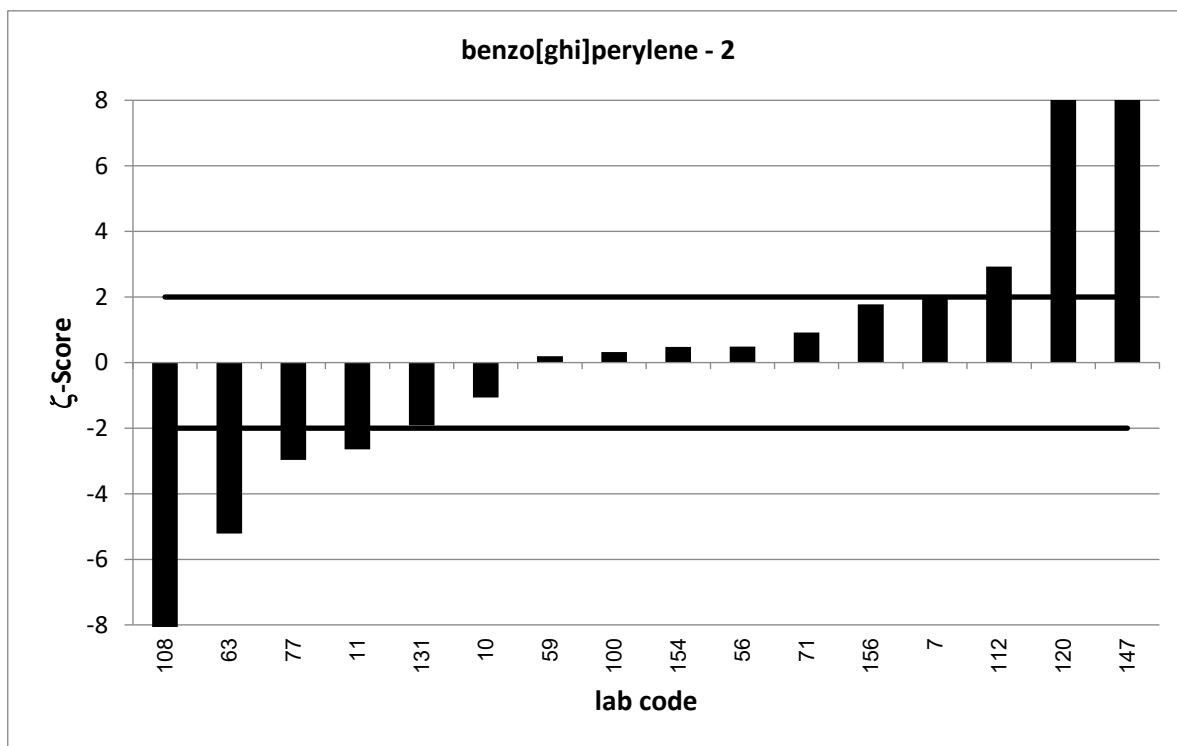
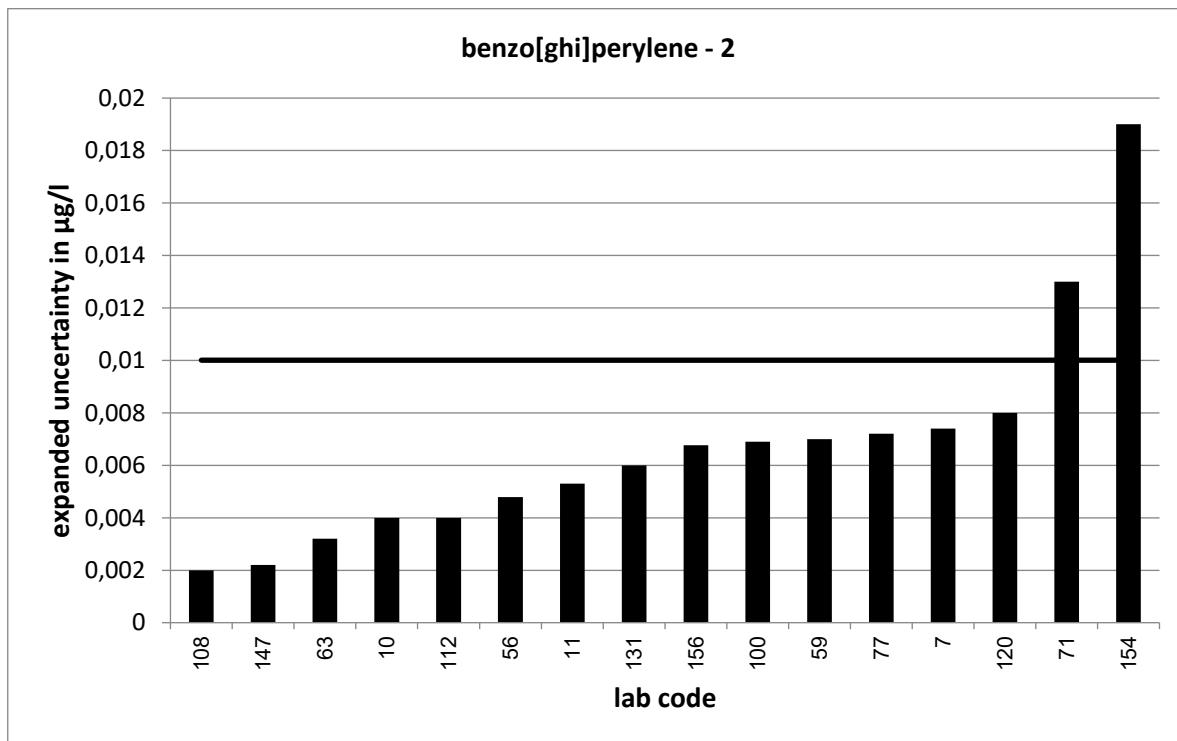
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

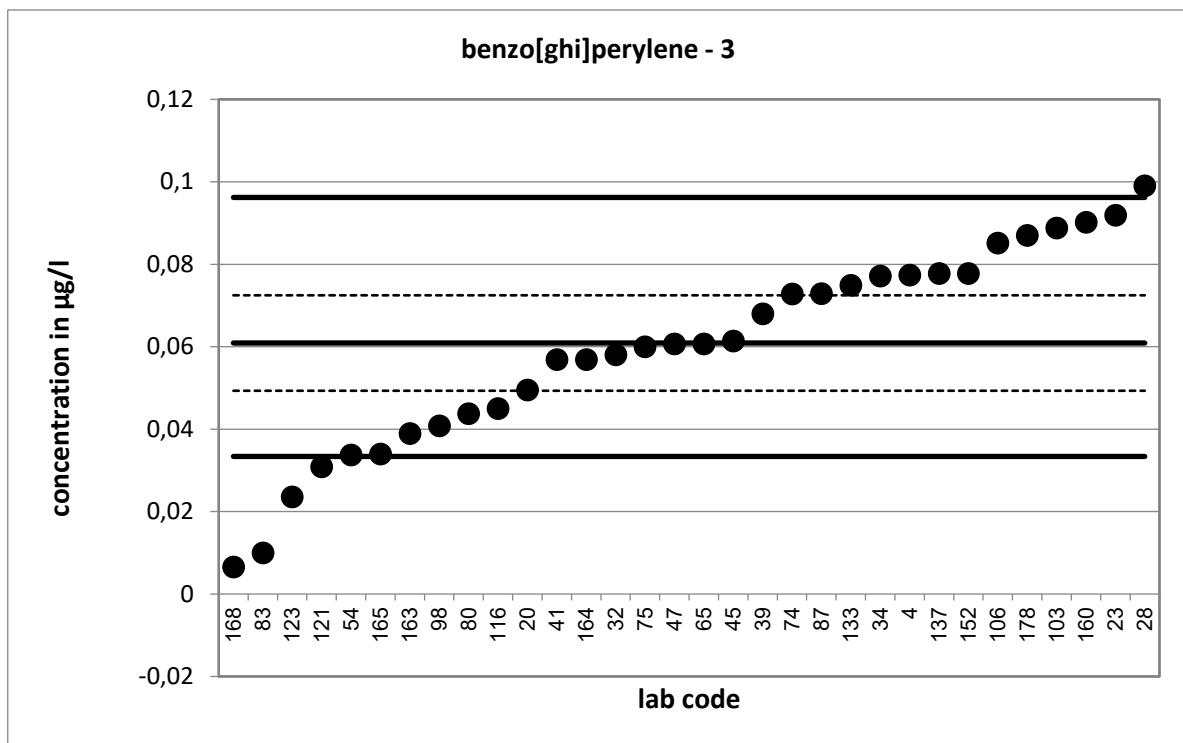




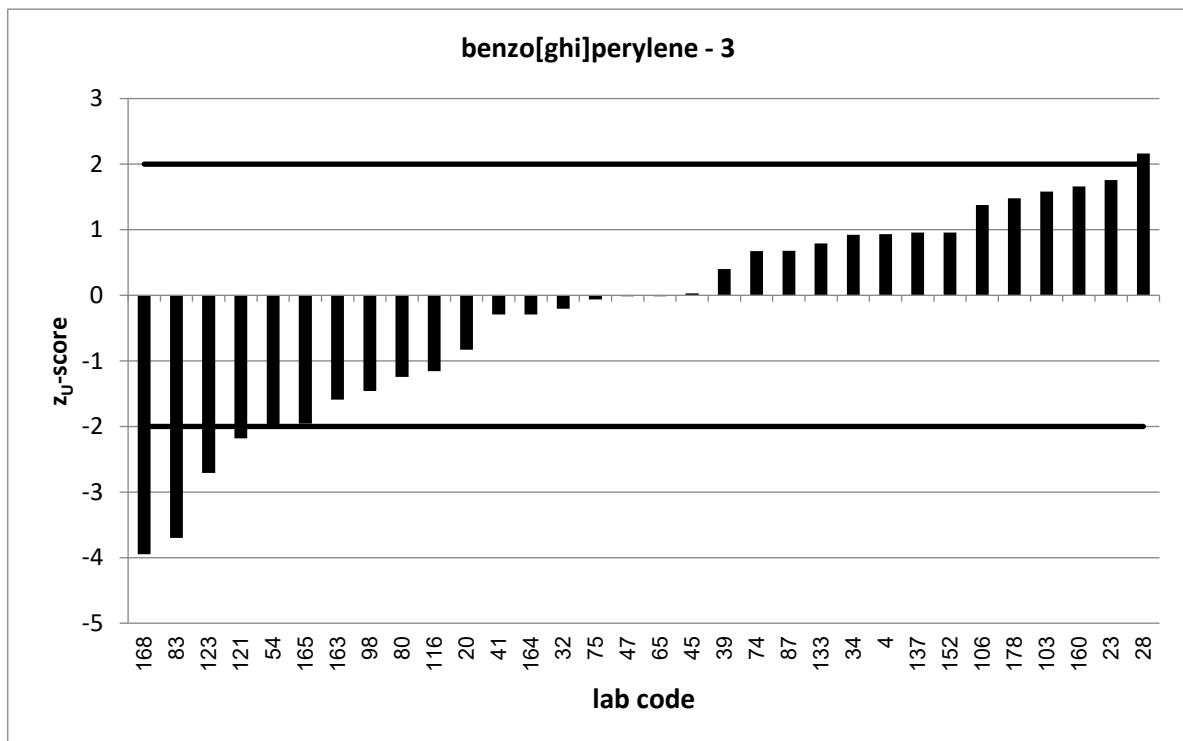
PT 3/24		benzo[ghi]perylene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,0609 \pm 0,01158$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,09621			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,03338			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0774			0,9	s
20	0,0495	0,015	-1,2	-0,8	s
23	0,0919			1,8	s
28	0,0991	0,029	2,5	2,2	q
32	0,0581			-0,2	s
34	0,0772	0,02	1,4	0,9	s
39	0,068	0,011	0,9	0,4	s
41	0,0569			-0,3	s
45	0,0614			0,0	s
47	0,0607			0,0	s
54	0,0338	0,01	-3,5	-2,0	s
65	0,0607			0,0	s
74	0,0728	0,02	1,0	0,7	s
75	0,06	0,012	-0,1	-0,1	s
80	0,0438	0,01	-2,2	-1,2	s
83	0,01			-3,7	u
87	0,0729	0,022	1,0	0,7	s
98	0,0408			-1,5	s
103	0,0888	0,018	2,6	1,6	s
106	0,0852			1,4	s
116	0,045	0,016	-1,6	-1,2	s
121	0,0309	0,009	-4,1	-2,2	q
123	0,0236			-2,7	q
133	0,0749			0,8	s
137	0,0778	0,012	2,1	1,0	s
152	0,0778	0,018	1,6	1,0	s
160	0,0902			1,7	s
163	0,039			-1,6	s
164	0,0569	0,017	-0,4	-0,3	s
165	0,034			-2,0	s
168	0,00659	0,002	-9,2	-3,9	u
178	0,087			1,5	s

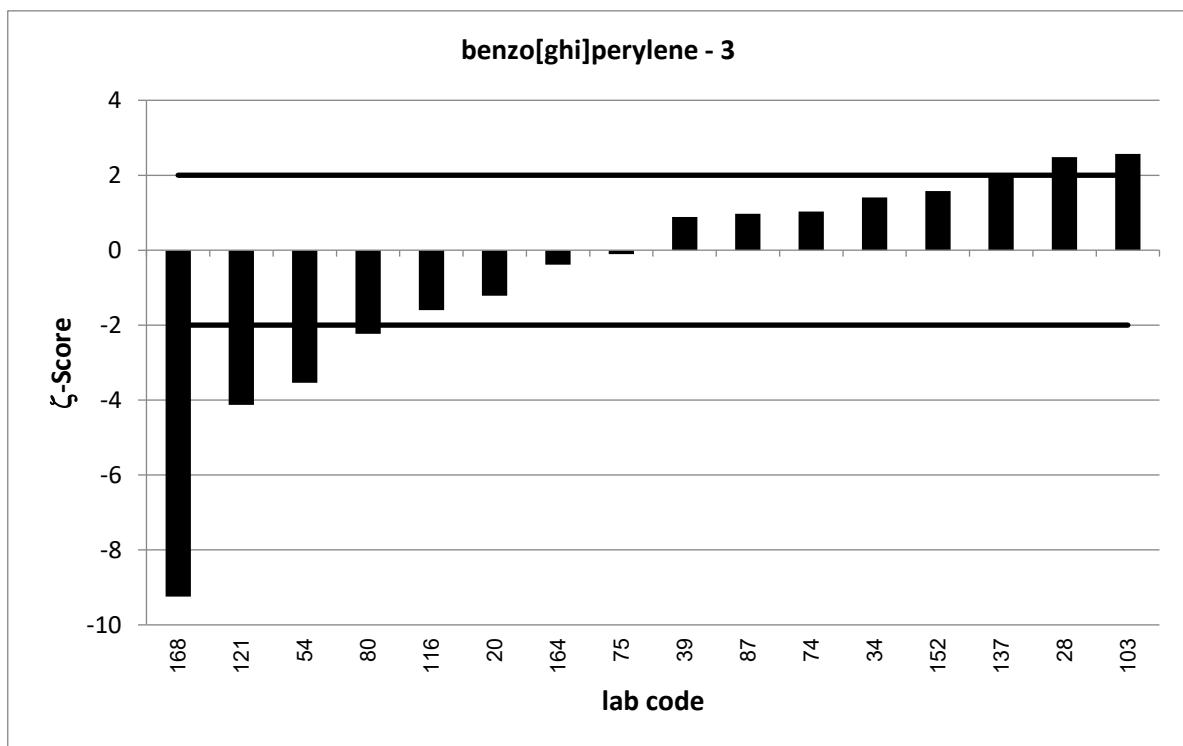
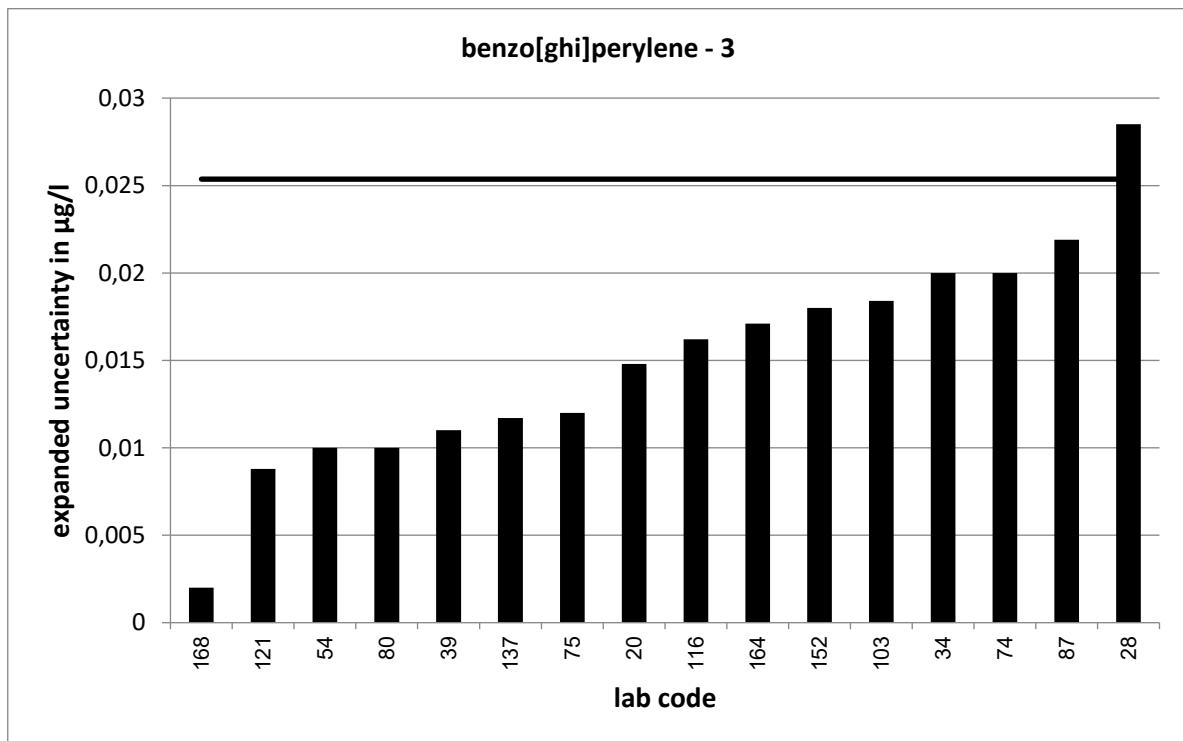
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



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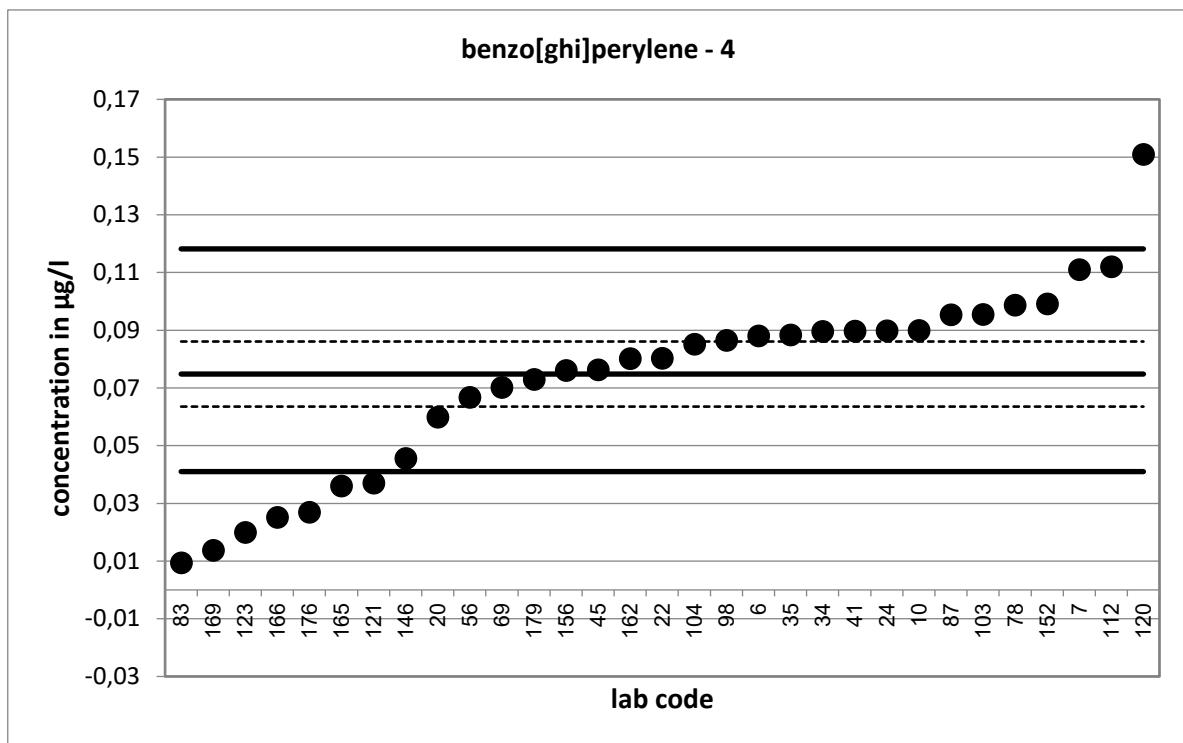




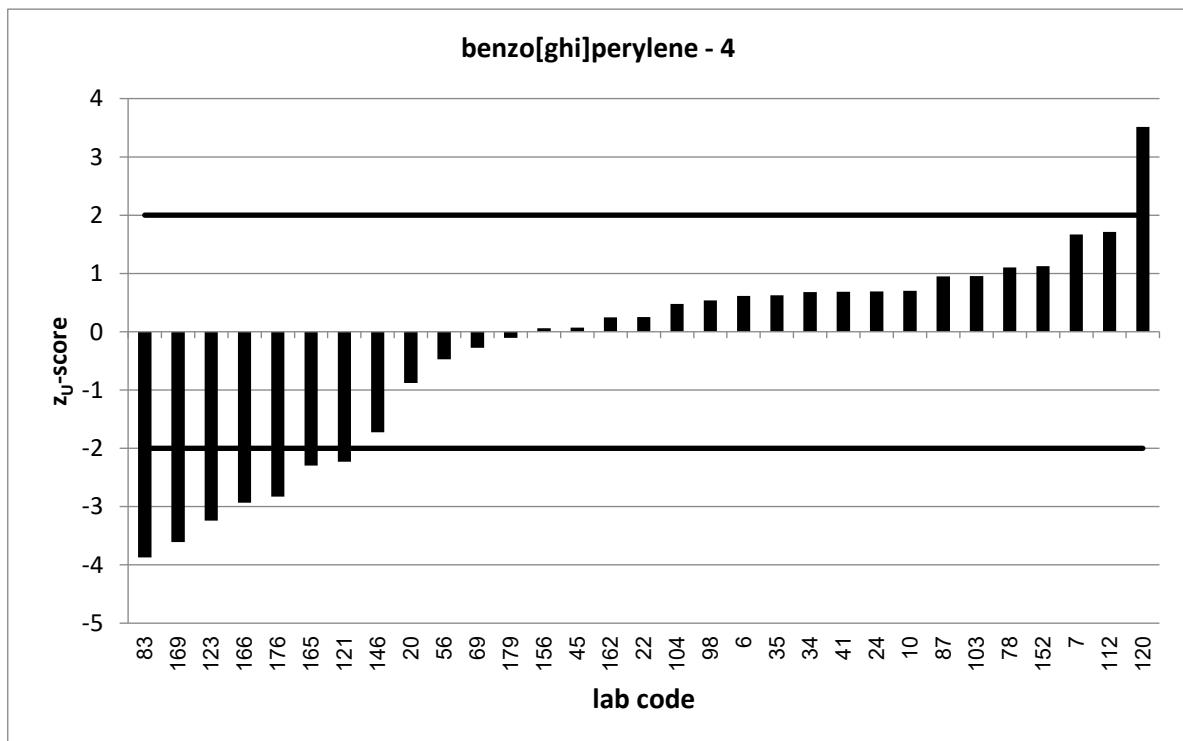
PT 3/24		benzo[ghi]perylene - 4			
assigned value [ $\mu\text{g/l}$ ]*		$0,07481 \pm 0,01128$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1182			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,041			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0881	0,04	0,6	0,6	s
7	0,111	0,014	4,0	1,7	s
10	0,09	0,01	2,0	0,7	s
20	0,0599	0,018	-1,4	-0,9	s
22	0,0803	0,032	0,3	0,3	s
24	0,0898			0,7	s
34	0,0896	0,02	1,3	0,7	s
35	0,0884	0,027	0,9	0,6	s
41	0,0897			0,7	s
45	0,0763			0,1	s
56	0,0668	0,009	-1,1	-0,5	s
69	0,0702	0,012	-0,6	-0,3	s
78	0,0987			1,1	s
83	0,0094			-3,9	u
87	0,0954	0,029	1,3	0,9	s
98	0,0865			0,5	s
103	0,0955	0,02	1,8	1,0	s
104	0,0852			0,5	s
112	0,112	0,012	4,5	1,7	s
120	0,151	0,01	10,1	3,5	u
121	0,0371	0,011	-4,8	-2,2	q
123	0,02			-3,2	u
146	0,04563	0,011	-3,6	-1,7	s
152	0,0992	0,023	1,9	1,1	s
156	0,0761	0,013	0,2	0,1	s
162	0,0802	0,024	0,4	0,2	s
165	0,036			-2,3	q
166	0,0252			-2,9	q
169	0,0138	0,003	-10,5	-3,6	u
176	0,027			-2,8	q
179	0,073	0,022	-0,1	-0,1	s

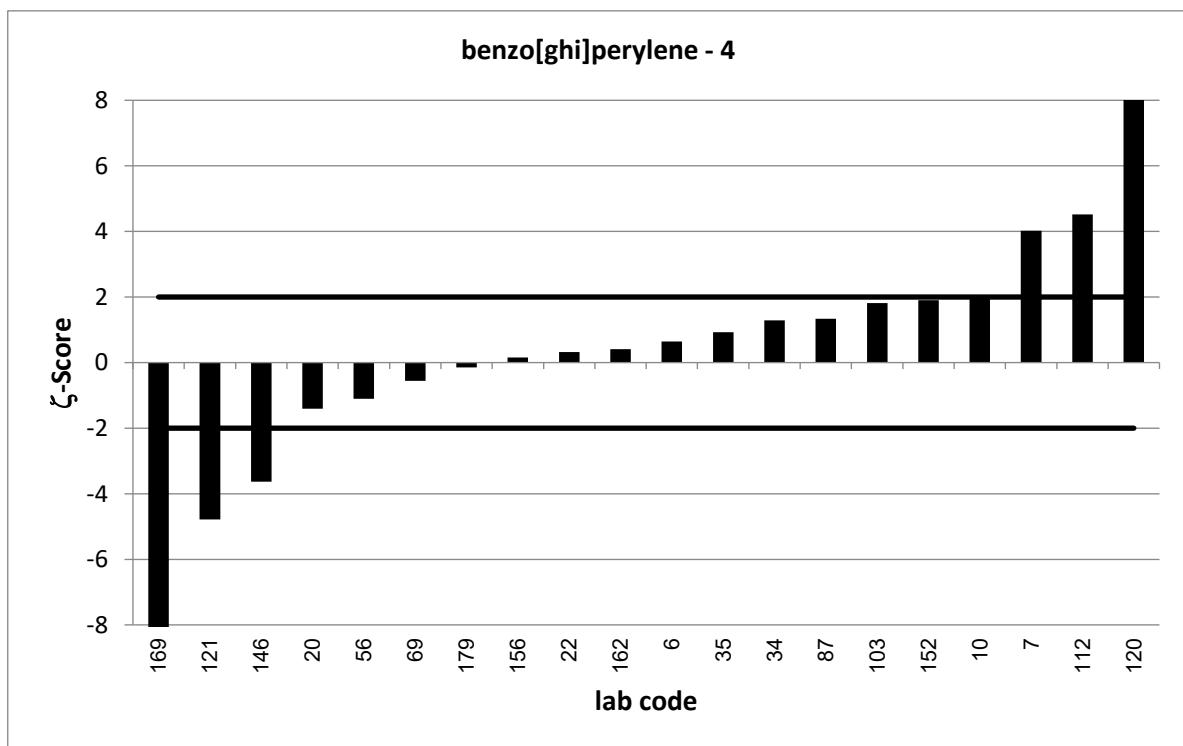
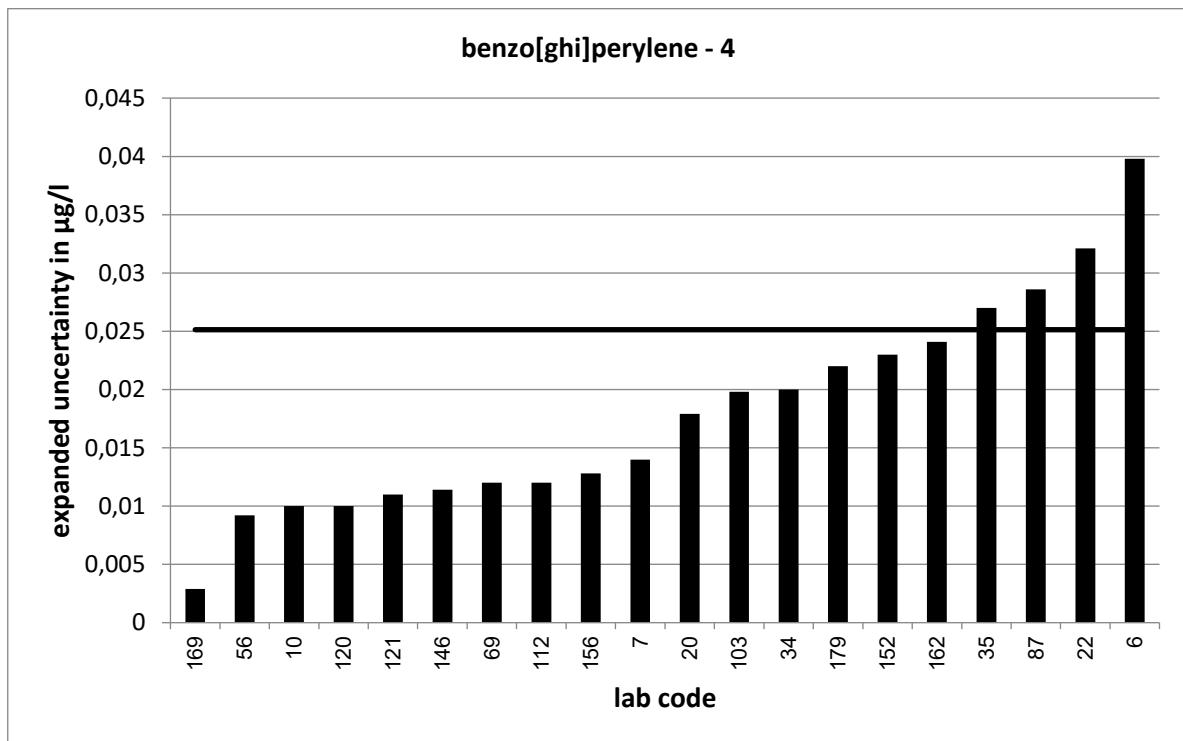
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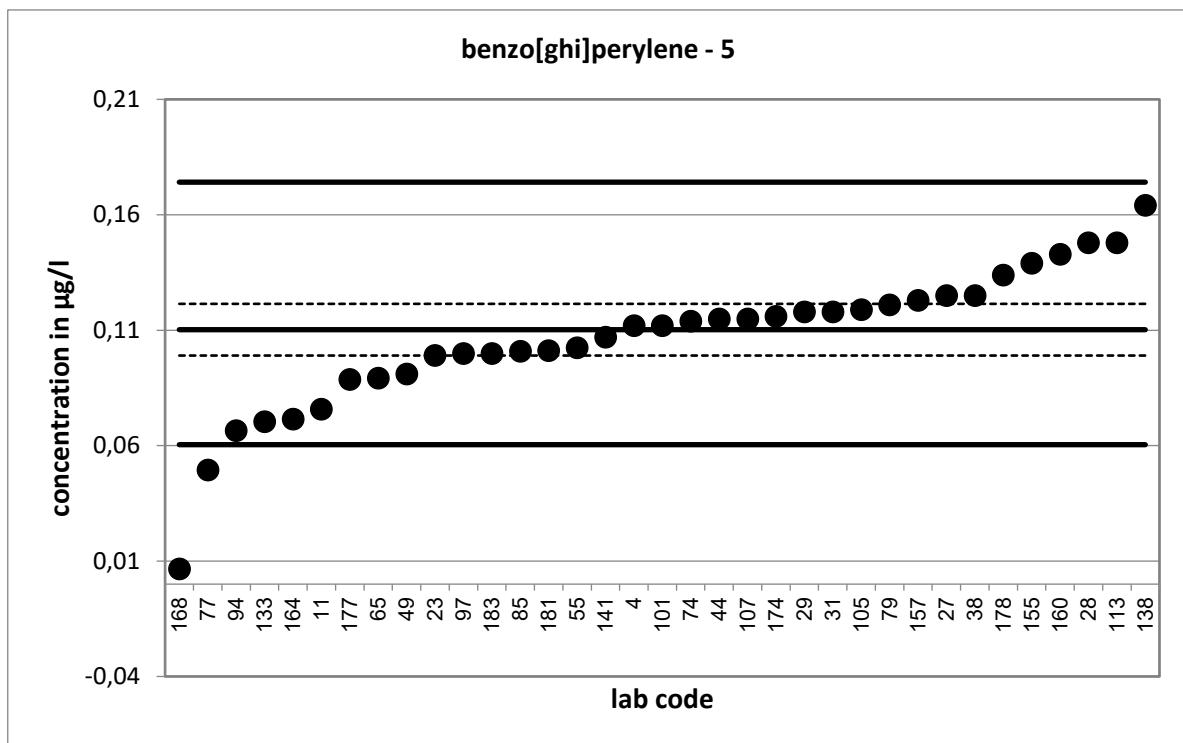




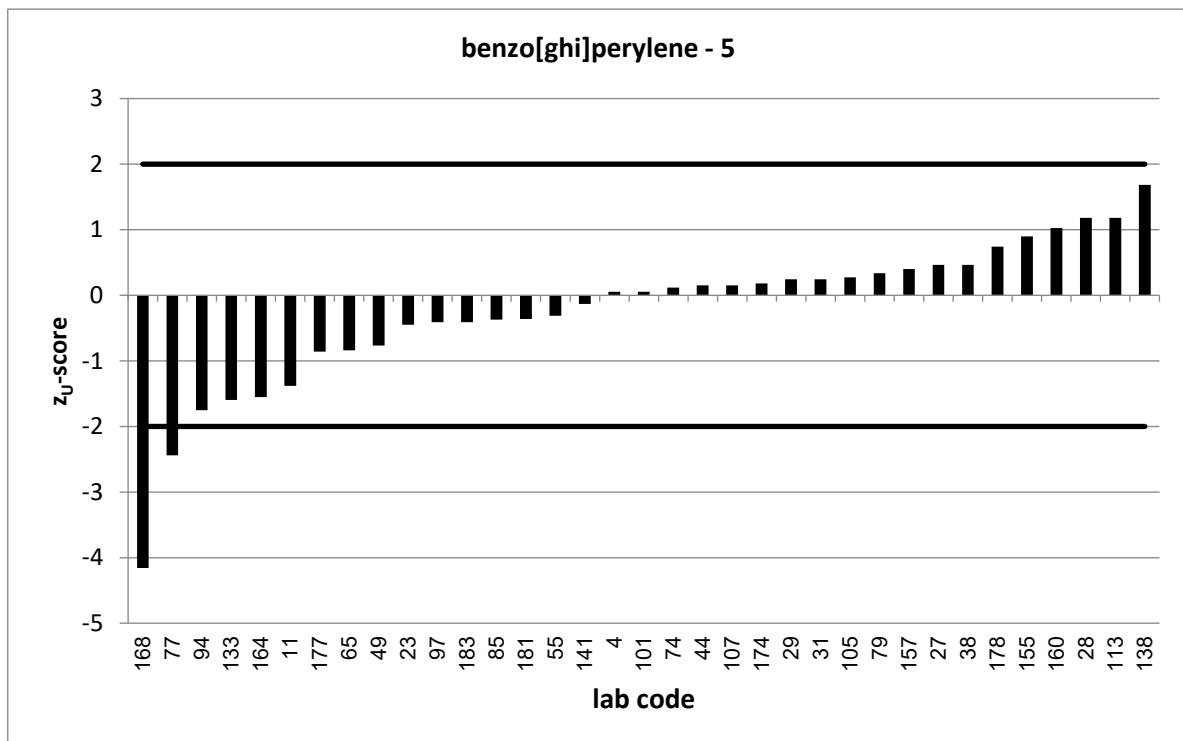
PT 3/24		benzo[ghi]perylene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,1102 \pm 0,0112$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1741			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,06042			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,112			0,1	s
11	0,0758	0,017	-3,4	-1,4	s
23	0,0991			-0,4	s
27	0,125			0,5	s
28	0,148	0,043	1,7	1,2	s
29	0,118	0,015	0,8	0,2	s
31	0,118	0,041	0,4	0,2	s
38	0,125			0,5	s
44	0,115	0,018	0,5	0,1	s
49	0,0911			-0,8	s
55	0,1025	0,046	-0,3	-0,3	s
65	0,0893			-0,8	s
74	0,114	0,031	0,2	0,1	s
77	0,0495	0,017	-5,9	-2,4	q
79	0,121			0,3	s
85	0,101			-0,4	s
94	0,0666			-1,8	s
97	0,1	0,025	-0,7	-0,4	s
101	0,112	0,034	0,1	0,1	s
105	0,119			0,3	s
107	0,115	0,03	0,3	0,1	s
113	0,148			1,2	s
133	0,0705			-1,6	s
138	0,1641			1,7	s
141	0,107	0,048	-0,1	-0,1	s
155	0,139			0,9	s
157	0,123			0,4	s
160	0,143			1,0	s
164	0,0716	0,022	-3,2	-1,6	s
168	0,00665	0,002	-18,3	-4,2	u
174	0,116			0,2	s
177	0,0888			-0,9	s
178	0,134			0,7	s
181	0,1012	0,013	-1,1	-0,4	s
183	0,1	0,03	-0,6	-0,4	s

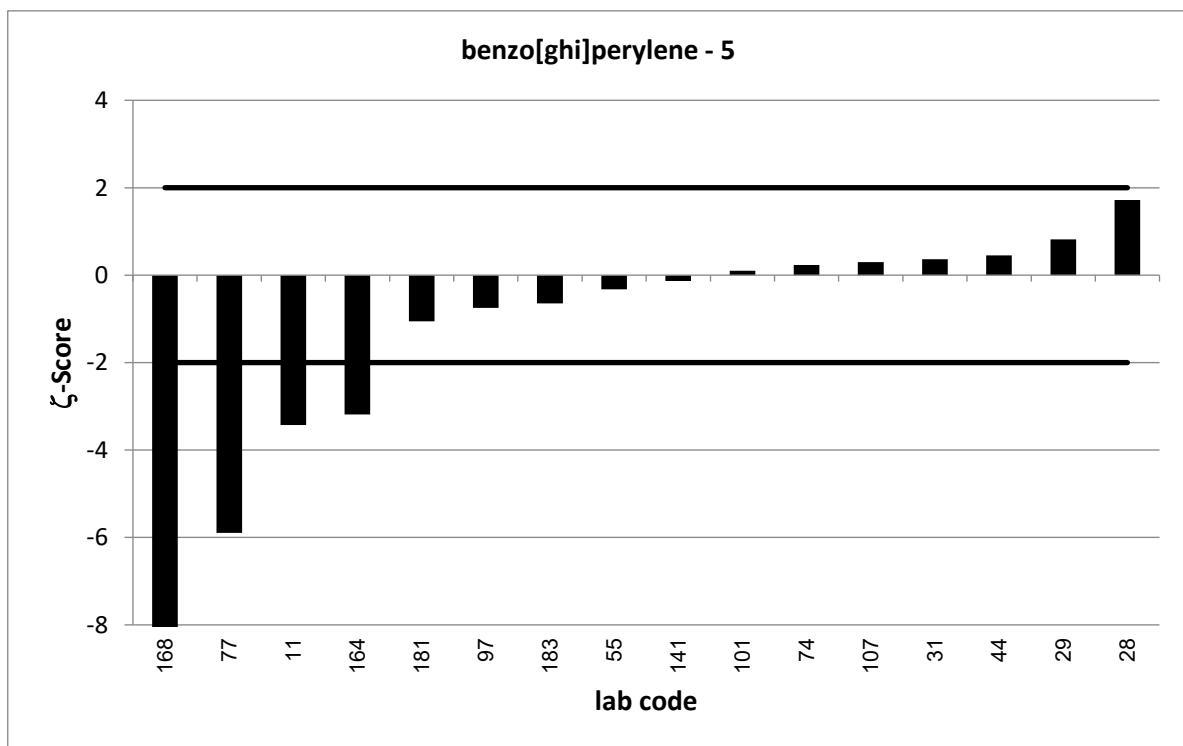
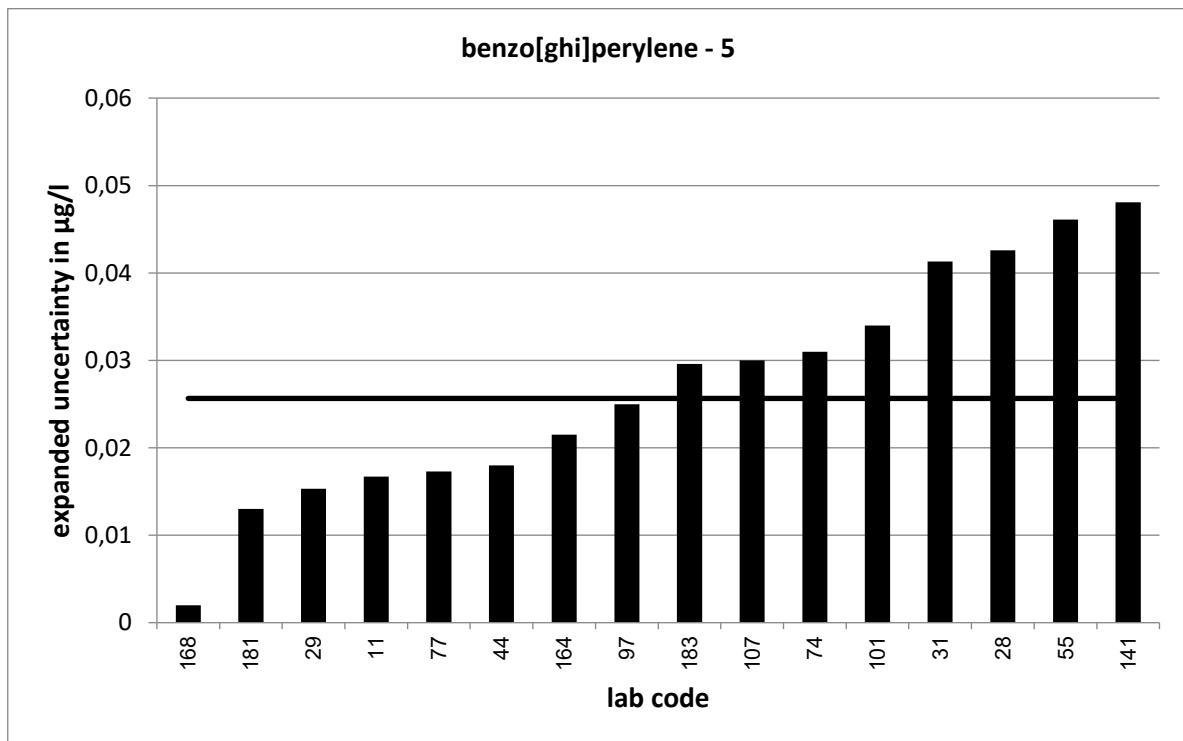
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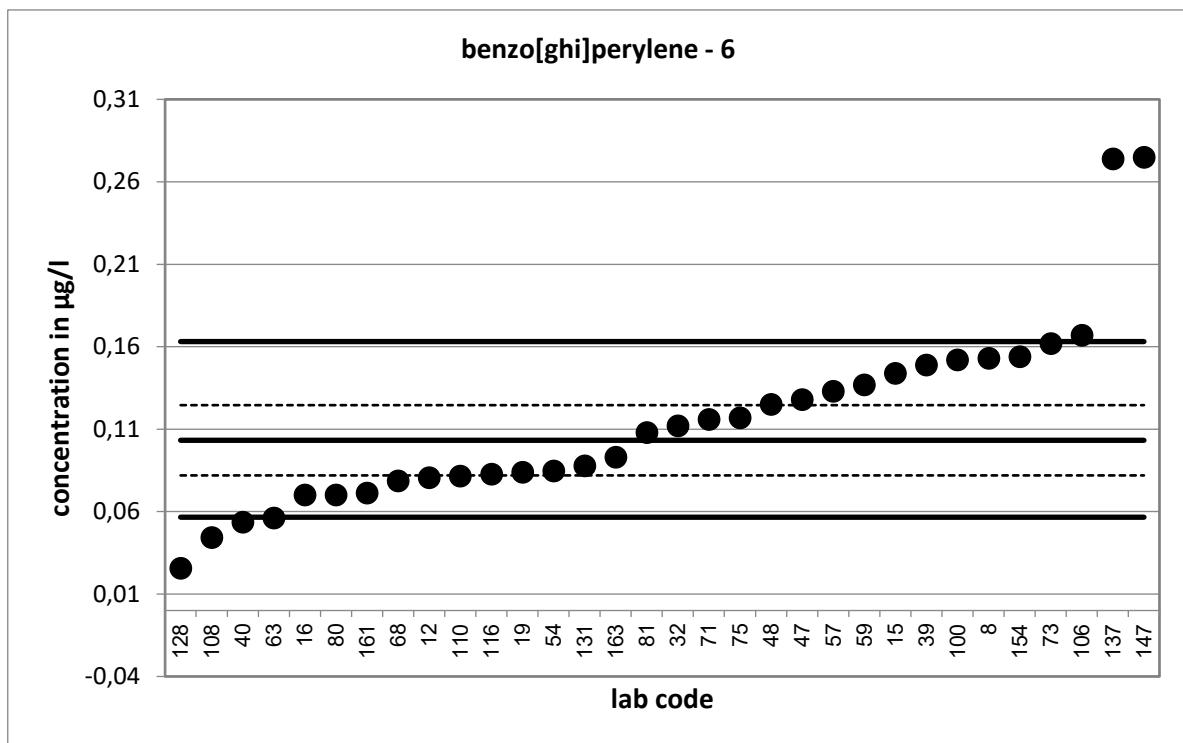




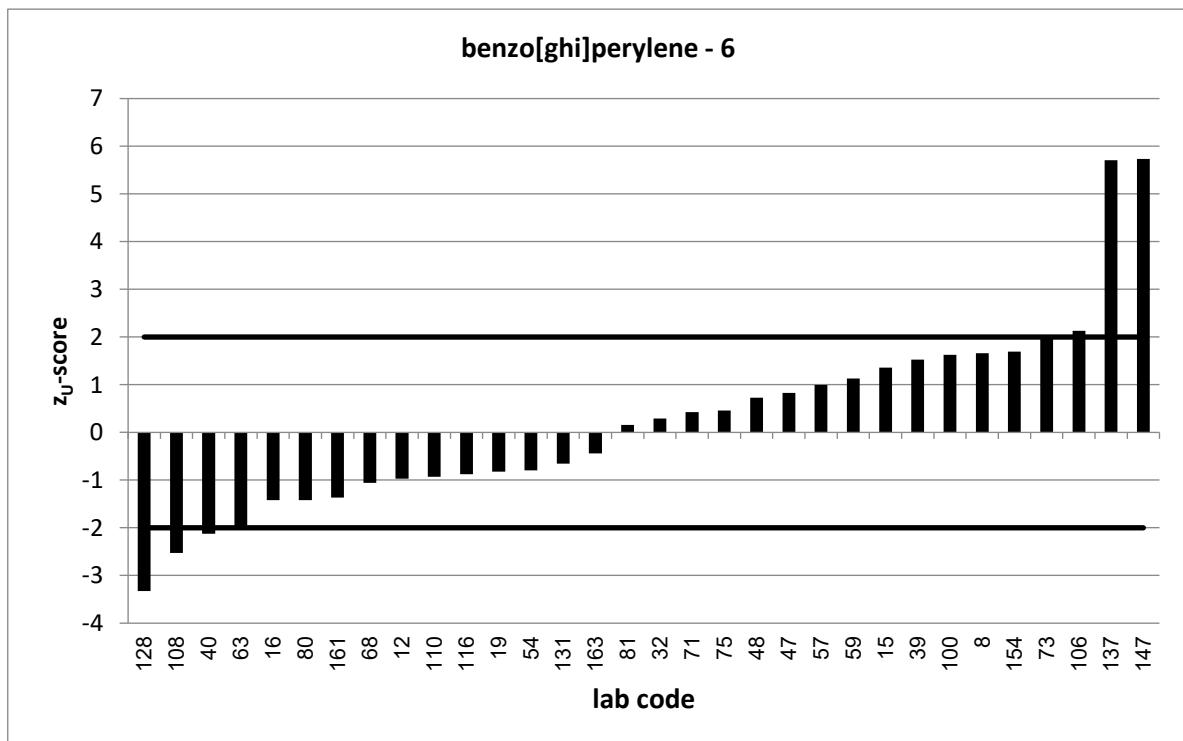
PT 3/24		benzo[ghi]perylene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,1032 \pm 0,0213$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,1631$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,05659$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,153	0,037	2,3	1,7	s
12	0,0806	0,024	-1,4	-1,0	s
15	0,144			1,4	s
16	0,0701	0,017	-2,5	-1,4	s
19	0,084	0,026	-1,2	-0,8	s
32	0,112			0,3	s
39	0,149	0,024	2,9	1,5	s
40	0,0537			-2,1	q
47	0,128			0,8	s
48	0,125	0,009	1,9	0,7	s
54	0,0847	0,025	-1,1	-0,8	s
57	0,133			1,0	s
59	0,137	0,027	2,0	1,1	s
63	0,0561	0,01	-4,0	-2,0	s
68	0,0786			-1,1	s
71	0,116	0,039	0,6	0,4	s
73	0,162			2,0	s
75	0,117	0,023	0,9	0,5	s
80	0,0701	0,01	-2,8	-1,4	s
81	0,108			0,2	s
100	0,152	0,03	2,7	1,6	s
106	0,167			2,1	q
108	0,0443	0,011	-4,9	-2,5	q
110	0,0816			-0,9	s
116	0,0828	0,03	-1,1	-0,9	s
128	0,0257			-3,3	u
131	0,0879	0,021	-1,0	-0,7	s
137	0,274	0,041	7,4	5,7	u
147	0,275	0,008	15,1	5,7	u
154	0,154	0,077	1,3	1,7	s
161	0,0713			-1,4	s
163	0,093			-0,4	s

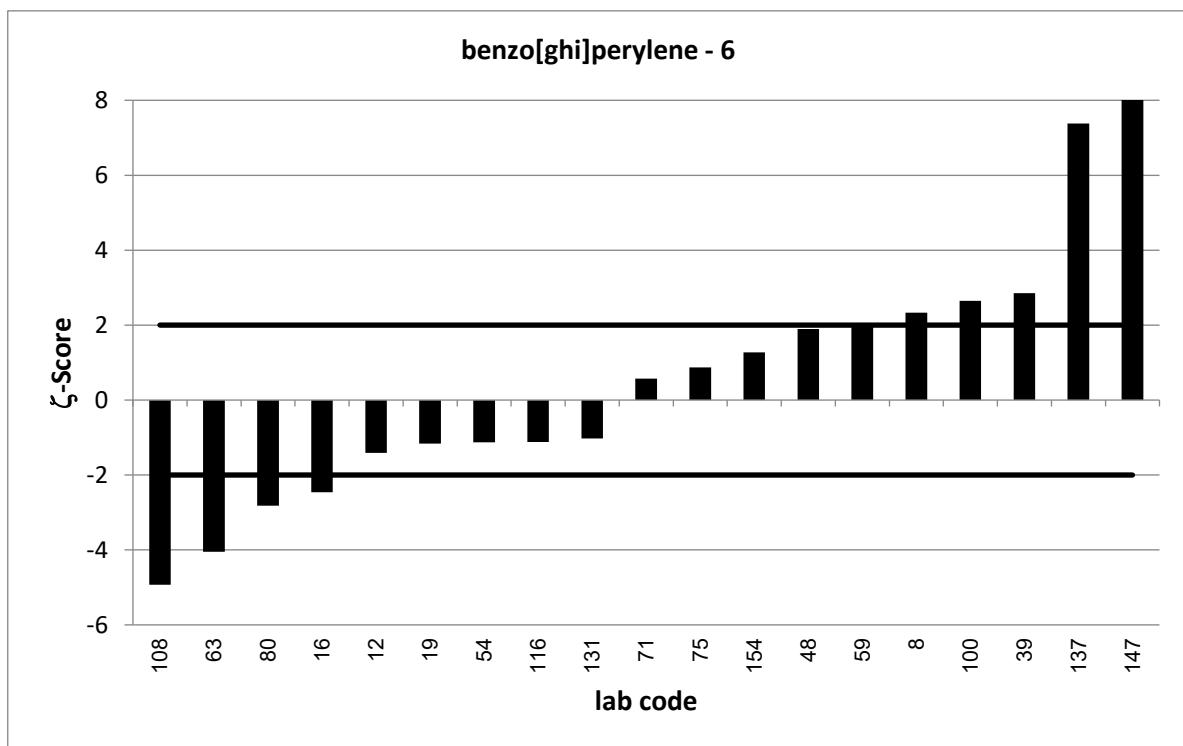
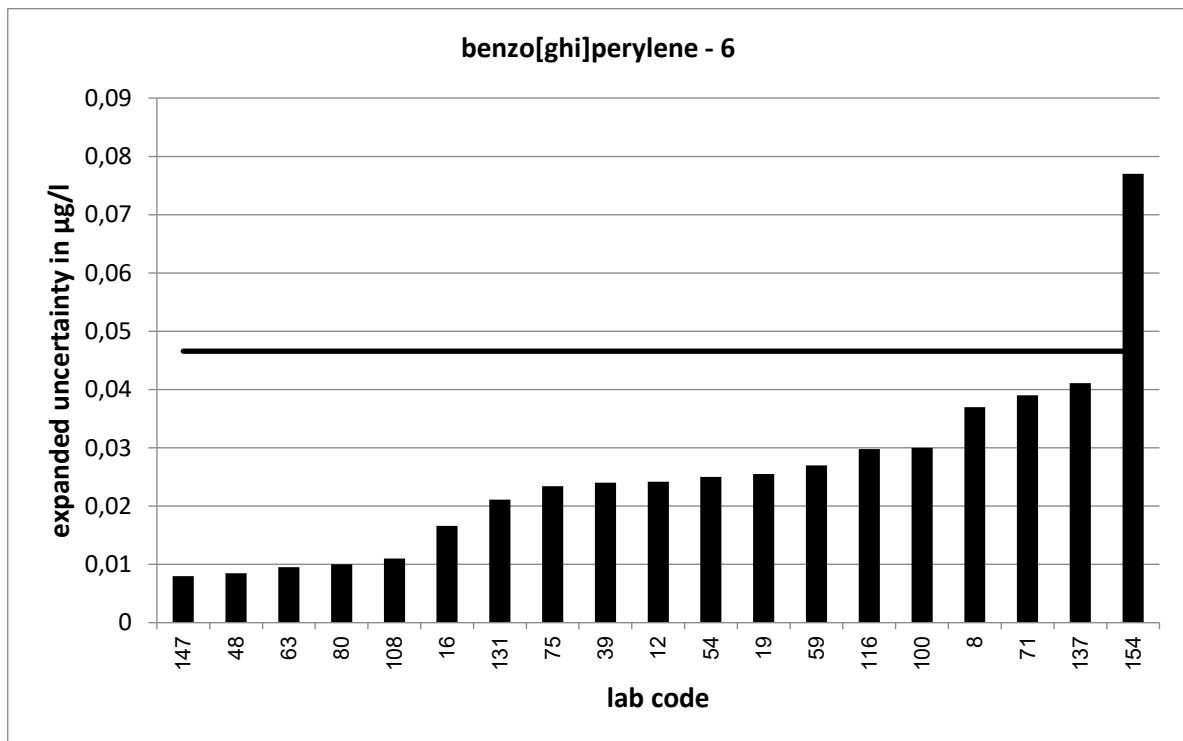
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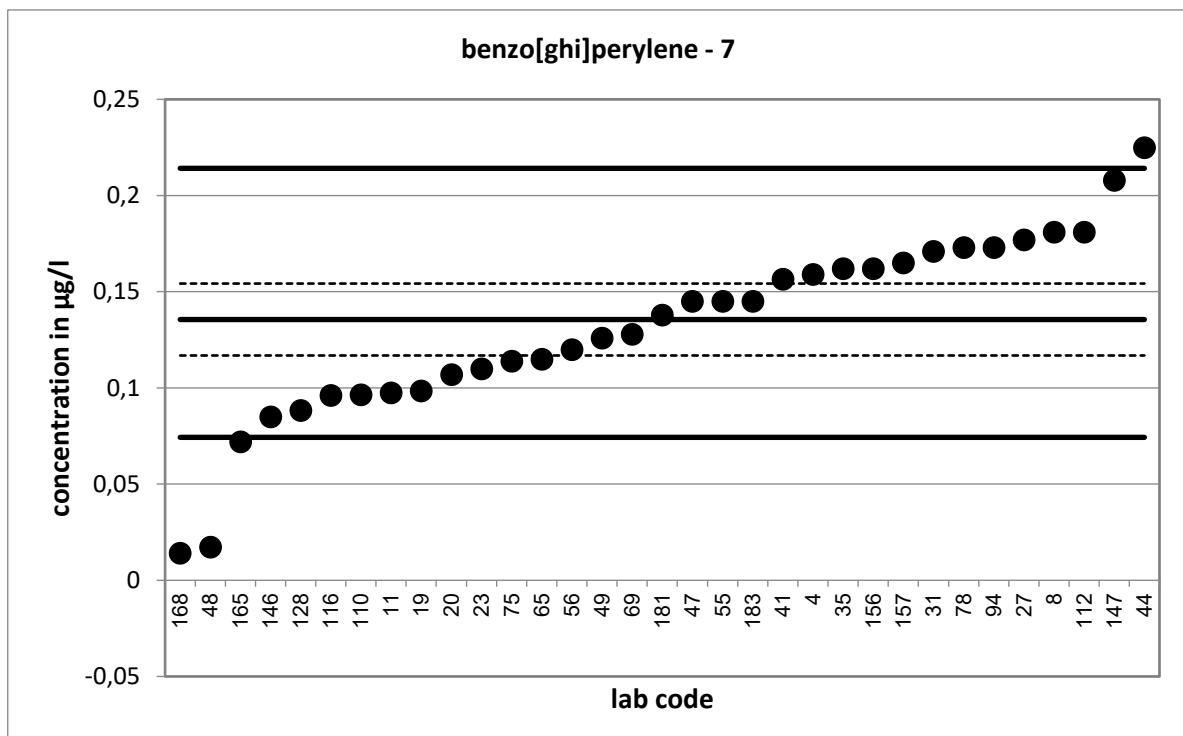




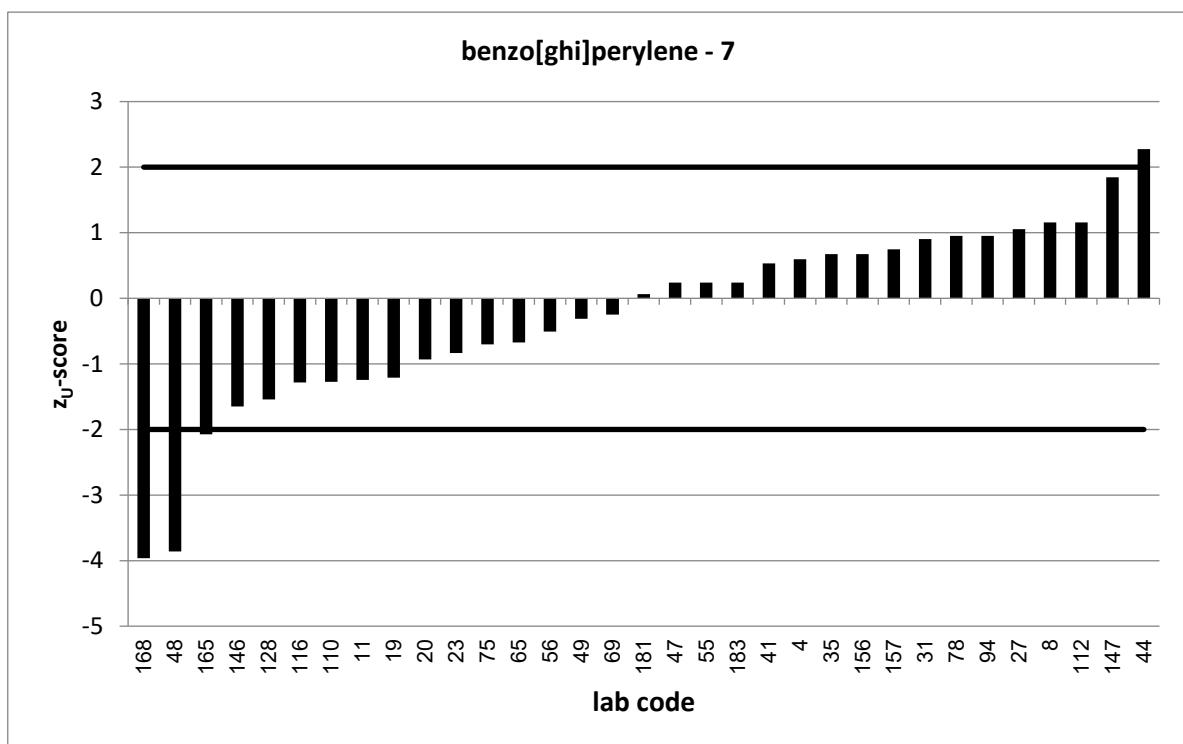
PT 3/24		benzo[ghi]perylene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,1356 \pm 0,0187$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2142			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0743			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,159			0,6	s
8	0,181	0,043	1,9	1,2	s
11	0,0975	0,021	-2,7	-1,2	s
19	0,0985	0,03	-2,1	-1,2	s
20	0,107	0,032	-1,5	-0,9	s
23	0,11			-0,8	s
27	0,177			1,1	s
31	0,171	0,06	1,1	0,9	s
35	0,162	0,049	1,0	0,7	s
41	0,1565			0,5	s
44	0,225	0,033	4,7	2,3	q
47	0,145			0,2	s
48	0,0173	0,001	-12,6	-3,9	u
49	0,126			-0,3	s
55	0,145	0,065	0,3	0,2	s
56	0,12	0,017	-1,2	-0,5	s
65	0,115			-0,7	s
69	0,128	0,022	-0,5	-0,2	s
75	0,114	0,023	-1,5	-0,7	s
78	0,173			1,0	s
94	0,173			1,0	s
110	0,0965			-1,3	s
112	0,181	0,019	3,4	1,2	s
116	0,0962	0,035	-2,0	-1,3	s
128	0,0883			-1,5	s
146	0,08504	0,021	-3,6	-1,6	s
147	0,208	0,006	7,4	1,8	s
156	0,162	0,027	1,6	0,7	s
157	0,165			0,7	s
165	0,072			-2,1	q
168	0,0142	0,03	-6,9	-4,0	u
181	0,138	0,017	0,2	0,1	s
183	0,145			0,2	s

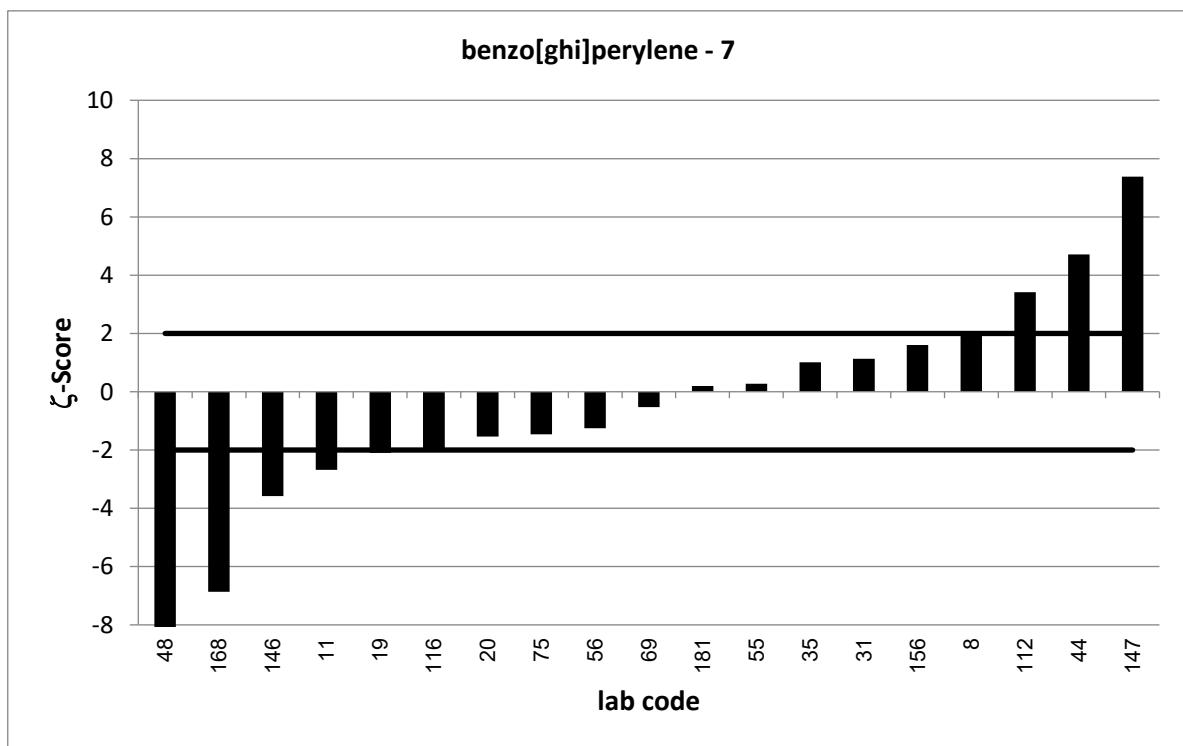
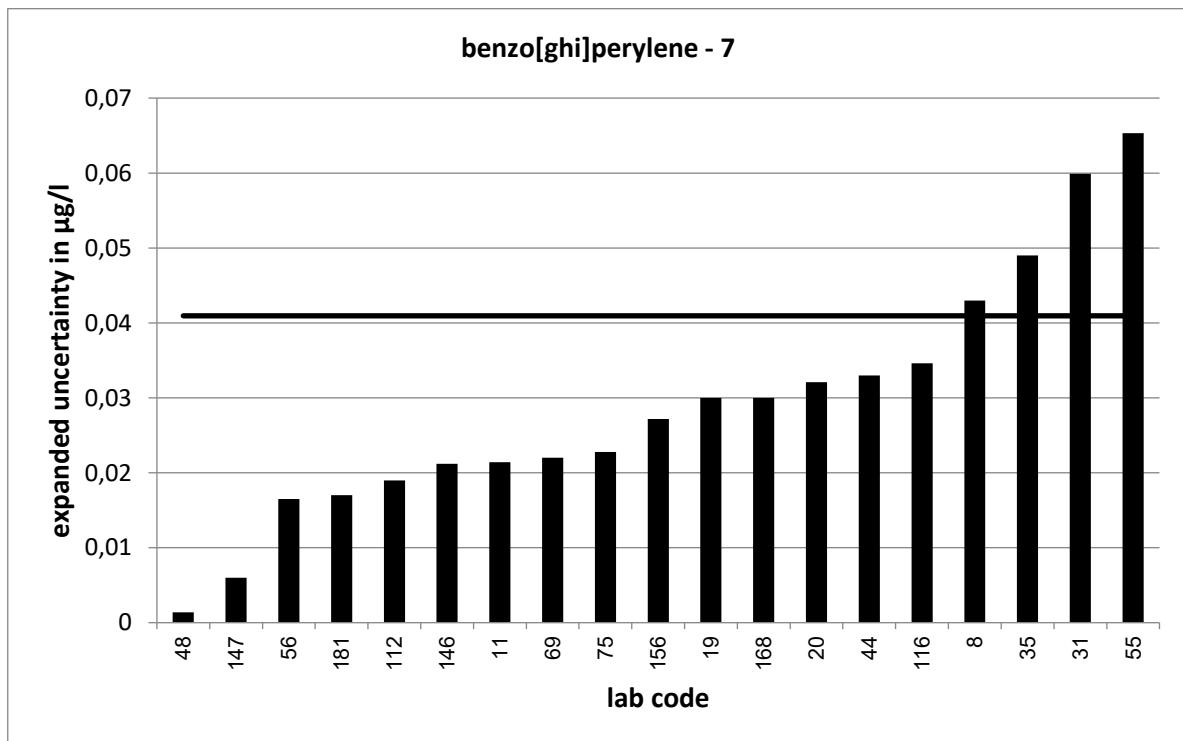
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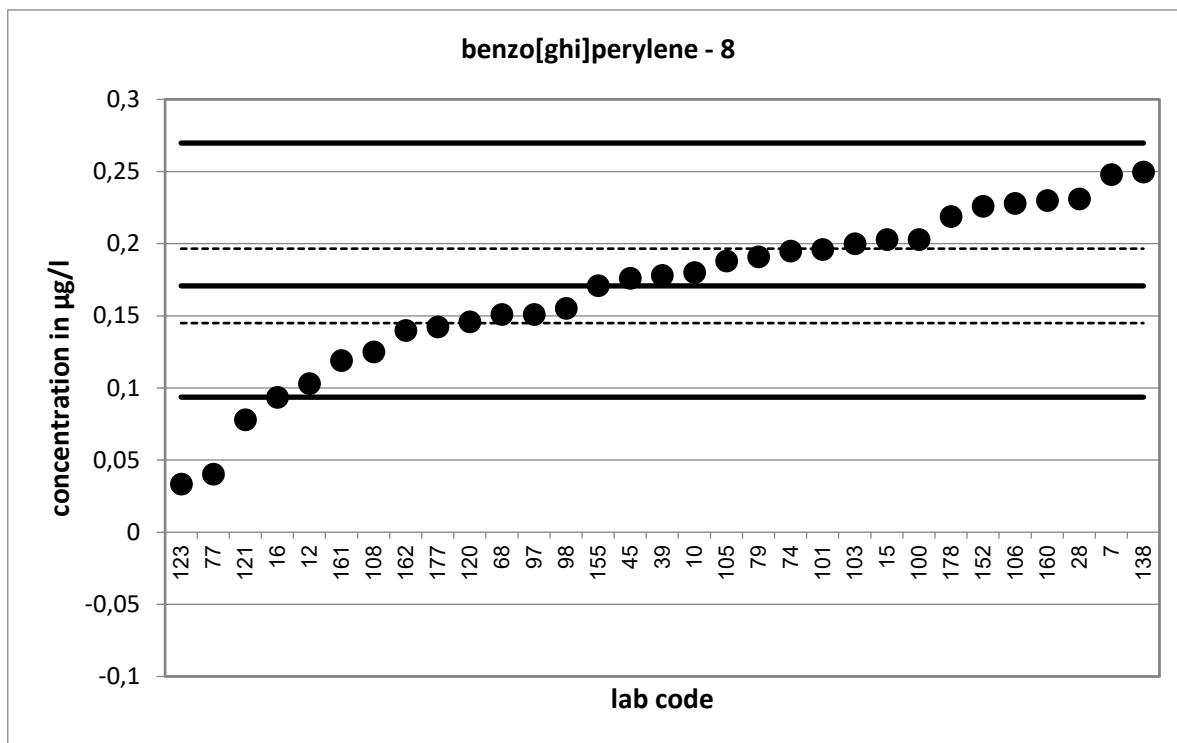




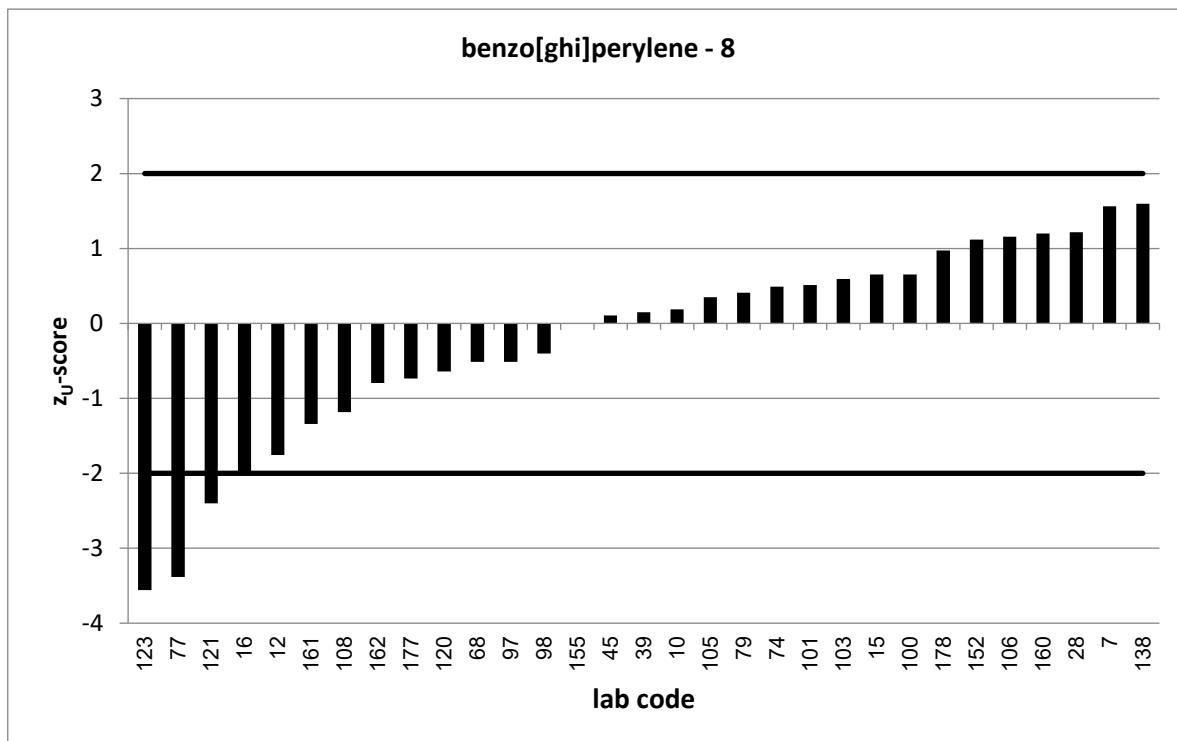
PT 3/24		benzo[ghi]perylene - 8			
assigned value [ $\mu\text{g/l}$ ]*		$0,1707 \pm 0,0258$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2697			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,09358			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,248	0,037	3,4	1,6	s
10	0,18	0,021	0,6	0,2	s
12	0,103	0,031	-3,4	-1,8	s
15	0,203			0,7	s
16	0,0935	0,022	-4,6	-2,0	s
28	0,231	0,066	1,7	1,2	s
39	0,178	0,028	0,4	0,1	s
45	0,176			0,1	s
68	0,151			-0,5	s
74	0,195	0,053	0,8	0,5	s
77	0,0402	0,014	-8,9	-3,4	u
79	0,191			0,4	s
97	0,151	0,038	-0,9	-0,5	s
98	0,1553			-0,4	s
100	0,203	0,041	1,3	0,7	s
101	0,196	0,059	0,8	0,5	s
103	0,2	0,042	1,2	0,6	s
105	0,188			0,3	s
106	0,228			1,2	s
108	0,125	0,03	-2,3	-1,2	s
120	0,146	0,033	-1,2	-0,6	s
121	0,0781	0,022	-5,5	-2,4	q
123	0,0335			-3,6	u
138	0,2498			1,6	s
152	0,226	0,053	1,9	1,1	s
155	0,171			0,0	s
160	0,23			1,2	s
161	0,119			-1,3	s
162	0,14	0,042	-1,2	-0,8	s
177	0,1424			-0,7	s
178	0,219			1,0	s

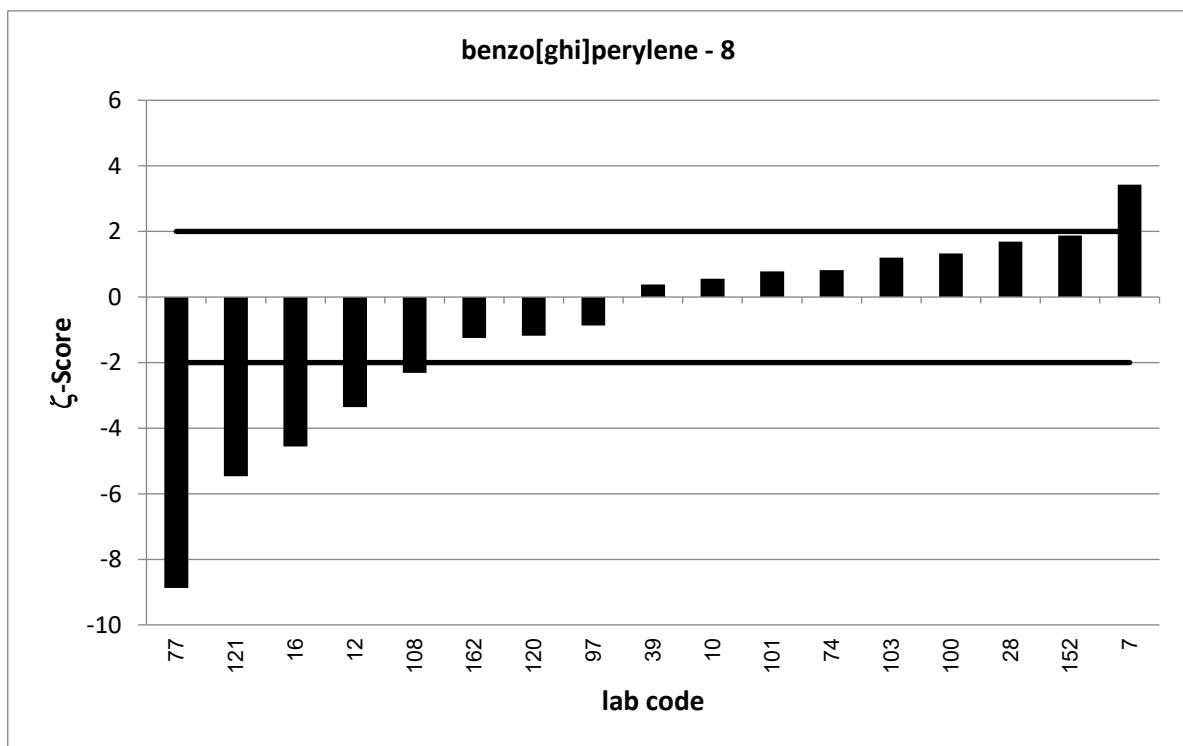
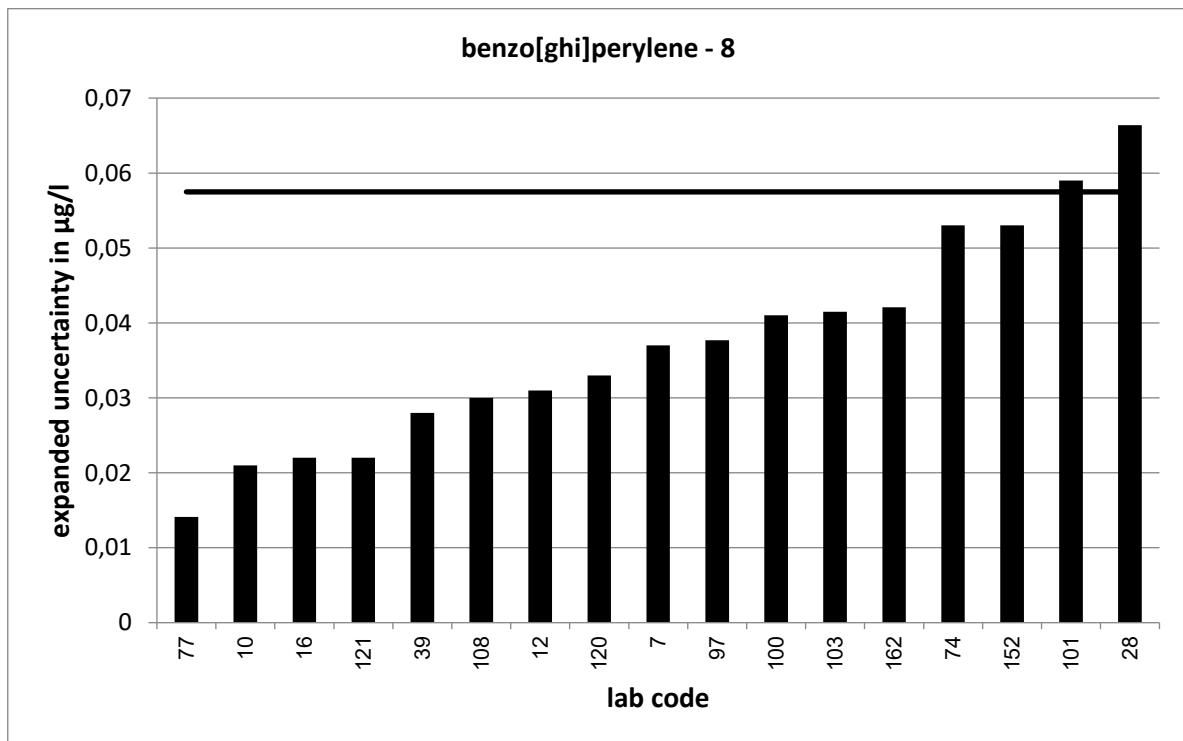
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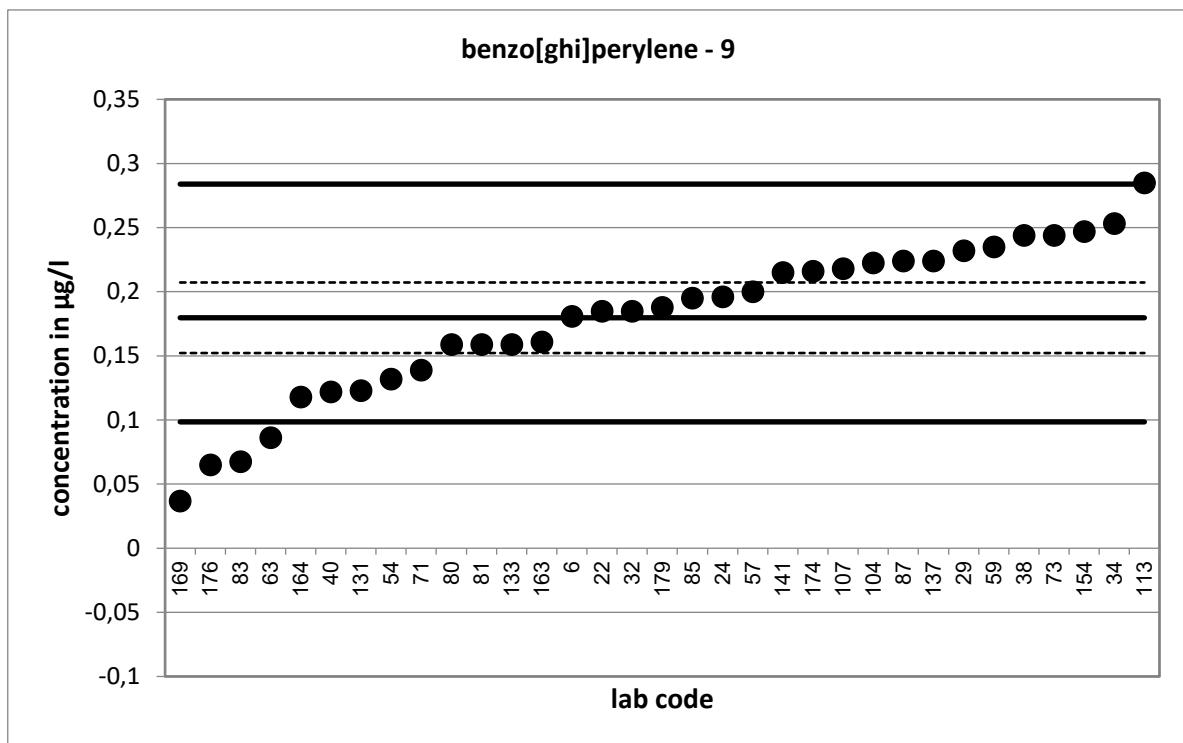




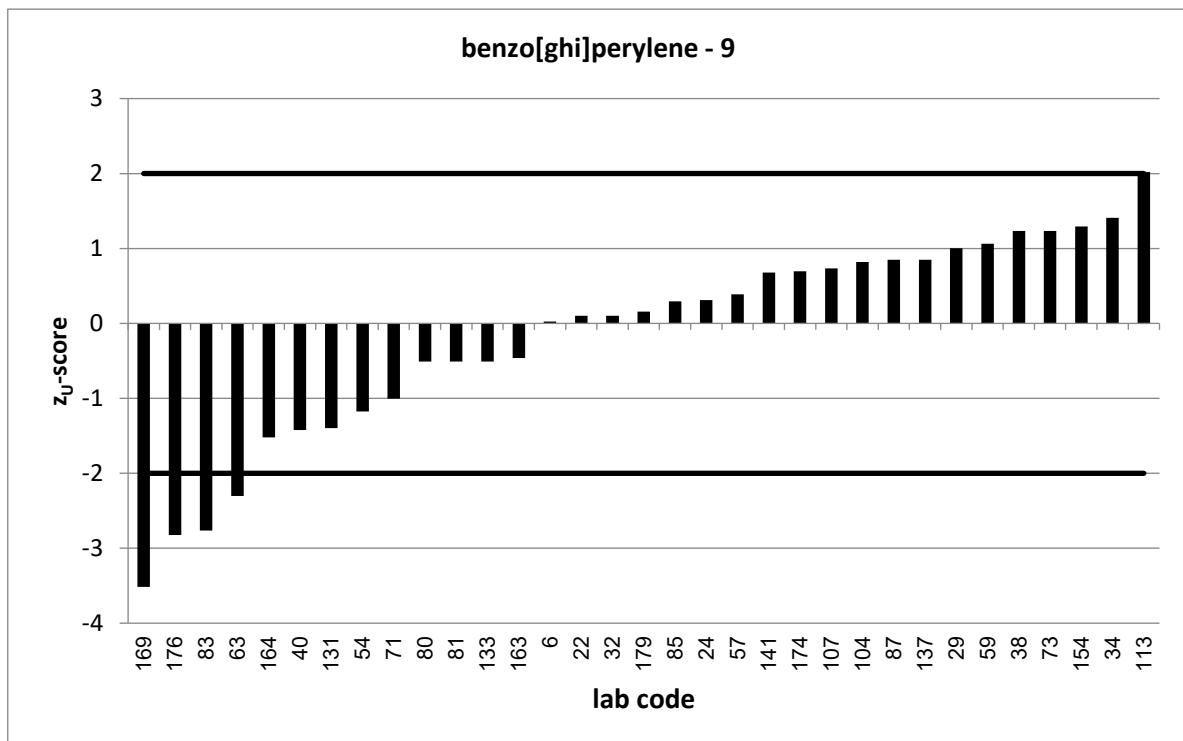
PT 3/24		benzo[ghi]perylene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,1797 \pm 0,0275$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2839			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,09851			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,181	0,082	0,0	0,0	s
22	0,185	0,074	0,1	0,1	s
24	0,196			0,3	s
29	0,232	0,03	2,6	1,0	s
32	0,185			0,1	s
34	0,2532	0,06	2,2	1,4	s
38	0,244			1,2	s
40	0,122			-1,4	s
54	0,132	0,039	-2,0	-1,2	s
57	0,2			0,4	s
59	0,235	0,047	2,0	1,1	s
63	0,0862	0,015	-6,0	-2,3	q
71	0,139	0,047	-1,5	-1,0	s
73	0,244			1,2	s
80	0,159	0,02	-1,2	-0,5	s
81	0,159			-0,5	s
83	0,0675			-2,8	q
85	0,195			0,3	s
87	0,224	0,067	1,2	0,8	s
104	0,2225			0,8	s
107	0,218	0,057	1,2	0,7	s
113	0,285			2,0	s
131	0,123	0,03	-2,8	-1,4	s
133	0,159			-0,5	s
137	0,224	0,034	2,0	0,8	s
141	0,215	0,097	0,7	0,7	s
154	0,247	0,124	1,1	1,3	s
163	0,161			-0,5	s
164	0,118	0,035	-2,8	-1,5	s
169	0,037	0,008	-10,0	-3,5	u
174	0,216			0,7	s
176	0,065			-2,8	q
179	0,188	0,057	0,3	0,2	s

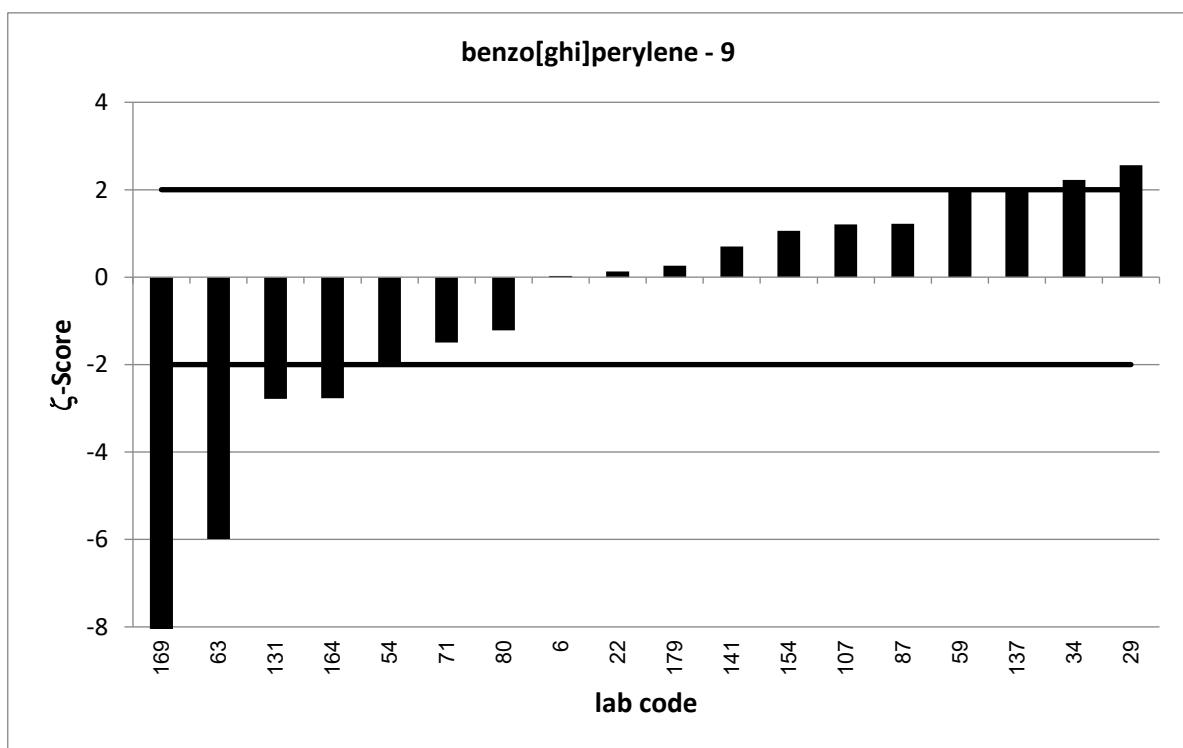
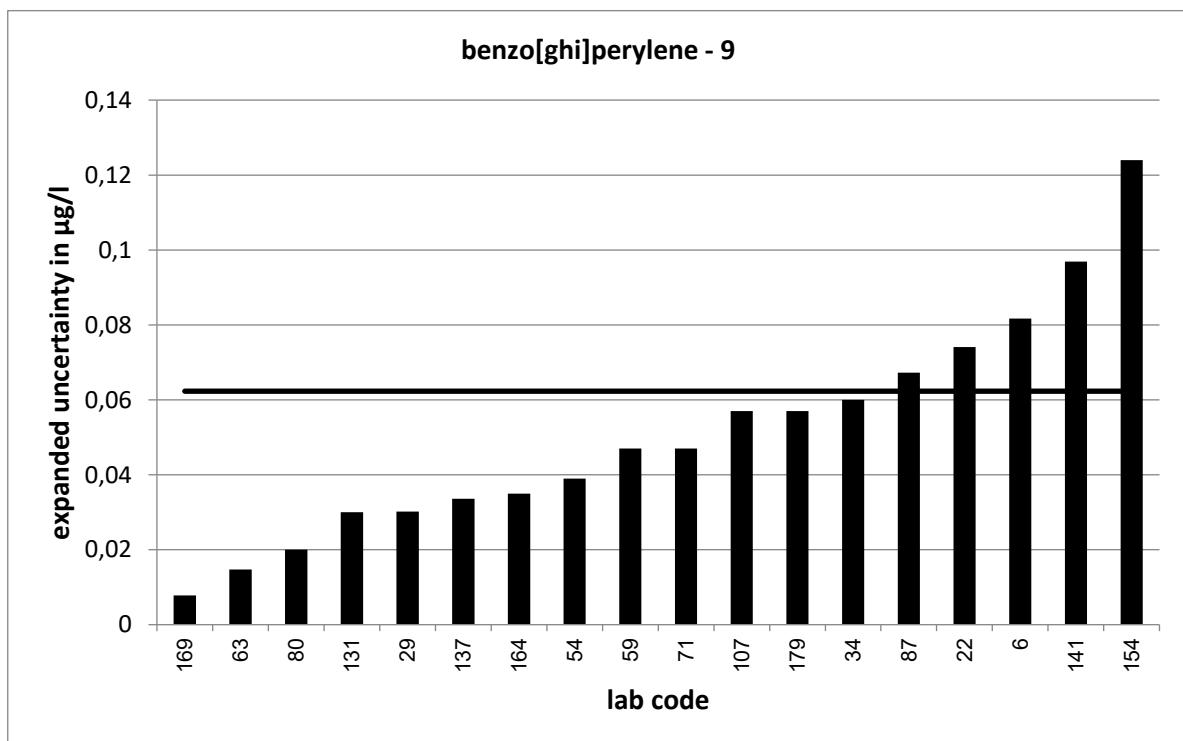
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

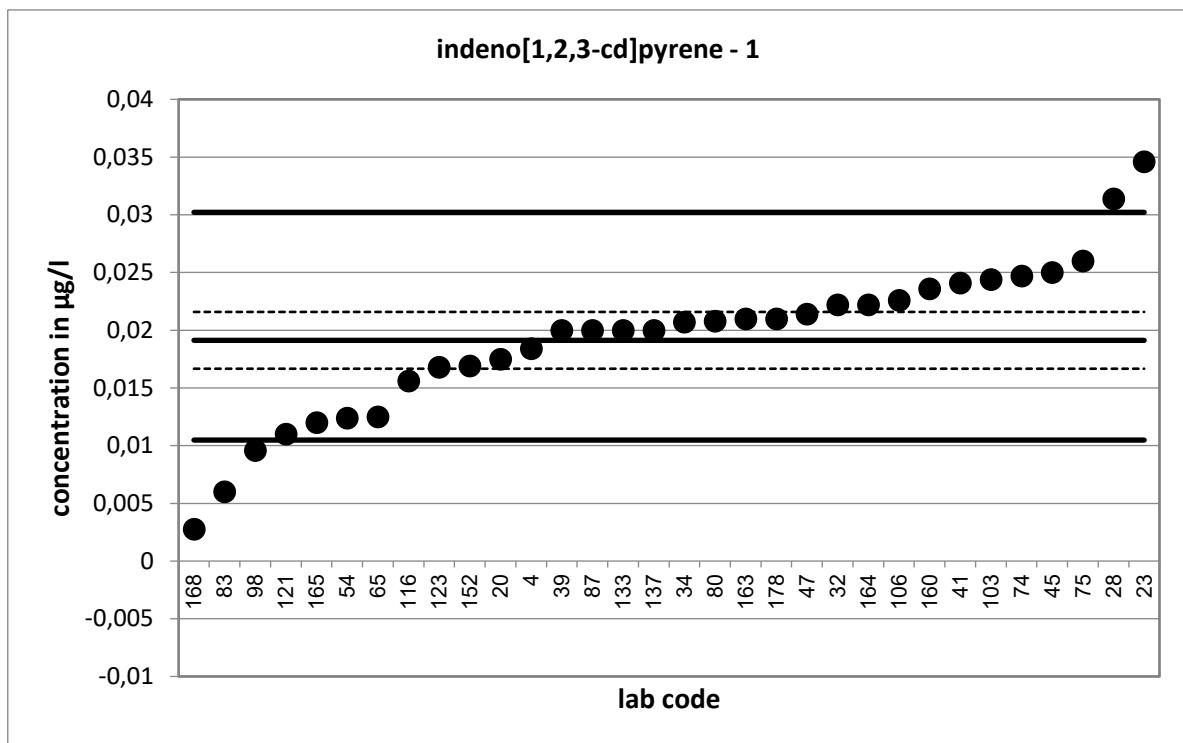




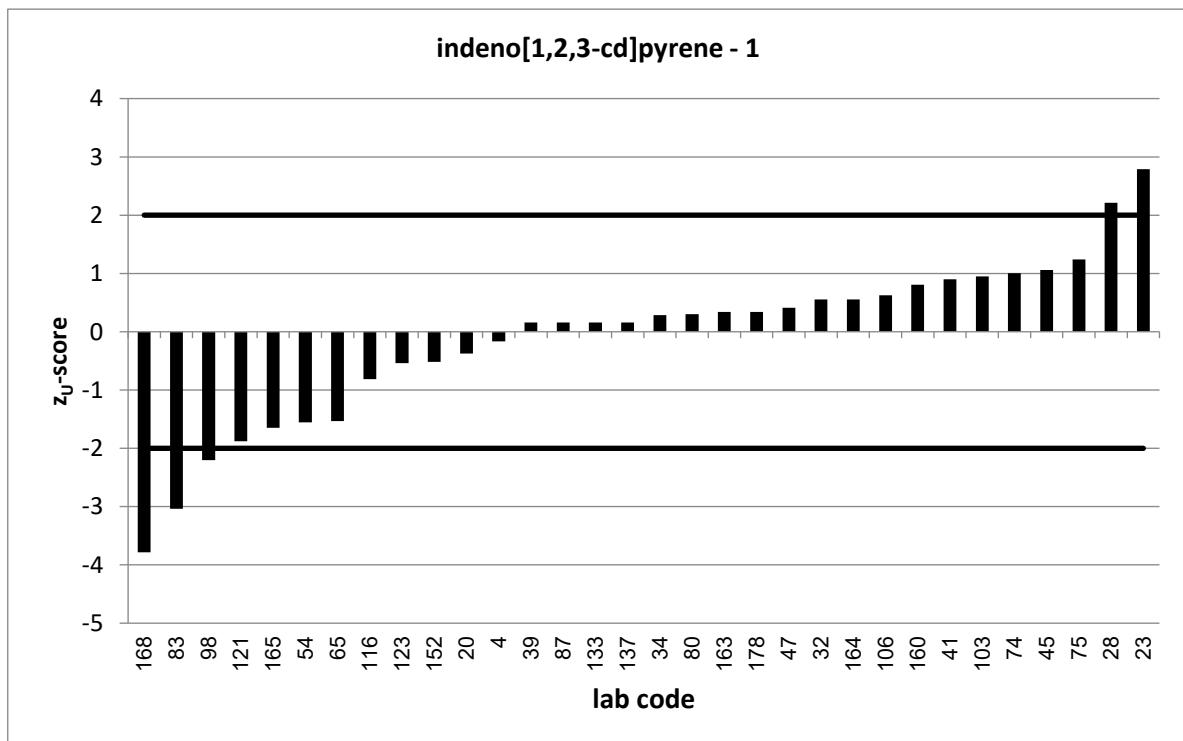
PT 3/24		indeno[1,2,3-cd]pyrene - 1			
	assigned value [ $\mu\text{g/l}$ ]*		0,01912	$\pm 0,00246$	
	upper tolerance limit [ $\mu\text{g/l}$ ]		0,03021		
	lower tolerance limit [ $\mu\text{g/l}$ ]		0,01048		
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0184			-0,2	s
20	0,0175	0,005	-0,6	-0,4	s
23	0,0346			2,8	q
28	0,0314	0,018	1,3	2,2	q
32	0,0222			0,6	s
34	0,0207	0,01	0,3	0,3	s
39	0,02	0,003	0,5	0,2	s
41	0,0241			0,9	s
45	0,025			1,1	s
47	0,0214			0,4	s
54	0,0124	0,004	-2,9	-1,6	s
65	0,0125			-1,5	s
74	0,0247	0,006	1,6	1,0	s
75	0,026	0,005	2,4	1,2	s
80	0,0208	0,005	0,6	0,3	s
83	0,006			-3,0	u
87	0,02	0,006	0,3	0,2	s
98	0,0096			-2,2	q
103	0,0244	0,006	1,8	1,0	s
106	0,0226			0,6	s
116	0,0156	0,004	-1,4	-0,8	s
121	0,011	0,004	-3,7	-1,9	s
123	0,0168			-0,5	s
133	0,02			0,2	s
137	0,02	0,003	0,5	0,2	s
152	0,0169	0,005	-0,9	-0,5	s
160	0,0236			0,8	s
163	0,021			0,3	s
164	0,0222	0,007	0,9	0,6	s
165	0,012			-1,6	s
168	0,00277	0,002	-11,3	-3,8	u
178	0,021			0,3	s

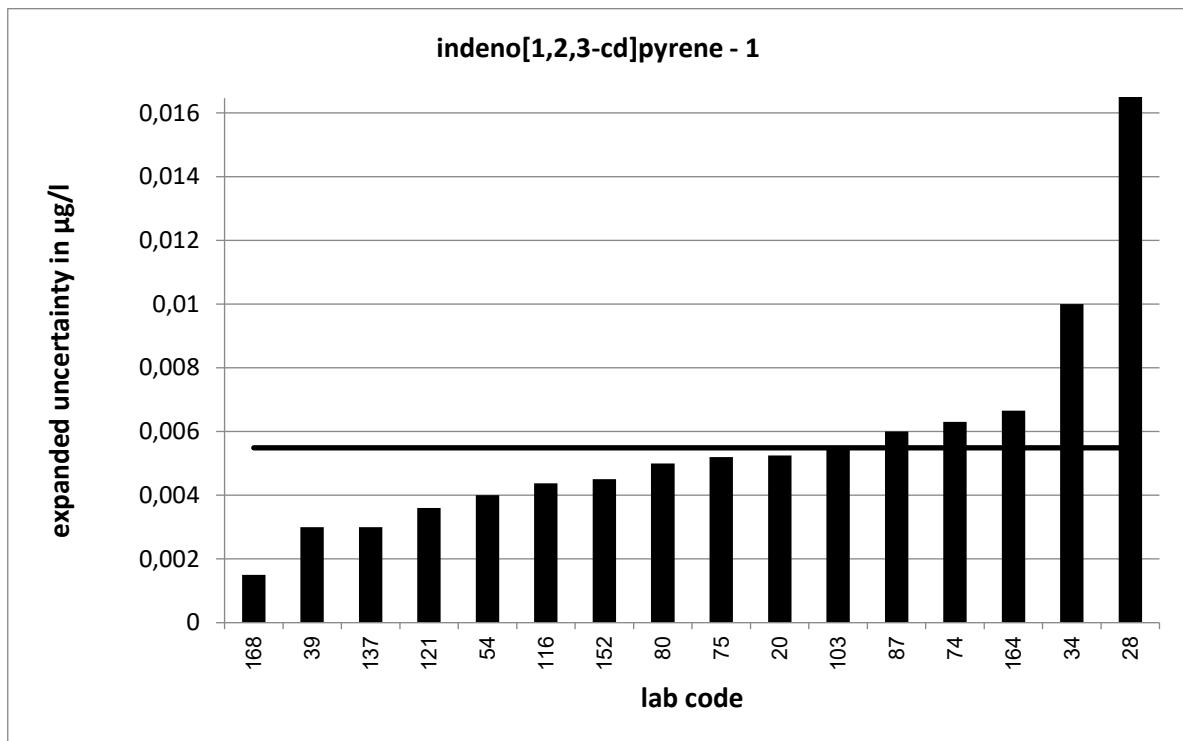
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

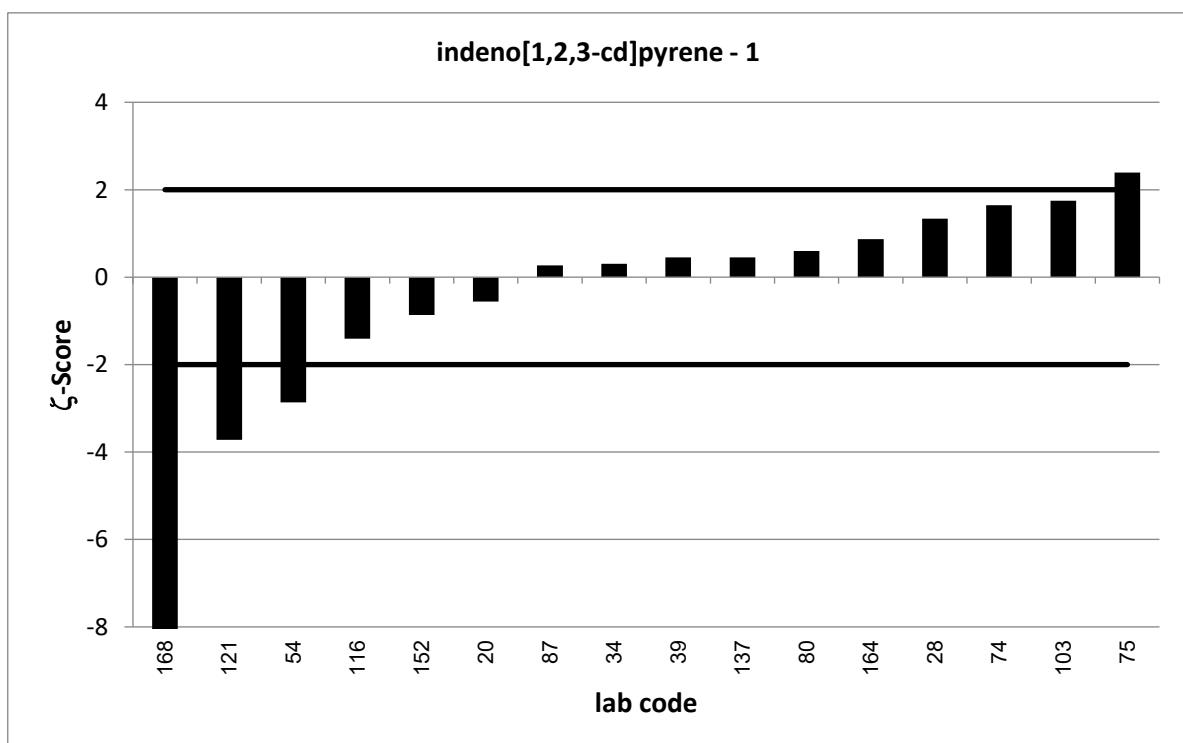


Strongly deviating values are not shown in the diagram.





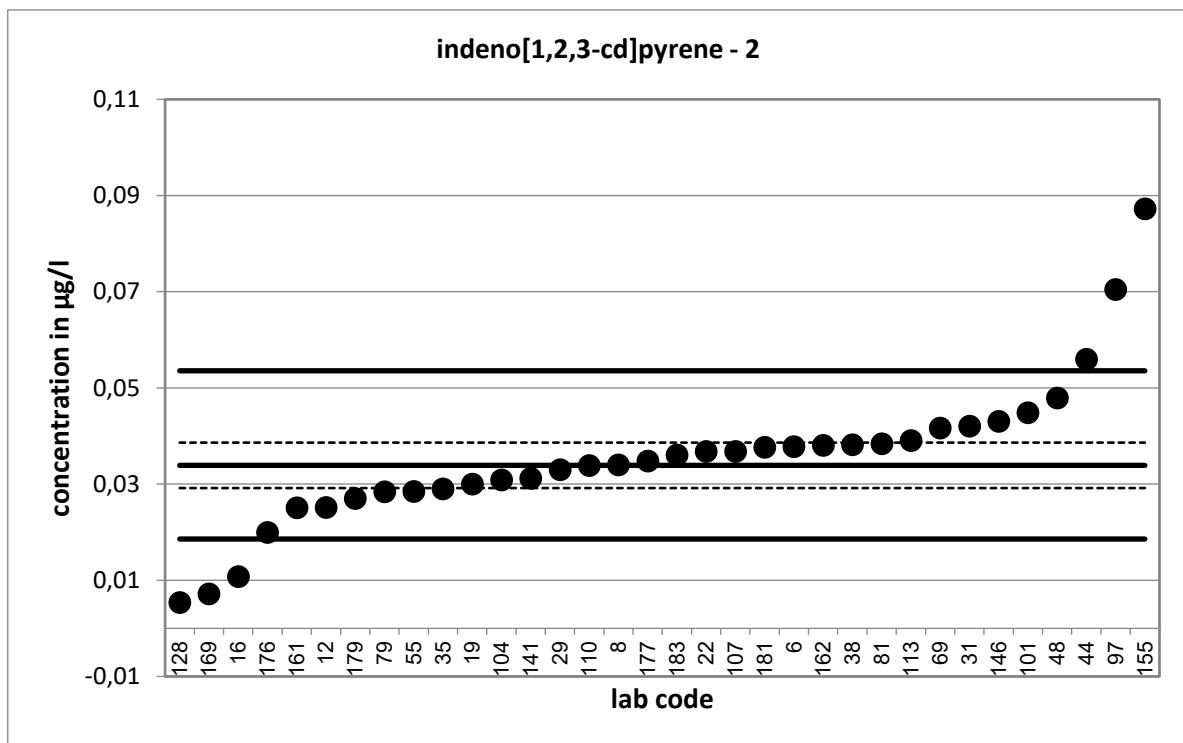
Strongly deviating values are not correctly shown in the diagram.



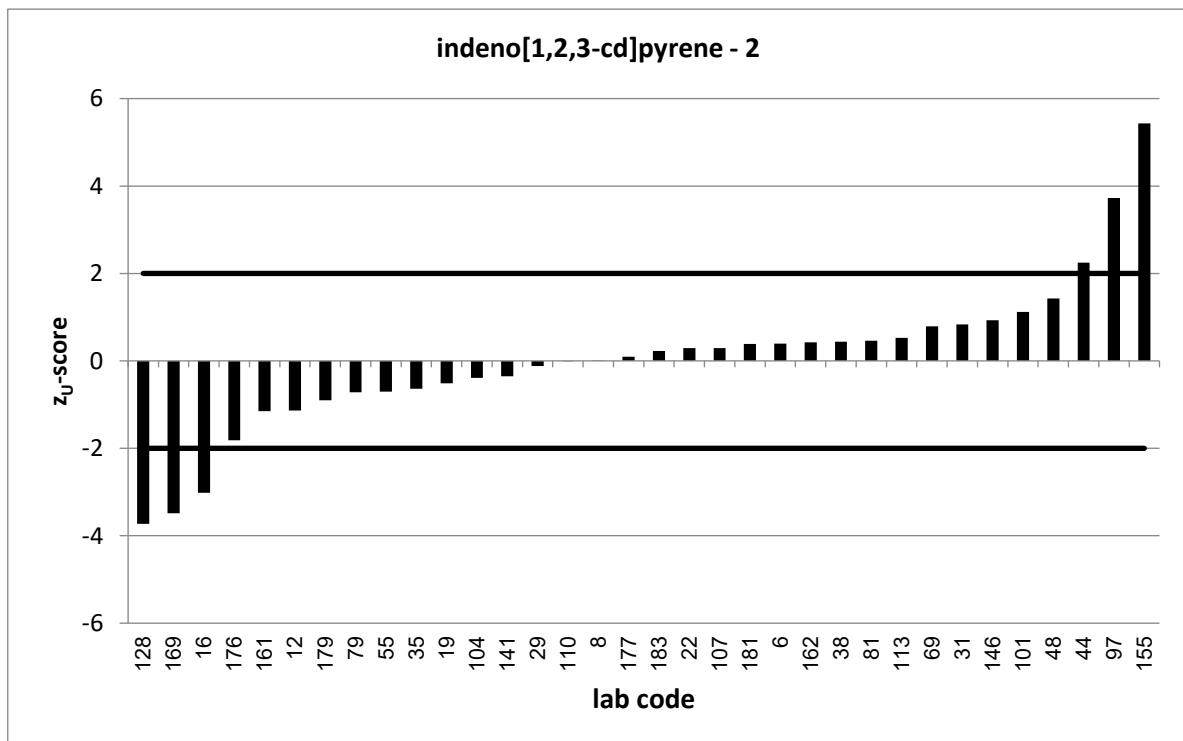
PT 3/24		indeno[1,2,3-cd]pyrene - 2			
assigned value [ $\mu\text{g/l}$ ]*		$0,0339 \pm 0,00473$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,05356			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,01858			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,0378	0,014	0,5	0,4	s
8	0,034	0,008	0,0	0,0	s
12	0,0252	0,008	-1,9	-1,1	s
16	0,0108	0,002	-9,0	-3,0	u
19	0,03	0,007	-0,9	-0,5	s
22	0,0368	0,015	0,4	0,3	s
29	0,033	0,006	-0,2	-0,1	s
31	0,0421	0,001	3,3	0,8	s
35	0,029	0,009	-1,0	-0,6	s
38	0,0382			0,4	s
44	0,056	0,013	3,2	2,2	q
48	0,0479	0,005	4,1	1,4	s
55	0,0285	0,013	-0,8	-0,7	s
69	0,0417	0,007	1,8	0,8	s
79	0,0284			-0,7	s
81	0,0384			0,5	s
97	0,0705	0,026	2,8	3,7	u
101	0,0449	0,014	1,5	1,1	s
104	0,0309			-0,4	s
107	0,0368	0,01	0,5	0,3	s
110	0,0339			0,0	s
113	0,0391			0,5	s
128	0,00538			-3,7	u
141	0,0312	0,014	-0,4	-0,4	s
146	0,04306	0,012	1,5	0,9	s
155	0,0873			5,4	u
161	0,0251			-1,1	s
162	0,0381	0,011	0,7	0,4	s
169	0,00718	0,002	-10,2	-3,5	u
176	0,02			-1,8	s
177	0,0348			0,1	s
179	0,027	0,008	-1,5	-0,9	s
181	0,0377	0,007	0,9	0,4	s
183	0,0361	0,011	0,4	0,2	s

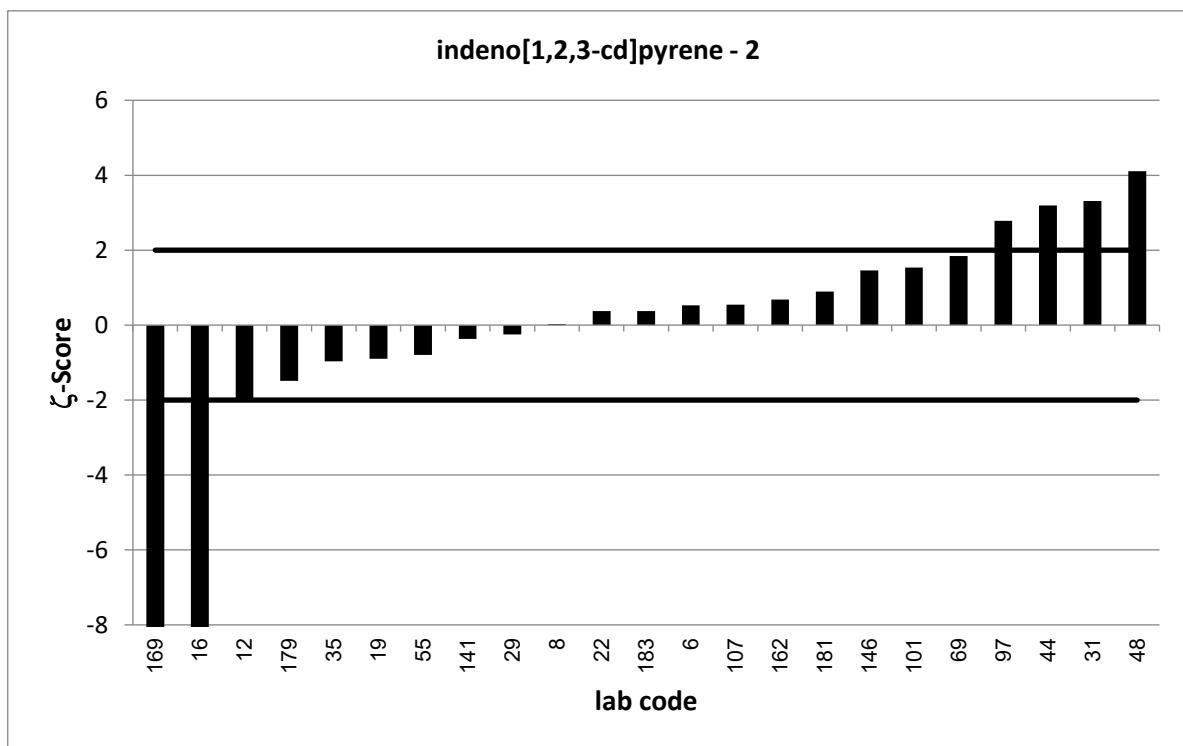
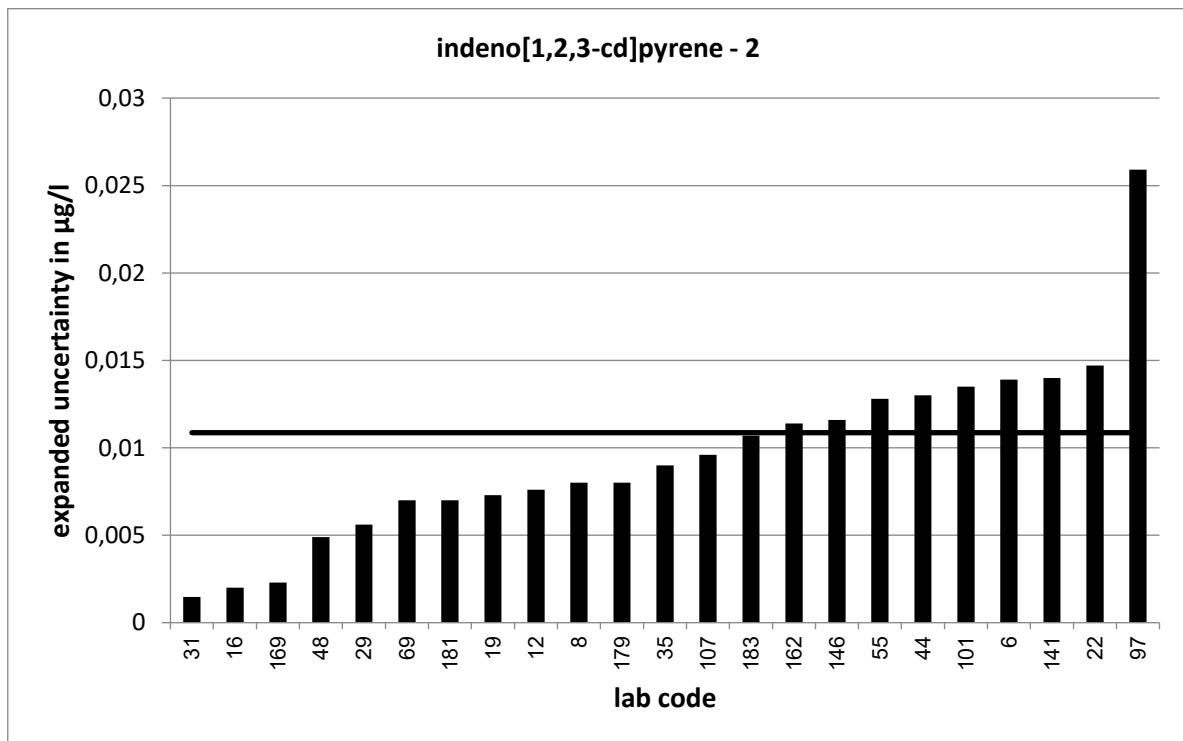
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

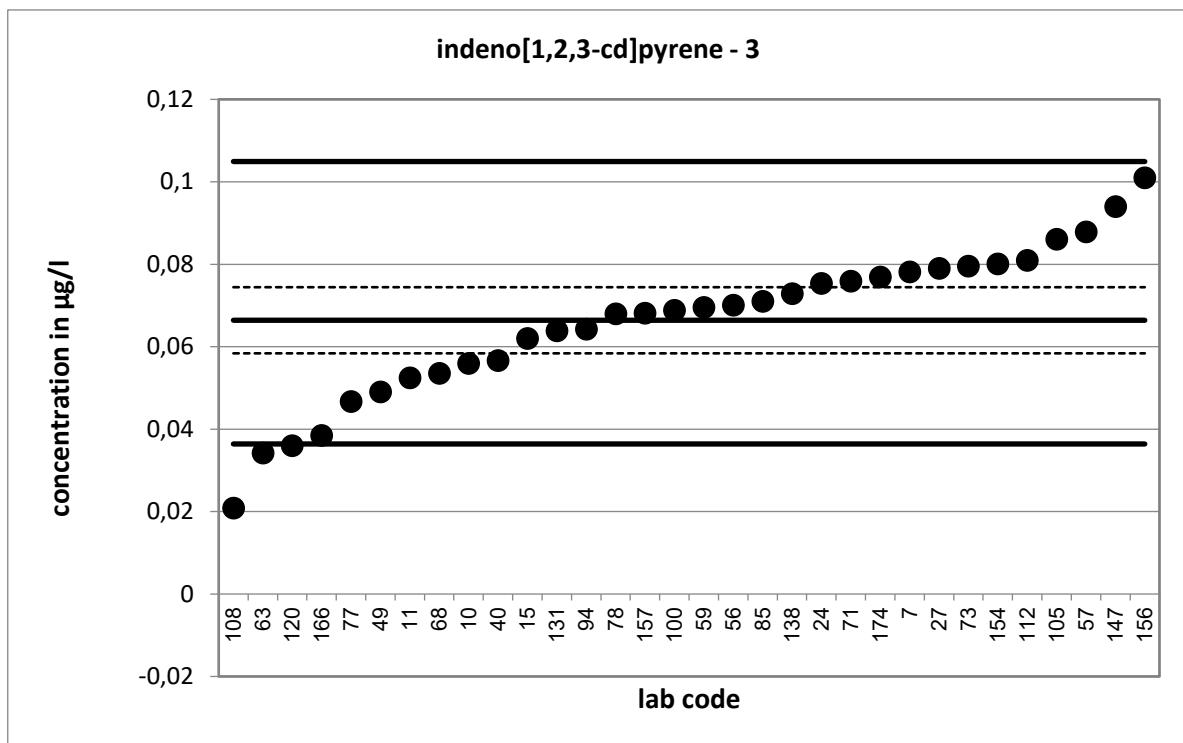




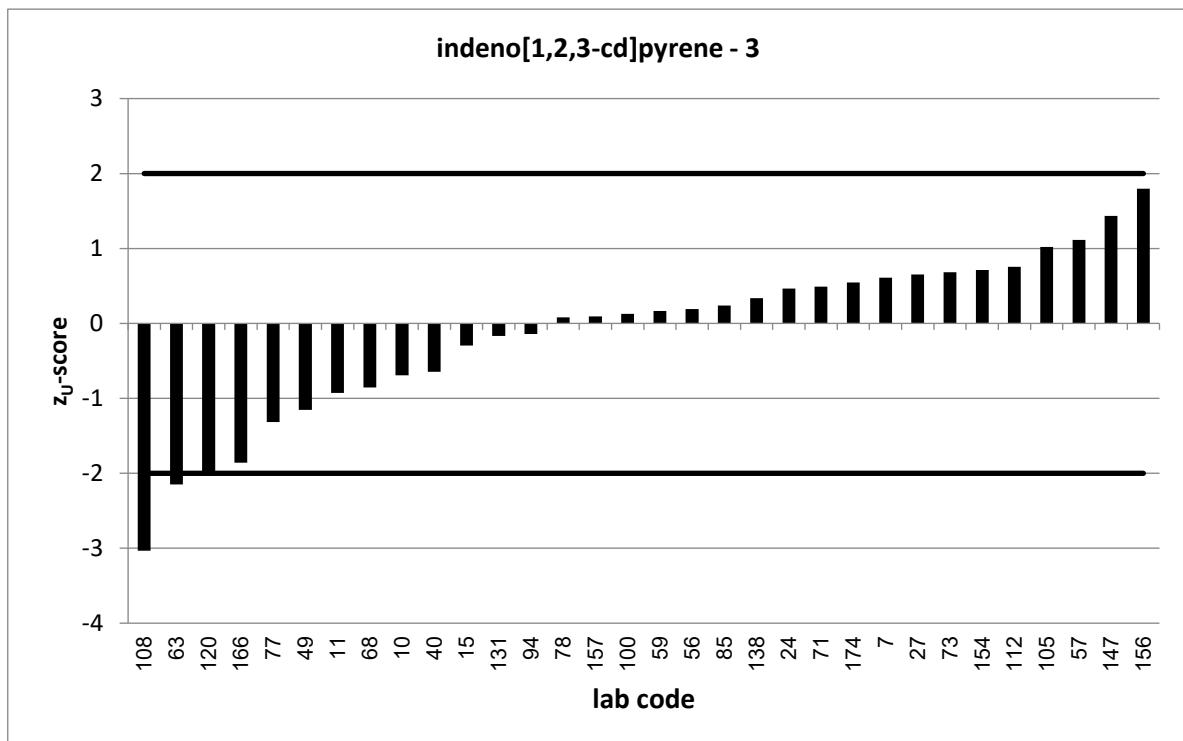
PT 3/24		indeno[1,2,3-cd]pyrene - 3			
assigned value [ $\mu\text{g/l}$ ]*		$0,06642 \pm 0,00802$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1049			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,0364			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,0782	0,011	1,7	0,6	s
10	0,056	0,008	-1,8	-0,7	s
11	0,0525	0,012	-2,0	-0,9	s
15	0,062			-0,3	s
24	0,0754			0,5	s
27	0,079			0,7	s
40	0,0567			-0,6	s
49	0,0491			-1,2	s
56	0,0701	0,01	0,6	0,2	s
57	0,0879			1,1	s
59	0,0696	0,014	0,4	0,2	s
63	0,0342	0,006	-6,5	-2,1	q
68	0,0536			-0,9	s
71	0,0759	0,02	0,9	0,5	s
73	0,0796			0,7	s
77	0,0467	0,016	-2,2	-1,3	s
78	0,068			0,1	s
85	0,071	0,002	1,1	0,2	s
94	0,0643			-0,1	s
100	0,0689	0,014	0,3	0,1	s
105	0,0861			1,0	s
108	0,0209	0,007	-8,6	-3,0	u
112	0,081	0,005	3,1	0,8	s
120	0,036	0,004	-6,8	-2,0	s
131	0,0639	0,015	-0,3	-0,2	s
138	0,0729			0,3	s
147	0,094	0,003	6,5	1,4	s
154	0,0801	0,04	0,7	0,7	s
156	0,101	0,014	4,3	1,8	s
157	0,0682			0,1	s
166	0,0385			-1,9	s
174	0,0769			0,5	s

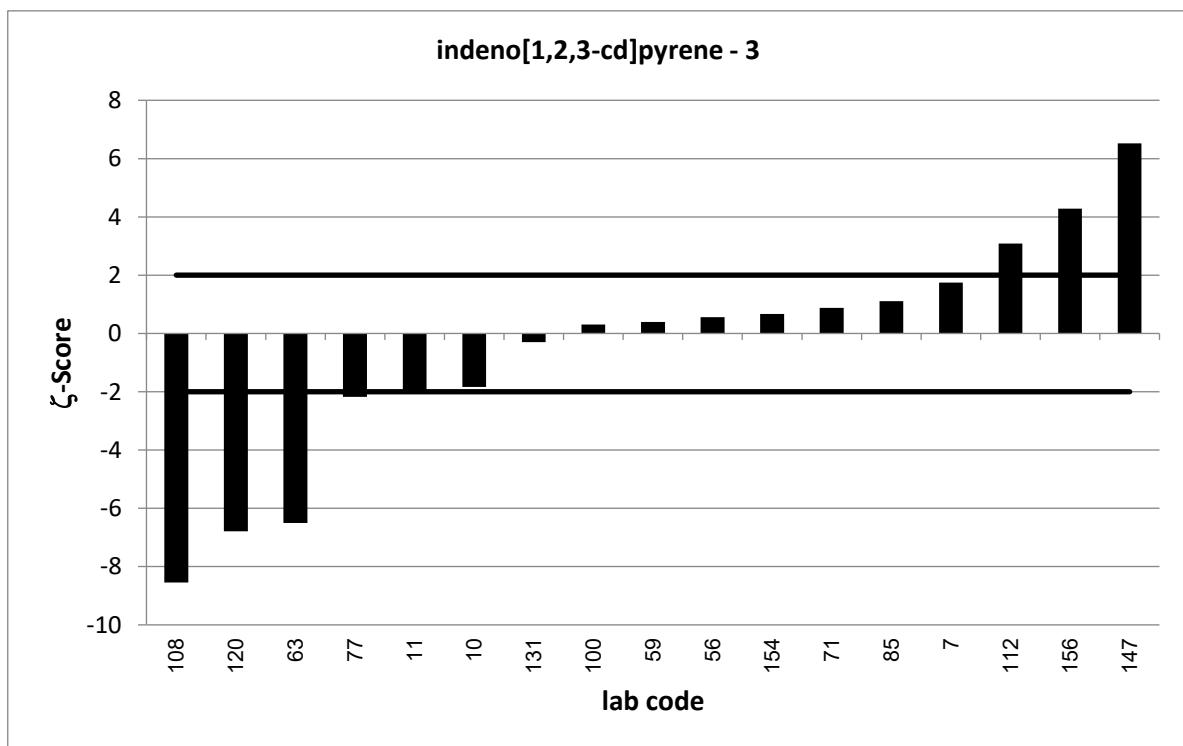
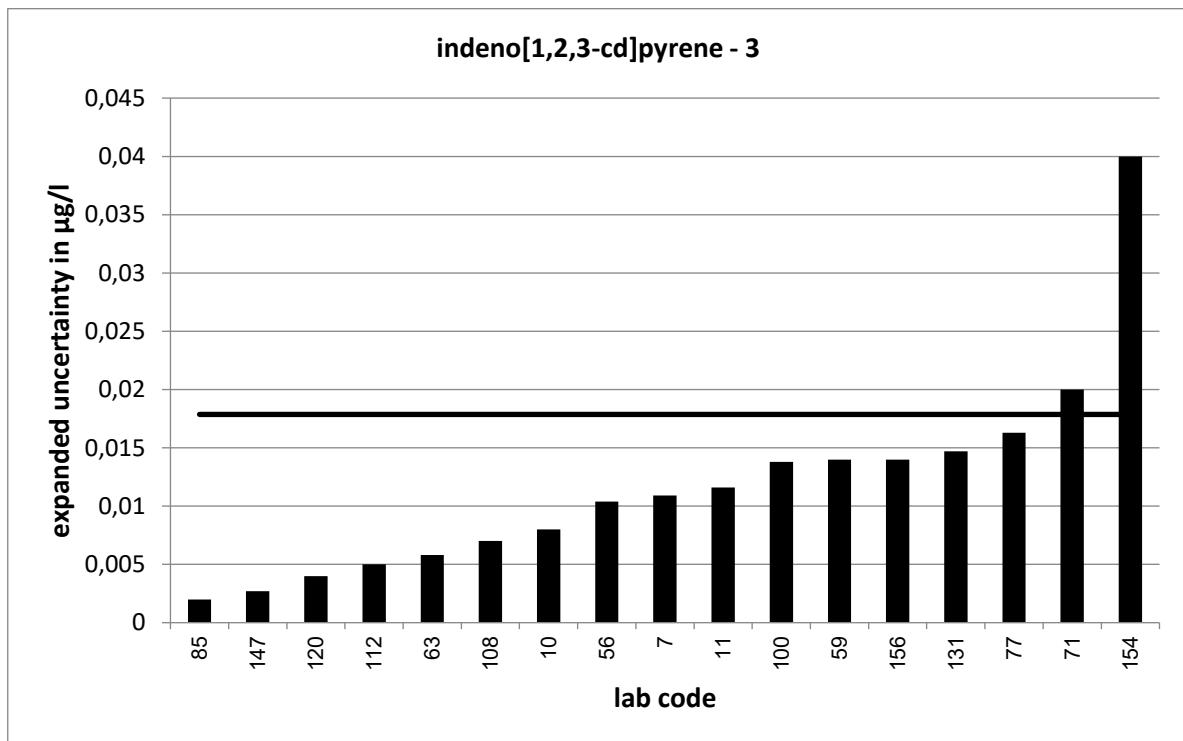
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

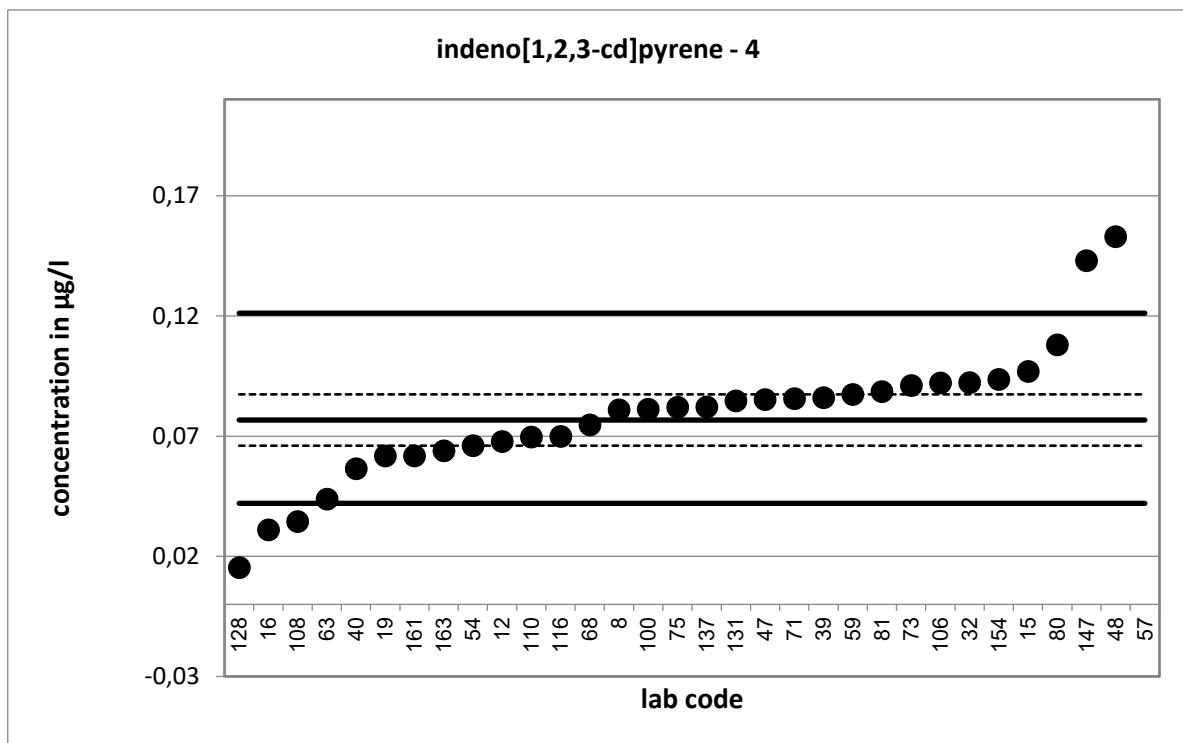




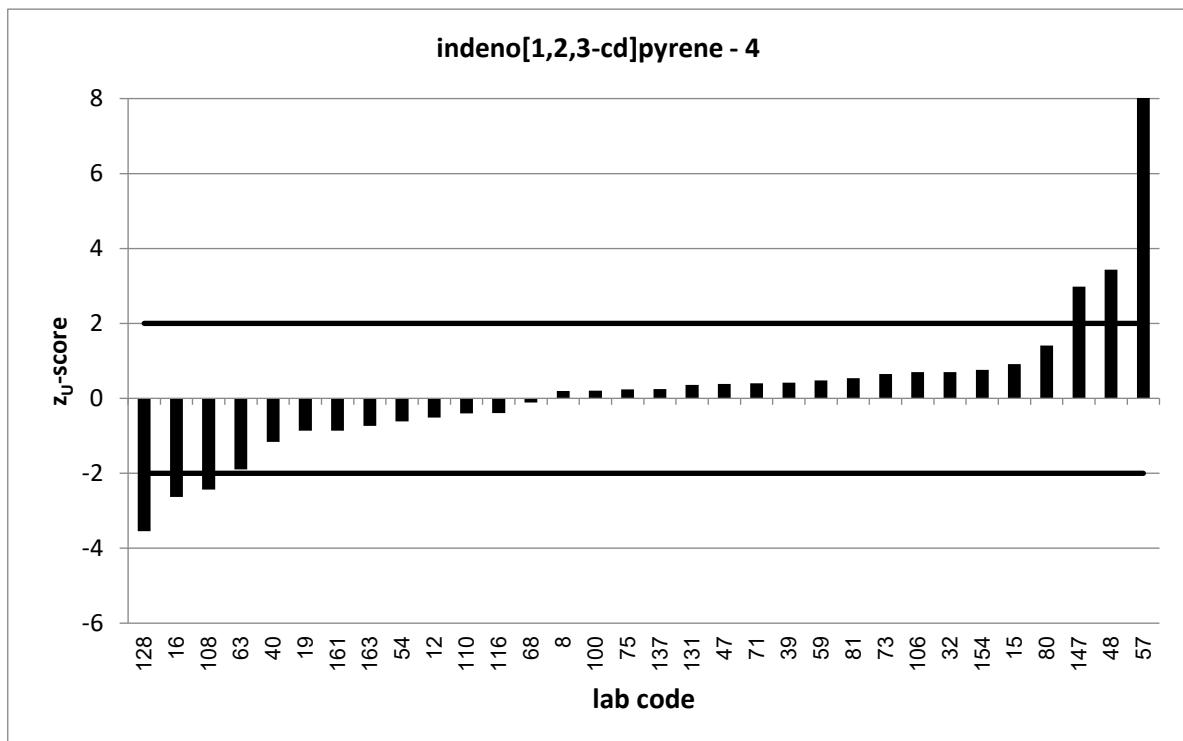
PT 3/24		indeno[1,2,3-cd]pyrene - 4			
assigned value [ $\mu\text{g/l}$ ]*		0,0767 $\pm$ 0,01068			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1212			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,04204			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
8	0,081	0,019	0,4	0,2	s
12	0,0678	0,02	-0,8	-0,5	s
15	0,097			0,9	s
16	0,0311	0,006	-7,5	-2,6	q
19	0,0618	0,015	-1,6	-0,9	s
32	0,0923			0,7	s
39	0,086	0,014	1,1	0,4	s
40	0,0565			-1,2	s
47	0,0853			0,4	s
48	0,153	0,004	13,2	3,4	u
54	0,0661	0,02	-0,9	-0,6	s
57	0,734			29,6	u
59	0,0874	0,017	1,1	0,5	s
63	0,0439	0,007	-5,0	-1,9	s
68	0,0748			-0,1	s
71	0,0857	0,023	0,7	0,4	s
73	0,0911			0,6	s
75	0,082	0,016	0,5	0,2	s
80	0,108	0,01	4,3	1,4	s
81	0,0886			0,5	s
100	0,0813	0,016	0,5	0,2	s
106	0,0922			0,7	s
108	0,0345	0,011	-5,5	-2,4	q
110	0,0697			-0,4	s
116	0,0699	0,02	-0,6	-0,4	s
128	0,0153			-3,5	u
131	0,0847	0,02	0,7	0,4	s
137	0,0822	0,012	0,7	0,2	s
147	0,143	0,004	11,6	3,0	u
154	0,0936	0,047	0,7	0,8	s
161	0,0618			-0,9	s
163	0,064			-0,7	s

\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

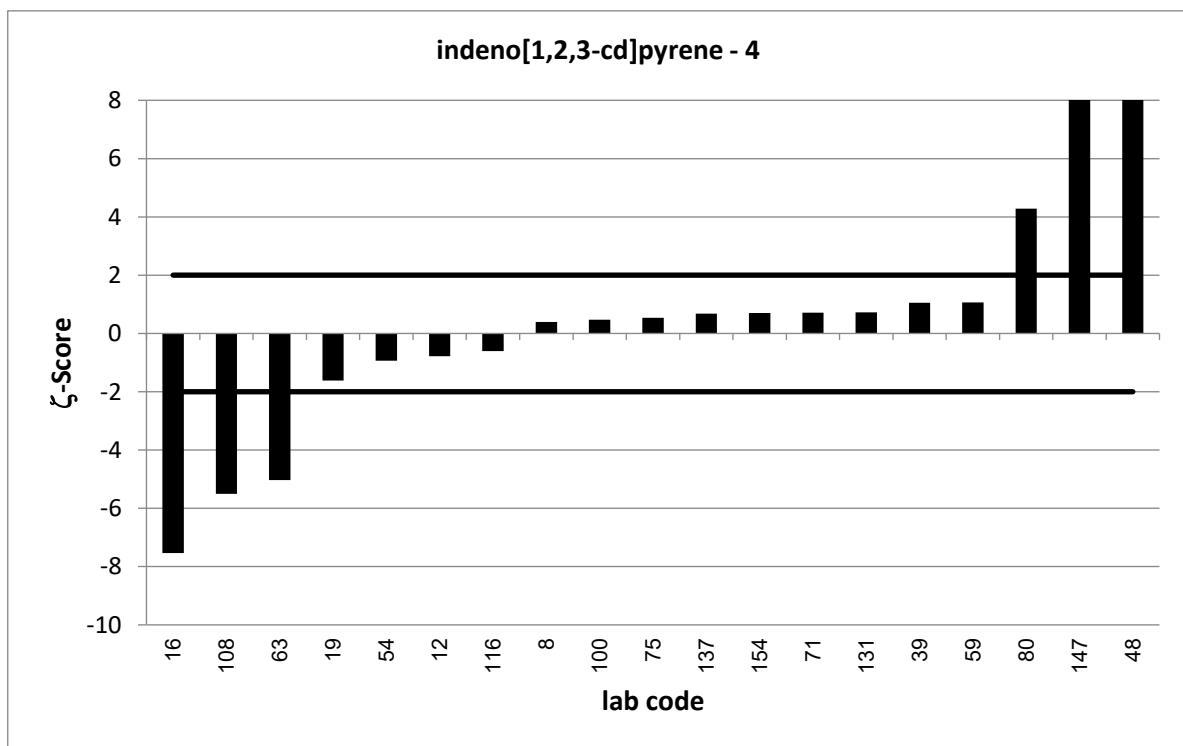
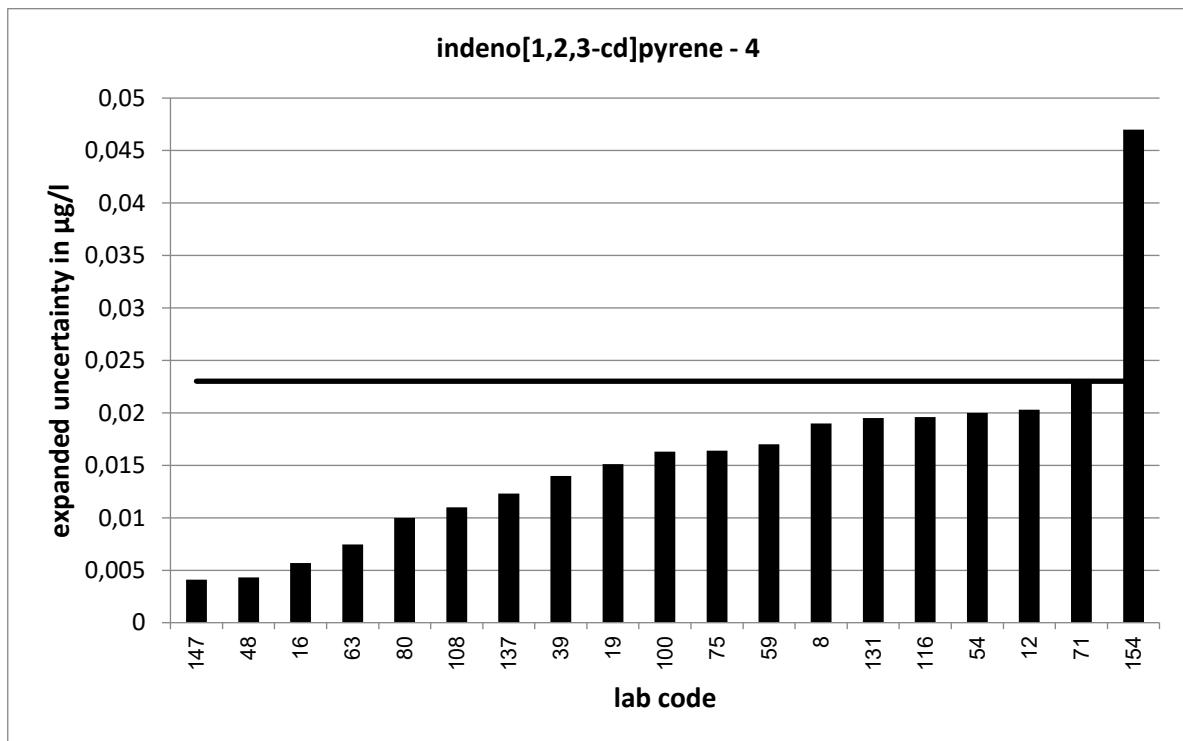
\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.



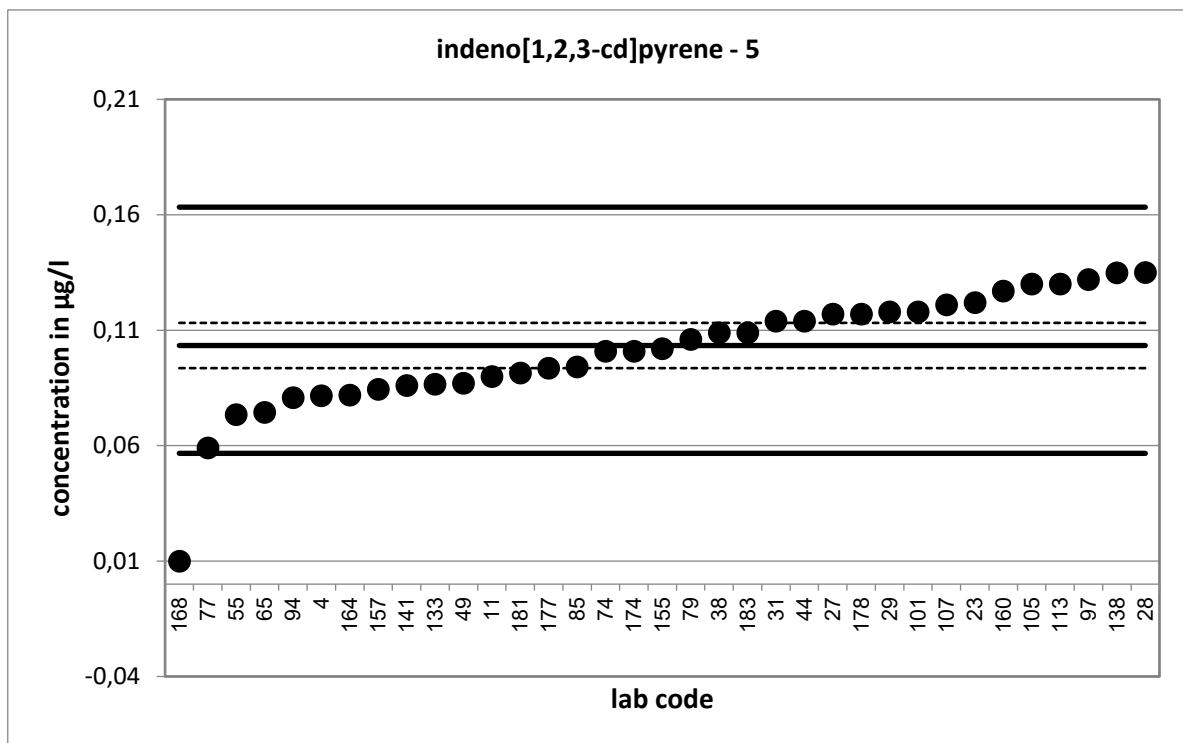
Strongly deviating values are not correctly shown in the diagram.



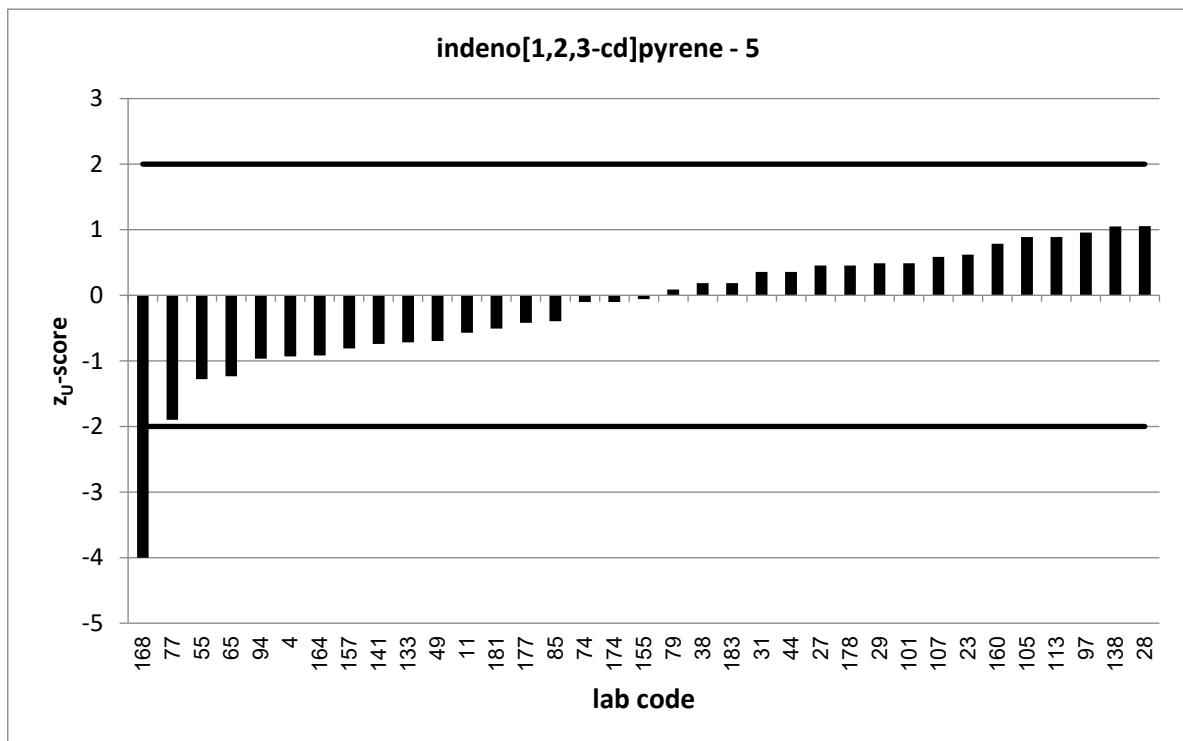
PT 3/24		indeno[1,2,3-cd]pyrene - 5			
assigned value [ $\mu\text{g/l}$ ]*		$0,1034 \pm 0,0098$			
upper tolerance limit [ $\mu\text{g/l}$ ]		$0,1633$			
lower tolerance limit [ $\mu\text{g/l}$ ]		$0,05666$			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,0816			-0,9	s
11	0,09	0,02	-1,2	-0,6	s
23	0,122			0,6	s
27	0,117			0,5	s
28	0,135	0,078	0,8	1,1	s
29	0,118	0,02	1,3	0,5	s
31	0,114	0,04	0,5	0,4	s
38	0,109			0,2	s
44	0,114	0,018	1,0	0,4	s
49	0,0871			-0,7	s
55	0,0735	0,033	-1,7	-1,3	s
65	0,0745			-1,2	s
74	0,101	0,025	-0,2	-0,1	s
77	0,059	0,021	-3,9	-1,9	s
79	0,106			0,1	s
85	0,0941	0,002	-1,9	-0,4	s
94	0,0808			-1,0	s
97	0,132	0,048	1,2	1,0	s
101	0,118	0,035	0,8	0,5	s
105	0,13			0,9	s
107	0,121	0,031	1,1	0,6	s
113	0,13			0,9	s
133	0,0866			-0,7	s
138	0,1349			1,1	s
141	0,0861	0,039	-0,9	-0,7	s
155	0,102			-0,1	s
157	0,0845			-0,8	s
160	0,127			0,8	s
164	0,0819	0,025	-1,6	-0,9	s
168	0,00991	0,003	-18,2	-4,0	u
174	0,101			-0,1	s
177	0,0936			-0,4	s
178	0,117			0,5	s
181	0,0915	0,016	-1,3	-0,5	s
183	0,109	0,032	0,3	0,2	s

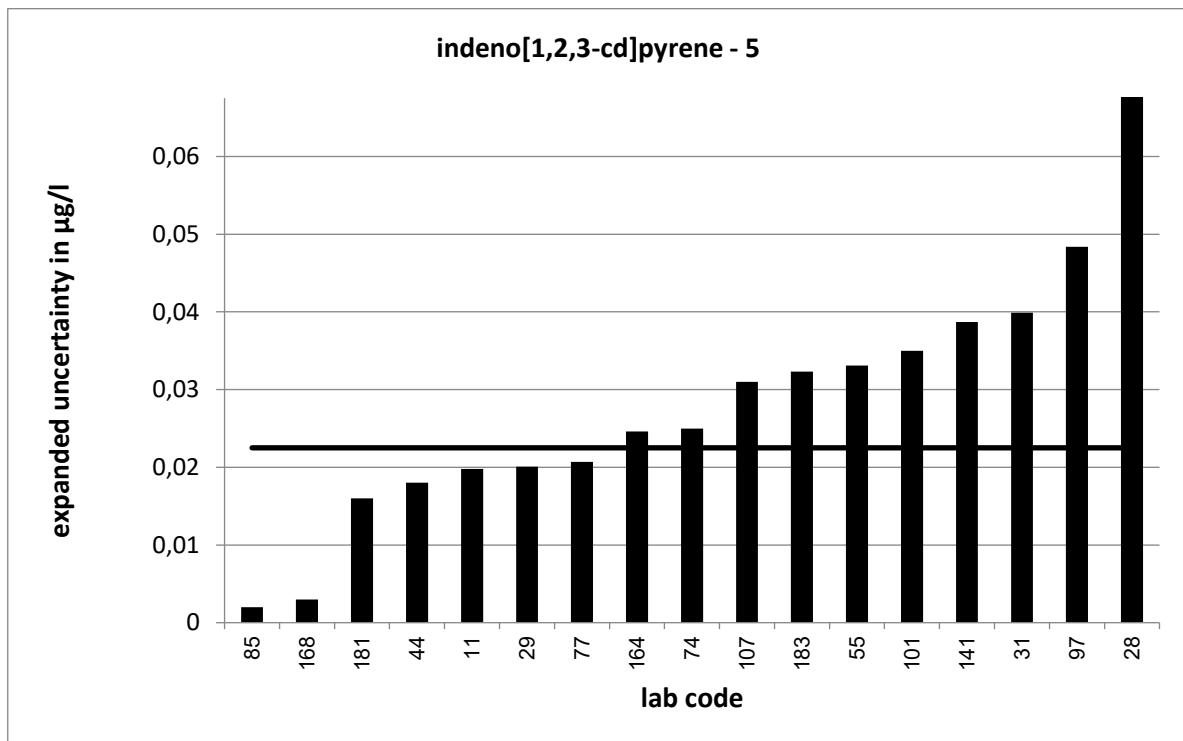
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

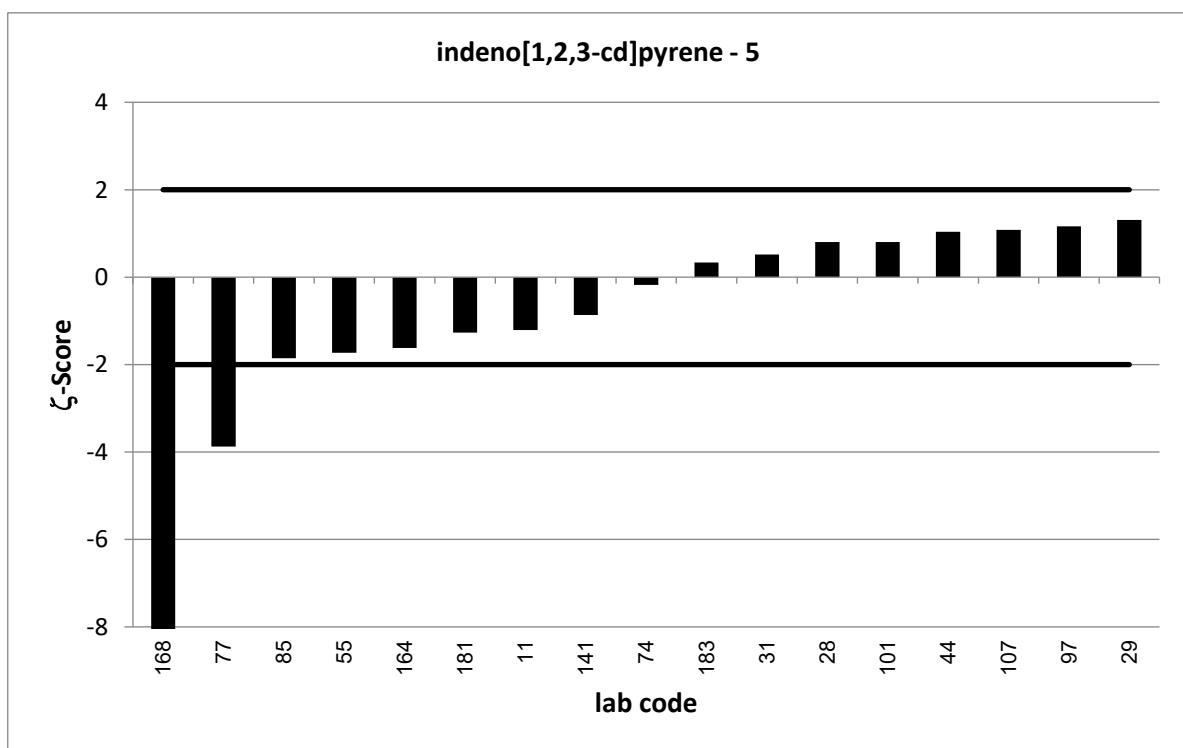


Strongly deviating values are not shown in the diagram.





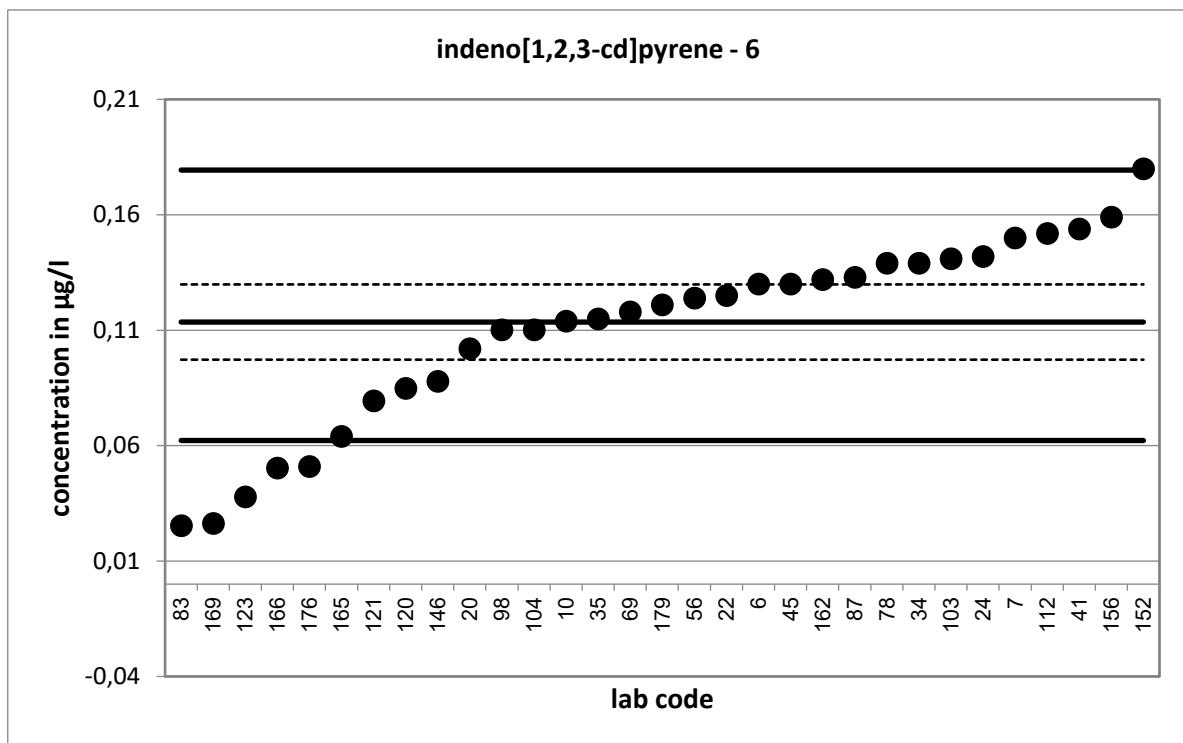
Strongly deviating values are not correctly shown in the diagram.



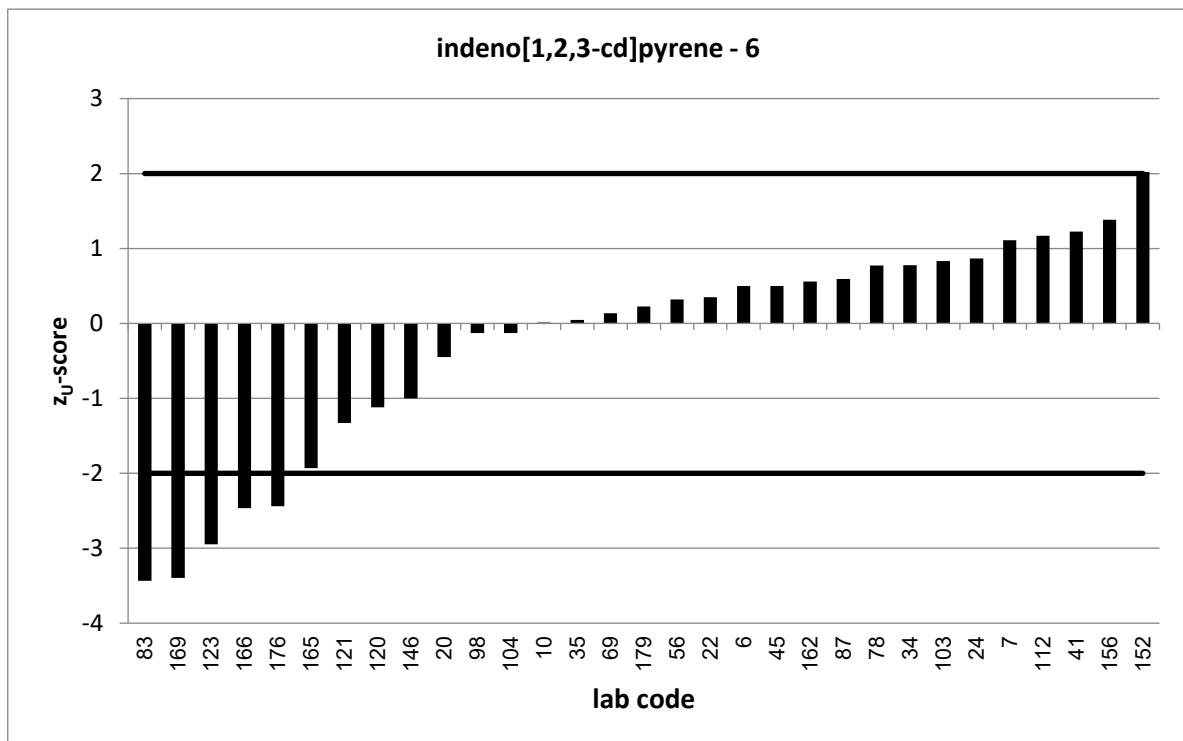
PT 3/24		indeno[1,2,3-cd]pyrene - 6			
assigned value [ $\mu\text{g/l}$ ]*		$0,1135 \pm 0,0163$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,1794			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,06223			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,13	0,048	0,7	0,5	s
7	0,15	0,019	2,9	1,1	s
10	0,114	0,017	0,0	0,0	s
20	0,102	0,031	-0,7	-0,4	s
22	0,125	0,05	0,4	0,3	s
24	0,142			0,9	s
34	0,1391	0,09	0,6	0,8	s
35	0,115	0,034	0,1	0,0	s
41	0,1539			1,2	s
45	0,13			0,5	s
56	0,124	0,019	0,8	0,3	s
69	0,118	0,021	0,3	0,1	s
78	0,139			0,8	s
83	0,0254			-3,4	u
87	0,133	0,04	0,9	0,6	s
98	0,1102			-0,1	s
103	0,141	0,031	1,6	0,8	s
104	0,1102			-0,1	s
112	0,152	0,009	4,1	1,2	s
120	0,0848	0,009	-3,1	-1,1	s
121	0,0795	0,026	-2,2	-1,3	s
123	0,0379			-2,9	q
146	0,08793	0,024	-1,8	-1,0	s
152	0,18	0,048	2,6	2,0	s
156	0,159	0,022	3,3	1,4	s
162	0,132	0,04	0,9	0,6	s
165	0,064			-1,9	s
166	0,0503			-2,5	q
169	0,0264	0,008	-9,5	-3,4	u
176	0,051			-2,4	q
179	0,121	0,036	0,4	0,2	s

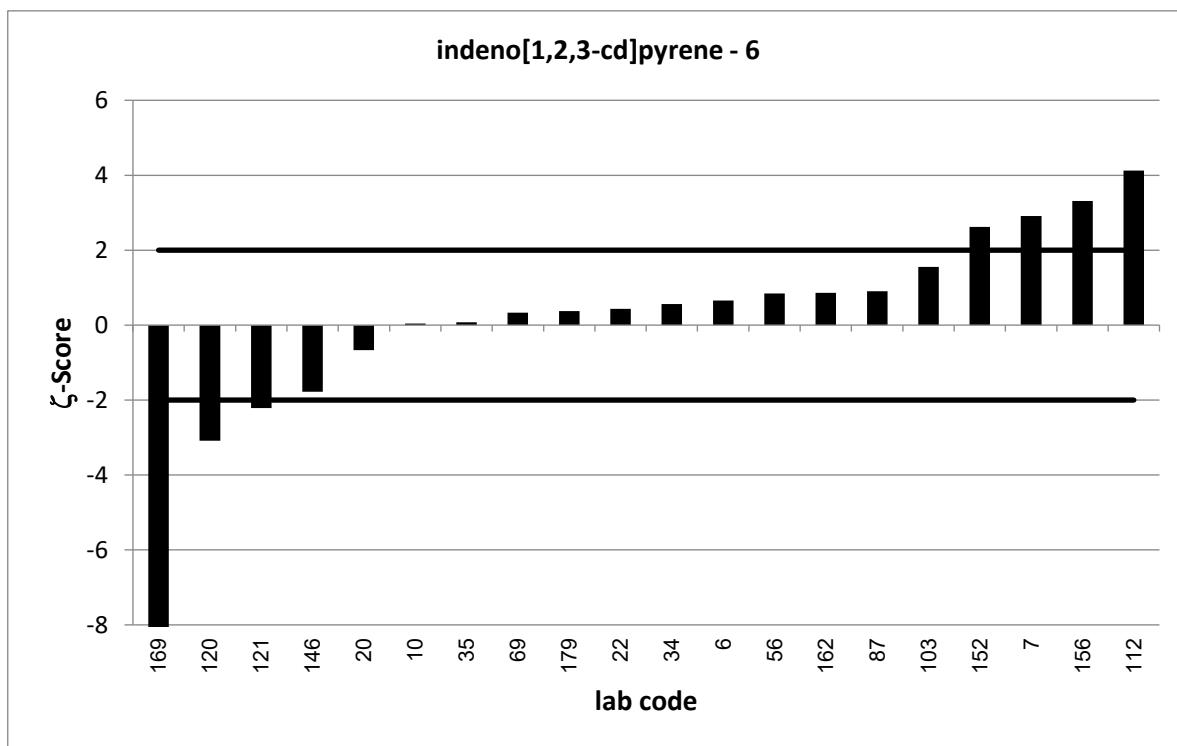
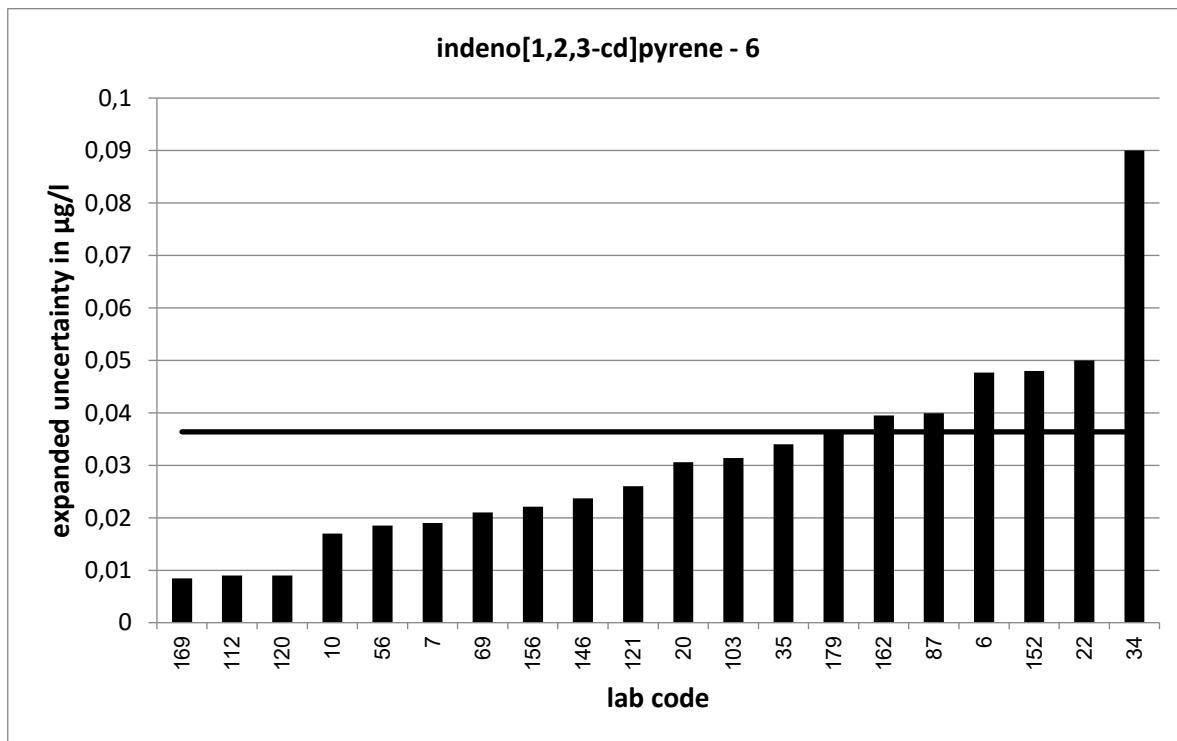
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

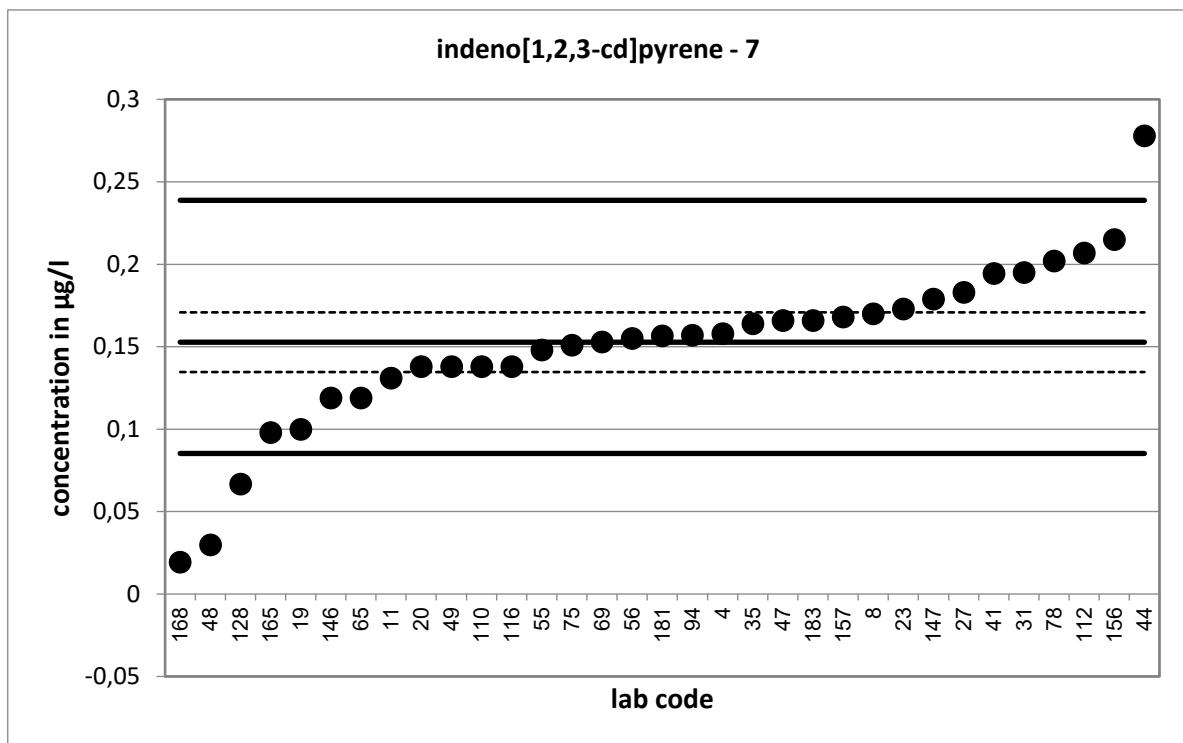




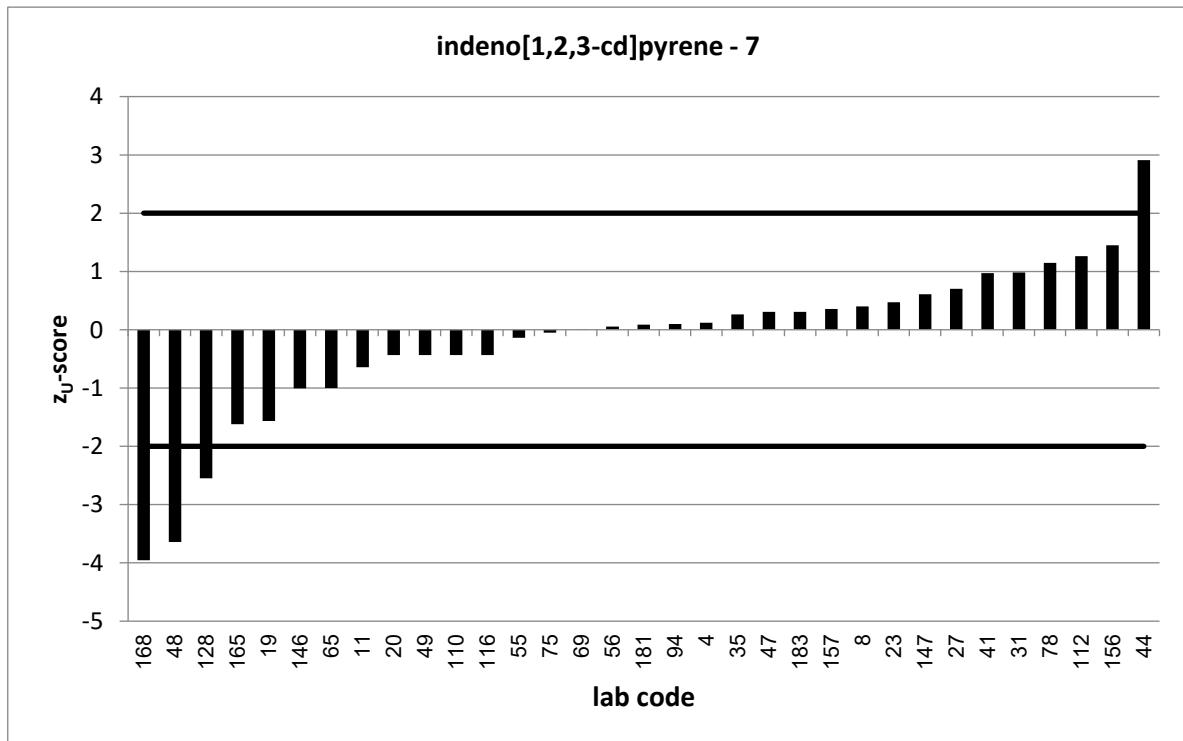
PT 3/24		indeno[1,2,3-cd]pyrene - 7			
assigned value [ $\mu\text{g/l}$ ]*		$0,1527 \pm 0,0181$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2388			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,08526			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
4	0,158			0,1	s
8	0,17	0,041	0,8	0,4	s
11	0,131	0,029	-1,3	-0,6	s
19	0,1	0,024	-3,5	-1,6	s
20	0,138	0,041	-0,7	-0,4	s
23	0,173			0,5	s
27	0,183			0,7	s
31	0,195	0,068	1,2	1,0	s
35	0,164	0,049	0,4	0,3	s
41	0,1945			1,0	s
44	0,278	0,041	5,6	2,9	q
47	0,166			0,3	s
48	0,0299	0,001	-13,5	-3,6	u
49	0,138			-0,4	s
55	0,148	0,067	-0,1	-0,1	s
56	0,155	0,023	0,2	0,1	s
65	0,119			-1,0	s
69	0,153	0,027	0,0	0,0	s
75	0,151	0,03	-0,1	-0,1	s
78	0,202			1,1	s
94	0,157			0,1	s
110	0,138			-0,4	s
112	0,207	0,012	5,0	1,3	s
116	0,138	0,039	-0,7	-0,4	s
128	0,0667			-2,6	q
146	0,1189	0,032	-1,8	-1,0	s
147	0,179	0,005	2,8	0,6	s
156	0,215	0,03	3,6	1,4	s
157	0,168			0,4	s
165	0,098			-1,6	s
168	0,0194	0,005	-14,2	-4,0	u
181	0,1566	0,028	0,2	0,1	s
183	0,166	0,049	0,5	0,3	s

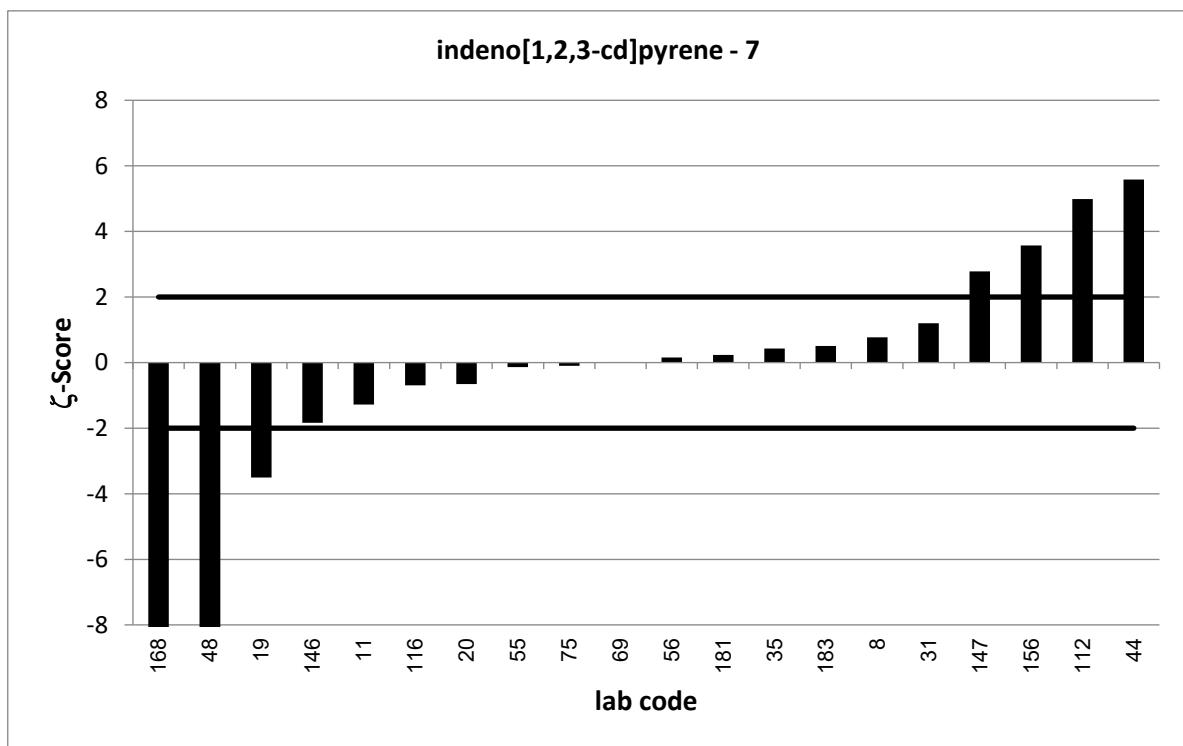
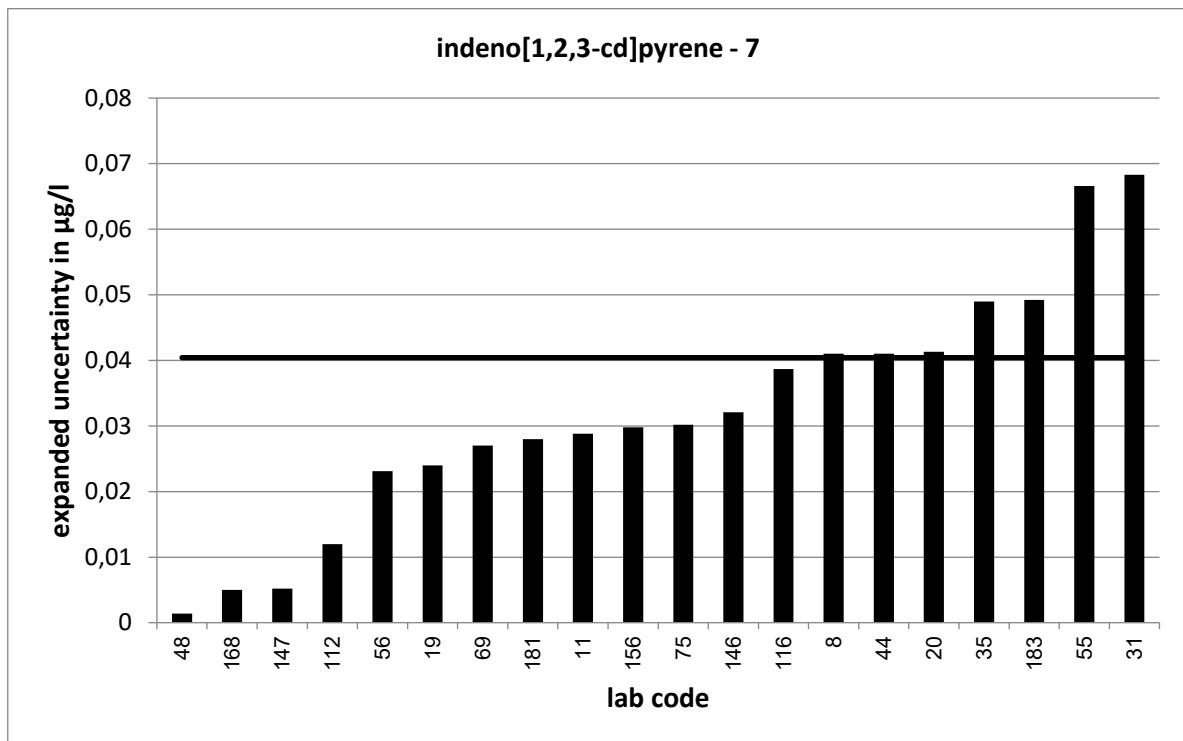
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.

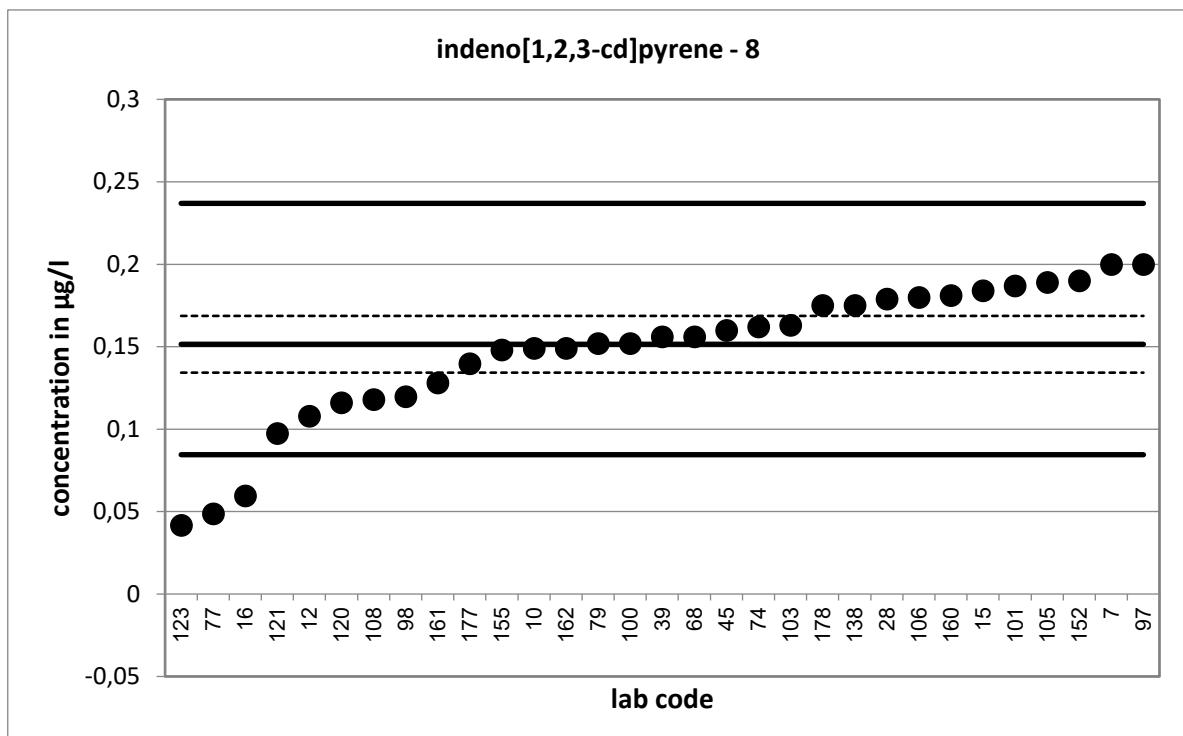




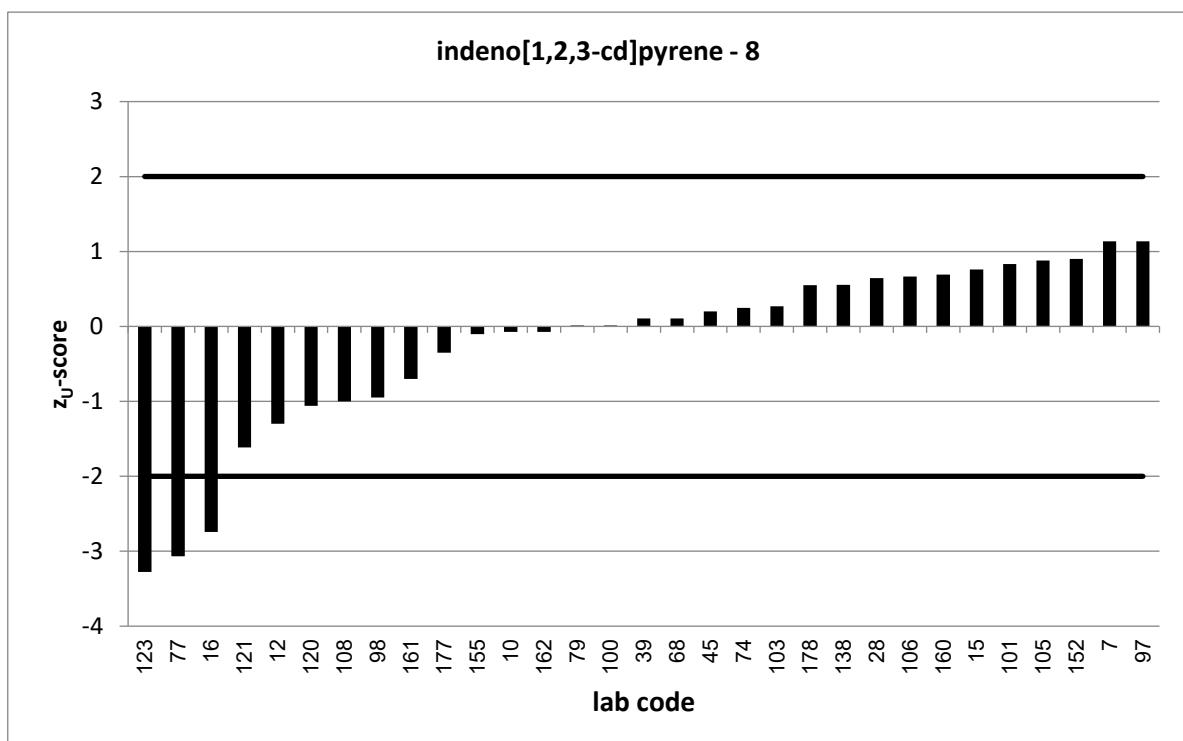
PT 3/24		indeno[1,2,3-cd]pyrene - 8			
assigned value [ $\mu\text{g/l}$ ]*		$0,1515 \pm 0,0172$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2369			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,08449			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
7	0,2	0,032	2,7	1,1	s
10	0,149	0,022	-0,2	-0,1	s
12	0,108	0,032	-2,4	-1,3	s
15	0,184			0,8	s
16	0,0596	0,011	-9,0	-2,7	q
28	0,179	0,104	0,5	0,6	s
39	0,156	0,025	0,3	0,1	s
45	0,16			0,2	s
68	0,156			0,1	s
74	0,162	0,041	0,5	0,2	s
77	0,0487	0,017	-8,5	-3,1	u
79	0,152			0,0	s
97	0,2	0,073	1,3	1,1	s
98	0,1197			-0,9	s
100	0,152	0,03	0,0	0,0	s
101	0,187	0,056	1,2	0,8	s
103	0,163	0,036	0,6	0,3	s
105	0,189			0,9	s
106	0,18			0,7	s
108	0,118	0,039	-1,6	-1,0	s
120	0,116	0,026	-2,3	-1,1	s
121	0,0974	0,031	-3,0	-1,6	s
123	0,0417			-3,3	u
138	0,1751			0,6	s
152	0,19	0,051	1,4	0,9	s
155	0,148			-0,1	s
160	0,181			0,7	s
161	0,128			-0,7	s
162	0,149	0,045	-0,1	-0,1	s
177	0,1398			-0,3	s
178	0,175			0,6	s

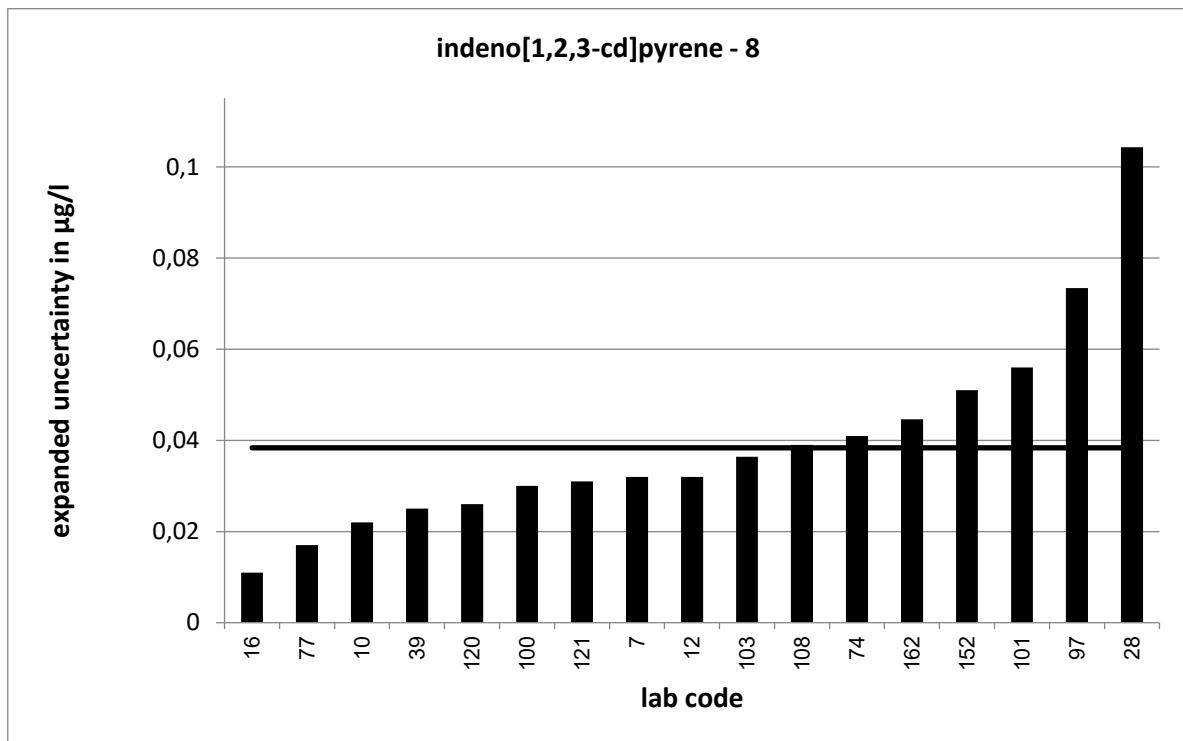
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory

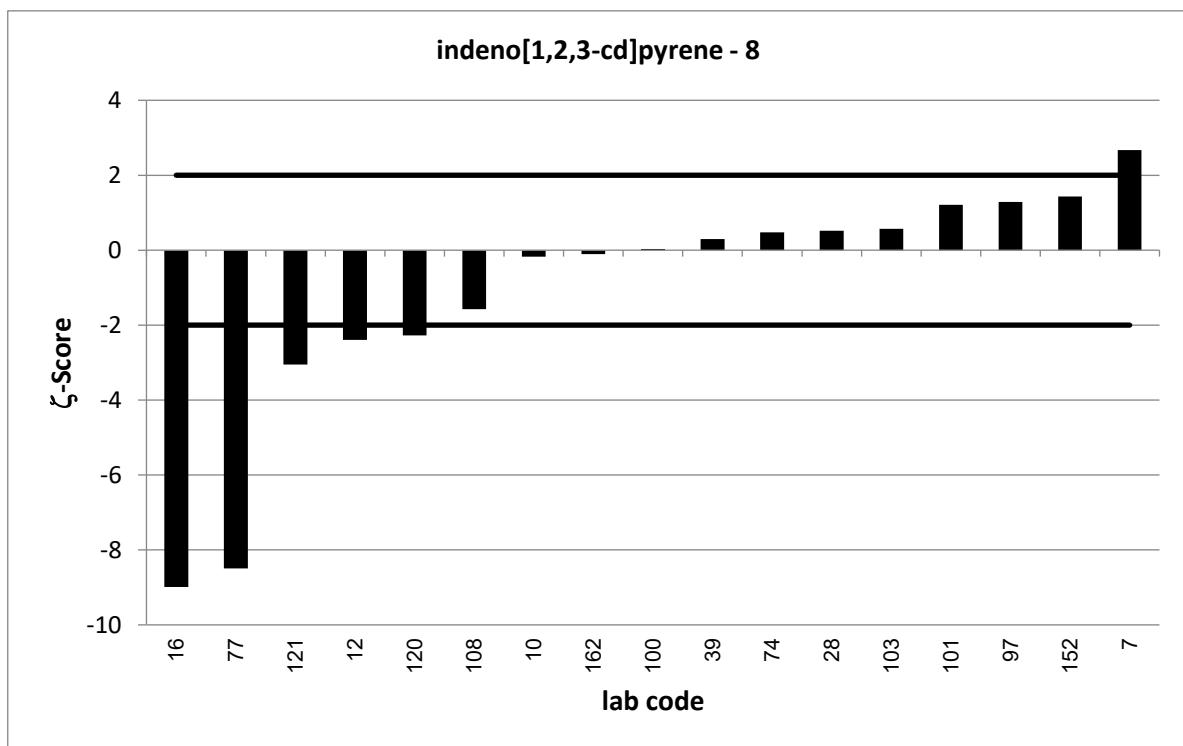


Strongly deviating values are not shown in the diagram.





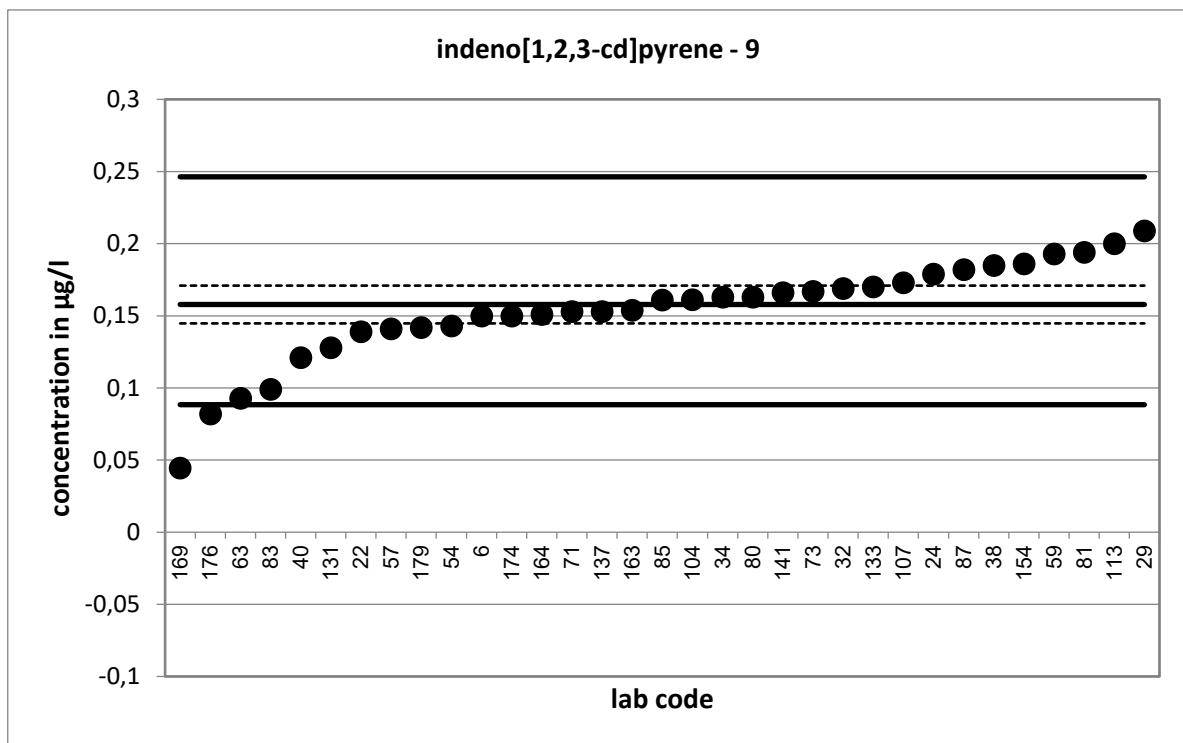
Strongly deviating values are not correctly shown in the diagram.



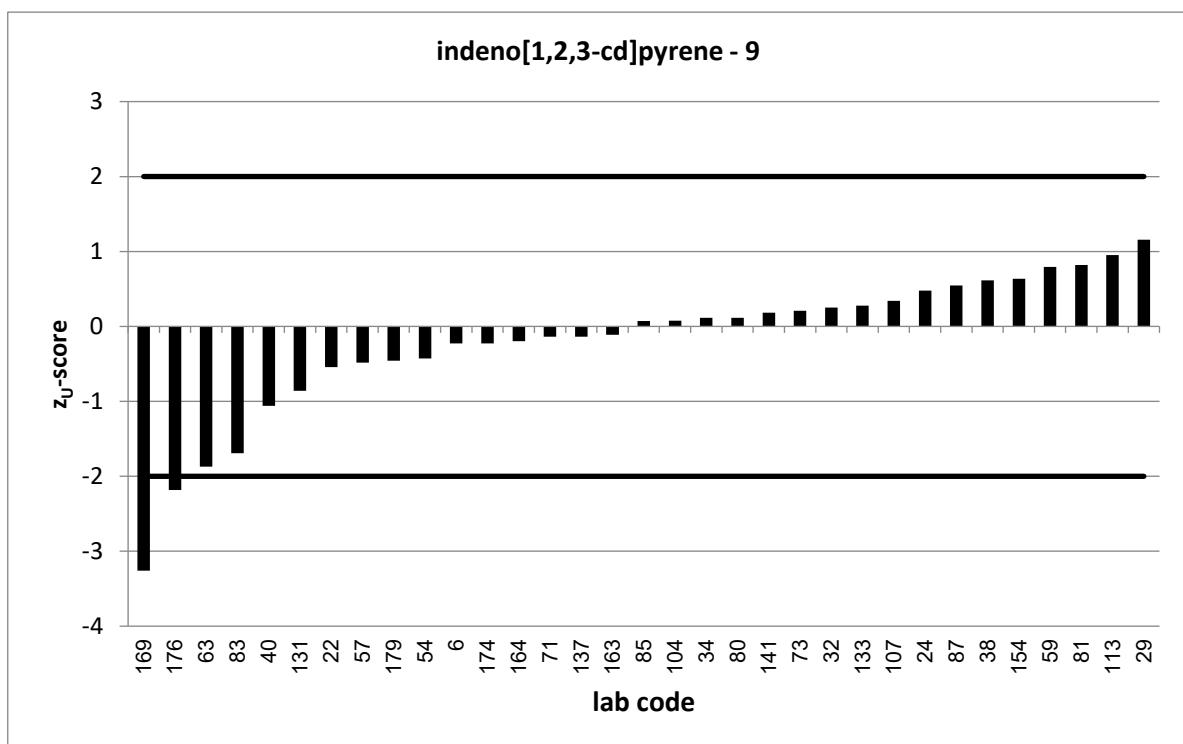
PT 3/24		indeno[1,2,3-cd]pyrene - 9			
assigned value [ $\mu\text{g/l}$ ]*		$0,1578 \pm 0,0131$			
upper tolerance limit [ $\mu\text{g/l}$ ]		0,2463			
lower tolerance limit [ $\mu\text{g/l}$ ]		0,08837			
lab code	result [ $\mu\text{g/l}$ ]	$\pm$	z-score	$z_U$ -score	assessm.**
6	0,15	0,055	-0,3	-0,2	s
22	0,139	0,056	-0,7	-0,5	s
24	0,179			0,5	s
29	0,209	0,036	2,7	1,2	s
32	0,169			0,3	s
34	0,163	0,11	0,1	0,1	s
38	0,185			0,6	s
40	0,121			-1,1	s
54	0,143	0,043	-0,7	-0,4	s
57	0,141			-0,5	s
59	0,193	0,039	1,7	0,8	s
63	0,0929	0,016	-6,3	-1,9	s
71	0,153	0,041	-0,2	-0,1	s
73	0,167			0,2	s
80	0,163	0,02	0,4	0,1	s
81	0,194			0,8	s
83	0,0991			-1,7	s
85	0,161	0,002	0,5	0,1	s
87	0,182	0,055	0,9	0,5	s
104	0,1612			0,1	s
107	0,173	0,045	0,6	0,3	s
113	0,2			1,0	s
131	0,128	0,031	-1,8	-0,9	s
133	0,17			0,3	s
137	0,153	0,023	-0,4	-0,1	s
141	0,166	0,075	0,2	0,2	s
154	0,186	0,093	0,6	0,6	s
163	0,154			-0,1	s
164	0,151	0,047	-0,3	-0,2	s
169	0,0446	0,014	-11,7	-3,3	u
174	0,15			-0,2	s
176	0,082			-2,2	q
179	0,142	0,043	-0,7	-0,5	s

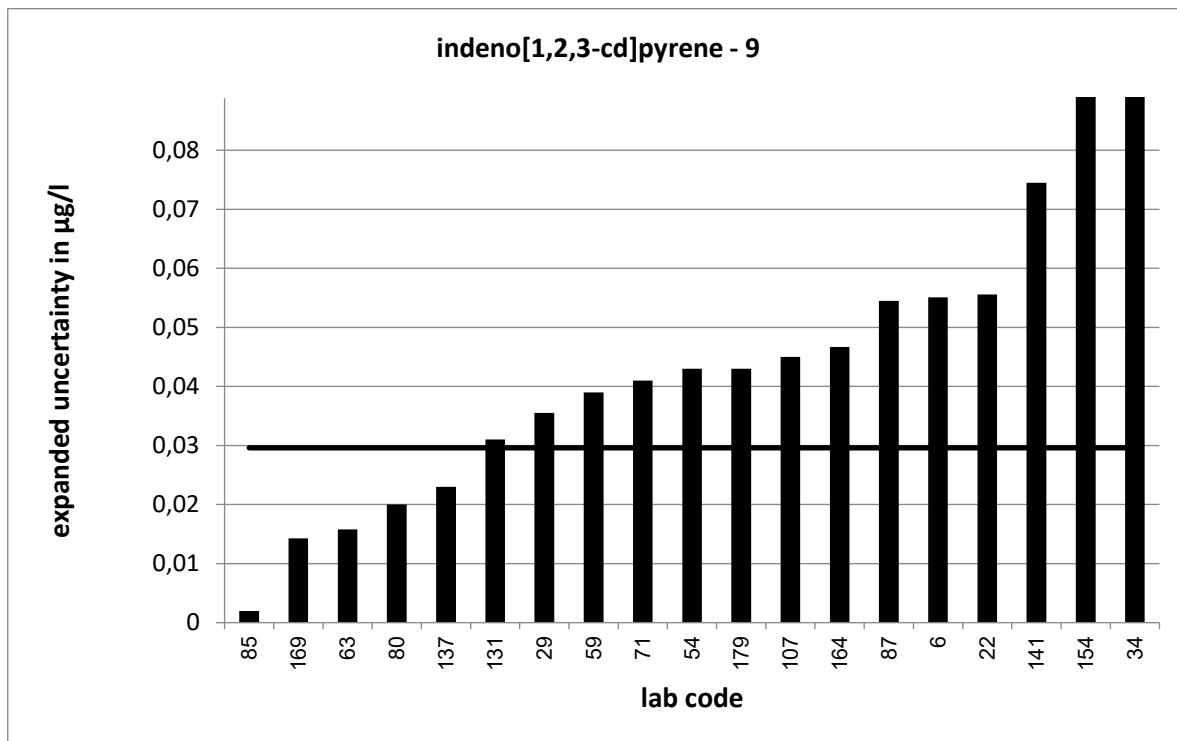
\* The stated uncertainty of the assigned value is the expanded uncertainty with a coverage factor  $k=2$  corresponding to a confidence level of about 95%

\*\* s = satisfactory, q = questionable, u = unsatisfactory



Strongly deviating values are not shown in the diagram.





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