

Appendix to the Annual Report 2020

Individual results of the stack emission proficiency tests
for substance ranges P, G and O at the emission simulation
apparatus in 2020

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1. About this Document

This report is a translation of „Anhang zum Jahresbericht 2020 – Einzelergebnisse der Emissionsringversuche der Stoffbereiche P, G und O an der Emissionssimulationsanlage im Jahr 2020“ and was prepared with best care and attention. Nevertheless, the German version of this report shall be taken as authoritative. No guarantee can be given with respect to the English translation.

In order to improve the readability of the annual report on the HLNUG proficiency tests, the individual measurement results of the participants are not presented in the report itself. Instead, these data are listed in this appendix to the annual report.

Unfortunately, HLNUG cannot provide a breakdown of the results according to proficiency test rounds. The participants in a proficiency test round know the identity of the other participants. Consequently, if a list of ID codes of a proficiency test round were published, participants could, with a certain amount of effort, learn the ID code of another participant without his knowledge or consent. In order to prevent this, the German accreditation body DAkkS has asked HLNUG to avoid any connection between results, ID codes and proficiency test rounds in public reports.

2. Results – List of Achieved z-Scores

The following tables show the z-scores achieved by the participants. The values are sorted by component and ID code. The measurement ID (column 2) is an alphanumeric identifier that can be clearly assigned to each measurement and consists of the component description, measurement number and the participant ID code.

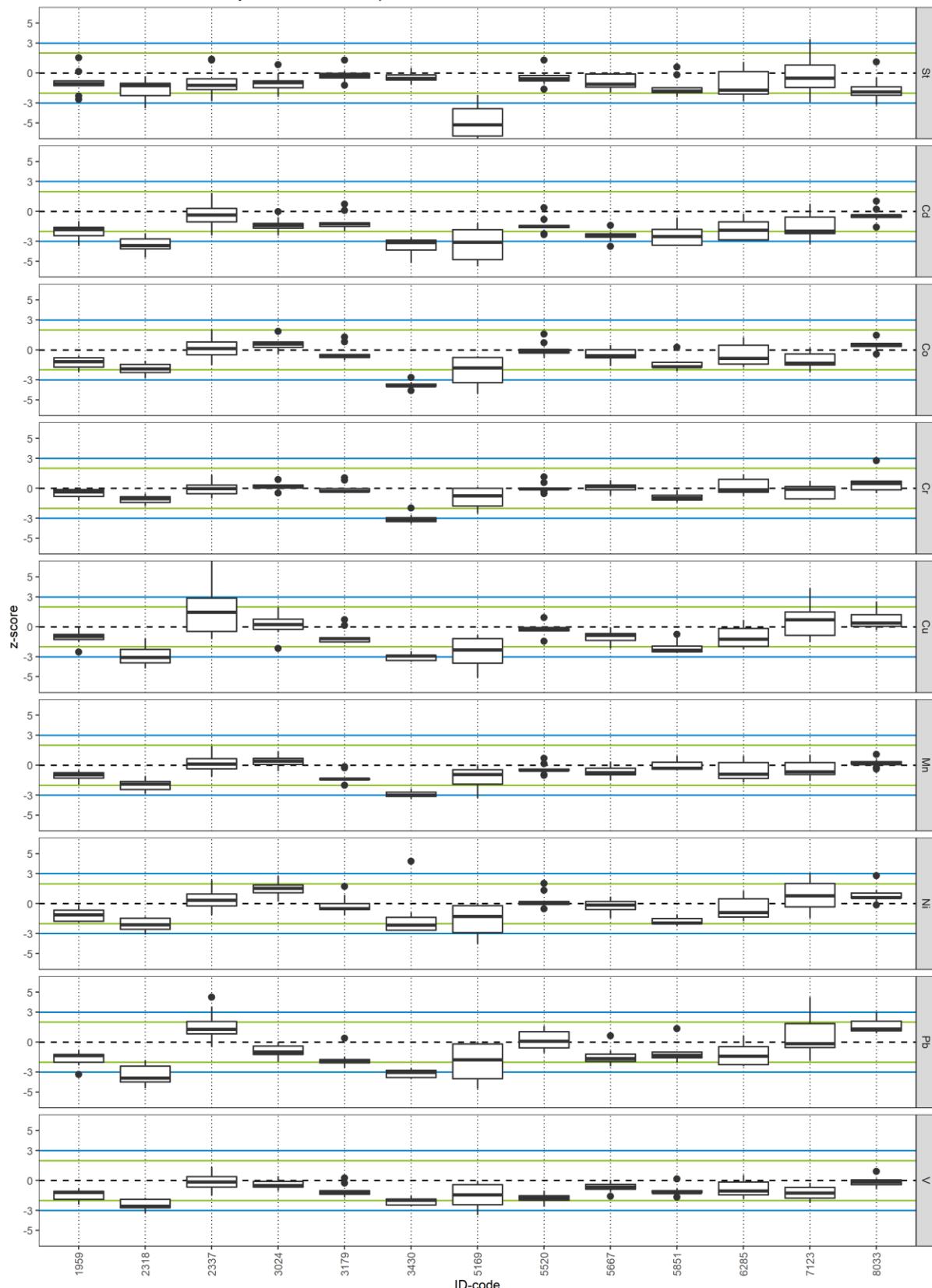
If a participant did not submit a value for one or more measurements, this is indicated by a "-/-".

A compact overview of the z-scores achieved by the participants can be found in the following box whisker plots. The rectangle indicates values between the 25th and 75th percentile (interquartile distance), the bold line inside the rectangle indicates the median of the values. The "antennas" reach from the upper edge of the rectangle to the highest and from the lower edge to the lowest value, which is still within 1.5 times the interquartile distance. Values outside this range are displayed separately in the diagram.

In order to be able to assess the performance of individual participants across all components and to get an impression of the quality of measurements for individual components, the diagrams are available in two different sorts; on the one hand as an overview on one page, on the other hand sorted according to the respective median of the achieved z-scores.

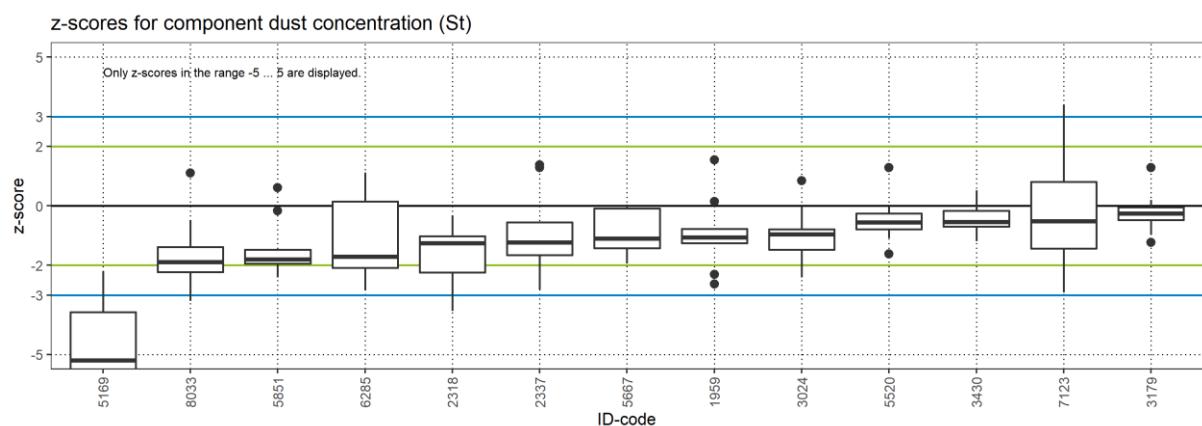
2.1 Substance Range P

achieved z-scores ordered by ID-codes and components



Scheme 1: z-scores for the substance range P (only z-scores in the range -5 ... 5 are displayed)

2.1.1 Dust



No.	Measurement ID	z-Score
1	St-2-1959	-2.63
2	St-3-1959	1.54
3	St-4-1959	-1.09
4	St-5-1959	-0.88
5	St-6-1959	0.14
6	St-7-1959	-1.07
7	St-8-1959	-0.78
8	St-9-1959	-2.31
9	St-10-1959	-1.26
10	St-2-2318	-3.54
11	St-3-2318	-1.03
12	St-4-2318	-2.24
13	St-5-2318	-2.07
14	St-6-2318	-0.33
15	St-7-2318	-0.70
16	St-8-2318	-1.17
17	St-9-2318	-2.75
18	St-10-2318	-1.26
19	St-2-2337	-2.81
20	St-3-2337	-1.97
21	St-4-2337	-0.56
22	St-5-2337	1.38
23	St-6-2337	-0.98
24	St-7-2337	-1.23
25	St-8-2337	1.29
26	St-9-2337	-1.66
27	St-10-2337	-1.59
28	St-2-3024	-2.41
29	St-3-3024	-1.72
30	St-4-3024	-0.86
31	St-5-3024	-0.05
32	St-6-3024	-1.48

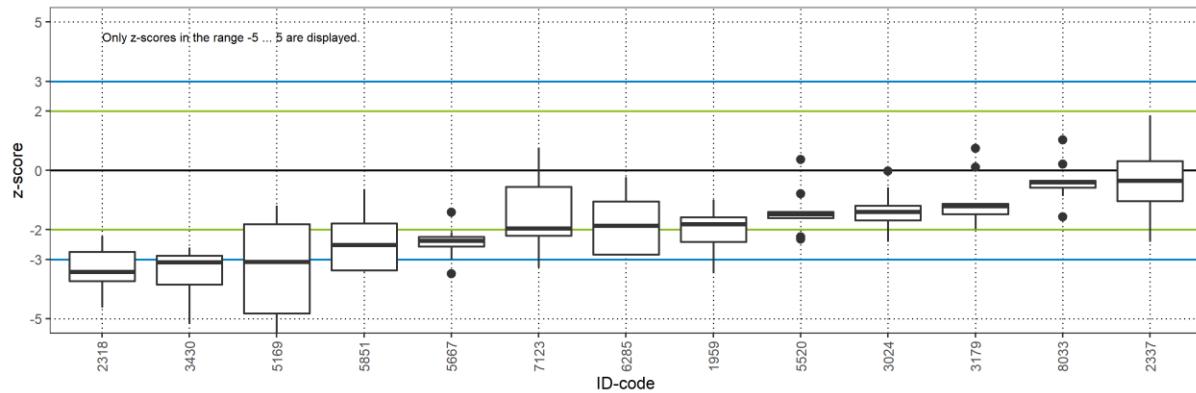
No.	Measurement ID	z-Score
33	St-7-3024	-1.23
34	St-8-3024	0.85
35	St-9-3024	-0.96
36	St-10-3024	-0.79
37	St-2-3179	-1.23
38	St-3-3179	-0.97
39	St-4-3179	0.20
40	St-5-3179	-0.05
41	St-6-3179	-0.48
42	St-7-3179	-0.09
43	St-8-3179	1.29
44	St-9-3179	-0.26
45	St-10-3179	-0.38
46	St-2-3430	-0.11
47	St-3-3430	-0.17
48	St-4-3430	-0.33
49	St-5-3430	-0.54
50	St-6-3430	-0.79
51	St-7-3430	-0.70
52	St-8-3430	0.52
53	St-9-3430	-1.20
54	St-10-3430	-0.64
55	St-2-5169	-6.29
56	St-3-5169	-6.59
57	St-4-5169	-6.06
58	St-5-5169	-6.31
59	St-6-5169	-3.58
60	St-7-5169	-5.10
61	St-8-5169	-2.21
62	St-9-5169	-5.19
63	St-10-5169	-2.29
64	St-2-5520	-1.62

No.	Measurement ID	z-Score
65	St-3-5520	-1.09
66	St-4-5520	-0.56
67	St-5-5520	-0.05
68	St-6-5520	-0.61
69	St-7-5520	-0.28
70	St-8-5520	1.29
71	St-9-5520	-0.26
72	St-10-5520	-0.79
73	St-2-5667	-0.04
74	St-3-5667	-0.09
75	St-4-5667	0.05
76	St-5-5667	-1.95
77	St-6-5667	-1.11
78	St-7-5667	-1.61
79	St-8-5667	-0.49
80	St-9-5667	-1.43
81	St-10-5667	-1.39
82	St-2-5851	-1.94
83	St-3-5851	-0.17
84	St-4-5851	-1.47
85	St-5-5851	-2.41
86	St-6-5851	0.60
87	St-7-5851	-1.80
88	St-8-5851	-1.95
89	St-9-5851	-2.31
90	St-10-5851	-1.67
91	St-2-6285	-1.71

No.	Measurement ID	z-Score
92	St-3-6285	1.11
93	St-4-6285	-2.05
94	St-5-6285	-2.24
95	St-6-6285	0.14
96	St-7-6285	0.40
97	St-8-6285	-2.86
98	St-9-6285	-1.42
99	St-10-6285	-2.09
100	St-2-7123	-0.11
101	St-3-7123	1.54
102	St-4-7123	-0.52
103	St-5-7123	-2.92
104	St-6-7123	3.40
105	St-7-7123	-1.43
106	St-8-7123	-2.08
107	St-9-7123	-1.42
108	St-10-7123	0.81
109	St-2-8033	-3.21
110	St-3-8033	-2.35
111	St-4-8033	1.10
112	St-5-8033	-1.95
113	St-6-8033	-2.23
114	St-7-8033	-0.47
115	St-8-8033	-1.38
116	St-9-8033	-1.89
117	St-10-8033	-1.59

2.1.2 Cadmium

z-scores for component Cadmium (Cd)



No.	Measurement ID	z-Score
1	Cd-2-1959	-3.47

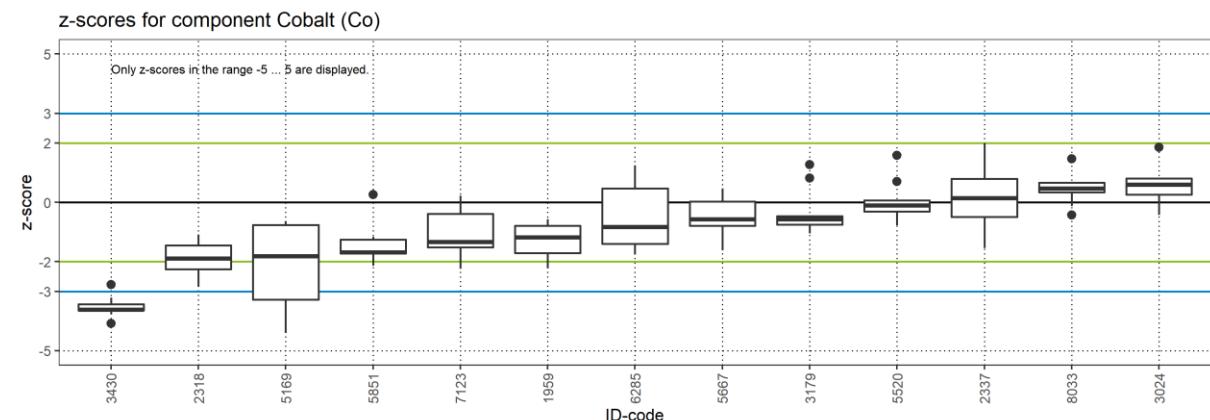
No.	Measurement ID	z-Score
2	Cd-3-1959	-1.42

No.	Measurement ID	z-Score	No.	Measurement ID	z-Score
3	Cd-4-1959	-2.59	48	Cd-4-3430	-5.19
4	Cd-5-1959	-2.05	49	Cd-5-3430	-3.85
5	Cd-6-1959	-1.82	50	Cd-6-3430	-2.61
6	Cd-7-1959	-1.58	51	Cd-7-3430	-2.82
7	Cd-8-1959	-1.79	52	Cd-8-3430	-2.95
8	Cd-9-1959	-2.41	53	Cd-9-3430	-3.83
9	Cd-10-1959	-0.99	54	Cd-10-3430	-3.10
10	Cd-2-2318	-4.63	55	Cd-2-5169	-4.83
11	Cd-3-2318	-3.42	56	Cd-3-5169	-5.05
12	Cd-4-2318	-3.73	57	Cd-4-5169	-3.08
13	Cd-5-2318	-3.20	58	Cd-5-5169	-5.51
14	Cd-6-2318	-2.22	59	Cd-6-5169	-1.82
15	Cd-7-2318	-2.51	60	Cd-7-5169	-3.14
16	Cd-8-2318	-3.67	61	Cd-8-5169	-1.19
17	Cd-9-2318	-3.83	62	Cd-9-5169	-2.88
18	Cd-10-2318	-2.75	63	Cd-10-5169	-1.61
19	Cd-2-2337	-2.41	64	Cd-2-5520	-2.24
20	Cd-3-2337	-1.77	65	Cd-3-5520	-1.61
21	Cd-4-2337	-0.45	66	Cd-4-5520	-1.41
22	Cd-5-2337	1.84	67	Cd-5-5520	-0.79
23	Cd-6-2337	-1.03	68	Cd-6-5520	-1.51
24	Cd-7-2337	-0.27	69	Cd-7-5520	-1.40
25	Cd-8-2337	1.12	70	Cd-8-5520	0.36
26	Cd-9-2337	0.31	71	Cd-9-5520	-1.48
27	Cd-10-2337	-0.35	72	Cd-10-5520	-2.32
28	Cd-2-3024	-2.41	73	Cd-2-5667	-2.24
29	Cd-3-3024	-1.83	74	Cd-3-5667	-2.09
30	Cd-4-3024	-0.58	75	Cd-4-5667	-1.41
31	Cd-5-3024	-1.19	76	Cd-5-5667	-3.01
32	Cd-6-3024	-1.61	77	Cd-6-5667	-2.56
33	Cd-7-3024	-1.40	78	Cd-7-5667	-3.49
34	Cd-8-3024	-0.02	79	Cd-8-5667	-2.29
35	Cd-9-3024	-1.68	80	Cd-9-5667	-2.37
36	Cd-10-3024	-1.38	81	Cd-10-5667	-2.49
37	Cd-2-3179	-1.73	82	Cd-2-5851	-3.37
38	Cd-3-3179	-1.13	83	Cd-3-5851	-1.78
39	Cd-4-3179	-1.47	84	Cd-4-5851	-3.40
40	Cd-5-3179	-1.19	85	Cd-5-5851	-3.42
41	Cd-6-3179	-1.98	86	Cd-6-5851	-0.63
42	Cd-7-3179	-1.24	87	Cd-7-5851	-3.14
43	Cd-8-3179	0.74	88	Cd-8-5851	-2.12
44	Cd-9-3179	0.11	89	Cd-9-5851	-2.51
45	Cd-10-3179	-1.21	90	Cd-10-5851	-1.78
46	Cd-2-3430	-3.95	91	Cd-2-6285	-2.50
47	Cd-3-3430	-2.87	92	Cd-3-6285	-1.05

No.	Measurement ID	z-Score
93	Cd-4-6285	-2.83
94	Cd-5-6285	-2.84
95	Cd-6-6285	-0.24
96	Cd-7-6285	-0.48
97	Cd-8-6285	-2.84
98	Cd-9-6285	-1.85
99	Cd-10-6285	-1.87
100	Cd-2-7123	-2.01
101	Cd-3-7123	-1.42
102	Cd-4-7123	-0.56
103	Cd-5-7123	-3.27
104	Cd-6-7123	0.55
105	Cd-7-7123	-2.20

No.	Measurement ID	z-Score
106	Cd-8-7123	-1.96
107	Cd-9-7123	-2.41
108	Cd-10-7123	0.76
109	Cd-2-8033	-1.56
110	Cd-3-8033	-0.86
111	Cd-4-8033	1.03
112	Cd-5-8033	-0.59
113	Cd-6-8033	-0.34
114	Cd-7-8033	0.21
115	Cd-8-8033	-0.40
116	Cd-9-8033	-0.59
117	Cd-10-8033	-0.35

2.1.3 Cobalt

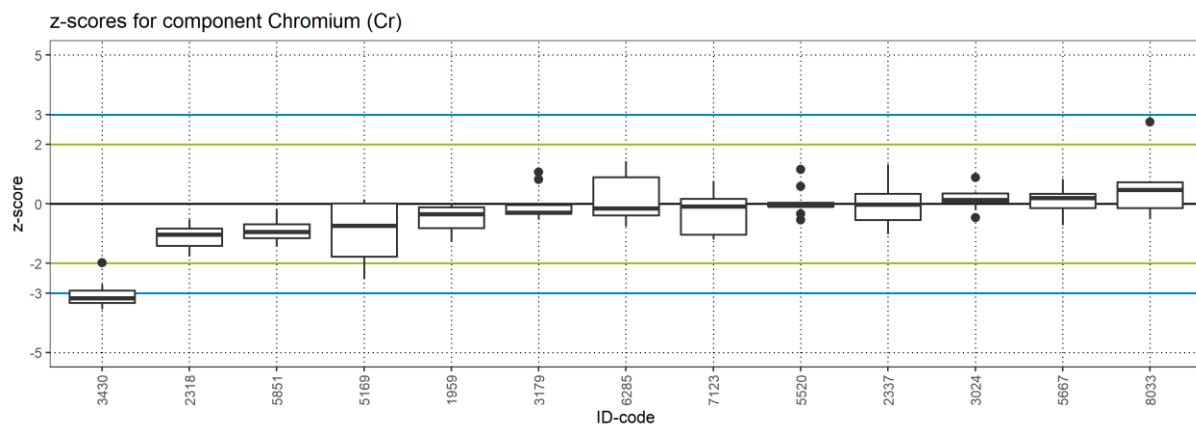


No.	Measurement ID	z-Score
1	Co-2-1959	-2.23
2	Co-3-1959	-1.18
3	Co-4-1959	-1.71
4	Co-5-1959	-1.36
5	Co-6-1959	-0.93
6	Co-7-1959	-0.72
7	Co-8-1959	-0.57
8	Co-9-1959	-1.72
9	Co-10-1959	-0.80
10	Co-2-2318	-2.86
11	Co-3-2318	-1.79
12	Co-4-2318	-2.25
13	Co-5-2318	-1.90
14	Co-6-2318	-1.09
15	Co-7-2318	-1.40

No.	Measurement ID	z-Score
16	Co-8-2318	-2.18
17	Co-9-2318	-2.42
18	Co-10-2318	-1.45
19	Co-2-2337	-1.54
20	Co-3-2337	-1.06
21	Co-4-2337	0.14
22	Co-5-2337	2.00
23	Co-6-2337	-0.49
24	Co-7-2337	0.22
25	Co-8-2337	1.38
26	Co-9-2337	0.79
27	Co-10-2337	0.07
28	Co-2-3024	-0.43
29	Co-3-3024	-0.17
30	Co-4-3024	0.80

No.	Measurement ID	z-Score	No.	Measurement ID	z-Score
31	Co-5-3024	0.83	75	Co-4-5667	0.47
32	Co-6-3024	0.50	76	Co-5-5667	-1.05
33	Co-7-3024	0.27	77	Co-6-5667	-0.79
34	Co-8-3024	1.85	78	Co-7-5667	-1.61
35	Co-9-3024	0.61	79	Co-8-5667	-0.57
36	Co-10-3024	0.60	80	Co-9-5667	-0.34
37	Co-2-3179	-0.67	81	Co-10-5667	-0.76
38	Co-3-3179	-0.50	82	Co-2-5851	-1.83
39	Co-4-3179	-1.03	83	Co-3-5851	-1.33
40	Co-5-3179	-0.46	84	Co-4-5851	-1.73
41	Co-6-3179	-1.05	85	Co-5-5851	-2.13
42	Co-7-3179	-0.75	86	Co-6-5851	0.26
43	Co-8-3179	1.27	87	Co-7-5851	-1.17
44	Co-9-3179	0.81	88	Co-8-5851	-1.69
45	Co-10-3179	-0.57	89	Co-9-5851	-1.72
46	Co-2-3430	-3.62	90	Co-10-5851	-1.25
47	Co-3-3430	-3.44	91	Co-2-6285	-0.99
48	Co-4-3430	-3.64	92	Co-3-6285	0.47
49	Co-5-3430	-3.48	93	Co-4-6285	-1.54
50	Co-6-3430	-3.22	94	Co-5-6285	-1.40
51	Co-7-3430	-3.62	95	Co-6-6285	1.24
52	Co-8-3430	-2.77	96	Co-7-6285	1.15
53	Co-9-3430	-4.08	97	Co-8-6285	-1.76
54	Co-10-3430	-3.78	98	Co-9-6285	-0.76
55	Co-2-5169	-3.28	99	Co-10-6285	-0.83
56	Co-3-5169	-3.59	100	Co-2-7123	-1.33
57	Co-4-5169	-1.73	101	Co-3-7123	-0.58
58	Co-5-5169	-4.40	102	Co-4-7123	-0.38
59	Co-6-5169	11.30	103	Co-5-7123	-2.24
60	Co-7-5169	-2.30	104	Co-6-7123	0.22
61	Co-8-5169	-0.64	105	Co-7-7123	-1.37
62	Co-9-5169	-1.82	106	Co-8-7123	-1.52
63	Co-10-5169	-0.76	107	Co-9-7123	-1.82
64	Co-2-5520	-0.78	108	Co-10-7123	-0.38
65	Co-3-5520	-0.31	109	Co-2-8033	-0.43
66	Co-4-5520	-0.10	110	Co-3-8033	-0.13
67	Co-5-5520	0.71	111	Co-4-8033	1.46
68	Co-6-5520	-0.07	112	Co-5-8033	0.37
69	Co-7-5520	0.07	113	Co-6-8033	0.46
70	Co-8-5520	1.58	114	Co-7-8033	0.67
71	Co-9-5520	-0.11	115	Co-8-8033	0.68
72	Co-10-5520	-0.48	116	Co-9-8033	0.34
73	Co-2-5667	0.16	117	Co-10-8033	0.64
74	Co-3-5667	0.03			

2.1.4 Chromium



No.	Measurement ID	z-Score
1	Cr-2-1959	-1.27
2	Cr-3-1959	-0.06
3	Cr-4-1959	-0.83
4	Cr-5-1959	-0.59
5	Cr-6-1959	-0.31
6	Cr-7-1959	-0.11
7	Cr-8-1959	-0.34
8	Cr-9-1959	-0.81
9	Cr-10-1959	0.02
10	Cr-2-2318	-1.78
11	Cr-3-2318	-1.04
12	Cr-4-2318	-1.41
13	Cr-5-2318	-1.01
14	Cr-6-2318	-0.53
15	Cr-7-2318	-0.78
16	Cr-8-2318	-1.40
17	Cr-9-2318	-1.50
18	Cr-10-2318	-0.84
19	Cr-2-2337	-1.02
20	Cr-3-2337	-0.96
21	Cr-4-2337	-0.02
22	Cr-5-2337	1.32
23	Cr-6-2337	-0.55
24	Cr-7-2337	-0.03
25	Cr-8-2337	0.67
26	Cr-9-2337	0.33
27	Cr-10-2337	-0.32
28	Cr-2-3024	-0.46
29	Cr-3-3024	-0.22
30	Cr-4-3024	0.40
31	Cr-5-3024	0.13
32	Cr-6-3024	0.04

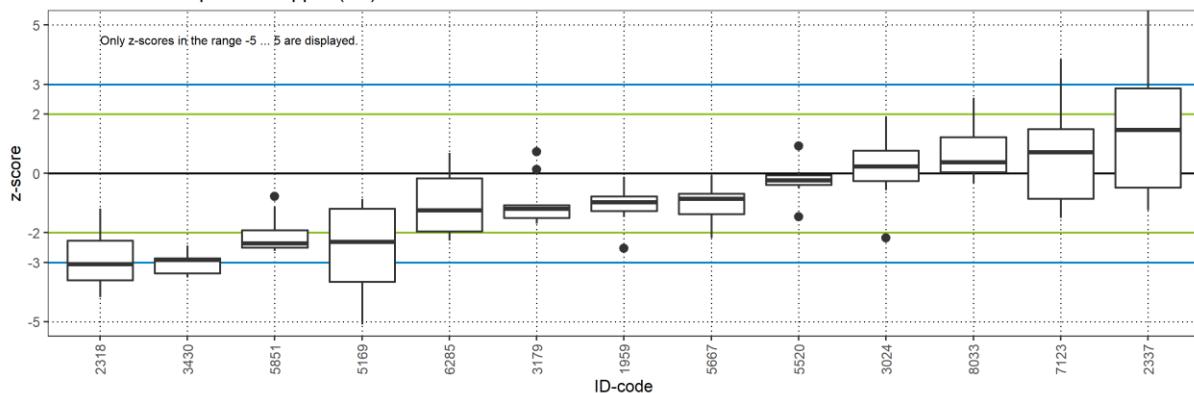
No.	Measurement ID	z-Score
33	Cr-7-3024	0.14
34	Cr-8-3024	0.88
35	Cr-9-3024	0.13
36	Cr-10-3024	0.35
37	Cr-2-3179	-0.33
38	Cr-3-3179	-0.20
39	Cr-4-3179	-0.52
40	Cr-5-3179	-0.03
41	Cr-6-3179	-0.54
42	Cr-7-3179	-0.34
43	Cr-8-3179	1.06
44	Cr-9-3179	0.82
45	Cr-10-3179	-0.29
46	Cr-2-3430	-2.92
47	Cr-3-3430	-3.33
48	Cr-4-3430	-2.93
49	Cr-5-3430	-2.71
50	Cr-6-3430	-3.17
51	Cr-7-3430	-3.26
52	Cr-8-3430	-1.99
53	Cr-9-3430	-3.54
54	Cr-10-3430	-3.55
55	Cr-2-5169	-1.78
56	Cr-3-5169	-1.88
57	Cr-4-5169	-0.65
58	Cr-5-5169	-2.52
59	Cr-6-5169	0.04
60	Cr-7-5169	-0.88
61	Cr-8-5169	0.15
62	Cr-9-5169	-0.74
63	Cr-10-5169	0.02
64	Cr-2-5520	-0.54

No.	Measurement ID	z-Score
65	Cr-3-5520	-0.06
66	Cr-4-5520	-0.07
67	Cr-5-5520	0.58
68	Cr-6-5520	-0.06
69	Cr-7-5520	0.03
70	Cr-8-5520	1.15
71	Cr-9-5520	-0.09
72	Cr-10-5520	-0.33
73	Cr-2-5667	0.82
74	Cr-3-5667	0.34
75	Cr-4-5667	0.72
76	Cr-5-5667	-0.06
77	Cr-6-5667	-0.20
78	Cr-7-5667	-0.72
79	Cr-8-5667	0.19
80	Cr-9-5667	0.24
81	Cr-10-5667	-0.14
82	Cr-2-5851	-0.94
83	Cr-3-5851	-0.17
84	Cr-4-5851	-0.89
85	Cr-5-5851	-1.30
86	Cr-6-5851	-0.18
87	Cr-7-5851	-0.68
88	Cr-8-5851	-1.43
89	Cr-9-5851	-1.16
90	Cr-10-5851	-0.96
91	Cr-2-6285	-0.15

No.	Measurement ID	z-Score
92	Cr-3-6285	0.90
93	Cr-4-6285	-0.61
94	Cr-5-6285	-0.39
95	Cr-6-6285	1.43
96	Cr-7-6285	1.26
97	Cr-8-6285	-0.76
98	Cr-9-6285	-0.09
99	Cr-10-6285	-0.16
100	Cr-2-7123	-0.09
101	Cr-3-7123	0.17
102	Cr-4-7123	-0.03
103	Cr-5-7123	-1.20
104	Cr-6-7123	0.77
105	Cr-7-7123	-0.61
106	Cr-8-7123	-1.04
107	Cr-9-7123	-1.10
108	Cr-10-7123	0.24
109	Cr-2-8033	-0.51
110	Cr-3-8033	-0.15
111	Cr-4-8033	0.73
112	Cr-5-8033	-0.23
113	Cr-6-8033	0.18
114	Cr-7-8033	0.47
115	Cr-8-8033	0.76
116	Cr-9-8033	2.75
117	Cr-10-8033	0.62

2.1.5 Copper

z-scores for component Copper (Cu)



No.	Measurement ID	z-Score
1	Cu-2-1959	-2.52

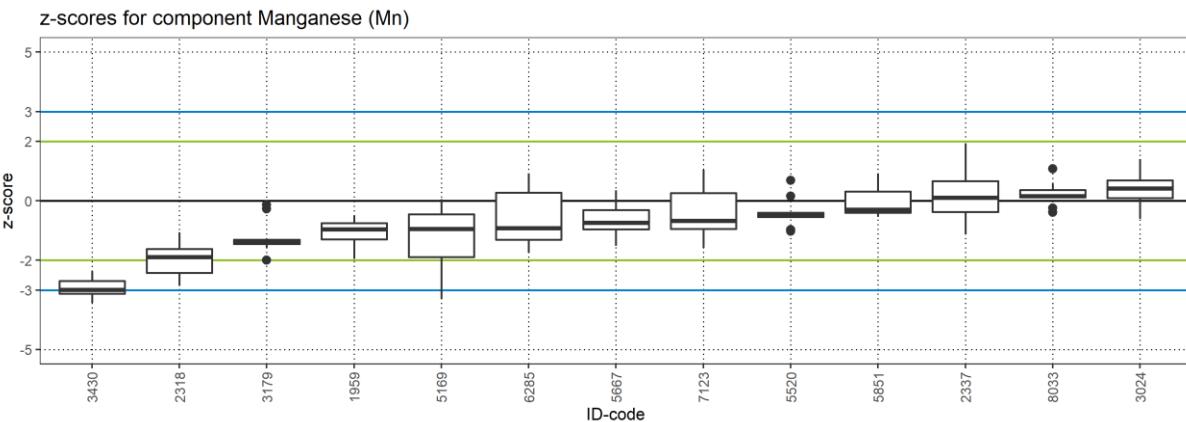
No.	Measurement ID	z-Score
2	Cu-3-1959	-1.14

No.	Measurement ID	z-Score	No.	Measurement ID	z-Score
3	Cu-4-1959	-1.48	48	Cu-4-3430	-3.37
4	Cu-5-1959	-1.27	49	Cu-5-3430	-3.33
5	Cu-6-1959	-0.77	50	Cu-6-3430	-2.87
6	Cu-7-1959	-0.43	51	Cu-7-3430	-2.91
7	Cu-8-1959	-0.98	52	Cu-8-3430	-2.44
8	Cu-9-1959	-0.11	53	Cu-9-3430	-3.51
9	Cu-10-1959	-0.87	54	Cu-10-3430	-2.91
10	Cu-2-2318	-4.17	55	Cu-2-5169	-3.65
11	Cu-3-2318	-3.06	56	Cu-3-5169	-4.03
12	Cu-4-2318	-3.63	57	Cu-4-5169	-2.26
13	Cu-5-2318	-2.95	58	Cu-5-5169	-5.09
14	Cu-6-2318	-1.19	59	Cu-6-5169	-1.19
15	Cu-7-2318	-2.25	60	Cu-7-5169	-2.41
16	Cu-8-2318	-3.49	61	Cu-8-5169	-1.04
17	Cu-9-2318	-3.61	62	Cu-9-5169	-2.31
18	Cu-10-2318	-2.26	63	Cu-10-5169	-0.87
19	Cu-2-2337	2.81	64	Cu-2-5520	-1.46
20	Cu-3-2337	-1.24	65	Cu-3-5520	0.06
21	Cu-4-2337	-0.48	66	Cu-4-5520	-0.07
22	Cu-5-2337	3.55	67	Cu-5-5520	-0.30
23	Cu-6-2337	-0.52	68	Cu-6-5520	-0.24
24	Cu-7-2337	0.89	69	Cu-7-5520	-0.39
25	Cu-8-2337	7.13	70	Cu-8-5520	0.92
26	Cu-9-2337	2.86	71	Cu-9-5520	-0.51
27	Cu-10-2337	1.46	72	Cu-10-5520	-0.08
28	Cu-2-3024	-2.17	73	Cu-2-5667	-0.21
29	Cu-3-3024	-0.57	74	Cu-3-5667	-0.85
30	Cu-4-3024	1.36	75	Cu-4-5667	-0.07
31	Cu-5-3024	0.77	76	Cu-5-5667	-1.37
32	Cu-6-3024	0.38	77	Cu-6-5667	-1.41
33	Cu-7-3024	-0.14	78	Cu-7-5667	-2.18
34	Cu-8-3024	1.92	79	Cu-8-5667	-0.68
35	Cu-9-3024	0.23	80	Cu-9-5667	-0.82
36	Cu-10-3024	-0.26	81	Cu-10-5667	-1.35
37	Cu-2-3179	-1.64	82	Cu-2-5851	-2.62
38	Cu-3-3179	-1.19	83	Cu-3-5851	-1.14
39	Cu-4-3179	-1.43	84	Cu-4-5851	-2.34
40	Cu-5-3179	-1.16	85	Cu-5-5851	-2.41
41	Cu-6-3179	-1.69	86	Cu-6-5851	-0.77
42	Cu-7-3179	-1.50	87	Cu-7-5851	-1.92
43	Cu-8-3179	0.72	88	Cu-8-5851	-2.50
44	Cu-9-3179	0.13	89	Cu-9-5851	-2.61
45	Cu-10-3179	-1.08	90	Cu-10-5851	-2.35
46	Cu-2-3430	-3.45	91	Cu-2-6285	-1.70
47	Cu-3-3430	-2.68	92	Cu-3-6285	-0.17

No.	Measurement ID	z-Score
93	Cu-4-6285	-2.08
94	Cu-5-6285	-1.96
95	Cu-6-6285	0.69
96	Cu-7-6285	0.40
97	Cu-8-6285	-2.26
98	Cu-9-6285	-1.21
99	Cu-10-6285	-1.24
100	Cu-2-7123	1.49
101	Cu-3-7123	1.37
102	Cu-4-7123	2.05
103	Cu-5-7123	-1.27
104	Cu-6-7123	3.83
105	Cu-7-7123	0.07

No.	Measurement ID	z-Score
106	Cu-8-7123	-0.86
107	Cu-9-7123	-1.51
108	Cu-10-7123	0.72
109	Cu-2-8033	-0.21
110	Cu-3-8033	-0.34
111	Cu-4-8033	1.22
112	Cu-5-8033	0.98
113	Cu-6-8033	0.04
114	Cu-7-8033	0.38
115	Cu-8-8033	1.32
116	Cu-9-8033	2.55
117	Cu-10-8033	0.19

2.1.6 Manganese

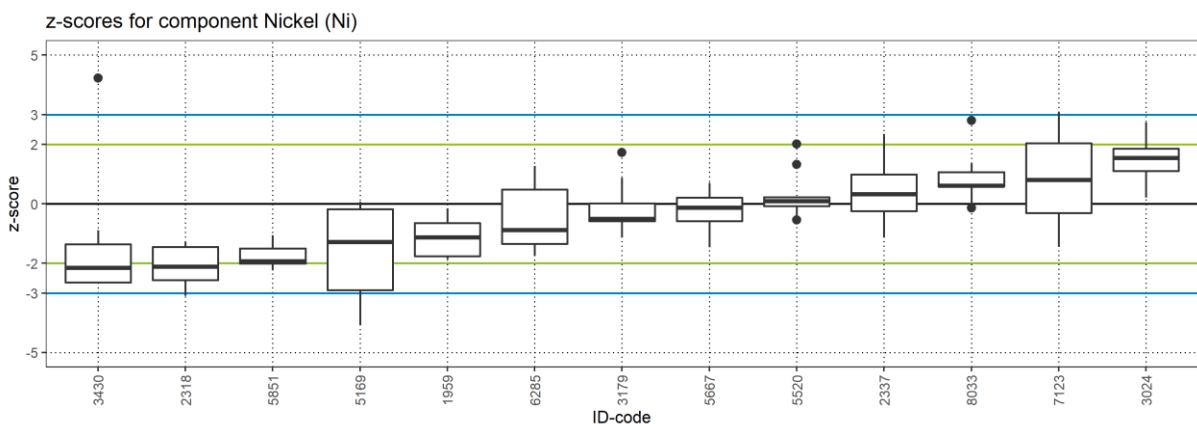


No.	Measurement ID	z-Score
1	Mn-2-1959	-1.95
2	Mn-3-1959	-0.75
3	Mn-4-1959	-1.53
4	Mn-5-1959	-1.13
5	Mn-6-1959	-0.82
6	Mn-7-1959	-0.50
7	Mn-8-1959	-0.95
8	Mn-9-1959	-1.30
9	Mn-10-1959	-0.68
10	Mn-2-2318	-2.87
11	Mn-3-2318	-1.78
12	Mn-4-2318	-2.35
13	Mn-5-2318	-1.90
14	Mn-6-2318	-1.07
15	Mn-7-2318	-1.48

No.	Measurement ID	z-Score
16	Mn-8-2318	-2.44
17	Mn-9-2318	-2.42
18	Mn-10-2318	-1.62
19	Mn-2-2337	-1.13
20	Mn-3-2337	-0.78
21	Mn-4-2337	0.10
22	Mn-5-2337	1.93
23	Mn-6-2337	-0.38
24	Mn-7-2337	0.11
25	Mn-8-2337	1.28
26	Mn-9-2337	0.67
27	Mn-10-2337	0.10
28	Mn-2-3024	-0.60
29	Mn-3-3024	-0.48
30	Mn-4-3024	0.83

No.	Measurement ID	z-Score	No.	Measurement ID	z-Score
31	Mn-5-3024	0.53	75	Mn-4-5667	0.14
32	Mn-6-3024	0.09	76	Mn-5-5667	-0.74
33	Mn-7-3024	0.26	77	Mn-6-5667	-0.94
34	Mn-8-3024	1.40	78	Mn-7-5667	-1.51
35	Mn-9-3024	0.42	79	Mn-8-5667	-0.38
36	Mn-10-3024	0.69	80	Mn-9-5667	-0.95
37	Mn-2-3179	-1.45	81	Mn-10-5667	-0.97
38	Mn-3-3179	-1.39	82	Mn-2-5851	-0.55
39	Mn-4-3179	-1.59	83	Mn-3-5851	0.50
40	Mn-5-3179	-1.37	84	Mn-4-5851	0.31
41	Mn-6-3179	-2.00	85	Mn-5-5851	-0.40
42	Mn-7-3179	-1.31	86	Mn-6-5851	0.92
43	Mn-8-3179	-0.14	87	Mn-7-5851	-0.01
44	Mn-9-3179	-0.27	88	Mn-8-5851	-0.33
45	Mn-10-3179	-1.35	89	Mn-9-5851	-0.53
46	Mn-2-3430	-3.05	90	Mn-10-5851	-0.29
47	Mn-3-3430	-2.69	91	Mn-2-6285	-0.91
48	Mn-4-3430	-3.21	92	Mn-3-6285	0.27
49	Mn-5-3430	-3.12	93	Mn-4-6285	-1.33
50	Mn-6-3430	-2.68	94	Mn-5-6285	-1.31
51	Mn-7-3430	-2.85	95	Mn-6-6285	0.92
52	Mn-8-3430	-2.37	96	Mn-7-6285	0.68
53	Mn-9-3430	-3.43	97	Mn-8-6285	-1.75
54	Mn-10-3430	-3.00	98	Mn-9-6285	-0.88
55	Mn-2-5169	-2.56	99	Mn-10-6285	-0.95
56	Mn-3-5169	-1.89	100	Mn-2-7123	-0.67
57	Mn-4-5169	-0.97	101	Mn-3-7123	0.05
58	Mn-5-5169	-3.30	102	Mn-4-7123	0.36
59	Mn-6-5169	0.05	103	Mn-5-7123	-1.31
60	Mn-7-5169	-0.79	104	Mn-6-7123	1.04
61	Mn-8-5169	-0.16	105	Mn-7-7123	-0.79
62	Mn-9-5169	-0.94	106	Mn-8-7123	-1.58
63	Mn-10-5169	-0.46	107	Mn-9-7123	-0.94
64	Mn-2-5520	-1.02	108	Mn-10-7123	0.26
65	Mn-3-5520	-0.55	109	Mn-2-8033	-0.39
66	Mn-4-5520	-0.50	110	Mn-3-8033	-0.25
67	Mn-5-5520	0.15	111	Mn-4-8033	1.07
68	Mn-6-5520	-0.44	112	Mn-5-8033	0.15
69	Mn-7-5520	-0.40	113	Mn-6-8033	0.12
70	Mn-8-5520	0.69	114	Mn-7-8033	0.36
71	Mn-9-5520	-0.52	115	Mn-8-8033	0.57
72	Mn-10-5520	-0.97	116	Mn-9-8033	0.36
73	Mn-2-5667	0.35	117	Mn-10-8033	0.16
74	Mn-3-5667	-0.32			

2.1.7 Nickel



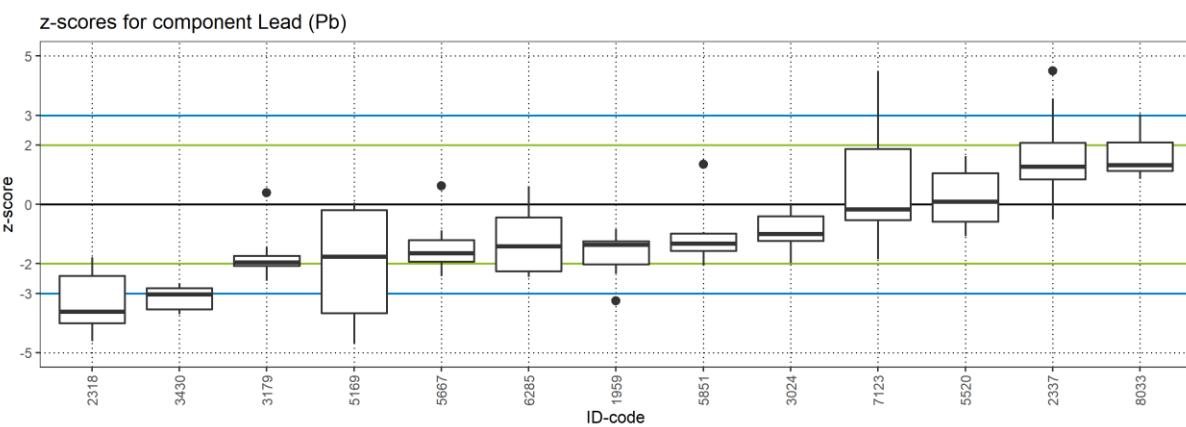
No.	Measurement ID	z-Score
1	Ni-2-1959	-1.87
2	Ni-3-1959	-0.38
3	Ni-4-1959	-1.78
4	Ni-5-1959	-1.41
5	Ni-6-1959	-0.65
6	Ni-7-1959	-0.67
7	Ni-8-1959	-1.13
8	Ni-9-1959	-1.76
9	Ni-10-1959	-0.16
10	Ni-2-2318	-3.10
11	Ni-3-2318	-1.88
12	Ni-4-2318	-2.48
13	Ni-5-2318	-2.12
14	Ni-6-2318	-1.30
15	Ni-7-2318	-1.45
16	Ni-8-2318	-2.56
17	Ni-9-2318	-2.60
18	Ni-10-2318	-1.43
19	Ni-2-2337	-1.14
20	Ni-3-2337	-0.73
21	Ni-4-2337	0.33
22	Ni-5-2337	2.34
23	Ni-6-2337	-0.24
24	Ni-7-2337	0.42
25	Ni-8-2337	1.73
26	Ni-9-2337	0.98
27	Ni-10-2337	0.33
28	Ni-2-3024	0.20
29	Ni-3-3024	0.69
30	Ni-4-3024	1.86
31	Ni-5-3024	1.87
32	Ni-6-3024	1.10

No.	Measurement ID	z-Score
33	Ni-7-3024	1.84
34	Ni-8-3024	2.73
35	Ni-9-3024	1.33
36	Ni-10-3024	1.54
37	Ni-2-3179	-0.44
38	Ni-3-3179	-0.57
39	Ni-4-3179	-0.83
40	Ni-5-3179	0.02
41	Ni-6-3179	-1.14
42	Ni-7-3179	-0.58
43	Ni-8-3179	1.73
44	Ni-9-3179	0.86
45	Ni-10-3179	-0.50
46	Ni-2-3430	-2.44
47	Ni-3-3430	4.23
48	Ni-4-3430	-2.67
49	Ni-5-3430	-2.65
50	Ni-6-3430	-0.89
51	Ni-7-3430	-1.36
52	Ni-8-3430	-2.04
53	Ni-9-3430	-2.68
54	Ni-10-3430	-2.15
55	Ni-2-5169	-2.90
56	Ni-3-5169	-3.17
57	Ni-4-5169	-1.25
58	Ni-5-5169	-4.07
59	Ni-6-5169	-0.19
60	Ni-7-5169	-1.68
61	Ni-8-5169	0.06
62	Ni-9-5169	-1.29
63	Ni-10-5169	-0.16
64	Ni-2-5520	-0.54

No.	Measurement ID	z-Score
65	Ni-3-5520	-0.07
66	Ni-4-5520	0.10
67	Ni-5-5520	1.33
68	Ni-6-5520	0.09
69	Ni-7-5520	0.06
70	Ni-8-5520	2.01
71	Ni-9-5520	0.22
72	Ni-10-5520	-0.50
73	Ni-2-5667	0.70
74	Ni-3-5667	0.21
75	Ni-4-5667	0.61
76	Ni-5-5667	-0.52
77	Ni-6-5667	-0.69
78	Ni-7-5667	-1.46
79	Ni-8-5667	-0.11
80	Ni-9-5667	-0.13
81	Ni-10-5667	-0.58
82	Ni-2-5851	-2.24
83	Ni-3-5851	-1.40
84	Ni-4-5851	-1.93
85	Ni-5-5851	-2.01
86	Ni-6-5851	-1.06
87	Ni-7-5851	-1.50
88	Ni-8-5851	-1.98
89	Ni-9-5851	-2.18
90	Ni-10-5851	-1.69
91	Ni-2-6285	-1.06

No.	Measurement ID	z-Score
92	Ni-3-6285	0.48
93	Ni-4-6285	-1.61
94	Ni-5-6285	-1.35
95	Ni-6-6285	1.27
96	Ni-7-6285	1.17
97	Ni-8-6285	-1.75
98	Ni-9-6285	-0.87
99	Ni-10-6285	-0.88
100	Ni-2-7123	-0.03
101	Ni-3-7123	2.03
102	Ni-4-7123	1.82
103	Ni-5-7123	-1.46
104	Ni-6-7123	3.08
105	Ni-7-7123	0.81
106	Ni-8-7123	-0.79
107	Ni-9-7123	-0.31
108	Ni-10-7123	2.54
109	Ni-2-8033	-0.14
110	Ni-3-8033	-0.02
111	Ni-4-8033	1.35
112	Ni-5-8033	0.61
113	Ni-6-8033	0.60
114	Ni-7-8033	0.85
115	Ni-8-8033	1.06
116	Ni-9-8033	2.80
117	Ni-10-8033	0.58

2.1.8 Lead



No.	Measurement ID	z-Score
1	Pb-2-1959	-3.25

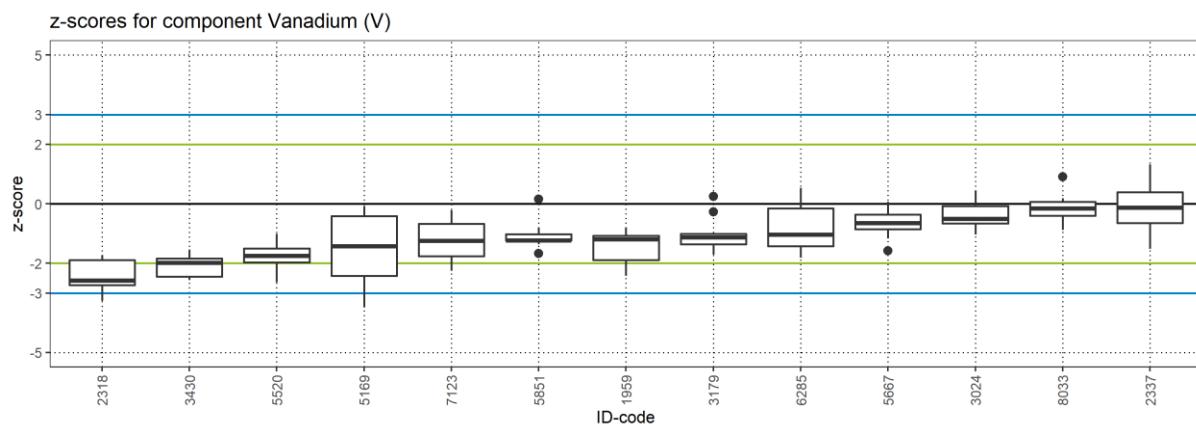
No.	Measurement ID	z-Score
2	Pb-3-1959	-1.12

No.	Measurement ID	z-Score	No.	Measurement ID	z-Score
3	Pb-4-1959	-2.33	48	Pb-4-3430	-3.62
4	Pb-5-1959	-1.79	49	Pb-5-3430	-3.54
5	Pb-6-1959	-1.24	50	Pb-6-3430	-2.90
6	Pb-7-1959	-1.28	51	Pb-7-3430	-3.03
7	Pb-8-1959	-1.36	52	Pb-8-3430	-2.65
8	Pb-9-1959	-2.02	53	Pb-9-3430	-3.43
9	Pb-10-1959	-0.85	54	Pb-10-3430	-2.73
10	Pb-2-2318	-4.61	55	Pb-2-5169	-3.79
11	Pb-3-2318	-3.50	56	Pb-3-5169	-3.67
12	Pb-4-2318	-4.00	57	Pb-4-5169	-1.95
13	Pb-5-2318	-3.61	58	Pb-5-5169	-4.69
14	Pb-6-2318	-1.79	59	Pb-6-5169	0.06
15	Pb-7-2318	-2.30	60	Pb-7-5169	-1.72
16	Pb-8-2318	-3.79	61	Pb-8-5169	-0.18
17	Pb-9-2318	-4.05	62	Pb-9-5169	-1.76
18	Pb-10-2318	-2.40	63	Pb-10-5169	-0.19
19	Pb-2-2337	0.85	64	Pb-2-5520	-1.04
20	Pb-3-2337	-0.48	65	Pb-3-5520	-0.33
21	Pb-4-2337	1.28	66	Pb-4-5520	-0.58
22	Pb-5-2337	4.49	67	Pb-5-5520	1.28
23	Pb-6-2337	-0.50	68	Pb-6-5520	0.09
24	Pb-7-2337	1.26	69	Pb-7-5520	0.28
25	Pb-8-2337	3.57	70	Pb-8-5520	1.62
26	Pb-9-2337	2.07	71	Pb-9-5520	1.05
27	Pb-10-2337	1.41	72	Pb-10-5520	-1.07
28	Pb-2-3024	-1.98	73	Pb-2-5667	-0.88
29	Pb-3-3024	-1.38	74	Pb-3-5667	-1.23
30	Pb-4-3024	-0.16	75	Pb-4-5667	0.62
31	Pb-5-3024	-1.17	76	Pb-5-5667	-1.93
32	Pb-6-3024	-1.00	77	Pb-6-5667	-2.03
33	Pb-7-3024	-0.40	78	Pb-7-5667	-2.43
34	Pb-8-3024	0.04	79	Pb-8-5667	-1.20
35	Pb-9-3024	-0.53	80	Pb-9-5667	-1.64
36	Pb-10-3024	-1.23	81	Pb-10-5667	-1.71
37	Pb-2-3179	-1.98	82	Pb-2-5851	-2.07
38	Pb-3-3179	-1.83	83	Pb-3-5851	-1.12
39	Pb-4-3179	-2.08	84	Pb-4-5851	-1.57
40	Pb-5-3179	-1.74	85	Pb-5-5851	-1.72
41	Pb-6-3179	-2.58	86	Pb-6-5851	1.35
42	Pb-7-3179	-2.50	87	Pb-7-5851	-0.99
43	Pb-8-3179	0.39	88	Pb-8-5851	-1.57
44	Pb-9-3179	-1.46	89	Pb-9-5851	-1.32
45	Pb-10-3179	-1.95	90	Pb-10-5851	-0.93
46	Pb-2-3430	-3.70	91	Pb-2-6285	-2.07
47	Pb-3-3430	-2.82	92	Pb-3-6285	-0.44

No.	Measurement ID	z-Score
93	Pb-4-6285	-2.25
94	Pb-5-6285	-2.26
95	Pb-6-6285	0.61
96	Pb-7-6285	0.17
97	Pb-8-6285	-2.44
98	Pb-9-6285	-1.41
99	Pb-10-6285	-1.34
100	Pb-2-7123	-0.16
101	Pb-3-7123	0.92
102	Pb-4-7123	2.91
103	Pb-5-7123	-1.86
104	Pb-6-7123	4.49
105	Pb-7-7123	-0.26

No.	Measurement ID	z-Score
106	Pb-8-7123	-0.54
107	Pb-9-7123	-0.97
108	Pb-10-7123	1.86
109	Pb-2-8033	1.32
110	Pb-3-8033	0.86
111	Pb-4-8033	2.77
112	Pb-5-8033	2.04
113	Pb-6-8033	1.13
114	Pb-7-8033	2.08
115	Pb-8-8033	3.04
116	Pb-9-8033	1.33
117	Pb-10-8033	1.01

2.1.9 Vanadium



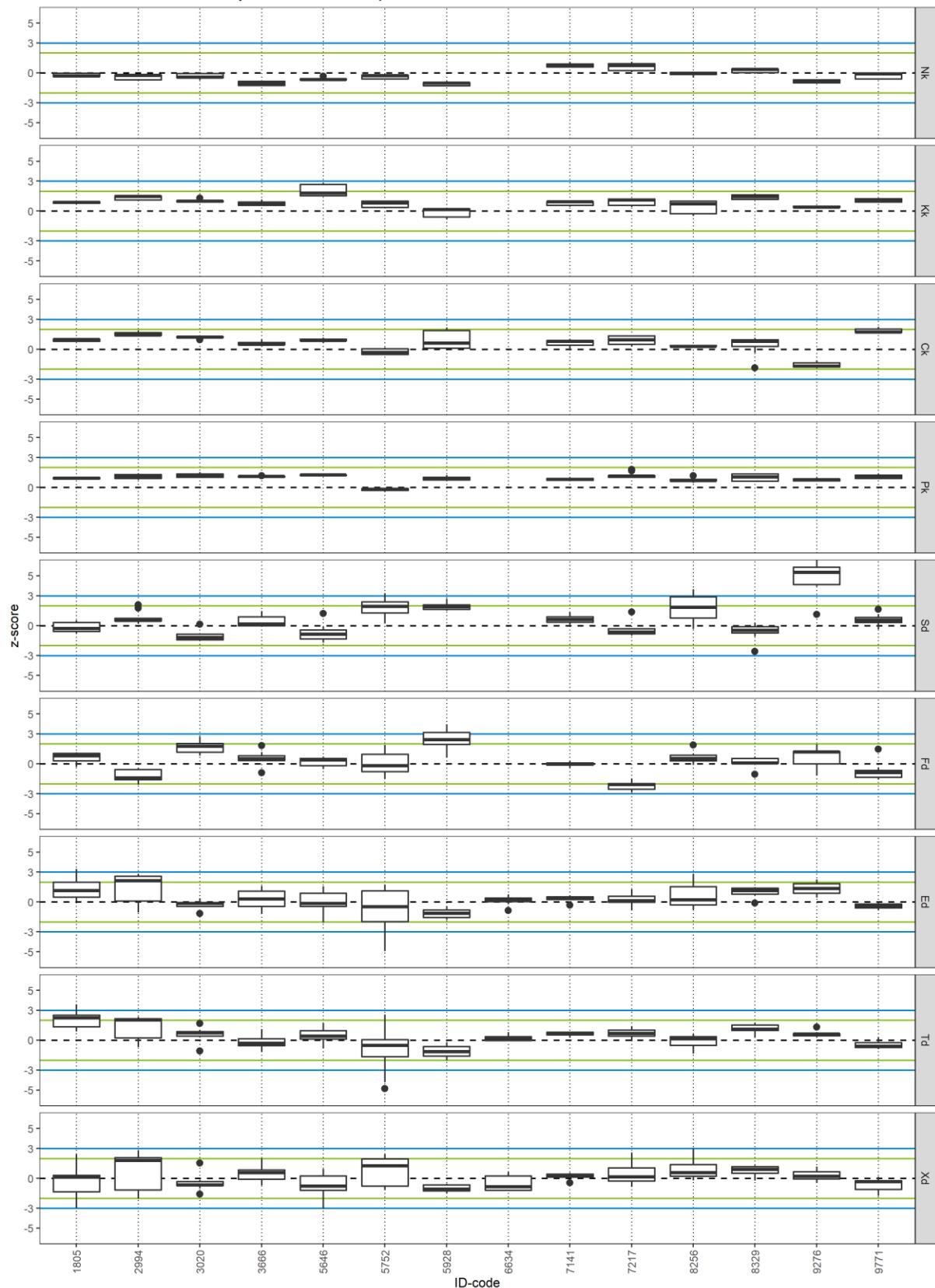
No.	Measurement ID	z-Score
1	V-2-1959	-2.43
2	V-3-1959	-1.19
3	V-4-1959	-1.89
4	V-5-1959	-1.36
5	V-6-1959	-1.17
6	V-7-1959	-0.80
7	V-8-1959	-1.08
8	V-9-1959	-1.94
9	V-10-1959	-1.06
10	V-2-2318	-3.26
11	V-3-2318	-2.57
12	V-4-2318	-2.74
13	V-5-2318	-2.11
14	V-6-2318	-1.73
15	V-7-2318	-1.84

No.	Measurement ID	z-Score
16	V-8-2318	-2.65
17	V-9-2318	-2.74
18	V-10-2318	-1.90
19	V-2-2337	-1.52
20	V-3-2337	-1.07
21	V-4-2337	-0.18
22	V-5-2337	1.32
23	V-6-2337	-0.65
24	V-7-2337	-0.13
25	V-8-2337	0.97
26	V-9-2337	0.39
27	V-10-2337	-0.07
28	V-2-3024	-1.04
29	V-3-3024	-0.96
30	V-4-3024	0.18

No.	Measurement ID	z-Score	No.	Measurement ID	z-Score
31	V-5-3024	-0.40	75	V-4-5667	0.06
32	V-6-3024	-0.50	76	V-5-5667	-1.17
33	V-7-3024	-0.67	77	V-6-5667	-0.85
34	V-8-3024	0.43	78	V-7-5667	-1.58
35	V-9-3024	-0.56	79	V-8-5667	-0.65
36	V-10-3024	-0.07	80	V-9-5667	-0.37
37	V-2-3179	-1.36	81	V-10-5667	-0.81
38	V-3-3179	-1.02	82	V-2-5851	-1.23
39	V-4-3179	-1.52	83	V-3-5851	-1.02
40	V-5-3179	-1.17	84	V-4-5851	-1.11
41	V-6-3179	-1.71	85	V-5-5851	-1.36
42	V-7-3179	-1.12	86	V-6-5851	0.15
43	V-8-3179	0.25	87	V-7-5851	-0.80
44	V-9-3179	-0.27	88	V-8-5851	-1.23
45	V-10-3179	-1.13	89	V-9-5851	-1.67
46	V-2-3430	-2.52	90	V-10-5851	-1.23
47	V-3-3430	-1.88	91	V-2-6285	-1.23
48	V-4-3430	-2.35	92	V-3-6285	-0.16
49	V-5-3430	-2.46	93	V-4-6285	-1.42
50	V-6-3430	-1.54	94	V-5-6285	-1.50
51	V-7-3430	-1.84	95	V-6-6285	0.53
52	V-8-3430	-1.60	96	V-7-6285	0.53
53	V-9-3430	-2.56	97	V-8-6285	-1.81
54	V-10-3430	-1.98	98	V-9-6285	-1.04
55	V-2-5169	-2.43	99	V-10-6285	-0.98
56	V-3-5169	-2.92	100	V-2-7123	-1.60
57	V-4-5169	-1.42	101	V-3-7123	-0.67
58	V-5-5169	-3.48	102	V-4-7123	-0.42
59	V-6-5169	-0.41	103	V-5-7123	-2.25
60	V-7-5169	-1.54	104	V-6-7123	-0.23
61	V-8-5169	-0.08	105	V-7-7123	-1.25
62	V-9-5169	-1.40	106	V-8-7123	-1.86
63	V-10-5169	-0.39	107	V-9-7123	-1.76
64	V-2-5520	-2.64	108	V-10-7123	-0.89
65	V-3-5520	-1.83	109	V-2-8033	-0.88
66	V-4-5520	-1.46	110	V-3-8033	-0.41
67	V-5-5520	-1.75	111	V-4-8033	0.91
68	V-6-5520	-1.71	112	V-5-8033	-0.40
69	V-7-5520	-1.51	113	V-6-8033	-0.05
70	V-8-5520	-1.01	114	V-7-8033	0.18
71	V-9-5520	-1.97	115	V-8-8033	0.07
72	V-10-5520	-2.19	116	V-9-8033	-0.37
73	V-2-5667	-0.08	117	V-10-8033	-0.15
74	V-3-5667	-0.51			

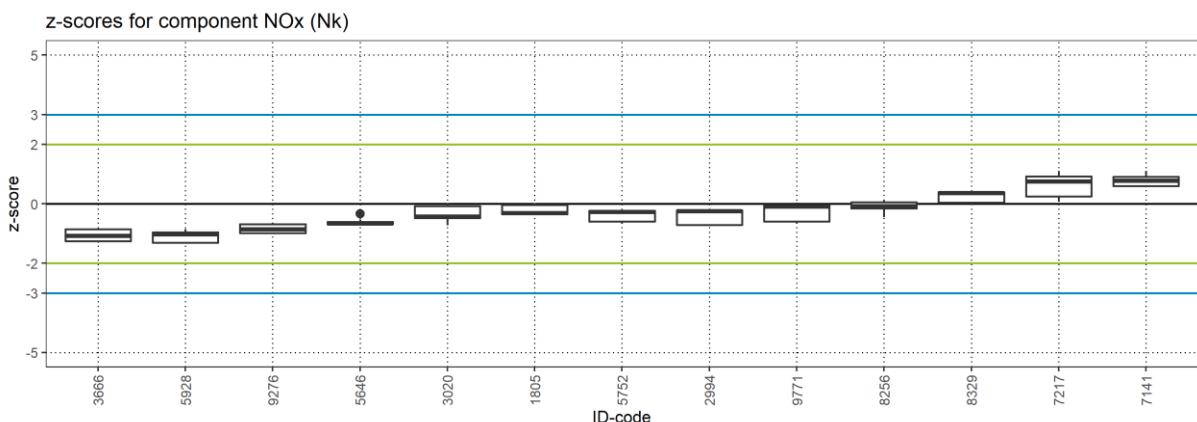
2.2 Substance Range G

achieved z-scores ordered by ID-codes and components



Scheme 2: z-scores for the substance range G (only z-scores in the range -5 ... 5 are displayed)

2.2.1 Nitrogen Oxides

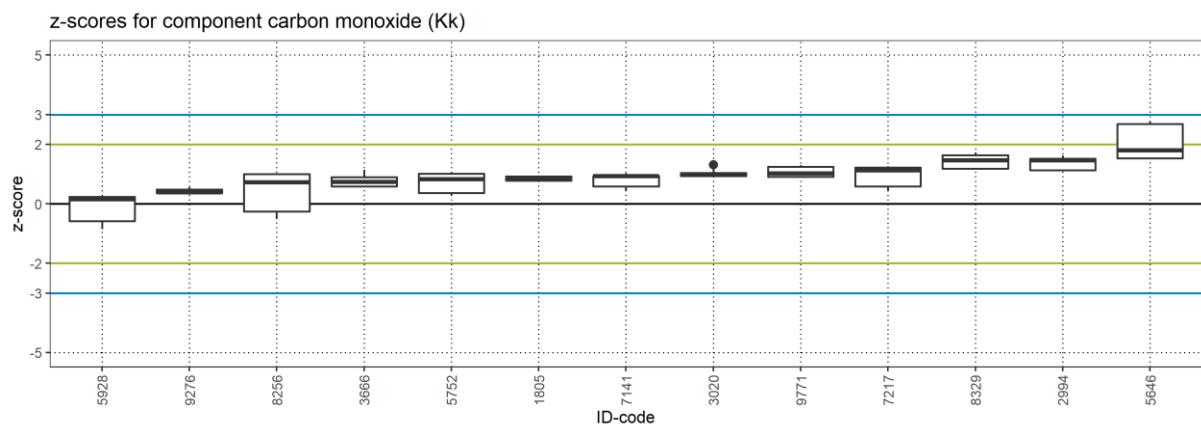


No.	Measurement ID	z-Score
1	Nk-2-1805	-0.38
2	Nk-3-1805	-0.35
3	Nk-4-1805	-0.33
4	Nk-5-1805	0.03
5	Nk-6-1805	0.03
6	Nk-7-1805	-0.04
7	Nk-8-1805	-0.39
8	Nk-9-1805	-0.32
9	Nk-10-1805	-0.16
10	Nk-2-2994	-0.22
11	Nk-3-2994	-0.20
12	Nk-4-2994	-0.22
13	Nk-5-2994	-0.22
14	Nk-6-2994	-0.24
15	Nk-7-2994	-0.26
16	Nk-8-2994	-0.71
17	Nk-9-2994	-0.71
18	Nk-10-2994	-0.71
19	Nk-2-3020	-0.48
20	Nk-3-3020	-0.43
21	Nk-4-3020	-0.48
22	Nk-5-3020	-0.07
23	Nk-6-3020	0.01
24	Nk-7-3020	-0.03
25	Nk-8-3020	-0.59
26	Nk-9-3020	-0.72
27	Nk-10-3020	-0.25
28	Nk-2-3666	-1.31
29	Nk-3-3666	-1.26
30	Nk-4-3666	-1.26
31	Nk-5-3666	-0.85
32	Nk-6-3666	-0.84

No.	Measurement ID	z-Score
33	Nk-7-3666	-0.81
34	Nk-8-3666	-1.28
35	Nk-9-3666	-1.07
36	Nk-10-3666	-0.99
37	Nk-2-5646	-0.68
38	Nk-3-5646	-0.65
39	Nk-4-5646	-0.68
40	Nk-5-5646	-0.68
41	Nk-6-5646	-0.61
42	Nk-7-5646	-0.70
43	Nk-8-5646	-0.62
44	Nk-9-5646	-0.54
45	Nk-10-5646	-0.34
46	Nk-2-5752	-0.22
47	Nk-3-5752	-0.20
48	Nk-4-5752	-0.24
49	Nk-5-5752	-0.24
50	Nk-6-5752	-0.35
51	Nk-7-5752	-0.28
52	Nk-8-5752	-0.60
53	Nk-9-5752	-0.67
54	Nk-10-5752	-0.64
55	Nk-2-5928	-0.85
56	Nk-3-5928	-0.94
57	Nk-4-5928	-0.95
58	Nk-5-5928	-1.02
59	Nk-6-5928	-1.03
60	Nk-7-5928	-1.00
61	Nk-8-5928	-1.31
62	Nk-9-5928	-1.34
63	Nk-10-5928	-1.31
64	Nk-2-6634	-/-

No.	Measurement ID	z-Score	No.	Measurement ID	z-Score
65	Nk-3-6634	-/-	96	Nk-7-8256	0.06
66	Nk-4-6634	-/-	97	Nk-8-8256	-0.46
67	Nk-5-6634	-/-	98	Nk-9-8256	-0.38
68	Nk-6-6634	-/-	99	Nk-10-8256	-0.16
69	Nk-7-6634	-/-	100	Nk-2-8329	0.34
70	Nk-8-6634	-/-	101	Nk-3-8329	0.39
71	Nk-9-6634	-/-	102	Nk-4-8329	0.38
72	Nk-10-6634	-/-	103	Nk-5-8329	0.39
73	Nk-2-7141	0.63	104	Nk-6-8329	0.37
74	Nk-3-7141	0.90	105	Nk-7-8329	0.39
75	Nk-4-7141	1.11	106	Nk-8-8329	0.00
76	Nk-5-7141	0.78	107	Nk-9-8329	0.04
77	Nk-6-7141	0.87	108	Nk-10-8329	-0.04
78	Nk-7-7141	0.94	109	Nk-2-9276	-1.01
79	Nk-8-7141	0.56	110	Nk-3-9276	-0.98
80	Nk-9-7141	0.60	111	Nk-4-9276	-0.96
81	Nk-10-7141	0.60	112	Nk-5-9276	-0.71
82	Nk-2-7217	1.11	113	Nk-6-9276	-0.65
83	Nk-3-7217	1.00	114	Nk-7-9276	-0.68
84	Nk-4-7217	0.92	115	Nk-8-9276	-0.98
85	Nk-5-7217	0.78	116	Nk-9-9276	-0.85
86	Nk-6-7217	0.76	117	Nk-10-9276	-0.68
87	Nk-7-7217	0.68	118	Nk-2-9771	-0.05
88	Nk-8-7217	0.25	119	Nk-3-9771	0.03
89	Nk-9-7217	0.14	120	Nk-4-9771	-0.03
90	Nk-10-7217	0.07	121	Nk-5-9771	-0.02
91	Nk-2-8256	-0.03	122	Nk-6-9771	-0.09
92	Nk-3-8256	-0.08	123	Nk-7-9771	-0.15
93	Nk-4-8256	-0.13	124	Nk-8-9771	-0.60
94	Nk-5-8256	0.10	125	Nk-9-9771	-0.67
95	Nk-6-8256	0.10	126	Nk-10-9771	-0.67

2.2.2 Carbon Monoxide



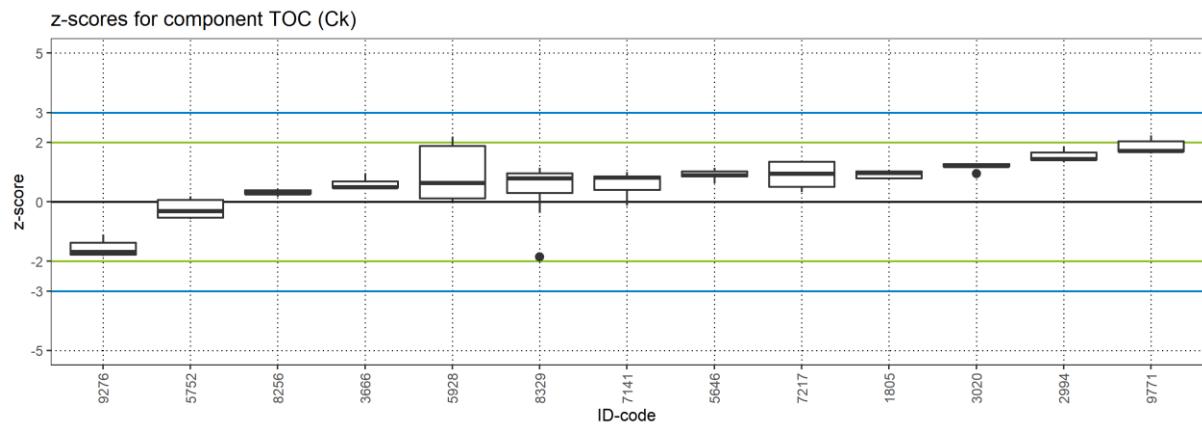
No.	Measurement ID	z-Score
1	Kk-2-1805	0.75
2	Kk-3-1805	0.78
3	Kk-4-1805	0.77
4	Kk-5-1805	0.92
5	Kk-6-1805	0.95
6	Kk-7-1805	0.91
7	Kk-8-1805	0.88
8	Kk-9-1805	0.85
9	Kk-10-1805	0.93
10	Kk-2-2994	1.49
11	Kk-3-2994	1.47
12	Kk-4-2994	1.43
13	Kk-5-2994	1.13
14	Kk-6-2994	1.11
15	Kk-7-2994	1.09
16	Kk-8-2994	1.62
17	Kk-9-2994	1.54
18	Kk-10-2994	1.52
19	Kk-2-3020	0.98
20	Kk-3-3020	0.94
21	Kk-4-3020	0.92
22	Kk-5-3020	1.03
23	Kk-6-3020	1.04
24	Kk-7-3020	1.00
25	Kk-8-3020	1.31
26	Kk-9-3020	1.17
27	Kk-10-3020	0.91
28	Kk-2-3666	0.56
29	Kk-3-3666	0.58
30	Kk-4-3666	0.57
31	Kk-5-3666	0.76
32	Kk-6-3666	0.75

No.	Measurement ID	z-Score
33	Kk-7-3666	0.73
34	Kk-8-3666	1.14
35	Kk-9-3666	1.14
36	Kk-10-3666	0.90
37	Kk-2-5646	1.51
38	Kk-3-5646	1.51
39	Kk-4-5646	1.54
40	Kk-5-5646	1.80
41	Kk-6-5646	1.82
42	Kk-7-5646	1.77
43	Kk-8-5646	2.71
44	Kk-9-5646	2.68
45	Kk-10-5646	2.76
46	Kk-2-5752	0.87
47	Kk-3-5752	0.83
48	Kk-4-5752	0.81
49	Kk-5-5752	1.03
50	Kk-6-5752	1.02
51	Kk-7-5752	1.01
52	Kk-8-5752	0.37
53	Kk-9-5752	0.34
54	Kk-10-5752	0.29
55	Kk-2-5928	0.23
56	Kk-3-5928	0.26
57	Kk-4-5928	0.24
58	Kk-5-5928	0.13
59	Kk-6-5928	0.23
60	Kk-7-5928	0.16
61	Kk-8-5928	-0.86
62	Kk-9-5928	-0.58
63	Kk-10-5928	-0.63
64	Kk-2-6634	-/-

No.	Measurement ID	z-Score
65	Kk-3-6634	-/-
66	Kk-4-6634	-/-
67	Kk-5-6634	-/-
68	Kk-6-6634	-/-
69	Kk-7-6634	-/-
70	Kk-8-6634	-/-
71	Kk-9-6634	-/-
72	Kk-10-6634	-/-
73	Kk-2-7141	0.94
74	Kk-3-7141	0.94
75	Kk-4-7141	0.97
76	Kk-5-7141	1.02
77	Kk-6-7141	0.93
78	Kk-7-7141	0.93
79	Kk-8-7141	0.43
80	Kk-9-7141	0.45
81	Kk-10-7141	0.58
82	Kk-2-7217	1.07
83	Kk-3-7217	1.13
84	Kk-4-7217	1.13
85	Kk-5-7217	1.21
86	Kk-6-7217	1.26
87	Kk-7-7217	1.25
88	Kk-8-7217	0.58
89	Kk-9-7217	0.46
90	Kk-10-7217	0.41
91	Kk-2-8256	1.03
92	Kk-3-8256	1.02
93	Kk-4-8256	1.00
94	Kk-5-8256	0.73
95	Kk-6-8256	0.76
96	Kk-7-8256	0.59
97	Kk-8-8256	-0.26
98	Kk-9-8256	-0.43
99	Kk-10-8256	-0.50
100	Kk-2-8329	1.68
101	Kk-3-8329	1.72
102	Kk-4-8329	1.64
103	Kk-5-8329	1.54
104	Kk-6-8329	1.43
105	Kk-7-8329	1.46
106	Kk-8-8329	1.18
107	Kk-9-8329	1.17
108	Kk-10-8329	1.15
109	Kk-2-9276	0.37
110	Kk-3-9276	0.36
111	Kk-4-9276	0.39
112	Kk-5-9276	0.48
113	Kk-6-9276	0.48
114	Kk-7-9276	0.43
115	Kk-8-9276	0.33
116	Kk-9-9276	0.37
117	Kk-10-9276	0.56
118	Kk-2-9771	1.03
119	Kk-3-9771	1.03
120	Kk-4-9771	0.96
121	Kk-5-9771	0.91
122	Kk-6-9771	0.89
123	Kk-7-9771	0.87
124	Kk-8-9771	1.30
125	Kk-9-9771	1.28
126	Kk-10-9771	1.24

2.2.3 TOC

2.2.3.1 Mixture ETX, Propane

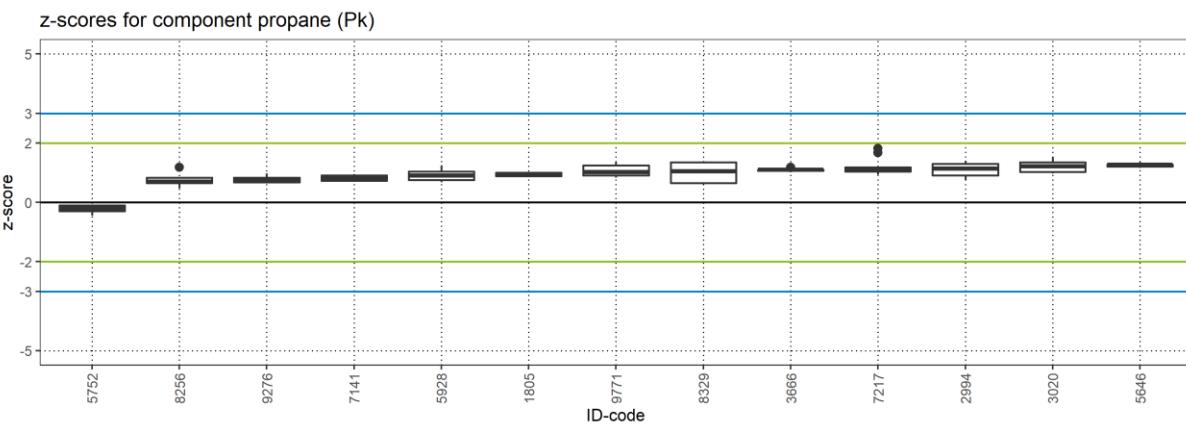


No.	Measurement ID	z-Score
1	Ck-2-1805	0.91
2	Ck-3-1805	1.02
3	Ck-4-1805	1.06
4	Ck-5-1805	1.08
5	Ck-6-1805	1.03
6	Ck-7-1805	0.97
7	Ck-8-1805	0.74
8	Ck-9-1805	0.79
9	Ck-10-1805	0.74
10	Ck-2-2994	1.50
11	Ck-3-2994	1.44
12	Ck-4-2994	1.43
13	Ck-5-2994	1.87
14	Ck-6-2994	1.86
15	Ck-7-2994	1.66
16	Ck-8-2994	1.41
17	Ck-9-2994	1.38
18	Ck-10-2994	1.33
19	Ck-2-3020	1.16
20	Ck-3-3020	1.27
21	Ck-4-3020	1.27
22	Ck-5-3020	1.20
23	Ck-6-3020	1.21
24	Ck-7-3020	1.21
25	Ck-8-3020	0.95
26	Ck-9-3020	1.19
27	Ck-10-3020	1.29
28	Ck-2-3666	0.95
29	Ck-3-3666	0.78
30	Ck-4-3666	0.69

No.	Measurement ID	z-Score
31	Ck-5-3666	0.46
32	Ck-6-3666	0.48
33	Ck-7-3666	0.42
34	Ck-8-3666	0.50
35	Ck-9-3666	0.48
36	Ck-10-3666	0.59
37	Ck-2-5646	0.62
38	Ck-3-5646	0.86
39	Ck-4-5646	0.90
40	Ck-5-5646	1.03
41	Ck-6-5646	1.15
42	Ck-7-5646	1.09
43	Ck-8-5646	0.83
44	Ck-9-5646	0.91
45	Ck-10-5646	0.90
46	Ck-2-5752	-0.53
47	Ck-3-5752	-0.54
48	Ck-4-5752	-0.59
49	Ck-5-5752	-0.19
50	Ck-6-5752	-0.32
51	Ck-7-5752	-0.31
52	Ck-8-5752	0.18
53	Ck-9-5752	0.06
54	Ck-10-5752	0.18
55	Ck-2-5928	2.19
56	Ck-3-5928	2.02
57	Ck-4-5928	1.89
58	Ck-5-5928	0.86
59	Ck-6-5928	0.64
60	Ck-7-5928	0.18

No.	Measurement ID	z-Score	No.	Measurement ID	z-Score
61	Ck-8-5928	0.12	94	Ck-5-8256	0.23
62	Ck-9-5928	0.00	95	Ck-6-8256	0.36
63	Ck-10-5928	0.06	96	Ck-7-8256	0.42
64	Ck-2-6634	-/-	97	Ck-8-8256	0.29
65	Ck-3-6634	-/-	98	Ck-9-8256	0.28
66	Ck-4-6634	-/-	99	Ck-10-8256	0.39
67	Ck-5-6634	-/-	100	Ck-2-8329	-/-
68	Ck-6-6634	-/-	101	Ck-3-8329	-1.86
69	Ck-7-6634	-/-	102	Ck-4-8329	-0.38
70	Ck-8-6634	-/-	103	Ck-5-8329	0.53
71	Ck-9-6634	-/-	104	Ck-6-8329	0.91
72	Ck-10-6634	-/-	105	Ck-7-8329	0.94
73	Ck-2-7141	0.41	106	Ck-8-8329	0.67
74	Ck-3-7141	0.82	107	Ck-9-8329	1.02
75	Ck-4-7141	0.96	108	Ck-10-8329	1.14
76	Ck-5-7141	0.82	109	Ck-2-9276	-1.37
77	Ck-6-7141	1.00	110	Ck-3-9276	-1.19
78	Ck-7-7141	0.85	111	Ck-4-9276	-1.10
79	Ck-8-7141	-0.12	112	Ck-5-9276	-1.48
80	Ck-9-7141	0.06	113	Ck-6-9276	-1.69
81	Ck-10-7141	0.42	114	Ck-7-9276	-1.75
82	Ck-2-7217	0.32	115	Ck-8-9276	-1.78
83	Ck-3-7217	0.41	116	Ck-9-9276	-1.83
84	Ck-4-7217	0.50	117	Ck-10-9276	-1.80
85	Ck-5-7217	1.01	118	Ck-2-9771	1.70
86	Ck-6-7217	0.95	119	Ck-3-9771	2.23
87	Ck-7-7217	0.90	120	Ck-4-9771	1.72
88	Ck-8-7217	1.35	121	Ck-5-9771	2.07
89	Ck-9-7217	1.38	122	Ck-6-9771	2.04
90	Ck-10-7217	1.39	123	Ck-7-9771	1.93
91	Ck-2-8256	0.29	124	Ck-8-9771	1.71
92	Ck-3-8256	0.16	125	Ck-9-9771	1.62
93	Ck-4-8256	0.41	126	Ck-10-9771	1.69

2.2.3.2 Propane

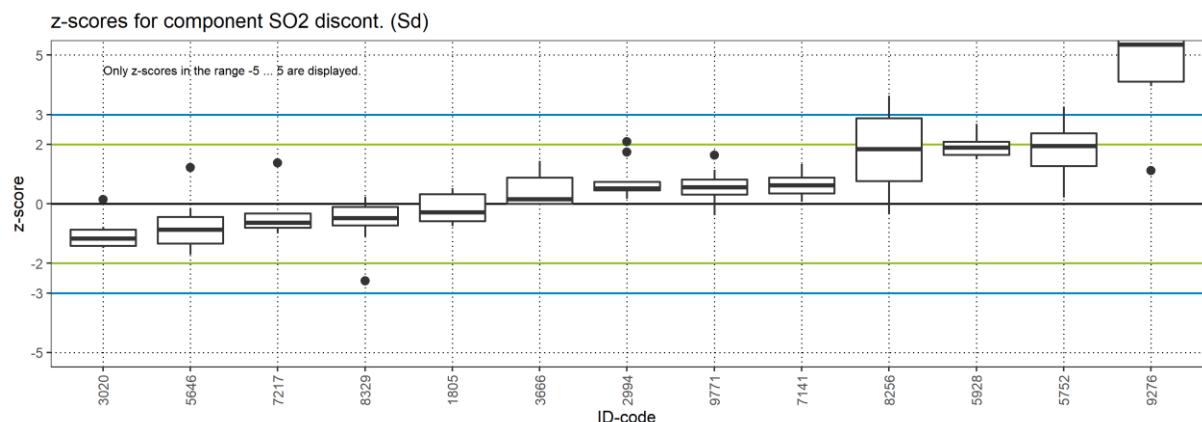


No.	Measurement ID	z-Score
1	Pk-2-1805	0.88
2	Pk-3-1805	0.88
3	Pk-4-1805	0.93
4	Pk-5-1805	0.84
5	Pk-6-1805	0.85
6	Pk-7-1805	1.02
7	Pk-8-1805	0.99
8	Pk-9-1805	0.94
9	Pk-10-1805	0.99
10	Pk-2-2994	1.24
11	Pk-3-2994	1.14
12	Pk-4-2994	0.93
13	Pk-5-2994	1.41
14	Pk-6-2994	1.37
15	Pk-7-2994	1.29
16	Pk-8-2994	0.90
17	Pk-9-2994	0.83
18	Pk-10-2994	0.76
19	Pk-2-3020	0.97
20	Pk-3-3020	0.97
21	Pk-4-3020	1.02
22	Pk-5-3020	1.35
23	Pk-6-3020	1.52
24	Pk-7-3020	1.52
25	Pk-8-3020	1.16
26	Pk-9-3020	1.27
27	Pk-10-3020	1.21
28	Pk-2-3666	1.07
29	Pk-3-3666	1.11
30	Pk-4-3666	1.07
31	Pk-5-3666	1.01
32	Pk-6-3666	1.02

No.	Measurement ID	z-Score
33	Pk-7-3666	1.19
34	Pk-8-3666	1.10
35	Pk-9-3666	1.10
36	Pk-10-3666	1.10
37	Pk-2-5646	1.16
38	Pk-3-5646	1.21
39	Pk-4-5646	1.20
40	Pk-5-5646	1.18
41	Pk-6-5646	1.35
42	Pk-7-5646	1.35
43	Pk-8-5646	1.27
44	Pk-9-5646	1.27
45	Pk-10-5646	1.27
46	Pk-2-5752	-0.10
47	Pk-3-5752	-0.10
48	Pk-4-5752	-0.10
49	Pk-5-5752	-0.19
50	Pk-6-5752	-0.19
51	Pk-7-5752	-0.27
52	Pk-8-5752	-0.45
53	Pk-9-5752	-0.30
54	Pk-10-5752	-0.45
55	Pk-2-5928	1.24
56	Pk-3-5928	1.24
57	Pk-4-5928	1.03
58	Pk-5-5928	0.99
59	Pk-6-5928	0.91
60	Pk-7-5928	0.87
61	Pk-8-5928	0.75
62	Pk-9-5928	0.68
63	Pk-10-5928	0.68
64	Pk-2-6634	-/-

No.	Measurement ID	z-Score
65	Pk-3-6634	-/-
66	Pk-4-6634	-/-
67	Pk-5-6634	-/-
68	Pk-6-6634	-/-
69	Pk-7-6634	-/-
70	Pk-8-6634	-/-
71	Pk-9-6634	-/-
72	Pk-10-6634	-/-
73	Pk-2-7141	0.72
74	Pk-3-7141	0.72
75	Pk-4-7141	0.72
76	Pk-5-7141	0.91
77	Pk-6-7141	0.91
78	Pk-7-7141	0.95
79	Pk-8-7141	0.83
80	Pk-9-7141	0.83
81	Pk-10-7141	0.76
82	Pk-2-7217	1.03
83	Pk-3-7217	1.14
84	Pk-4-7217	0.93
85	Pk-5-7217	0.99
86	Pk-6-7217	1.06
87	Pk-7-7217	1.18
88	Pk-8-7217	1.13
89	Pk-9-7217	1.67
90	Pk-10-7217	1.81
91	Pk-2-8256	0.65
92	Pk-3-8256	0.70
93	Pk-4-8256	0.46
94	Pk-5-8256	0.84
95	Pk-6-8256	0.68
96	Pk-7-8256	1.19
97	Pk-8-8256	0.77
98	Pk-9-8256	0.83
99	Pk-10-8256	0.55
100	Pk-2-8329	1.34
101	Pk-3-8329	1.34
102	Pk-4-8329	1.34
103	Pk-5-8329	0.65
104	Pk-6-8329	0.61
105	Pk-7-8329	0.65
106	Pk-8-8329	1.06
107	Pk-9-8329	1.06
108	Pk-10-8329	0.98
109	Pk-2-9276	0.97
110	Pk-3-9276	0.97
111	Pk-4-9276	0.83
112	Pk-5-9276	0.67
113	Pk-6-9276	0.68
114	Pk-7-9276	0.68
115	Pk-8-9276	0.77
116	Pk-9-9276	0.72
117	Pk-10-9276	0.77
118	Pk-2-9771	1.34
119	Pk-3-9771	1.34
120	Pk-4-9771	1.24
121	Pk-5-9771	1.06
122	Pk-6-9771	0.99
123	Pk-7-9771	1.03
124	Pk-8-9771	0.90
125	Pk-9-9771	0.83
126	Pk-10-9771	0.83

2.2.4 Sulphur Dioxide

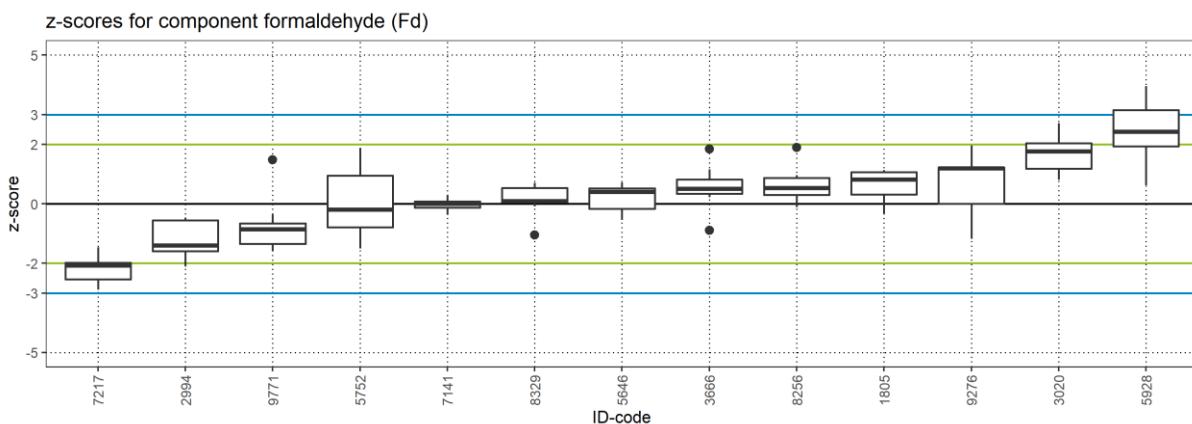


No.	Measurement ID	z-Score
1	Sd-2-1805	7.76
2	Sd-3-1805	-0.28
3	Sd-4-1805	0.52
4	Sd-5-1805	-0.69
5	Sd-6-1805	-0.44
6	Sd-7-1805	0.32
7	Sd-8-1805	-0.25
8	Sd-9-1805	-0.58
9	Sd-10-1805	-0.75
10	Sd-2-2994	0.17
11	Sd-3-2994	0.52
12	Sd-4-2994	0.52
13	Sd-5-2994	0.50
14	Sd-6-2994	0.74
15	Sd-7-2994	0.24
16	Sd-8-2994	0.46
17	Sd-9-2994	2.09
18	Sd-10-2994	1.74
19	Sd-2-3020	-0.86
20	Sd-3-3020	-1.46
21	Sd-4-3020	-1.03
22	Sd-5-3020	-1.41
23	Sd-6-3020	-1.33
24	Sd-7-3020	-0.78
25	Sd-8-3020	0.14
26	Sd-9-3020	-1.17
27	Sd-10-3020	-1.50
28	Sd-2-3666	0.15
29	Sd-3-3666	0.00
30	Sd-4-3666	0.15
31	Sd-5-3666	0.00
32	Sd-6-3666	1.45

No.	Measurement ID	z-Score
33	Sd-7-3666	0.26
34	Sd-8-3666	-0.04
35	Sd-9-3666	0.88
36	Sd-10-3666	1.07
37	Sd-2-5646	-0.86
38	Sd-3-5646	-0.14
39	Sd-4-5646	-0.44
40	Sd-5-5646	-1.34
41	Sd-6-5646	1.22
42	Sd-7-5646	-0.71
43	Sd-8-5646	-1.32
44	Sd-9-5646	-1.36
45	Sd-10-5646	-1.71
46	Sd-2-5752	0.22
47	Sd-3-5752	2.01
48	Sd-4-5752	2.38
49	Sd-5-5752	2.76
50	Sd-6-5752	0.21
51	Sd-7-5752	1.27
52	Sd-8-5752	1.94
53	Sd-9-5752	1.67
54	Sd-10-5752	3.27
55	Sd-2-5928	2.32
56	Sd-3-5928	1.65
57	Sd-4-5928	2.04
58	Sd-5-5928	1.69
59	Sd-6-5928	1.90
60	Sd-7-5928	2.69
61	Sd-8-5928	1.49
62	Sd-9-5928	2.09
63	Sd-10-5928	1.63
64	Sd-2-6634	-/-

No.	Measurement ID	z-Score	No.	Measurement ID	z-Score
65	Sd-3-6634	-/-	96	Sd-7-8256	3.63
66	Sd-4-6634	-/-	97	Sd-8-8256	1.82
67	Sd-5-6634	-/-	98	Sd-9-8256	2.24
68	Sd-6-6634	-/-	99	Sd-10-8256	2.88
69	Sd-7-6634	-/-	100	Sd-2-8329	-2.60
70	Sd-8-6634	-/-	101	Sd-3-8329	-1.10
71	Sd-9-6634	-/-	102	Sd-4-8329	-0.71
72	Sd-10-6634	-/-	103	Sd-5-8329	0.06
73	Sd-2-7141	0.22	104	Sd-6-8329	-0.11
74	Sd-3-7141	0.36	105	Sd-7-8329	-0.47
75	Sd-4-7141	1.33	106	Sd-8-8329	0.23
76	Sd-5-7141	0.06	107	Sd-9-8329	-0.73
77	Sd-6-7141	0.88	108	Sd-10-8329	-0.44
78	Sd-7-7141	0.55	109	Sd-2-9276	3.96
79	Sd-8-7141	1.14	110	Sd-3-9276	4.11
80	Sd-9-7141	0.63	111	Sd-4-9276	4.87
81	Sd-10-7141	0.65	112	Sd-5-9276	8.05
82	Sd-2-7217	-0.99	113	Sd-6-9276	1.11
83	Sd-3-7217	-0.81	114	Sd-7-9276	5.39
84	Sd-4-7217	-0.62	115	Sd-8-9276	7.83
85	Sd-5-7217	-0.88	116	Sd-9-9276	5.36
86	Sd-6-7217	-0.63	117	Sd-10-9276	5.87
87	Sd-7-7217	-0.79	118	Sd-2-9771	-0.39
88	Sd-8-7217	1.37	119	Sd-3-9771	-0.13
89	Sd-9-7217	-0.31	120	Sd-4-9771	0.81
90	Sd-10-7217	-0.33	121	Sd-5-9771	0.81
91	Sd-2-8256	0.76	122	Sd-6-9771	0.46
92	Sd-3-8256	-0.35	123	Sd-7-9771	0.55
93	Sd-4-8256	1.85	124	Sd-8-9771	1.14
94	Sd-5-8256	0.76	125	Sd-9-9771	0.31
95	Sd-6-8256	2.89	126	Sd-10-9771	1.63

2.2.5 Formaldehyde

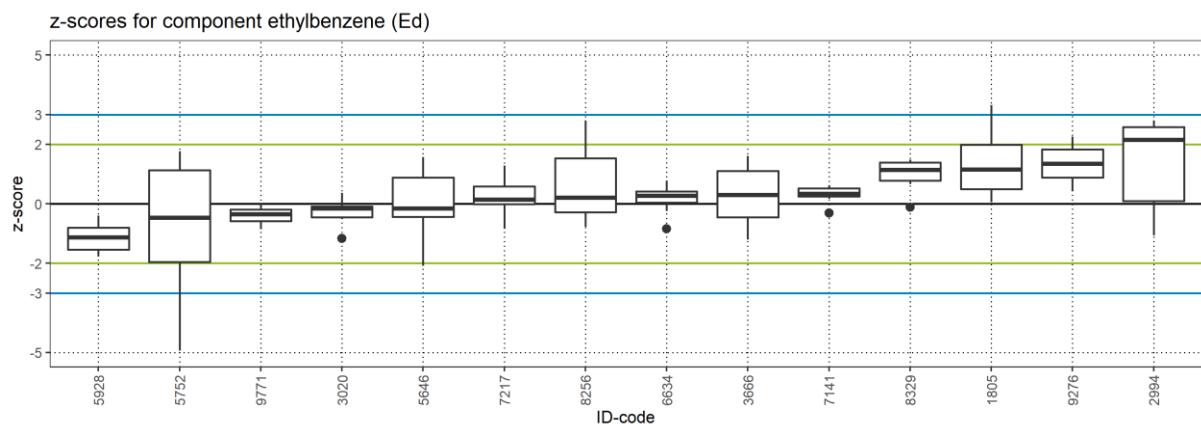


No.	Measurement ID	z-Score
1	Fd-2-1805	1.11
2	Fd-3-1805	1.06
3	Fd-4-1805	0.62
4	Fd-5-1805	1.13
5	Fd-6-1805	0.86
6	Fd-7-1805	0.81
7	Fd-8-1805	0.31
8	Fd-9-1805	-0.34
9	Fd-10-1805	0.14
10	Fd-2-2994	-1.25
11	Fd-3-2994	-0.56
12	Fd-4-2994	-0.49
13	Fd-5-2994	-0.47
14	Fd-6-2994	-1.54
15	Fd-7-2994	-1.40
16	Fd-8-2994	-2.11
17	Fd-9-2994	-1.59
18	Fd-10-2994	-2.00
19	Fd-2-3020	1.12
20	Fd-3-3020	1.63
21	Fd-4-3020	1.18
22	Fd-5-3020	2.20
23	Fd-6-3020	2.72
24	Fd-7-3020	1.77
25	Fd-8-3020	1.88
26	Fd-9-3020	2.04
27	Fd-10-3020	0.80
28	Fd-2-3666	0.22
29	Fd-3-3666	0.50
30	Fd-4-3666	0.64
31	Fd-5-3666	1.84
32	Fd-6-3666	1.16

No.	Measurement ID	z-Score
33	Fd-7-3666	0.81
34	Fd-8-3666	-0.89
35	Fd-9-3666	0.34
36	Fd-10-3666	0.43
37	Fd-2-5646	-0.22
38	Fd-3-5646	0.47
39	Fd-4-5646	0.56
40	Fd-5-5646	0.72
41	Fd-6-5646	0.40
42	Fd-7-5646	0.53
43	Fd-8-5646	0.17
44	Fd-9-5646	-0.17
45	Fd-10-5646	-0.55
46	Fd-2-5752	1.09
47	Fd-3-5752	0.95
48	Fd-4-5752	1.87
49	Fd-5-5752	-0.19
50	Fd-6-5752	0.27
51	Fd-7-5752	-1.50
52	Fd-8-5752	-0.79
53	Fd-9-5752	-0.42
54	Fd-10-5752	-0.95
55	Fd-2-5928	0.63
56	Fd-3-5928	1.38
57	Fd-4-5928	2.10
58	Fd-5-5928	1.93
59	Fd-6-5928	2.42
60	Fd-7-5928	3.15
61	Fd-8-5928	3.10
62	Fd-9-5928	3.68
63	Fd-10-5928	3.95
64	Fd-2-6634	-/-

No.	Measurement ID	z-Score
65	Fd-3-6634	-/-
66	Fd-4-6634	-/-
67	Fd-5-6634	-/-
68	Fd-6-6634	-/-
69	Fd-7-6634	-/-
70	Fd-8-6634	-/-
71	Fd-9-6634	-/-
72	Fd-10-6634	-/-
73	Fd-2-7141	-0.38
74	Fd-3-7141	-0.34
75	Fd-4-7141	0.00
76	Fd-5-7141	-0.08
77	Fd-6-7141	0.30
78	Fd-7-7141	0.08
79	Fd-8-7141	0.23
80	Fd-9-7141	-0.13
81	Fd-10-7141	0.03
82	Fd-2-7217	-1.46
83	Fd-3-7217	-1.81
84	Fd-4-7217	-2.01
85	Fd-5-7217	-2.07
86	Fd-6-7217	-1.98
87	Fd-7-7217	-2.54
88	Fd-8-7217	-2.88
89	Fd-9-7217	-2.80
90	Fd-10-7217	-2.54
91	Fd-2-8256	0.30
92	Fd-3-8256	0.54
93	Fd-4-8256	0.87
94	Fd-5-8256	1.89
95	Fd-6-8256	0.65
96	Fd-7-8256	0.96
97	Fd-8-8256	-0.12
98	Fd-9-8256	0.36
99	Fd-10-8256	0.23
100	Fd-2-8329	-1.05
101	Fd-3-8329	-0.09
102	Fd-4-8329	0.09
103	Fd-5-8329	0.06
104	Fd-6-8329	0.11
105	Fd-7-8329	0.53
106	Fd-8-8329	0.09
107	Fd-9-8329	0.59
108	Fd-10-8329	0.71
109	Fd-2-9276	1.22
110	Fd-3-9276	-1.18
111	Fd-4-9276	1.16
112	Fd-5-9276	0.00
113	Fd-6-9276	1.36
114	Fd-7-9276	1.96
115	Fd-8-9276	1.20
116	Fd-9-9276	1.19
117	Fd-10-9276	-0.30
118	Fd-2-9771	-1.05
119	Fd-3-9771	-0.82
120	Fd-4-9771	1.47
121	Fd-5-9771	-1.58
122	Fd-6-9771	-1.35
123	Fd-7-9771	-0.36
124	Fd-8-9771	-1.49
125	Fd-9-9771	-0.66
126	Fd-10-9771	-0.86

2.2.6 Ethylbenzene

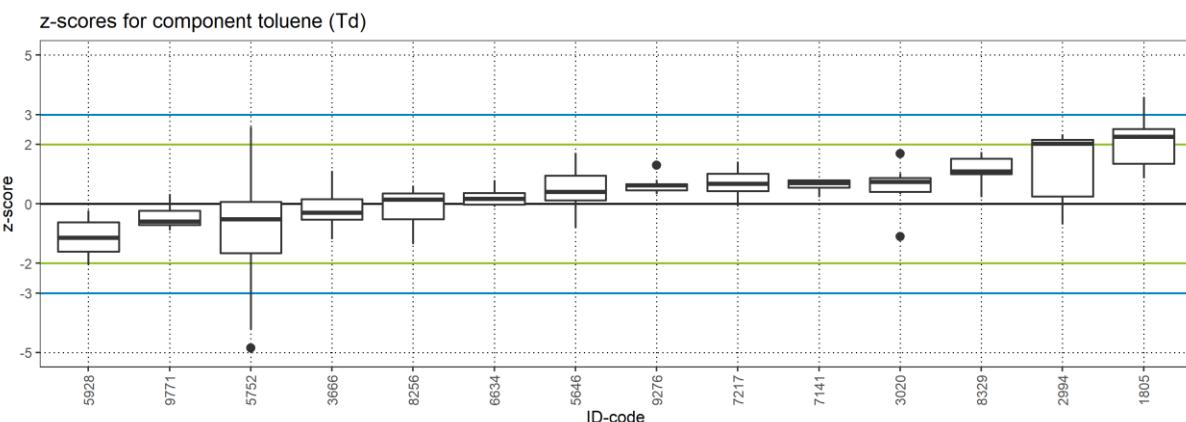


No.	Measurement ID	z-Score
1	Ed-2-1805	1.78
2	Ed-3-1805	3.32
3	Ed-4-1805	3.03
4	Ed-5-1805	0.50
5	Ed-6-1805	1.01
6	Ed-7-1805	1.99
7	Ed-8-1805	0.05
8	Ed-9-1805	0.46
9	Ed-10-1805	1.16
10	Ed-2-2994	-1.07
11	Ed-3-2994	-0.73
12	Ed-4-2994	0.09
13	Ed-5-2994	2.65
14	Ed-6-2994	2.58
15	Ed-7-2994	1.18
16	Ed-8-2994	2.81
17	Ed-9-2994	2.31
18	Ed-10-2994	2.16
19	Ed-2-3020	-0.20
20	Ed-3-3020	0.30
21	Ed-4-3020	-0.13
22	Ed-5-3020	0.37
23	Ed-6-3020	-0.15
24	Ed-7-3020	-1.17
25	Ed-8-3020	-0.45
26	Ed-9-3020	-0.50
27	Ed-10-3020	-0.09
28	Ed-2-3666	1.60
29	Ed-3-3666	1.33
30	Ed-4-3666	1.10
31	Ed-5-3666	-0.94
32	Ed-6-3666	-0.05

No.	Measurement ID	z-Score
33	Ed-7-3666	0.58
34	Ed-8-3666	0.30
35	Ed-9-3666	-0.45
36	Ed-10-3666	-1.20
37	Ed-2-5646	0.89
38	Ed-3-5646	0.13
39	Ed-4-5646	1.57
40	Ed-5-5646	0.98
41	Ed-6-5646	-0.15
42	Ed-7-5646	-0.30
43	Ed-8-5646	-0.74
44	Ed-9-5646	-0.44
45	Ed-10-5646	-2.08
46	Ed-2-5752	-0.47
47	Ed-3-5752	1.76
48	Ed-4-5752	-0.60
49	Ed-5-5752	-1.95
50	Ed-6-5752	-4.94
51	Ed-7-5752	-4.30
52	Ed-8-5752	1.12
53	Ed-9-5752	1.50
54	Ed-10-5752	0.47
55	Ed-2-5928	-1.78
56	Ed-3-5928	-1.50
57	Ed-4-5928	-1.54
58	Ed-5-5928	-1.69
59	Ed-6-5928	-0.41
60	Ed-7-5928	-1.12
61	Ed-8-5928	-0.96
62	Ed-9-5928	-0.81
63	Ed-10-5928	-0.67
64	Ed-2-6634	0.14

No.	Measurement ID	z-Score	No.	Measurement ID	z-Score
65	Ed-3-6634	0.41	96	Ed-7-8256	1.23
66	Ed-4-6634	0.35	97	Ed-8-8256	-0.22
67	Ed-5-6634	0.42	98	Ed-9-8256	-0.63
68	Ed-6-6634	0.20	99	Ed-10-8256	-0.78
69	Ed-7-6634	0.78	100	Ed-2-8329	1.42
70	Ed-8-6634	-0.24	101	Ed-3-8329	1.14
71	Ed-9-6634	-0.85	102	Ed-4-8329	0.66
72	Ed-10-6634	-/-	103	Ed-5-8329	1.48
73	Ed-2-7141	0.60	104	Ed-6-8329	1.15
74	Ed-3-7141	0.17	105	Ed-7-8329	-0.12
75	Ed-4-7141	0.35	106	Ed-8-8329	1.32
76	Ed-5-7141	0.32	107	Ed-9-8329	1.39
77	Ed-6-7141	0.63	108	Ed-10-8329	0.78
78	Ed-7-7141	0.49	109	Ed-2-9276	2.25
79	Ed-8-7141	-/-	110	Ed-3-9276	0.53
80	Ed-9-7141	-0.31	111	Ed-4-9276	0.43
81	Ed-10-7141	0.27	112	Ed-5-9276	0.88
82	Ed-2-7217	0.14	113	Ed-6-9276	1.34
83	Ed-3-7217	0.93	114	Ed-7-9276	1.35
84	Ed-4-7217	0.01	115	Ed-8-9276	1.83
85	Ed-5-7217	0.58	116	Ed-9-9276	1.90
86	Ed-6-7217	-0.01	117	Ed-10-9276	1.60
87	Ed-7-7217	-0.08	118	Ed-2-9771	-0.85
88	Ed-8-7217	1.28	119	Ed-3-9771	-0.58
89	Ed-9-7217	-0.85	120	Ed-4-9771	-0.28
90	Ed-10-7217	0.24	121	Ed-5-9771	-0.53
91	Ed-2-8256	2.80	122	Ed-6-9771	-0.35
92	Ed-3-8256	2.19	123	Ed-7-9771	-0.76
93	Ed-4-8256	1.53	124	Ed-8-9771	0.00
94	Ed-5-8256	-0.28	125	Ed-9-9771	-0.19
95	Ed-6-8256	0.21	126	Ed-10-9771	-0.08

2.2.7 Toluene

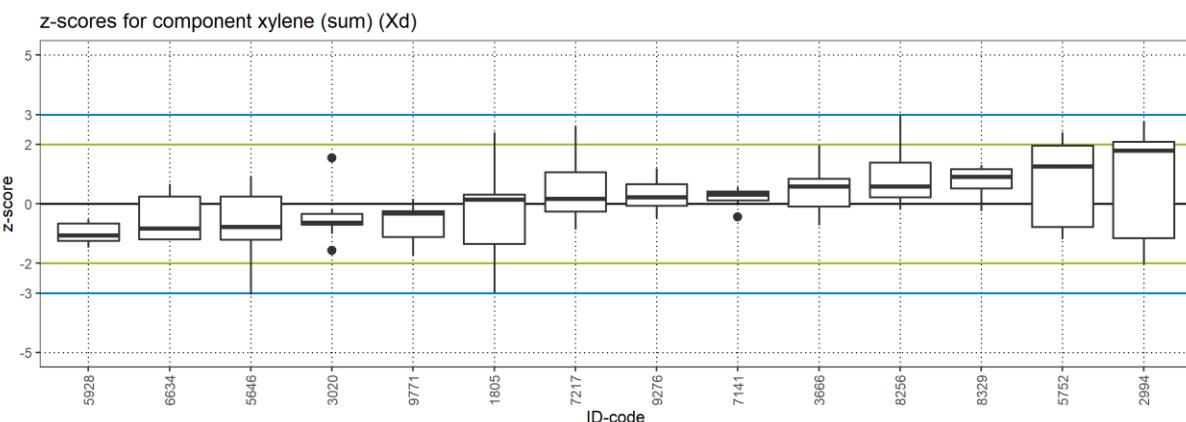


No.	Measurement ID	z-Score
1	Td-2-1805	1.35
2	Td-3-1805	3.49
3	Td-4-1805	2.51
4	Td-5-1805	0.86
5	Td-6-1805	2.26
6	Td-7-1805	2.45
7	Td-8-1805	1.15
8	Td-9-1805	1.95
9	Td-10-1805	3.60
10	Td-2-2994	-0.69
11	Td-3-2994	-0.40
12	Td-4-2994	0.45
13	Td-5-2994	2.03
14	Td-6-2994	2.16
15	Td-7-2994	0.25
16	Td-8-2994	2.15
17	Td-9-2994	2.34
18	Td-10-2994	2.11
19	Td-2-3020	0.75
20	Td-3-3020	0.86
21	Td-4-3020	0.40
22	Td-5-3020	1.68
23	Td-6-3020	0.73
24	Td-7-3020	-1.10
25	Td-8-3020	0.59
26	Td-9-3020	0.33
27	Td-10-3020	1.02
28	Td-2-3666	0.15
29	Td-3-3666	-0.30
30	Td-4-3666	-1.06
31	Td-5-3666	-1.19
32	Td-6-3666	-0.53

No.	Measurement ID	z-Score
33	Td-7-3666	0.20
34	Td-8-3666	-0.23
35	Td-9-3666	-0.33
36	Td-10-3666	1.10
37	Td-2-5646	1.08
38	Td-3-5646	0.48
39	Td-4-5646	1.71
40	Td-5-5646	0.95
41	Td-6-5646	0.34
42	Td-7-5646	0.41
43	Td-8-5646	0.04
44	Td-9-5646	0.12
45	Td-10-5646	-0.82
46	Td-2-5752	-0.19
47	Td-3-5752	2.59
48	Td-4-5752	0.06
49	Td-5-5752	-1.66
50	Td-6-5752	-4.85
51	Td-7-5752	-4.23
52	Td-8-5752	-0.52
53	Td-9-5752	0.15
54	Td-10-5752	-1.25
55	Td-2-5928	-2.04
56	Td-3-5928	-1.72
57	Td-4-5928	-1.60
58	Td-5-5928	-1.52
59	Td-6-5928	-0.62
60	Td-7-5928	-1.14
61	Td-8-5928	-0.65
62	Td-9-5928	-0.53
63	Td-10-5928	-0.23
64	Td-2-6634	-0.04

No.	Measurement ID	z-Score
65	Td-3-6634	-0.02
66	Td-4-6634	0.16
67	Td-5-6634	0.17
68	Td-6-6634	-0.10
69	Td-7-6634	0.80
70	Td-8-6634	0.75
71	Td-9-6634	0.24
72	Td-10-6634	-/-
73	Td-2-7141	0.79
74	Td-3-7141	0.36
75	Td-4-7141	0.61
76	Td-5-7141	0.74
77	Td-6-7141	0.82
78	Td-7-7141	0.66
79	Td-8-7141	-/-
80	Td-9-7141	0.22
81	Td-10-7141	0.79
82	Td-2-7217	0.42
83	Td-3-7217	0.98
84	Td-4-7217	0.39
85	Td-5-7217	1.01
86	Td-6-7217	0.68
87	Td-7-7217	1.15
88	Td-8-7217	1.41
89	Td-9-7217	-0.09
90	Td-10-7217	0.56
91	Td-2-8256	0.60
92	Td-3-8256	-0.08
93	Td-4-8256	-0.52
94	Td-5-8256	-1.35
95	Td-6-8256	-0.88
96	Td-7-8256	0.26
97	Td-8-8256	0.51
98	Td-9-8256	0.35
99	Td-10-8256	0.14
100	Td-2-8329	1.73
101	Td-3-8329	1.42
102	Td-4-8329	0.99
103	Td-5-8329	1.52
104	Td-6-8329	1.09
105	Td-7-8329	0.22
106	Td-8-8329	1.06
107	Td-9-8329	1.53
108	Td-10-8329	0.59
109	Td-2-9276	1.30
110	Td-3-9276	0.45
111	Td-4-9276	0.62
112	Td-5-9276	0.40
113	Td-6-9276	0.57
114	Td-7-9276	0.80
115	Td-8-9276	0.66
116	Td-9-9276	0.66
117	Td-10-9276	0.33
118	Td-2-9771	-0.23
119	Td-3-9771	0.02
120	Td-4-9771	0.32
121	Td-5-9771	-0.60
122	Td-6-9771	-0.57
123	Td-7-9771	-0.89
124	Td-8-9771	-0.71
125	Td-9-9771	-0.77
126	Td-10-9771	-0.60

2.2.8 Sum of Xylenes



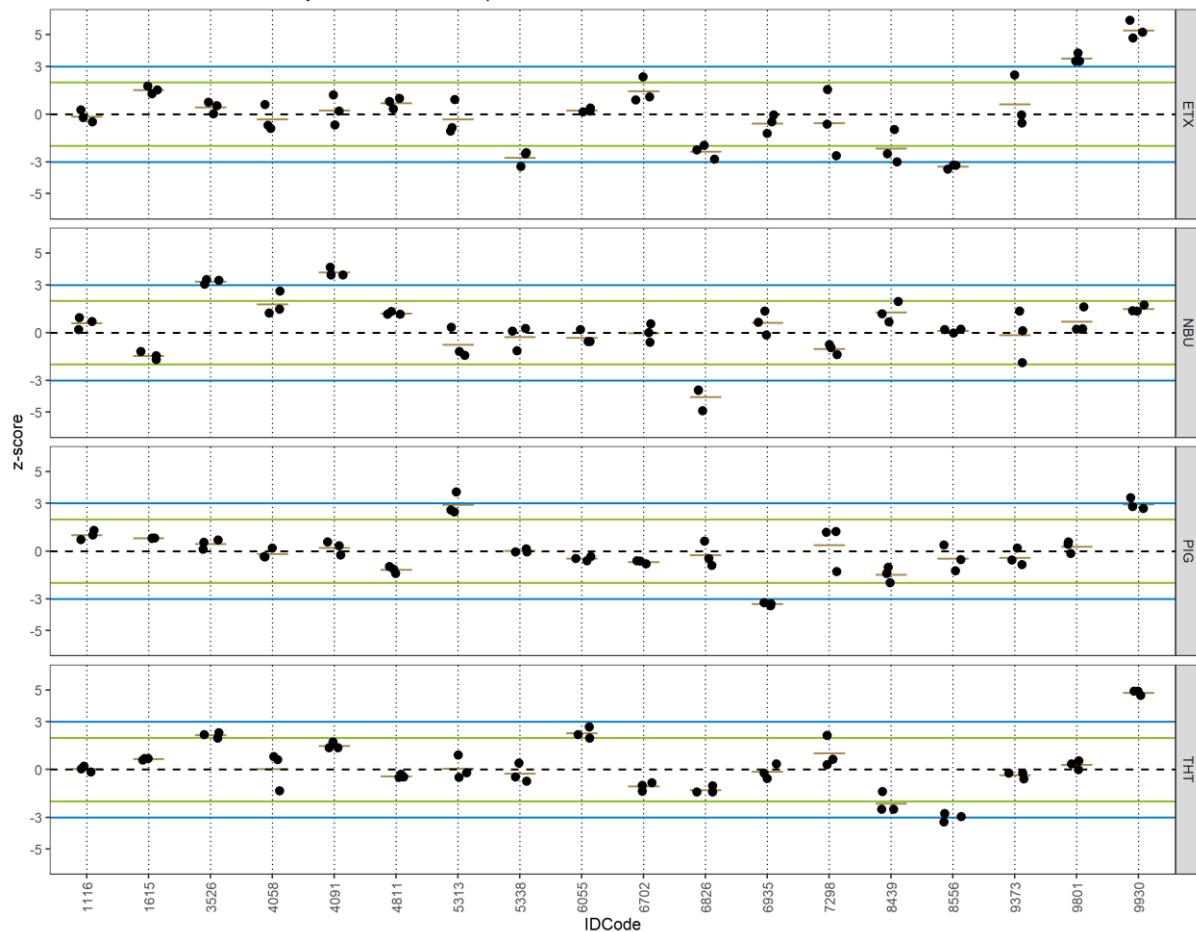
No.	Measurement ID	z-Score
1	Xd-2-1805	0.32
2	Xd-3-1805	2.39
3	Xd-4-1805	1.04
4	Xd-5-1805	-2.99
5	Xd-6-1805	-1.11
6	Xd-7-1805	-1.71
7	Xd-8-1805	-1.35
8	Xd-9-1805	0.14
9	Xd-10-1805	0.16
10	Xd-2-2994	-2.02
11	Xd-3-2994	-1.90
12	Xd-4-2994	-1.15
13	Xd-5-2994	2.77
14	Xd-6-2994	2.09
15	Xd-7-2994	1.78
16	Xd-8-2994	2.36
17	Xd-9-2994	1.94
18	Xd-10-2994	1.80
19	Xd-2-3020	-0.66
20	Xd-3-3020	-0.19
21	Xd-4-3020	-0.64
22	Xd-5-3020	1.55
23	Xd-6-3020	-0.34
24	Xd-7-3020	-1.57
25	Xd-8-3020	-1.01
26	Xd-9-3020	-0.70
27	Xd-10-3020	-0.43
28	Xd-2-3666	0.98
29	Xd-3-3666	0.58
30	Xd-4-3666	-0.08
31	Xd-5-3666	0.84
32	Xd-6-3666	0.64

No.	Measurement ID	z-Score
33	Xd-7-3666	1.97
34	Xd-8-3666	0.21
35	Xd-9-3666	-0.28
36	Xd-10-3666	-0.72
37	Xd-2-5646	0.25
38	Xd-3-5646	-0.60
39	Xd-4-5646	0.92
40	Xd-5-5646	0.93
41	Xd-6-5646	-0.77
42	Xd-7-5646	-0.97
43	Xd-8-5646	-1.65
44	Xd-9-5646	-1.21
45	Xd-10-5646	-3.06
46	Xd-2-5752	-0.63
47	Xd-3-5752	1.95
48	Xd-4-5752	-0.92
49	Xd-5-5752	2.14
50	Xd-6-5752	-1.20
51	Xd-7-5752	-0.78
52	Xd-8-5752	1.95
53	Xd-9-5752	2.40
54	Xd-10-5752	1.26
55	Xd-2-5928	-1.39
56	Xd-3-5928	-1.15
57	Xd-4-5928	-1.25
58	Xd-5-5928	-0.77
59	Xd-6-5928	-0.53
60	Xd-7-5928	-1.48
61	Xd-8-5928	-1.07
62	Xd-9-5928	-0.65
63	Xd-10-5928	-0.60
64	Xd-2-6634	0.67

No.	Measurement ID	z-Score	No.	Measurement ID	z-Score
65	Xd-3-6634	0.24	96	Xd-7-8256	2.98
66	Xd-4-6634	0.24	97	Xd-8-8256	0.58
67	Xd-5-6634	-1.23	98	Xd-9-8256	0.18
68	Xd-6-6634	-0.86	99	Xd-10-8256	0.22
69	Xd-7-6634	-1.18	100	Xd-2-8329	1.30
70	Xd-8-6634	-0.79	101	Xd-3-8329	0.93
71	Xd-9-6634	-1.22	102	Xd-4-8329	0.91
72	Xd-10-6634	-/-	103	Xd-5-8329	1.26
73	Xd-2-7141	0.43	104	Xd-6-8329	1.17
74	Xd-3-7141	0.15	105	Xd-7-8329	-0.24
75	Xd-4-7141	0.56	106	Xd-8-8329	0.52
76	Xd-5-7141	0.03	107	Xd-9-8329	0.61
77	Xd-6-7141	0.42	108	Xd-10-8329	0.33
78	Xd-7-7141	0.32	109	Xd-2-9276	1.19
79	Xd-8-7141	-/-	110	Xd-3-9276	-0.07
80	Xd-9-7141	-0.44	111	Xd-4-9276	0.22
81	Xd-10-7141	0.31	112	Xd-5-9276	-0.48
82	Xd-2-7217	-0.51	113	Xd-6-9276	-0.34
83	Xd-3-7217	-0.25	114	Xd-7-9276	0.00
84	Xd-4-7217	-0.87	115	Xd-8-9276	0.66
85	Xd-5-7217	1.06	116	Xd-9-9276	0.83
86	Xd-6-7217	0.17	117	Xd-10-9276	0.59
87	Xd-7-7217	0.32	118	Xd-2-9771	-1.76
88	Xd-8-7217	2.59	119	Xd-3-9771	-1.45
89	Xd-9-7217	-0.02	120	Xd-4-9771	-1.11
90	Xd-10-7217	1.42	121	Xd-5-9771	0.11
91	Xd-2-8256	0.74	122	Xd-6-9771	0.17
92	Xd-3-8256	0.24	123	Xd-7-9771	-0.32
93	Xd-4-8256	-0.20	124	Xd-8-9771	-0.32
94	Xd-5-8256	1.38	125	Xd-9-9771	-0.37
95	Xd-6-8256	1.45	126	Xd-10-9771	-0.24

2.3 Substance Range 0

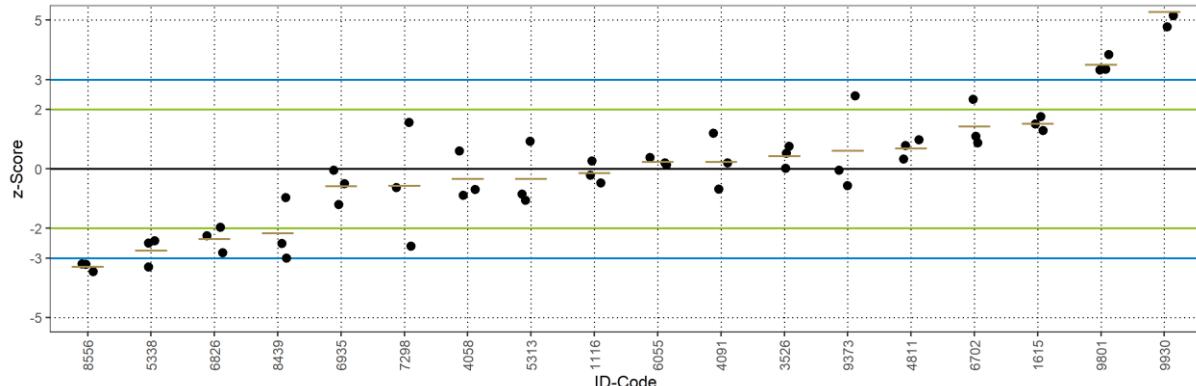
achieved z-scores ordered by ID-codes and components



Scheme 3: z-scores for the substance range 0 (only z-scores in the range -5 ... 5 are displayed)

2.3.1 Solvent mixture (ETX)

z-scores for component ETX

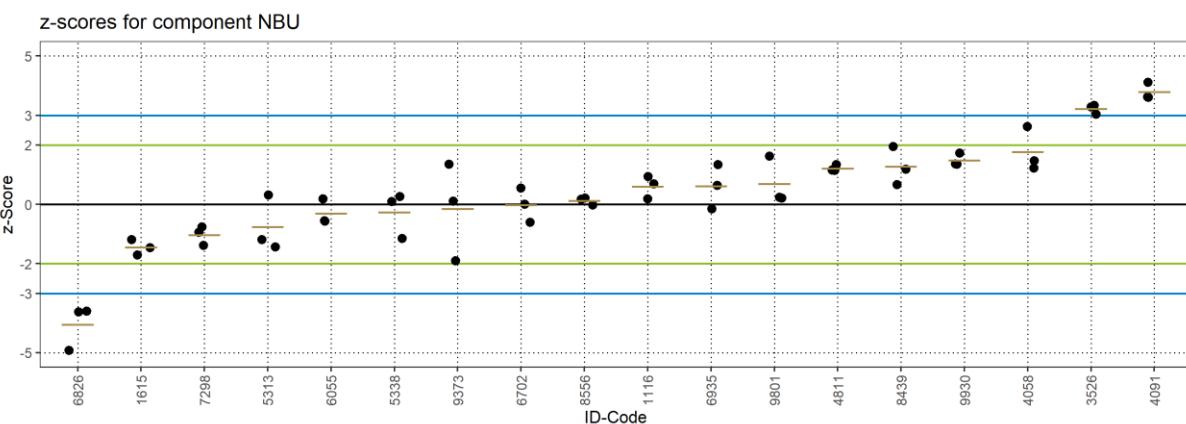


No.	Measurement ID	z-Score
1	ETX-1-1116	-0.48
2	ETX-2-1116	0.27
3	ETX-3-1116	-0.22

No.	Measurement ID	z-Score
4	ETX-1-1615	1.76
5	ETX-2-1615	1.28
6	ETX-3-1615	1.51

No.	Measurement ID	z-Score
7	ETX-1-3526	0.75
8	ETX-2-3526	0.02
9	ETX-3-3526	0.51
10	ETX-1-4058	0.60
11	ETX-2-4058	-0.90
12	ETX-3-4058	-0.70
13	ETX-1-4091	1.20
14	ETX-2-4091	0.19
15	ETX-3-4091	-0.69
16	ETX-1-4811	0.97
17	ETX-2-4811	0.33
18	ETX-3-4811	0.78
19	ETX-1-5313	0.92
20	ETX-2-5313	-0.85
21	ETX-3-5313	-1.06
22	ETX-1-5338	-2.51
23	ETX-2-5338	-2.42
24	ETX-3-5338	-3.30
25	ETX-1-6055	0.37
26	ETX-2-6055	0.13
27	ETX-3-6055	0.19
28	ETX-1-6702	2.34
29	ETX-2-6702	1.09
30	ETX-3-6702	0.88
31	ETX-1-6826	-1.97
32	ETX-2-6826	-2.83
33	ETX-3-6826	-2.26
34	ETX-1-6935	-0.05
35	ETX-2-6935	-1.21
36	ETX-3-6935	-0.50
37	ETX-1-7298	-0.64
38	ETX-2-7298	1.55
39	ETX-3-7298	-2.61
40	ETX-1-8439	-3.00
41	ETX-2-8439	-0.98
42	ETX-3-8439	-2.51
43	ETX-1-8556	-3.21
44	ETX-2-8556	-3.20
45	ETX-3-8556	-3.46
46	ETX-1-9373	2.45
47	ETX-2-9373	-0.05
48	ETX-3-9373	-0.57
49	ETX-1-9801	3.33
50	ETX-2-9801	3.34
51	ETX-3-9801	3.84
52	ETX-1-9930	5.90
53	ETX-2-9930	5.14
54	ETX-3-9930	4.77

2.3.2 n-Butanol



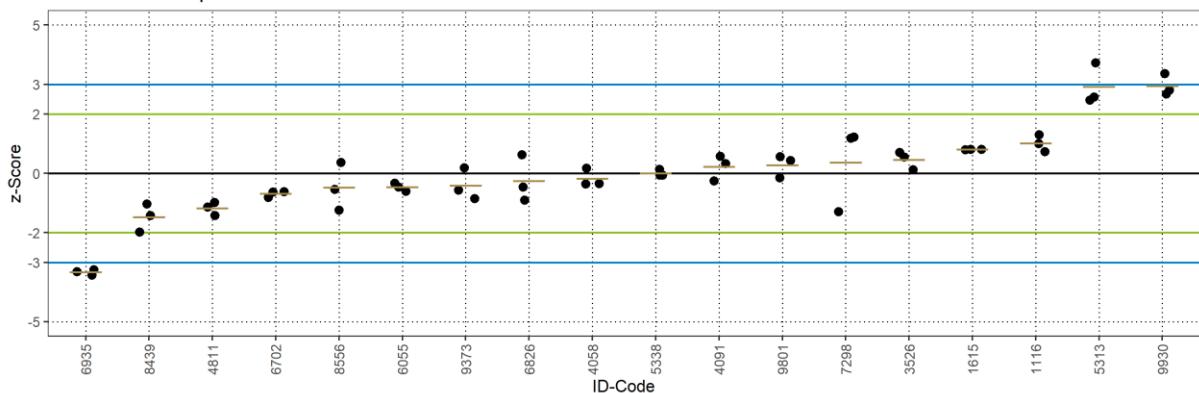
No.	Measurement ID	z-Score
1	NBU-1-1116	0.93
2	NBU-2-1116	0.18
3	NBU-3-1116	0.69
4	NBU-1-1615	-1.46

No.	Measurement ID	z-Score
5	NBU-2-1615	-1.19
6	NBU-3-1615	-1.71
7	NBU-1-3526	3.33
8	NBU-2-3526	3.03

No.	Measurement ID	z-Score
9	NBU-3-3526	3.28
10	NBU-1-4058	2.61
11	NBU-2-4058	1.22
12	NBU-3-4058	1.47
13	NBU-1-4091	4.11
14	NBU-2-4091	3.62
15	NBU-3-4091	3.61
16	NBU-1-4811	1.33
17	NBU-2-4811	1.15
18	NBU-3-4811	1.14
19	NBU-1-5313	0.32
20	NBU-2-5313	-1.19
21	NBU-3-5313	-1.44
22	NBU-1-5338	-1.15
23	NBU-2-5338	0.26
24	NBU-3-5338	0.09
25	NBU-1-6055	0.18
26	NBU-2-6055	-0.56
27	NBU-3-6055	-0.57
28	NBU-1-6702	0.54
29	NBU-2-6702	-0.61
30	NBU-3-6702	0.00
31	NBU-1-6826	-3.60
32	NBU-2-6826	-4.92
33	NBU-3-6826	-3.63
34	NBU-1-6935	-0.15
35	NBU-2-6935	0.63
36	NBU-3-6935	1.34
37	NBU-1-7298	-0.94
38	NBU-2-7298	-1.39
39	NBU-3-7298	-0.77
40	NBU-1-8439	1.95
41	NBU-2-8439	0.67
42	NBU-3-8439	1.19
43	NBU-1-8556	0.18
44	NBU-2-8556	0.21
45	NBU-3-8556	-0.02
46	NBU-1-9373	-1.91
47	NBU-2-9373	0.11
48	NBU-3-9373	1.35
49	NBU-1-9801	1.62
50	NBU-2-9801	0.24
51	NBU-3-9801	0.21
52	NBU-1-9930	1.35
53	NBU-2-9930	1.36
54	NBU-3-9930	1.73

2.3.3 Artificial pigsty

z-scores for component PIG

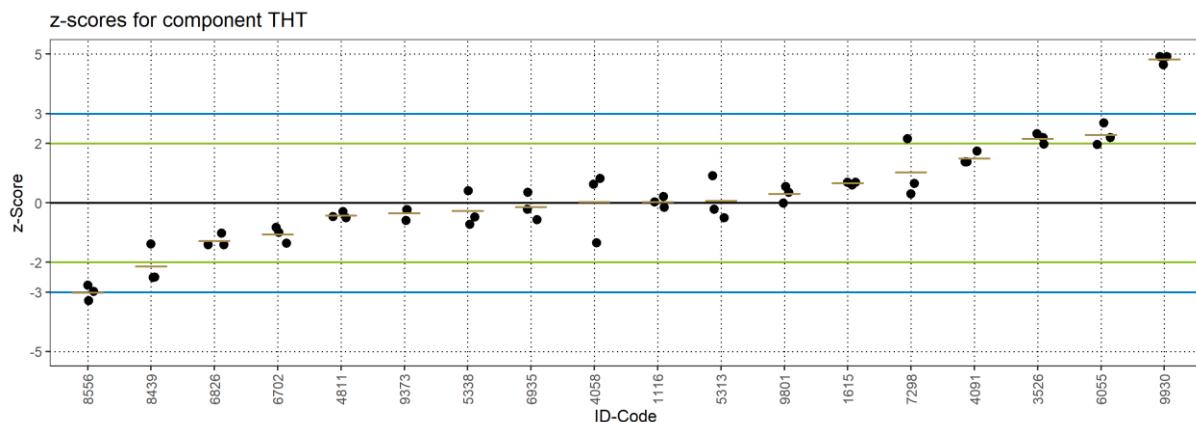


No.	Measurement ID	z-Score
1	PIG-1-1116	1.29
2	PIG-2-1116	1.00
3	PIG-3-1116	0.72
4	PIG-1-1615	0.79
5	PIG-2-1615	0.80

No.	Measurement ID	z-Score
6	PIG-3-1615	0.81
7	PIG-1-3526	0.11
8	PIG-2-3526	0.55
9	PIG-3-3526	0.70
10	PIG-1-4058	-0.37

No.	Measurement ID	z-Score
11	PIG-2-4058	0.18
12	PIG-3-4058	-0.35
13	PIG-1-4091	0.58
14	PIG-2-4091	-0.26
15	PIG-3-4091	0.33
16	PIG-1-4811	-0.99
17	PIG-2-4811	-1.14
18	PIG-3-4811	-1.42
19	PIG-1-5313	3.72
20	PIG-2-5313	2.47
21	PIG-3-5313	2.57
22	PIG-1-5338	0.13
23	PIG-2-5338	-0.06
24	PIG-3-5338	-0.06
25	PIG-1-6055	-0.46
26	PIG-2-6055	-0.61
27	PIG-3-6055	-0.34
28	PIG-1-6702	-0.63
29	PIG-2-6702	-0.62
30	PIG-3-6702	-0.81
31	PIG-1-6826	0.62
32	PIG-2-6826	-0.91
33	PIG-3-6826	-0.47
34	PIG-1-6935	-3.31
35	PIG-2-6935	-3.44
36	PIG-3-6935	-3.25
37	PIG-1-7298	1.18
38	PIG-2-7298	1.22
39	PIG-3-7298	-1.30
40	PIG-1-8439	-1.42
41	PIG-2-8439	-1.04
42	PIG-3-8439	-1.98
43	PIG-1-8556	0.36
44	PIG-2-8556	-1.25
45	PIG-3-8556	-0.55
46	PIG-1-9373	-0.57
47	PIG-2-9373	0.19
48	PIG-3-9373	-0.85
49	PIG-1-9801	0.56
50	PIG-2-9801	-0.16
51	PIG-3-9801	0.42
52	PIG-1-9930	2.68
53	PIG-2-9930	3.36
54	PIG-3-9930	2.80

2.3.4 Tetrahydrothiophene



No.	Measurement ID	z-Score
1	THT-1-1116	-0.15
2	THT-2-1116	0.21
3	THT-3-1116	0.03
4	THT-1-1615	0.69
5	THT-2-1615	0.60
6	THT-3-1615	0.69
7	THT-1-3526	2.32

No.	Measurement ID	z-Score
8	THT-2-3526	2.19
9	THT-3-3526	1.97
10	THT-1-4058	0.62
11	THT-2-4058	0.81
12	THT-3-4058	-1.35
13	THT-1-4091	1.74
14	THT-2-4091	1.38

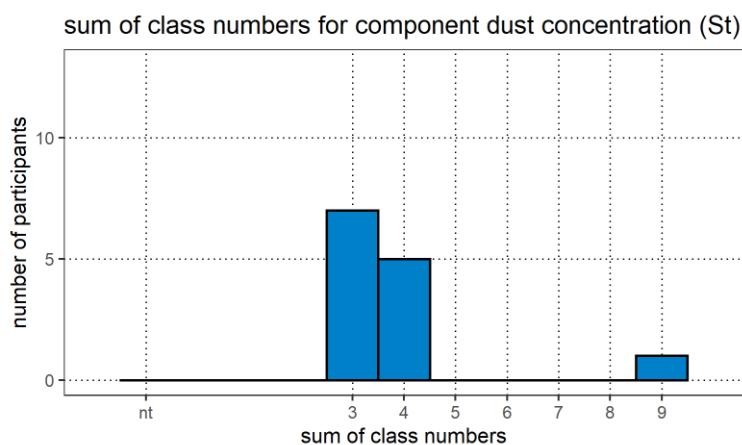
No.	Measurement ID	z-Score
15	THT-3-4091	1.37
16	THT-1-4811	-0.47
17	THT-2-4811	-0.50
18	THT-3-4811	-0.30
19	THT-1-5313	0.91
20	THT-2-5313	-0.22
21	THT-3-5313	-0.51
22	THT-1-5338	-0.47
23	THT-2-5338	0.41
24	THT-3-5338	-0.73
25	THT-1-6055	2.68
26	THT-2-6055	1.96
27	THT-3-6055	2.19
28	THT-1-6702	-0.83
29	THT-2-6702	-0.99
30	THT-3-6702	-1.36
31	THT-1-6826	-1.41
32	THT-2-6826	-1.41
33	THT-3-6826	-1.03
34	THT-1-6935	0.35
35	THT-2-6935	-0.56
36	THT-3-6935	-0.22
37	THT-1-7298	0.64
38	THT-2-7298	2.15
39	THT-3-7298	0.30
40	THT-1-8439	-2.51
41	THT-2-8439	-1.39
42	THT-3-8439	-2.51
43	THT-1-8556	-2.78
44	THT-2-8556	-2.97
45	THT-3-8556	-3.30
46	THT-1-9373	-0.24
47	THT-2-9373	-0.59
48	THT-3-9373	-0.24
49	THT-1-9801	0.55
50	THT-2-9801	0.35
51	THT-3-9801	-0.01
52	THT-1-9930	4.92
53	THT-2-9930	4.92
54	THT-3-9930	4.64

3. Achieved Sums of Class Numbers

The following schemes show the sum of class numbers that the participants achieved for the different components in form of histogram charts. For the interpretation of the sums of class numbers, please refer to the annual report (main document). Participants that did not hand in results for a component are listed as “nt”.

3.1 Substance Range P

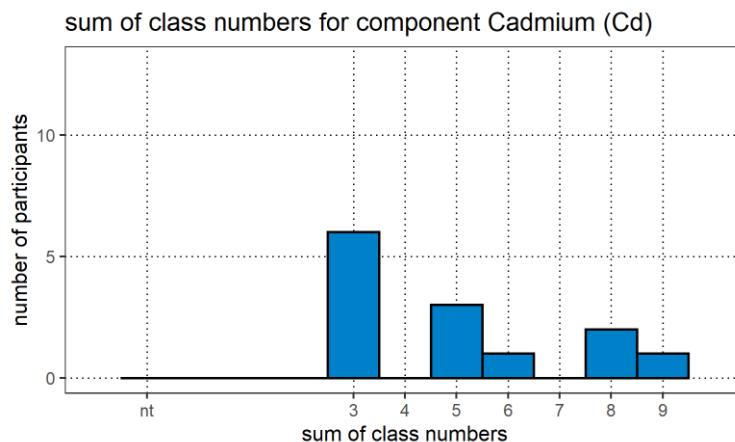
3.1.1 Dust



ID	component	result
1959	dust concentration	4
2318	dust concentration	4
2337	dust concentration	3
3024	dust concentration	3
3179	dust concentration	3
3430	dust concentration	3
5169	dust concentration	9

ID	component	result
5520	dust concentration	3
5667	dust concentration	3
5851	dust concentration	3
6285	dust concentration	4
7123	dust concentration	4
8033	dust concentration	4

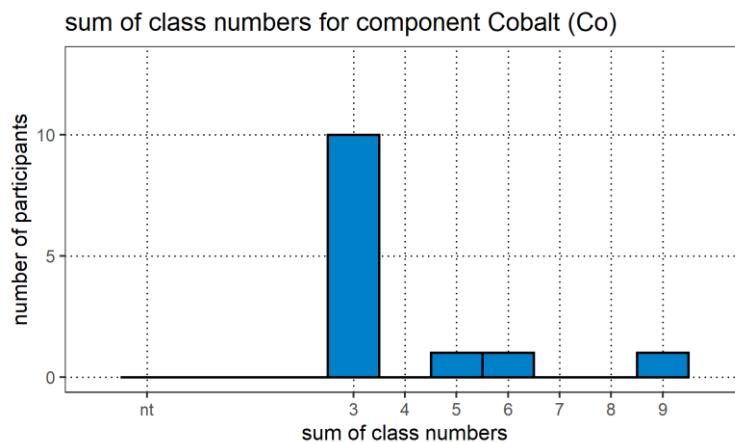
3.1.2 Cadmium



ID	component	result
1959	Cadmium	5
2318	Cadmium	8
2337	Cadmium	3
3024	Cadmium	3
3179	Cadmium	3
3430	Cadmium	8
5169	Cadmium	9

ID	component	result
5520	Cadmium	3
5667	Cadmium	6
5851	Cadmium	5
6285	Cadmium	5
7123	Cadmium	3
8033	Cadmium	3

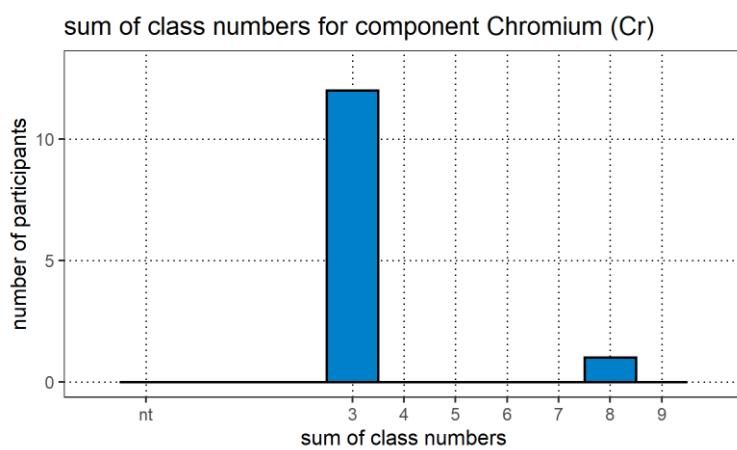
3.1.3 Cobalt



ID	component	result
1959	Cobalt	3
2318	Cobalt	5
2337	Cobalt	3
3024	Cobalt	3
3179	Cobalt	3
3430	Cobalt	9
5169	Cobalt	6

ID	component	result
5520	Cobalt	3
5667	Cobalt	3
5851	Cobalt	3
6285	Cobalt	3
7123	Cobalt	3
8033	Cobalt	3

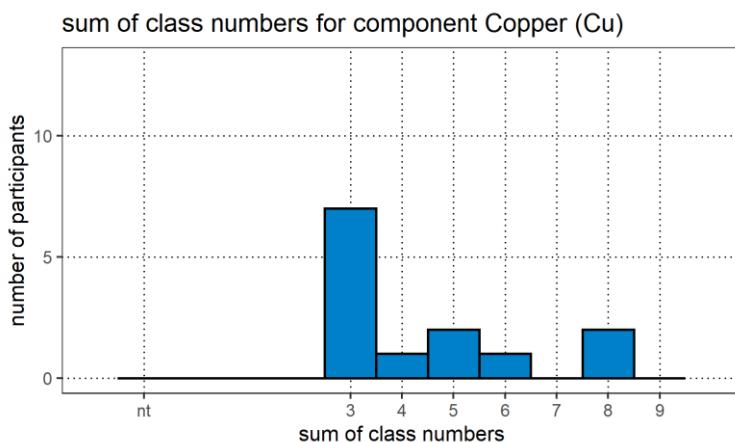
3.1.4 Chromium



ID	component	result
1959	Chromium	3
2318	Chromium	3
2337	Chromium	3
3024	Chromium	3
3179	Chromium	3
3430	Chromium	8
5169	Chromium	3

ID	component	result
5520	Chromium	3
5667	Chromium	3
5851	Chromium	3
6285	Chromium	3
7123	Chromium	3
8033	Chromium	3

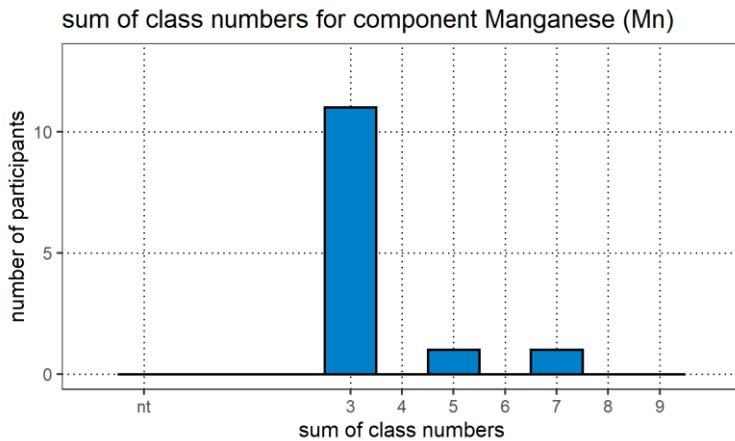
3.1.5 Copper



ID	component	result
1959	Copper	3
2318	Copper	8
2337	Copper	5
3024	Copper	3
3179	Copper	3
3430	Copper	8
5169	Copper	6

ID	component	result
5520	Copper	3
5667	Copper	3
5851	Copper	5
6285	Copper	4
7123	Copper	3
8033	Copper	3

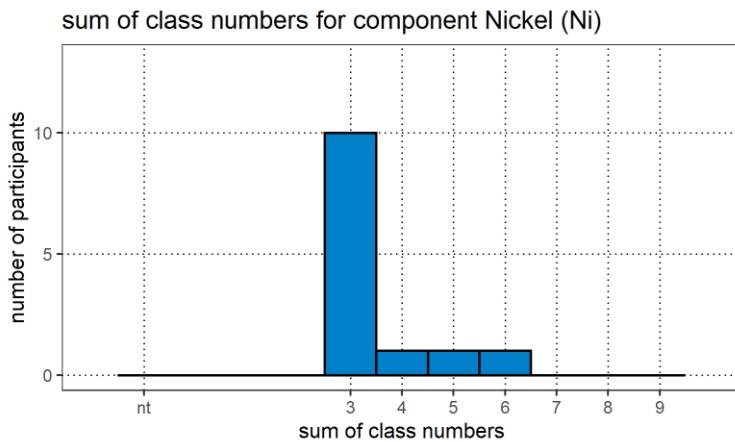
3.1.6 Manganese



ID	component	result
1959	Manganese	3
2318	Manganese	5
2337	Manganese	3
3024	Manganese	3
3179	Manganese	3
3430	Manganese	7
5169	Manganese	3

ID	component	result
5520	Manganese	3
5667	Manganese	3
5851	Manganese	3
6285	Manganese	3
7123	Manganese	3
8033	Manganese	3

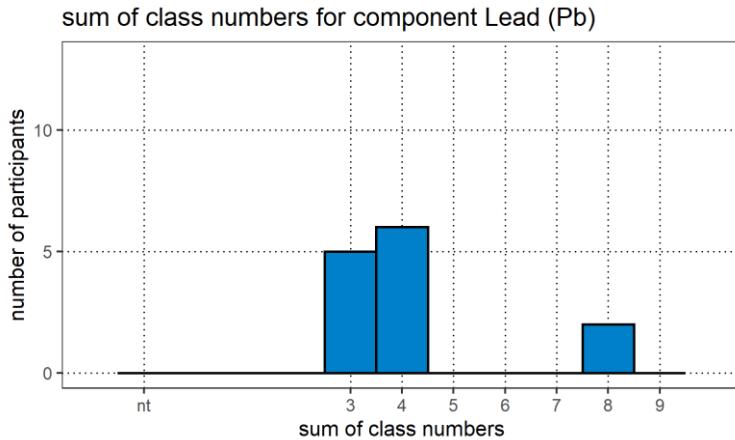
3.1.7 Nickel



ID	component	result
1959	Nickel	3
2318	Nickel	5
2337	Nickel	3
3024	Nickel	3
3179	Nickel	3
3430	Nickel	6
5169	Nickel	3

ID	component	result
5520	Nickel	3
5667	Nickel	3
5851	Nickel	4
6285	Nickel	3
7123	Nickel	3
8033	Nickel	3

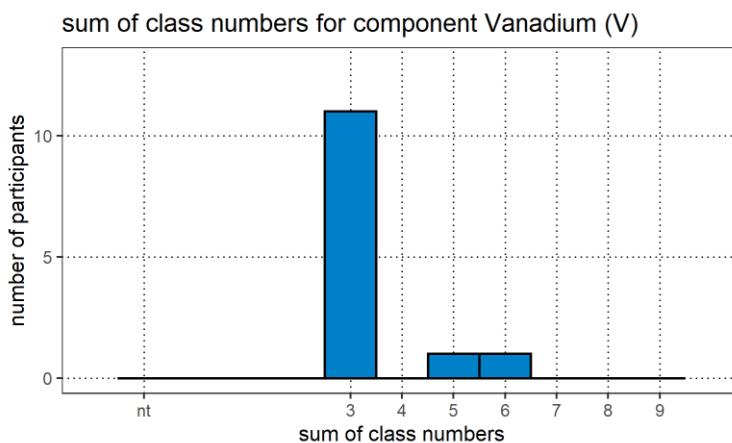
3.1.8 Lead



ID	component	result
1959	Lead	4
2318	Lead	8
2337	Lead	4
3024	Lead	3
3179	Lead	4
3430	Lead	8
5169	Lead	4

ID	component	result
5520	Lead	3
5667	Lead	3
5851	Lead	3
6285	Lead	4
7123	Lead	3
8033	Lead	4

3.1.9 Vanadium

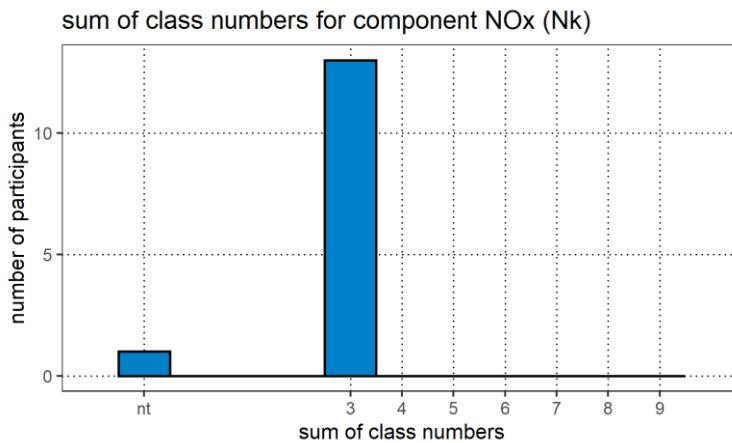


ID	component	result
1959	Vanadium	3
2318	Vanadium	6
2337	Vanadium	3
3024	Vanadium	3
3179	Vanadium	3
3430	Vanadium	5
5169	Vanadium	3

ID	component	result
5520	Vanadium	3
5667	Vanadium	3
5851	Vanadium	3
6285	Vanadium	3
7123	Vanadium	3
8033	Vanadium	3

3.2 Substance Range G

3.2.1 Nitrogen Oxides



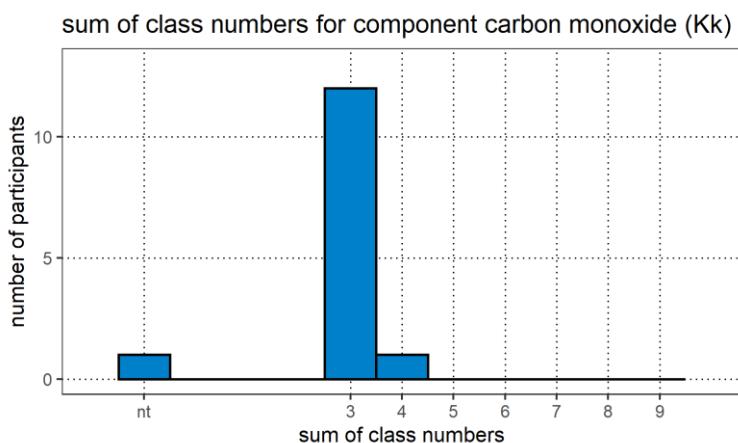
ID	component	result
1805	NOx	3
2994	NOx	3
3020	NOx	3
3666	NOx	3

ID	component	result
5646	NOx	3
5752	NOx	3
5928	NOx	3
6634	NOx	nt

ID	component	result
7141	NOx	3
7217	NOx	3
8256	NOx	3

ID	component	result
8329	NOx	3
9276	NOx	3
9771	NOx	3

3.2.2 Carbon Monoxide

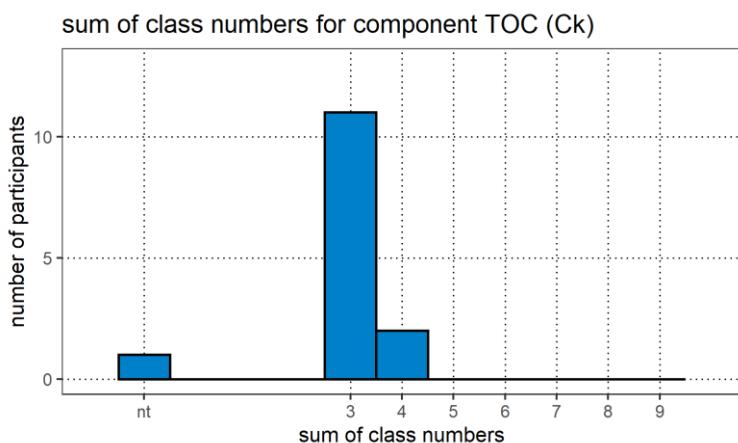


ID	component	result
1805	carbon monoxide	3
2994	carbon monoxide	3
3020	carbon monoxide	3
3666	carbon monoxide	3
5646	carbon monoxide	4
5752	carbon monoxide	3
5928	carbon monoxide	3

ID	component	result
6634	carbon monoxide	nt
7141	carbon monoxide	3
7217	carbon monoxide	3
8256	carbon monoxide	3
8329	carbon monoxide	3
9276	carbon monoxide	3
9771	carbon monoxide	3

3.2.3 TOC

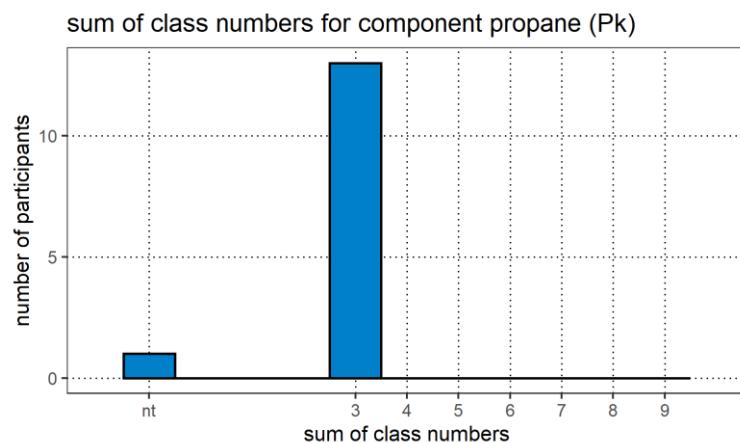
3.2.3.1 Mixture ETX, Propane



ID	component	result
1805	TOC	3
2994	TOC	3
3020	TOC	3
3666	TOC	3
5646	TOC	3
5752	TOC	3
5928	TOC	4

ID	component	result
6634	TOC	nt
7141	TOC	3
7217	TOC	3
8256	TOC	3
8329	TOC	3
9276	TOC	3
9771	TOC	4

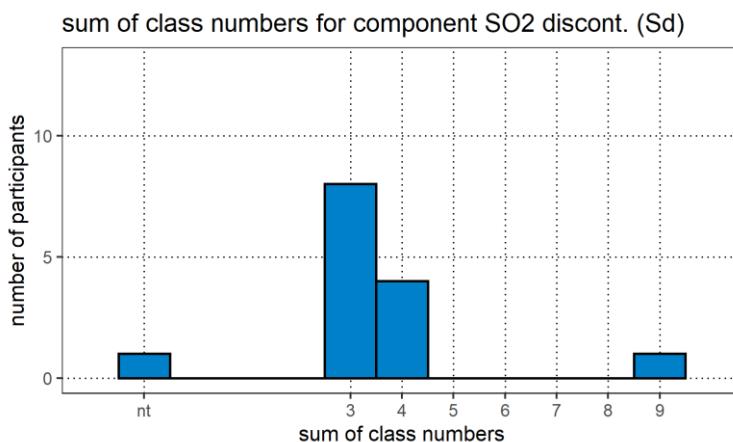
3.2.3.2 Propane



ID	component	result
1805	propane	3
2994	propane	3
3020	propane	3
3666	propane	3
5646	propane	3
5752	propane	3
5928	propane	3

ID	component	result
6634	propane	nt
7141	propane	3
7217	propane	3
8256	propane	3
8329	propane	3
9276	propane	3
9771	propane	3

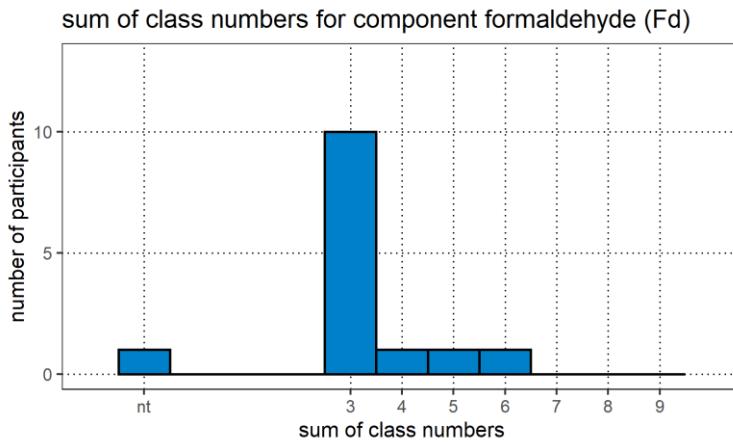
3.2.4 Sulphur Dioxide



ID	component	result
1805	SO ₂ discont.	4
2994	SO ₂ discont.	3
3020	SO ₂ discont.	3
3666	SO ₂ discont.	3
5646	SO ₂ discont.	3
5752	SO ₂ discont.	4
5928	SO ₂ discont.	4

ID	component	result
6634	SO ₂ discont.	nt
7141	SO ₂ discont.	3
7217	SO ₂ discont.	3
8256	SO ₂ discont.	4
8329	SO ₂ discont.	3
9276	SO ₂ discont.	9
9771	SO ₂ discont.	3

3.2.5 Formaldehyde



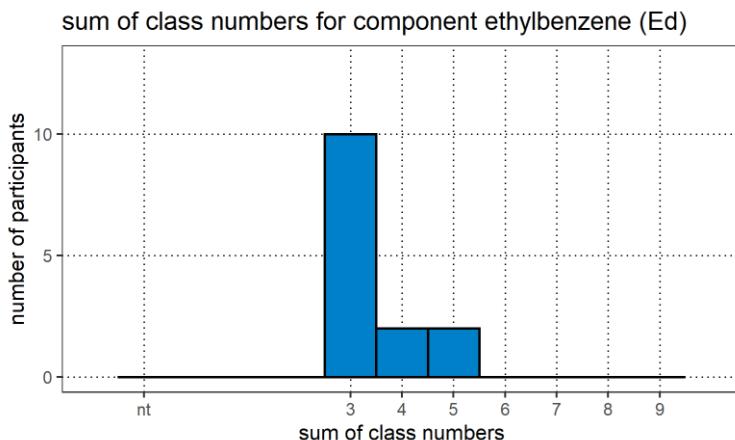
ID	component	result
1805	formaldehyde	3
2994	formaldehyde	3
3020	formaldehyde	4
3666	formaldehyde	3
5646	formaldehyde	3
5752	formaldehyde	3

ID	component	result
5928	formaldehyde	6
6634	formaldehyde	nt
7141	formaldehyde	3
7217	formaldehyde	5
8256	formaldehyde	3
8329	formaldehyde	3

ID	component	result
9276	formaldehyde	3

ID	component	result
9771	formaldehyde	3

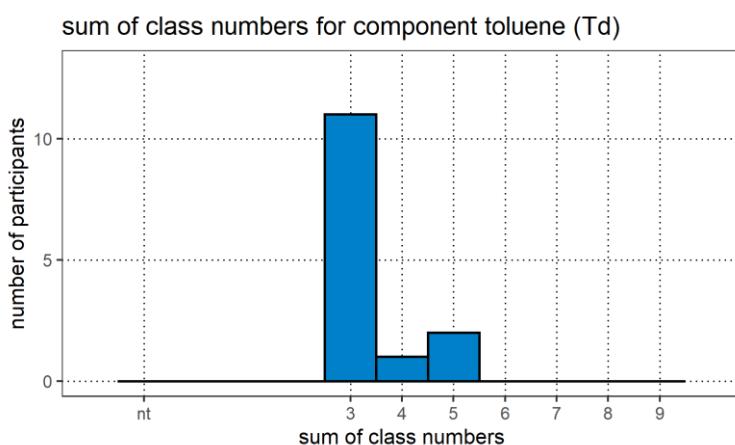
3.2.6 Ethylbenzene



ID	component	result
1805	ethylbenzene	4
2994	ethylbenzene	5
3020	ethylbenzene	3
3666	ethylbenzene	3
5646	ethylbenzene	3
5752	ethylbenzene	5
5928	ethylbenzene	3

ID	component	result
6634	ethylbenzene	3
7141	ethylbenzene	3
7217	ethylbenzene	3
8256	ethylbenzene	4
8329	ethylbenzene	3
9276	ethylbenzene	3
9771	ethylbenzene	3

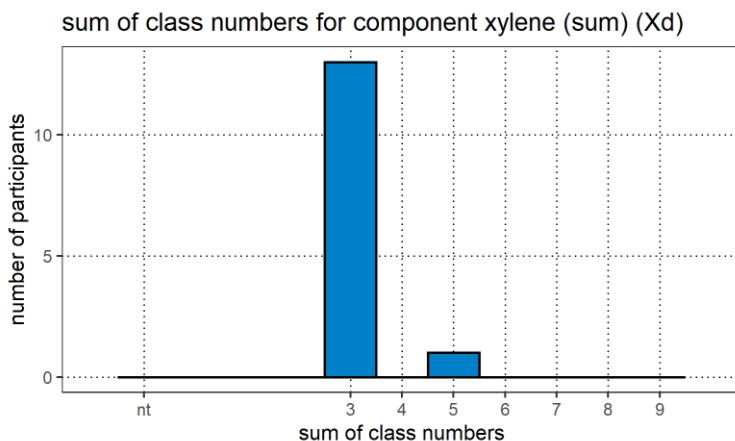
3.2.7 Toluene



ID	component	result
1805	toluene	5
2994	toluene	4
3020	toluene	3
3666	toluene	3
5646	toluene	3
5752	toluene	5
5928	toluene	3

ID	component	result
6634	toluene	3
7141	toluene	3
7217	toluene	3
8256	toluene	3
8329	toluene	3
9276	toluene	3
9771	toluene	3

3.2.8 Sum of Xylenes



ID	component	result
1805	xylene (sum)	3
2994	xylene (sum)	5
3020	xylene (sum)	3
3666	xylene (sum)	3
5646	xylene (sum)	3
5752	xylene (sum)	3
5928	xylene (sum)	3

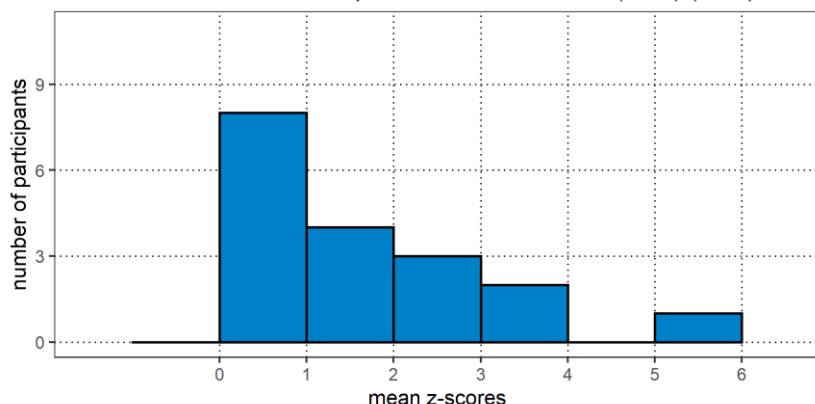
ID	component	result
6634	xylene (sum)	3
7141	xylene (sum)	3
7217	xylene (sum)	3
8256	xylene (sum)	3
8329	xylene (sum)	3
9276	xylene (sum)	3
9771	xylene (sum)	3

3.3 Substance Range 0

In odour emission proficiency tests, instead of sums of class numbers a mean value of z scores is calculated. In the following histograms, the participants are allocated to a group by rounding down their mean z-score to the next lower integer.

3.3.1 solvent mixture (ETX)

means of z-scores for component solvent mixture (ETX) (ETX)

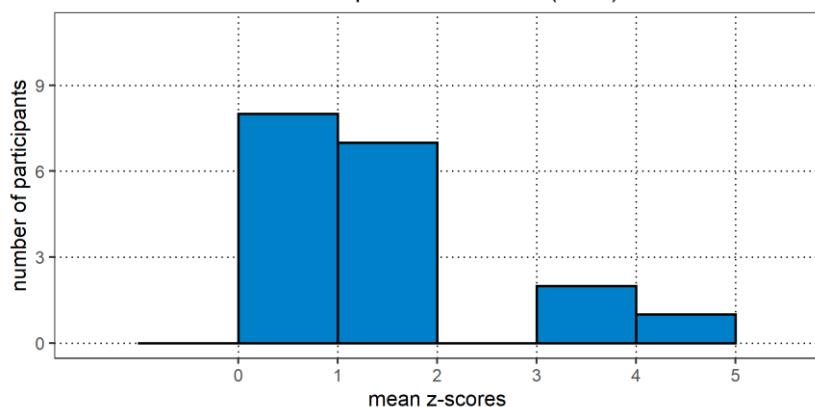


ID	component	result
1116	solvent mixture (ETX)	0
1615	solvent mixture (ETX)	1
3526	solvent mixture (ETX)	0
4058	solvent mixture (ETX)	0
4091	solvent mixture (ETX)	0
4811	solvent mixture (ETX)	0
5313	solvent mixture (ETX)	0
5338	solvent mixture (ETX)	2
6055	solvent mixture (ETX)	0

ID	component	result
6702	solvent mixture (ETX)	1
6826	solvent mixture (ETX)	2
6935	solvent mixture (ETX)	0
7298	solvent mixture (ETX)	1
8439	solvent mixture (ETX)	2
8556	solvent mixture (ETX)	3
9373	solvent mixture (ETX)	1
9801	solvent mixture (ETX)	3
9930	solvent mixture (ETX)	5

3.3.2 n-Butanol

means of z-scores for component n-butanol (NBU)



ID	component	result
1116	n-butanol	0
1615	n-butanol	1
3526	n-butanol	3
4058	n-butanol	1

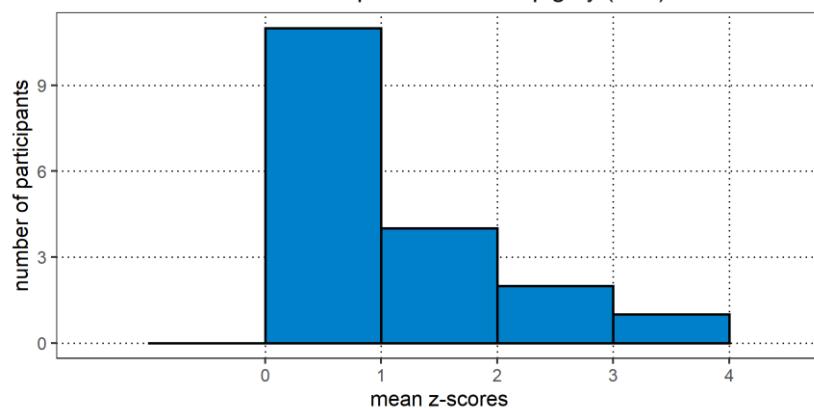
ID	component	result
4091	n-butanol	3
4811	n-butanol	1
5313	n-butanol	0
5338	n-butanol	0

ID	component	result
6055	n-butanol	0
6702	n-butanol	0
6826	n-butanol	4
6935	n-butanol	0
7298	n-butanol	1

ID	component	result
8439	n-butanol	1
8556	n-butanol	0
9373	n-butanol	1
9801	n-butanol	0
9930	n-butanol	1

3.3.3 Artificial pigsty

means of z-scores for component artificial pigsty (PIG)

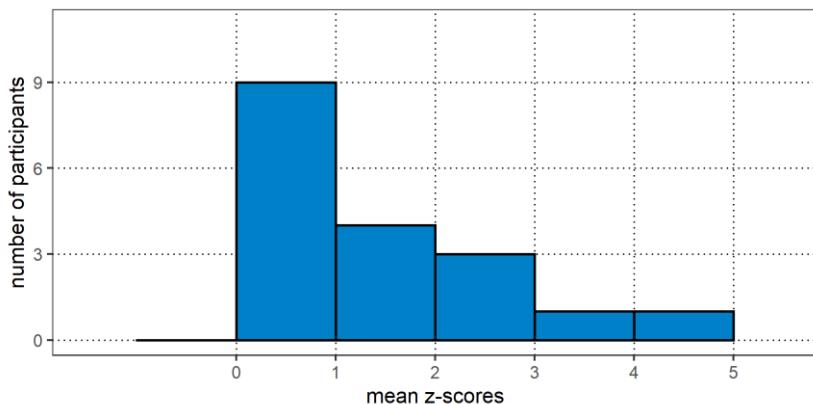


ID	component	result
1116	artificial pigsty	1
1615	artificial pigsty	0
3526	artificial pigsty	0
4058	artificial pigsty	0
4091	artificial pigsty	0
4811	artificial pigsty	1
5313	artificial pigsty	2
5338	artificial pigsty	0
6055	artificial pigsty	0

ID	component	result
6702	artificial pigsty	0
6826	artificial pigsty	0
6935	artificial pigsty	3
7298	artificial pigsty	1
8439	artificial pigsty	1
8556	artificial pigsty	0
9373	artificial pigsty	0
9801	artificial pigsty	0
9930	artificial pigsty	2

3.3.4 Tetrahydrothiophene

means of z-scores for component tetrahydrothiophene (THT)



ID	component	result
1116	tetrahydrothiophene	0
1615	tetrahydrothiophene	0
3526	tetrahydrothiophene	2
4058	tetrahydrothiophene	0
4091	tetrahydrothiophene	1
4811	tetrahydrothiophene	0
5313	tetrahydrothiophene	0
5338	tetrahydrothiophene	0
6055	tetrahydrothiophene	2

ID	component	result
6702	tetrahydrothiophene	1
6826	tetrahydrothiophene	1
6935	tetrahydrothiophene	0
7298	tetrahydrothiophene	1
8439	tetrahydrothiophene	2
8556	tetrahydrothiophene	3
9373	tetrahydrothiophene	0
9801	tetrahydrothiophene	0
9930	tetrahydrothiophene	4

4. List of Component Group Results

4.1 Substance Range P

4.1.1 Dust

ID	PT part	result
1959	dust concentration	passed
2318	dust concentration	passed
2337	dust concentration	passed
3024	dust concentration	passed
3179	dust concentration	passed
3430	dust concentration	passed
5169	dust concentration	failed

ID	PT part	result
5520	dust concentration	passed
5667	dust concentration	passed
5851	dust concentration	passed
6285	dust concentration	passed
7123	dust concentration	passed
8033	dust concentration	passed

4.1.2 Dust Composition

ID	PT part	result
1959	dust composition	passed
2318	dust composition	failed
2337	dust composition	passed
3024	dust composition	passed
3179	dust composition	passed
3430	dust composition	failed
5169	dust composition	failed

ID	PT part	result
5520	dust composition	passed
5667	dust composition	passed
5851	dust composition	passed
6285	dust composition	passed
7123	dust composition	passed
8033	dust composition	passed

4.1.3 Dust Composition (Follow-up Analysis)

ID	PT part	result
2318	dust composition (follow-up analysis)	passed

ID	PT part	result
3430	dust composition (follow-up analysis)	passed

4.2 Substance range G

ID	PT part	result
1805	gas	passed
2994	gas	passed
3020	gas	passed
3666	gas	passed
5646	gas	passed
5752	gas	passed
5928	gas	passed

ID	PT part	result
6634	gas	failed (incomplete participation)
7141	gas	passed
7217	gas	passed
8256	gas	passed
8329	gas	passed
9276	gas	failed
9771	gas	passed

4.3 Substance Range O

ID	PT part	result
1116	olfactometry	passed
1615	olfactometry	passed
3526	olfactometry	failed
4058	olfactometry	failed (incomplete participation)
4091	olfactometry	failed
4811	olfactometry	passed
5313	olfactometry	passed
5338	olfactometry	passed
6055	olfactometry	passed

ID	PT part	result
6702	olfactometry	passed
6826	olfactometry	failed
6935	olfactometry	failed
7298	olfactometry	passed
8439	olfactometry	passed
8556	olfactometry	failed
9373	olfactometry	passed
9801	olfactometry	failed
9930	olfactometry	failed

5. Release

Kassel, 3rd December 2020

gez. J. Cordes

Dr. Jens Cordes

Technical Supervisor
Proficiency Testing

(Fachlich Verantwortlicher Ringver-
suche)

gez. B. Stoffels

Benno Stoffels

Deputy Technical Supervisor
Proficiency Testing

(Stellvertretender Fachlich Verant-
wortlicher Ringversuche)

gez. D. Wildanger

Dr. Dominik Wildanger

Head of Department

(Dezernatsleiter)

HESSEN



Hessisches Landesamt für Naturschutz, Umwelt und Geologie
Hessian Agency for Nature Conservation, Environment and Geology

Dezernat I3 – Luftreinhaltung: Emissionen
Department I3 – Air Pollution Control: Emissions

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