FLUXANA

Final Proficiency Test Report

FLX-CRM 118, FLX-CRM 119, FLX-CRM 120, FLX-CRM 121, FLX-CRM 122

Bedburg-Hau, 25.03.2015

Coordinator of PT
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Statistics and Report
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Summary of test results

FLX-CRM 118	Mean %	U (95%)	s_r	s_R	Mean - 2*s_R	Mean + 2*s_R
Al2O3	6,945	±0,100	0,022	0,256	6,434	7,457
CaO	55,848	±0,215	0,084	0,501	54,847	56,85
Cr2O3	0,011	±0,002	0,001	0,003	0,004	0,018
Fe2O3	3,904	±0,045	0,014	0,116	3,673	4,136
K2O	0,969	±0,021	0,008	0,052	0,864	1,074
MgO	2,059	±0,033	0,017	0,084	1,89	2,228
Mn2O3	0,178	±0,007	0,003	0,015	0,148	0,207
Na2O	0,169	±0,025	0,008	0,059	0,051	0,286
P2O5	0,161	±0,003	0,002	0,007	0,148	0,175
SiO2	21,601	±0,135	0,037	0,304	20,992	22,21
SrO	0,084	±0,006	0,001	0,011	0,061	0,107
Sulfate expressed as SO3	2,915	±0,104	0,048	0,08	2,755	3,075
Sulfide expressed as S	0,131	±0,155	0,021	0,124	-0,118	0,379
Total S expressed as SO3	2,965	±0,064	0,02	0,146	2,672	3,258
TiO2	0,305	±0,008	0,006	0,018	0,269	0,342
ZnO	0,051	±0,004	0,001	0,008	0,036	0,066
LOI (1h @ 950°C) observed	4,935	±0,065	0,029	0,172	4,591	5,279
Sum (SO3 wet chemistry)	100,46					
Sum (SO3 xrf)	100,19					
Total S (Sulfate+Sulfide) SO3	3,24					

FLX-CRM 119	Mean %	U (95%)	s_r	s_R	Mean - 2*s_R	Mean + 2*s_R
Al2O3	7,378	±0,075	0,026	0,192	6,995	7,762
CaO	54,144	±0,255	0,109	0,596	52,952	55,336
Cr2O3	0,01	±0,002	0,001	0,004	0,003	0,018
Fe2O3	3,112	±0,042	0,012	0,107	2,897	3,327
K2O	1,208	±0,025	0,009	0,063	1,082	1,333
MgO	1,329	±0,026	0,013	0,066	1,197	1,461
Mn2O3	0,038	±0,004	0,001	0,009	0,02	0,057
Na2O	0,269	±0,027	0,01	0,063	0,143	0,395
P2O5	0,152	±0,003	0,004	0,008	0,135	0,168
SiO2	23,955	±0,154	0,043	0,349	23,256	24,653
SrO	0,155	±0,008	0,001	0,016	0,123	0,186
Sulfate expressed as SO3	2,393	±0,079	0,027	0,08	2,233	2,553
Sulfide expressed as S	0,029	±0,166	0,004	0,133	-0,238	0,295
Total S expressed as SO3	2,434	±0,046	0,029	0,106	2,221	2,646
TiO2	0,352	±0,006	0,003	0,015	0,322	0,382
ZnO	0,039	±0,003	0,001	0,006	0,027	0,05
LOI (1h @ 950°C) observed	5,654	±0,073	0,023	0,194	5,267	6,041
Sum (SO3 wet chemistry)	100,26					
Sum (SO3 xrf)	100,23					
Total S (Sulfate+Sulfide) SO3	2,47					

FLX-CRM 120	Mean %	U (95%)	s_r	s_R	Mean - 2*s_R	Mean + 2*s_R
Al2O3	7,602	±0,089	0,036	0,227	7,148	8,056
CaO	53,438	±0,278	0,101	0,649	52,139	54,737
Cr2O3	0,007	±0,002	0,001	0,004	-0,001	0,016
Fe2O3	1,198	±0,022	0,008	0,057	1,083	1,313
K2O	0,656	±0,023	0,012	0,058	0,54	0,771
MgO	3,514	±0,039	0,019	0,1	3,313	3,715
Mn2O3	0,182	±0,007	0,002	0,016	0,15	0,213
Na2O	0,194	±0,026	0,008	0,061	0,072	0,317
P2O5	0,086	±0,004	0,002	0,009	0,067	0,104
SiO2	26,339	±0,185	0,05	0,418	25,504	27,175
SrO	0,121	±0,006	0,001	0,012	0,097	0,144
Sulfate expressed as SO3	3,206	±0,124	0,02	0,08	3,046	3,366
Sulfide expressed as S	0,632	±0,149	0,013	0,133	0,366	0,898
Total S expressed as SO3	4,348	±0,135	0,036	0,302	3,745	4,952
TiO2	0,597	±0,011	0,005	0,027	0,544	0,651
ZnO	0,009	±0,002	0,001	0,003	0,002	0,015
LOI (1h @ 950°C) observed	1,842	±0,097	0,027	0,256	1,329	2,355
Sum (SO3 wet chemistry)	100,57					
Sum (SO3 xrf)	100,13					
Total S (Sulfate+Sulfide) SO3	4,79					

FLX-CRM 121	Mean %	U (95%)	s_r	s_R	Mean - 2*s_R	Mean + 2*s_R
Al2O3	8,782	±0,110	0,039	0,282	8,218	9,346
CaO	44,755	±0,285	0,108	0,664	43,427	46,082
Cr2O3	0,009	±0,002	0,001	0,004	0,001	0,017
Fe2O3	3,075	±0,042	0,019	0,107	2,861	3,289
K2O	2,712	±0,052	0,01	0,129	2,454	2,97
MgO	1,405	±0,032	0,012	0,082	1,241	1,568
Mn2O3	0,112	±0,006	0,001	0,012	0,088	0,136
Na2O	1,222	±0,047	0,015	0,111	0,999	1,444
P2O5	0,113	±0,004	0,006	0,008	0,096	0,129
SiO2	30,743	±0,242	0,068	0,548	29,648	31,838
SrO	0,137	±0,007	0,001	0,014	0,109	0,164
Sulfate expressed as SO3	2,492	±0,076	0,026	0,08	2,332	2,652
Sulfide expressed as S	0,025	±0,049	0,015	0,034	-0,043	0,093
Total S expressed as SO3	2,526	±0,051	0,017	0,117	2,292	2,761
TiO2	0,351	±0,008	0,005	0,019	0,312	0,39
ZnO	0,03	±0,003	0,001	0,006	0,019	0,041
LOI (1h @ 950°C) observed	4,148	±0,055	0,019	0,147	3,854	4,443
Sum (SO3 wet chemistry)	100,15					
Sum (SO3 xrf)	100,12					
Total S (Sulfate+Sulfide) SO3	2,55					

FLX-CRM 122	Mean %	U (95%)	s_r	s_R	Mean - 2*s_R	Mean + 2*s_R

Al2O3	5,634	±0,076	0,03	0,195	5,245	6,023
CaO	59,166	±0,209	0,095	0,488	58,189	60,143
Cr2O3	0,007	±0,002	0,001	0,004	0	0,015
Fe2O3	1,756	±0,024	0,011	0,062	1,631	1,881
K2O	0,867	±0,027	0,01	0,068	0,73	1,003
MgO	2,001	±0,031	0,015	0,08	1,841	2,162
Mn2O3	0,112	±0,004	0,001	0,01	0,093	0,131
Na2O	0,189	±0,027	0,008	0,063	0,062	0,316
P2O5	0,067	±0,004	0,001	0,009	0,048	0,085
SiO2	21,905	±0,154	0,074	0,349	21,206	22,604
SrO	0,126	±0,007	0,001	0,014	0,099	0,154
Sulfate expressed as SO3	2,682	±0,110	0,026	0,08	2,522	2,842
Sulfide expressed as S	0,288	±0,087	0,014	0,078	0,133	0,444
Total S expressed as SO3	3,267	±0,066	0,025	0,147	2,973	3,56
TiO2	0,356	±0,008	0,007	0,02	0,315	0,397
ZnO	0,027	±0,003	0,001	0,006	0,015	0,039
LOI (1h @ 950°C) observed	4,646	±0,057	0,017	0,151	4,344	4,947
Sum (SO3 wet chemistry)	100,26					
Sum (SO3 xrf)	100,13					
Total S (Sulfate+Sulfide) SO3	3,40					

All values are in mass % and are based on original sample material.

Mean	**calculated**
U (95%)	**uncertainty calculated for a confidence interval of 95% (k=2)**
s_r	**Repeatability standard deviation**
s_R	**Reproducibility standard deviation**
Range of tolerance	**All labs within this range show satisfactory performance**

Interpretation of the results

The proficiency test shows a very good agreement between the participating laboratories. The determined reproducibility standard deviation corresponds very well to the reproducibility limit of ISO 29581-2:2010. For most of the xrf elements the ‘expert’ performance was achieved, for all xrf elements the ‘normal’ performance was achieved.
The repeatability standard deviation of the LOI is in agreement with the ISO 29581-2:2010 while the reproducibility standard deviation shows higher values than given in ISO 29581-2:2010.
For sulfate z-score calculation the reference reproducibility standard deviation was taken from EN 196-2:2013-10. For sulfide the high uncertainty for FLX-CRM 118, FLX-CRM 119 and FLX-CRM 121 indicates that the mean value is below or in the range of the limit of quantification. For sulfide the results can only be seen as information but cannot be used for lab performance evaluation.
The concentration values were not corrected for any sulfide contents. Some participants have provided results with a total sum higher than 101%. These results were excluded for further calculations.

Introduction

X-ray fluorescence analysis is a widely used technique for the analysis of oxidic materials. Different ISO methods like e.g. 12677:2013 or 29581-2:2010 describe the use in detail.

However for the calibration of xrf instruments dedicated standard material is needed. As a world wide supplier for xrf laboratories FLUXANA has developed a number of services to support xrf users. One of these services is the production of new reference materials and the organization of proficiency tests (PT).

From 2011 FLUXANA has introduced its own quality management.

In February 2014 FLUXANA has received accreditation from German DAKKS according DIN EN ISO/IEC 17025 for the test laboratory in Bedburg-Hau. In February 2015 DAKKS made the first control audit.

The production of reference materials and the performance of proficiency tests is not yet accredited. However FLUXANA has applied for the accreditation process at DAKKS.

All evaluations are performed in agreement with DIN EN ISO/IEC 17043:2010-08, ISO Guide 34:2009, ISO Guide 31:2000 and ISO Guide 35:2006.

Proficiency test provider

FLUXANA GmbH & CO.KG
Borschelstrasse 3
47551 Bedburg-Hau, Germany
Coordinator: Charlotte Winkels-Herding, QM
Responsable for evaluation and data processing: Dr. Rainer Schramm, CEO
Responsable for inhouse analytical tests: Dr. Barbara Schäfer, Head of test laboratory

Subcontractors

Delivery of material by Wilhelm Dyckerhoff Institut
Performing analysis by Participants of PT

Proficiency test items

The materials were delivered by:
Wilhelm Dyckerhoff Institut
Dyckerhoff Str.7
65203 Wiesbaden
Germany

From each material about 20kg were delivered and from FLUXANA homogeneously distributed into 50ml bottles. The bottles were then vacuum packed for storage.

Test item	Description
FLX-CRM 118	CEM II/B_M (V-LL) 32,5R
FLX-CRM 119	CEM II/B-M (V-LL) 32,5R
FLX-CRM 120	CEM III/A 42,5N
FLX-CRM 121	CEM II/B-P 42,5N
FLX-CRM 122	CEM II/B-M (S-LL) 52,5N-AZ

Proficiency test

All laboratories which applied until 31.08.2014 for the participation of this proficiency test got their samples in September 2014 and sent in their results until end of October 2014.

Certificate of Analysis

There is a certification process planned according ISO Guide 34:2009. This will be independent from this proficiency test.

Homogeneity and Stability

The material was used as delivered. Based on ISO Guide 35:2006 and DIN ISO 13528:2009-01
a homogeneity and stability study of the materials were performed.

Metrological traceability

The analysis methods used by the participants are based on international measurement standards like ISO 29581-2 (xrf fusion), EN 196-2, DIN EN 15169, ICP-OES, AAS or combustion are considered as traceable. Other methods like XRF (Pellet), TXRF or the standard less method are not seen as traceable. Values from these methods will not be taken into account for the calculation of the assigned values and the target standard deviation.

Measurement uncertainty

Measurement uncertainty includes components arising from systematic effects, such as components associated with corrections and the assigned quantity values of measurement standards, as well as the definitional uncertainty. The participants did not provide any uncertainty with the concentration values. For this proficiency test the measurement uncertainty for the final mean was calculated from the repeatability and reproducibility standard deviations.

Evaluation

Launching the process of accreditation according DIN EN ISO/IEC 17043:2010-05 FLUXANA has adapted the evaluation process to robust statistical methods.

The assigned values were determined as consensus values from the participants who used traceable methods. Additionally all statistical data were calculated using robust statistical methods according DIN ISO 13528:2009-01, ISO/TS 20612:2007 and DIN 38402-45:2014-06.
For sulfate the reproducibility standard deviation to evaluate the participants was taken from EN-196-2:2013.

Advantages of using robust statistics

Statistical methods are robust in the sense that any outliers have only a limited effect on the overall result. Steps were taken to ensure that the results are still meaningful even if the proportion of outliers is 1/3. Robust statistics are also preferable for small populations.

Outliers

All data were used for the robust statistics after a check for obvious blunders. Outliers in the statistical sense are typically not detected when using robust statistical methods because the robust A+S algorithms were found to work better than the classical approach (which is outlier detection plus arithmetic mean and classical s.d. formula). Outlier shown in the table are only based on z-scores and marked with E in the graph.

Based on ISO 5725-2 there was also a Cochran outlier test performed to check the repeatability of the single laboratories. Test statistics from laboratories which are greater than 1% critical value were marked with ‘C’ in the column remark. This is for information only.

Number of measurements

All participants were requested to perform two measurements. This is necessary to perform the repeatability standard deviation for the laboratories. Nevertheless a few participants who performed only one measurement were taken into account and were not excluded. Robust statistics can handle different number of measurements per participant.

Publication of the results

All participants will be informed about the results of the PT with this report. Which results were delivered by which laboratory will be kept confidential. All laboratories are encoded where the code is only known by the organizer and the individual laboratory. The final report will be published on the FLUXANA website. A preliminary report was sent out for verification by the participants.

Further information

In the following evaluation report all accepted laboratory data are listed. Also all used methods are specified. Laboratories which are working under DIN EN ISO/IEC 17025 accreditation are highlighted. Under Remark additional information is given.
The concentration values were not corrected for any sulfide contents.

Participants

Fushe Kruje Cement Factory	Albania
Montanuniversität Leoben	Austria
VBE	Austria
Fabrika Cementa Lukavac	Bosnia and Herzegovina
Saskatchewan Research Council	Canada
Saint-Gobain Research (Shanghai) Co,.Ltd.	China
Vallourec	France
Société des Ciments d'Abidjan - SCA	France
Holcim (Deutschland) AG	Germany
Dyckerhoff GmbH	Germany
Dorfner Anzaplan	Germany
NUTECH GmbH	Germany
Thyssen Krupp Steel Europe AG	Germany
Gebr. Pfeiffer SE	Germany
K+S KALI GmbH	Germany
AREVA GmbH, c/o Geis Industrie-Service GmbH	Germany
HOPPECKE Batterien GmbH & Co. KG	Germany
CRB Analyse Service GmbH	Germany
HuK Umweltlabor GmbH	Germany
Rigaku Europe SE	Germany
Hochschule Rhein-Waal	Germany
Technische Hochschule Nürnberg Georg Simon Ohm	Germany
VDZ GmbH	Germany
FLUXANA GmbH & Co.KG	Germany
NUTECH GmbH	Germany
IOANNIS GIANNAKOPOULOS	Greece
CMS Clinker Sdn Bhd	Malaysia
CNESTEN	Morocco
SGS Nederland B.V.	Netherlands
Central Mining Institute	Poland
FERROCARBO Sp. z o.o. Zak?ad Bada? Laboratoryjnych	Poland
Institute of Heavy Organic Synthesis "Blachownia"	Poland
Górazdze Cement S.A.	Poland
Instytut Materialów Ceramicznych i Budowlanych	Poland
Holcim (Srbjia) d.o.o.	Serbia
PPC Cement Group Lab Services	South Africa
Lafarge Quality Department Southern Africa	South Africa
INSTITUTO NACIONAL DEL CARBÓN (INCAR-CSIC)	Spain
FUNDACION ITMA	Spain
SSAB Special Steels	Sweden
Thermo Fisher Scientific (Schweiz)	Switzerland
SGS Institut Fresenius GmbH	Switzerland
Adoçim Tokat Cement Plant	Turley
Eriez Manufacturing	USA
USCO SURVEY DESIGN AND CONSTRUCTION JOINT STOCK COMPANY	Vietnam

Statistical Evaluation

Calculation of Mean m

The mean m for all laboratories was calculated using the Hampel estimator (ISO/TS 20612:2007 9.2.3) based on the laboratory means µ.

Calculation of reproducibility standard deviation s_R

The reproducibility standard deviation s_R was calculated using the Q-method (ISO/TS 20612:2007 9.2.3).

Calculation of repeatability standard deviation s_r

The repeatability standard deviation s_r was also calculated using the Q-method.

Uncertainty of Mean U

The uncertainty of mean U for k=2 (95% confidence level) was calculated from the reproducibility standard deviation s_R and the laboratories p with valid data according DIN ISO 13528:2009-01 and Nordtest TR 537 ed. 3.1:

(1) $$U = 2 * 1.25 * \frac{s_R}{\sqrt{p}}$$

Laboratory performance

Laboratory proficiency assessment was based on z-scores.
From all laboratory means µ the **z-score** z was calculated:

(2) $$z = \frac{|m - \mu|}{s_R}$$

m	Mean value of all laboratories (assigned value)
µ	Mean value of individual laboratory
s_R	Reproducibility standard deviation

Assessment on z-scores:

z <= 2.0	indicates ‚satisfactory' performance = generates no signal
2.0 < z < 3.0	indicates ‚questionable' performance = generates a warning signal
z >= 3.0	indicates ‚unsatisfactory' performance = generates an action signal

All laboratory means µ with z >= 2 were marked with an '**E**'. z-scores with 3 >= z >= 2 were highlighted with a yellow color, z-scores with z >= 3 were highlighted with a red color.

Cochran's outlier test (ISO 5725-2:2002-12)

(3) $$C = \frac{s_{max}^2}{\sum_{i=1}^{p} s_i^2}$$

C	Cochran's test statistic
s_{max}	highest repeatability standard deviation
s_i	repeatability standard deviation of laboratory i
P	number of laboratories

Assessment on C:

C <= 5% cv	item tested is accepted as correct
5% cv < C < 1% cv	item tested is called a straggler
C > 1% cv	item tested is called a statistical outlier and marked with an '**C**'
	cv: critical value

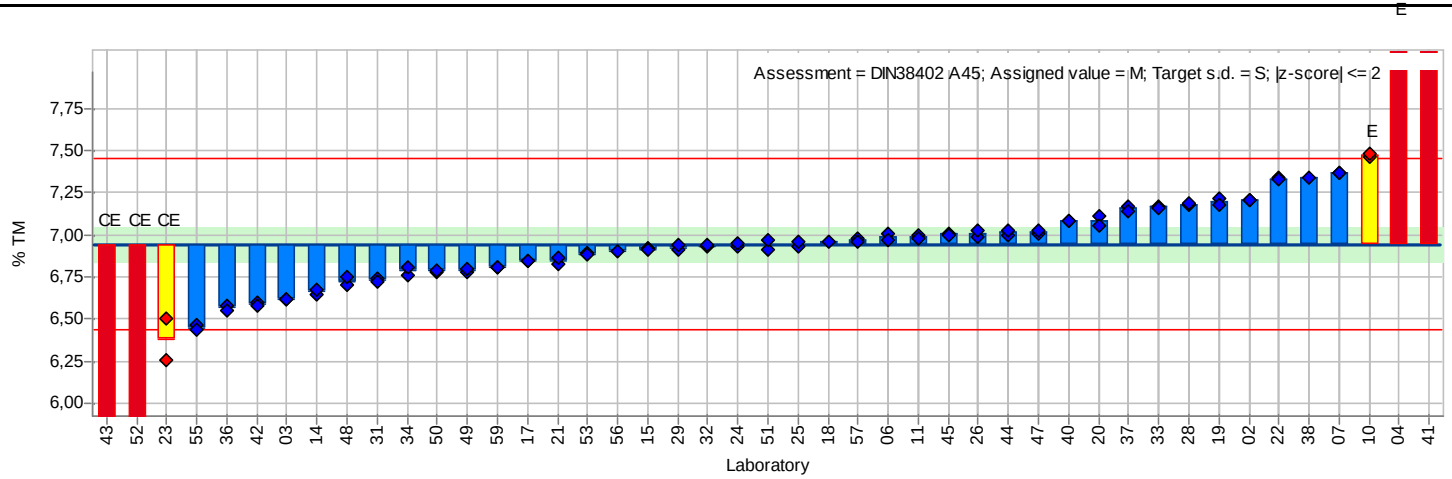
This outlier test was performed as additional information only. The robust statistics used took all values which were traceable independent on the Cochran test.

RV118

E

Summary results

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,256 % TM**
Measurand:	**Al2O3**	**Repeat. s.d**	**0,022 % TM**
Mean ± U(Mean):	**6,945 ± 0,100 % TM**	**Range of tolerance:**	**6,434 - 7,457 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**6,945 % TM (Empirical value)**	**Target s.d.**	**0,256 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	7,206	0,004	1,0	7,203	7,208	ISO 17025	XRF (fusion)	-
03	6,614	0,001	-1,3	6,614	6,613	no accreditation	XRF (fusion)	ISO 29581-2

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
04	8,200		4,9	8,200		ISO 17025	ICP-OES	-
06	6,990	0,028	0,2	7,010	6,970	no accreditation	Wet chemistry EN196-2	-
07	7,370	0,000	1,7	7,370	7,370	no accreditation	XRF (fusion)	-
10	7,473	0,019	2,1	7,460	7,487	no accreditation	XRF (fusion)	-
11	6,990	0,014	0,2	7,000	6,980	no accreditation	XRF (fusion)	-
14	6,660	0,014	-1,1	6,650	6,670	no accreditation	XRF (fusion)	-
15	6,915	0,007	-0,1	6,920	6,910	no accreditation	XRF (fusion)	-
17	6,845	0,001	-0,4	6,846	6,844	no accreditation	XRF (fusion)	-
18	6,960		0,1	6,960		no accreditation	XRF (fusion)	-
19	7,200	0,028	1,0	7,220	7,180	no accreditation	XRF (fusion)	-
20	7,083	0,035	0,5	7,108	7,058	no accreditation	XRF (fusion)	-
21	6,845	0,021	-0,4	6,830	6,860	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	7,335	0,007	1,5	7,340	7,330	no accreditation	XRF (fusion)	-
23	6,377	0,175	-2,2	6,253	6,500	ISO 17025	XRF (Pellet) info only	C
24	6,939	0,018	0,0	6,927	6,952	no accreditation	XRF (fusion)	-
25	6,945	0,021	0,0	6,930	6,960	ISO 17025	XRF (fusion)	-
26	7,006	0,027	0,2	6,987	7,025	ISO 17025	XRF (fusion)	-
28	7,179	0,006	0,9	7,175	7,184	ISO 17025	XRF (fusion)	-
29	6,925	0,021	-0,1	6,910	6,940	ISO 17025	XRF (fusion)	-
31	6,730	0,014	-0,8	6,740	6,720	ISO 17025	XRF (fusion)	-
32	6,935	0,007	0,0	6,930	6,940	no accreditation	XRF (fusion)	-
33	7,165	0,007	0,9	7,170	7,160	no accreditation	XRF (Pellet) info only	-
34	6,785	0,035	-0,6	6,760	6,810	no accreditation	XRF (fusion)	-
36	6,565	0,021	-1,5	6,580	6,550	ISO 17025	XRF (fusion)	-
37	7,155	0,021	0,8	7,170	7,140	no accreditation	XRF (fusion)	-
38	7,340		1,5	7,340		ISO 17025	XRF (fusion)	-
40	7,080	0,000	0,5	7,080	7,080	ISO 17025	XRF (fusion)	-
41	10,320	0,212	13,2	10,470	10,170	no accreditation	ICP-OES	C
42	6,590	0,014	-1,4	6,600	6,580	no accreditation	XRF (fusion)	-
43	1,275	0,333	-22,2	1,039	1,510	no accreditation	other	C, TXRF
44	7,015	0,021	0,3	7,000	7,030	no accreditation	XRF (fusion)	-
45	7,005	0,007	0,2	7,010	7,000	ISO 17025	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
47	7,020	0,014	0,3	7,010	7,030	ISO 17025	XRF (fusion)	-
48	6,725	0,035	-0,9	6,700	6,750	ISO 17025	XRF (fusion)	-
49	6,790	0,014	-0,6	6,780	6,800	no accreditation	XRF (fusion)	-
50	6,785	0,007	-0,6	6,780	6,790	no accreditation	XRF (fusion)	-
51	6,940	0,042	0,0	6,910	6,970	no accreditation	XRF (fusion)	-
52	5,146	0,155	-7,0	5,256	5,037	no accreditation	XRF (Pellet) info only	C, EDXRF
53	6,885	0,007	-0,2	6,890	6,880	no accreditation	XRF (fusion)	-
55	6,450	0,018	-1,9	6,463	6,437	no accreditation	XRF (fusion)	Reconstitution Method
56	6,900		-0,2	6,900		no accreditation	XRF (fusion)	-
57	6,971	0,011	0,1	6,979	6,963	ISO 17025	XRF (fusion)	-
59	6,810	0,000	-0,5	6,810	6,810	no accreditation	XRF (fusion)	-

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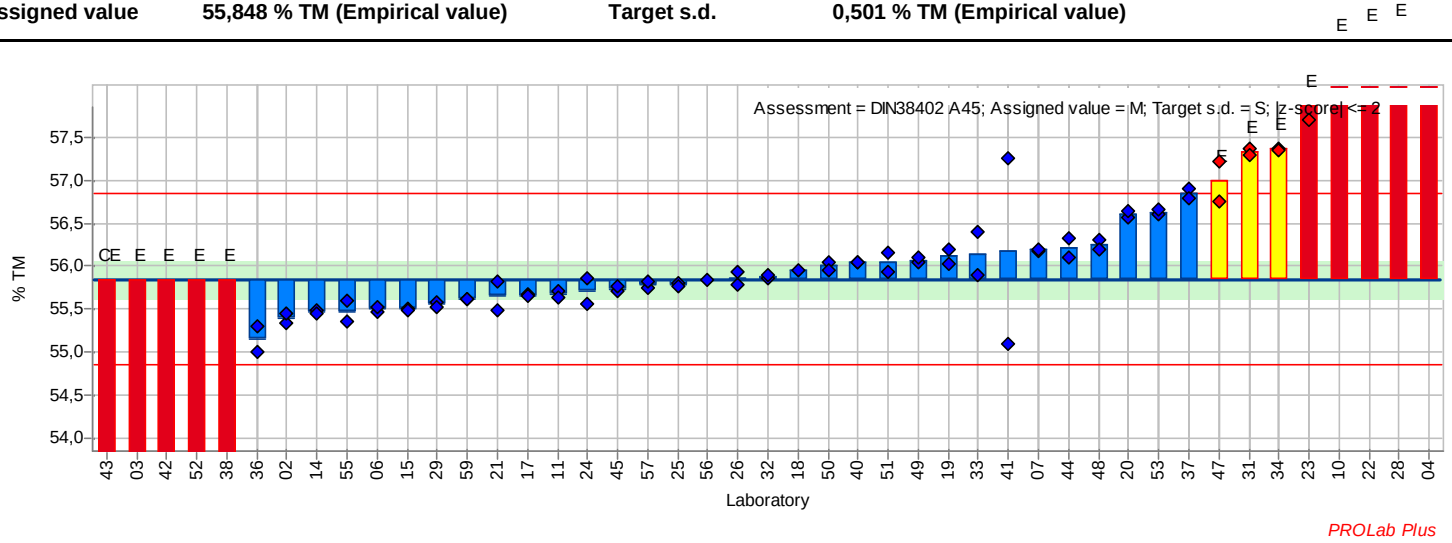
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,501 % TM**
Measurand:	**CaO**	**Repeat. s.d**	**0,084 % TM**
Mean ± U(Mean):	**55,848 ± 0,215 % TM**	**Range of tolerance:**	**54,847 - 56,850 % TM (|z-score| <= 2,0)**
No. of laboratories:	**34**	**Sample**	**DIN 38402 A45**
Assigned value	**55,848 % TM (Empirical value)**	**Target s.d.**	**0,501 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	55,393	0,071	-0,9	55,343	55,443	ISO 17025	XRF (fusion)	-
03	44,734	0,014	-22,2	44,744	44,725	no accreditation	XRF (fusion)	ISO 29581-2
04	63,820		15,9	63,820		ISO 17025	ICP-OES	-
06	55,495	0,049	-0,7	55,460	55,530	no accreditation	Wet chemistry EN196-2	-
07	56,185	0,007	0,7	56,180	56,190	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	58,525	0,233	5,3	58,360	58,690	no accreditation	XRF (fusion)	-
11	55,670	0,057	-0,4	55,710	55,630	no accreditation	XRF (fusion)	-
14	55,465	0,021	-0,8	55,480	55,450	no accreditation	XRF (fusion)	-
15	55,495	0,007	-0,7	55,500	55,490	no accreditation	XRF (fusion)	-
17	55,662	0,012	-0,4	55,670	55,653	no accreditation	XRF (fusion)	-
18	55,960		0,2	55,960		no accreditation	XRF (fusion)	-
19	56,110	0,113	0,5	56,190	56,030	no accreditation	XRF (fusion)	-
20	56,605	0,049	1,5	56,570	56,640	no accreditation	XRF (fusion)	-
21	55,650	0,240	-0,4	55,480	55,820	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	58,630	0,127	5,6	58,720	58,540	no accreditation	XRF (fusion)	-
23	57,870	0,226	4,0	57,710	58,030	ISO 17025	XRF (Pellet) info only	
24	55,705	0,212	-0,3	55,855	55,555	no accreditation	XRF (fusion)	-
25	55,785	0,021	-0,1	55,800	55,770	ISO 17025	XRF (fusion)	-
26	55,854	0,110	0,0	55,776	55,932	ISO 17025	XRF (fusion)	-
28	58,694	0,093	5,7	58,760	58,629	ISO 17025	XRF (fusion)	-
29	55,555	0,035	-0,6	55,580	55,530	ISO 17025	XRF (fusion)	-
31	57,330	0,042	3,0	57,360	57,300	ISO 17025	XRF (fusion)	-
32	55,875	0,021	0,1	55,860	55,890	no accreditation	XRF (fusion)	-
33	56,145	0,361	0,6	55,890	56,400	no accreditation	XRF (Pellet) info only	-
34	57,360	0,014	3,0	57,370	57,350	no accreditation	XRF (fusion)	-
36	55,150	0,212	-1,4	55,300	55,000	ISO 17025	XRF (fusion)	-
37	56,845	0,078	2,0	56,900	56,790	no accreditation	XRF (fusion)	-
38	53,050		-5,6	53,050		ISO 17025	XRF (fusion)	-
40	56,040	0,000	0,4	56,040	56,040	ISO 17025	XRF (fusion)	-
41	56,180	1,527	0,7	57,260	55,100	no accreditation	ICP-OES	C
42	44,950	0,212	-21,8	45,100	44,800	no accreditation	XRF (fusion)	-
43	24,745	1,333	-62,1	23,802	25,687	no accreditation	other	C, TXRF
44	56,215	0,163	0,7	56,100	56,330	no accreditation	XRF (fusion)	-
45	55,735	0,049	-0,2	55,700	55,770	ISO 17025	XRF (fusion)	-
47	56,985	0,332	2,3	56,750	57,220	ISO 17025	XRF (fusion)	-
48	56,250	0,071	0,8	56,300	56,200	ISO 17025	XRF (fusion)	-
49	56,070	0,042	0,4	56,040	56,100	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	56,005	0,064	0,3	56,050	55,960	no accreditation	XRF (fusion)	-
51	56,045	0,148	0,4	55,940	56,150	no accreditation	XRF (fusion)	-
52	52,905	0,460	-5,9	53,230	52,580	no accreditation	XRF (Pellet) info only	EDRFA
53	56,630	0,028	1,6	56,610	56,650	no accreditation	XRF (fusion)	-
55	55,469	0,173	-0,8	55,592	55,347	no accreditation	XRF (fusion)	Reconstitution Method
56	55,830		0,0	55,830		no accreditation	XRF (fusion)	-
57	55,784	0,059	-0,1	55,742	55,825	ISO 17025	XRF (fusion)	-
59	55,620	0,000	-0,5	55,620	55,620	no accreditation	XRF (fusion)	-

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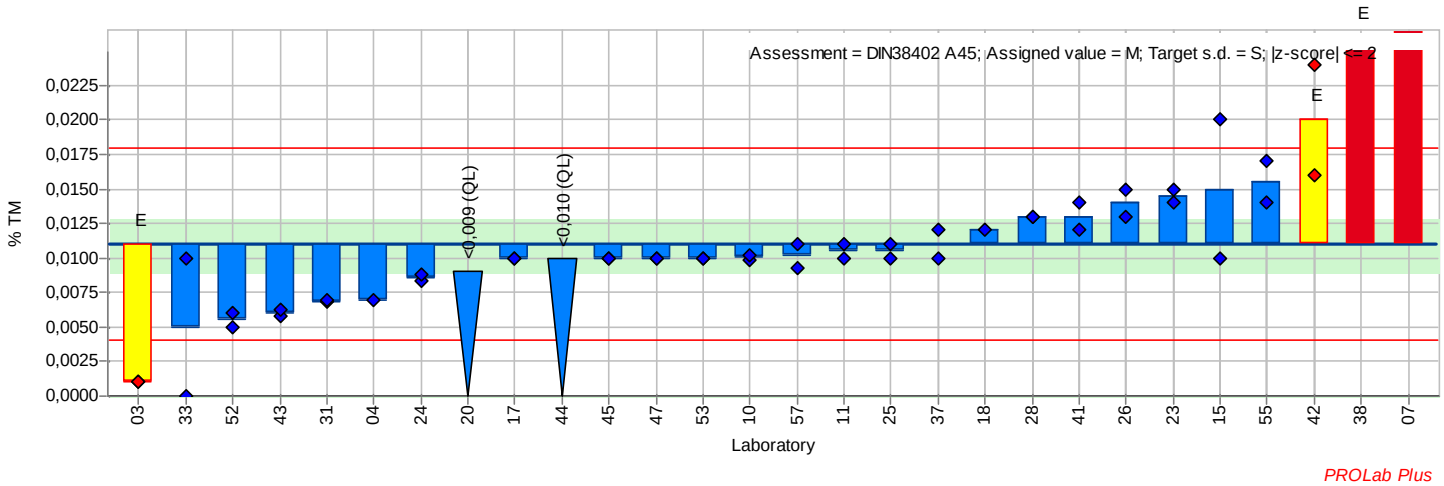
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,003 % TM**
Measurand:	**Cr2O3**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,011 ± 0,002 % TM**	**Range of tolerance:**	**0,004 - 0,018 % TM (|z-score| <= 2,0)**
No. of laboratories:	**21**	**Sample**	**DIN 38402 A45**
Assigned value	**0,011 % TM (Empirical value)**	**Target s.d.**	**0,003 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
03	0,001	0,000	-2,9	0,001	0,001	no accreditation	XRF (fusion)	ISO 29581-2
04	0,007		-1,1	0,007		ISO 17025	ICP-OES	-
07	0,081	0,002	19,9	0,079	0,082	no accreditation	XRF (Pellet) info only	
10	0,010	0,000	-0,3	0,010	0,010	no accreditation	XRF (fusion)	-
11	0,010	0,001	-0,1	0,010	0,011	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	0,015	0,007	1,2	0,020	0,010	no accreditation	XRF (fusion)	C
17	0,010	0,000	-0,3	0,010	0,010	no accreditation	XRF (fusion)	-
18	0,012		0,3	0,012		no accreditation	XRF (fusion)	-
20				<0,009	<0,009	no accreditation	XRF (fusion)	-
23	0,014	0,001	1,0	0,015	0,014	ISO 17025	XRF (Pellet) info only	
24	0,009	0,000	-0,7	0,008	0,009	no accreditation	XRF (fusion)	-
25	0,010	0,001	-0,1	0,011	0,010	ISO 17025	XRF (fusion)	-
26	0,014	0,001	0,9	0,013	0,015	ISO 17025	XRF (fusion)	-
28	0,013	0,000	0,6	0,013	0,013	ISO 17025	XRF (fusion)	-
31	0,007	0,000	-1,2	0,007	0,007	ISO 17025	ICP-OES	digestion in aqua regia
33	0,005	0,007	-1,7	0,000	0,010	no accreditation	XRF (Pellet) info only	-
37	0,011	0,001	0,0	0,012	0,010	no accreditation	XRF (fusion)	-
38	0,026		4,3	0,026		ISO 17025	ICP-OES	-
41	0,013	0,001	0,6	0,014	0,012	no accreditation	ICP-OES	-
42	0,020	0,006	2,6	0,024	0,016	no accreditation	XRF (fusion)	C
43	0,006	0,000	-1,4	0,006	0,006	no accreditation	other	TXRF
44				<0,010	<0,010	no accreditation	XRF (fusion)	-
45	0,010	0,000	-0,3	0,010	0,010	ISO 17025	XRF (fusion)	-
47	0,010	0,000	-0,3	0,010	0,010	ISO 17025	XRF (fusion)	-
52	0,006	0,001	-1,6	0,006	0,005	no accreditation	XRF (Pellet) info only	EDRFA
53	0,010	0,000	-0,3	0,010	0,010	no accreditation	XRF (fusion)	-
55	0,015	0,002	1,3	0,014	0,017	no accreditation	XRF (fusion)	Reconstitution Method
57	0,010	0,001	-0,2	0,011	0,009	ISO 17025	XRF (fusion)	-

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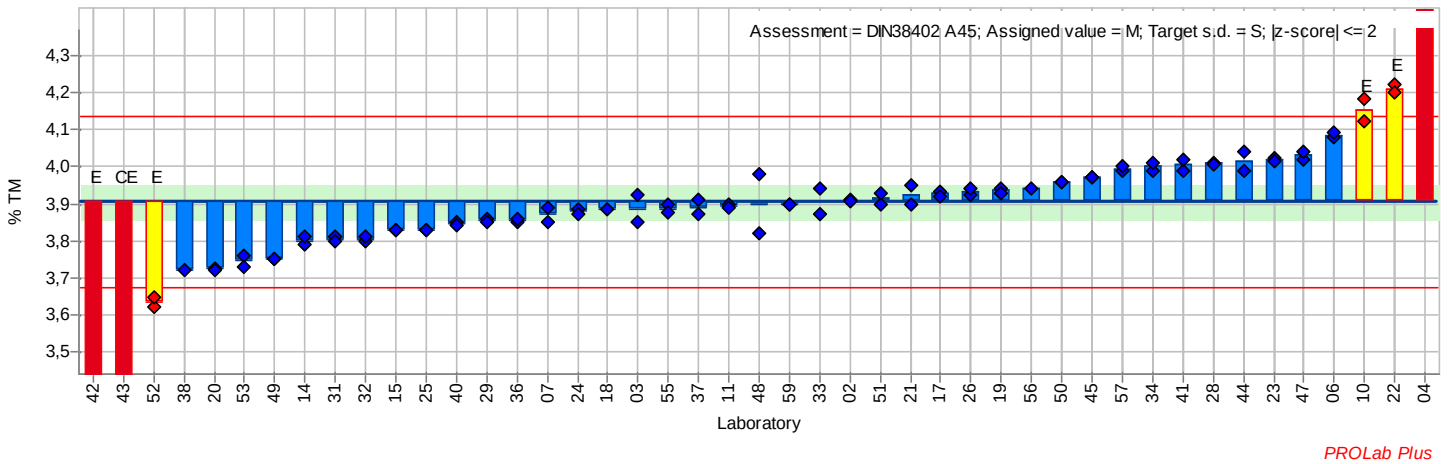
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,116 % TM**
Measurand:	**Fe2O3**	**Repeat. s.d**	**0,014 % TM**
Mean ± U(Mean):	**3,904 ± 0,045 % TM**	**Range of tolerance:**	**3,673 - 4,136 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**3,904 % TM (Empirical value)**	**Target s.d.**	**0,116 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	3,909	0,004	0,0	3,911	3,906	ISO 17025	XRF (fusion)	-
03	3,886	0,052	-0,2	3,922	3,849	no accreditation	XRF (fusion)	ISO 29581-2
04	4,600		6,0	4,600		ISO 17025	ICP-OES	-
06	4,085	0,007	1,6	4,080	4,090	no accreditation	Wet chemistry EN196-2	-
07	3,870	0,028	-0,3	3,890	3,850	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	4,152	0,043	2,1	4,122	4,183	no accreditation	XRF (fusion)	-
11	3,895	0,007	-0,1	3,900	3,890	no accreditation	XRF (fusion)	-
14	3,800	0,014	-0,9	3,790	3,810	no accreditation	XRF (fusion)	-
15	3,830	0,000	-0,6	3,830	3,830	no accreditation	XRF (fusion)	-
17	3,926	0,008	0,2	3,932	3,921	no accreditation	XRF (fusion)	-
18	3,884		-0,2	3,884		no accreditation	XRF (fusion)	-
19	3,935	0,007	0,3	3,940	3,930	no accreditation	XRF (fusion)	-
20	3,724	0,003	-1,6	3,726	3,722	no accreditation	XRF (fusion)	-
21	3,925	0,035	0,2	3,900	3,950	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	4,210	0,014	2,6	4,220	4,200	no accreditation	XRF (fusion)	-
23	4,018	0,006	1,0	4,022	4,013	ISO 17025	XRF (Pellet) info only	
24	3,880	0,008	-0,2	3,886	3,874	no accreditation	XRF (fusion)	-
25	3,830	0,000	-0,6	3,830	3,830	ISO 17025	XRF (fusion)	-
26	3,933	0,010	0,2	3,926	3,940	ISO 17025	XRF (fusion)	-
28	4,009	0,004	0,9	4,012	4,007	ISO 17025	XRF (fusion)	-
29	3,855	0,007	-0,4	3,860	3,850	ISO 17025	XRF (fusion)	-
31	3,805	0,007	-0,9	3,810	3,800	ISO 17025	XRF (fusion)	-
32	3,805	0,007	-0,9	3,800	3,810	no accreditation	XRF (fusion)	-
33	3,905	0,049	0,0	3,870	3,940	no accreditation	XRF (Pellet) info only	-
34	4,000	0,014	0,8	3,990	4,010	no accreditation	XRF (fusion)	-
36	3,855	0,007	-0,4	3,850	3,860	ISO 17025	XRF (fusion)	-
37	3,890	0,028	-0,1	3,870	3,910	no accreditation	XRF (fusion)	-
38	3,720		-1,6	3,720		ISO 17025	XRF (fusion)	-
40	3,845	0,007	-0,5	3,850	3,840	ISO 17025	XRF (fusion)	-
41	4,005	0,021	0,9	3,990	4,020	no accreditation	ICP-OES	-
42	2,440	0,000	-12,6	2,440	2,440	no accreditation	XRF (fusion)	-
43	2,763	0,136	-9,9	2,667	2,859	no accreditation	other	C, TXRF
44	4,015	0,035	1,0	3,990	4,040	no accreditation	XRF (fusion)	-
45	3,970	0,000	0,6	3,970	3,970	ISO 17025	XRF (fusion)	-
47	4,030	0,014	1,1	4,020	4,040	ISO 17025	XRF (fusion)	-
48	3,900	0,113	0,0	3,820	3,980	ISO 17025	XRF (fusion)	C
49	3,750	0,000	-1,3	3,750	3,750	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	3,960	0,000	0,5	3,960	3,960	no accreditation	XRF (fusion)	-
51	3,915	0,021	0,1	3,900	3,930	no accreditation	XRF (fusion)	-
52	3,635	0,019	-2,3	3,622	3,649	no accreditation	XRF (Pellet) info only	EDRFA
53	3,745	0,021	-1,4	3,760	3,730	no accreditation	XRF (fusion)	-
55	3,886	0,013	-0,2	3,896	3,877	no accreditation	XRF (fusion)	Reconstitution Method
56	3,940		0,3	3,940		no accreditation	XRF (fusion)	-
57	3,994	0,008	0,8	3,988	3,999	ISO 17025	XRF (fusion)	-
59	3,900	0,000	0,0	3,900	3,900	no accreditation	XRF (fusion)	-

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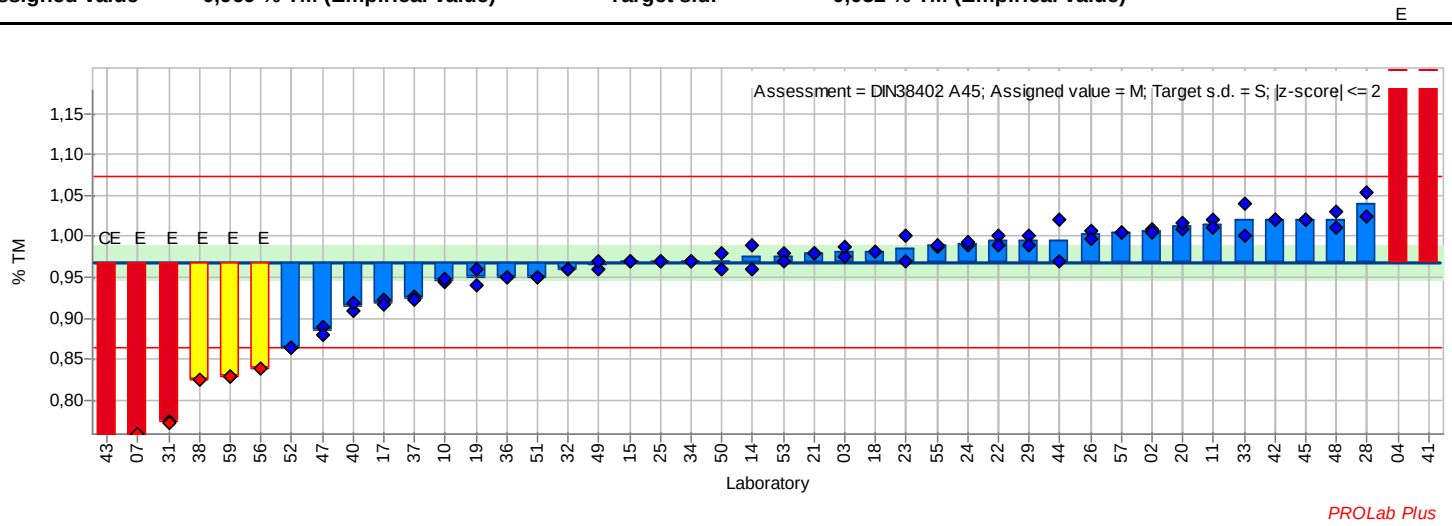
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,052 % TM**
Measurand:	**K2O**	**Repeat. s.d**	**0,008 % TM**
Mean ± U(Mean):	**0,969 ± 0,021 % TM**	**Range of tolerance:**	**0,864 - 1,074 % TM (|z-score| <= 2,0)**
No. of laboratories:	**39**	**Sample**	**DIN 38402 A45**
Assigned value	**0,969 % TM (Empirical value)**	**Target s.d.**	**0,052 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	1,006	0,002	0,7	1,008	1,005	ISO 17025	XRF (fusion)	-
03	0,981	0,007	0,2	0,976	0,987	no accreditation	XRF (fusion)	ISO 29581-2
04	1,240		5,2	1,240		ISO 17025	ICP-OES	-
07	0,755	0,007	-4,1	0,760	0,750	no accreditation	XRF (fusion)	-
10	0,946	0,002	-0,4	0,945	0,948	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	1,015	0,007	0,9	1,020	1,010	no accreditation	XRF (fusion)	-
14	0,975	0,021	0,1	0,990	0,960	no accreditation	XRF (fusion)	-
15	0,970	0,000	0,0	0,970	0,970	no accreditation	XRF (fusion)	-
17	0,920	0,003	-0,9	0,922	0,918	no accreditation	XRF (fusion)	-
18	0,982		0,3	0,982		no accreditation	XRF (fusion)	-
19	0,950	0,014	-0,4	0,960	0,940	no accreditation	XRF (fusion)	-
20	1,012	0,005	0,8	1,009	1,016	no accreditation	ICP-OES	-
21	0,980	0,000	0,2	0,980	0,980	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,995	0,007	0,5	1,000	0,990	no accreditation	XRF (fusion)	-
23	0,985	0,021	0,3	0,970	1,000	ISO 17025	XRF (Pellet) info only	
24	0,992	0,004	0,4	0,989	0,994	no accreditation	XRF (fusion)	-
25	0,970	0,000	0,0	0,970	0,970	ISO 17025	XRF (fusion)	-
26	1,002	0,006	0,6	1,007	0,998	ISO 17025	ICP-OES	-
28	1,039	0,021	1,3	1,025	1,054	ISO 17025	XRF (fusion)	-
29	0,995	0,007	0,5	1,000	0,990	ISO 17025	XRF (fusion)	-
31	0,774	0,001	-3,7	0,775	0,773	ISO 17025	XRF (fusion)	-
32	0,960	0,000	-0,2	0,960	0,960	no accreditation	XRF (fusion)	-
33	1,020	0,028	1,0	1,000	1,040	no accreditation	XRF (Pellet) info only	-
34	0,970	0,000	0,0	0,970	0,970	no accreditation	XRF (fusion)	-
36	0,950	0,000	-0,4	0,950	0,950	no accreditation	other	AAS
37	0,925	0,004	-0,8	0,927	0,922	no accreditation	XRF (fusion)	-
38	0,825		-2,7	0,825		ISO 17025	ICP-OES	-
40	0,915	0,007	-1,0	0,910	0,920	ISO 17025	XRF (fusion)	-
41	2,020	0,113	20,1	2,100	1,940	no accreditation	ICP-OES	C
42	1,020	0,000	1,0	1,020	1,020	no accreditation	XRF (fusion)	-
43	0,600	0,058	-7,0	0,558	0,641	no accreditation	other	C, TXRF
44	0,995	0,035	0,5	0,970	1,020	no accreditation	XRF (fusion)	-
45	1,020	0,000	1,0	1,020	1,020	ISO 17025	XRF (fusion)	-
47	0,885	0,007	-1,6	0,890	0,880	ISO 17025	XRF (fusion)	-
48	1,020	0,014	1,0	1,030	1,010	ISO 17025	XRF (fusion)	-
49	0,965	0,007	-0,1	0,960	0,970	no accreditation	XRF (fusion)	-
50	0,970	0,014	0,0	0,960	0,980	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	0,950	0,000	-0,4	0,950	0,950	no accreditation	XRF (fusion)	-
52	0,864	0,000	-2,0	0,864	0,864	no accreditation	XRF (Pellet) info only	EDRFA
53	0,975	0,007	0,1	0,980	0,970	no accreditation	XRF (fusion)	-
55	0,988	0,001	0,4	0,988	0,989	no accreditation	XRF (fusion)	Reconstitution Method
56	0,840		-2,5	0,840		no accreditation	XRF (fusion)	-
57	1,004	0,000	0,7	1,004	1,005	ISO 17025	XRF (fusion)	-
59	0,830	0,000	-2,6	0,830	0,830	no accreditation	XRF (fusion)	-

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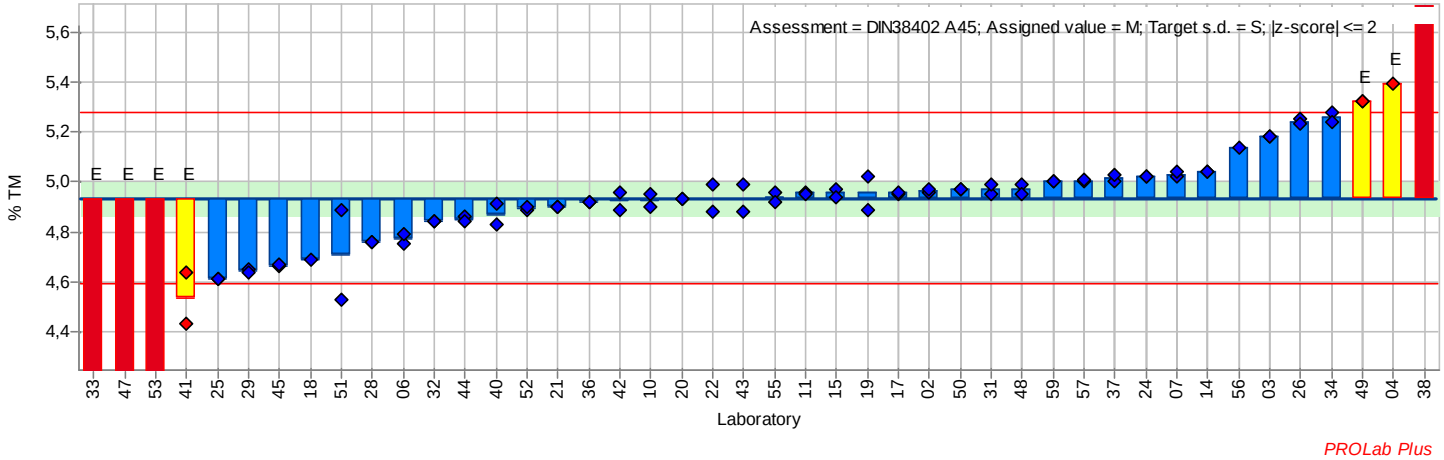
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,172 % TM**
Measurand:	**LOI (1h @ 950°C) observed**	**Repeat. s.d**	**0,029 % TM**
Mean ± U(Mean):	**4,935 ± 0,065 % TM**	**Range of tolerance:**	**4,591 - 5,279 % TM (|z-score| <= 2,0)**
No. of laboratories:	**44**	**Sample**	**DIN 38402 A45**
Assigned value	**4,935 % TM (Empirical value)**	**Target s.d.**	**0,172 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	4,965	0,007	0,2	4,960	4,970	ISO 17025	1h@950°C	-
03	5,180	0,000	1,4	5,180	5,180	no accreditation	Wet chemistry EN196-2	-
04	5,390		2,6	5,390		ISO 17025	1h@950°C	-
06	4,770	0,028	-1,0	4,750	4,790	no accreditation	Wet chemistry EN196-2	-
07	5,030	0,014	0,6	5,020	5,040	no accreditation	1h@950°C	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	4,925	0,035	-0,1	4,900	4,950	no accreditation	XRF (fusion)	-
11	4,955	0,007	0,1	4,960	4,950	no accreditation	Wet chemistry EN196-2	-
14	5,040	0,000	0,6	5,040	5,040	no accreditation	1h@950°C	corr. EN 196-2
15	4,955	0,021	0,1	4,970	4,940	no accreditation	1h@950°C	-
17	4,955	0,002	0,1	4,954	4,957	no accreditation	1h@950°C	-
18	4,690		-1,4	4,690		no accreditation	1h@950°C	-
19	4,955	0,092	0,1	4,890	5,020	no accreditation	1h@950°C	-
20	4,930	0,000	0,0	4,930	4,930	no accreditation	1h@950°C	-
21	4,900	0,000	-0,2	4,900	4,900	ISO 17025	Wet chemistry EN196-2	-
22	4,935	0,078	0,0	4,990	4,880	no accreditation	1h@950°C	-
24	5,024	0,000	0,5	5,024	5,024	no accreditation	1h@950°C	-
25	4,610	0,000	-1,9	4,610	4,610	ISO 17025	1h@950°C	-
26	5,240	0,014	1,8	5,250	5,230	ISO 17025	1h@950°C	-
28	4,760	0,000	-1,0	4,760	4,760	ISO 17025	1h@950°C	-
29	4,645	0,007	-1,7	4,650	4,640	ISO 17025	1h@950°C	-
31	4,970	0,028	0,2	4,950	4,990	no accreditation	1h@950°C	-
32	4,840	0,000	-0,6	4,840	4,840	no accreditation	1h@950°C	-
33	3,505	0,658	-8,3	3,970	3,040	no accreditation	1h@950°C	C
34	5,260	0,028	1,9	5,280	5,240	no accreditation	1h@950°C	-
36	4,920	0,000	-0,1	4,920	4,920	ISO 17025	1h@950°C	-
37	5,015	0,021	0,5	5,000	5,030	no accreditation	1h@950°C	-
38	10,520		32,4	10,520		no accreditation	1h@950°C	-
40	4,870	0,057	-0,4	4,830	4,910	ISO 17025	XRF (fusion)	-
41	4,535	0,148	-2,3	4,430	4,640	no accreditation	1h@950°C	C
42	4,925	0,049	-0,1	4,890	4,960	no accreditation	1h@950°C	-
43	4,935	0,078	0,0	4,990	4,880	no accreditation	1h@950°C	-
44	4,850	0,014	-0,5	4,860	4,840	no accreditation	1h@950°C	-
45	4,665	0,007	-1,6	4,660	4,670	ISO 17025	1h@950°C	-
47	3,920	0,028	-5,9	3,900	3,940	no accreditation	1h@950°C	-
48	4,970	0,028	0,2	4,990	4,950	ISO 17025	1h@950°C	-
49	5,320	0,000	2,2	5,320	5,320	no accreditation	combustion	-
50	4,970	0,000	0,2	4,970	4,970	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	4,710	0,255	-1,3	4,530	4,890	ISO 17025	XRF (fusion)	C
52	4,895	0,007	-0,2	4,890	4,900	no accreditation	1h@950°C	-
53	4,020	0,028	-5,3	4,040	4,000	no accreditation	1h@950°C	-
55	4,937	0,026	0,0	4,955	4,918	no accreditation	1h@950°C	Reconstitution Method
56	5,140		1,2	5,140		no accreditation	1h@950°C	-
57	5,005	0,007	0,4	5,000	5,010	ISO 17025	1h@950°C	-
59	5,000	0,000	0,4	5,000	5,000	no accreditation	1h@950°C	-

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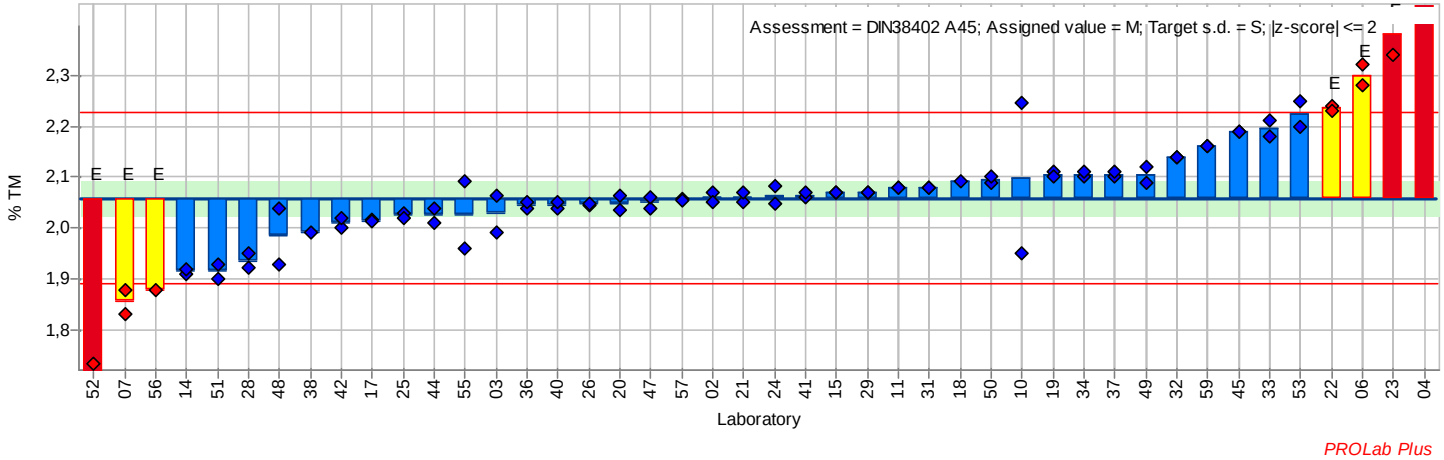
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,084 % TM**
Measurand:	**MgO**	**Repeat. s.d**	**0,017 % TM**
Mean ± U(Mean):	**2,059 ± 0,033 % TM**	**Range of tolerance:**	**1,890 - 2,228 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**2,059 % TM (Empirical value)**	**Target s.d.**	**0,084 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	2,060	0,014	0,0	2,070	2,050	ISO 17025	XRF (fusion)	-
03	2,028	0,050	-0,4	1,993	2,063	no accreditation	XRF (fusion)	ISO 29581-2
04	2,590		6,3	2,590		ISO 17025	ICP-OES	-
06	2,300	0,028	2,9	2,320	2,280	no accreditation	Wet chemistry EN196-2	-
07	1,855	0,035	-2,4	1,830	1,880	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	2,098	0,209	0,5	2,245	1,950	no accreditation	XRF (fusion)	C
11	2,080	0,000	0,2	2,080	2,080	no accreditation	XRF (fusion)	-
14	1,915	0,007	-1,7	1,910	1,920	no accreditation	XRF (fusion)	-
15	2,070	0,000	0,1	2,070	2,070	no accreditation	XRF (fusion)	-
17	2,015	0,003	-0,5	2,017	2,013	no accreditation	XRF (fusion)	-
18	2,093		0,4	2,093		no accreditation	XRF (fusion)	-
19	2,105	0,007	0,5	2,110	2,100	no accreditation	XRF (fusion)	-
20	2,050	0,022	-0,1	2,034	2,065	no accreditation	XRF (fusion)	-
21	2,060	0,014	0,0	2,050	2,070	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	2,235	0,007	2,1	2,240	2,230	no accreditation	XRF (fusion)	-
23	2,381	0,059	3,8	2,339	2,422	ISO 17025	XRF (Pellet) info only	
24	2,065	0,023	0,1	2,081	2,049	no accreditation	XRF (fusion)	-
25	2,025	0,007	-0,4	2,030	2,020	ISO 17025	XRF (fusion)	-
26	2,046	0,002	-0,1	2,045	2,048	ISO 17025	XRF (fusion)	-
28	1,937	0,019	-1,5	1,950	1,923	ISO 17025	XRF (fusion)	-
29	2,070	0,000	0,1	2,070	2,070	ISO 17025	XRF (fusion)	-
31	2,080	0,000	0,2	2,080	2,080	ISO 17025	XRF (fusion)	-
32	2,140	0,000	1,0	2,140	2,140	no accreditation	XRF (fusion)	-
33	2,195	0,021	1,6	2,210	2,180	no accreditation	XRF (Pellet) info only	-
34	2,105	0,007	0,5	2,100	2,110	no accreditation	XRF (fusion)	-
36	2,045	0,007	-0,2	2,040	2,050	ISO 17025	XRF (fusion)	-
37	2,105	0,007	0,5	2,100	2,110	no accreditation	XRF (fusion)	-
38	1,990		-0,8	1,990		ISO 17025	XRF (fusion)	-
40	2,045	0,007	-0,2	2,040	2,050	ISO 17025	XRF (fusion)	-
41	2,065	0,007	0,1	2,060	2,070	no accreditation	ICP-OES	-
42	2,010	0,014	-0,6	2,000	2,020	no accreditation	XRF (fusion)	-
44	2,025	0,021	-0,4	2,010	2,040	no accreditation	XRF (fusion)	-
45	2,190	0,000	1,6	2,190	2,190	ISO 17025	XRF (fusion)	-
47	2,050	0,014	-0,1	2,040	2,060	ISO 17025	XRF (fusion)	-
48	1,985	0,078	-0,9	2,040	1,930	ISO 17025	XRF (fusion)	C
49	2,105	0,021	0,5	2,090	2,120	no accreditation	XRF (fusion)	-
50	2,095	0,007	0,4	2,090	2,100	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	1,915	0,021	-1,7	1,900	1,930	no accreditation	XRF (fusion)	-
52	1,680	0,078	-4,5	1,735	1,625	no accreditation	XRF (Pellet) info only	EDRFA
53	2,225	0,035	2,0	2,200	2,250	no accreditation	XRF (fusion)	-
55	2,025	0,093	-0,4	2,091	1,959	no accreditation	XRF (fusion)	C - Reconstitution Method
56	1,880		-2,1	1,880		no accreditation	XRF (fusion)	-
57	2,056	0,004	0,0	2,059	2,053	ISO 17025	XRF (fusion)	-
59	2,160	0,000	1,2	2,160	2,160	no accreditation	XRF (fusion)	-

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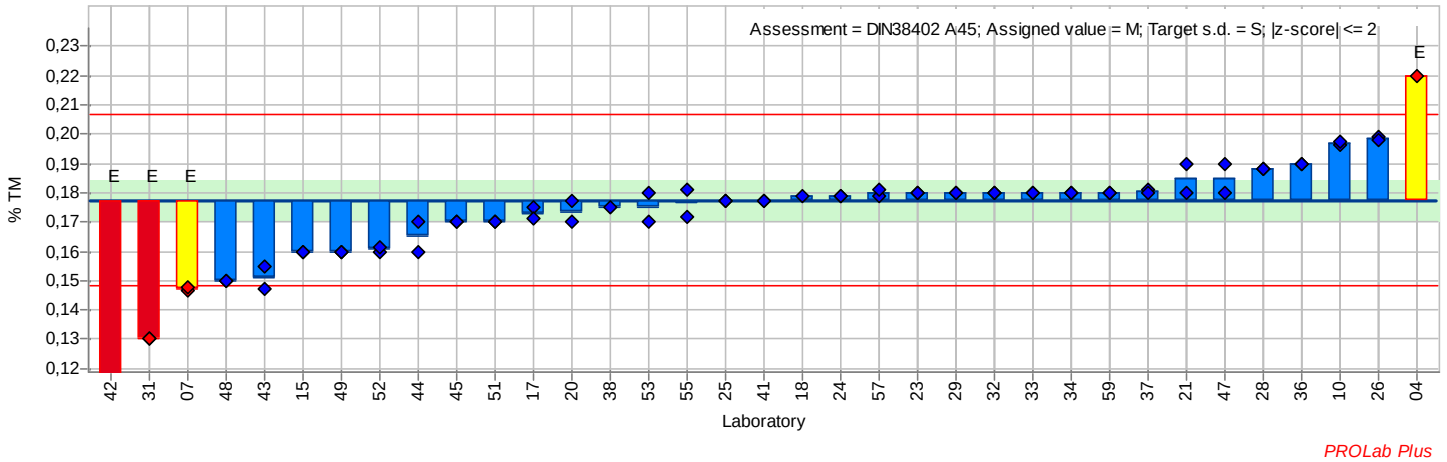
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,015 % TM**
Measurand:	**Mn2O3**	**Repeat. s.d**	**0,003 % TM**
Mean ± U(Mean):	**0,178 ± 0,007 % TM**	**Range of tolerance:**	**0,148 - 0,207 % TM (|z-score| <= 2,0)**
No. of laboratories:	**30**	**Sample**	**DIN 38402 A45**
Assigned value	**0,178 % TM (Empirical value)**	**Target s.d.**	**0,015 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
04	0,220		2,9	0,220		ISO 17025	ICP-OES	-
07	0,147	0,000	-2,1	0,147	0,147	no accreditation	XRF (Pellet) info only	
10	0,197	0,001	1,3	0,196	0,198	no accreditation	XRF (fusion)	-
14								-
15	0,160	0,000	-1,2	0,160	0,160	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
17	0,173	0,003	-0,3	0,175	0,171	no accreditation	XRF (fusion)	-
18	0,179		0,1	0,179		no accreditation	XRF (fusion)	-
20	0,173	0,005	-0,3	0,170	0,177	no accreditation	XRF (fusion)	-
21	0,185	0,007	0,5	0,180	0,190	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,180	0,000	0,2	0,180	0,180	ISO 17025	XRF (Pellet) info only	
24	0,179	0,000	0,1	0,179	0,179	no accreditation	XRF (fusion)	-
25	0,177	0,000	0,0	0,177	0,177	ISO 17025	XRF (fusion)	-
26	0,199	0,001	1,4	0,199	0,198	ISO 17025	XRF (fusion)	-
28	0,188	0,000	0,7	0,188	0,188	ISO 17025	XRF (fusion)	-
29	0,180	0,000	0,2	0,180	0,180	ISO 17025	XRF (fusion)	-
31	0,130	0,000	-3,2	0,130	0,130	ISO 17025	ICP-OES	digestion in aqua regia
32	0,180	0,000	0,2	0,180	0,180	no accreditation	XRF (fusion)	-
33	0,180	0,000	0,2	0,180	0,180	no accreditation	XRF (Pellet) info only	-
34	0,180	0,000	0,2	0,180	0,180	no accreditation	XRF (fusion)	-
36	0,190	0,000	0,9	0,190	0,190	ISO 17025	XRF (fusion)	-
37	0,180	0,001	0,2	0,181	0,180	no accreditation	XRF (fusion)	-
38	0,175		-0,2	0,175		ISO 17025	ICP-OES	-
41	0,177	0,000	0,0	0,177	0,177	no accreditation	ICP-OES	-
42	0,090	0,001	-5,9	0,090	0,091	no accreditation	XRF (fusion)	-
43	0,151	0,006	-1,8	0,147	0,155	no accreditation	other	TXRF
44	0,165	0,007	-0,9	0,160	0,170	no accreditation	XRF (fusion)	calc. from MnO
45	0,170	0,000	-0,5	0,170	0,170	ISO 17025	XRF (fusion)	-
47	0,185	0,007	0,5	0,180	0,190	no accreditation	XRF (fusion)	-
48	0,150	0,000	-1,9	0,150	0,150	ISO 17025	XRF (fusion)	-
49	0,160	0,000	-1,2	0,160	0,160	no accreditation	XRF (fusion)	-
51	0,170	0,000	-0,5	0,170	0,170	no accreditation	XRF (fusion)	-
52	0,161	0,001	-1,2	0,160	0,162	no accreditation	XRF (Pellet) info only	EDRFA
53	0,175	0,007	-0,2	0,180	0,170	no accreditation	XRF (fusion)	-
55	0,176	0,006	-0,1	0,172	0,181	no accreditation	XRF (fusion)	Reconstitution Method
57	0,180	0,001	0,2	0,179	0,181	ISO 17025	XRF (fusion)	-
59	0,180	0,000	0,2	0,180	0,180	no accreditation	XRF (fusion)	-

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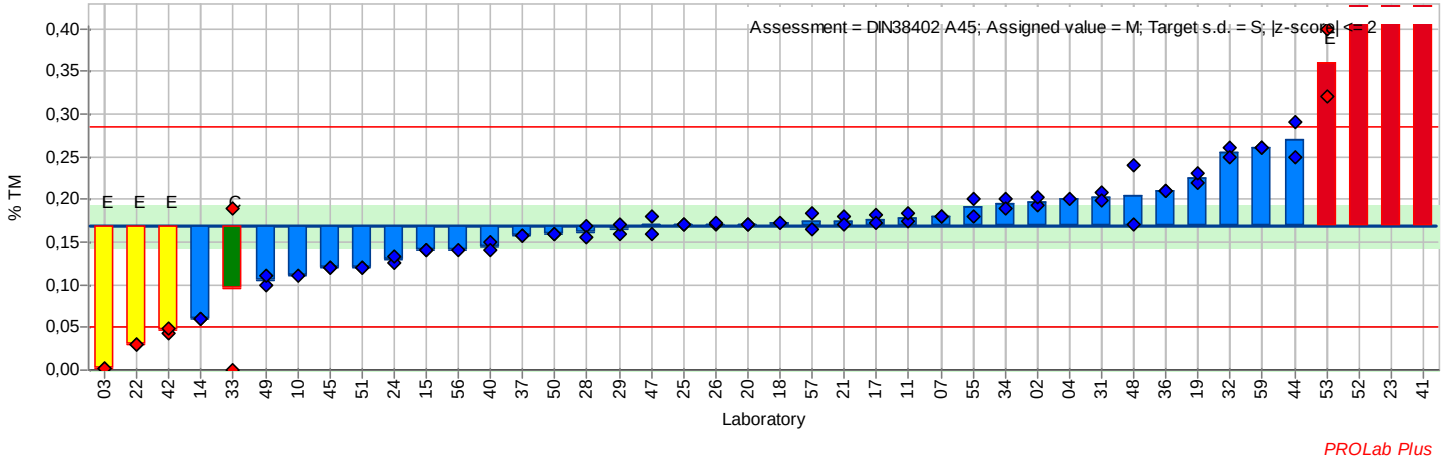
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,059 % TM**
Measurand:	**Na2O**	**Repeat. s.d**	**0,008 % TM**
Mean ± U(Mean):	**0,169 ± 0,025 % TM**	**Range of tolerance:**	**0,051 - 0,286 % TM (|z-score| <= 2,0)**
No. of laboratories:	**35**	**Sample**	**DIN 38402 A45**
Assigned value	**0,169 % TM (Empirical value)**	**Target s.d.**	**0,059 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,198	0,006	0,5	0,193	0,202	ISO 17025	XRF (fusion)	-
03	0,001	0,000	-2,9	0,001	0,001	no accreditation	XRF (fusion)	ISO 29581-2
04	0,200		0,5	0,200		ISO 17025	ICP-OES	-
07	0,181	0,000	0,2	0,181	0,180	no accreditation	XRF (Pellet) info only	
10	0,110		-1,0	0,110	<0,020	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,179	0,006	0,2	0,175	0,183	no accreditation	XRF (fusion)	-
14	0,060	0,000	-1,9	0,060	0,060	no accreditation	other	EDXRF fusion
15	0,140	0,000	-0,5	0,140	0,140	no accreditation	XRF (fusion)	-
17	0,177	0,007	0,1	0,182	0,172	no accreditation	XRF (fusion)	-
18	0,172		0,1	0,172		no accreditation	XRF (fusion)	-
19	0,225	0,007	1,0	0,220	0,230	no accreditation	XRF (fusion)	-
20	0,171	0,000	0,0	0,171	0,171	no accreditation	ICP-OES	-
21	0,175	0,007	0,1	0,180	0,170	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,030	0,000	-2,4	0,030	0,030	no accreditation	XRF (fusion)	-
23	2,560	0,059	40,8	2,518	2,602	ISO 17025	XRF (Pellet) info only	
24	0,130	0,006	-0,7	0,125	0,134	no accreditation	XRF (fusion)	-
25	0,170	0,000	0,0	0,170	0,170	ISO 17025	XRF (fusion)	-
26	0,171	0,001	0,0	0,170	0,172	ISO 17025	ICP-OES	-
28	0,162	0,010	-0,1	0,169	0,155	ISO 17025	XRF (fusion)	-
29	0,165	0,007	-0,1	0,160	0,170	ISO 17025	XRF (fusion)	-
31	0,204	0,008	0,6	0,209	0,198	ISO 17025	XRF (fusion)	-
32	0,255	0,007	1,5	0,260	0,250	no accreditation	XRF (fusion)	-
33	0,095	0,134	-1,3	0,190	0,000	no accreditation	XRF (Pellet) info only	C
34	0,195	0,007	0,4	0,200	0,190	no accreditation	XRF (fusion)	-
36	0,210	0,000	0,7	0,210	0,210	no accreditation	other	AAS
37	0,157	0,000	-0,2	0,157	0,157	no accreditation	XRF (fusion)	-
40	0,145	0,007	-0,4	0,150	0,140	no accreditation	other	AAS
41	5,645	0,177	93,4	5,770	5,520	no accreditation	ICP-OES	C
42	0,046	0,003	-2,1	0,044	0,048	no accreditation	XRF (fusion)	-
44	0,270	0,028	1,7	0,290	0,250	no accreditation	XRF (fusion)	C
45	0,120	0,000	-0,8	0,120	0,120	ISO 17025	XRF (fusion)	-
47	0,170	0,014	0,0	0,160	0,180	ISO 17025	XRF (fusion)	-
48	0,205	0,049	0,6	0,240	0,170	ISO 17025	XRF (fusion)	C
49	0,105	0,007	-1,1	0,100	0,110	no accreditation	XRF (fusion)	-
50	0,160	0,000	-0,1	0,160	0,160	no accreditation	XRF (fusion)	-
51	0,120	0,000	-0,8	0,120	0,120	no accreditation	XRF (fusion)	-
52	1,922	0,041	29,9	1,951	1,893	no accreditation	XRF (Pellet) info only	EDRFA

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
53	0,360	0,057	3,3	0,400	0,320	no accreditation	XRF (fusion)	C
55	0,191	0,013	0,4	0,181	0,200	no accreditation	XRF (fusion)	-
56	0,140		-0,5	0,140		no accreditation	XRF (fusion)	-
57	0,174	0,013	0,1	0,183	0,165	ISO 17025	XRF (fusion)	-
59	0,260	0,000	1,6	0,260	0,260	no accreditation	XRF (fusion)	-

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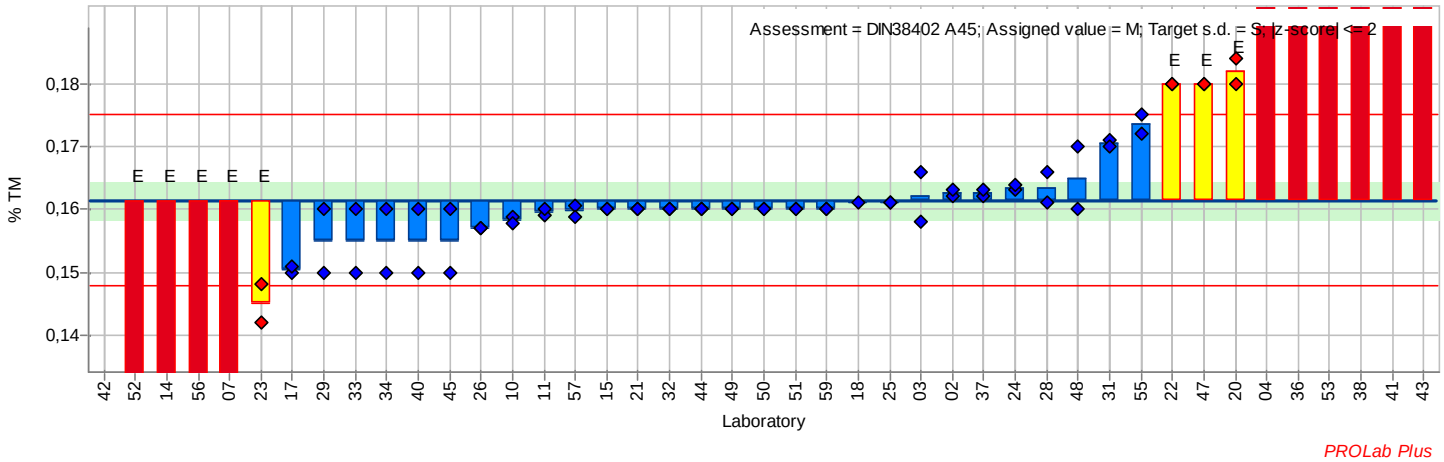
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,007 % TM**
Measurand:	**P2O5**	**Repeat. s.d**	**0,002 % TM**
Mean ± U(Mean):	**0,161 ± 0,003 % TM**	**Range of tolerance:**	**0,148 - 0,175 % TM (|z-score| <= 2,0)**
No. of laboratories:	**36**	**Sample**	**DIN 38402 A45**
Assigned value	**0,161 % TM (Empirical value)**	**Target s.d.**	**0,007 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,163	0,001	0,2	0,162	0,163	ISO 17025	XRF (fusion)	-
03	0,162	0,006	0,1	0,158	0,166	no accreditation	XRF (fusion)	ISO 29581-2
04	0,200		5,6	0,200		ISO 17025	ICP-OES	-
07	0,132	0,001	-4,3	0,131	0,133	no accreditation	XRF (Pellet) info only	
10	0,158	0,001	-0,5	0,159	0,158	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,160	0,001	-0,3	0,159	0,160	no accreditation	XRF (fusion)	-
14	0,125	0,007	-5,3	0,120	0,130	no accreditation	XRF (fusion)	-
15	0,160	0,000	-0,2	0,160	0,160	no accreditation	XRF (fusion)	-
17	0,150	0,001	-1,6	0,150	0,151	no accreditation	XRF (fusion)	-
18	0,161		-0,1	0,161		no accreditation	XRF (fusion)	-
20	0,182	0,003	3,0	0,180	0,184	no accreditation	XRF (fusion)	-
21	0,160	0,000	-0,2	0,160	0,160	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,180	0,000	2,7	0,180	0,180	no accreditation	XRF (fusion)	-
23	0,145	0,004	-2,4	0,142	0,148	ISO 17025	XRF (Pellet) info only	
24	0,164	0,001	0,3	0,163	0,164	no accreditation	XRF (fusion)	-
25	0,161	0,000	-0,1	0,161	0,161	ISO 17025	XRF (fusion)	-
26	0,157	0,000	-0,7	0,157	0,157	ISO 17025	XRF (fusion)	-
28	0,164	0,004	0,3	0,161	0,166	ISO 17025	XRF (fusion)	-
29	0,155	0,007	-0,9	0,160	0,150	ISO 17025	XRF (fusion)	-
31	0,171	0,001	1,3	0,171	0,170	ISO 17025	XRF (fusion)	-
32	0,160	0,000	-0,2	0,160	0,160	no accreditation	XRF (fusion)	-
33	0,155	0,007	-0,9	0,160	0,150	no accreditation	XRF (Pellet) info only	-
34	0,155	0,007	-0,9	0,160	0,150	no accreditation	XRF (fusion)	-
36	0,200	0,000	5,6	0,200	0,200	no accreditation	XRF (fusion)	-
37	0,163	0,001	0,2	0,162	0,163	no accreditation	XRF (fusion)	-
38	0,230		10,0	0,230		ISO 17025	ICP-OES	-
40	0,155	0,007	-0,9	0,160	0,150	ISO 17025	XRF (fusion)	-
41	0,267	0,002	15,4	0,268	0,265	no accreditation	XRF (Pellet) info only	
42				<0,005	<0,005	no accreditation	XRF (fusion)	-
43	0,381	0,038	32,0	0,354	0,407	no accreditation	other	C, TXRF
44	0,160	0,000	-0,2	0,160	0,160	no accreditation	XRF (fusion)	-
45	0,155	0,007	-0,9	0,160	0,150	ISO 17025	XRF (fusion)	-
47	0,180	0,000	2,7	0,180	0,180	ISO 17025	XRF (fusion)	-
48	0,165	0,007	0,5	0,160	0,170	ISO 17025	XRF (fusion)	-
49	0,160	0,000	-0,2	0,160	0,160	no accreditation	XRF (fusion)	-
50	0,160	0,000	-0,2	0,160	0,160	no accreditation	XRF (fusion)	-
51	0,160	0,000	-0,2	0,160	0,160	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
52	0,108	0,002	-7,8	0,110	0,107	no accreditation	XRF (Pellet) info only	EDRFA
53	0,229	0,001	9,9	0,228	0,230	no accreditation	XRF (fusion)	-
55	0,173	0,002	1,8	0,175	0,172	no accreditation	XRF (fusion)	-
56	0,125		-5,3	0,125		no accreditation	XRF (fusion)	-
57	0,160	0,001	-0,3	0,161	0,159	ISO 17025	XRF (fusion)	-
59	0,160	0,000	-0,2	0,160	0,160	no accreditation	XRF (fusion)	-

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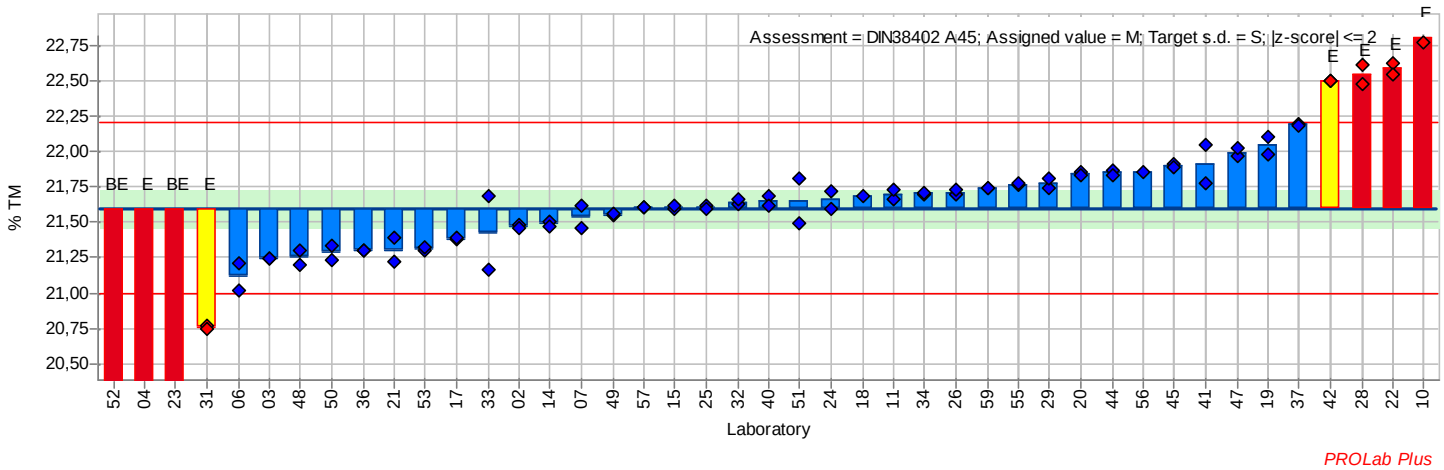
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,304 % TM**
Measurand:	**SiO2**	**Repeat. s.d**	**0,037 % TM**
Mean ± U(Mean):	**21,601 ± 0,135 % TM**	**Range of tolerance:**	**20,992 - 22,210 % TM (|z-score| <= 2,0)**
No. of laboratories:	**32**	**Sample**	**DIN 38402 A45**
Assigned value	**21,601 % TM (Empirical value)**	**Target s.d.**	**0,304 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	21,472	0,021	-0,4	21,487	21,458	ISO 17025	XRF (fusion)	-
03	21,239	0,001	-1,2	21,238	21,240	no accreditation	XRF (fusion)	ISO 29581-2
04	18,610		-9,8	18,610		ISO 17025	ICP-OES	-
06	21,115	0,134	-1,6	21,210	21,020	no accreditation	Wet chemistry EN196-2	precip.aided by gelatine
07	21,540	0,113	-0,2	21,460	21,620	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	22,805	0,049	4,0	22,770	22,840	no accreditation	XRF (fusion)	-
11	21,695	0,049	0,3	21,660	21,730	no accreditation	XRF (fusion)	-
14	21,490	0,028	-0,4	21,510	21,470	no accreditation	XRF (fusion)	-
15	21,610	0,014	0,0	21,600	21,620	no accreditation	XRF (fusion)	-
17	21,383	0,008	-0,7	21,378	21,389	no accreditation	XRF (fusion)	-
18	21,690		0,3	21,690		no accreditation	XRF (fusion)	-
19	22,045	0,092	1,5	22,110	21,980	no accreditation	XRF (fusion)	-
20	21,840	0,014	0,8	21,850	21,830	no accreditation	XRF (fusion)	-
21	21,305	0,120	-1,0	21,220	21,390	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	22,590	0,057	3,2	22,630	22,550	no accreditation	XRF (fusion)	-
23	19,955	0,361	-5,4	19,700	20,210	ISO 17025	XRF (Pellet) info only	
24	21,662	0,089	0,2	21,725	21,599	no accreditation	XRF (fusion)	-
25	21,610	0,014	0,0	21,620	21,600	ISO 17025	XRF (fusion)	-
26	21,712	0,028	0,4	21,693	21,732	ISO 17025	XRF (fusion)	-
28	22,544	0,095	3,1	22,611	22,477	ISO 17025	XRF (fusion)	-
29	21,775	0,049	0,6	21,740	21,810	ISO 17025	XRF (fusion)	-
31	20,760	0,014	-2,8	20,770	20,750	ISO 17025	XRF (fusion)	-
32	21,645	0,021	0,1	21,630	21,660	no accreditation	XRF (fusion)	-
33	21,420	0,368	-0,6	21,160	21,680	no accreditation	XRF (Pellet) info only	-
34	21,705	0,007	0,3	21,700	21,710	no accreditation	XRF (fusion)	-
36	21,300	0,000	-1,0	21,300	21,300	ISO 17025	XRF (fusion)	-
37	22,190	0,014	1,9	22,200	22,180	no accreditation	XRF (fusion)	-
40	21,650	0,042	0,2	21,680	21,620	ISO 17025	XRF (fusion)	-
41	21,915	0,191	1,0	22,050	21,780	no accreditation	XRF (Pellet) info only	
42	22,500	0,000	3,0	22,500	22,500	no accreditation	XRF (fusion)	-
44	21,850	0,028	0,8	21,870	21,830	no accreditation	XRF (fusion)	-
45	21,900	0,014	1,0	21,910	21,890	ISO 17025	XRF (fusion)	-
47	21,995	0,035	1,3	21,970	22,020	ISO 17025	XRF (fusion)	-
48	21,250	0,071	-1,2	21,200	21,300	ISO 17025	XRF (fusion)	-
49	21,555	0,007	-0,1	21,550	21,560	no accreditation	XRF (fusion)	-
50	21,285	0,078	-1,0	21,230	21,340	no accreditation	XRF (fusion)	-
51	21,650	0,226	0,2	21,490	21,810	no accreditation	XRF (fusion)	C

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
52	16,645	0,431	-16,3	16,950	16,340	no accreditation	XRF (Pellet) info only	EDRFA
53	21,310	0,014	-1,0	21,300	21,320	no accreditation	XRF (fusion)	-
55	21,770	0,006	0,6	21,765	21,774	no accreditation	XRF (fusion)	Reconstitution Method
56	21,850		0,8	21,850		no accreditation	XRF (fusion)	-
57	21,606	0,001	0,0	21,605	21,607	ISO 17025	XRF (fusion)	-
59	21,740	0,000	0,5	21,740	21,740	no accreditation	XRF (fusion)	-

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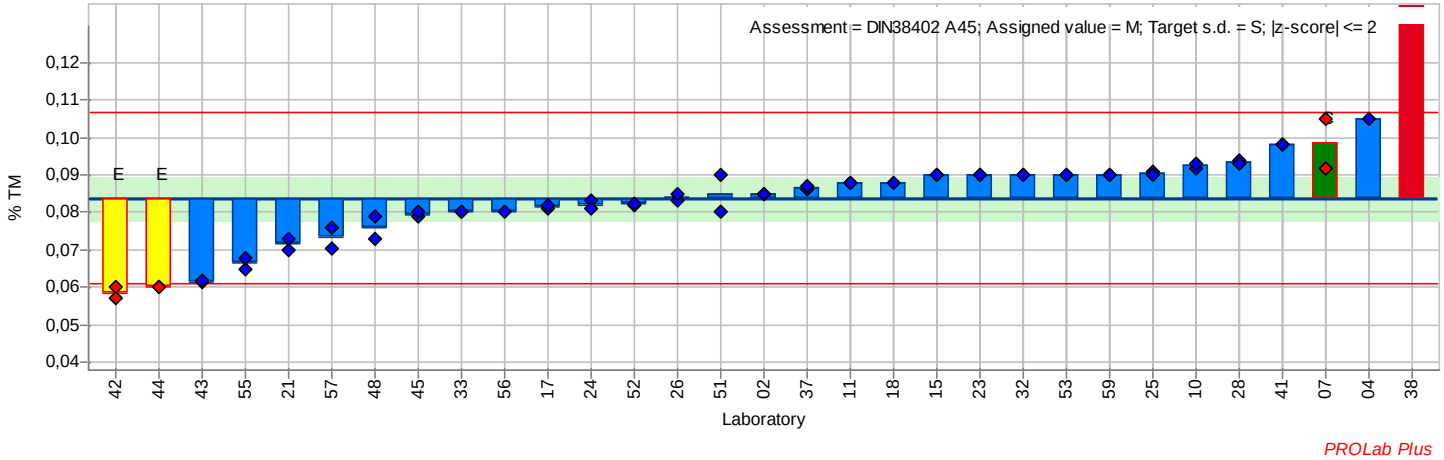
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,011 % TM**
Measurand:	**SrO**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,084 ± 0,006 % TM**	**Range of tolerance:**	**0,061 - 0,107 % TM (|z-score| <= 2,0)**
No. of laboratories:	**26**	**Sample**	**DIN 38402 A45**
Assigned value	**0,084 % TM (Empirical value)**	**Target s.d.**	**0,011 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,085	0,000	0,1	0,085	0,085	ISO 17025	XRF (fusion)	-
04	0,105		1,8	0,105		ISO 17025	ICP-OES	-
07	0,098	0,009	1,3	0,092	0,105	no accreditation	XRF (Pellet) info only	C
10	0,092	0,001	0,7	0,092	0,093	no accreditation	XRF (fusion)	-
11	0,088	0,000	0,4	0,088	0,088	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	0,090	0,000	0,5	0,090	0,090	no accreditation	XRF (fusion)	-
17	0,082	0,001	-0,2	0,081	0,082	no accreditation	XRF (fusion)	-
18	0,088		0,4	0,088		no accreditation	XRF (fusion)	-
21	0,072	0,002	-1,1	0,070	0,073	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,090	0,000	0,5	0,090	0,090	ISO 17025	XRF (Pellet) info only	
24	0,082	0,001	-0,1	0,083	0,081	no accreditation	XRF (fusion)	-
25	0,090	0,001	0,6	0,091	0,090	ISO 17025	XRF (fusion)	-
26	0,084	0,001	0,0	0,083	0,085	ISO 17025	XRF (fusion)	-
28	0,093	0,001	0,8	0,094	0,093	ISO 17025	XRF (fusion)	-
32	0,090	0,000	0,5	0,090	0,090	no accreditation	XRF (fusion)	-
33	0,080	0,000	-0,3	0,080	0,080	no accreditation	XRF (Pellet) info only	-
37	0,086	0,001	0,2	0,086	0,087	no accreditation	XRF (fusion)	-
38	0,505		36,7	0,505		ISO 17025	ICP-OES	-
41	0,098	0,000	1,2	0,098	0,098	no accreditation	ICP-OES	-
42	0,058	0,002	-2,2	0,060	0,057	no accreditation	XRF (fusion)	-
43	0,062	0,000	-1,9	0,061	0,062	no accreditation	other	TXRF
44	0,060	0,000	-2,1	0,060	0,060	no accreditation	XRF (fusion)	-
45	0,080	0,001	-0,4	0,079	0,080	ISO 17025	XRF (fusion)	-
48	0,076	0,004	-0,7	0,079	0,073	ISO 17025	XRF (fusion)	-
51	0,085	0,007	0,1	0,080	0,090	no accreditation	XRF (fusion)	C
52	0,082	0,000	-0,1	0,082	0,082	no accreditation	XRF (Pellet) info only	EDRFA
53	0,090	0,000	0,5	0,090	0,090	no accreditation	XRF (fusion)	-
55	0,067	0,002	-1,5	0,065	0,068	no accreditation	XRF (fusion)	Reconstitution Method
56	0,080		-0,3	0,080		no accreditation	XRF (fusion)	-
57	0,073	0,004	-0,9	0,076	0,070	ISO 17025	XRF (fusion)	-
59	0,090	0,000	0,5	0,090	0,090	no accreditation	XRF (fusion)	-

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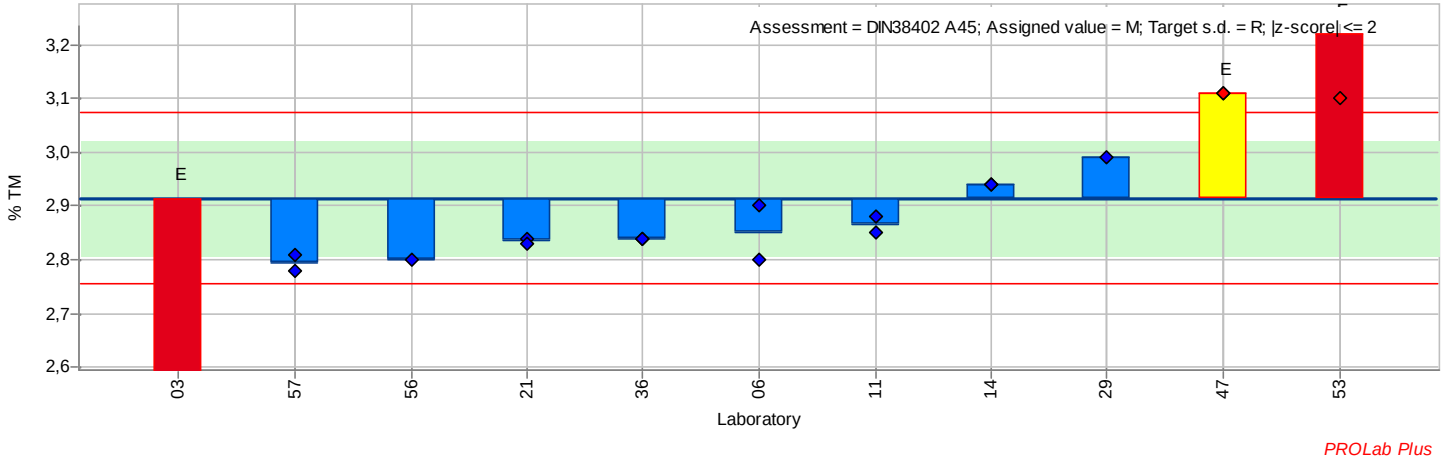
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,139 % TM**
Measurand:	**Sulfate expressed as SO3**	**Repeat. s.d**	**0,048 % TM**
Mean ± U(Mean):	**2,915 ± 0,104 % TM**	**Range of tolerance:**	**2,755 - 3,075 % TM (|z-score| <= 2,0)**
No. of laboratories:	**11**	**Sample**	**DIN 38402 A45**
Assigned value	**2,915 % TM (Empirical value)**	**Target s.d.**	**0,080 % TM (Reference value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
03	1,742	0,710	-14,7	2,244	1,239	no accreditation	Wet chemistry EN196-2	C
06	2,850	0,071	-0,8	2,800	2,900	no accreditation	Wet chemistry EN196-2	C
11	2,865	0,021	-0,6	2,850	2,880	no accreditation	Wet chemistry EN196-2	-
14	2,940	0,000	0,3	2,940	2,940	no accreditation	Wet chemistry EN196-2	-
21	2,835	0,007	-1,0	2,840	2,830	ISO 17025	Wet chemistry EN196-2	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
29	2,990		0,9	2,990		ISO 17025	Wet chemistry EN196-2	-
36	2,840	0,000	-0,9	2,840	2,840	ISO 17025	Wet chemistry EN196-2	-
47	3,110	0,000	2,4	3,110	3,110	no accreditation	Wet chemistry EN196-2	-
53	3,220	0,170	3,8	3,340	3,100	no accreditation	Wet chemistry EN196-2	C
56	2,800		-1,4	2,800		no accreditation	Wet chemistry EN196-2	-
57	2,795	0,021	-1,5	2,780	2,810	ISO 17025	Wet chemistry EN196-2	-

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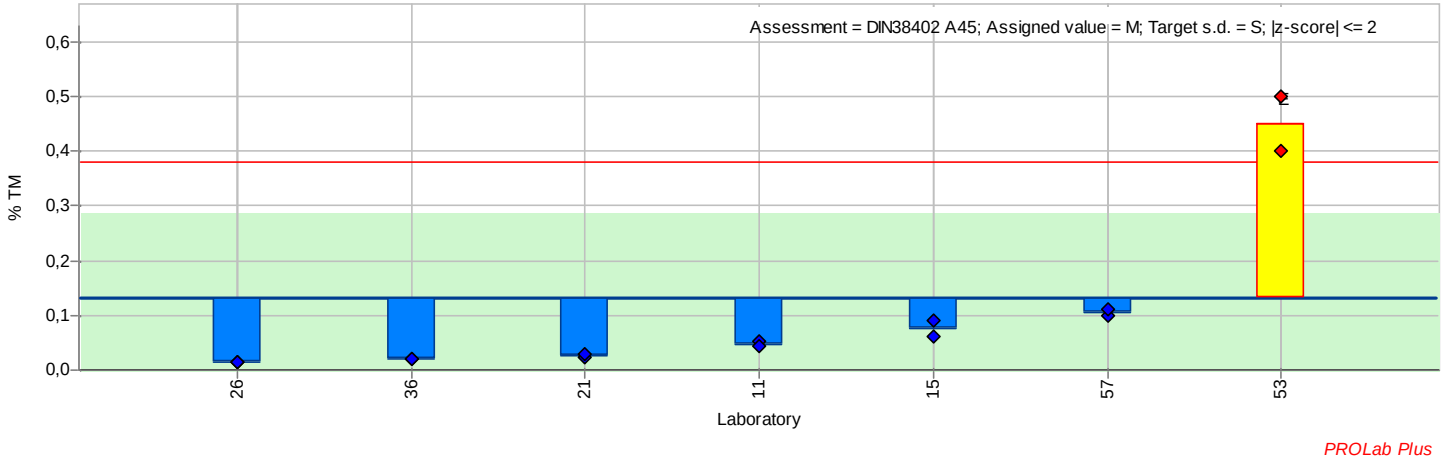
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,124 % TM**
Measurand:	**Sulfide expressed as S**	**Repeat. s.d**	**0,021 % TM**
Mean ± U(Mean):	**0,131 ± 0,155 % TM**	**Range of tolerance:**	**-0,118 - 0,379 % TM (|z-score| <= 2,0)**
No. of laboratories:	**4**	**Sample**	**DIN 38402 A45**
Assigned value	**0,131 % TM (Empirical value)**	**Target s.d.**	**0,124 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,048	0,006	-0,7	0,052	0,044	no accreditation	Standardless info only	-
15	0,075	0,021	-0,4	0,060	0,090	no accreditation	Wet chemistry EN196-2	-
21	0,026	0,003	-0,8	0,024	0,028	ISO 17025	Wet chemistry EN196-2	-
26	0,015	0,000	-0,9	0,015	0,015	ISO 17025	other	DIN 38405-D27
36	0,020	0,000	-0,9	0,020	0,020	no accreditation	other	Calculation

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
53	0,450	0,071	2,6	0,500	0,400	no accreditation	Wet chemistry EN196-2	C
57	0,105	0,007	-0,2	0,100	0,110	no accreditation	Wet chemistry EN196-2	SO4 difference

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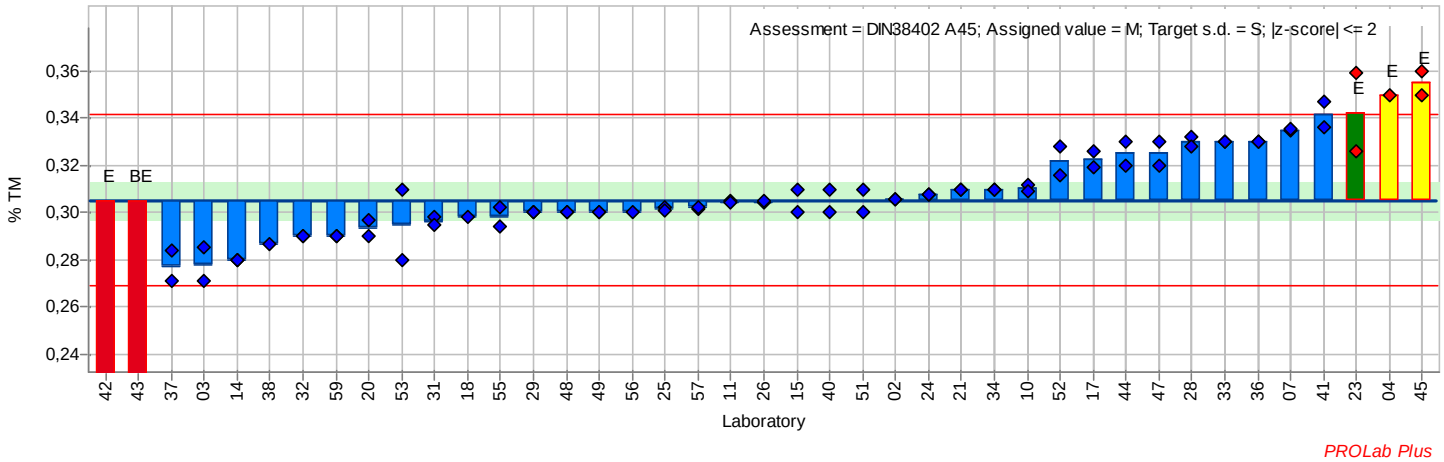
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,018 % TM**
Measurand:	**TiO2**	**Repeat. s.d**	**0,006 % TM**
Mean ± U(Mean):	**0,305 ± 0,008 % TM**	**Range of tolerance:**	**0,269 - 0,342 % TM (|z-score| <= 2,0)**
No. of laboratories:	**36**	**Sample**	**DIN 38402 A45**
Assigned value	**0,305 % TM (Empirical value)**	**Target s.d.**	**0,018 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,306	0,000	0,0	0,306	0,306	ISO 17025	XRF (fusion)	-
03	0,278	0,010	-1,5	0,271	0,285	no accreditation	XRF (fusion)	ISO 29581-2
04	0,350		2,5	0,350		ISO 17025	ICP-OES	-
07	0,335	0,000	1,6	0,335	0,335	no accreditation	XRF (Pellet) info only	
10	0,310	0,002	0,3	0,312	0,309	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,304	0,001	0,0	0,305	0,304	no accreditation	XRF (fusion)	-
14	0,280	0,000	-1,4	0,280	0,280	no accreditation	XRF (fusion)	-
15	0,305	0,007	0,0	0,310	0,300	no accreditation	XRF (fusion)	-
17	0,323	0,005	0,9	0,319	0,326	no accreditation	XRF (fusion)	-
18	0,298		-0,4	0,298		no accreditation	XRF (fusion)	-
20	0,293	0,005	-0,6	0,297	0,290	no accreditation	XRF (fusion)	-
21	0,310	0,000	0,3	0,310	0,310	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,343	0,023	2,0	0,359	0,326	ISO 17025	XRF (Pellet) info only	
24	0,308	0,000	0,1	0,308	0,308	no accreditation	XRF (fusion)	-
25	0,301	0,001	-0,2	0,302	0,301	ISO 17025	XRF (fusion)	-
26	0,304	0,001	0,0	0,304	0,305	ISO 17025	XRF (fusion)	-
28	0,330	0,003	1,4	0,332	0,328	ISO 17025	XRF (fusion)	-
29	0,300	0,000	-0,3	0,300	0,300	ISO 17025	XRF (fusion)	-
31	0,296	0,002	-0,5	0,298	0,295	ISO 17025	XRF (fusion)	-
32	0,290	0,000	-0,8	0,290	0,290	no accreditation	XRF (fusion)	-
33	0,330	0,000	1,4	0,330	0,330	no accreditation	XRF (Pellet) info only	-
34	0,310	0,000	0,3	0,310	0,310	no accreditation	XRF (fusion)	-
36	0,330	0,000	1,4	0,330	0,330	ISO 17025	XRF (fusion)	-
37	0,277	0,009	-1,5	0,284	0,271	no accreditation	XRF (fusion)	-
38	0,287		-1,0	0,287		ISO 17025	ICP-OES	-
40	0,305	0,007	0,0	0,310	0,300	ISO 17025	XRF (fusion)	-
41	0,342	0,008	2,0	0,347	0,336	no accreditation	ICP-OES	-
42	0,185	0,001	-6,6	0,185	0,186	no accreditation	XRF (fusion)	-
43	0,201	0,011	-5,7	0,193	0,208	no accreditation	other	TXRF
44	0,325	0,007	1,1	0,320	0,330	no accreditation	XRF (fusion)	-
45	0,355	0,007	2,7	0,350	0,360	ISO 17025	XRF (fusion)	-
47	0,325	0,007	1,1	0,320	0,330	ISO 17025	XRF (fusion)	-
48	0,300	0,000	-0,3	0,300	0,300	ISO 17025	XRF (fusion)	-
49	0,300	0,000	-0,3	0,300	0,300	no accreditation	XRF (fusion)	-
51	0,305	0,007	0,0	0,300	0,310	no accreditation	XRF (fusion)	-
52	0,322	0,009	0,9	0,328	0,316	no accreditation	XRF (Pellet) info only	EDRFA
53	0,295	0,021	-0,6	0,280	0,310	no accreditation	XRF (fusion)	C

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
55	0,298	0,006	-0,4	0,294	0,302	no accreditation	XRF (fusion)	Reconstitution Method
56	0,300		-0,3	0,300		no accreditation	XRF (fusion)	-
57	0,302	0,001	-0,2	0,302	0,303	ISO 17025	XRF (fusion)	-
59	0,290	0,000	-0,8	0,290	0,290	no accreditation	XRF (fusion)	-

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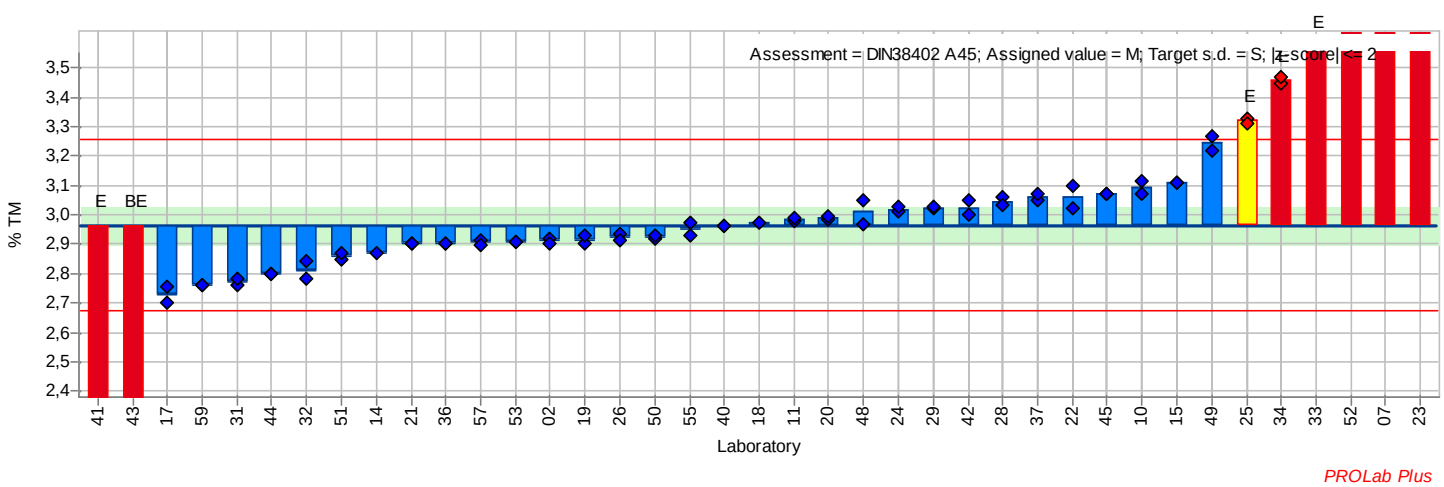
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,146 % TM**
Measurand:	**Total S expressed as SO3**	**Repeat. s.d**	**0,020 % TM**
Mean ± U(Mean):	**2,965 ± 0,064 % TM**	**Range of tolerance:**	**2,672 - 3,258 % TM (|z-score| <= 2,0)**
No. of laboratories:	**33**	**Sample**	**DIN 38402 A45**
Assigned value	**2,965 % TM (Empirical value)**	**Target s.d.**	**0,146 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	2,912	0,009	-0,4	2,918	2,905	ISO 17025	XRF (fusion)	-
07	3,770	0,170	5,5	3,890	3,650	no accreditation	Standardless info only	C
10	3,095	0,032	0,9	3,072	3,117	no accreditation	XRF (fusion)	-
11	2,985	0,007	0,1	2,980	2,990	no accreditation	XRF (fusion)	-
14	2,870		-0,6	2,870		no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	3,110	0,000	1,0	3,110	3,110	no accreditation	XRF (fusion)	-
17	2,728	0,037	-1,6	2,754	2,702	no accreditation	XRF (fusion)	-
18	2,973		0,1	2,973		no accreditation	XRF (fusion)	-
19	2,915	0,021	-0,3	2,900	2,930	no accreditation	XRF (fusion)	-
20	2,990	0,009	0,2	2,984	2,997	no accreditation	combustion	-
21	2,900	0,000	-0,4	2,900	2,900	ISO 17025	Wet chemistry EN196-2	-
22	3,060	0,057	0,6	3,100	3,020	no accreditation	XRF (fusion)	-
23	4,316	0,170	9,2	4,195	4,436	ISO 17025	XRF (Pellet) info only	C
24	3,019	0,013	0,4	3,010	3,028	no accreditation	XRF (fusion)	-
25	3,320	0,014	2,4	3,330	3,310	ISO 17025	XRF (fusion)	-
26	2,924	0,013	-0,3	2,933	2,915	ISO 17025	combustion	-
28	3,045	0,020	0,5	3,059	3,031	ISO 17025	XRF (fusion)	-
29	3,025	0,007	0,4	3,020	3,030	ISO 17025	XRF (fusion)	-
31	2,770	0,014	-1,3	2,760	2,780	ISO 17025	combustion	-
32	2,810	0,042	-1,1	2,840	2,780	no accreditation	XRF (fusion)	-
33	3,575	0,021	4,2	3,590	3,560	no accreditation	XRF (Pellet) info only	-
34	3,458	0,018	3,4	3,446	3,471	no accreditation	XRF (fusion)	-
36	2,900	0,000	-0,4	2,900	2,900	no accreditation	other	SR3T gravimetric Bromine
37	3,060	0,014	0,6	3,050	3,070	no accreditation	XRF (fusion)	-
40	2,960	0,000	0,0	2,960	2,960	ISO 17025	XRF (fusion)	-
41	1,170	0,042	-12,3	1,200	1,140	no accreditation	combustion	-
42	3,025	0,035	0,4	3,000	3,050	no accreditation	XRF (fusion)	-
43	1,386	0,041	-10,8	1,357	1,415	no accreditation	other	TXRF
44	2,800	0,000	-1,1	2,800	2,800	no accreditation	XRF (fusion)	-
45	3,070	0,000	0,7	3,070	3,070	ISO 17025	combustion	-
48	3,010	0,057	0,3	2,970	3,050	ISO 17025	combustion	-
49	3,245	0,035	1,9	3,270	3,220	no accreditation	XRF (fusion)	-
50	2,925	0,007	-0,3	2,920	2,930	no accreditation	XRF (fusion)	-
51	2,860	0,014	-0,7	2,850	2,870	no accreditation	XRF (fusion)	-
52	3,690	0,037	4,9	3,716	3,664	no accreditation	XRF (Pellet) info only	EDRFA
53	2,910	0,000	-0,4	2,910	2,910	no accreditation	XRF (fusion)	-
55	2,950	0,030	-0,1	2,972	2,929	no accreditation	XRF (fusion)	Reconstitution Method

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
57	2,907	0,011	-0,4	2,915	2,899	ISO 17025	XRF (fusion)	-
59	2,760	0,000	-1,4	2,760	2,760	no accreditation	XRF (fusion)	-

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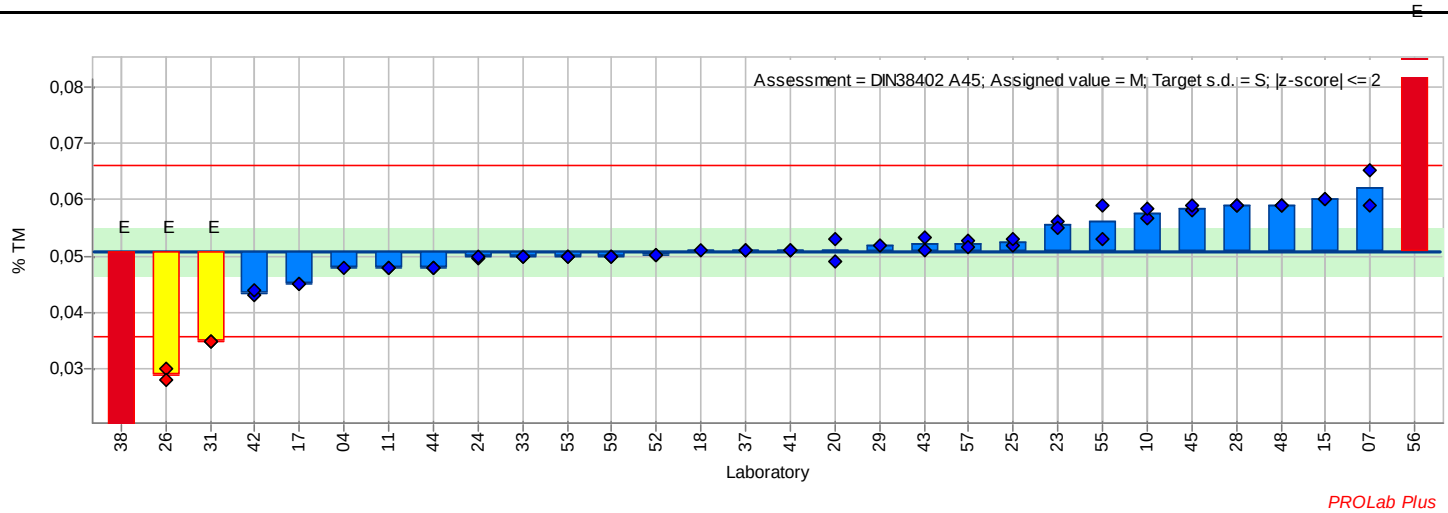
RV118

Sample:	**FLX-CRM 118**	**Reprod. s.d.**	**0,008 % TM**
Measurand:	**ZnO**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,051 ± 0,004 % TM**	**Range of tolerance:**	**0,036 - 0,066 % TM (|z-score| <= 2,0)**
No. of laboratories:	**23**	**Sample**	**DIN 38402 A45**
Assigned value	**0,051 % TM (Empirical value)**	**Target s.d.**	**0,008 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
04	0,048		-0,4	0,048		ISO 17025	ICP-OES	-
07	0,062	0,005	1,5	0,059	0,065	no accreditation	XRF (Pellet) info only	
10	0,058	0,001	0,9	0,057	0,058	no accreditation	XRF (fusion)	-
11	0,048	0,000	-0,4	0,048	0,048	no accreditation	XRF (fusion)	-
15	0,060	0,000	1,2	0,060	0,060	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
17	0,045	0,000	-0,8	0,045	0,045	no accreditation	XRF (fusion)	-
18	0,051		0,0	0,051		no accreditation	XRF (fusion)	-
20	0,051	0,003	0,0	0,049	0,053	no accreditation	XRF (Pellet) info only	-
23	0,056	0,001	0,6	0,056	0,055	ISO 17025	XRF (Pellet) info only	
24	0,050	0,000	-0,1	0,050	0,050	no accreditation	XRF (fusion)	-
25	0,052	0,001	0,2	0,052	0,053	ISO 17025	XRF (fusion)	-
26	0,029	0,001	-2,9	0,030	0,028	ISO 17025	XRF (fusion)	-
28	0,059	0,000	1,1	0,059	0,059	ISO 17025	XRF (fusion)	-
29	0,052		0,1	0,052		no accreditation	Standardless info only	fused bead trace
31	0,035	0,000	-2,1	0,035	0,035	ISO 17025	ICP-OES	digestion in aqua regia
33	0,050	0,000	-0,1	0,050	0,050	no accreditation	XRF (Pellet) info only	-
37	0,051	0,000	0,0	0,051	0,051	no accreditation	XRF (fusion)	-
38	0,017		-4,4	0,017		ISO 17025	ICP-OES	-
41	0,051	0,000	0,0	0,051	0,051	no accreditation	ICP-OES	-
42	0,043	0,001	-1,0	0,043	0,044	no accreditation	XRF (fusion)	-
43	0,052	0,002	0,2	0,051	0,053	no accreditation	other	TXRF
44	0,048	0,000	-0,4	0,048	0,048	no accreditation	XRF (fusion)	-
45	0,058	0,001	1,0	0,058	0,059	ISO 17025	XRF (fusion)	-
48	0,059	0,000	1,1	0,059	0,059	ISO 17025	XRF (fusion)	-
52	0,050	0,000	-0,1	0,050	0,050	no accreditation	XRF (Pellet) info only	EDRFA
53	0,050	0,000	-0,1	0,050	0,050	no accreditation	XRF (fusion)	-
55	0,056	0,004	0,7	0,059	0,053	no accreditation	XRF (fusion)	C - Reconstitution Method
56	0,089		5,0	0,089		no accreditation	XRF (fusion)	-
57	0,052	0,001	0,2	0,053	0,052	ISO 17025	XRF (fusion)	-
59	0,050	0,000	-0,1	0,050	0,050	no accreditation	XRF (fusion)	-

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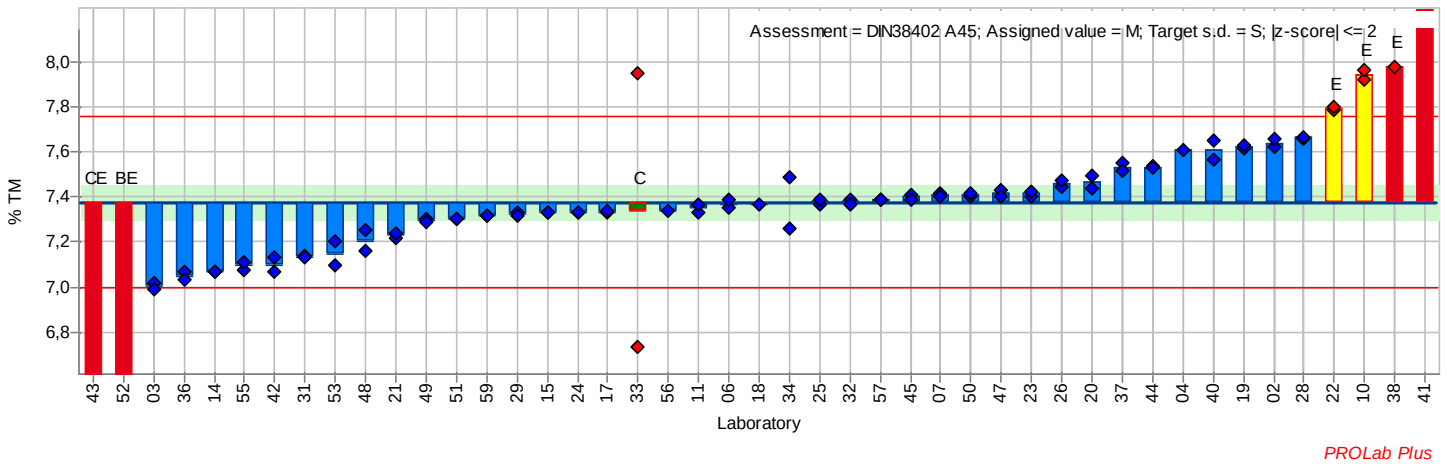
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,192 % TM**
Measurand:	**Al2O3**	**Repeat. s.d**	**0,026 % TM**
Mean ± U(Mean):	**7,378 ± 0,075 % TM**	**Range of tolerance:**	**6,995 - 7,762 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**7,378 % TM (Empirical value)**	**Target s.d.**	**0,192 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	7,641	0,028	1,4	7,621	7,660	ISO 17025	XRF (fusion)	-
03	7,003	0,020	-2,0	7,017	6,989	no accreditation	XRF (fusion)	ISO 29581-2
04	7,610		1,2	7,610		ISO 17025	ICP-OES	-
06	7,370	0,028	0,0	7,350	7,390	no accreditation	Wet chemistry EN196-2	-
07	7,410	0,014	0,2	7,420	7,400	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	7,946	0,033	3,0	7,922	7,969	no accreditation	XRF (fusion)	-
11	7,350	0,028	-0,1	7,330	7,370	no accreditation	XRF (fusion)	-
14	7,070	0,000	-1,6	7,070	7,070	no accreditation	XRF (fusion)	-
15	7,330	0,000	-0,3	7,330	7,330	no accreditation	XRF (fusion)	-
17	7,335	0,007	-0,2	7,330	7,340	no accreditation	XRF (fusion)	-
18	7,370		0,0	7,370		no accreditation	XRF (fusion)	-
19	7,625	0,007	1,3	7,620	7,630	no accreditation	XRF (fusion)	-
20	7,468	0,042	0,5	7,438	7,498	no accreditation	XRF (fusion)	-
21	7,230	0,014	-0,8	7,220	7,240	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	7,795	0,007	2,2	7,790	7,800	no accreditation	XRF (fusion)	-
23	7,417	0,016	0,2	7,406	7,428	ISO 17025	XRF (Pellet) info only	
24	7,333	0,001	-0,2	7,334	7,332	no accreditation	XRF (fusion)	-
25	7,380	0,014	0,0	7,370	7,390	ISO 17025	XRF (fusion)	-
26	7,461	0,020	0,4	7,447	7,475	ISO 17025	XRF (fusion)	-
28	7,665	0,004	1,5	7,662	7,668	ISO 17025	XRF (fusion)	-
29	7,325	0,007	-0,3	7,330	7,320	ISO 17025	XRF (fusion)	-
31	7,135	0,007	-1,3	7,140	7,130	ISO 17025	XRF (fusion)	-
32	7,380	0,014	0,0	7,390	7,370	no accreditation	XRF (fusion)	-
33	7,340	0,863	-0,2	6,730	7,950	no accreditation	XRF (Pellet) info only	C
34	7,375	0,163	0,0	7,260	7,490	no accreditation	XRF (fusion)	C
36	7,050	0,028	-1,7	7,070	7,030	ISO 17025	XRF (fusion)	-
37	7,535	0,021	0,8	7,550	7,520	no accreditation	XRF (fusion)	-
38	7,980		3,1	7,980		ISO 17025	XRF (fusion)	-
40	7,610	0,057	1,2	7,570	7,650	ISO 17025	XRF (fusion)	-
41	10,995	1,280	18,9	11,900	10,090	no accreditation	ICP-OES	C
42	7,100	0,042	-1,5	7,130	7,070	no accreditation	XRF (fusion)	-
43	1,059	0,483	-33,0	1,400	0,718	no accreditation	other	C, TXRF
44	7,535	0,007	0,8	7,540	7,530	no accreditation	XRF (fusion)	-
45	7,400	0,014	0,1	7,410	7,390	ISO 17025	XRF (fusion)	-
47	7,415	0,021	0,2	7,430	7,400	ISO 17025	XRF (fusion)	-
48	7,205	0,064	-0,9	7,250	7,160	ISO 17025	XRF (fusion)	-
49	7,295	0,007	-0,4	7,300	7,290	no accreditation	XRF (fusion)	-

FLUXANA® GmbH & Co.KG, Borschelstr.3, 47551 Bedburg-Hau Germany, GM Dr. Rainer Schramm, reg. in Kleve HRA 2935, personal liability FLUXANA Verwaltungs-GmbH Bedburg-Hau, reg. in Kleve HRB 8211, FLUxANA®is a registered trademark

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	7,410	0,014	0,2	7,400	7,420	no accreditation	XRF (fusion)	-
51	7,300	0,000	-0,4	7,300	7,300	no accreditation	XRF (fusion)	-
52	5,883	0,009	-7,8	5,876	5,889	no accreditation	XRF (Pellet) info only	EDRFA
53	7,150	0,071	-1,2	7,200	7,100	no accreditation	XRF (fusion)	-
55	7,094	0,026	-1,5	7,075	7,112	no accreditation	XRF (fusion)	Reconstitution Method
56	7,340		-0,2	7,340		no accreditation	XRF (fusion)	-
57	7,388	0,002	0,1	7,390	7,386	ISO 17025	XRF (fusion)	-
59	7,320	0,000	-0,3	7,320	7,320	no accreditation	XRF (fusion)	-

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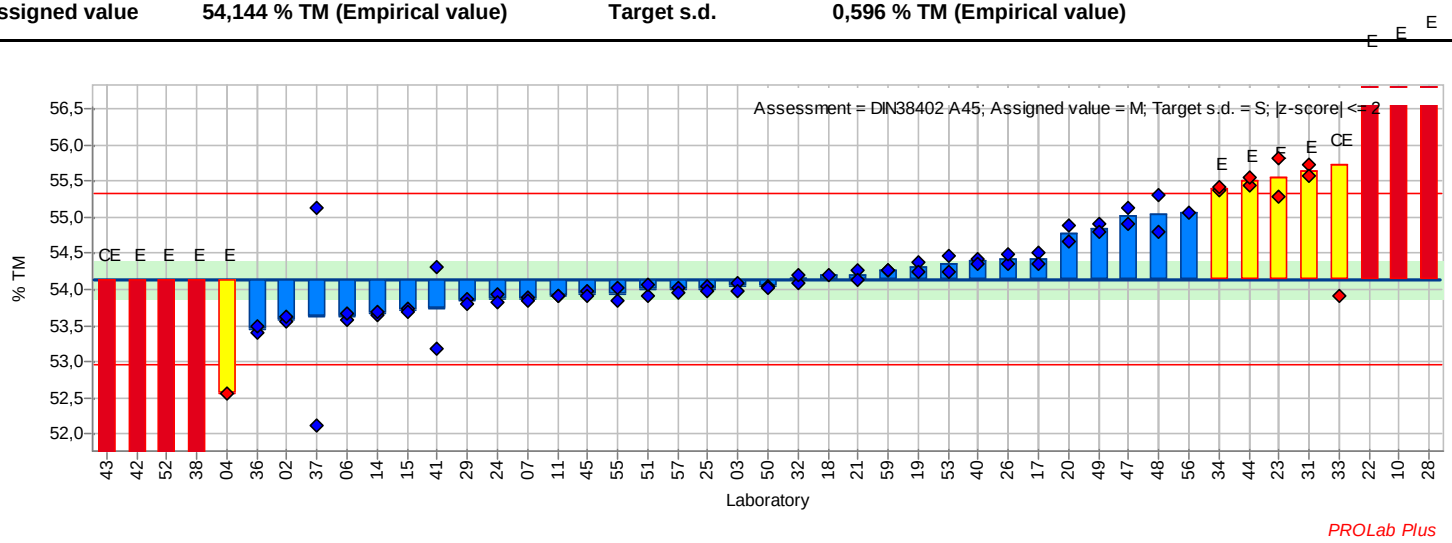
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,596 % TM**
Measurand:	**CaO**	**Repeat. s.d**	**0,109 % TM**
Mean ± U(Mean):	**54,144 ± 0,255 % TM**	**Range of tolerance:**	**52,952 - 55,336 % TM (|z-score| <= 2,0)**
No. of laboratories:	**34**	**Sample**	**DIN 38402 A45**
Assigned value	**54,144 % TM (Empirical value)**	**Target s.d.**	**0,596 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	53,588	0,058	-0,9	53,547	53,629	ISO 17025	XRF (fusion)	-
03	54,038	0,076	-0,2	54,092	53,985	no accreditation	XRF (fusion)	ISO 29581-2
04	52,550		-2,7	52,550		ISO 17025	ICP-OES	-
06	53,620	0,071	-0,9	53,570	53,670	no accreditation	Wet chemistry EN196-2	-
07	53,875	0,035	-0,5	53,900	53,850	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	57,210	0,283	5,1	57,010	57,410	no accreditation	XRF (fusion)	-
11	53,915	0,007	-0,4	53,910	53,920	no accreditation	XRF (fusion)	-
14	53,665	0,021	-0,8	53,650	53,680	no accreditation	XRF (fusion)	-
15	53,705	0,035	-0,7	53,730	53,680	no accreditation	XRF (fusion)	-
17	54,431	0,105	0,5	54,506	54,357	no accreditation	XRF (fusion)	-
18	54,190		0,1	54,190		no accreditation	XRF (fusion)	-
19	54,310	0,085	0,3	54,370	54,250	no accreditation	XRF (fusion)	-
20	54,775	0,148	1,1	54,880	54,670	no accreditation	XRF (fusion)	-
21	54,200	0,099	0,1	54,270	54,130	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	57,110	0,028	5,0	57,090	57,130	no accreditation	XRF (fusion)	-
23	55,550	0,368	2,4	55,810	55,290	ISO 17025	XRF (Pellet) info only	
24	53,868	0,079	-0,5	53,924	53,812	no accreditation	XRF (fusion)	-
25	54,010	0,042	-0,2	54,040	53,980	ISO 17025	XRF (fusion)	-
26	54,424	0,083	0,5	54,365	54,483	ISO 17025	XRF (fusion)	-
28	57,368	0,079	5,4	57,312	57,424	ISO 17025	XRF (fusion)	-
29	53,835	0,049	-0,5	53,870	53,800	ISO 17025	XRF (fusion)	-
31	55,650	0,099	2,5	55,720	55,580	ISO 17025	XRF (fusion)	-
32	54,145	0,078	0,0	54,090	54,200	no accreditation	XRF (fusion)	-
33	55,725	2,553	2,7	57,530	53,920	no accreditation	XRF (Pellet) info only	C
34	55,395	0,021	2,1	55,380	55,410	no accreditation	XRF (fusion)	-
36	53,450	0,071	-1,2	53,400	53,500	ISO 17025	XRF (fusion)	-
37	53,620	2,121	-0,9	52,120	55,120	no accreditation	XRF (fusion)	C
38	51,680		-4,1	51,680		ISO 17025	XRF (fusion)	-
40	54,395	0,049	0,4	54,430	54,360	ISO 17025	XRF (fusion)	-
41	53,740	0,806	-0,7	54,310	53,170	no accreditation	ICP-OES	C
42	43,950	0,212	-17,1	44,100	43,800	no accreditation	XRF (fusion)	-
43	18,563	2,484	-59,7	20,320	16,807	no accreditation	other	C, TXRF
44	55,505	0,078	2,3	55,450	55,560	no accreditation	XRF (fusion)	-
45	53,940	0,042	-0,3	53,970	53,910	ISO 17025	XRF (fusion)	-
47	55,010	0,156	1,5	55,120	54,900	ISO 17025	XRF (fusion)	-
48	55,050	0,354	1,5	54,800	55,300	ISO 17025	XRF (fusion)	-
49	54,845	0,078	1,2	54,900	54,790	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	54,040	0,014	-0,2	54,050	54,030	no accreditation	XRF (fusion)	-
51	53,990	0,099	-0,3	53,920	54,060	no accreditation	XRF (fusion)	-
52	51,350	0,325	-4,7	51,120	51,580	no accreditation	XRF (Pellet) info only	EDRFA
53	54,360	0,156	0,4	54,250	54,470	no accreditation	XRF (fusion)	-
55	53,942	0,129	-0,3	53,851	54,033	no accreditation	XRF (fusion)	Reconstitution Method
56	55,070		1,6	55,070		no accreditation	XRF (fusion)	-
57	53,995	0,044	-0,3	54,026	53,964	ISO 17025	XRF (fusion)	-
59	54,260	0,000	0,2	54,260	54,260	no accreditation	XRF (fusion)	-

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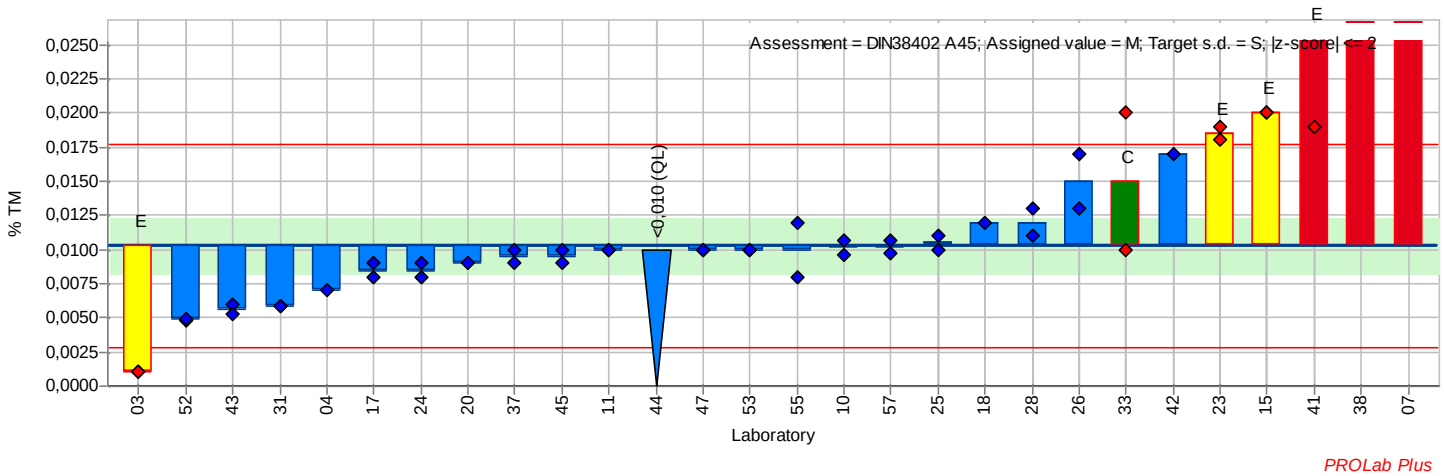
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,004 % TM**
Measurand:	**Cr2O3**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,010 ± 0,002 % TM**	**Range of tolerance:**	**0,003 - 0,018 % TM (|z-score| <= 2,0)**
No. of laboratories:	**22**	**Sample**	**DIN 38402 A45**
Assigned value	**0,010 % TM (Empirical value)**	**Target s.d.**	**0,004 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
03	0,001	0,000	-2,5	0,001	0,001	no accreditation	XRF (fusion)	ISO 29581-2
04	0,007		-0,9	0,007		ISO 17025	ICP-OES	-
07	0,084	0,001	19,8	0,083	0,085	no accreditation	XRF (Pellet) info only	
10	0,010	0,001	0,0	0,010	0,011	no accreditation	XRF (fusion)	-
11	0,010	0,000	-0,1	0,010	0,010	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	0,020	0,000	2,6	0,020	0,020	no accreditation	XRF (fusion)	-
17	0,009	0,001	-0,5	0,009	0,008	no accreditation	XRF (fusion)	-
18	0,012		0,5	0,012		no accreditation	XRF (fusion)	-
20	0,009		-0,3	0,009	<0,009	no accreditation	XRF (fusion)	-
23	0,018	0,001	2,2	0,018	0,019	ISO 17025	XRF (Pellet) info only	
24	0,009	0,001	-0,5	0,008	0,009	no accreditation	XRF (fusion)	-
25	0,010	0,001	0,1	0,010	0,011	ISO 17025	XRF (fusion)	-
26	0,015	0,003	1,3	0,013	0,017	ISO 17025	XRF (fusion)	-
28	0,012	0,001	0,5	0,013	0,011	ISO 17025	XRF (fusion)	-
31	0,006	0,000	-1,2	0,006	0,006	ISO 17025	ICP-OES	digestion in aqua regia
33	0,015	0,007	1,3	0,020	0,010	no accreditation	XRF (Pellet) info only	C
37	0,009	0,001	-0,2	0,010	0,009	no accreditation	XRF (fusion)	-
38	0,035		6,6	0,035		ISO 17025	ICP-OES	-
41	0,026	0,009	4,1	0,032	0,019	no accreditation	ICP-OES	C
42	0,017		1,8	<0,010	0,017	no accreditation	XRF (fusion)	-
43	0,006	0,000	-1,2	0,006	0,005	no accreditation	other	TXRF
44				<0,010	<0,010	no accreditation	XRF (fusion)	-
45	0,009	0,001	-0,2	0,009	0,010	ISO 17025	XRF (fusion)	-
47	0,010	0,000	-0,1	0,010	0,010	ISO 17025	XRF (fusion)	-
52	0,005	0,000	-1,5	0,005	0,005	no accreditation	XRF (Pellet) info only	EDRFA
53	0,010	0,000	-0,1	0,010	0,010	no accreditation	XRF (fusion)	-
55	0,010	0,003	-0,1	0,012	0,008	no accreditation	XRF (fusion)	Reconstitution Method
57	0,010	0,001	0,0	0,011	0,010	ISO 17025	XRF (fusion)	-

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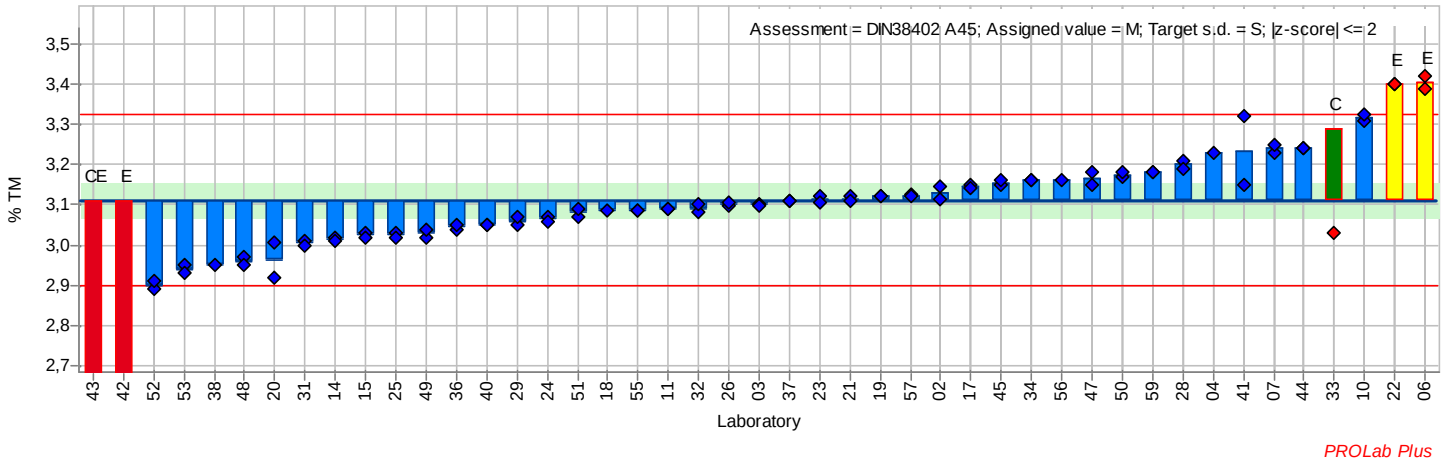
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,107 % TM**
Measurand:	**Fe2O3**	**Repeat. s.d**	**0,012 % TM**
Mean ± U(Mean):	**3,112 ± 0,042 % TM**	**Range of tolerance:**	**2,897 - 3,327 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**3,112 % TM (Empirical value)**	**Target s.d.**	**0,107 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	3,130	0,023	0,2	3,114	3,146	ISO 17025	XRF (fusion)	-
03	3,102	0,002	-0,1	3,103	3,100	no accreditation	XRF (fusion)	ISO 29581-2
04	3,230		1,1	3,230		ISO 17025	ICP-OES	-
06	3,405	0,021	2,7	3,390	3,420	no accreditation	Wet chemistry EN196-2	-
07	3,240	0,014	1,2	3,230	3,250	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	3,318	0,010	1,9	3,311	3,325	no accreditation	XRF (fusion)	-
11	3,090	0,000	-0,2	3,090	3,090	no accreditation	XRF (fusion)	-
14	3,015	0,007	-0,9	3,020	3,010	no accreditation	XRF (fusion)	-
15	3,025	0,007	-0,8	3,030	3,020	no accreditation	XRF (fusion)	-
17	3,146	0,007	0,3	3,151	3,141	no accreditation	XRF (fusion)	-
18	3,084		-0,3	3,084		no accreditation	XRF (fusion)	-
19	3,120	0,000	0,1	3,120	3,120	no accreditation	XRF (fusion)	-
20	2,962	0,062	-1,4	2,918	3,005	no accreditation	XRF (fusion)	C
21	3,115	0,007	0,0	3,120	3,110	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	3,400	0,000	2,7	3,400	3,400	no accreditation	XRF (fusion)	-
23	3,114	0,012	0,0	3,122	3,105	ISO 17025	XRF (Pellet) info only	
24	3,064	0,006	-0,4	3,069	3,060	no accreditation	XRF (fusion)	-
25	3,025	0,007	-0,8	3,030	3,020	ISO 17025	XRF (fusion)	-
26	3,101	0,006	-0,1	3,096	3,105	ISO 17025	XRF (fusion)	-
28	3,201	0,014	0,8	3,211	3,191	ISO 17025	XRF (fusion)	-
29	3,060	0,014	-0,5	3,050	3,070	ISO 17025	XRF (fusion)	-
31	3,005	0,007	-1,0	3,010	3,000	ISO 17025	XRF (fusion)	-
32	3,090	0,014	-0,2	3,080	3,100	no accreditation	XRF (fusion)	-
33	3,290	0,368	1,7	3,550	3,030	no accreditation	XRF (Pellet) info only	C
34	3,160	0,000	0,4	3,160	3,160	no accreditation	XRF (fusion)	-
36	3,045	0,007	-0,6	3,040	3,050	ISO 17025	XRF (fusion)	-
37	3,110	0,000	0,0	3,110	3,110	no accreditation	XRF (fusion)	-
38	2,950		-1,5	2,950		ISO 17025	XRF (fusion)	-
40	3,050	0,000	-0,6	3,050	3,050	ISO 17025	XRF (fusion)	-
41	3,235	0,120	1,1	3,320	3,150	no accreditation	ICP-OES	C
42	1,980	0,028	-10,5	2,000	1,960	no accreditation	XRF (fusion)	-
43	1,868	0,233	-11,6	1,703	2,033	no accreditation	other	C, TXRF
44	3,240	0,000	1,2	3,240	3,240	no accreditation	XRF (fusion)	-
45	3,155	0,007	0,4	3,150	3,160	ISO 17025	XRF (fusion)	-
47	3,165	0,021	0,5	3,180	3,150	ISO 17025	XRF (fusion)	-
48	2,960	0,014	-1,4	2,970	2,950	ISO 17025	XRF (fusion)	-
49	3,030	0,014	-0,8	3,020	3,040	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	3,175	0,007	0,6	3,170	3,180	no accreditation	XRF (fusion)	-
51	3,080	0,014	-0,3	3,070	3,090	no accreditation	XRF (fusion)	-
52	2,900	0,014	-2,0	2,890	2,910	no accreditation	XRF (Pellet) info only	EDRFA
53	2,940	0,014	-1,6	2,950	2,930	no accreditation	XRF (fusion)	-
55	3,085	0,001	-0,2	3,086	3,085	no accreditation	XRF (fusion)	Reconstitution Method
56	3,160		0,4	3,160		no accreditation	XRF (fusion)	-
57	3,123	0,003	0,1	3,125	3,121	ISO 17025	XRF (fusion)	-
59	3,180	0,000	0,6	3,180	3,180	no accreditation	XRF (fusion)	-

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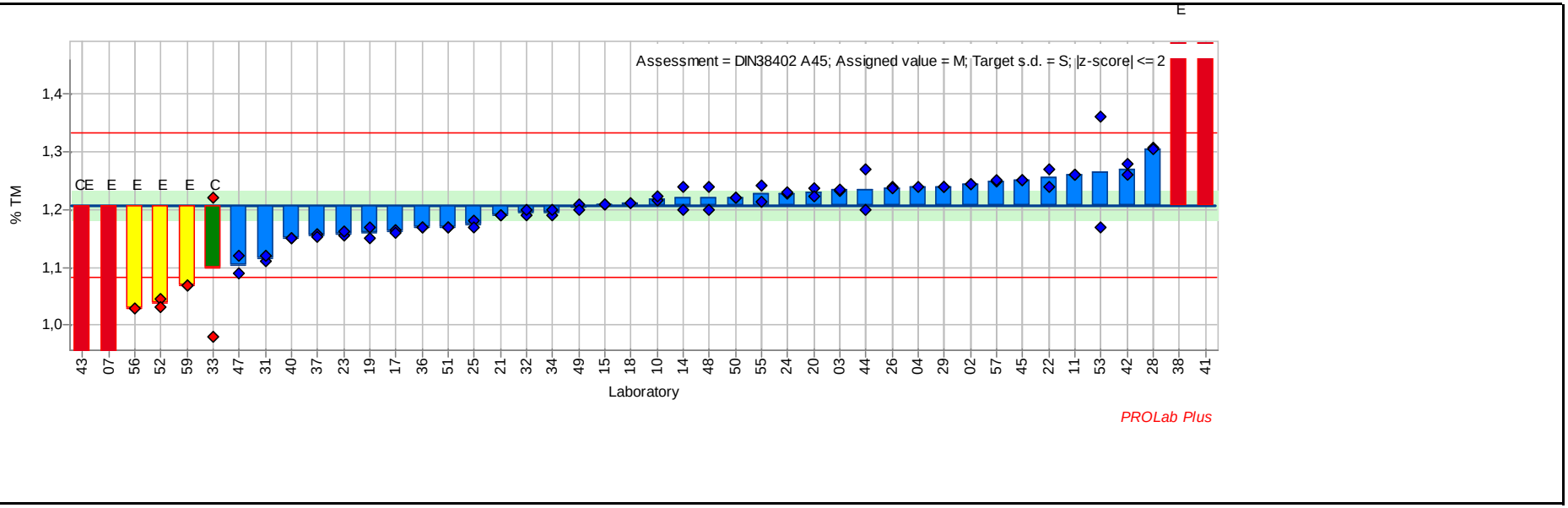
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,063 % TM**
Measurand:	**K2O**	**Repeat. s.d**	**0,009 % TM**
Mean ± U(Mean):	**1,208 ± 0,025 % TM**	**Range of tolerance:**	**1,082 - 1,333 % TM (|z-score| <= 2,0)**
No. of laboratories:	**39**	**Sample**	**DIN 38402 A45**
Assigned value	**1,208 % TM (Empirical value)**	**Target s.d.**	**0,063 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	1,244	0,001	0,6	1,243	1,245	ISO 17025	XRF (fusion)	-
03	1,234	0,001	0,4	1,233	1,234	no accreditation	XRF (fusion)	ISO 29581-2
04	1,240		0,5	1,240		ISO 17025	ICP-OES	-
07	0,900	0,028	-4,9	0,880	0,920	no accreditation	XRF (fusion)	-
10	1,219	0,004	0,2	1,216	1,222	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	1,260	0,000	0,8	1,260	1,260	no accreditation	XRF (fusion)	-
14	1,220	0,028	0,2	1,240	1,200	no accreditation	XRF (fusion)	-
15	1,210	0,000	0,0	1,210	1,210	no accreditation	XRF (fusion)	-
17	1,163	0,004	-0,7	1,165	1,160	no accreditation	XRF (fusion)	-
18	1,211		0,1	1,211		no accreditation	XRF (fusion)	-
19	1,160	0,014	-0,8	1,150	1,170	no accreditation	XRF (fusion)	-
20	1,229	0,010	0,3	1,236	1,222	no accreditation	ICP-OES	-
21	1,190	0,000	-0,3	1,190	1,190	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	1,255	0,021	0,8	1,270	1,240	no accreditation	XRF (fusion)	-
23	1,159	0,005	-0,8	1,155	1,162	ISO 17025	XRF (Pellet) info only	
24	1,228	0,001	0,3	1,227	1,229	no accreditation	XRF (fusion)	-
25	1,175	0,007	-0,5	1,180	1,170	ISO 17025	XRF (fusion)	-
26	1,238	0,002	0,5	1,239	1,236	ISO 17025	ICP-OES	-
28	1,305	0,002	1,6	1,307	1,304	ISO 17025	XRF (fusion)	-
29	1,240	0,000	0,5	1,240	1,240	ISO 17025	XRF (fusion)	-
31	1,115	0,007	-1,5	1,110	1,120	ISO 17025	XRF (fusion)	-
32	1,195	0,007	-0,2	1,190	1,200	no accreditation	XRF (fusion)	-
33	1,100	0,170	-1,7	0,980	1,220	no accreditation	XRF (Pellet) info only	C
34	1,195	0,007	-0,2	1,190	1,200	no accreditation	XRF (fusion)	-
36	1,170	0,000	-0,6	1,170	1,170	no accreditation	other	AAS
37	1,155	0,003	-0,8	1,157	1,153	no accreditation	XRF (fusion)	-
38	1,510		4,8	1,510		ISO 17025	ICP-OES	-
40	1,150	0,000	-0,9	1,150	1,150	ISO 17025	XRF (fusion)	-
41	2,275	0,332	17,0	2,510	2,040	no accreditation	ICP-OES	C
42	1,270	0,014	1,0	1,280	1,260	no accreditation	XRF (fusion)	-
43	0,689	0,092	-8,3	0,754	0,624	no accreditation	other	C, TXRF
44	1,235	0,049	0,4	1,270	1,200	no accreditation	XRF (fusion)	C
45	1,250	0,000	0,7	1,250	1,250	ISO 17025	XRF (fusion)	-
47	1,105	0,021	-1,6	1,090	1,120	ISO 17025	XRF (fusion)	-
48	1,220	0,028	0,2	1,200	1,240	ISO 17025	XRF (fusion)	-
49	1,205	0,007	0,0	1,210	1,200	no accreditation	XRF (fusion)	-
50	1,220	0,000	0,2	1,220	1,220	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	1,170	0,000	-0,6	1,170	1,170	no accreditation	XRF (fusion)	-
52	1,038	0,010	-2,7	1,045	1,031	no accreditation	XRF (Pellet) info only	EDRFA
53	1,265	0,134	0,9	1,170	1,360	no accreditation	XRF (fusion)	C
55	1,228	0,020	0,3	1,214	1,242	no accreditation	XRF (fusion)	Reconstitution Method
56	1,030		-2,8	1,030		no accreditation	XRF (fusion)	-
57	1,249	0,001	0,7	1,248	1,250	ISO 17025	XRF (fusion)	-
59	1,070	0,000	-2,2	1,070	1,070	no accreditation	XRF (fusion)	-

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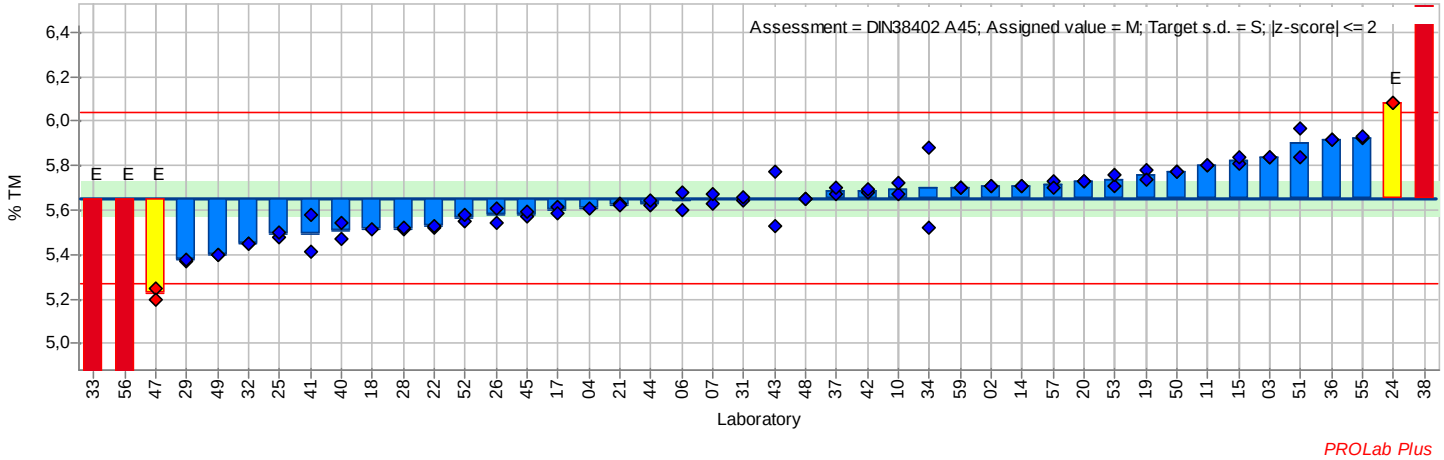
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,194 % TM**
Measurand:	**LOI (1h @ 950°C) observed**	**Repeat. s.d**	**0,023 % TM**
Mean ± U(Mean):	**5,654 ± 0,073 % TM**	**Range of tolerance:**	**5,267 - 6,041 % TM (|z-score| <= 2,0)**
No. of laboratories:	**44**	**Sample**	**DIN 38402 A45**
Assigned value	**5,654 % TM (Empirical value)**	**Target s.d.**	**0,194 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	5,710	0,000	0,3	5,710	5,710	ISO 17025	1h@950°C	-
03	5,840	0,000	1,0	5,840	5,840	no accreditation	Wet chemistry EN196-2	-
04	5,610		-0,2	5,610		ISO 17025	1h@950°C	-
06	5,640	0,057	-0,1	5,600	5,680	no accreditation	Wet chemistry EN196-2	-
07	5,650	0,028	0,0	5,630	5,670	no accreditation	1h@950°C	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	5,695	0,035	0,2	5,670	5,720	no accreditation	XRF (fusion)	-
11	5,800	0,000	0,8	5,800	5,800	no accreditation	Wet chemistry EN196-2	-
14	5,710	0,000	0,3	5,710	5,710	no accreditation	1h@950°C	corr. EN 196-2
15	5,825	0,021	0,9	5,810	5,840	no accreditation	1h@950°C	-
17	5,601	0,022	-0,3	5,616	5,585	no accreditation	1h@950°C	-
18	5,510		-0,7	5,510		no accreditation	1h@950°C	-
19	5,760	0,028	0,5	5,780	5,740	no accreditation	1h@950°C	-
20	5,730	0,000	0,4	5,730	5,730	no accreditation	1h@950°C	-
21	5,625	0,007	-0,1	5,630	5,620	ISO 17025	Wet chemistry EN196-2	-
22	5,525	0,007	-0,7	5,520	5,530	no accreditation	1h@950°C	-
24	6,079	0,000	2,2	6,079	6,079	no accreditation	1h@950°C	-
25	5,490	0,014	-0,8	5,480	5,500	ISO 17025	1h@950°C	-
26	5,575	0,049	-0,4	5,610	5,540	ISO 17025	1h@950°C	-
28	5,515	0,007	-0,7	5,510	5,520	ISO 17025	1h@950°C	-
29	5,375	0,007	-1,4	5,370	5,380	ISO 17025	1h@950°C	-
31	5,650	0,014	0,0	5,640	5,660	no accreditation	1h@950°C	-
32	5,450	0,000	-1,1	5,450	5,450	no accreditation	1h@950°C	-
33	4,445	0,177	-6,2	4,320	4,570	no accreditation	1h@950°C	C
34	5,700	0,255	0,2	5,880	5,520	no accreditation	1h@950°C	C
36	5,920	0,000	1,4	5,920	5,920	ISO 17025	1h@950°C	-
37	5,685	0,021	0,2	5,670	5,700	no accreditation	1h@950°C	-
38	11,780		31,7	11,780		no accreditation	1h@950°C	-
40	5,505	0,049	-0,8	5,470	5,540	ISO 17025	XRF (fusion)	-
41	5,495	0,120	-0,8	5,410	5,580	no accreditation	1h@950°C	C
42	5,685	0,007	0,2	5,680	5,690	no accreditation	1h@950°C	-
43	5,650	0,170	0,0	5,530	5,770	no accreditation	1h@950°C	C
44	5,630	0,014	-0,1	5,620	5,640	no accreditation	1h@950°C	-
45	5,580	0,014	-0,4	5,570	5,590	ISO 17025	1h@950°C	-
47	5,225	0,035	-2,2	5,250	5,200	no accreditation	1h@950°C	-
48	5,650	0,000	0,0	5,650	5,650	ISO 17025	1h@950°C	-
49	5,400	0,000	-1,3	5,400	5,400	no accreditation	combustion	-
50	5,770	0,000	0,6	5,770	5,770	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	5,905	0,092	1,3	5,970	5,840	ISO 17025	XRF (fusion)	C
52	5,565	0,021	-0,5	5,550	5,580	no accreditation	1h@950°C	-
53	5,735	0,035	0,4	5,710	5,760	no accreditation	1h@950°C	-
55	5,926	0,007	1,4	5,921	5,931	no accreditation	1h@950°C	Reconstitution Method
56	4,770		-4,6	4,770		no accreditation	1h@950°C	-
57	5,715	0,021	0,3	5,730	5,700	ISO 17025	1h@950°C	-
59	5,700	0,000	0,2	5,700	5,700	no accreditation	1h@950°C	-

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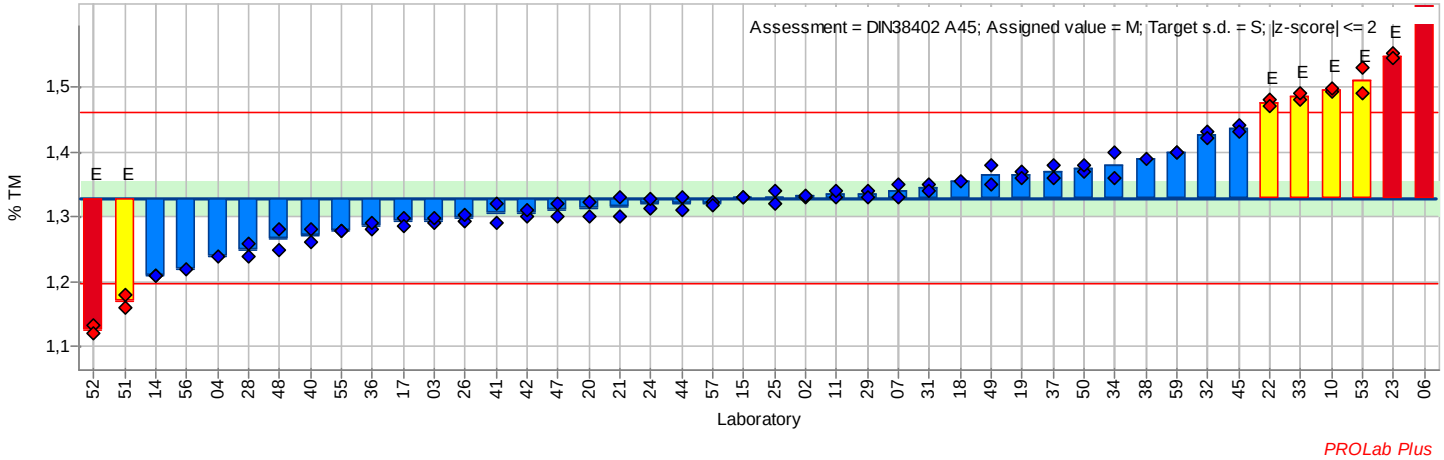
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,066 % TM**
Measurand:	**MgO**	**Repeat. s.d**	**0,013 % TM**
Mean ± U(Mean):	**1,329 ± 0,026 % TM**	**Range of tolerance:**	**1,197 - 1,461 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**1,329 % TM (Empirical value)**	**Target s.d.**	**0,066 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	1,332	0,002	0,0	1,330	1,333	ISO 17025	XRF (fusion)	-
03	1,294	0,007	-0,5	1,290	1,299	no accreditation	XRF (fusion)	ISO 29581-2
04	1,240		-1,3	1,240		ISO 17025	ICP-OES	-
06	1,655	0,049	4,9	1,690	1,620	no accreditation	Wet chemistry EN196-2	-
07	1,340	0,014	0,2	1,330	1,350	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	1,496	0,004	2,5	1,493	1,498	no accreditation	XRF (fusion)	-
11	1,335	0,007	0,1	1,330	1,340	no accreditation	XRF (fusion)	-
14	1,210	0,000	-1,8	1,210	1,210	no accreditation	XRF (fusion)	-
15	1,330	0,000	0,0	1,330	1,330	no accreditation	XRF (fusion)	-
17	1,292	0,009	-0,5	1,299	1,286	no accreditation	XRF (fusion)	-
18	1,355		0,4	1,355		no accreditation	XRF (fusion)	-
19	1,365	0,007	0,5	1,370	1,360	no accreditation	XRF (fusion)	-
20	1,312	0,016	-0,3	1,301	1,323	no accreditation	XRF (fusion)	-
21	1,315	0,021	-0,2	1,330	1,300	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	1,475	0,007	2,2	1,480	1,470	no accreditation	XRF (fusion)	-
23	1,547	0,006	3,3	1,552	1,543	ISO 17025	XRF (Pellet) info only	
24	1,320	0,010	-0,1	1,313	1,327	no accreditation	XRF (fusion)	-
25	1,330	0,014	0,0	1,320	1,340	ISO 17025	XRF (fusion)	-
26	1,298	0,006	-0,5	1,294	1,303	ISO 17025	XRF (fusion)	-
28	1,248	0,015	-1,2	1,238	1,259	ISO 17025	XRF (fusion)	-
29	1,335	0,007	0,1	1,340	1,330	ISO 17025	XRF (fusion)	-
31	1,345	0,007	0,2	1,350	1,340	ISO 17025	XRF (fusion)	-
32	1,425	0,007	1,5	1,430	1,420	no accreditation	XRF (fusion)	-
33	1,485	0,007	2,4	1,480	1,490	no accreditation	XRF (Pellet) info only	-
34	1,380	0,028	0,8	1,360	1,400	no accreditation	XRF (fusion)	-
36	1,285	0,007	-0,7	1,280	1,290	ISO 17025	XRF (fusion)	-
37	1,370	0,014	0,6	1,380	1,360	no accreditation	XRF (fusion)	-
38	1,390		0,9	1,390		ISO 17025	XRF (fusion)	-
40	1,270	0,014	-0,9	1,280	1,260	ISO 17025	XRF (fusion)	-
41	1,305	0,021	-0,4	1,320	1,290	no accreditation	ICP-OES	-
42	1,305	0,007	-0,4	1,300	1,310	no accreditation	XRF (fusion)	-
44	1,320	0,014	-0,1	1,310	1,330	no accreditation	XRF (fusion)	-
45	1,435	0,007	1,6	1,440	1,430	ISO 17025	XRF (fusion)	-
47	1,310	0,014	-0,3	1,320	1,300	ISO 17025	XRF (fusion)	-
48	1,265	0,021	-1,0	1,280	1,250	ISO 17025	XRF (fusion)	-
49	1,365	0,021	0,5	1,380	1,350	no accreditation	XRF (fusion)	-
50	1,375	0,007	0,7	1,370	1,380	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	1,170	0,014	-2,4	1,160	1,180	no accreditation	XRF (fusion)	-
52	1,127	0,007	-3,1	1,132	1,122	no accreditation	XRF (Pellet) info only	EDRFA
53	1,510	0,028	2,7	1,530	1,490	no accreditation	XRF (fusion)	-
55	1,279	0,000	-0,8	1,279	1,279	no accreditation	XRF (fusion)	Reconstitution Method
56	1,220		-1,6	1,220		no accreditation	XRF (fusion)	-
57	1,320	0,002	-0,1	1,321	1,319	ISO 17025	XRF (fusion)	-
59	1,400	0,000	1,1	1,400	1,400	no accreditation	XRF (fusion)	-

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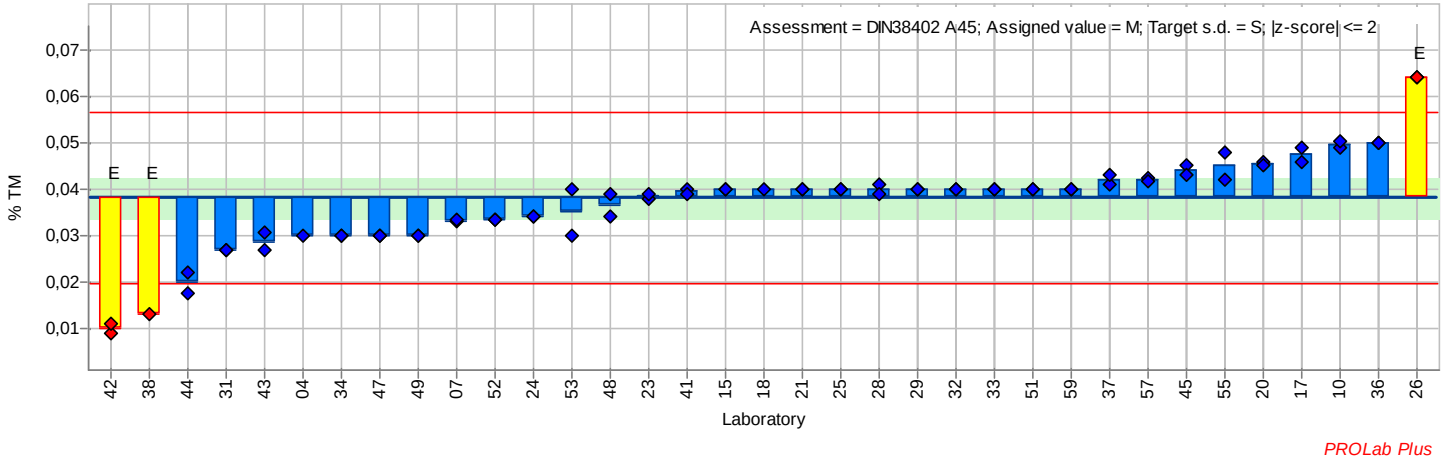
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,009 % TM**
Measurand:	**Mn2O3**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,038 ± 0,004 % TM**	**Range of tolerance:**	**0,020 - 0,057 % TM (|z-score| <= 2,0)**
No. of laboratories:	**30**	**Sample**	**DIN 38402 A45**
Assigned value	**0,038 % TM (Empirical value)**	**Target s.d.**	**0,009 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
04	0,030		-0,9	0,030		ISO 17025	ICP-OES	-
07	0,033	0,000	-0,5	0,033	0,034	no accreditation	XRF (Pellet) info only	
10	0,050	0,001	1,2	0,049	0,050	no accreditation	XRF (fusion)	-
14								-
15	0,040	0,000	0,2	0,040	0,040	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
17	0,048	0,002	1,0	0,046	0,049	no accreditation	XRF (fusion)	-
18	0,040		0,2	0,040		no accreditation	XRF (fusion)	-
20	0,045	0,001	0,8	0,046	0,045	no accreditation	XRF (fusion)	-
21	0,040	0,000	0,2	0,040	0,040	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,038	0,001	0,0	0,038	0,039	ISO 17025	XRF (Pellet) info only	
24	0,034	0,000	-0,4	0,034	0,034	no accreditation	XRF (fusion)	-
25	0,040	0,000	0,2	0,040	0,040	ISO 17025	XRF (fusion)	-
26	0,064	0,000	2,8	0,064	0,064	ISO 17025	XRF (fusion)	-
28	0,040	0,001	0,2	0,041	0,039	ISO 17025	XRF (fusion)	-
29	0,040	0,000	0,2	0,040	0,040	ISO 17025	XRF (fusion)	-
31	0,027	0,000	-1,2	0,027	0,027	ISO 17025	ICP-OES	digestion in aqua regia
32	0,040	0,000	0,2	0,040	0,040	no accreditation	XRF (fusion)	-
33	0,040	0,000	0,2	0,040	0,040	no accreditation	XRF (Pellet) info only	-
34	0,030	0,000	-0,9	0,030	0,030	no accreditation	XRF (fusion)	-
36	0,050	0,000	1,3	0,050	0,050	ISO 17025	XRF (fusion)	-
37	0,042	0,001	0,4	0,041	0,043	no accreditation	XRF (fusion)	-
38	0,013		-2,7	0,013		ISO 17025	ICP-OES	-
41	0,040	0,001	0,2	0,040	0,039	no accreditation	ICP-OES	-
42	0,010	0,001	-3,0	0,009	0,011	no accreditation	XRF (fusion)	-
43	0,029	0,003	-1,0	0,031	0,027	no accreditation	other	TXRF
44	0,020	0,003	-2,0	0,018	0,022	no accreditation	XRF (fusion)	calc. from MnO
45	0,044	0,001	0,6	0,045	0,043	ISO 17025	XRF (fusion)	-
47	0,030	0,000	-0,9	0,030	0,030	no accreditation	XRF (fusion)	-
48	0,037	0,004	-0,2	0,034	0,039	ISO 17025	XRF (fusion)	-
49	0,030	0,000	-0,9	0,030	0,030	no accreditation	XRF (fusion)	-
51	0,040	0,000	0,2	0,040	0,040	no accreditation	XRF (fusion)	-
52	0,033	0,000	-0,5	0,034	0,033	no accreditation	XRF (Pellet) info only	EDRFA
53	0,035	0,007	-0,3	0,040	0,030	no accreditation	XRF (fusion)	C
55	0,045	0,004	0,7	0,042	0,048	no accreditation	XRF (fusion)	Reconstitution Method
57	0,042	0,000	0,4	0,043	0,042	ISO 17025	XRF (fusion)	-
59	0,040	0,000	0,2	0,040	0,040	no accreditation	XRF (fusion)	-

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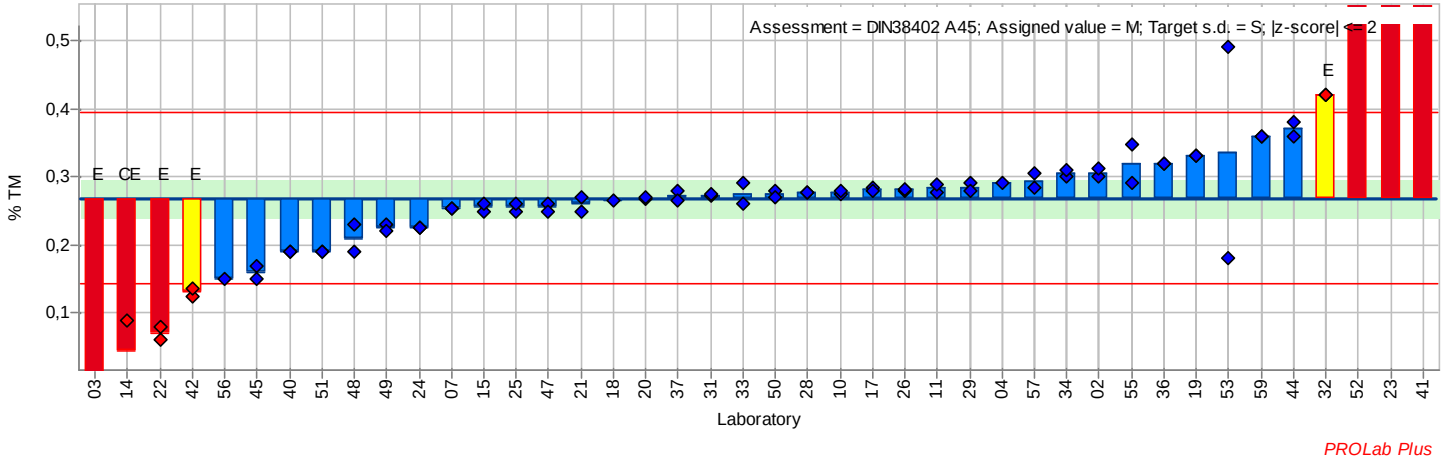
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,063 % TM**
Measurand:	**Na2O**	**Repeat. s.d**	**0,010 % TM**
Mean ± U(Mean):	**0,269 ± 0,027 % TM**	**Range of tolerance:**	**0,143 - 0,395 % TM (|z-score| <= 2,0)**
No. of laboratories:	**35**	**Sample**	**DIN 38402 A45**
Assigned value	**0,269 % TM (Empirical value)**	**Target s.d.**	**0,063 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,306	0,008	0,6	0,300	0,312	ISO 17025	XRF (fusion)	-
03	0,001	0,000	-4,2	0,001	0,001	no accreditation	XRF (fusion)	ISO 29581-2
04	0,290		0,3	0,290		ISO 17025	ICP-OES	-
07	0,253	0,000	-0,3	0,253	0,253	no accreditation	XRF (Pellet) info only	
10	0,277	0,005	0,1	0,274	0,280	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,283	0,008	0,2	0,277	0,289	no accreditation	XRF (fusion)	-
14	0,045	0,064	-3,5	0,000	0,090	no accreditation	other	C, EDXRF fusion
15	0,255	0,007	-0,2	0,250	0,260	no accreditation	XRF (fusion)	-
17	0,281	0,003	0,2	0,283	0,279	no accreditation	XRF (fusion)	-
18	0,265		-0,1	0,265		no accreditation	XRF (fusion)	-
19	0,330	0,000	1,0	0,330	0,330	no accreditation	XRF (fusion)	-
20	0,269	0,002	0,0	0,267	0,270	no accreditation	ICP-OES	-
21	0,260	0,014	-0,1	0,270	0,250	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,070	0,014	-3,2	0,080	0,060	no accreditation	XRF (fusion)	-
23	1,961	0,045	26,8	1,929	1,992	ISO 17025	XRF (Pellet) info only	
24	0,226	0,000	-0,7	0,226	0,226	no accreditation	XRF (fusion)	-
25	0,255	0,007	-0,2	0,250	0,260	ISO 17025	XRF (fusion)	-
26	0,281	0,001	0,2	0,280	0,282	ISO 17025	ICP-OES	-
28	0,277	0,001	0,1	0,276	0,277	ISO 17025	XRF (fusion)	-
29	0,285	0,007	0,3	0,290	0,280	ISO 17025	XRF (fusion)	-
31	0,274	0,001	0,1	0,273	0,274	ISO 17025	XRF (fusion)	-
32	0,420	0,000	2,4	0,420	0,420	no accreditation	XRF (fusion)	-
33	0,275	0,021	0,1	0,260	0,290	no accreditation	XRF (Pellet) info only	-
34	0,305	0,007	0,6	0,300	0,310	no accreditation	XRF (fusion)	-
36	0,320	0,000	0,8	0,320	0,320	no accreditation	other	AAS
37	0,273	0,011	0,1	0,280	0,265	no accreditation	XRF (fusion)	-
40	0,190	0,000	-1,3	0,190	0,190	no accreditation	other	AAS
41	6,365	1,464	96,6	7,400	5,330	no accreditation	ICP-OES	C
42	0,131	0,008	-2,2	0,125	0,137	no accreditation	XRF (fusion)	-
44	0,370	0,014	1,6	0,360	0,380	no accreditation	XRF (fusion)	-
45	0,160	0,014	-1,7	0,150	0,170	ISO 17025	XRF (fusion)	-
47	0,255	0,007	-0,2	0,260	0,250	ISO 17025	XRF (fusion)	-
48	0,210	0,028	-0,9	0,190	0,230	ISO 17025	XRF (fusion)	-
49	0,225	0,007	-0,7	0,230	0,220	no accreditation	XRF (fusion)	-
50	0,275	0,007	0,1	0,280	0,270	no accreditation	XRF (fusion)	-
51	0,190	0,000	-1,3	0,190	0,190	no accreditation	XRF (fusion)	-
52	1,641	0,040	21,8	1,669	1,613	no accreditation	XRF (Pellet) info only	EDRFA

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
53	0,335	0,219	1,0	0,490	0,180	no accreditation	XRF (fusion)	C
55	0,320	0,040	0,8	0,348	0,292	no accreditation	XRF (fusion)	C - Reconstitution Method
56	0,150		-1,9	0,150		no accreditation	XRF (fusion)	-
57	0,295	0,015	0,4	0,305	0,284	ISO 17025	XRF (fusion)	-
59	0,360	0,000	1,4	0,360	0,360	no accreditation	XRF (fusion)	-

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RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,008 % TM**
Measurand:	**P2O5**	**Repeat. s.d**	**0,004 % TM**
Mean ± U(Mean):	**0,152 ± 0,003 % TM**	**Range of tolerance:**	**0,135 - 0,168 % TM (|z-score| <= 2,0)**
No. of laboratories:	**36**	**Sample**	**DIN 38402 A45**
Assigned value	**0,152 % TM (Empirical value)**	**Target s.d.**	**0,008 % TM (Empirical value)**

E

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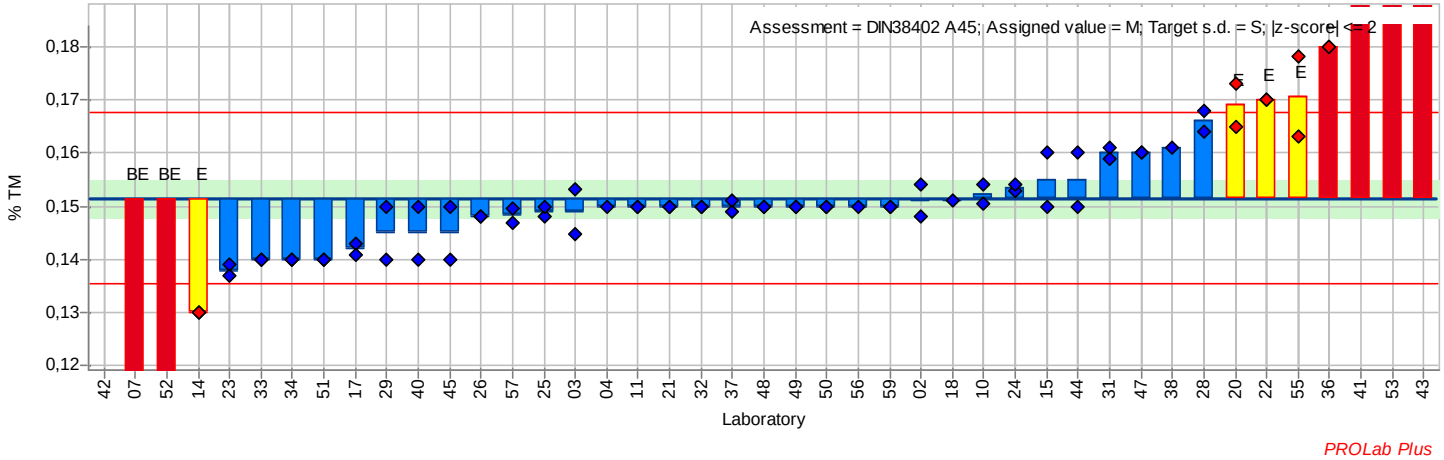

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,151	0,004	-0,1	0,154	0,148	ISO 17025	XRF (fusion)	-
03	0,149	0,006	-0,3	0,153	0,145	no accreditation	XRF (fusion)	ISO 29581-2
04	0,150		-0,2	0,150		ISO 17025	ICP-OES	-
07	0,037	0,002	-14,2	0,038	0,036	no accreditation	XRF (Pellet) info only	
10	0,152	0,003	0,1	0,154	0,150	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,150	0,000	-0,2	0,150	0,150	no accreditation	XRF (fusion)	-
14	0,130	0,000	-2,7	0,130	0,130	no accreditation	XRF (fusion)	-
15	0,155	0,007	0,4	0,160	0,150	no accreditation	XRF (fusion)	-
17	0,142	0,001	-1,2	0,143	0,141	no accreditation	XRF (fusion)	-
18	0,151		-0,1	0,151		no accreditation	XRF (fusion)	-
20	0,169	0,006	2,2	0,165	0,173	no accreditation	XRF (fusion)	-
21	0,150	0,000	-0,2	0,150	0,150	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,170	0,000	2,3	0,170	0,170	no accreditation	XRF (fusion)	-
23	0,138	0,001	-1,7	0,139	0,137	ISO 17025	XRF (Pellet) info only	
24	0,153	0,001	0,2	0,153	0,154	no accreditation	XRF (fusion)	-
25	0,149	0,001	-0,3	0,148	0,150	ISO 17025	XRF (fusion)	-
26	0,148	0,000	-0,4	0,148	0,148	ISO 17025	XRF (fusion)	-
28	0,166	0,003	1,8	0,164	0,168	ISO 17025	XRF (fusion)	-
29	0,145	0,007	-0,8	0,140	0,150	ISO 17025	XRF (fusion)	-
31	0,160	0,001	1,0	0,161	0,159	ISO 17025	XRF (fusion)	-
32	0,150	0,000	-0,2	0,150	0,150	no accreditation	XRF (fusion)	-
33	0,140	0,000	-1,4	0,140	0,140	no accreditation	XRF (Pellet) info only	-
34	0,140	0,000	-1,4	0,140	0,140	no accreditation	XRF (fusion)	-
36	0,180	0,000	3,5	0,180	0,180	no accreditation	XRF (fusion)	-
37	0,150	0,001	-0,2	0,149	0,151	no accreditation	XRF (fusion)	-
38	0,161		1,2	0,161		ISO 17025	ICP-OES	-
40	0,145	0,007	-0,8	0,140	0,150	ISO 17025	XRF (fusion)	-
41	0,213	0,004	7,7	0,216	0,211	no accreditation	XRF (Pellet) info only	
42				<0,005	<0,005	no accreditation	XRF (fusion)	-
43	0,271	0,048	14,8	0,305	0,237	no accreditation	other	C, TXRF
44	0,155	0,007	0,4	0,160	0,150	no accreditation	XRF (fusion)	-
45	0,145	0,007	-0,8	0,150	0,140	ISO 17025	XRF (fusion)	-
47	0,160	0,000	1,0	0,160	0,160	ISO 17025	XRF (fusion)	-
48	0,150	0,000	-0,2	0,150	0,150	ISO 17025	XRF (fusion)	-
49	0,150	0,000	-0,2	0,150	0,150	no accreditation	XRF (fusion)	-
50	0,150	0,000	-0,2	0,150	0,150	no accreditation	XRF (fusion)	-
51	0,140	0,000	-1,4	0,140	0,140	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
52	0,106	0,000	-5,6	0,106	0,106	no accreditation	XRF (Pellet) info only	EDRFA
53	0,227	0,000	9,4	0,227	0,227	no accreditation	XRF (fusion)	-
55	0,170	0,011	2,4	0,163	0,178	no accreditation	XRF (fusion)	-
56	0,150		-0,2	0,150		no accreditation	XRF (fusion)	-
57	0,148	0,002	-0,4	0,147	0,150	ISO 17025	XRF (fusion)	-
59	0,150	0,000	-0,2	0,150	0,150	no accreditation	XRF (fusion)	-

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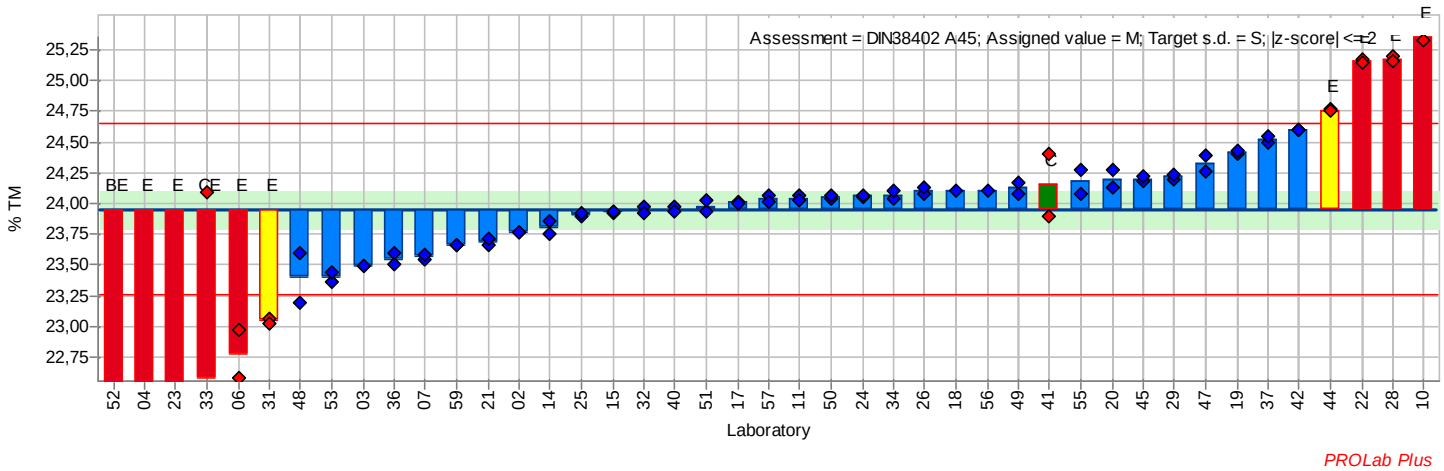
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,349 % TM**
Measurand:	**SiO2**	**Repeat. s.d**	**0,043 % TM**
Mean ± U(Mean):	**23,955 ± 0,154 % TM**	**Range of tolerance:**	**23,256 - 24,653 % TM (|z-score| <= 2,0)**
No. of laboratories:	**32**	**Sample**	**DIN 38402 A45**
Assigned value	**23,955 % TM (Empirical value)**	**Target s.d.**	**0,349 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	23,765	0,006	-0,5	23,761	23,770	ISO 17025	XRF (fusion)	-
03	23,490	0,001	-1,3	23,491	23,489	no accreditation	XRF (fusion)	ISO 29581-2
04	20,860		-8,9	20,860		ISO 17025	ICP-OES	-
06	22,780	0,269	-3,4	22,970	22,590	no accreditation	Wet chemistry EN196-2	C, precip. aided by gelatine
07	23,565	0,021	-1,1	23,550	23,580	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	25,355	0,035	4,0	25,380	25,330	no accreditation	XRF (fusion)	-
11	24,045	0,021	0,3	24,060	24,030	no accreditation	XRF (fusion)	-
14	23,805	0,078	-0,4	23,860	23,750	no accreditation	XRF (fusion)	-
15	23,930	0,014	-0,1	23,920	23,940	no accreditation	XRF (fusion)	-
17	24,008	0,004	0,2	24,010	24,005	no accreditation	XRF (fusion)	-
18	24,110		0,4	24,110		no accreditation	XRF (fusion)	-
19	24,415	0,021	1,3	24,400	24,430	no accreditation	XRF (fusion)	-
20	24,200	0,099	0,7	24,270	24,130	no accreditation	XRF (fusion)	-
21	23,685	0,035	-0,8	23,660	23,710	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	25,160	0,014	3,5	25,170	25,150	no accreditation	XRF (fusion)	-
23	22,190	0,085	-5,1	22,250	22,130	ISO 17025	XRF (Pellet) info only	
24	24,059	0,013	0,3	24,050	24,069	no accreditation	XRF (fusion)	-
25	23,905	0,021	-0,1	23,890	23,920	ISO 17025	XRF (fusion)	-
26	24,105	0,036	0,4	24,080	24,131	ISO 17025	XRF (fusion)	-
28	25,174	0,028	3,5	25,194	25,154	ISO 17025	XRF (fusion)	-
29	24,215	0,035	0,7	24,190	24,240	ISO 17025	XRF (fusion)	-
31	23,050	0,028	-2,6	23,070	23,030	ISO 17025	XRF (fusion)	-
32	23,945	0,035	0,0	23,970	23,920	no accreditation	XRF (fusion)	-
33	22,590	2,121	-3,9	21,090	24,090	no accreditation	XRF (Pellet) info only	C
34	24,070	0,042	0,3	24,040	24,100	no accreditation	XRF (fusion)	-
36	23,550	0,071	-1,2	23,600	23,500	ISO 17025	XRF (fusion)	-
37	24,525	0,035	1,6	24,500	24,550	no accreditation	XRF (fusion)	-
40	23,950	0,028	0,0	23,970	23,930	ISO 17025	XRF (fusion)	-
41	24,150	0,354	0,6	24,400	23,900	no accreditation	XRF (Pellet) info only	C
42	24,600	0,000	1,8	24,600	24,600	no accreditation	XRF (fusion)	-
44	24,760	0,014	2,3	24,770	24,750	no accreditation	XRF (fusion)	-
45	24,200	0,028	0,7	24,180	24,220	ISO 17025	XRF (fusion)	-
47	24,325	0,092	1,1	24,390	24,260	ISO 17025	XRF (fusion)	-
48	23,400	0,283	-1,6	23,600	23,200	ISO 17025	XRF (fusion)	C
49	24,125	0,064	0,5	24,170	24,080	no accreditation	XRF (fusion)	-
50	24,050	0,014	0,3	24,040	24,060	no accreditation	XRF (fusion)	-
51	23,980	0,057	0,1	23,940	24,020	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
52	18,535	0,163	-15,5	18,420	18,650	no accreditation	XRF (Pellet) info only	EDRFA
53	23,400	0,057	-1,6	23,360	23,440	no accreditation	XRF (fusion)	-
55	24,177	0,134	0,6	24,272	24,082	no accreditation	XRF (fusion)	Reconstitution Method
56	24,110		0,4	24,110		no accreditation	XRF (fusion)	-
57	24,041	0,042	0,2	24,071	24,011	ISO 17025	XRF (fusion)	-
59	23,660	0,000	-0,8	23,660	23,660	no accreditation	XRF (fusion)	-

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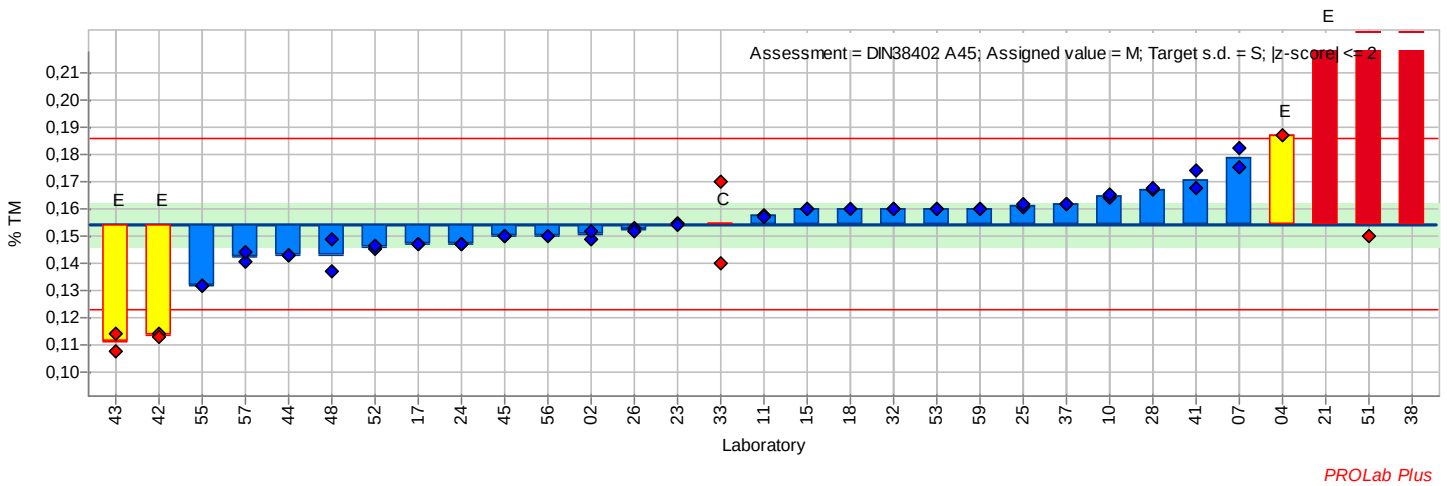
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,016 % TM**
Measurand:	**SrO**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,155 ± 0,008 % TM**	**Range of tolerance:**	**0,123 - 0,186 % TM (|z-score| <= 2,0)**
No. of laboratories:	**26**	**Sample**	**DIN 38402 A45**
Assigned value	**0,155 % TM (Empirical value)**	**Target s.d.**	**0,016 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,150	0,002	-0,3	0,149	0,152	ISO 17025	XRF (fusion)	-
04	0,187		2,1	0,187		ISO 17025	ICP-OES	-
07	0,179	0,005	1,5	0,175	0,182	no accreditation	XRF (Pellet) info only	
10	0,165	0,001	0,6	0,164	0,166	no accreditation	XRF (fusion)	-
11	0,158	0,001	0,2	0,158	0,157	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	0,160	0,000	0,3	0,160	0,160	no accreditation	XRF (fusion)	-
17	0,147	0,000	-0,5	0,147	0,147	no accreditation	XRF (fusion)	-
18	0,160		0,3	0,160		no accreditation	XRF (fusion)	-
21	0,222	0,001	4,3	0,221	0,223	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,154	0,001	0,0	0,155	0,154	ISO 17025	XRF (Pellet) info only	
24	0,147	0,000	-0,5	0,147	0,147	no accreditation	XRF (fusion)	-
25	0,162	0,001	0,4	0,161	0,162	ISO 17025	XRF (fusion)	-
26	0,152	0,001	-0,1	0,153	0,152	ISO 17025	XRF (fusion)	-
28	0,168	0,001	0,8	0,167	0,168	ISO 17025	XRF (fusion)	-
32	0,160	0,000	0,3	0,160	0,160	no accreditation	XRF (fusion)	-
33	0,155	0,021	0,0	0,170	0,140	no accreditation	XRF (Pellet) info only	C
37	0,162	0,000	0,5	0,162	0,162	no accreditation	XRF (fusion)	-
38	0,695		34,1	0,695		ISO 17025	ICP-OES	-
41	0,171	0,004	1,0	0,174	0,168	no accreditation	ICP-OES	C
42	0,114	0,001	-2,6	0,114	0,113	no accreditation	XRF (fusion)	-
43	0,111	0,005	-2,7	0,108	0,115	no accreditation	other	TXRF
44	0,143	0,000	-0,7	0,143	0,143	no accreditation	XRF (fusion)	-
45	0,150	0,000	-0,3	0,150	0,150	ISO 17025	XRF (fusion)	-
48	0,143	0,008	-0,7	0,137	0,149	ISO 17025	XRF (fusion)	C
51	0,325	0,247	10,8	0,150	0,500	no accreditation	XRF (fusion)	C
52	0,146	0,001	-0,5	0,145	0,146	no accreditation	XRF (Pellet) info only	EDRFA
53	0,160	0,000	0,3	0,160	0,160	no accreditation	XRF (fusion)	-
55	0,132	0,000	-1,4	0,132	0,132	no accreditation	XRF (fusion)	Reconstitution Method
56	0,150		-0,3	0,150		no accreditation	XRF (fusion)	-
57	0,143	0,002	-0,8	0,141	0,144	ISO 17025	XRF (fusion)	-
59	0,160	0,000	0,3	0,160	0,160	no accreditation	XRF (fusion)	-

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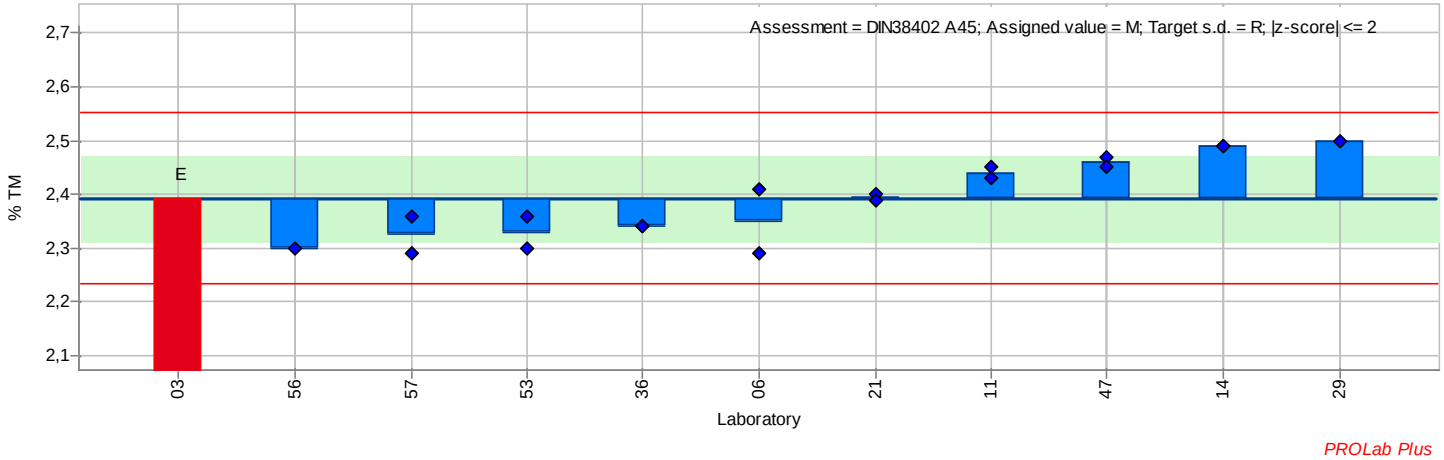
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,105 % TM**
Measurand:	**Sulfate expressed as SO3**	**Repeat. s.d**	**0,027 % TM**
Mean ± U(Mean):	**2,393 ± 0,079 % TM**	**Range of tolerance:**	**2,233 - 2,553 % TM (|z-score| <= 2,0)**
No. of laboratories:	**11**	**Sample**	**DIN 38402 A45**
Assigned value	**2,393 % TM (Empirical value)**	**Target s.d.**	**0,080 % TM (Reference value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
03	1,877	0,012	-6,5	1,868	1,885	no accreditation	Wet chemistry EN196-2	-
06	2,350	0,085	-0,5	2,290	2,410	no accreditation	Wet chemistry EN196-2	-
11	2,440	0,014	0,6	2,450	2,430	no accreditation	Wet chemistry EN196-2	-
14	2,490	0,000	1,2	2,490	2,490	no accreditation	Wet chemistry EN196-2	-
21	2,395	0,007	0,0	2,400	2,390	ISO 17025	Wet chemistry EN196-2	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
29	2,500		1,3	2,500		ISO 17025	Wet chemistry EN196-2	-
36	2,340	0,000	-0,7	2,340	2,340	ISO 17025	Wet chemistry EN196-2	-
47	2,460	0,014	0,8	2,470	2,450	no accreditation	Wet chemistry EN196-2	-
53	2,330	0,042	-0,8	2,360	2,300	no accreditation	Wet chemistry EN196-2	-
56	2,300		-1,2	2,300		no accreditation	Wet chemistry EN196-2	-
57	2,325	0,049	-0,9	2,360	2,290	ISO 17025	Wet chemistry EN196-2	-

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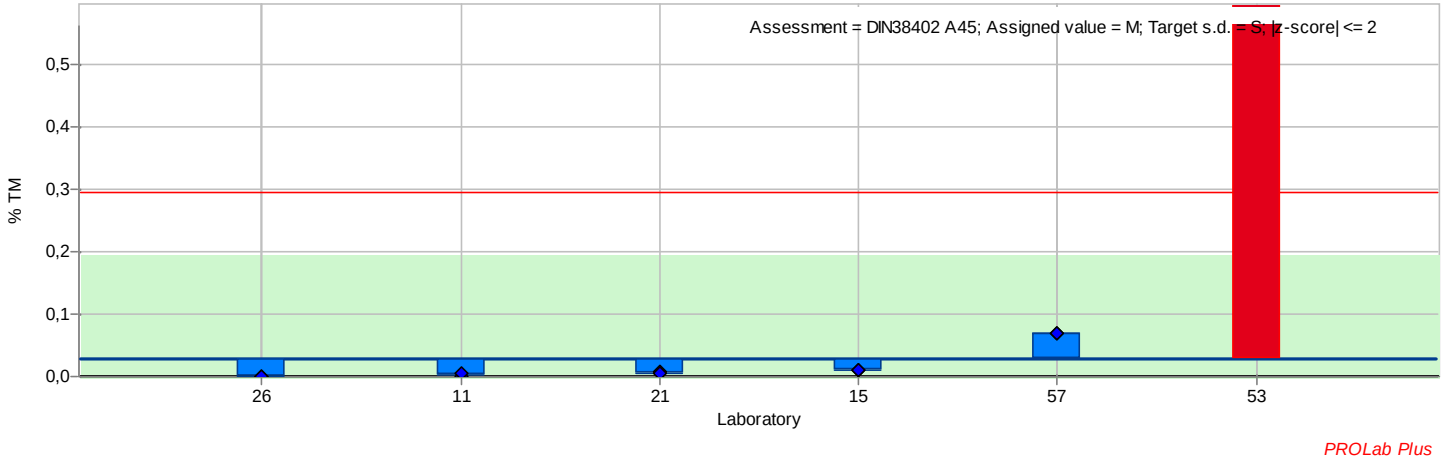
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,133 % TM**
Measurand:	**Sulfide expressed as S**	**Repeat. s.d**	**0,004 % TM**
Mean ± U(Mean):	**0,029 ± 0,166 % TM**	**Range of tolerance:**	**-0,238 - 0,295 % TM (|z-score| <= 2,0)**
No. of laboratories:	**4**	**Sample**	**DIN 38402 A45**
Assigned value	**0,029 % TM (Empirical value)**	**Target s.d.**	**0,133 % TM (Empirical value)**

E



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,002	0,003	-0,2	0,000	0,004	no accreditation	Standardless info only	-
15	0,010	0,000	-0,1	0,010	0,010	no accreditation	Wet chemistry EN196-2	-
21	0,006	0,003	-0,2	0,008	0,004	ISO 17025	Wet chemistry EN196-2	-
26	0,001	0,000	-0,2	0,001	0,001	ISO 17025	other	DIN 38405-D27
53	0,765	0,007	5,5	0,770	0,760	no accreditation	Wet chemistry EN196-2	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
57	0,070	0,000	0,3	0,070	0,070	no accreditation	Wet chemistry EN196-2	SO4 difference

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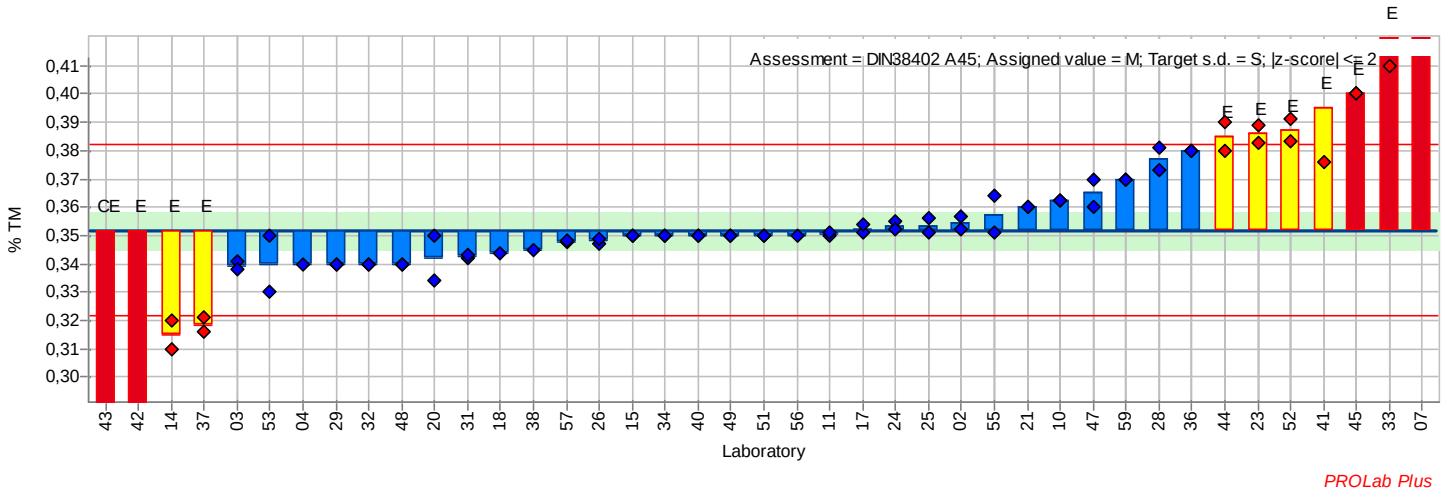
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,015 % TM**
Measurand:	**TiO2**	**Repeat. s.d**	**0,003 % TM**
Mean ± U(Mean):	**0,352 ± 0,006 % TM**	**Range of tolerance:**	**0,322 - 0,382 % TM (|z-score| <= 2,0)**
No. of laboratories:	**36**	**Sample**	**DIN 38402 A45**
Assigned value	**0,352 % TM (Empirical value)**	**Target s.d.**	**0,015 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,354	0,004	0,2	0,352	0,357	ISO 17025	XRF (fusion)	-
03	0,339	0,002	-0,8	0,341	0,338	no accreditation	XRF (fusion)	ISO 29581-2
04	0,340		-0,8	0,340		ISO 17025	ICP-OES	-
07	0,628	0,009	18,2	0,622	0,634	no accreditation	XRF (Pellet) info only	
10	0,363	0,000	0,7	0,362	0,363	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,350	0,001	-0,1	0,350	0,351	no accreditation	XRF (fusion)	-
14	0,315	0,007	-2,4	0,320	0,310	no accreditation	XRF (fusion)	-
15	0,350	0,000	-0,1	0,350	0,350	no accreditation	XRF (fusion)	-
17	0,352	0,002	0,0	0,351	0,354	no accreditation	XRF (fusion)	-
18	0,344		-0,5	0,344		no accreditation	XRF (fusion)	-
20	0,342	0,011	-0,7	0,334	0,350	no accreditation	XRF (fusion)	-
21	0,360	0,000	0,5	0,360	0,360	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,386	0,004	2,2	0,383	0,389	ISO 17025	XRF (Pellet) info only	
24	0,353	0,002	0,1	0,355	0,352	no accreditation	XRF (fusion)	-
25	0,353	0,004	0,1	0,356	0,351	ISO 17025	XRF (fusion)	-
26	0,348	0,001	-0,3	0,347	0,349	ISO 17025	XRF (fusion)	-
28	0,377	0,006	1,7	0,381	0,373	ISO 17025	XRF (fusion)	-
29	0,340	0,000	-0,8	0,340	0,340	ISO 17025	XRF (fusion)	-
31	0,343	0,001	-0,6	0,342	0,343	ISO 17025	XRF (fusion)	-
32	0,340	0,000	-0,8	0,340	0,340	no accreditation	XRF (fusion)	-
33	0,420	0,014	4,5	0,430	0,410	no accreditation	XRF (Pellet) info only	-
34	0,350	0,000	-0,1	0,350	0,350	no accreditation	XRF (fusion)	-
36	0,380	0,000	1,8	0,380	0,380	ISO 17025	XRF (fusion)	-
37	0,319	0,004	-2,2	0,321	0,316	no accreditation	XRF (fusion)	-
38	0,345		-0,5	0,345		ISO 17025	ICP-OES	-
40	0,350	0,000	-0,1	0,350	0,350	ISO 17025	XRF (fusion)	-
41	0,395	0,027	2,8	0,414	0,376	no accreditation	ICP-OES	C
42	0,222	0,002	-8,6	0,223	0,220	no accreditation	XRF (fusion)	-
43	0,184	0,048	-11,0	0,219	0,150	no accreditation	other	C, TXRF
44	0,385	0,007	2,2	0,390	0,380	no accreditation	XRF (fusion)	-
45	0,400	0,000	3,2	0,400	0,400	ISO 17025	XRF (fusion)	-
47	0,365	0,007	0,9	0,370	0,360	ISO 17025	XRF (fusion)	-
48	0,340	0,000	-0,8	0,340	0,340	ISO 17025	XRF (fusion)	-
49	0,350	0,000	-0,1	0,350	0,350	no accreditation	XRF (fusion)	-
51	0,350	0,000	-0,1	0,350	0,350	no accreditation	XRF (fusion)	-
52	0,387	0,006	2,3	0,391	0,383	no accreditation	XRF (Pellet) info only	EDRFA
53	0,340	0,014	-0,8	0,350	0,330	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
55	0,357	0,009	0,4	0,351	0,364	no accreditation	XRF (fusion)	Reconstitution Method
56	0,350		-0,1	0,350		no accreditation	XRF (fusion)	-
57	0,348	0,000	-0,3	0,348	0,348	ISO 17025	XRF (fusion)	-
59	0,370	0,000	1,2	0,370	0,370	no accreditation	XRF (fusion)	-

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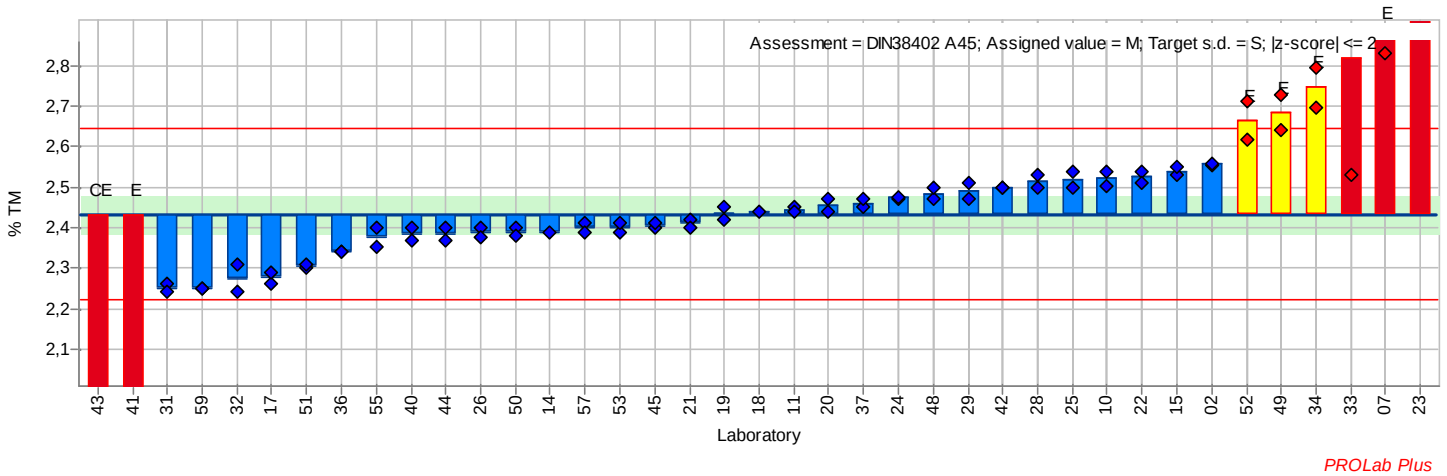
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,106 % TM**
Measurand:	**Total S expressed as SO3**	**Repeat. s.d**	**0,029 % TM**
Mean ± U(Mean):	**2,434 ± 0,046 % TM**	**Range of tolerance:**	**2,221 - 2,646 % TM (|z-score| <= 2,0)**
No. of laboratories:	**33**	**Sample**	**DIN 38402 A45**
Assigned value	**2,434 % TM (Empirical value)**	**Target s.d.**	**0,106 % TM (Empirical value)**

BE



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	2,556	0,001	1,2	2,556	2,557	ISO 17025	XRF (fusion)	-
07	2,870	0,057	4,1	2,830	2,910	no accreditation	XRF (Pellet) info only	
10	2,521	0,025	0,8	2,539	2,503	no accreditation	XRF (fusion)	-
11	2,445	0,007	0,1	2,450	2,440	no accreditation	XRF (fusion)	-
14	2,390		-0,4	2,390		no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	2,540	0,014	1,0	2,530	2,550	no accreditation	XRF (fusion)	-
17	2,276	0,022	-1,5	2,260	2,291	no accreditation	XRF (fusion)	-
18	2,438		0,0	2,438		no accreditation	XRF (fusion)	-
19	2,435	0,021	0,0	2,420	2,450	no accreditation	XRF (fusion)	-
20	2,456	0,023	0,2	2,440	2,472	no accreditation	combustion	-
21	2,410	0,014	-0,2	2,420	2,400	ISO 17025	Wet chemistry EN196-2	-
22	2,525	0,021	0,9	2,540	2,510	no accreditation	XRF (fusion)	-
23	3,128	0,037	6,5	3,155	3,102	ISO 17025	XRF (Pellet) info only	
24	2,474	0,003	0,4	2,472	2,476	no accreditation	XRF (fusion)	-
25	2,520	0,028	0,8	2,500	2,540	ISO 17025	XRF (fusion)	-
26	2,388	0,018	-0,4	2,400	2,375	ISO 17025	combustion	-
28	2,514	0,021	0,8	2,529	2,500	ISO 17025	XRF (fusion)	-
29	2,490	0,028	0,5	2,470	2,510	ISO 17025	XRF (fusion)	-
31	2,250	0,014	-1,7	2,260	2,240	ISO 17025	combustion	-
32	2,275	0,049	-1,5	2,310	2,240	no accreditation	XRF (fusion)	-
33	2,820	0,410	3,6	3,110	2,530	no accreditation	XRF (Pellet) info only	C
34	2,747	0,071	2,9	2,797	2,697	no accreditation	XRF (fusion)	-
36	2,340	0,000	-0,9	2,340	2,340	no accreditation	other	SR3T gravimetric Bromine
37	2,460	0,014	0,2	2,450	2,470	no accreditation	XRF (fusion)	-
40	2,385	0,021	-0,5	2,400	2,370	ISO 17025	XRF (fusion)	-
41	0,945	0,021	-14,0	0,960	0,930	no accreditation	combustion	-
42	2,500	0,000	0,6	2,500	2,500	no accreditation	XRF (fusion)	-
43	0,832	0,294	-15,1	1,040	0,623	no accreditation	other	C, TXRF
44	2,385	0,021	-0,5	2,400	2,370	no accreditation	XRF (fusion)	-
45	2,405	0,007	-0,3	2,400	2,410	ISO 17025	combustion	-
48	2,485	0,021	0,5	2,470	2,500	ISO 17025	combustion	-
49	2,685	0,064	2,4	2,730	2,640	no accreditation	XRF (fusion)	-
50	2,390	0,014	-0,4	2,400	2,380	no accreditation	XRF (fusion)	-
51	2,305	0,007	-1,2	2,300	2,310	no accreditation	XRF (fusion)	-
52	2,665	0,069	2,2	2,714	2,617	no accreditation	XRF (Pellet) info only	EDRFA
53	2,400	0,014	-0,3	2,390	2,410	no accreditation	XRF (fusion)	-
55	2,375	0,033	-0,5	2,399	2,352	no accreditation	XRF (fusion)	Reconstitution Method

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
57	2,399	0,017	-0,3	2,411	2,387	ISO 17025	XRF (fusion)	-
59	2,250	0,000	-1,7	2,250	2,250	no accreditation	XRF (fusion)	-

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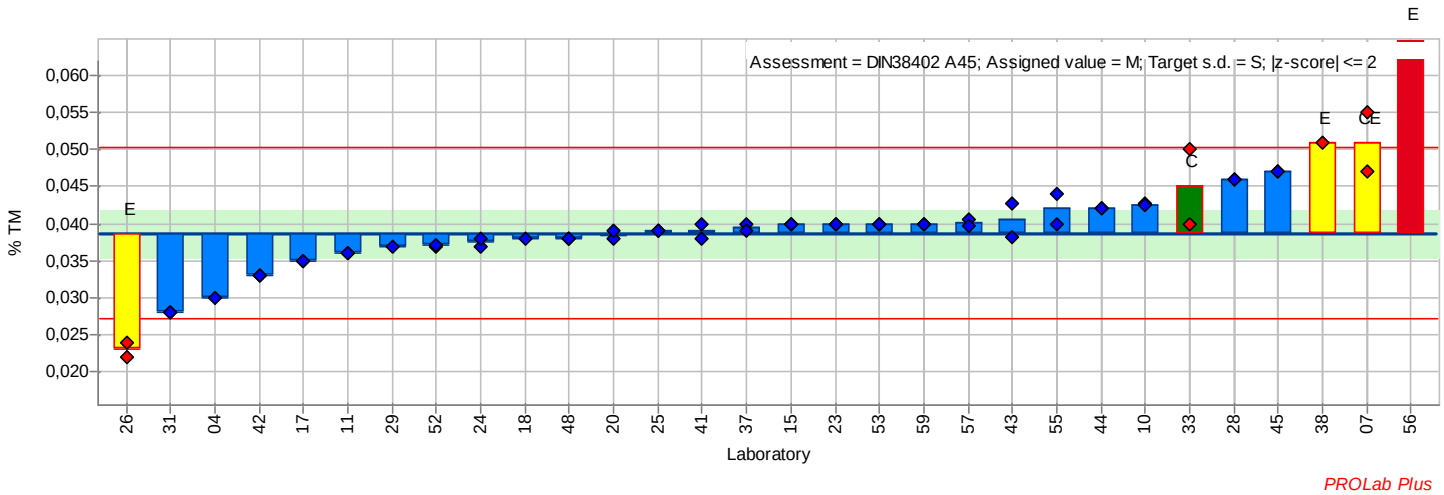
RV118

Sample:	**FLX-CRM 119**	**Reprod. s.d.**	**0,006 % TM**
Measurand:	**ZnO**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,039 ± 0,003 % TM**	**Range of tolerance:**	**0,027 - 0,050 % TM (|z-score| <= 2,0)**
No. of laboratories:	**23**	**Sample**	**DIN 38402 A45**
Assigned value	**0,039 % TM (Empirical value)**	**Target s.d.**	**0,006 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
04	0,030		-1,5	0,030		ISO 17025	ICP-OES	-
07	0,051	0,006	2,1	0,047	0,055	no accreditation	XRF (Pellet) info only	C
10	0,043	0,000	0,7	0,043	0,043	no accreditation	XRF (fusion)	-
11	0,036	0,000	-0,5	0,036	0,036	no accreditation	XRF (fusion)	-
15	0,040	0,000	0,2	0,040	0,040	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
17	0,035	0,000	-0,6	0,035	0,035	no accreditation	XRF (fusion)	-
18	0,038		-0,1	0,038		no accreditation	XRF (fusion)	-
20	0,038	0,001	0,0	0,038	0,039	no accreditation	XRF (Pellet) info only	-
23	0,040	0,000	0,2	0,040	0,040	ISO 17025	XRF (Pellet) info only	
24	0,037	0,001	-0,2	0,037	0,038	no accreditation	XRF (fusion)	-
25	0,039	0,000	0,0	0,039	0,039	ISO 17025	XRF (fusion)	-
26	0,023	0,001	-2,7	0,024	0,022	ISO 17025	XRF (fusion)	-
28	0,046	0,000	1,3	0,046	0,046	ISO 17025	XRF (fusion)	-
29	0,037		-0,3	0,037		no accreditation	Standardless info only	fused bead trace
31	0,028	0,000	-1,9	0,028	0,028	ISO 17025	ICP-OES	digestion in aqua regia
33	0,045	0,007	1,1	0,050	0,040	no accreditation	XRF (Pellet) info only	C
37	0,040	0,001	0,1	0,040	0,039	no accreditation	XRF (fusion)	-
38	0,051		2,1	0,051		ISO 17025	ICP-OES	-
41	0,039	0,001	0,0	0,040	0,038	no accreditation	ICP-OES	-
42	0,033	0,000	-1,0	0,033	0,033	no accreditation	XRF (fusion)	-
43	0,041	0,003	0,3	0,038	0,043	no accreditation	other	TXRF
44	0,042	0,000	0,6	0,042	0,042	no accreditation	XRF (fusion)	-
45	0,047	0,000	1,4	0,047	0,047	ISO 17025	XRF (fusion)	-
48	0,038	0,000	-0,1	0,038	0,038	ISO 17025	XRF (fusion)	-
52	0,037	0,000	-0,3	0,037	0,037	no accreditation	XRF (Pellet) info only	EDRFA
53	0,040	0,000	0,2	0,040	0,040	no accreditation	XRF (fusion)	-
55	0,042	0,003	0,6	0,040	0,044	no accreditation	XRF (fusion)	C - Reconstitution Method
56	0,065		4,5	0,065		no accreditation	XRF (fusion)	-
57	0,040	0,001	0,2	0,041	0,040	ISO 17025	XRF (fusion)	-
59	0,040	0,000	0,2	0,040	0,040	no accreditation	XRF (fusion)	-

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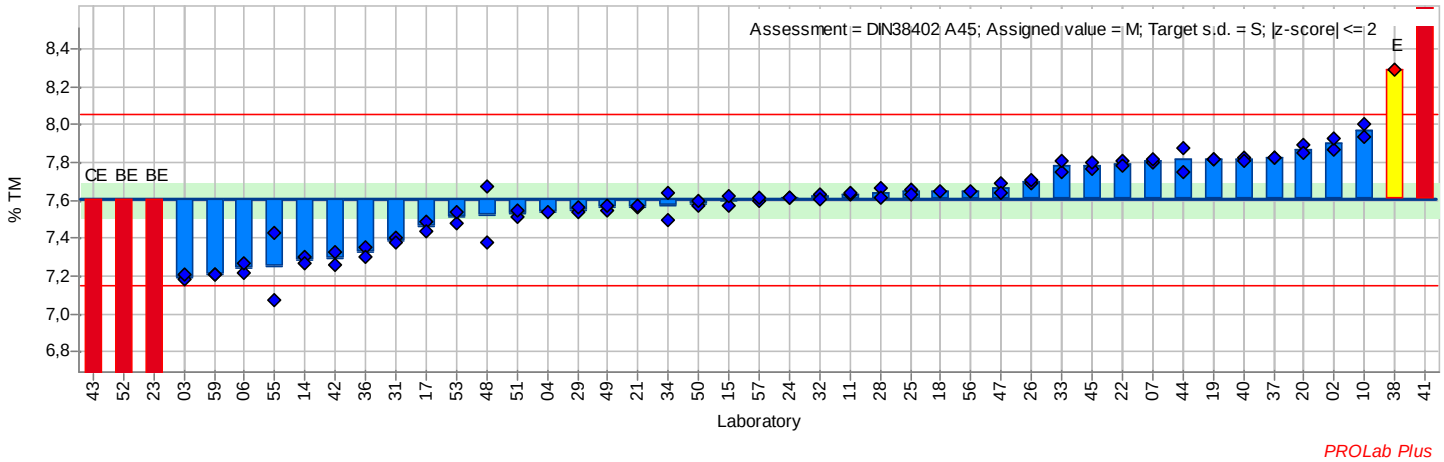
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,227 % TM**
Measurand:	**Al2O3**	**Repeat. s.d**	**0,036 % TM**
Mean ± U(Mean):	**7,602 ± 0,089 % TM**	**Range of tolerance:**	**7,148 - 8,056 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**7,602 % TM (Empirical value)**	**Target s.d.**	**0,227 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	7,901	0,043	1,3	7,870	7,931	ISO 17025	XRF (fusion)	-
03	7,196	0,018	-1,8	7,184	7,209	no accreditation	XRF (fusion)	ISO 29581-2
04	7,540		-0,3	7,540		ISO 17025	ICP-OES	-
06	7,245	0,035	-1,6	7,220	7,270	no accreditation	Wet chemistry EN196-2	-
07	7,810	0,014	0,9	7,800	7,820	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	7,971	0,047	1,6	7,938	8,004	no accreditation	XRF (fusion)	-
11	7,635	0,007	0,1	7,630	7,640	no accreditation	XRF (fusion)	-
14	7,285	0,021	-1,4	7,300	7,270	no accreditation	XRF (fusion)	-
15	7,595	0,035	0,0	7,570	7,620	no accreditation	XRF (fusion)	-
17	7,460	0,035	-0,6	7,485	7,436	no accreditation	XRF (fusion)	-
18	7,650		0,2	7,650		no accreditation	XRF (fusion)	-
19	7,820	0,000	1,0	7,820	7,820	no accreditation	XRF (fusion)	-
20	7,870	0,029	1,2	7,890	7,849	no accreditation	XRF (fusion)	-
21	7,565	0,007	-0,2	7,560	7,570	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	7,795	0,021	0,8	7,810	7,780	no accreditation	XRF (fusion)	-
23	6,564	0,088	-4,6	6,502	6,626	ISO 17025	XRF (Pellet) info only	
24	7,615	0,006	0,1	7,611	7,619	no accreditation	XRF (fusion)	-
25	7,645	0,021	0,2	7,660	7,630	ISO 17025	XRF (fusion)	-
26	7,701	0,008	0,4	7,695	7,707	ISO 17025	XRF (fusion)	-
28	7,643	0,035	0,2	7,668	7,619	ISO 17025	XRF (fusion)	-
29	7,550	0,014	-0,2	7,540	7,560	ISO 17025	XRF (fusion)	-
31	7,390	0,014	-0,9	7,400	7,380	ISO 17025	XRF (fusion)	-
32	7,620	0,014	0,1	7,630	7,610	no accreditation	XRF (fusion)	-
33	7,780	0,042	0,8	7,750	7,810	no accreditation	XRF (Pellet) info only	-
34	7,570	0,099	-0,1	7,500	7,640	no accreditation	XRF (fusion)	-
36	7,325	0,035	-1,2	7,350	7,300	ISO 17025	XRF (fusion)	-
37	7,830	0,000	1,0	7,830	7,830	no accreditation	XRF (fusion)	-
38	8,290		3,0	8,290		ISO 17025	XRF (fusion)	-
40	7,820	0,014	1,0	7,830	7,810	ISO 17025	XRF (fusion)	-
41	11,270	0,580	16,2	11,680	10,860	no accreditation	ICP-OES	C
42	7,295	0,049	-1,4	7,330	7,260	no accreditation	XRF (fusion)	-
43	1,260	0,296	-27,9	1,051	1,469	no accreditation	other	C, TXRF
44	7,815	0,092	0,9	7,880	7,750	no accreditation	XRF (fusion)	-
45	7,785	0,021	0,8	7,770	7,800	ISO 17025	XRF (fusion)	-
47	7,665	0,035	0,3	7,690	7,640	ISO 17025	XRF (fusion)	-
48	7,525	0,205	-0,3	7,670	7,380	ISO 17025	XRF (fusion)	C
49	7,560	0,014	-0,2	7,550	7,570	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	7,585	0,021	-0,1	7,570	7,600	no accreditation	XRF (fusion)	-
51	7,530	0,028	-0,3	7,510	7,550	no accreditation	XRF (fusion)	-
52	5,309	0,002	-10,1	5,307	5,310	no accreditation	XRF (Pellet) info only	EDRFA
53	7,510	0,042	-0,4	7,480	7,540	no accreditation	XRF (fusion)	-
55	7,249	0,252	-1,6	7,071	7,427	no accreditation	XRF (fusion)	C, Reconstitution Method
56	7,650		0,2	7,650		no accreditation	XRF (fusion)	-
57	7,608	0,016	0,0	7,596	7,619	ISO 17025	XRF (fusion)	-
59	7,210	0,000	-1,7	7,210	7,210	no accreditation	XRF (fusion)	-

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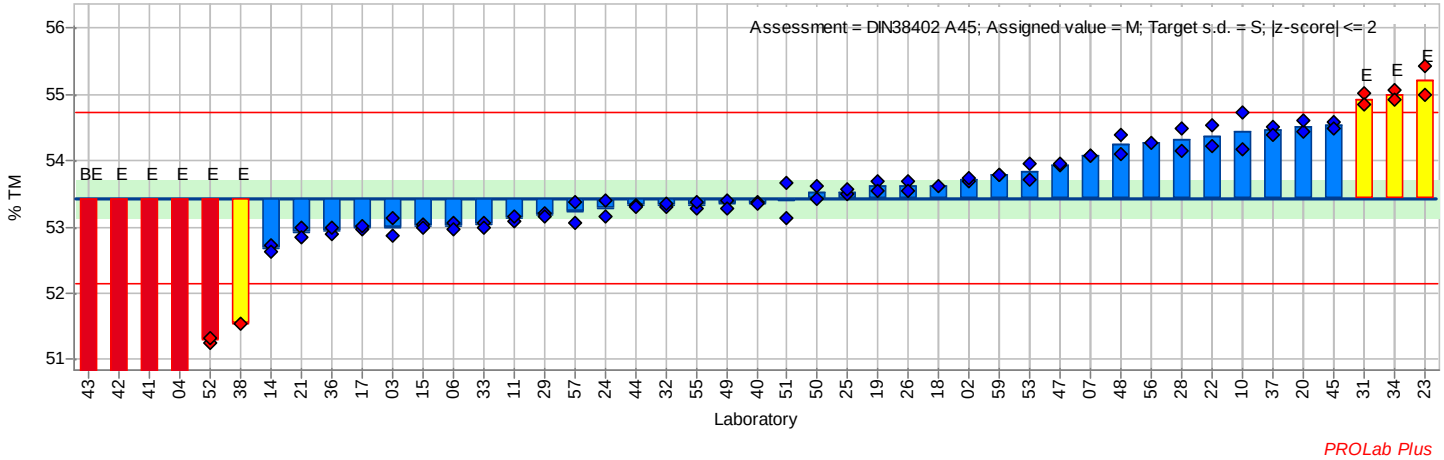
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,649 % TM**
Measurand:	**CaO**	**Repeat. s.d**	**0,101 % TM**
Mean ± U(Mean):	**53,438 ± 0,278 % TM**	**Range of tolerance:**	**52,139 - 54,737 % TM (|z-score| <= 2,0)**
No. of laboratories:	**34**	**Sample**	**DIN 38402 A45**
Assigned value	**53,438 % TM (Empirical value)**	**Target s.d.**	**0,649 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	53,716	0,045	0,4	53,685	53,748	ISO 17025	XRF (fusion)	-
03	52,995	0,187	-0,7	52,863	53,128	no accreditation	XRF (fusion)	ISO 29581-2
04	50,660		-4,3	50,660		ISO 17025	ICP-OES	-
06	53,020	0,071	-0,6	53,070	52,970	no accreditation	Wet chemistry EN196-2	-
07	54,080	0,014	1,0	54,070	54,090	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	54,450	0,382	1,6	54,180	54,720	no accreditation	XRF (fusion)	-
11	53,125	0,049	-0,5	53,090	53,160	no accreditation	XRF (fusion)	-
14	52,670	0,071	-1,2	52,720	52,620	no accreditation	XRF (fusion)	-
15	53,015	0,049	-0,7	53,050	52,980	no accreditation	XRF (fusion)	-
17	52,992	0,022	-0,7	52,977	53,008	no accreditation	XRF (fusion)	-
18	53,620		0,3	53,620		no accreditation	XRF (fusion)	-
19	53,615	0,092	0,3	53,680	53,550	no accreditation	XRF (fusion)	-
20	54,525	0,134	1,7	54,430	54,620	no accreditation	XRF (fusion)	-
21	52,910	0,099	-0,8	52,980	52,840	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	54,380	0,212	1,5	54,530	54,230	no accreditation	XRF (fusion)	-
23	55,210	0,311	2,7	54,990	55,430	ISO 17025	XRF (Pellet) info only	
24	53,287	0,171	-0,2	53,408	53,166	no accreditation	XRF (fusion)	-
25	53,525	0,049	0,1	53,490	53,560	ISO 17025	XRF (fusion)	-
26	53,617	0,097	0,3	53,686	53,549	ISO 17025	XRF (fusion)	-
28	54,326	0,243	1,4	54,497	54,154	ISO 17025	XRF (fusion)	-
29	53,185	0,049	-0,4	53,220	53,150	ISO 17025	XRF (fusion)	-
31	54,935	0,120	2,3	55,020	54,850	ISO 17025	XRF (fusion)	-
32	53,330	0,028	-0,2	53,310	53,350	no accreditation	XRF (fusion)	-
33	53,035	0,049	-0,6	53,070	53,000	no accreditation	XRF (Pellet) info only	-
34	55,005	0,106	2,4	55,080	54,930	no accreditation	XRF (fusion)	-
36	52,950	0,071	-0,8	52,900	53,000	ISO 17025	XRF (fusion)	-
37	54,455	0,092	1,6	54,520	54,390	no accreditation	XRF (fusion)	-
38	51,550		-2,9	51,550		ISO 17025	XRF (fusion)	-
40	53,365	0,021	-0,1	53,380	53,350	ISO 17025	XRF (fusion)	-
41	46,810	5,317	-10,2	43,050	50,570	no accreditation	ICP-OES	C
42	42,650	0,495	-16,6	42,300	43,000	no accreditation	XRF (fusion)	-
43	23,915	0,632	-45,5	24,362	23,468	no accreditation	other	TXRF
44	53,325	0,021	-0,2	53,340	53,310	no accreditation	XRF (fusion)	-
45	54,540	0,057	1,7	54,580	54,500	ISO 17025	XRF (fusion)	-
47	53,940	0,014	0,8	53,930	53,950	ISO 17025	XRF (fusion)	-
48	54,250	0,212	1,3	54,100	54,400	ISO 17025	XRF (fusion)	-
49	53,345	0,092	-0,1	53,410	53,280	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	53,520	0,141	0,1	53,420	53,620	no accreditation	XRF (fusion)	-
51	53,405	0,375	-0,1	53,140	53,670	no accreditation	XRF (fusion)	-
52	51,290	0,057	-3,3	51,250	51,330	no accreditation	XRF (Pellet) info only	EDRFA
53	53,830	0,170	0,6	53,710	53,950	no accreditation	XRF (fusion)	-
55	53,331	0,061	-0,2	53,288	53,374	no accreditation	XRF (fusion)	Reconstitution Method
56	54,280		1,3	54,280		no accreditation	XRF (fusion)	-
57	53,225	0,227	-0,3	53,064	53,386	ISO 17025	XRF (fusion)	-
59	53,790	0,000	0,5	53,790	53,790	no accreditation	XRF (fusion)	-

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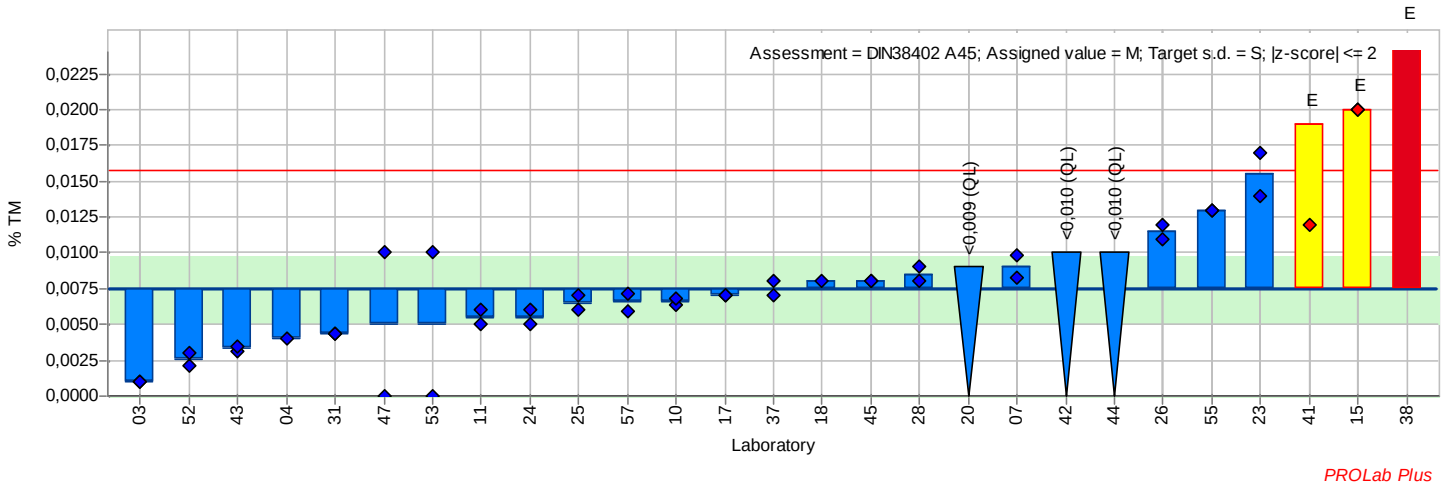
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,004 % TM**
Measurand:	**Cr2O3**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,007 ± 0,002 % TM**	**Range of tolerance:**	**-0,001 - 0,016 % TM (|z-score| <= 2,0)**
No. of laboratories:	**20**	**Sample**	**DIN 38402 A45**
Assigned value	**0,007 % TM (Empirical value)**	**Target s.d.**	**0,004 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
03	0,001	0,000	-1,6	0,001	0,001	no accreditation	XRF (fusion)	ISO 29581-2
04	0,004		-0,8	0,004		ISO 17025	ICP-OES	-
07	0,009	0,001	0,4	0,008	0,010	no accreditation	XRF (Pellet) info only	
10	0,007	0,000	-0,2	0,006	0,007	no accreditation	XRF (fusion)	-
11	0,005	0,001	-0,5	0,006	0,005	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	0,020	0,000	3,0	0,020	0,020	no accreditation	XRF (fusion)	-
17	0,007	0,000	-0,1	0,007	0,007	no accreditation	XRF (fusion)	-
18	0,008		0,1	0,008		no accreditation	XRF (fusion)	-
20				<0,009	<0,009	no accreditation	XRF (fusion)	-
23	0,015	0,002	1,9	0,017	0,014	ISO 17025	XRF (Pellet) info only	
24	0,005	0,001	-0,5	0,006	0,005	no accreditation	XRF (fusion)	-
25	0,007	0,001	-0,2	0,006	0,007	ISO 17025	XRF (fusion)	-
26	0,011	0,001	1,0	0,011	0,012	ISO 17025	XRF (fusion)	-
28	0,009	0,001	0,2	0,009	0,008	ISO 17025	XRF (fusion)	-
31	0,004	0,000	-0,7	0,004	0,004	ISO 17025	ICP-OES	digestion in aqua regia
33						no accreditation	XRF (Pellet) info only	-
37	0,007	0,001	0,0	0,008	0,007	no accreditation	XRF (fusion)	-
38	0,025		4,2	0,025		ISO 17025	ICP-OES	-
41	0,019	0,010	2,8	0,026	0,012	no accreditation	ICP-OES	C
42				<0,010	<0,010	no accreditation	XRF (fusion)	-
43	0,003	0,000	-1,0	0,003	0,004	no accreditation	other	TXRF
44				<0,010	<0,010	no accreditation	XRF (fusion)	-
45	0,008	0,000	0,1	0,008	0,008	ISO 17025	XRF (fusion)	-
47	0,005	0,007	-0,6	0,000	0,010	ISO 17025	XRF (fusion)	-
52	0,003	0,001	-1,2	0,003	0,002	no accreditation	XRF (Pellet) info only	EDRFA
53	0,005	0,007	-0,6	0,000	0,010	no accreditation	XRF (fusion)	-
55	0,013	0,000	1,3	0,013	0,013	no accreditation	XRF (fusion)	Reconstitution Method
57	0,007	0,001	-0,2	0,006	0,007	ISO 17025	XRF (fusion)	-

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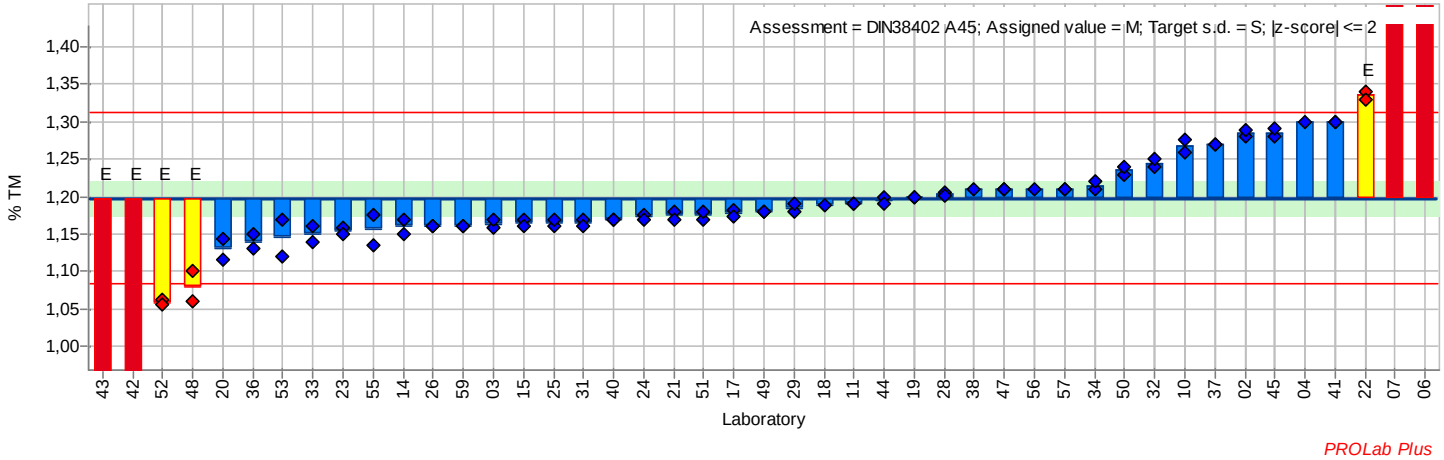
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,057 % TM**
Measurand:	**Fe2O3**	**Repeat. s.d**	**0,008 % TM**
Mean ± U(Mean):	**1,198 ± 0,022 % TM**	**Range of tolerance:**	**1,083 - 1,313 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**1,198 % TM (Empirical value)**	**Target s.d.**	**0,057 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	1,284	0,006	1,5	1,280	1,289	ISO 17025	XRF (fusion)	-
03	1,163	0,008	-0,6	1,157	1,169	no accreditation	XRF (fusion)	ISO 29581-2
04	1,300		1,8	1,300		ISO 17025	ICP-OES	-
06	1,670	0,014	8,2	1,680	1,660	no accreditation	Wet chemistry EN196-2	-
07	1,525	0,021	5,7	1,540	1,510	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	1,267	0,011	1,2	1,259	1,275	no accreditation	XRF (fusion)	-
11	1,190	0,000	-0,1	1,190	1,190	no accreditation	XRF (fusion)	-
14	1,160	0,014	-0,7	1,170	1,150	no accreditation	XRF (fusion)	-
15	1,165	0,007	-0,6	1,170	1,160	no accreditation	XRF (fusion)	-
17	1,179	0,006	-0,3	1,183	1,174	no accreditation	XRF (fusion)	-
18	1,188		-0,2	1,188		no accreditation	XRF (fusion)	-
19	1,200	0,000	0,0	1,200	1,200	no accreditation	XRF (fusion)	-
20	1,130	0,020	-1,2	1,144	1,116	no accreditation	XRF (fusion)	-
21	1,175	0,007	-0,4	1,180	1,170	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	1,335	0,007	2,4	1,340	1,330	no accreditation	XRF (fusion)	-
23	1,155	0,005	-0,8	1,158	1,151	ISO 17025	XRF (Pellet) info only	
24	1,172	0,005	-0,4	1,176	1,169	no accreditation	XRF (fusion)	-
25	1,165	0,007	-0,6	1,160	1,170	ISO 17025	XRF (fusion)	-
26	1,160	0,000	-0,7	1,160	1,160	ISO 17025	XRF (fusion)	-
28	1,203	0,003	0,1	1,205	1,201	ISO 17025	XRF (fusion)	-
29	1,185	0,007	-0,2	1,180	1,190	ISO 17025	XRF (fusion)	-
31	1,165	0,007	-0,6	1,170	1,160	ISO 17025	XRF (fusion)	-
32	1,245	0,007	0,8	1,240	1,250	no accreditation	XRF (fusion)	-
33	1,150	0,014	-0,8	1,160	1,140	no accreditation	XRF (Pellet) info only	-
34	1,215	0,007	0,3	1,210	1,220	no accreditation	XRF (fusion)	-
36	1,140	0,014	-1,0	1,130	1,150	ISO 17025	XRF (fusion)	-
37	1,270	0,000	1,3	1,270	1,270	no accreditation	XRF (fusion)	-
38	1,210		0,2	1,210		ISO 17025	XRF (fusion)	-
40	1,170	0,000	-0,5	1,170	1,170	ISO 17025	XRF (fusion)	-
41	1,300	0,000	1,8	1,300	1,300	no accreditation	ICP-OES	-
42	0,742	0,016	-8,0	0,730	0,753	no accreditation	XRF (fusion)	-
43	0,715	0,010	-8,4	0,708	0,722	no accreditation	other	TXRF
44	1,195	0,007	-0,1	1,200	1,190	no accreditation	XRF (fusion)	-
45	1,285	0,007	1,5	1,280	1,290	ISO 17025	XRF (fusion)	-
47	1,210	0,000	0,2	1,210	1,210	ISO 17025	XRF (fusion)	-
48	1,080	0,028	-2,1	1,100	1,060	ISO 17025	XRF (fusion)	-
49	1,180	0,000	-0,3	1,180	1,180	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	1,235	0,007	0,6	1,230	1,240	no accreditation	XRF (fusion)	-
51	1,175	0,007	-0,4	1,170	1,180	no accreditation	XRF (fusion)	-
52	1,059	0,004	-2,4	1,062	1,056	no accreditation	XRF (Pellet) info only	EDRFA
53	1,145	0,035	-0,9	1,170	1,120	no accreditation	XRF (fusion)	-
55	1,156	0,028	-0,7	1,136	1,176	no accreditation	XRF (fusion)	Reconstitution Method
56	1,210		0,2	1,210		no accreditation	XRF (fusion)	-
57	1,210	0,000	0,2	1,210	1,210	ISO 17025	XRF (fusion)	-
59	1,160	0,000	-0,7	1,160	1,160	no accreditation	XRF (fusion)	-

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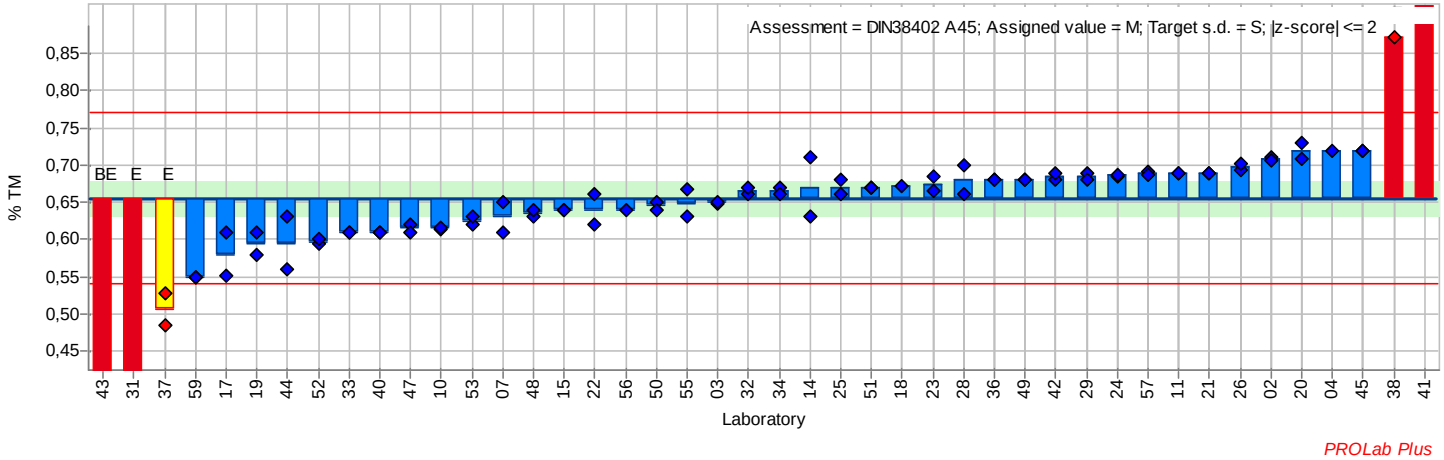
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,058 % TM**
Measurand:	**K2O**	**Repeat. s.d**	**0,012 % TM**
Mean ± U(Mean):	**0,656 ± 0,023 % TM**	**Range of tolerance:**	**0,540 - 0,771 % TM (|z-score| <= 2,0)**
No. of laboratories:	**39**	**Sample**	**DIN 38402 A45**
Assigned value	**0,656 % TM (Empirical value)**	**Target s.d.**	**0,058 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,709	0,003	0,9	0,711	0,707	ISO 17025	XRF (fusion)	-
03	0,650	0,002	-0,1	0,648	0,651	no accreditation	XRF (fusion)	ISO 29581-2
04	0,720		1,1	0,720		ISO 17025	ICP-OES	-
07	0,630	0,028	-0,4	0,610	0,650	no accreditation	XRF (fusion)	-
10	0,615	0,002	-0,7	0,614	0,617	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,690	0,000	0,6	0,690	0,690	no accreditation	XRF (fusion)	-
14	0,670	0,057	0,2	0,710	0,630	no accreditation	XRF (fusion)	-
15	0,640	0,000	-0,3	0,640	0,640	no accreditation	XRF (fusion)	-
17	0,580	0,041	-1,3	0,551	0,609	no accreditation	XRF (fusion)	-
18	0,672		0,3	0,672		no accreditation	XRF (fusion)	-
19	0,595	0,021	-1,0	0,610	0,580	no accreditation	XRF (fusion)	-
20	0,719	0,016	1,1	0,708	0,730	no accreditation	ICP-OES	-
21	0,690	0,000	0,6	0,690	0,690	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,640	0,028	-0,3	0,660	0,620	no accreditation	XRF (fusion)	-
23	0,675	0,013	0,3	0,666	0,684	ISO 17025	XRF (Pellet) info only	
24	0,686	0,001	0,5	0,685	0,687	no accreditation	XRF (fusion)	-
25	0,670	0,014	0,2	0,680	0,660	ISO 17025	XRF (fusion)	-
26	0,697	0,006	0,7	0,693	0,701	ISO 17025	ICP-OES	-
28	0,679	0,028	0,4	0,699	0,660	ISO 17025	XRF (fusion)	-
29	0,685	0,007	0,5	0,690	0,680	ISO 17025	XRF (fusion)	-
31	0,398	0,012	-4,4	0,390	0,407	ISO 17025	XRF (fusion)	-
32	0,665	0,007	0,2	0,660	0,670	no accreditation	XRF (fusion)	-
33	0,610	0,000	-0,8	0,610	0,610	no accreditation	XRF (Pellet) info only	-
34	0,665	0,007	0,2	0,670	0,660	no accreditation	XRF (fusion)	-
36	0,680	0,000	0,4	0,680	0,680	no accreditation	other	AAS
37	0,506	0,030	-2,6	0,527	0,485	no accreditation	XRF (fusion)	-
38	0,872		3,7	0,872		ISO 17025	ICP-OES	-
40	0,610	0,000	-0,8	0,610	0,610	ISO 17025	XRF (fusion)	-
41	1,740	0,184	18,8	1,610	1,870	no accreditation	ICP-OES	C
42	0,684	0,006	0,5	0,680	0,688	no accreditation	XRF (fusion)	-
43	0,334	0,018	-5,6	0,321	0,347	no accreditation	other	TXRF
44	0,595	0,049	-1,0	0,630	0,560	no accreditation	XRF (fusion)	-
45	0,720	0,000	1,1	0,720	0,720	ISO 17025	XRF (fusion)	-
47	0,615	0,007	-0,7	0,620	0,610	ISO 17025	XRF (fusion)	-
48	0,635	0,007	-0,4	0,630	0,640	ISO 17025	XRF (fusion)	-
49	0,680	0,000	0,4	0,680	0,680	no accreditation	XRF (fusion)	-
50	0,645	0,007	-0,2	0,650	0,640	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	0,670	0,000	0,2	0,670	0,670	no accreditation	XRF (fusion)	-
52	0,597	0,004	-1,0	0,594	0,600	no accreditation	XRF (Pellet) info only	EDRFA
53	0,625	0,007	-0,5	0,620	0,630	no accreditation	XRF (fusion)	-
55	0,649	0,025	-0,1	0,667	0,631	no accreditation	XRF (fusion)	Reconstitution Method
56	0,640		-0,3	0,640		no accreditation	XRF (fusion)	-
57	0,690	0,002	0,6	0,691	0,688	ISO 17025	XRF (fusion)	-
59	0,550	0,000	-1,8	0,550	0,550	no accreditation	XRF (fusion)	-

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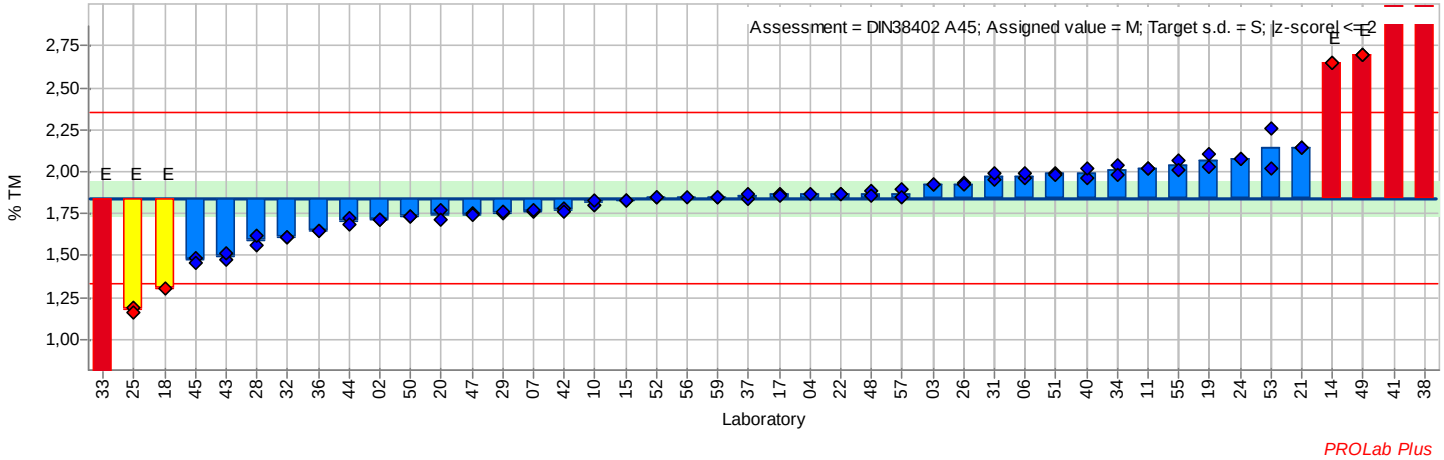
E

RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,256 % TM**
Measurand:	**LOI (1h @ 950°C) observed**	**Repeat. s.d**	**0,027 % TM**
Mean ± U(Mean):	**1,842 ± 0,097 % TM**	**Range of tolerance:**	**1,329 - 2,355 % TM (|z-score| <= 2,0)**
No. of laboratories:	**44**	**Sample**	**DIN 38402 A45**
Assigned value	**1,842 % TM (Empirical value)**	**Target s.d.**	**0,256 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	1,710	0,000	-0,5	1,710	1,710	ISO 17025	1h@950°C	-
03	1,920	0,000	0,3	1,920	1,920	no accreditation	Wet chemistry EN196-2	-
04	1,870		0,1	1,870		ISO 17025	1h@950°C	-
06	1,975	0,021	0,5	1,960	1,990	no accreditation	Wet chemistry EN196-2	-
07	1,765	0,007	-0,3	1,760	1,770	no accreditation	1h@950°C	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	1,815	0,021	-0,1	1,800	1,830	no accreditation	XRF (fusion)	-
11	2,020	0,000	0,7	2,020	2,020	no accreditation	Wet chemistry EN196-2	-
14	2,650	0,000	3,2	2,650	2,650	no accreditation	1h@950°C	corr. EN 196-2
15	1,830	0,000	0,0	1,830	1,830	no accreditation	1h@950°C	-
17	1,863	0,006	0,1	1,867	1,859	no accreditation	1h@950°C	-
18	1,300		-2,1	1,300		no accreditation	1h@950°C	-
19	2,065	0,049	0,9	2,030	2,100	no accreditation	1h@950°C	-
20	1,740	0,042	-0,4	1,770	1,710	no accreditation	1h@950°C	-
21	2,140	0,000	1,2	2,140	2,140	ISO 17025	Wet chemistry EN196-2	-
22	1,870	0,000	0,1	1,870	1,870	no accreditation	1h@950°C	-
24	2,072	0,000	0,9	2,072	2,072	no accreditation	1h@950°C	-
25	1,175	0,021	-2,6	1,190	1,160	ISO 17025	1h@950°C	-
26	1,925	0,007	0,3	1,930	1,920	ISO 17025	1h@950°C	-
28	1,590	0,042	-1,0	1,560	1,620	ISO 17025	1h@950°C	-
29	1,755	0,007	-0,3	1,750	1,760	ISO 17025	1h@950°C	due to S oxidation
31	1,970	0,028	0,5	1,950	1,990	no accreditation	1h@950°C	-
32	1,610	0,000	-0,9	1,610	1,610	no accreditation	XRF (fusion)	-
33	0,780	0,042	-4,1	0,810	0,750	no accreditation	1h@950°C	-
34	2,010	0,042	0,7	2,040	1,980	no accreditation	1h@950°C	-
36	1,650	0,000	-0,7	1,650	1,650	ISO 17025	1h@950°C	-
37	1,855	0,021	0,1	1,840	1,870	no accreditation	1h@950°C	-
38	13,780		46,6	13,780		no accreditation	1h@950°C	-
40	1,990	0,042	0,6	1,960	2,020	ISO 17025	XRF (fusion)	-
41	4,935	0,106	12,1	4,860	5,010	no accreditation	1h@950°C	C
42	1,770	0,014	-0,3	1,780	1,760	no accreditation	1h@950°C	-
43	1,490	0,028	-1,4	1,470	1,510	no accreditation	1h@950°C	-
44	1,700	0,028	-0,6	1,720	1,680	no accreditation	1h@950°C	-
45	1,470	0,014	-1,5	1,480	1,460	ISO 17025	1h@950°C	-
47	1,745	0,007	-0,4	1,750	1,740	no accreditation	1h@950°C	-
48	1,870	0,014	0,1	1,880	1,860	ISO 17025	1h@950°C	-
49	2,700	0,000	3,3	2,700	2,700	no accreditation	combustion	-
50	1,730	0,000	-0,4	1,730	1,730	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	1,985	0,007	0,6	1,990	1,980	ISO 17025	XRF (fusion)	-
52	1,850	0,000	0,0	1,850	1,850	no accreditation	1h@950°C	-
53	2,140	0,170	1,2	2,260	2,020	no accreditation	1h@950°C	C
55	2,037	0,035	0,8	2,062	2,012	no accreditation	1h@950°C	Reconstitution Method
56	1,850		0,0	1,850		no accreditation	1h@950°C	-
57	1,870	0,028	0,1	1,890	1,850	ISO 17025	1h@950°C	-
59	1,850	0,000	0,0	1,850	1,850	no accreditation	1h@950°C	-

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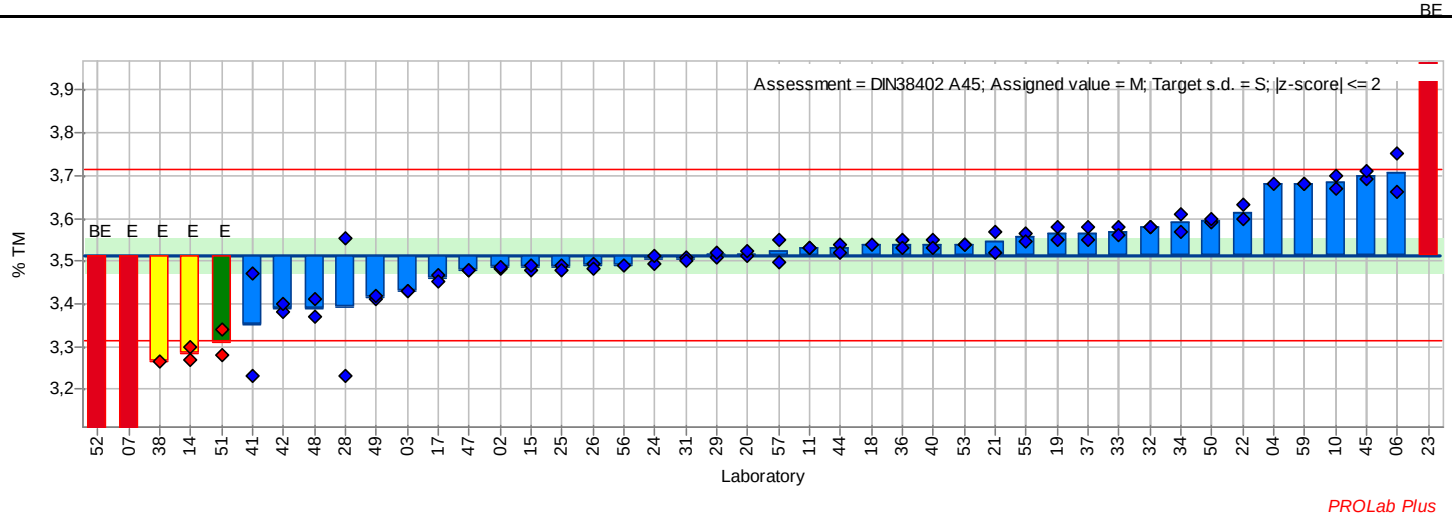
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,100 % TM**
Measurand:	**MgO**	**Repeat. s.d**	**0,019 % TM**
Mean ± U(Mean):	**3,514 ± 0,039 % TM**	**Range of tolerance:**	**3,313 - 3,715 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**3,514 % TM (Empirical value)**	**Target s.d.**	**0,100 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	3,485	0,003	-0,3	3,483	3,487	ISO 17025	XRF (fusion)	-
03	3,430	0,001	-0,8	3,429	3,432	no accreditation	XRF (fusion)	ISO 29581-2
04	3,680		1,7	3,680		ISO 17025	ICP-OES	-
06	3,705	0,064	1,9	3,750	3,660	no accreditation	Wet chemistry EN196-2	-
07	2,945	0,021	-5,7	2,930	2,960	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	3,684	0,022	1,7	3,669	3,700	no accreditation	XRF (fusion)	-
11	3,530	0,000	0,2	3,530	3,530	no accreditation	XRF (fusion)	-
14	3,285	0,021	-2,3	3,300	3,270	no accreditation	XRF (fusion)	-
15	3,485	0,007	-0,3	3,480	3,490	no accreditation	XRF (fusion)	-
17	3,460	0,011	-0,5	3,467	3,452	no accreditation	XRF (fusion)	-
18	3,537		0,2	3,537		no accreditation	XRF (fusion)	-
19	3,565	0,021	0,5	3,580	3,550	no accreditation	XRF (fusion)	-
20	3,517	0,008	0,0	3,511	3,523	no accreditation	XRF (fusion)	-
21	3,545	0,035	0,3	3,570	3,520	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	3,615	0,021	1,0	3,630	3,600	no accreditation	XRF (fusion)	-
23	4,027	0,023	5,1	4,011	4,043	ISO 17025	XRF (Pellet) info only	
24	3,505	0,013	-0,1	3,495	3,514	no accreditation	XRF (fusion)	-
25	3,485	0,007	-0,3	3,490	3,480	ISO 17025	XRF (fusion)	-
26	3,488	0,007	-0,3	3,493	3,483	ISO 17025	XRF (fusion)	-
28	3,394	0,228	-1,2	3,555	3,232	ISO 17025	XRF (fusion)	C
29	3,515	0,007	0,0	3,510	3,520	ISO 17025	XRF (fusion)	-
31	3,505	0,007	-0,1	3,510	3,500	ISO 17025	XRF (fusion)	-
32	3,580	0,000	0,7	3,580	3,580	no accreditation	XRF (fusion)	-
33	3,570	0,014	0,6	3,580	3,560	no accreditation	XRF (Pellet) info only	-
34	3,590	0,028	0,8	3,570	3,610	no accreditation	XRF (fusion)	-
36	3,540	0,014	0,3	3,550	3,530	ISO 17025	XRF (fusion)	-
37	3,565	0,021	0,5	3,550	3,580	no accreditation	XRF (fusion)	-
38	3,265		-2,5	3,265		ISO 17025	XRF (fusion)	-
40	3,540	0,014	0,3	3,550	3,530	ISO 17025	XRF (fusion)	-
41	3,350	0,170	-1,6	3,230	3,470	no accreditation	ICP-OES	C
42	3,390	0,014	-1,2	3,380	3,400	no accreditation	XRF (fusion)	-
44	3,530	0,014	0,2	3,540	3,520	no accreditation	XRF (fusion)	-
45	3,700	0,014	1,9	3,690	3,710	ISO 17025	XRF (fusion)	-
47	3,480	0,000	-0,3	3,480	3,480	ISO 17025	XRF (fusion)	-
48	3,390	0,028	-1,2	3,370	3,410	ISO 17025	XRF (fusion)	-
49	3,415	0,007	-1,0	3,410	3,420	no accreditation	XRF (fusion)	-
50	3,595	0,007	0,8	3,590	3,600	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	3,310	0,042	-2,0	3,280	3,340	no accreditation	XRF (fusion)	-
52	2,816	0,020	-6,9	2,802	2,830	no accreditation	XRF (Pellet) info only	EDRFA
53	3,540	0,000	0,3	3,540	3,540	no accreditation	XRF (fusion)	-
55	3,556	0,013	0,4	3,565	3,547	no accreditation	XRF (fusion)	Reconstitution Method
56	3,490		-0,2	3,490		no accreditation	XRF (fusion)	-
57	3,524	0,039	0,1	3,496	3,551	ISO 17025	XRF (fusion)	-
59	3,680	0,000	1,7	3,680	3,680	no accreditation	XRF (fusion)	-

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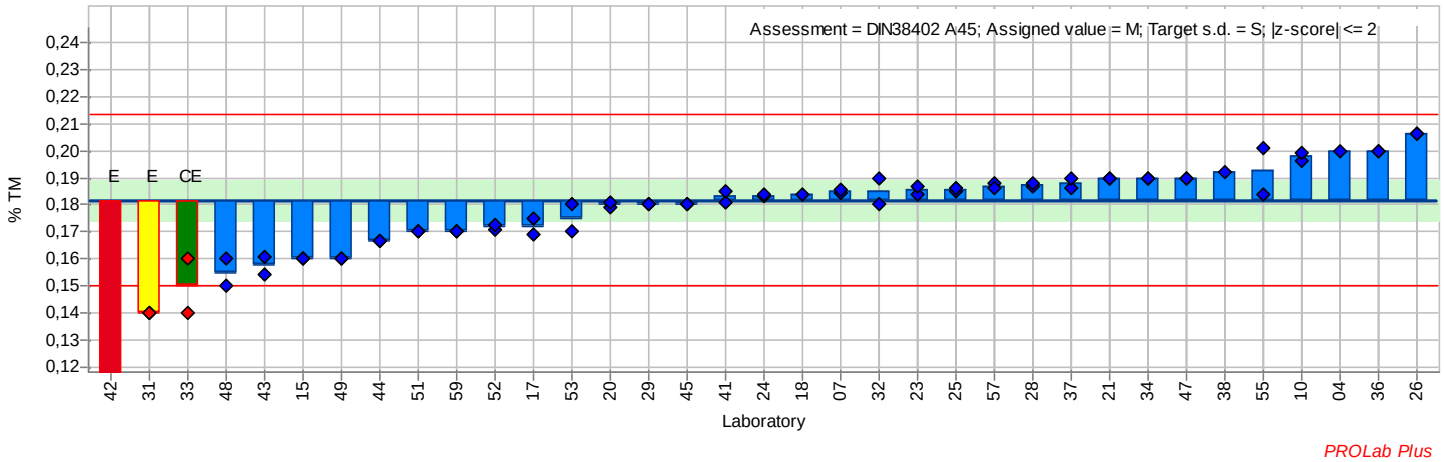
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,016 % TM**
Measurand:	**Mn2O3**	**Repeat. s.d**	**0,002 % TM**
Mean ± U(Mean):	**0,182 ± 0,007 % TM**	**Range of tolerance:**	**0,150 - 0,213 % TM (|z-score| <= 2,0)**
No. of laboratories:	**30**	**Sample**	**DIN 38402 A45**
Assigned value	**0,182 % TM (Empirical value)**	**Target s.d.**	**0,016 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
04	0,200		1,2	0,200		ISO 17025	ICP-OES	-
07	0,185	0,001	0,2	0,184	0,185	no accreditation	XRF (Pellet) info only	
10	0,198	0,002	1,0	0,196	0,199	no accreditation	XRF (fusion)	-
14								-
15	0,160	0,000	-1,4	0,160	0,160	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
17	0,172	0,004	-0,6	0,169	0,175	no accreditation	XRF (fusion)	-
18	0,184		0,1	0,184		no accreditation	XRF (fusion)	-
20	0,180	0,001	-0,1	0,179	0,181	no accreditation	XRF (fusion)	-
21	0,190	0,000	0,5	0,190	0,190	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,185	0,002	0,2	0,184	0,187	ISO 17025	XRF (Pellet) info only	
24	0,183	0,001	0,1	0,183	0,184	no accreditation	XRF (fusion)	-
25	0,185	0,001	0,2	0,185	0,186	ISO 17025	XRF (fusion)	-
26	0,206	0,000	1,5	0,206	0,206	ISO 17025	XRF (fusion)	-
28	0,188	0,001	0,4	0,187	0,188	ISO 17025	XRF (fusion)	-
29	0,180	0,000	-0,1	0,180	0,180	ISO 17025	XRF (fusion)	-
31	0,140	0,000	-2,6	0,140	0,140	ISO 17025	ICP-OES	digestion in aqua regia
32	0,185	0,007	0,2	0,180	0,190	no accreditation	XRF (fusion)	-
33	0,150	0,014	-2,0	0,140	0,160	no accreditation	XRF (Pellet) info only	C
34	0,190	0,000	0,5	0,190	0,190	no accreditation	XRF (fusion)	-
36	0,200	0,000	1,2	0,200	0,200	ISO 17025	XRF (fusion)	-
37	0,188	0,003	0,4	0,186	0,190	no accreditation	XRF (fusion)	-
38	0,192		0,6	0,192		ISO 17025	ICP-OES	-
41	0,183	0,003	0,1	0,181	0,185	no accreditation	ICP-OES	-
42	0,098	0,001	-5,3	0,097	0,099	no accreditation	XRF (fusion)	-
43	0,158	0,005	-1,5	0,154	0,161	no accreditation	other	TXRF
44	0,167	0,000	-0,9	0,167	0,167	no accreditation	XRF (fusion)	calc. from MnO
45	0,180	0,000	-0,1	0,180	0,180	ISO 17025	XRF (fusion)	-
47	0,190	0,000	0,5	0,190	0,190	no accreditation	XRF (fusion)	-
48	0,155	0,007	-1,7	0,160	0,150	ISO 17025	XRF (fusion)	-
49	0,160	0,000	-1,4	0,160	0,160	no accreditation	XRF (fusion)	-
51	0,170	0,000	-0,7	0,170	0,170	no accreditation	XRF (fusion)	-
52	0,172	0,001	-0,6	0,171	0,173	no accreditation	XRF (Pellet) info only	EDRFA
53	0,175	0,007	-0,4	0,170	0,180	no accreditation	XRF (fusion)	-
55	0,193	0,012	0,7	0,184	0,201	no accreditation	XRF (fusion)	C, Reconstitution Method
57	0,187	0,001	0,3	0,188	0,186	ISO 17025	XRF (fusion)	-
59	0,170	0,000	-0,7	0,170	0,170	no accreditation	XRF (fusion)	-

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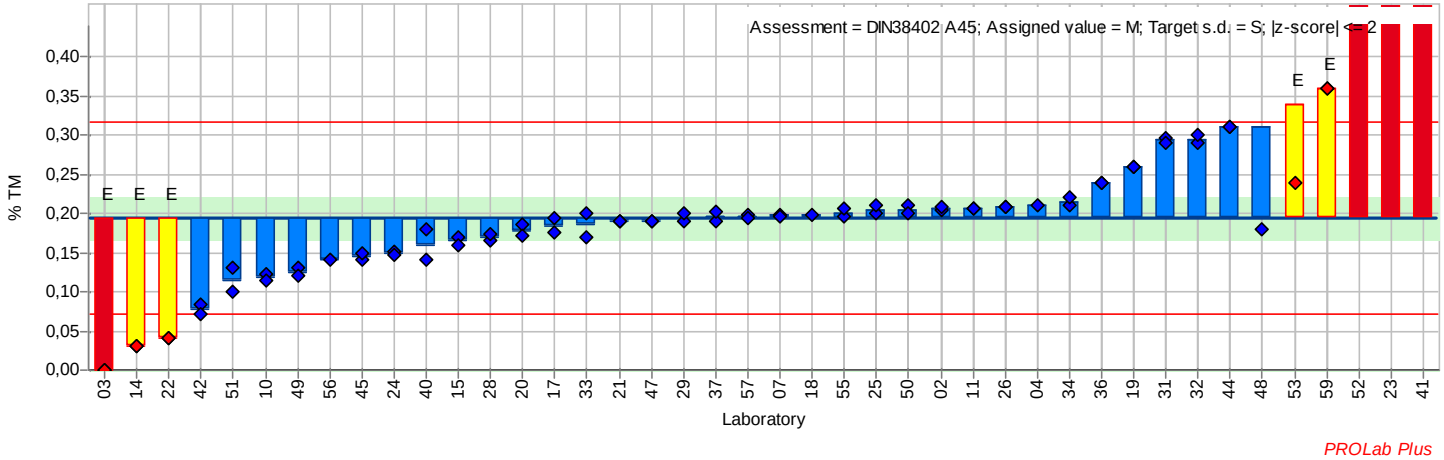
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,061 % TM**
Measurand:	**Na2O**	**Repeat. s.d**	**0,008 % TM**
Mean ± U(Mean):	**0,194 ± 0,026 % TM**	**Range of tolerance:**	**0,072 - 0,317 % TM (|z-score| <= 2,0)**
No. of laboratories:	**35**	**Sample**	**DIN 38402 A45**
Assigned value	**0,194 % TM (Empirical value)**	**Target s.d.**	**0,061 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,206	0,003	0,2	0,204	0,208	ISO 17025	XRF (fusion)	-
03	0,001	0,000	-3,2	0,001	0,001	no accreditation	XRF (fusion)	ISO 29581-2
04	0,210		0,3	0,210		ISO 17025	ICP-OES	-
07	0,197	0,001	0,1	0,198	0,197	no accreditation	XRF (Pellet) info only	
10	0,118	0,005	-1,2	0,122	0,115	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,206	0,001	0,2	0,206	0,207	no accreditation	XRF (fusion)	-
14	0,030	0,000	-2,7	0,030	0,030	no accreditation	other	EDXRF fusion
15	0,165	0,007	-0,5	0,170	0,160	no accreditation	XRF (fusion)	-
17	0,184	0,013	-0,2	0,194	0,175	no accreditation	XRF (fusion)	-
18	0,198		0,1	0,198		no accreditation	XRF (fusion)	-
19	0,260	0,000	1,1	0,260	0,260	no accreditation	XRF (fusion)	-
20	0,178	0,009	-0,3	0,185	0,172	no accreditation	ICP-OES	-
21	0,190	0,000	-0,1	0,190	0,190	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,040	0,000	-2,5	0,040	0,040	no accreditation	XRF (fusion)	-
23	2,648	0,099	40,1	2,578	2,718	ISO 17025	XRF (Pellet) info only	C
24	0,150	0,003	-0,7	0,152	0,148	no accreditation	XRF (fusion)	-
25	0,205	0,007	0,2	0,200	0,210	ISO 17025	XRF (fusion)	-
26	0,208	0,000	0,2	0,208	0,208	ISO 17025	ICP-OES	-
28	0,169	0,005	-0,4	0,166	0,173	ISO 17025	XRF (fusion)	-
29	0,195	0,007	0,0	0,190	0,200	ISO 17025	XRF (fusion)	-
31	0,293	0,005	1,6	0,297	0,290	ISO 17025	XRF (fusion)	-
32	0,295	0,007	1,6	0,290	0,300	no accreditation	XRF (fusion)	-
33	0,185	0,021	-0,2	0,200	0,170	no accreditation	XRF (Pellet) info only	-
34	0,215	0,007	0,3	0,210	0,220	no accreditation	XRF (fusion)	-
36	0,240	0,000	0,7	0,240	0,240	no accreditation	other	AAS
37	0,196	0,009	0,0	0,189	0,202	no accreditation	XRF (fusion)	-
40	0,160	0,028	-0,6	0,140	0,180	no accreditation	other	AAS
41	6,015	0,841	95,1	5,420	6,610	no accreditation	ICP-OES	C
42	0,077	0,009	-1,9	0,084	0,071	no accreditation	XRF (fusion)	-
44	0,310	0,000	1,9	0,310	0,310	no accreditation	XRF (fusion)	-
45	0,145	0,007	-0,8	0,140	0,150	ISO 17025	XRF (fusion)	-
47	0,190	0,000	-0,1	0,190	0,190	ISO 17025	XRF (fusion)	-
48	0,310	0,184	1,9	0,180	0,440	ISO 17025	XRF (fusion)	C
49	0,125	0,007	-1,1	0,130	0,120	no accreditation	XRF (fusion)	-
50	0,205	0,007	0,2	0,210	0,200	no accreditation	XRF (fusion)	-
51	0,115	0,021	-1,3	0,100	0,130	no accreditation	XRF (fusion)	-
52	2,027	0,025	29,9	2,010	2,045	no accreditation	XRF (Pellet) info only	EDRFA

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
53	0,340	0,141	2,4	0,440	0,240	no accreditation	XRF (fusion)	C
55	0,201	0,007	0,1	0,196	0,206	no accreditation	XRF (fusion)	-
56	0,140		-0,9	0,140		no accreditation	XRF (fusion)	-
57	0,196	0,003	0,0	0,197	0,194	ISO 17025	XRF (fusion)	-
59	0,360	0,000	2,7	0,360	0,360	no accreditation	XRF (fusion)	-

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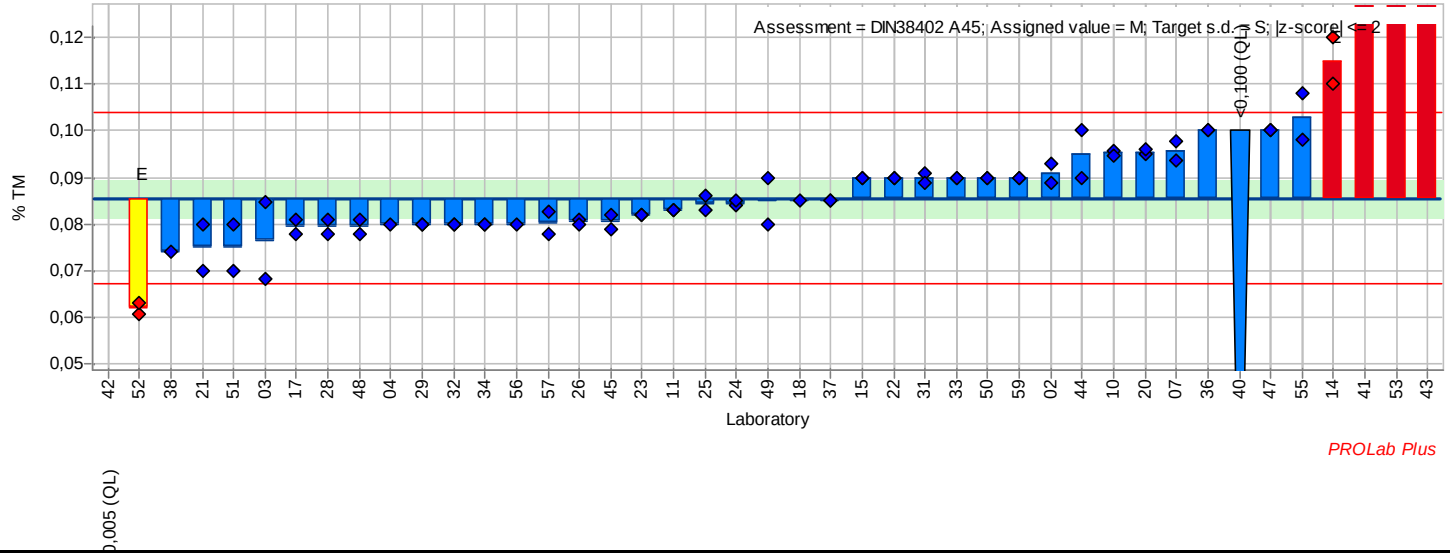
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,009 % TM**
Measurand:	**P2O5**	**Repeat. s.d**	**0,002 % TM**
Mean ± U(Mean):	**0,086 ± 0,004 % TM**	**Range of tolerance:**	**0,067 - 0,104 % TM (|z-score| <= 2,0)**
No. of laboratories:	**35**	**Sample**	**DIN 38402 A45**
Assigned value	**0,086 % TM (Empirical value)**	**Target s.d.**	**0,009 % TM (Empirical value)**

BE



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,091	0,003	0,6	0,089	0,093	ISO 17025	XRF (fusion)	-
03	0,076	0,012	-1,0	0,068	0,085	no accreditation	XRF (fusion)	ISO 29581-2
04	0,080		-0,6	0,080		ISO 17025	ICP-OES	-
07	0,096	0,003	1,1	0,094	0,098	no accreditation	XRF (Pellet) info only	
10	0,095	0,001	1,0	0,096	0,095	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,083	0,000	-0,3	0,083	0,083	no accreditation	XRF (fusion)	-
14	0,115	0,007	3,2	0,120	0,110	no accreditation	XRF (fusion)	-
15	0,090	0,000	0,5	0,090	0,090	no accreditation	XRF (fusion)	-
17	0,080	0,002	-0,7	0,081	0,078	no accreditation	XRF (fusion)	-
18	0,085		-0,1	0,085		no accreditation	XRF (fusion)	-
20	0,096	0,001	1,1	0,095	0,096	no accreditation	XRF (fusion)	-
21	0,075	0,007	-1,1	0,070	0,080	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,090	0,000	0,5	0,090	0,090	no accreditation	XRF (fusion)	-
23	0,082	0,000	-0,4	0,082	0,082	ISO 17025	XRF (Pellet) info only	
24	0,085	0,001	-0,1	0,084	0,085	no accreditation	XRF (fusion)	-
25	0,084	0,002	-0,1	0,083	0,086	ISO 17025	XRF (fusion)	-
26	0,081	0,001	-0,6	0,081	0,080	ISO 17025	XRF (fusion)	-
28	0,080	0,002	-0,7	0,078	0,081	ISO 17025	XRF (fusion)	-
29	0,080	0,000	-0,6	0,080	0,080	ISO 17025	XRF (fusion)	-
31	0,090	0,001	0,5	0,091	0,089	ISO 17025	XRF (fusion)	-
32	0,080	0,000	-0,6	0,080	0,080	no accreditation	XRF (fusion)	-
33	0,090	0,000	0,5	0,090	0,090	no accreditation	XRF (Pellet) info only	-
34	0,080	0,000	-0,6	0,080	0,080	no accreditation	XRF (fusion)	-
36	0,100	0,000	1,6	0,100	0,100	no accreditation	XRF (fusion)	-
37	0,085	0,000	-0,1	0,085	0,085	no accreditation	XRF (fusion)	-
38	0,074		-1,3	0,074		ISO 17025	ICP-OES	-
40				<0,100	<0,100	ISO 17025	XRF (fusion)	-
41	0,156	0,001	7,7	0,155	0,157	no accreditation	XRF (Pellet) info only	
42				<0,005	<0,005	no accreditation	XRF (fusion)	-
43	0,334	0,017	26,9	0,321	0,346	no accreditation	other	C, TXRF
44	0,095	0,007	1,0	0,090	0,100	no accreditation	XRF (fusion)	-
45	0,081	0,002	-0,6	0,082	0,079	ISO 17025	XRF (fusion)	-
47	0,100	0,000	1,6	0,100	0,100	ISO 17025	XRF (fusion)	-
48	0,080	0,002	-0,7	0,078	0,081	ISO 17025	XRF (fusion)	-
49	0,085	0,007	-0,1	0,080	0,090	no accreditation	XRF (fusion)	-
50	0,090	0,000	0,5	0,090	0,090	no accreditation	XRF (fusion)	-
51	0,075	0,007	-1,1	0,070	0,080	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
52	0,062	0,002	-2,6	0,061	0,063	no accreditation	XRF (Pellet) info only	EDRFA
53	0,219	0,001	14,4	0,218	0,219	no accreditation	XRF (fusion)	-
55	0,103	0,007	1,9	0,108	0,098	no accreditation	XRF (fusion)	-
56	0,080		-0,6	0,080		no accreditation	XRF (fusion)	-
57	0,080	0,003	-0,6	0,078	0,083	ISO 17025	XRF (fusion)	-
59	0,090	0,000	0,5	0,090	0,090	no accreditation	XRF (fusion)	-

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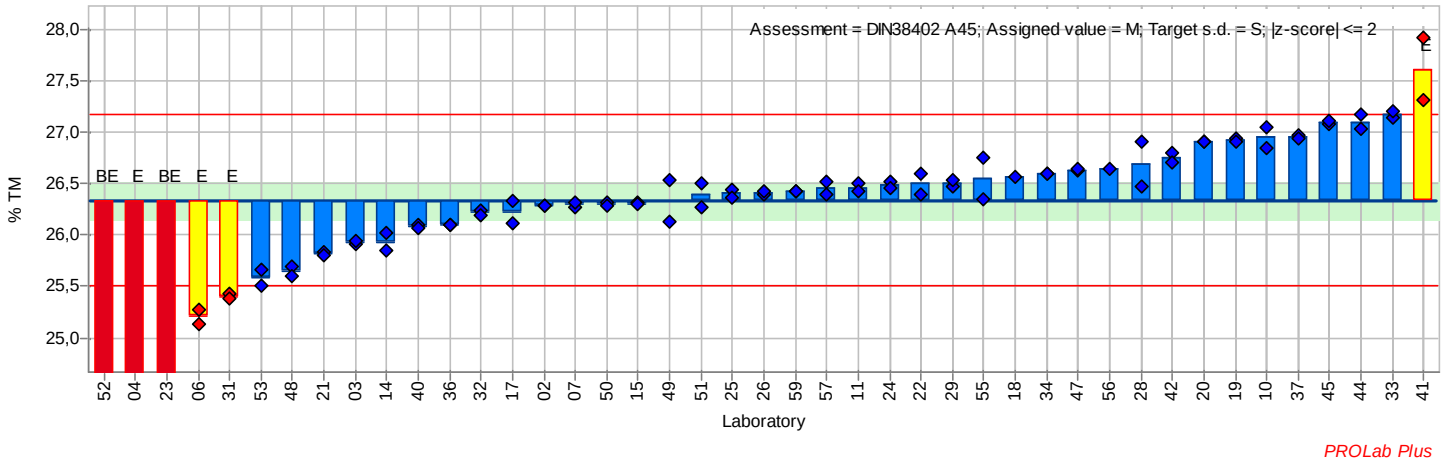
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,418 % TM**
Measurand:	**SiO2**	**Repeat. s.d**	**0,050 % TM**
Mean ± U(Mean):	**26,339 ± 0,185 % TM**	**Range of tolerance:**	**25,504 - 27,175 % TM (|z-score| <= 2,0)**
No. of laboratories:	**32**	**Sample**	**DIN 38402 A45**
Assigned value	**26,339 % TM (Empirical value)**	**Target s.d.**	**0,418 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	26,291	0,001	-0,1	26,292	26,290	ISO 17025	XRF (fusion)	-
03	25,928	0,016	-1,0	25,916	25,939	no accreditation	XRF (fusion)	ISO 29581-2
04	22,880		-8,3	22,880		ISO 17025	ICP-OES	-
06	25,210	0,099	-2,7	25,140	25,280	no accreditation	Wet chemistry EN196-2	precip. aided by gelatine
07	26,295	0,035	-0,1	26,270	26,320	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	26,950	0,141	1,5	26,850	27,050	no accreditation	XRF (fusion)	-
11	26,460	0,057	0,3	26,500	26,420	no accreditation	XRF (fusion)	-
14	25,935	0,120	-1,0	26,020	25,850	no accreditation	XRF (fusion)	-
15	26,305	0,007	-0,1	26,310	26,300	no accreditation	XRF (fusion)	-
17	26,223	0,163	-0,3	26,338	26,107	no accreditation	XRF (fusion)	-
18	26,570		0,6	26,570		no accreditation	XRF (fusion)	-
19	26,915	0,021	1,4	26,930	26,900	no accreditation	XRF (fusion)	-
20	26,905	0,007	1,4	26,910	26,900	no accreditation	XRF (fusion)	-
21	25,825	0,021	-1,2	25,840	25,810	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	26,495	0,148	0,4	26,600	26,390	no accreditation	XRF (fusion)	-
23	24,227	0,273	-5,1	24,034	24,420	ISO 17025	XRF (Pellet) info only	
24	26,489	0,037	0,4	26,515	26,463	no accreditation	XRF (fusion)	-
25	26,405	0,049	0,2	26,440	26,370	ISO 17025	XRF (fusion)	-
26	26,413	0,023	0,2	26,397	26,429	ISO 17025	XRF (fusion)	-
28	26,682	0,308	0,8	26,900	26,465	ISO 17025	XRF (fusion)	-
29	26,505	0,049	0,4	26,470	26,540	ISO 17025	XRF (fusion)	-
31	25,405	0,035	-2,2	25,430	25,380	ISO 17025	XRF (fusion)	-
32	26,215	0,035	-0,3	26,240	26,190	no accreditation	XRF (fusion)	-
33	27,170	0,042	2,0	27,140	27,200	no accreditation	XRF (Pellet) info only	-
34	26,595	0,007	0,6	26,590	26,600	no accreditation	XRF (fusion)	-
36	26,100	0,000	-0,6	26,100	26,100	ISO 17025	XRF (fusion)	-
37	26,955	0,021	1,5	26,970	26,940	no accreditation	XRF (fusion)	-
40	26,085	0,021	-0,6	26,100	26,070	ISO 17025	XRF (fusion)	-
41	27,610	0,424	3,0	27,310	27,910	no accreditation	XRF (Pellet) info only	
42	26,750	0,071	1,0	26,800	26,700	no accreditation	XRF (fusion)	-
44	27,100	0,099	1,8	27,030	27,170	no accreditation	XRF (fusion)	-
45	27,090	0,028	1,8	27,070	27,110	ISO 17025	XRF (fusion)	-
47	26,630	0,014	0,7	26,620	26,640	ISO 17025	XRF (fusion)	-
48	25,650	0,071	-1,6	25,700	25,600	ISO 17025	XRF (fusion)	-
49	26,330	0,283	0,0	26,130	26,530	no accreditation	XRF (fusion)	-
50	26,300	0,014	-0,1	26,310	26,290	no accreditation	XRF (fusion)	-
51	26,390	0,170	0,1	26,270	26,510	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
52	20,300	0,014	-14,5	20,310	20,290	no accreditation	XRF (Pellet) info only	EDRFA
53	25,585	0,120	-1,8	25,500	25,670	no accreditation	XRF (fusion)	-
55	26,548	0,287	0,5	26,345	26,751	no accreditation	XRF (fusion)	Reconstitution Method
56	26,650		0,7	26,650		no accreditation	XRF (fusion)	-
57	26,460	0,088	0,3	26,397	26,522	ISO 17025	XRF (fusion)	-
59	26,430	0,000	0,2	26,430	26,430	no accreditation	XRF (fusion)	-

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RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,012 % TM**
Measurand:	**SrO**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,121 ± 0,006 % TM**	**Range of tolerance:**	**0,097 - 0,144 % TM (|z-score| <= 2,0)**
No. of laboratories:	**26**	**Sample**	**DIN 38402 A45**
Assigned value	**0,121 % TM (Empirical value)**	**Target s.d.**	**0,012 % TM (Empirical value)**

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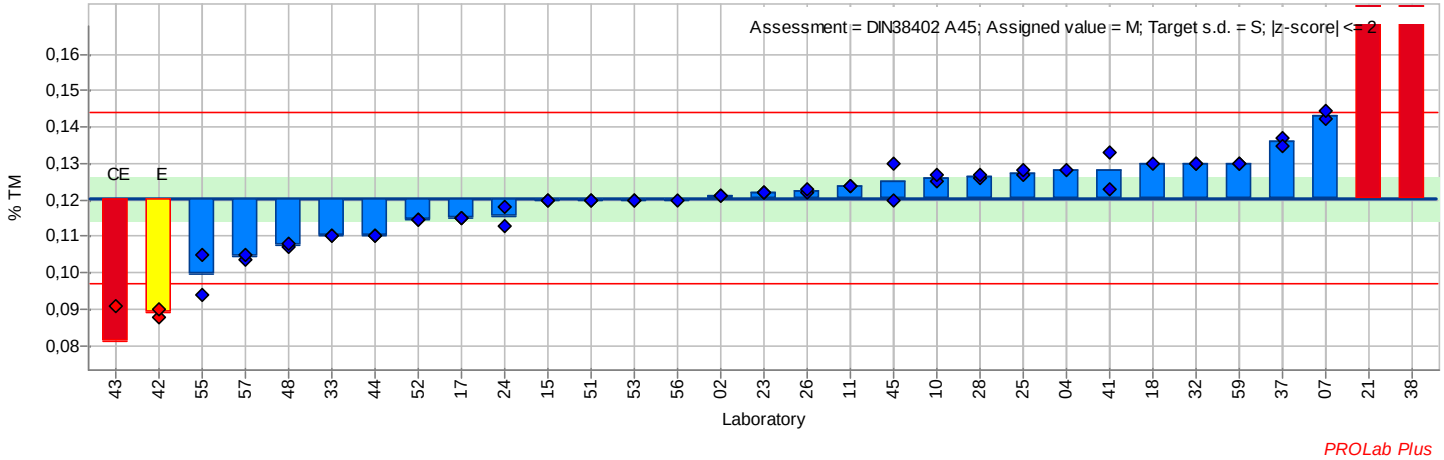

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,121	0,000	0,0	0,121	0,121	ISO 17025	XRF (fusion)	-
04	0,128		0,6	0,128		ISO 17025	ICP-OES	-
07	0,143	0,002	1,9	0,142	0,144	no accreditation	XRF (Pellet) info only	
10	0,126	0,001	0,5	0,125	0,127	no accreditation	XRF (fusion)	-
11	0,124	0,000	0,3	0,124	0,124	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	0,120	0,000	0,0	0,120	0,120	no accreditation	XRF (fusion)	-
17	0,115	0,000	-0,5	0,115	0,115	no accreditation	XRF (fusion)	-
18	0,130		0,8	0,130		no accreditation	XRF (fusion)	-
21	0,211	0,001	7,7	0,212	0,210	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,122	0,000	0,1	0,122	0,122	ISO 17025	XRF (Pellet) info only	
24	0,115	0,004	-0,4	0,118	0,113	no accreditation	XRF (fusion)	-
25	0,128	0,001	0,6	0,127	0,128	ISO 17025	XRF (fusion)	-
26	0,122	0,001	0,2	0,122	0,123	ISO 17025	XRF (fusion)	-
28	0,127	0,001	0,5	0,126	0,127	ISO 17025	XRF (fusion)	-
32	0,130	0,000	0,8	0,130	0,130	no accreditation	XRF (fusion)	-
33	0,110	0,000	-0,9	0,110	0,110	no accreditation	XRF (Pellet) info only	-
37	0,136	0,001	1,3	0,137	0,135	no accreditation	XRF (fusion)	-
38	0,506		32,7	0,506		ISO 17025	ICP-OES	-
41	0,128	0,007	0,6	0,123	0,133	no accreditation	ICP-OES	-
42	0,089	0,001	-2,7	0,088	0,090	no accreditation	XRF (fusion)	-
43	0,081	0,014	-3,3	0,091	0,071	no accreditation	other	C, TXRF
44	0,110	0,000	-0,9	0,110	0,110	no accreditation	XRF (fusion)	-
45	0,125	0,007	0,4	0,120	0,130	ISO 17025	XRF (fusion)	-
48	0,107	0,001	-1,1	0,107	0,108	ISO 17025	XRF (fusion)	-
51	0,120	0,000	0,0	0,120	0,120	no accreditation	XRF (fusion)	-
52	0,115	0,000	-0,5	0,115	0,115	no accreditation	XRF (Pellet) info only	EDRFA
53	0,120	0,000	0,0	0,120	0,120	no accreditation	XRF (fusion)	-
55	0,100	0,008	-1,8	0,105	0,094	no accreditation	XRF (fusion)	Reconstitution Method
56	0,120		0,0	0,120		no accreditation	XRF (fusion)	-
57	0,104	0,001	-1,4	0,104	0,105	ISO 17025	XRF (fusion)	-
59	0,130	0,000	0,8	0,130	0,130	no accreditation	XRF (fusion)	-

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RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,172 % TM**
Measurand:	**Sulfate expressed as SO3**	**Repeat. s.d**	**0,020 % TM**
Mean ± U(Mean):	**3,206 ± 0,124 % TM**	**Range of tolerance:**	**3,046 - 3,366 % TM (|z-score| <= 2,0)**
No. of laboratories:	**12**	**Sample**	**DIN 38402 A45**
Assigned value	**3,206 % TM (Empirical value)**	**Target s.d.**	**0,080 % TM (Reference value)**

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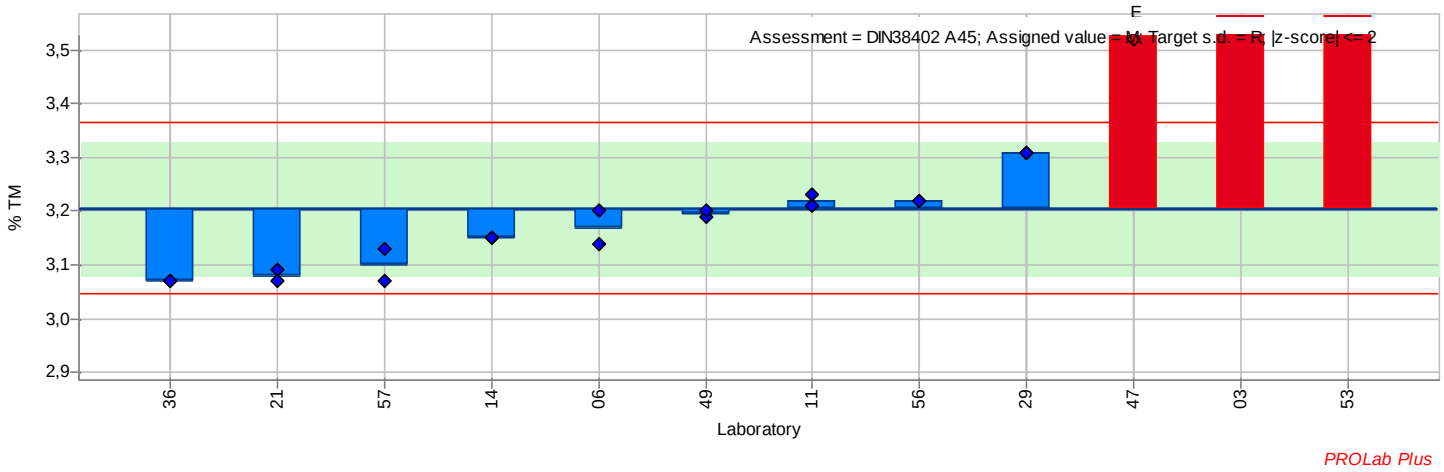

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
03	3,900	0,020	8,7	3,914	3,886	no accreditation	Wet chemistry EN196-2	-
06	3,170	0,042	-0,4	3,200	3,140	no accreditation	Wet chemistry EN196-2	-
11	3,220	0,014	0,2	3,210	3,230	no accreditation	Wet chemistry EN196-2	-
14	3,150	0,000	-0,7	3,150	3,150	no accreditation	Wet chemistry EN196-2	-
21	3,080	0,014	-1,6	3,090	3,070	ISO 17025	Wet chemistry EN196-2	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
29	3,310	0,000	1,3	3,310	3,310	ISO 17025	Wet chemistry EN196-2	-
36	3,070	0,000	-1,7	3,070	3,070	ISO 17025	Wet chemistry EN196-2	-
47	3,525	0,007	4,0	3,520	3,530	no accreditation	Wet chemistry EN196-2	-
49	3,195	0,007	-0,1	3,190	3,200	no accreditation	Wet chemistry EN196-2	-
53	4,320	0,198	13,9	4,460	4,180	no accreditation	Wet chemistry EN196-2	C
56	3,220		0,2	3,220		no accreditation	Wet chemistry EN196-2	-
57	3,100	0,042	-1,3	3,130	3,070	ISO 17025	Wet chemistry EN196-2	-

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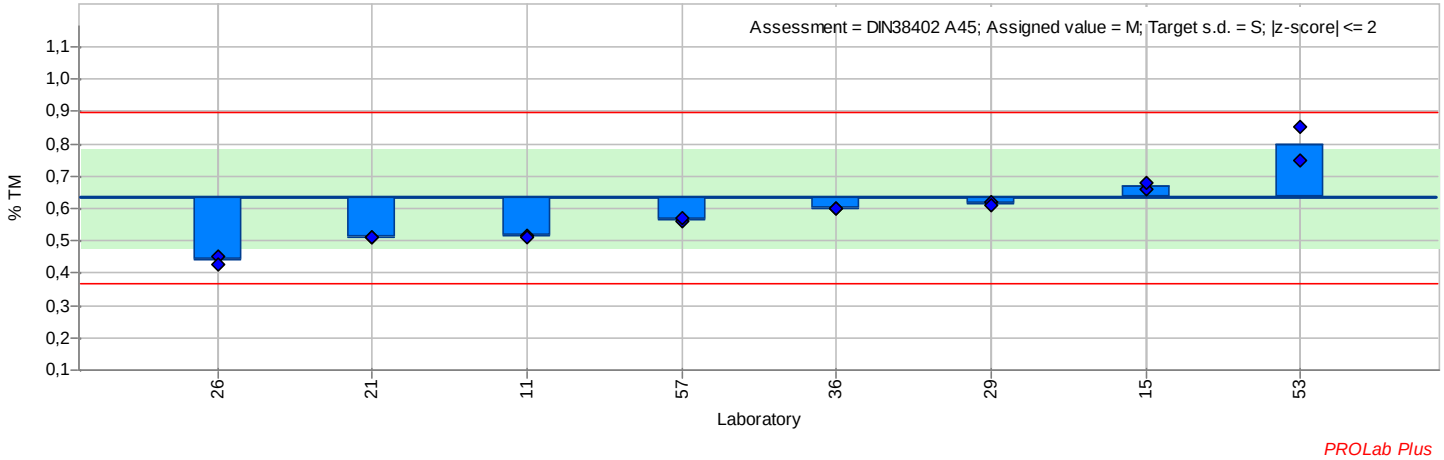
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,133 % TM**
Measurand:	**Sulfide expressed as S**	**Repeat. s.d**	**0,013 % TM**
Mean ± U(Mean):	**0,632 ± 0,149 % TM**	**Range of tolerance:**	**0,366 - 0,898 % TM (|z-score| <= 2,0)**
No. of laboratories:	**5**	**Sample**	**DIN 38402 A45**
Assigned value	**0,632 % TM (Empirical value)**	**Target s.d.**	**0,133 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,514	0,003	-0,9	0,516	0,512	no accreditation	Standardless info only	-
15	0,670	0,014	0,3	0,660	0,680	no accreditation	Wet chemistry EN196-2	-
21	0,510	0,000	-0,9	0,510	0,510	ISO 17025	Wet chemistry EN196-2	-
26	0,439	0,017	-1,4	0,451	0,427	ISO 17025	other	DIN 38405-D27
29	0,615	0,007	-0,1	0,620	0,610	ISO 17025	Wet chemistry EN196-2	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
36	0,600	0,000	-0,2	0,600	0,600	no accreditation	other	Calculation
53	0,800	0,071	1,3	0,750	0,850	no accreditation	Wet chemistry EN196-2	C
57	0,565	0,007	-0,5	0,560	0,570	no accreditation	Wet chemistry EN196-2	SO4 difference

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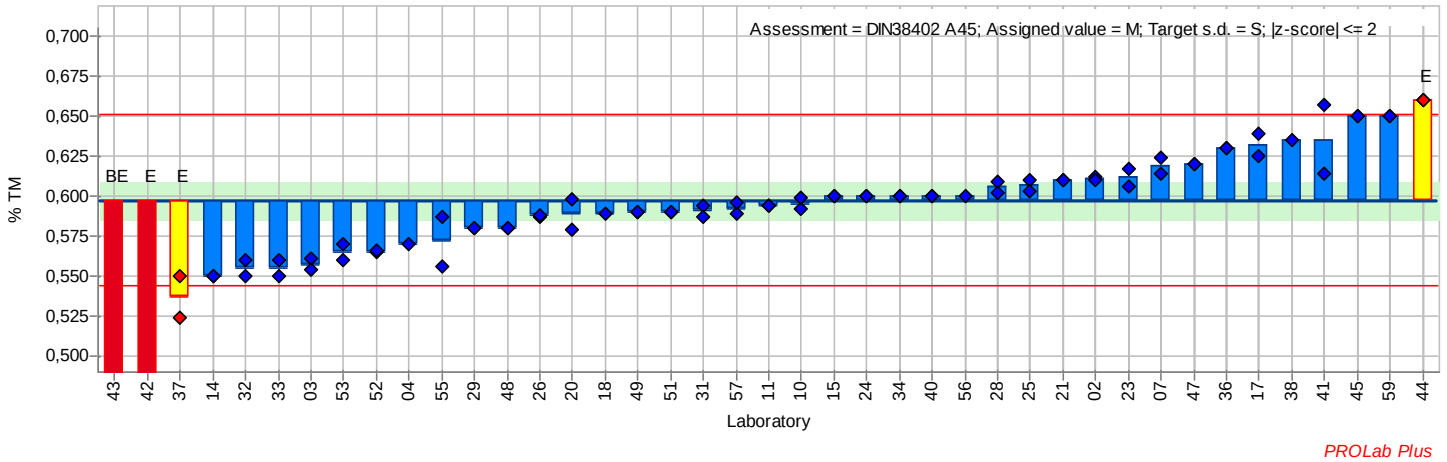
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,027 % TM**
Measurand:	**TiO2**	**Repeat. s.d**	**0,005 % TM**
Mean ± U(Mean):	**0,597 ± 0,011 % TM**	**Range of tolerance:**	**0,544 - 0,651 % TM (|z-score| <= 2,0)**
No. of laboratories:	**36**	**Sample**	**DIN 38402 A45**
Assigned value	**0,597 % TM (Empirical value)**	**Target s.d.**	**0,027 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,611	0,001	0,5	0,612	0,610	ISO 17025	XRF (fusion)	-
03	0,557	0,005	-1,5	0,561	0,553	no accreditation	XRF (fusion)	ISO 29581-2
04	0,570		-1,0	0,570		ISO 17025	ICP-OES	-
07	0,619	0,007	0,8	0,624	0,614	no accreditation	XRF (Pellet) info only	
10	0,595	0,005	-0,1	0,592	0,599	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,594	0,000	-0,1	0,594	0,594	no accreditation	XRF (fusion)	-
14	0,550	0,000	-1,8	0,550	0,550	no accreditation	XRF (fusion)	-
15	0,600	0,000	0,1	0,600	0,600	no accreditation	XRF (fusion)	-
17	0,632	0,010	1,3	0,625	0,639	no accreditation	XRF (fusion)	-
18	0,589		-0,3	0,589		no accreditation	XRF (fusion)	-
20	0,589	0,013	-0,3	0,579	0,598	no accreditation	XRF (fusion)	-
21	0,610	0,000	0,5	0,610	0,610	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,611	0,008	0,5	0,606	0,617	ISO 17025	XRF (Pellet) info only	
24	0,600	0,000	0,1	0,600	0,600	no accreditation	XRF (fusion)	-
25	0,607	0,005	0,3	0,610	0,603	ISO 17025	XRF (fusion)	-
26	0,587	0,001	-0,4	0,587	0,588	ISO 17025	XRF (fusion)	-
28	0,605	0,005	0,3	0,609	0,602	ISO 17025	XRF (fusion)	-
29	0,580	0,000	-0,6	0,580	0,580	ISO 17025	XRF (fusion)	-
31	0,591	0,005	-0,3	0,594	0,587	ISO 17025	XRF (fusion)	-
32	0,555	0,007	-1,6	0,550	0,560	no accreditation	XRF (fusion)	-
33	0,555	0,007	-1,6	0,560	0,550	no accreditation	XRF (Pellet) info only	-
34	0,600	0,000	0,1	0,600	0,600	no accreditation	XRF (fusion)	-
36	0,630	0,000	1,2	0,630	0,630	ISO 17025	XRF (fusion)	-
37	0,537	0,018	-2,2	0,524	0,550	no accreditation	XRF (fusion)	-
38	0,635		1,4	0,635		ISO 17025	ICP-OES	-
40	0,600	0,000	0,1	0,600	0,600	ISO 17025	XRF (fusion)	-
41	0,635	0,030	1,4	0,614	0,657	no accreditation	ICP-OES	C
42	0,377	0,006	-8,2	0,372	0,381	no accreditation	XRF (fusion)	-
43	0,355	0,022	-9,0	0,340	0,371	no accreditation	other	TXRF
44	0,660	0,000	2,3	0,660	0,660	no accreditation	XRF (fusion)	-
45	0,650	0,000	2,0	0,650	0,650	ISO 17025	XRF (fusion)	-
47	0,620	0,000	0,8	0,620	0,620	ISO 17025	XRF (fusion)	-
48	0,580	0,000	-0,6	0,580	0,580	ISO 17025	XRF (fusion)	-
49	0,590	0,000	-0,3	0,590	0,590	no accreditation	XRF (fusion)	-
51	0,590	0,000	-0,3	0,590	0,590	no accreditation	XRF (fusion)	-
52	0,565	0,001	-1,2	0,565	0,566	no accreditation	XRF (Pellet) info only	EDRFA
53	0,565	0,007	-1,2	0,560	0,570	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
55	0,572	0,022	-1,0	0,587	0,556	no accreditation	XRF (fusion)	Reconstitution Method
56	0,600		0,1	0,600		no accreditation	XRF (fusion)	-
57	0,592	0,004	-0,2	0,589	0,596	ISO 17025	XRF (fusion)	-
59	0,650	0,000	2,0	0,650	0,650	no accreditation	XRF (fusion)	-

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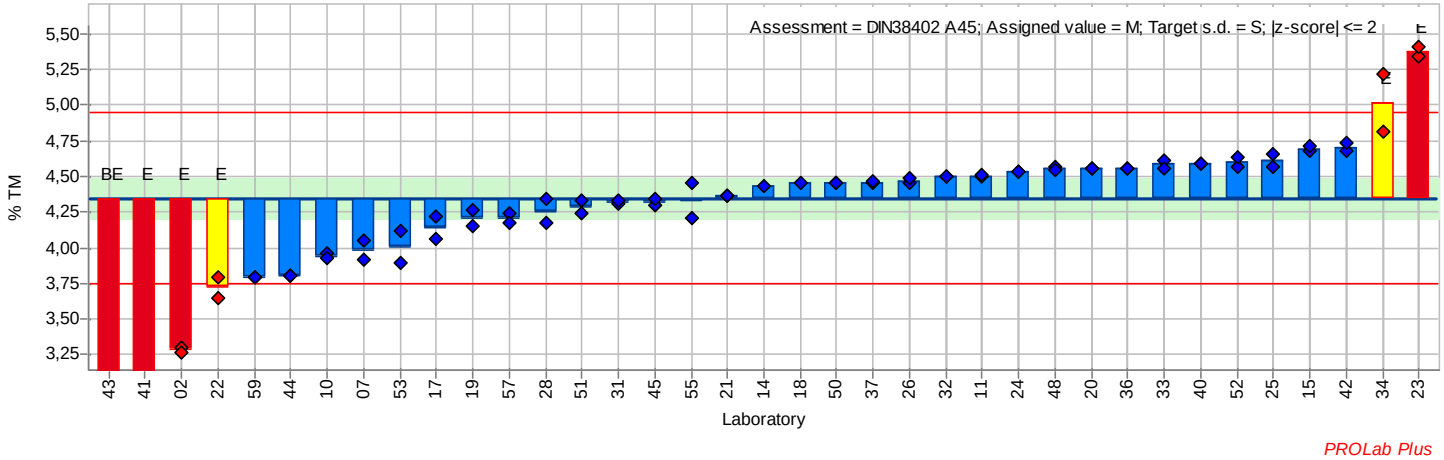
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,302 % TM**
Measurand:	**Total S expressed as SO3**	**Repeat. s.d**	**0,036 % TM**
Mean ± U(Mean):	**4,348 ± 0,135 % TM**	**Range of tolerance:**	**3,745 - 4,952 % TM (|z-score| <= 2,0)**
No. of laboratories:	**31**	**Sample**	**DIN 38402 A45**
Assigned value	**4,348 % TM (Empirical value)**	**Target s.d.**	**0,302 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	3,282	0,021	-3,5	3,297	3,267	ISO 17025	XRF (fusion)	-
07	3,985	0,092	-1,2	4,050	3,920	no accreditation	XRF (Pellet) info only	
10	3,944	0,029	-1,3	3,964	3,923	no accreditation	XRF (fusion)	-
11	4,505	0,007	0,5	4,500	4,510	no accreditation	XRF (fusion)	-
14	4,430		0,3	4,430		no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	4,695	0,021	1,1	4,680	4,710	no accreditation	XRF (fusion)	-
17	4,140	0,109	-0,7	4,217	4,063	no accreditation	XRF (fusion)	-
18	4,452		0,3	4,452		no accreditation	XRF (fusion)	-
19	4,205	0,078	-0,5	4,150	4,260	no accreditation	XRF (fusion)	-
20	4,556	0,006	0,7	4,560	4,552	no accreditation	combustion	-
21	4,365	0,007	0,1	4,370	4,360	ISO 17025	Wet chemistry EN196-2	-
22	3,720	0,099	-2,1	3,790	3,650	no accreditation	XRF (fusion)	-
23	5,373	0,052	3,4	5,337	5,410	ISO 17025	XRF (Pellet) info only	
24	4,530	0,003	0,6	4,528	4,532	no accreditation	XRF (fusion)	-
25	4,615	0,064	0,9	4,570	4,660	ISO 17025	XRF (fusion)	-
26	4,472	0,019	0,4	4,458	4,485	ISO 17025	combustion	-
28	4,258	0,122	-0,3	4,172	4,344	ISO 17025	XRF (fusion)	-
31	4,320	0,014	-0,1	4,310	4,330	ISO 17025	combustion	-
32	4,500	0,000	0,5	4,500	4,500	no accreditation	XRF (fusion)	-
33	4,585	0,035	0,8	4,610	4,560	no accreditation	XRF (Pellet) info only	-
34	5,019	0,283	2,2	5,219	4,819	no accreditation	XRF (fusion)	C
36	4,560	0,000	0,7	4,560	4,560	no accreditation	other	SR3T gravimetric Bromine
37	4,460	0,014	0,4	4,450	4,470	no accreditation	XRF (fusion)	-
40	4,590	0,000	0,8	4,590	4,590	ISO 17025	XRF (fusion)	-
41	1,830	0,028	-8,3	1,850	1,810	no accreditation	combustion	-
42	4,705	0,035	1,2	4,680	4,730	no accreditation	XRF (fusion)	-
43	1,555	0,202	-9,3	1,412	1,698	no accreditation	other	TXRF
44	3,800	0,000	-1,8	3,800	3,800	no accreditation	XRF (fusion)	-
45	4,320	0,028	-0,1	4,300	4,340	ISO 17025	combustion	-
48	4,555	0,021	0,7	4,570	4,540	ISO 17025	combustion	-
50	4,455	0,007	0,4	4,450	4,460	no accreditation	XRF (fusion)	-
51	4,285	0,064	-0,2	4,330	4,240	no accreditation	XRF (fusion)	-
52	4,599	0,045	0,8	4,567	4,631	no accreditation	XRF (Pellet) info only	EDRFA
53	4,005	0,163	-1,1	4,120	3,890	no accreditation	XRF (fusion)	-
55	4,335	0,172	0,0	4,456	4,213	no accreditation	XRF (fusion)	Reconstitution Method
57	4,207	0,048	-0,5	4,241	4,173	ISO 17025	XRF (fusion)	-
59	3,790	0,000	-1,9	3,790	3,790	no accreditation	XRF (fusion)	-

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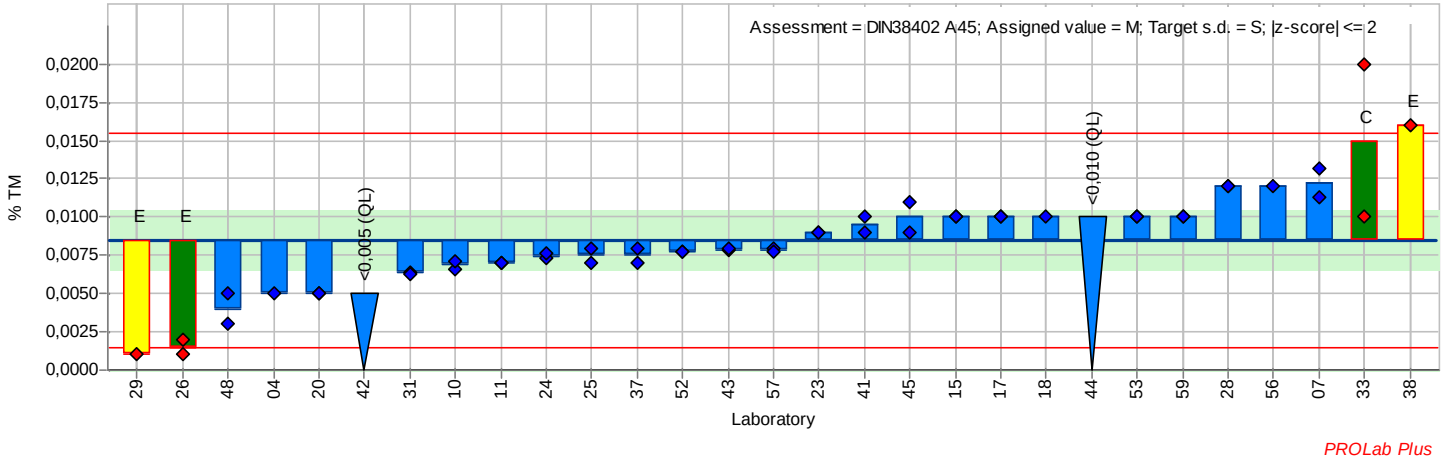
RV118

Sample:	**FLX-CRM 120**	**Reprod. s.d.**	**0,003 % TM**
Measurand:	**ZnO**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,009 ± 0,002 % TM**	**Range of tolerance:**	**0,002 - 0,015 % TM (|z-score| <= 2,0)**
No. of laboratories:	**20**	**Sample**	**DIN 38402 A45**
Assigned value	**0,009 % TM (Empirical value)**	**Target s.d.**	**0,003 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
04	0,005		-1,0	0,005		ISO 17025	ICP-OES	-
07	0,012	0,001	1,1	0,011	0,013	no accreditation	XRF (Pellet) info only	
10	0,007	0,000	-0,5	0,007	0,007	no accreditation	XRF (fusion)	-
11	0,007	0,000	-0,4	0,007	0,007	no accreditation	XRF (fusion)	-
15	0,010	0,000	0,4	0,010	0,010	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
17	0,010	0,000	0,4	0,010	0,010	no accreditation	XRF (fusion)	-
18	0,010		0,4	0,010		no accreditation	XRF (fusion)	-
20	0,005	0,000	-1,0	0,005	0,005	no accreditation	XRF (Pellet) info only	-
23	0,009	0,000	0,1	0,009	0,009	ISO 17025	XRF (Pellet) info only	
24	0,007	0,000	-0,3	0,007	0,008	no accreditation	XRF (fusion)	-
25	0,007	0,001	-0,3	0,008	0,007	ISO 17025	XRF (fusion)	-
26	0,002	0,001	-2,0	0,001	0,002	ISO 17025	XRF (fusion)	-
28	0,012	0,000	1,0	0,012	0,012	ISO 17025	XRF (fusion)	-
29	0,001		-2,1	0,001		no accreditation	Standardless info only	fused bead trace
31	0,006	0,000	-0,6	0,006	0,006	ISO 17025	ICP-OES	digestion in aqua regia
33	0,015	0,007	1,9	0,020	0,010	no accreditation	XRF (Pellet) info only	C
37	0,007	0,001	-0,3	0,008	0,007	no accreditation	XRF (fusion)	-
38	0,016		2,1	0,016		ISO 17025	ICP-OES	-
41	0,009	0,001	0,3	0,009	0,010	no accreditation	ICP-OES	-
42				<0,005	<0,005	no accreditation	XRF (fusion)	-
43	0,008	0,000	-0,2	0,008	0,008	no accreditation	other	TXRF
44				<0,010	<0,010	no accreditation	XRF (fusion)	-
45	0,010	0,001	0,4	0,011	0,009	ISO 17025	XRF (fusion)	-
48	0,004	0,001	-1,3	0,005	0,003	ISO 17025	XRF (fusion)	-
52	0,008	0,000	-0,2	0,008	0,008	no accreditation	XRF (Pellet) info only	EDRFA
53	0,010	0,000	0,4	0,010	0,010	no accreditation	XRF (fusion)	-
56	0,012		1,0	0,012		no accreditation	XRF (fusion)	-
57	0,008	0,000	-0,2	0,008	0,008	ISO 17025	XRF (fusion)	-
59	0,010	0,000	0,4	0,010	0,010	no accreditation	XRF (fusion)	-

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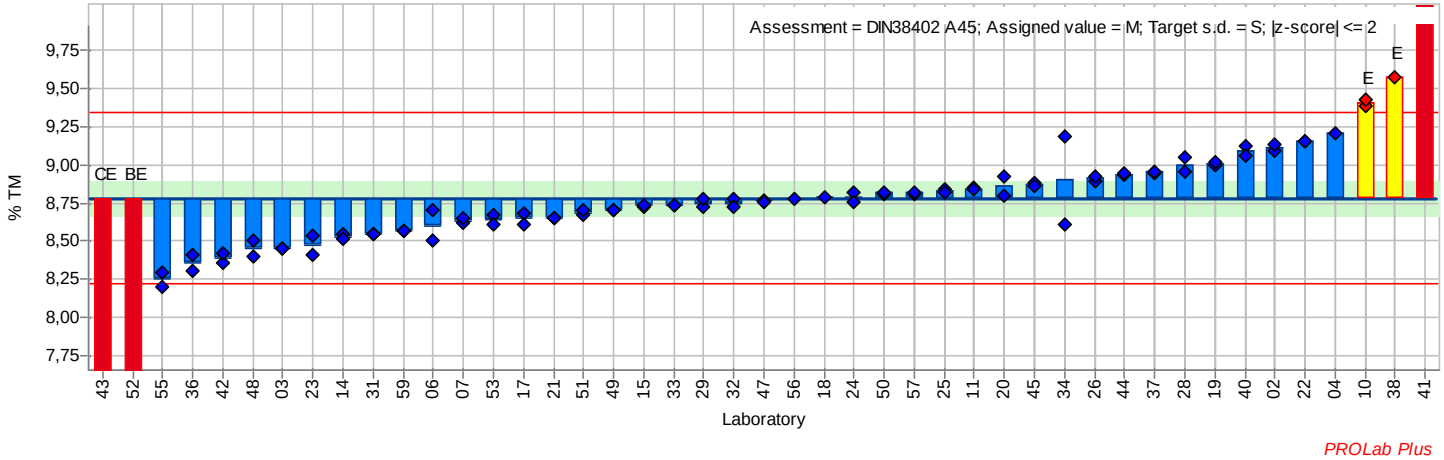
E

RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,282 % TM**
Measurand:	**Al2O3**	**Repeat. s.d**	**0,039 % TM**
Mean ± U(Mean):	**8,782 ± 0,110 % TM**	**Range of tolerance:**	**8,218 - 9,346 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**8,782 % TM (Empirical value)**	**Target s.d.**	**0,282 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	9,114	0,033	1,2	9,090	9,137	ISO 17025	XRF (fusion)	-
03	8,450	0,003	-1,2	8,448	8,453	no accreditation	XRF (fusion)	ISO 29581-2
04	9,210		1,5	9,210		ISO 17025	ICP-OES	-
06	8,600	0,141	-0,6	8,700	8,500	no accreditation	Wet chemistry EN196-2	-
07	8,635	0,021	-0,5	8,620	8,650	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	9,404	0,030	2,2	9,383	9,425	no accreditation	XRF (fusion)	-
11	8,845	0,007	0,2	8,850	8,840	no accreditation	XRF (fusion)	-
14	8,530	0,028	-0,9	8,550	8,510	no accreditation	XRF (fusion)	-
15	8,730	0,014	-0,2	8,720	8,740	no accreditation	XRF (fusion)	-
17	8,648	0,051	-0,5	8,684	8,612	no accreditation	XRF (fusion)	-
18	8,790		0,0	8,790		no accreditation	XRF (fusion)	-
19	9,010	0,014	0,8	9,000	9,020	no accreditation	XRF (fusion)	-
20	8,860	0,088	0,3	8,798	8,922	no accreditation	XRF (fusion)	-
21	8,650	0,000	-0,5	8,650	8,650	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	9,155	0,007	1,3	9,160	9,150	no accreditation	XRF (fusion)	-
23	8,470	0,086	-1,1	8,409	8,531	ISO 17025	XRF (Pellet) info only	
24	8,790	0,043	0,0	8,821	8,760	no accreditation	XRF (fusion)	-
25	8,830	0,014	0,2	8,840	8,820	ISO 17025	XRF (fusion)	-
26	8,910	0,024	0,5	8,893	8,927	ISO 17025	XRF (fusion)	-
28	8,998	0,066	0,8	8,952	9,045	ISO 17025	XRF (fusion)	-
29	8,750	0,042	-0,1	8,720	8,780	ISO 17025	XRF (fusion)	-
31	8,550	0,000	-0,8	8,550	8,550	ISO 17025	XRF (fusion)	-
32	8,750	0,042	-0,1	8,780	8,720	no accreditation	XRF (fusion)	-
33	8,735	0,007	-0,2	8,740	8,730	no accreditation	XRF (Pellet) info only	-
34	8,900	0,410	0,4	8,610	9,190	no accreditation	XRF (fusion)	C
36	8,355	0,078	-1,5	8,300	8,410	ISO 17025	XRF (fusion)	-
37	8,955	0,007	0,6	8,950	8,960	no accreditation	XRF (fusion)	-
38	9,580		2,8	9,580		ISO 17025	XRF (fusion)	-
40	9,090	0,042	1,1	9,120	9,060	ISO 17025	XRF (fusion)	-
41	12,315	1,718	12,5	11,100	13,530	no accreditation	ICP-OES	C
42	8,390	0,042	-1,4	8,360	8,420	no accreditation	XRF (fusion)	-
43	1,575	0,280	-25,5	1,773	1,377	no accreditation	other	C, TXRF
44	8,935	0,007	0,5	8,930	8,940	no accreditation	XRF (fusion)	-
45	8,870	0,014	0,3	8,880	8,860	ISO 17025	XRF (fusion)	-
47	8,765	0,007	-0,1	8,770	8,760	ISO 17025	XRF (fusion)	-
48	8,450	0,071	-1,2	8,500	8,400	ISO 17025	XRF (fusion)	-
49	8,700	0,000	-0,3	8,700	8,700	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	8,815	0,007	0,1	8,810	8,820	no accreditation	XRF (fusion)	-
51	8,685	0,021	-0,3	8,670	8,700	no accreditation	XRF (fusion)	-
52	6,777	0,049	-7,1	6,743	6,812	no accreditation	XRF (Pellet) info only	EDRFA
53	8,640	0,042	-0,5	8,670	8,610	no accreditation	XRF (fusion)	-
55	8,247	0,064	-1,9	8,292	8,202	no accreditation	XRF (fusion)	Reconstitution Method
56	8,780		0,0	8,780		no accreditation	XRF (fusion)	-
57	8,815	0,002	0,1	8,814	8,817	ISO 17025	XRF (fusion)	-
59	8,570	0,000	-0,8	8,570	8,570	no accreditation	XRF (fusion)	-

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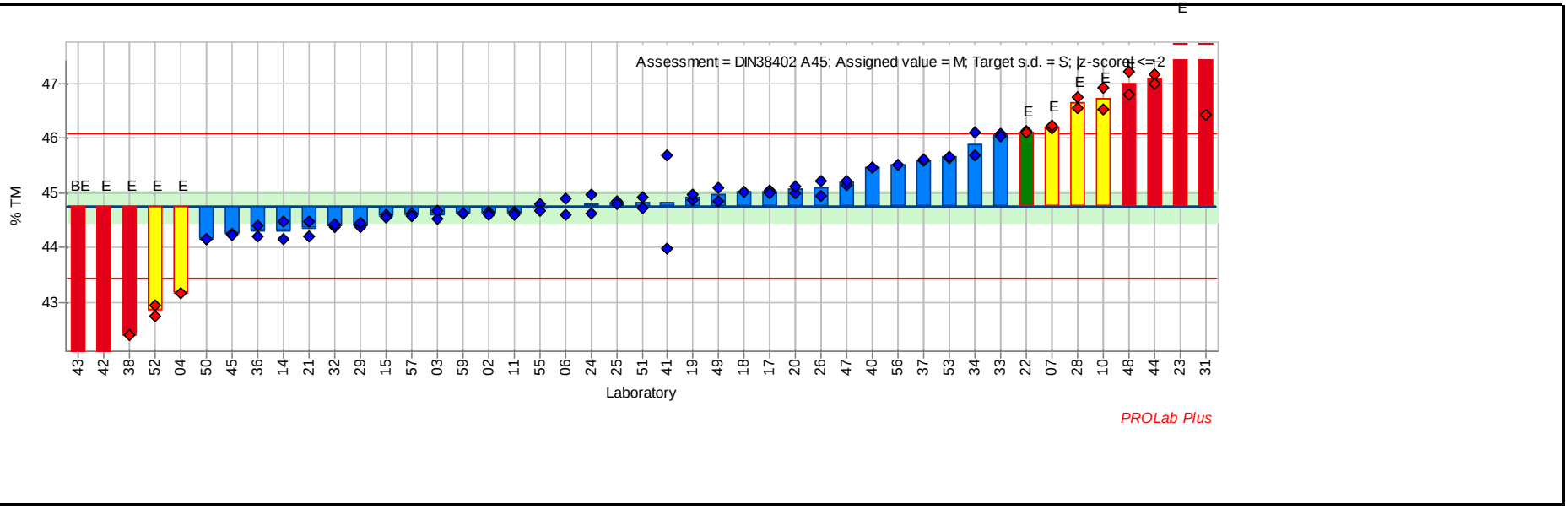
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,664 % TM**
Measurand:	**CaO**	**Repeat. s.d**	**0,108 % TM**
Mean ± U(Mean):	**44,755 ± 0,285 % TM**	**Range of tolerance:**	**43,427 - 46,082 % TM (|z-score| <= 2,0)**
No. of laboratories:	**34**	**Sample**	**DIN 38402 A45**
Assigned value	**44,755 % TM (Empirical value)**	**Target s.d.**	**0,664 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	44,611	0,031	-0,2	44,633	44,589	ISO 17025	XRF (fusion)	-
03	44,591	0,108	-0,2	44,515	44,668	no accreditation	XRF (fusion)	ISO 29581-2
04	43,150		-2,4	43,150		ISO 17025	ICP-OES	-
06	44,750	0,212	0,0	44,600	44,900	no accreditation	Wet chemistry EN196-2	-
07	46,200	0,028	2,2	46,180	46,220	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	46,720	0,283	3,0	46,520	46,920	no accreditation	XRF (fusion)	-
11	44,620	0,028	-0,2	44,640	44,600	no accreditation	XRF (fusion)	-
14	44,310	0,212	-0,7	44,460	44,160	no accreditation	XRF (fusion)	-
15	44,570	0,042	-0,3	44,600	44,540	no accreditation	XRF (fusion)	-
17	45,013	0,046	0,4	45,045	44,980	no accreditation	XRF (fusion)	-
18	45,010		0,4	45,010		no accreditation	XRF (fusion)	-
19	44,915	0,064	0,2	44,870	44,960	no accreditation	XRF (fusion)	-
20	45,055	0,078	0,5	45,000	45,110	no accreditation	XRF (fusion)	-
21	44,340	0,184	-0,6	44,470	44,210	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	46,110	0,014	2,0	46,120	46,100	no accreditation	XRF (fusion)	-
23	47,995	0,078	4,9	48,050	47,940	ISO 17025	XRF (Pellet) info only	
24	44,785	0,243	0,0	44,956	44,613	no accreditation	XRF (fusion)	-
25	44,810	0,042	0,1	44,840	44,780	ISO 17025	XRF (fusion)	-
26	45,081	0,188	0,5	44,948	45,214	ISO 17025	XRF (fusion)	-
28	46,642	0,129	2,8	46,551	46,734	ISO 17025	XRF (fusion)	-
29	44,405	0,064	-0,5	44,360	44,450	ISO 17025	XRF (fusion)	-
31	55,430	12,756	16,1	46,410	64,450	ISO 17025	XRF (fusion)	C
32	44,400	0,028	-0,5	44,380	44,420	no accreditation	XRF (fusion)	-
33	46,055	0,035	2,0	46,080	46,030	no accreditation	XRF (Pellet) info only	-
34	45,890	0,297	1,7	46,100	45,680	no accreditation	XRF (fusion)	-
36	44,300	0,141	-0,7	44,200	44,400	ISO 17025	XRF (fusion)	-
37	45,590	0,014	1,3	45,580	45,600	no accreditation	XRF (fusion)	-
38	42,390		-3,6	42,390		ISO 17025	XRF (fusion)	-
40	45,460	0,014	1,1	45,450	45,470	ISO 17025	XRF (fusion)	-
41	44,825	1,209	0,1	43,970	45,680	no accreditation	ICP-OES	C
42	36,450	0,919	-12,5	37,100	35,800	no accreditation	XRF (fusion)	C
43	22,883	0,162	-33,0	22,997	22,768	no accreditation	other	TXRF
44	47,080	0,127	3,5	47,170	46,990	no accreditation	XRF (fusion)	-
45	44,245	0,021	-0,8	44,260	44,230	ISO 17025	XRF (fusion)	-
47	45,175	0,049	0,6	45,140	45,210	ISO 17025	XRF (fusion)	-
48	47,000	0,283	3,4	46,800	47,200	ISO 17025	XRF (fusion)	-
49	44,965	0,163	0,3	45,080	44,850	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	44,155	0,007	-0,9	44,160	44,150	no accreditation	XRF (fusion)	-
51	44,820	0,141	0,1	44,720	44,920	no accreditation	XRF (fusion)	-
52	42,840	0,156	-2,9	42,730	42,950	no accreditation	XRF (Pellet) info only	EDRFA
53	45,645	0,007	1,3	45,640	45,650	no accreditation	XRF (fusion)	-
55	44,730	0,076	0,0	44,783	44,676	no accreditation	XRF (fusion)	Reconstitution Method
56	45,510		1,1	45,510		no accreditation	XRF (fusion)	-
57	44,590	0,041	-0,2	44,619	44,561	ISO 17025	XRF (fusion)	-
59	44,610	0,000	-0,2	44,610	44,610	no accreditation	XRF (fusion)	-

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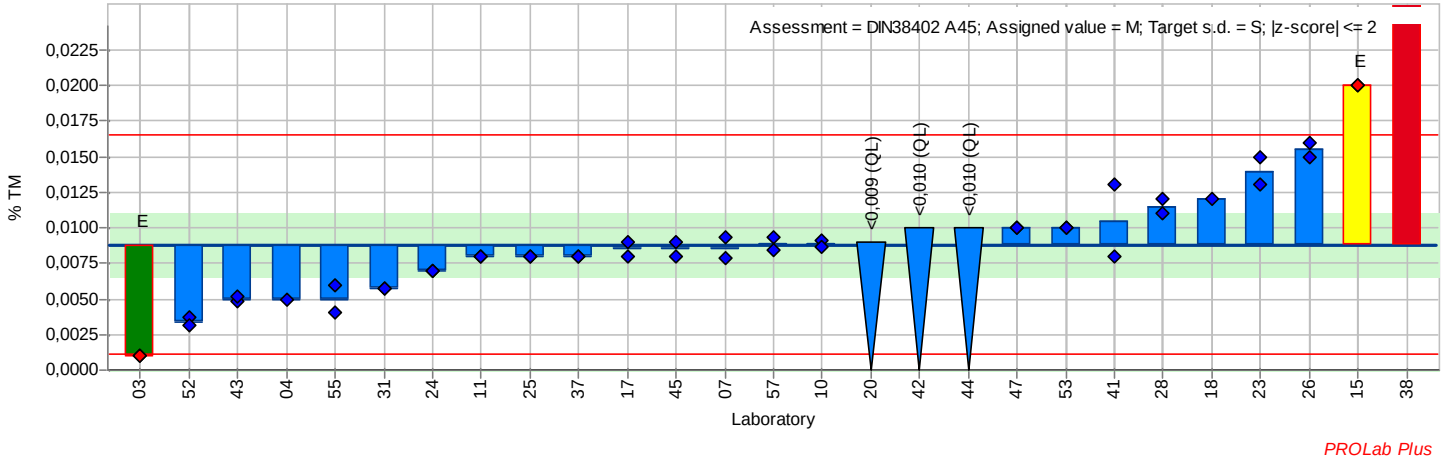
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,004 % TM**
Measurand:	**Cr2O3**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,009 ± 0,002 % TM**	**Range of tolerance:**	**0,001 - 0,017 % TM (|z-score| <= 2,0)**
No. of laboratories:	**20**	**Sample**	**DIN 38402 A45**
Assigned value	**0,009 % TM (Empirical value)**	**Target s.d.**	**0,004 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
03	0,001	0,000	-2,0	0,001	0,001	no accreditation	XRF (fusion)	ISO 29581-2
04	0,005		-1,0	0,005		ISO 17025	ICP-OES	-
07	0,009	0,001	-0,1	0,008	0,009	no accreditation	XRF (Pellet) info only	
10	0,009	0,000	0,0	0,009	0,009	no accreditation	XRF (fusion)	-
11	0,008	0,000	-0,2	0,008	0,008	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
14							other	
15	0,020	0,000	2,9	0,020	0,020	no accreditation	XRF (fusion)	-
17	0,009	0,001	-0,1	0,009	0,008	no accreditation	XRF (fusion)	-
18	0,012		0,8	0,012		no accreditation	XRF (fusion)	-
20				<0,009	<0,009	no accreditation	XRF (fusion)	-
23	0,014	0,001	1,3	0,013	0,015	ISO 17025	XRF (Pellet) info only	
24	0,007	0,000	-0,5	0,007	0,007	no accreditation	XRF (fusion)	-
25	0,008	0,000	-0,2	0,008	0,008	ISO 17025	XRF (fusion)	-
26	0,015	0,001	1,7	0,015	0,016	ISO 17025	XRF (fusion)	-
28	0,011	0,001	0,7	0,012	0,011	ISO 17025	XRF (fusion)	-
31	0,006	0,000	-0,8	0,006	0,006	ISO 17025	ICP-OES	digestion in aqua regia
33						no accreditation	XRF (Pellet) info only	-
37	0,008	0,000	-0,2	0,008	0,008	no accreditation	XRF (fusion)	-
38	0,029		5,3	0,029		ISO 17025	ICP-OES	-
41	0,010	0,004	0,4	0,008	0,013	no accreditation	ICP-OES	C
42				<0,010	<0,010	no accreditation	XRF (fusion)	-
43	0,005	0,000	-1,0	0,005	0,005	no accreditation	other	TXRF
44				<0,010	<0,010	no accreditation	XRF (fusion)	-
45	0,009	0,001	-0,1	0,009	0,008	ISO 17025	XRF (fusion)	-
47	0,010	0,000	0,3	0,010	0,010	ISO 17025	XRF (fusion)	-
52	0,003	0,000	-1,4	0,004	0,003	no accreditation	XRF (Pellet) info only	EDRFA
53	0,010	0,000	0,3	0,010	0,010	no accreditation	XRF (fusion)	-
55	0,005	0,001	-1,0	0,006	0,004	no accreditation	XRF (fusion)	Reconstitution Method
57	0,009	0,001	0,0	0,009	0,008	ISO 17025	XRF (fusion)	-

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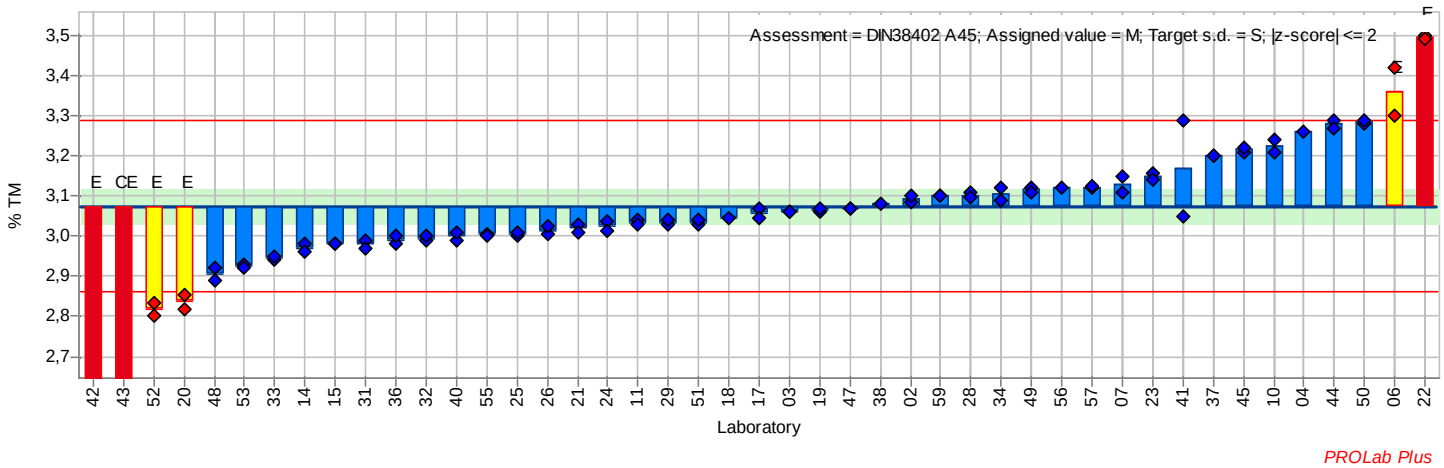
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,107 % TM**
Measurand:	**Fe2O3**	**Repeat. s.d**	**0,019 % TM**
Mean ± U(Mean):	**3,075 ± 0,042 % TM**	**Range of tolerance:**	**2,861 - 3,289 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**3,075 % TM (Empirical value)**	**Target s.d.**	**0,107 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	3,093	0,009	0,2	3,086	3,099	ISO 17025	XRF (fusion)	-
03	3,060	0,000	-0,1	3,061	3,060	no accreditation	XRF (fusion)	ISO 29581-2
04	3,260		1,7	3,260		ISO 17025	ICP-OES	-
06	3,360	0,085	2,7	3,420	3,300	no accreditation	Wet chemistry EN196-2	C
07	3,130	0,028	0,5	3,110	3,150	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	3,226	0,023	1,4	3,209	3,242	no accreditation	XRF (fusion)	-
11	3,035	0,007	-0,4	3,040	3,030	no accreditation	XRF (fusion)	-
14	2,970	0,014	-1,0	2,980	2,960	no accreditation	XRF (fusion)	-
15	2,980	0,000	-0,9	2,980	2,980	no accreditation	XRF (fusion)	-
17	3,056	0,016	-0,2	3,068	3,045	no accreditation	XRF (fusion)	-
18	3,047		-0,3	3,047		no accreditation	XRF (fusion)	-
19	3,065	0,007	-0,1	3,060	3,070	no accreditation	XRF (fusion)	-
20	2,837	0,026	-2,2	2,818	2,855	no accreditation	XRF (fusion)	-
21	3,020	0,014	-0,5	3,030	3,010	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	3,495	0,007	3,9	3,500	3,490	no accreditation	XRF (fusion)	-
23	3,149	0,012	0,7	3,157	3,140	ISO 17025	XRF (Pellet) info only	
24	3,026	0,015	-0,5	3,036	3,015	no accreditation	XRF (fusion)	-
25	3,005	0,007	-0,7	3,000	3,010	ISO 17025	XRF (fusion)	-
26	3,014	0,015	-0,6	3,004	3,025	ISO 17025	XRF (fusion)	-
28	3,103	0,011	0,3	3,110	3,095	ISO 17025	XRF (fusion)	-
29	3,035	0,007	-0,4	3,030	3,040	ISO 17025	XRF (fusion)	-
31	2,980	0,014	-0,9	2,990	2,970	ISO 17025	XRF (fusion)	-
32	2,995	0,007	-0,7	2,990	3,000	no accreditation	XRF (fusion)	-
33	2,945	0,007	-1,2	2,940	2,950	no accreditation	XRF (Pellet) info only	-
34	3,105	0,021	0,3	3,120	3,090	no accreditation	XRF (fusion)	-
36	2,990	0,014	-0,8	2,980	3,000	ISO 17025	XRF (fusion)	-
37	3,200	0,000	1,2	3,200	3,200	no accreditation	XRF (fusion)	-
38	3,080		0,0	3,080		ISO 17025	XRF (fusion)	-
40	3,000	0,014	-0,7	2,990	3,010	ISO 17025	XRF (fusion)	-
41	3,170	0,170	0,9	3,050	3,290	no accreditation	ICP-OES	C
42	2,020	0,071	-9,8	2,070	1,970	no accreditation	XRF (fusion)	C
43	2,274	0,063	-7,5	2,230	2,319	no accreditation	other	C, TXRF
44	3,280	0,014	1,9	3,290	3,270	no accreditation	XRF (fusion)	-
45	3,215	0,007	1,3	3,210	3,220	ISO 17025	XRF (fusion)	-
47	3,070	0,000	0,0	3,070	3,070	ISO 17025	XRF (fusion)	-
48	2,905	0,021	-1,6	2,890	2,920	ISO 17025	XRF (fusion)	-
49	3,115	0,007	0,4	3,120	3,110	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	3,285	0,007	2,0	3,280	3,290	no accreditation	XRF (fusion)	-
51	3,035	0,007	-0,4	3,030	3,040	no accreditation	XRF (fusion)	-
52	2,818	0,023	-2,4	2,802	2,834	no accreditation	XRF (Pellet) info only	EDRFA
53	2,925	0,007	-1,4	2,930	2,920	no accreditation	XRF (fusion)	-
55	3,003	0,001	-0,7	3,004	3,003	no accreditation	XRF (fusion)	Reconstitution Method
56	3,120		0,4	3,120		no accreditation	XRF (fusion)	-
57	3,122	0,000	0,4	3,122	3,123	ISO 17025	XRF (fusion)	-
59	3,100	0,000	0,2	3,100	3,100	no accreditation	XRF (fusion)	-

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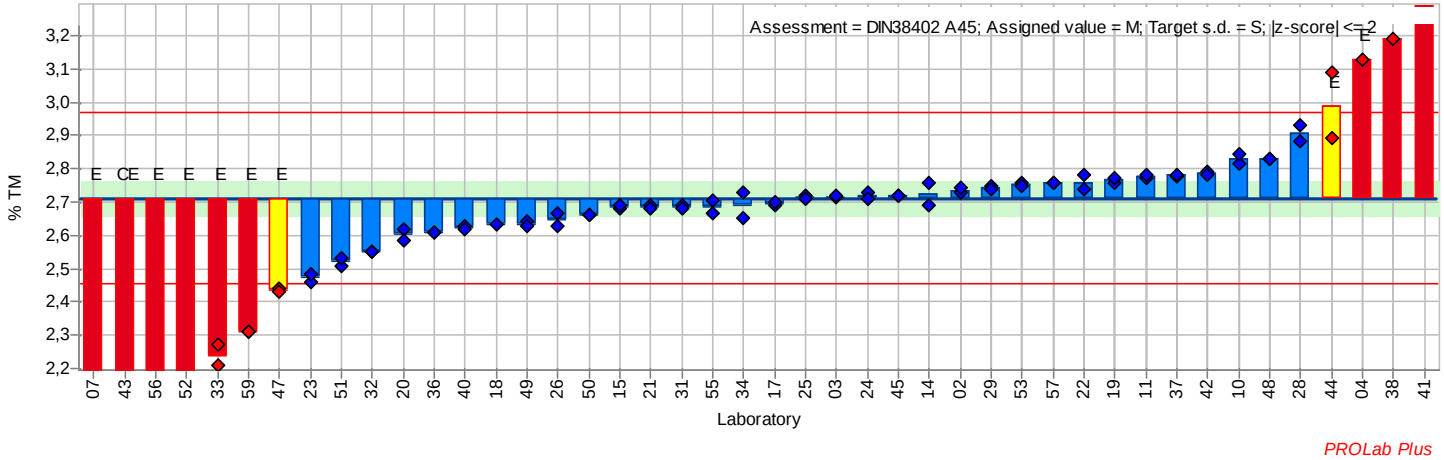
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,129 % TM**
Measurand:	**K2O**	**Repeat. s.d**	**0,010 % TM**
Mean ± U(Mean):	**2,712 ± 0,052 % TM**	**Range of tolerance:**	**2,454 - 2,970 % TM (|z-score| <= 2,0)**
No. of laboratories:	**39**	**Sample**	**DIN 38402 A45**
Assigned value	**2,712 % TM (Empirical value)**	**Target s.d.**	**0,129 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	2,736	0,010	0,2	2,729	2,743	ISO 17025	XRF (fusion)	-
03	2,716	0,003	0,0	2,715	2,718	no accreditation	XRF (fusion)	ISO 29581-2
04	3,130		3,2	3,130		ISO 17025	ICP-OES	-
07	1,720	0,014	-7,7	1,710	1,730	no accreditation	XRF (fusion)	-
10	2,829	0,021	0,9	2,814	2,844	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	2,775	0,007	0,5	2,770	2,780	no accreditation	XRF (fusion)	-
14	2,725	0,049	0,1	2,760	2,690	no accreditation	XRF (fusion)	-
15	2,685	0,007	-0,2	2,680	2,690	no accreditation	XRF (fusion)	-
17	2,694	0,006	-0,1	2,690	2,698	no accreditation	XRF (fusion)	-
18	2,633		-0,6	2,633		no accreditation	XRF (fusion)	-
19	2,765	0,007	0,4	2,760	2,770	no accreditation	XRF (fusion)	-
20	2,602	0,026	-0,9	2,620	2,583	no accreditation	ICP-OES	-
21	2,685	0,007	-0,2	2,690	2,680	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	2,760	0,028	0,4	2,740	2,780	no accreditation	XRF (fusion)	-
23	2,473	0,017	-1,8	2,461	2,485	ISO 17025	XRF (Pellet) info only	
24	2,718	0,013	0,0	2,727	2,708	no accreditation	XRF (fusion)	-
25	2,715	0,007	0,0	2,720	2,710	ISO 17025	XRF (fusion)	-
26	2,649	0,027	-0,5	2,668	2,630	ISO 17025	ICP-OES	-
28	2,906	0,035	1,5	2,881	2,931	ISO 17025	XRF (fusion)	-
29	2,745	0,007	0,3	2,750	2,740	ISO 17025	XRF (fusion)	-
31	2,685	0,007	-0,2	2,690	2,680	ISO 17025	XRF (fusion)	-
32	2,550	0,000	-1,3	2,550	2,550	no accreditation	XRF (fusion)	-
33	2,240	0,042	-3,7	2,270	2,210	no accreditation	XRF (Pellet) info only	-
34	2,690	0,057	-0,2	2,730	2,650	no accreditation	XRF (fusion)	-
36	2,610	0,000	-0,8	2,610	2,610	no accreditation	other	AAS
37	2,780	0,003	0,5	2,778	2,782	no accreditation	XRF (fusion)	-
38	3,190		3,7	3,190		ISO 17025	ICP-OES	-
40	2,625	0,007	-0,7	2,630	2,620	ISO 17025	XRF (fusion)	-
41	3,695	0,474	7,6	3,360	4,030	no accreditation	ICP-OES	C
42	2,785	0,007	0,6	2,790	2,780	no accreditation	XRF (fusion)	-
43	1,807	0,089	-7,0	1,744	1,870	no accreditation	other	C, TXRF
44	2,990	0,141	2,2	2,890	3,090	no accreditation	XRF (fusion)	C
45	2,720	0,000	0,1	2,720	2,720	ISO 17025	XRF (fusion)	-
47	2,435	0,007	-2,1	2,440	2,430	ISO 17025	XRF (fusion)	-
48	2,830	0,000	0,9	2,830	2,830	ISO 17025	XRF (fusion)	-
49	2,635	0,007	-0,6	2,640	2,630	no accreditation	XRF (fusion)	-
50	2,660	0,000	-0,4	2,660	2,660	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	2,520	0,014	-1,5	2,510	2,530	no accreditation	XRF (fusion)	-
52	2,184	0,001	-4,1	2,184	2,185	no accreditation	XRF (Pellet) info only	EDRFA
53	2,755	0,007	0,3	2,760	2,750	no accreditation	XRF (fusion)	-
55	2,687	0,026	-0,2	2,668	2,705	no accreditation	XRF (fusion)	Reconstitution Method
56	2,160		-4,3	2,160		no accreditation	XRF (fusion)	-
57	2,757	0,000	0,3	2,756	2,757	ISO 17025	XRF (fusion)	-
59	2,310	0,000	-3,1	2,310	2,310	no accreditation	XRF (fusion)	-

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RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,147 % TM**
Measurand:	**LOI (1h @ 950°C) observed**	**Repeat. s.d**	**0,019 % TM**
Mean ± U(Mean):	**4,148 ± 0,055 % TM**	**Range of tolerance:**	**3,854 - 4,443 % TM (|z-score| <= 2,0)**
No. of laboratories:	**44**	**Sample**	**DIN 38402 A45**
Assigned value	**4,148 % TM (Empirical value)**	**Target s.d.**	**0,147 % TM (Empirical value)**

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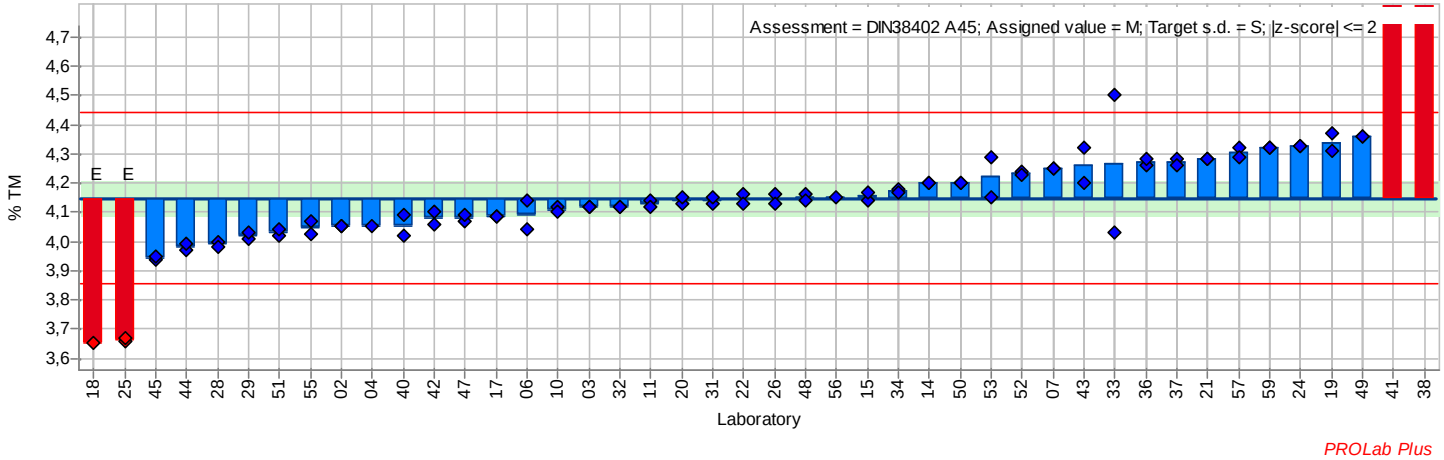

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	4,050	0,000	-0,7	4,050	4,050	ISO 17025	1h@950°C	-
03	4,120	0,000	-0,2	4,120	4,120	no accreditation	Wet chemistry EN196-2	-
04	4,050		-0,7	4,050		ISO 17025	1h@950°C	-
06	4,090	0,071	-0,4	4,140	4,040	no accreditation	Wet chemistry EN196-2	-
07	4,250	0,000	0,7	4,250	4,250	no accreditation	1h@950°C	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	4,110	0,014	-0,3	4,120	4,100	no accreditation	XRF (fusion)	-
11	4,130	0,014	-0,1	4,140	4,120	no accreditation	Wet chemistry EN196-2	-
14	4,200	0,000	0,3	4,200	4,200	no accreditation	1h@950°C	corr. EN 196-2
15	4,155	0,021	0,0	4,140	4,170	no accreditation	1h@950°C	-
17	4,085	0,003	-0,4	4,083	4,087	no accreditation	1h@950°C	-
18	3,650		-3,4	3,650		no accreditation	1h@950°C	-
19	4,340	0,042	1,3	4,370	4,310	no accreditation	1h@950°C	-
20	4,140	0,014	-0,1	4,130	4,150	no accreditation	1h@950°C	-
21	4,280	0,000	0,9	4,280	4,280	ISO 17025	Wet chemistry EN196-2	-
22	4,145	0,021	0,0	4,160	4,130	no accreditation	1h@950°C	-
24	4,327	0,000	1,2	4,327	4,327	no accreditation	1h@950°C	-
25	3,665	0,007	-3,3	3,660	3,670	ISO 17025	1h@950°C	-
26	4,145	0,021	0,0	4,160	4,130	ISO 17025	1h@950°C	-
28	3,990	0,014	-1,1	4,000	3,980	ISO 17025	1h@950°C	-
29	4,020	0,014	-0,9	4,010	4,030	ISO 17025	1h@950°C	-
31	4,140	0,014	-0,1	4,130	4,150	no accreditation	1h@950°C	-
32	4,120	0,000	-0,2	4,120	4,120	no accreditation	1h@950°C	-
33	4,265	0,332	0,8	4,030	4,500	no accreditation	1h@950°C	C
34	4,175	0,007	0,2	4,180	4,170	no accreditation	1h@950°C	-
36	4,270	0,014	0,8	4,260	4,280	ISO 17025	1h@950°C	-
37	4,270	0,014	0,8	4,280	4,260	no accreditation	1h@950°C	-
38	8,840		31,9	8,840		no accreditation	1h@950°C	-
40	4,055	0,049	-0,6	4,020	4,090	ISO 17025	XRF (fusion)	-
41	5,520	0,156	9,3	5,630	5,410	no accreditation	1h@950°C	C
42	4,080	0,028	-0,5	4,060	4,100	no accreditation	1h@950°C	-
43	4,260	0,085	0,8	4,200	4,320	no accreditation	1h@950°C	-
44	3,980	0,014	-1,1	3,970	3,990	no accreditation	1h@950°C	-
45	3,945	0,007	-1,4	3,940	3,950	ISO 17025	1h@950°C	-
47	4,080	0,014	-0,5	4,070	4,090	no accreditation	1h@950°C	-
48	4,150	0,014	0,0	4,160	4,140	ISO 17025	1h@950°C	-
49	4,360	0,000	1,4	4,360	4,360	no accreditation	combustion	-
50	4,200	0,000	0,3	4,200	4,200	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	4,030	0,014	-0,8	4,020	4,040	ISO 17025	XRF (fusion)	-
52	4,235	0,007	0,6	4,240	4,230	no accreditation	1h@950°C	-
53	4,220	0,099	0,5	4,290	4,150	no accreditation	1h@950°C	-
55	4,045	0,032	-0,7	4,023	4,068	no accreditation	1h@950°C	Reconstitution Method
56	4,150		0,0	4,150		no accreditation	1h@950°C	-
57	4,305	0,021	1,1	4,320	4,290	ISO 17025	1h@950°C	-
59	4,320	0,000	1,2	4,320	4,320	no accreditation	1h@950°C	-

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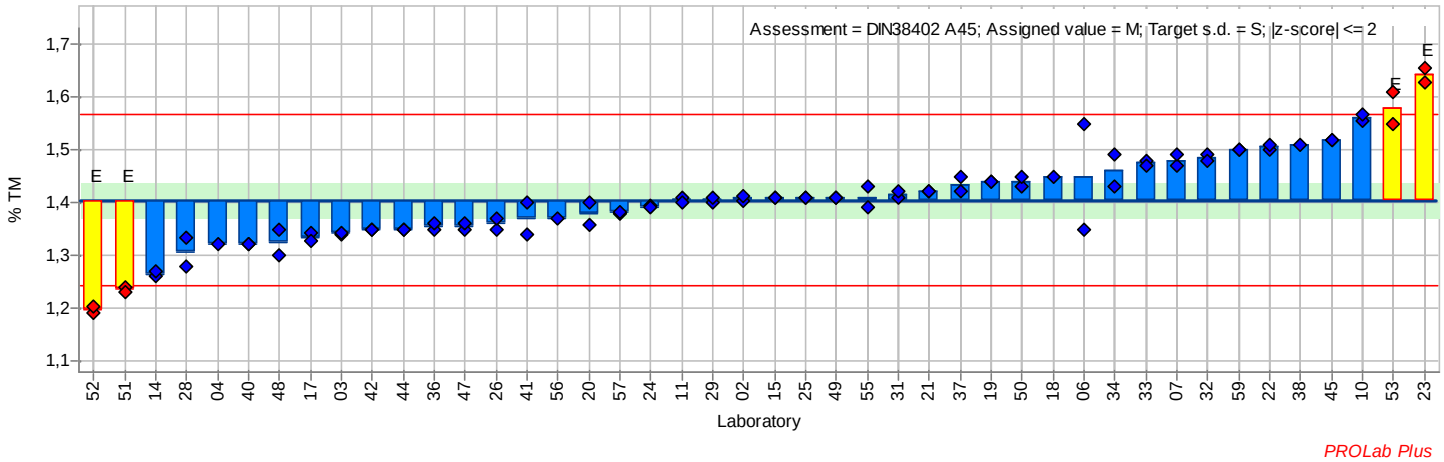
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,082 % TM**
Measurand:	**MgO**	**Repeat. s.d**	**0,012 % TM**
Mean ± U(Mean):	**1,405 ± 0,032 % TM**	**Range of tolerance:**	**1,241 - 1,568 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**1,405 % TM (Empirical value)**	**Target s.d.**	**0,082 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	1,408	0,006	0,0	1,404	1,412	ISO 17025	XRF (fusion)	-
03	1,342	0,003	-0,8	1,340	1,343	no accreditation	XRF (fusion)	ISO 29581-2
04	1,320		-1,0	1,320		ISO 17025	ICP-OES	-
06	1,450	0,141	0,6	1,550	1,350	no accreditation	Wet chemistry EN196-2	C
07	1,480	0,014	0,9	1,470	1,490	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	1,561	0,007	1,9	1,556	1,566	no accreditation	XRF (fusion)	-
11	1,405	0,007	0,0	1,410	1,400	no accreditation	XRF (fusion)	-
14	1,265	0,007	-1,7	1,260	1,270	no accreditation	XRF (fusion)	-
15	1,410	0,000	0,1	1,410	1,410	no accreditation	XRF (fusion)	-
17	1,335	0,012	-0,9	1,343	1,326	no accreditation	XRF (fusion)	-
18	1,448		0,5	1,448		no accreditation	XRF (fusion)	-
19	1,440	0,000	0,4	1,440	1,440	no accreditation	XRF (fusion)	-
20	1,379	0,028	-0,3	1,399	1,359	no accreditation	XRF (fusion)	-
21	1,420	0,000	0,2	1,420	1,420	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	1,505	0,007	1,2	1,500	1,510	no accreditation	XRF (fusion)	-
23	1,642	0,020	2,9	1,656	1,628	ISO 17025	XRF (Pellet) info only	
24	1,392	0,003	-0,2	1,394	1,390	no accreditation	XRF (fusion)	-
25	1,410	0,000	0,1	1,410	1,410	ISO 17025	XRF (fusion)	-
26	1,361	0,015	-0,5	1,350	1,371	ISO 17025	XRF (fusion)	-
28	1,305	0,038	-1,2	1,278	1,332	ISO 17025	XRF (fusion)	-
29	1,405	0,007	0,0	1,400	1,410	ISO 17025	XRF (fusion)	-
31	1,415	0,007	0,1	1,410	1,420	ISO 17025	XRF (fusion)	-
32	1,485	0,007	1,0	1,490	1,480	no accreditation	XRF (fusion)	-
33	1,475	0,007	0,9	1,480	1,470	no accreditation	XRF (Pellet) info only	-
34	1,460	0,042	0,7	1,430	1,490	no accreditation	XRF (fusion)	-
36	1,355	0,007	-0,6	1,350	1,360	ISO 17025	XRF (fusion)	-
37	1,435	0,021	0,4	1,450	1,420	no accreditation	XRF (fusion)	-
38	1,510		1,3	1,510		ISO 17025	XRF (fusion)	-
40	1,320	0,000	-1,0	1,320	1,320	ISO 17025	XRF (fusion)	-
41	1,370	0,042	-0,4	1,340	1,400	no accreditation	ICP-OES	-
42	1,350	0,000	-0,7	1,350	1,350	no accreditation	XRF (fusion)	-
44	1,350	0,000	-0,7	1,350	1,350	no accreditation	XRF (fusion)	-
45	1,520	0,000	1,4	1,520	1,520	ISO 17025	XRF (fusion)	-
47	1,355	0,007	-0,6	1,350	1,360	ISO 17025	XRF (fusion)	-
48	1,325	0,035	-1,0	1,300	1,350	ISO 17025	XRF (fusion)	-
49	1,410	0,000	0,1	1,410	1,410	no accreditation	XRF (fusion)	-
50	1,440	0,014	0,4	1,430	1,450	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	1,235	0,007	-2,1	1,240	1,230	no accreditation	XRF (fusion)	-
52	1,198	0,009	-2,5	1,191	1,204	no accreditation	XRF (Pellet) info only	EDRFA
53	1,580	0,042	2,1	1,610	1,550	no accreditation	XRF (fusion)	-
55	1,410	0,028	0,1	1,430	1,391	no accreditation	XRF (fusion)	Reconstitution Method
56	1,370		-0,4	1,370		no accreditation	XRF (fusion)	-
57	1,381	0,003	-0,3	1,379	1,383	ISO 17025	XRF (fusion)	-
59	1,500	0,000	1,2	1,500	1,500	no accreditation	XRF (fusion)	-

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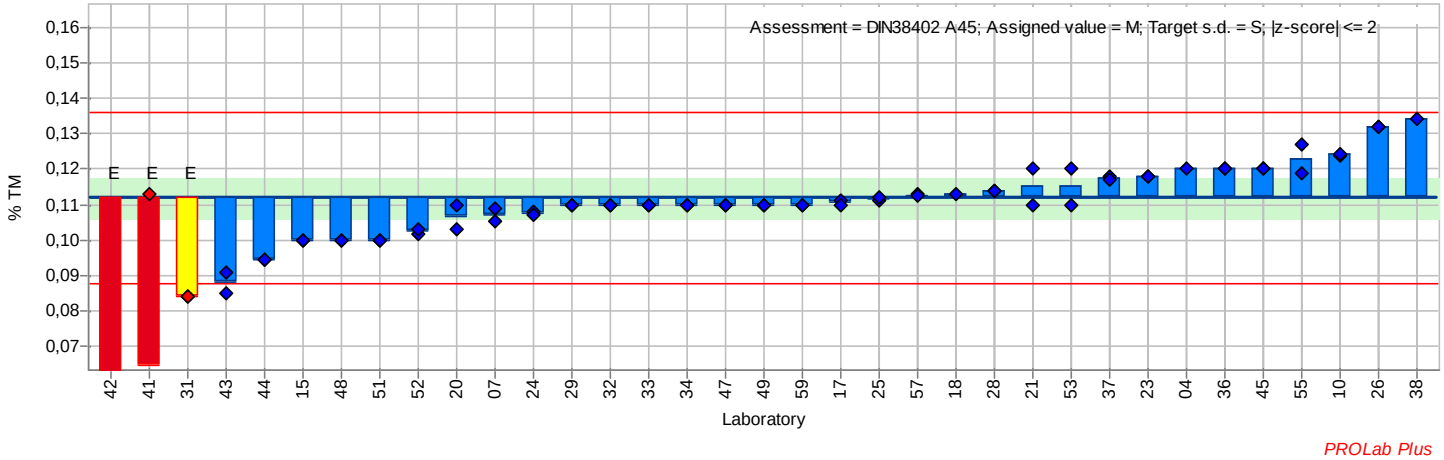
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,012 % TM**
Measurand:	**Mn2O3**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,112 ± 0,006 % TM**	**Range of tolerance:**	**0,088 - 0,136 % TM (|z-score| <= 2,0)**
No. of laboratories:	**30**	**Sample**	**DIN 38402 A45**
Assigned value	**0,112 % TM (Empirical value)**	**Target s.d.**	**0,012 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
04	0,120		0,7	0,120		ISO 17025	ICP-OES	-
07	0,107	0,002	-0,4	0,109	0,105	no accreditation	XRF (Pellet) info only	
10	0,124	0,000	1,0	0,124	0,124	no accreditation	XRF (fusion)	-
14								-
15	0,100	0,000	-1,0	0,100	0,100	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
17	0,111	0,001	-0,1	0,111	0,110	no accreditation	XRF (fusion)	-
18	0,113		0,1	0,113		no accreditation	XRF (fusion)	-
20	0,106	0,005	-0,4	0,103	0,110	no accreditation	XRF (fusion)	-
21	0,115	0,007	0,3	0,120	0,110	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,118	0,000	0,5	0,118	0,118	ISO 17025	XRF (Pellet) info only	
24	0,107	0,001	-0,4	0,108	0,107	no accreditation	XRF (fusion)	-
25	0,112	0,001	0,0	0,111	0,112	ISO 17025	XRF (fusion)	-
26	0,132	0,000	1,7	0,132	0,132	ISO 17025	XRF (fusion)	-
28	0,114	0,000	0,2	0,114	0,114	ISO 17025	XRF (fusion)	-
29	0,110	0,000	-0,2	0,110	0,110	ISO 17025	XRF (fusion)	-
31	0,084	0,000	-2,3	0,084	0,084	ISO 17025	ICP-OES	digestion in aqua regia
32	0,110	0,000	-0,2	0,110	0,110	no accreditation	XRF (fusion)	-
33	0,110	0,000	-0,2	0,110	0,110	no accreditation	XRF (Pellet) info only	-
34	0,110	0,000	-0,2	0,110	0,110	no accreditation	XRF (fusion)	-
36	0,120	0,000	0,7	0,120	0,120	ISO 17025	XRF (fusion)	-
37	0,117	0,001	0,5	0,118	0,117	no accreditation	XRF (fusion)	-
38	0,134		1,8	0,134		ISO 17025	ICP-OES	-
41	0,065	0,069	-3,9	0,016	0,113	no accreditation	ICP-OES	C
42	0,057	0,001	-4,5	0,058	0,056	no accreditation	XRF (fusion)	-
43	0,088	0,004	-2,0	0,085	0,091	no accreditation	other	TXRF
44	0,095	0,000	-1,4	0,095	0,095	no accreditation	XRF (fusion)	calc. from MnO
45	0,120	0,000	0,7	0,120	0,120	ISO 17025	XRF (fusion)	-
47	0,110	0,000	-0,2	0,110	0,110	no accreditation	XRF (fusion)	-
48	0,100	0,000	-1,0	0,100	0,100	ISO 17025	XRF (fusion)	-
49	0,110	0,000	-0,2	0,110	0,110	no accreditation	XRF (fusion)	-
51	0,100	0,000	-1,0	0,100	0,100	no accreditation	XRF (fusion)	-
52	0,102	0,001	-0,8	0,102	0,103	no accreditation	XRF (Pellet) info only	EDRFA
53	0,115	0,007	0,3	0,120	0,110	no accreditation	XRF (fusion)	-
55	0,123	0,006	0,9	0,127	0,119	no accreditation	XRF (fusion)	Reconstitution Method
57	0,113	0,000	0,1	0,113	0,113	ISO 17025	XRF (fusion)	-
59	0,110	0,000	-0,2	0,110	0,110	no accreditation	XRF (fusion)	-

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RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,111 % TM**
Measurand:	**Na2O**	**Repeat. s.d**	**0,015 % TM**
Mean ± U(Mean):	**1,222 ± 0,047 % TM**	**Range of tolerance:**	**0,999 - 1,444 % TM (|z-score| <= 2,0)**
No. of laboratories:	**35**	**Sample**	**DIN 38402 A45**
Assigned value	**1,222 % TM (Empirical value)**	**Target s.d.**	**0,111 % TM (Empirical value)**

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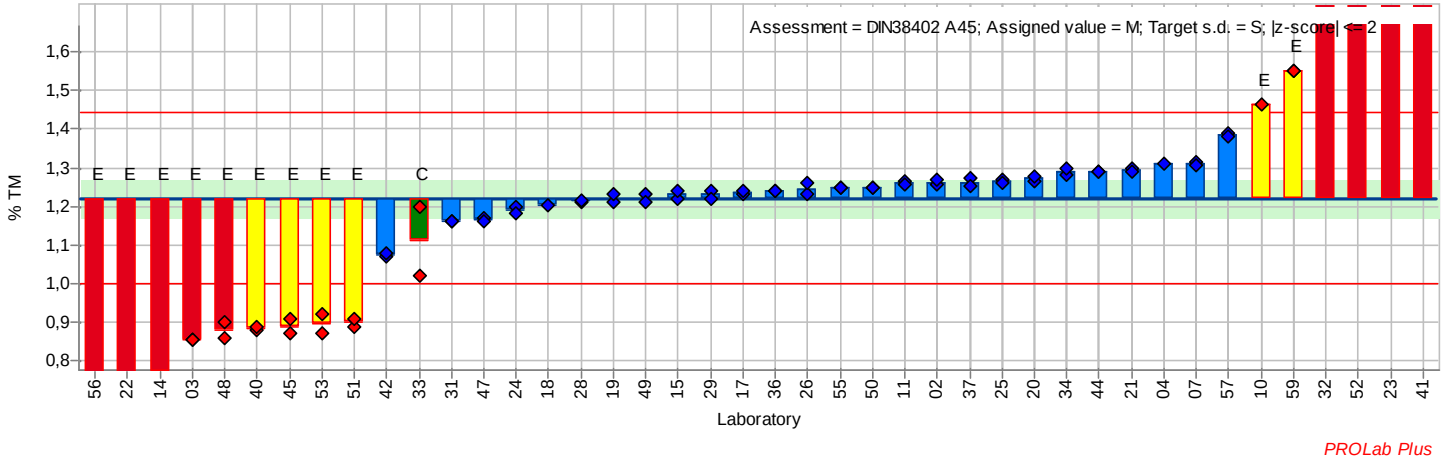

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	1,262	0,008	0,4	1,256	1,268	ISO 17025	XRF (fusion)	-
03	0,854	0,001	-3,3	0,853	0,854	no accreditation	XRF (fusion)	ISO 29581-2
04	1,310		0,8	1,310		ISO 17025	ICP-OES	-
07	1,311	0,007	0,8	1,316	1,306	no accreditation	XRF (Pellet) info only	
10	1,465		2,2	1,465	<0,014	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	1,261	0,006	0,4	1,266	1,257	no accreditation	XRF (fusion)	-
14	0,770	0,000	-4,1	0,770	0,770	no accreditation	other	EDXRF fusion
15	1,230	0,014	0,1	1,220	1,240	no accreditation	XRF (fusion)	-
17	1,236	0,004	0,1	1,233	1,239	no accreditation	XRF (fusion)	-
18	1,204		-0,2	1,204		no accreditation	XRF (fusion)	-
19	1,220	0,014	0,0	1,210	1,230	no accreditation	XRF (fusion)	-
20	1,272	0,009	0,4	1,265	1,278	no accreditation	ICP-OES	-
21	1,295	0,007	0,7	1,300	1,290	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,350	0,000	-7,8	0,350	0,350	no accreditation	XRF (fusion)	-
23	3,004	0,110	16,0	2,926	3,082	ISO 17025	XRF (Pellet) info only	C
24	1,190	0,012	-0,3	1,198	1,181	no accreditation	XRF (fusion)	-
25	1,265	0,007	0,4	1,270	1,260	ISO 17025	XRF (fusion)	-
26	1,246	0,021	0,2	1,231	1,261	ISO 17025	ICP-OES	-
28	1,214	0,001	-0,1	1,213	1,214	ISO 17025	XRF (fusion)	-
29	1,230	0,014	0,1	1,240	1,220	ISO 17025	XRF (fusion)	-
31	1,160	0,000	-0,6	1,160	1,160	ISO 17025	XRF (fusion)	-
32	1,935	0,021	6,4	1,950	1,920	no accreditation	XRF (fusion)	-
33	1,110	0,127	-1,0	1,200	1,020	no accreditation	XRF (Pellet) info only	C
34	1,290	0,014	0,6	1,280	1,300	no accreditation	XRF (fusion)	-
36	1,240	0,000	0,2	1,240	1,240	no accreditation	other	AAS
37	1,263	0,014	0,4	1,273	1,253	no accreditation	XRF (fusion)	-
40	0,885	0,007	-3,0	0,880	0,890	no accreditation	other	AAS
41	6,900	2,942	51,0	4,820	8,980	no accreditation	ICP-OES	C
42	1,075	0,007	-1,3	1,070	1,080	no accreditation	XRF (fusion)	-
44	1,290	0,000	0,6	1,290	1,290	no accreditation	XRF (fusion)	-
45	0,890	0,028	-3,0	0,870	0,910	ISO 17025	XRF (fusion)	-
47	1,165	0,007	-0,5	1,170	1,160	ISO 17025	XRF (fusion)	-
48	0,880	0,028	-3,1	0,860	0,900	ISO 17025	XRF (fusion)	-
49	1,220	0,014	0,0	1,230	1,210	no accreditation	XRF (fusion)	-
50	1,250	0,000	0,3	1,250	1,250	no accreditation	XRF (fusion)	-
51	0,900	0,014	-2,9	0,890	0,910	no accreditation	XRF (fusion)	-
52	2,776	0,028	14,0	2,795	2,756	no accreditation	XRF (Pellet) info only	EDRFA

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
53	0,895	0,035	-2,9	0,920	0,870	no accreditation	XRF (fusion)	-
55	1,248	0,001	0,2	1,248	1,247	no accreditation	XRF (fusion)	Reconstitution Method
56	0,280		-8,5	0,280		no accreditation	XRF (fusion)	-
57	1,385	0,004	1,5	1,388	1,382	ISO 17025	XRF (fusion)	-
59	1,550	0,000	2,9	1,550	1,550	no accreditation	XRF (fusion)	-

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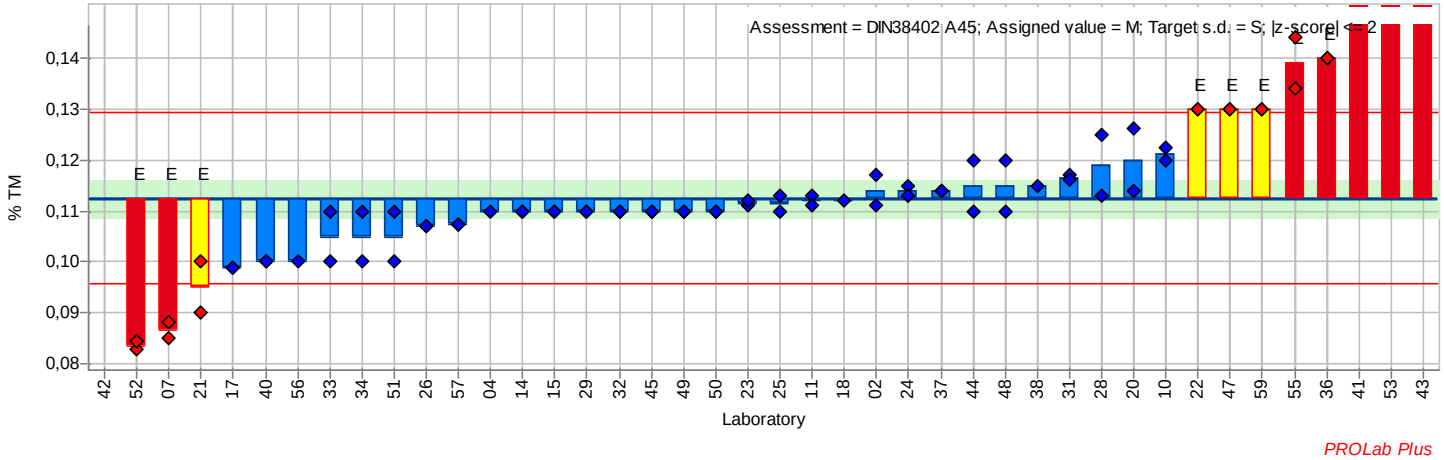
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,008 % TM**
Measurand:	**P2O5**	**Repeat. s.d**	**0,006 % TM**
Mean ± U(Mean):	**0,113 ± 0,004 % TM**	**Range of tolerance:**	**0,096 - 0,129 % TM (|z-score| <= 2,0)**
No. of laboratories:	**35**	**Sample**	**DIN 38402 A45**
Assigned value	**0,113 % TM (Empirical value)**	**Target s.d.**	**0,008 % TM (Empirical value)**

E

BE



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,114	0,004	0,2	0,111	0,117	ISO 17025	XRF (fusion)	-
04	0,110		-0,3	0,110		ISO 17025	ICP-OES	-
07	0,087	0,002	-3,1	0,085	0,088	no accreditation	XRF (Pellet) info only	
10	0,121	0,002	1,0	0,120	0,122	no accreditation	XRF (fusion)	-
11	0,112	0,001	-0,1	0,113	0,111	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
14	0,110	0,000	-0,3	0,110	0,110	no accreditation	XRF (fusion)	-
15	0,110	0,000	-0,3	0,110	0,110	no accreditation	XRF (fusion)	-
17	0,099	0,000	-1,6	0,099	0,099	no accreditation	XRF (fusion)	-
18	0,112		-0,1	0,112		no accreditation	XRF (fusion)	-
20	0,120	0,008	0,9	0,126	0,114	no accreditation	XRF (fusion)	-
21	0,095	0,007	-2,1	0,100	0,090	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,130	0,000	2,1	0,130	0,130	no accreditation	XRF (fusion)	-
23	0,112	0,001	-0,1	0,111	0,112	ISO 17025	XRF (Pellet) info only	
24	0,114	0,001	0,2	0,115	0,113	no accreditation	XRF (fusion)	-
25	0,112	0,002	-0,1	0,113	0,110	ISO 17025	XRF (fusion)	-
26	0,107	0,000	-0,7	0,107	0,107	ISO 17025	XRF (fusion)	-
28	0,119	0,008	0,8	0,113	0,125	ISO 17025	XRF (fusion)	-
29	0,110	0,000	-0,3	0,110	0,110	ISO 17025	XRF (fusion)	-
31	0,117	0,001	0,5	0,117	0,116	ISO 17025	XRF (fusion)	-
32	0,110	0,000	-0,3	0,110	0,110	no accreditation	XRF (fusion)	-
33	0,105	0,007	-0,9	0,100	0,110	no accreditation	XRF (Pellet) info only	-
34	0,105	0,007	-0,9	0,100	0,110	no accreditation	XRF (fusion)	-
36	0,140	0,000	3,3	0,140	0,140	no accreditation	XRF (fusion)	-
37	0,114	0,000	0,2	0,114	0,114	no accreditation	XRF (fusion)	-
38	0,115		0,3	0,115		ISO 17025	ICP-OES	-
40	0,100	0,000	-1,5	0,100	0,100	ISO 17025	XRF (fusion)	-
41	0,173	0,004	7,3	0,176	0,171	no accreditation	XRF (Pellet) info only	
42				<0,005	<0,005	no accreditation	XRF (fusion)	-
43	0,324	0,031	25,1	0,345	0,302	no accreditation	other	C, TXRF
44	0,115	0,007	0,3	0,110	0,120	no accreditation	XRF (fusion)	-
45	0,110	0,000	-0,3	0,110	0,110	ISO 17025	XRF (fusion)	-
47	0,130	0,000	2,1	0,130	0,130	ISO 17025	XRF (fusion)	-
48	0,115	0,007	0,3	0,110	0,120	ISO 17025	XRF (fusion)	-
49	0,110	0,000	-0,3	0,110	0,110	no accreditation	XRF (fusion)	-
50	0,110	0,000	-0,3	0,110	0,110	no accreditation	XRF (fusion)	-
51	0,105	0,007	-0,9	0,100	0,110	no accreditation	XRF (fusion)	-
52	0,084	0,001	-3,4	0,083	0,085	no accreditation	XRF (Pellet) info only	EDRFA

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
53	0,187	0,001	8,9	0,188	0,186	no accreditation	XRF (fusion)	-
55	0,139	0,007	3,2	0,134	0,144	no accreditation	XRF (fusion)	-
56	0,100		-1,5	0,100		no accreditation	XRF (fusion)	-
57	0,107	0,000	-0,6	0,107	0,107	ISO 17025	XRF (fusion)	-
59	0,130	0,000	2,1	0,130	0,130	no accreditation	XRF (fusion)	-

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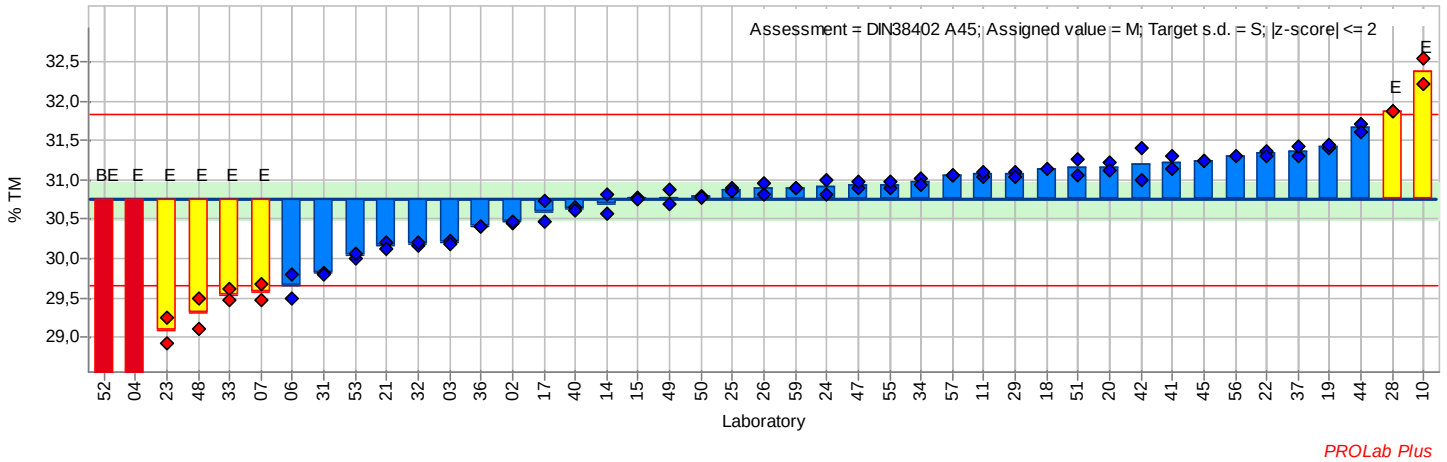
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,548 % TM**
Measurand:	**SiO2**	**Repeat. s.d**	**0,068 % TM**
Mean ± U(Mean):	**30,743 ± 0,242 % TM**	**Range of tolerance:**	**29,648 - 31,838 % TM (|z-score| <= 2,0)**
No. of laboratories:	**32**	**Sample**	**DIN 38402 A45**
Assigned value	**30,743 % TM (Empirical value)**	**Target s.d.**	**0,548 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	30,461	0,016	-0,5	30,449	30,472	ISO 17025	XRF (fusion)	-
03	30,203	0,027	-1,0	30,222	30,184	no accreditation	XRF (fusion)	ISO 29581-2
04	27,910		-5,2	27,910		ISO 17025	ICP-OES	-
06	29,650	0,212	-2,0	29,800	29,500	no accreditation	Wet chemistry EN196-2	precip.aided by gelatine
07	29,565	0,148	-2,2	29,670	29,460	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	32,375	0,233	3,0	32,210	32,540	no accreditation	XRF (fusion)	-
11	31,070	0,042	0,6	31,040	31,100	no accreditation	XRF (fusion)	-
14	30,690	0,184	-0,1	30,820	30,560	no accreditation	XRF (fusion)	-
15	30,765	0,007	0,0	30,770	30,760	no accreditation	XRF (fusion)	-
17	30,600	0,187	-0,3	30,732	30,468	no accreditation	XRF (fusion)	-
18	31,150		0,7	31,150		no accreditation	XRF (fusion)	-
19	31,425	0,021	1,2	31,410	31,440	no accreditation	XRF (fusion)	-
20	31,165	0,078	0,8	31,220	31,110	no accreditation	XRF (fusion)	-
21	30,165	0,049	-1,1	30,200	30,130	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	31,340	0,042	1,1	31,370	31,310	no accreditation	XRF (fusion)	-
23	29,075	0,233	-3,0	28,910	29,240	ISO 17025	XRF (Pellet) info only	
24	30,907	0,120	0,3	30,992	30,822	no accreditation	XRF (fusion)	-
25	30,870	0,028	0,2	30,890	30,850	ISO 17025	XRF (fusion)	-
26	30,887	0,097	0,3	30,819	30,956	ISO 17025	XRF (fusion)	-
28	31,873	0,006	2,1	31,869	31,878	ISO 17025	XRF (fusion)	-
29	31,070	0,042	0,6	31,100	31,040	ISO 17025	XRF (fusion)	-
31	29,810	0,014	-1,7	29,820	29,800	ISO 17025	XRF (fusion)	-
32	30,185	0,035	-1,0	30,160	30,210	no accreditation	XRF (fusion)	-
33	29,540	0,113	-2,2	29,620	29,460	no accreditation	XRF (Pellet) info only	-
34	30,975	0,064	0,4	31,020	30,930	no accreditation	XRF (fusion)	-
36	30,400	0,000	-0,6	30,400	30,400	ISO 17025	XRF (fusion)	-
37	31,365	0,078	1,1	31,310	31,420	no accreditation	XRF (fusion)	-
40	30,640	0,028	-0,2	30,660	30,620	ISO 17025	XRF (fusion)	-
41	31,220	0,127	0,9	31,130	31,310	no accreditation	XRF (Pellet) info only	
42	31,200	0,283	0,8	31,400	31,000	no accreditation	XRF (fusion)	-
44	31,660	0,071	1,7	31,710	31,610	no accreditation	XRF (fusion)	-
45	31,245	0,007	0,9	31,250	31,240	ISO 17025	XRF (fusion)	-
47	30,930	0,057	0,3	30,890	30,970	ISO 17025	XRF (fusion)	-
48	29,300	0,283	-2,6	29,500	29,100	ISO 17025	XRF (fusion)	-
49	30,780	0,127	0,1	30,870	30,690	no accreditation	XRF (fusion)	-
50	30,785	0,007	0,1	30,790	30,780	no accreditation	XRF (fusion)	-
51	31,160	0,141	0,8	31,060	31,260	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
52	23,995	0,120	-12,3	23,910	24,080	no accreditation	XRF (Pellet) info only	EDRFA
53	30,030	0,057	-1,3	29,990	30,070	no accreditation	XRF (fusion)	-
55	30,946	0,057	0,4	30,905	30,986	no accreditation	XRF (fusion)	Reconstitution Method
56	31,300		1,0	31,300		no accreditation	XRF (fusion)	-
57	31,056	0,007	0,6	31,051	31,060	ISO 17025	XRF (fusion)	-
59	30,890	0,000	0,3	30,890	30,890	no accreditation	XRF (fusion)	-

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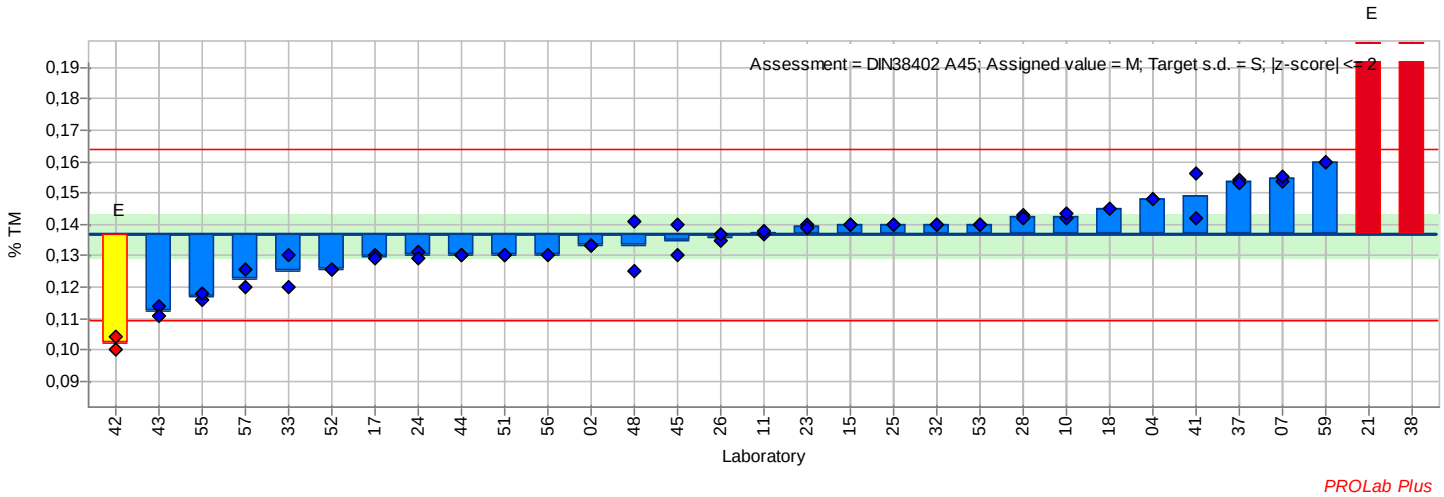
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,014 % TM**
Measurand:	**SrO**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,137 ± 0,007 % TM**	**Range of tolerance:**	**0,109 - 0,164 % TM (|z-score| <= 2,0)**
No. of laboratories:	**26**	**Sample**	**DIN 38402 A45**
Assigned value	**0,137 % TM (Empirical value)**	**Target s.d.**	**0,014 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,133	0,000	-0,3	0,133	0,133	ISO 17025	XRF (fusion)	-
04	0,148		0,8	0,148		ISO 17025	ICP-OES	-
07	0,155	0,001	1,3	0,154	0,155	no accreditation	XRF (Pellet) info only	
10	0,143	0,001	0,4	0,142	0,143	no accreditation	XRF (fusion)	-
11	0,138	0,001	0,1	0,137	0,138	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	0,140	0,000	0,3	0,140	0,140	no accreditation	XRF (fusion)	-
17	0,130	0,001	-0,5	0,130	0,129	no accreditation	XRF (fusion)	-
18	0,145		0,6	0,145		no accreditation	XRF (fusion)	-
21	0,200	0,004	4,6	0,202	0,197	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,140	0,001	0,2	0,140	0,139	ISO 17025	XRF (Pellet) info only	
24	0,130	0,001	-0,5	0,131	0,129	no accreditation	XRF (fusion)	-
25	0,140	0,000	0,3	0,140	0,140	ISO 17025	XRF (fusion)	-
26	0,136	0,001	0,0	0,135	0,137	ISO 17025	XRF (fusion)	-
28	0,142	0,001	0,4	0,143	0,142	ISO 17025	XRF (fusion)	-
32	0,140	0,000	0,3	0,140	0,140	no accreditation	XRF (fusion)	-
33	0,125	0,007	-0,8	0,120	0,130	no accreditation	XRF (Pellet) info only	-
37	0,153	0,001	1,2	0,154	0,153	no accreditation	XRF (fusion)	-
38	0,592		33,2	0,592		ISO 17025	ICP-OES	-
41	0,149	0,010	0,9	0,142	0,156	no accreditation	ICP-OES	-
42	0,102	0,003	-2,5	0,104	0,100	no accreditation	XRF (fusion)	-
43	0,112	0,002	-1,8	0,114	0,111	no accreditation	other	TXRF
44	0,130	0,000	-0,5	0,130	0,130	no accreditation	XRF (fusion)	-
45	0,135	0,007	-0,1	0,130	0,140	ISO 17025	XRF (fusion)	-
48	0,133	0,011	-0,3	0,141	0,125	ISO 17025	XRF (fusion)	-
51	0,130	0,000	-0,5	0,130	0,130	no accreditation	XRF (fusion)	-
52	0,126	0,000	-0,8	0,126	0,126	no accreditation	XRF (Pellet) info only	EDRFA
53	0,140	0,000	0,3	0,140	0,140	no accreditation	XRF (fusion)	-
55	0,117	0,001	-1,4	0,116	0,118	no accreditation	XRF (fusion)	Reconstitution Method
56	0,130		-0,5	0,130		no accreditation	XRF (fusion)	-
57	0,123	0,004	-1,0	0,120	0,125	ISO 17025	XRF (fusion)	-
59	0,160	0,000	1,7	0,160	0,160	no accreditation	XRF (fusion)	-

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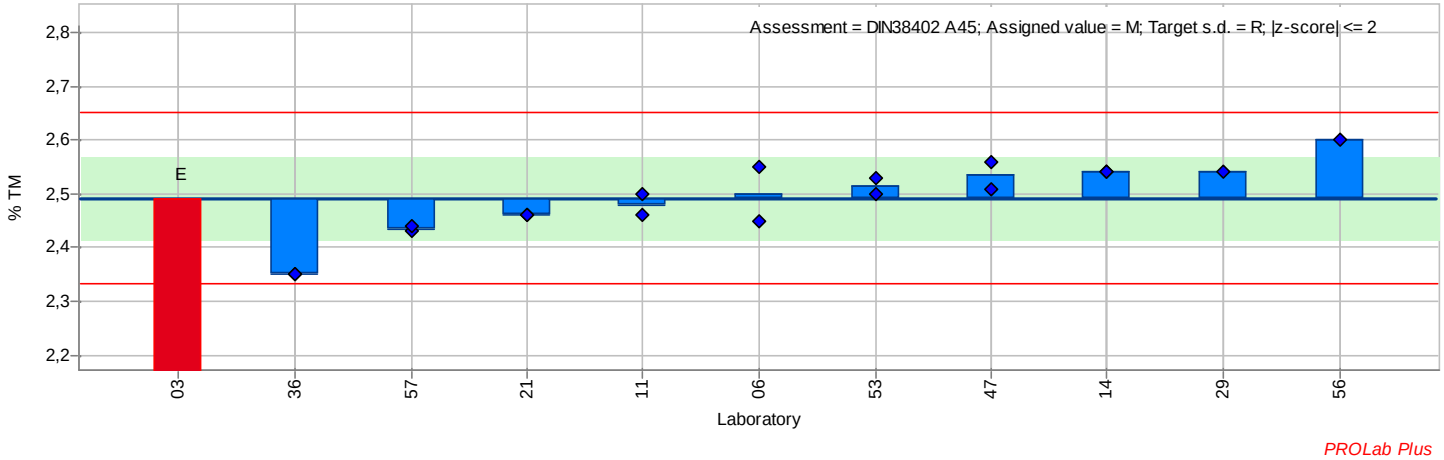
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,100 % TM**
Measurand:	**Sulfate expressed as SO3**	**Repeat. s.d**	**0,026 % TM**
Mean ± U(Mean):	**2,492 ± 0,076 % TM**	**Range of tolerance:**	**2,332 - 2,652 % TM (|z-score| <= 2,0)**
No. of laboratories:	**11**	**Sample**	**DIN 38402 A45**
Assigned value	**2,492 % TM (Empirical value)**	**Target s.d.**	**0,080 % TM (Reference value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
03	2,072	0,001	-5,2	2,071	2,073	no accreditation	Wet chemistry EN196-2	-
06	2,500	0,071	0,1	2,550	2,450	no accreditation	Wet chemistry EN196-2	-
11	2,480	0,028	-0,2	2,500	2,460	no accreditation	Wet chemistry EN196-2	-
14	2,540	0,000	0,6	2,540	2,540	no accreditation	Wet chemistry EN196-2	-
21	2,460	0,000	-0,4	2,460	2,460	ISO 17025	Wet chemistry EN196-2	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
29	2,540		0,6	2,540		ISO 17025	Wet chemistry EN196-2	-
36	2,350	0,000	-1,8	2,350	2,350	ISO 17025	Wet chemistry EN196-2	-
47	2,535	0,035	0,5	2,510	2,560	no accreditation	Wet chemistry EN196-2	-
53	2,515	0,021	0,3	2,530	2,500	no accreditation	Wet chemistry EN196-2	-
56	2,600		1,3	2,600		no accreditation	Wet chemistry EN196-2	-
57	2,435	0,007	-0,7	2,430	2,440	ISO 17025	Wet chemistry EN196-2	-

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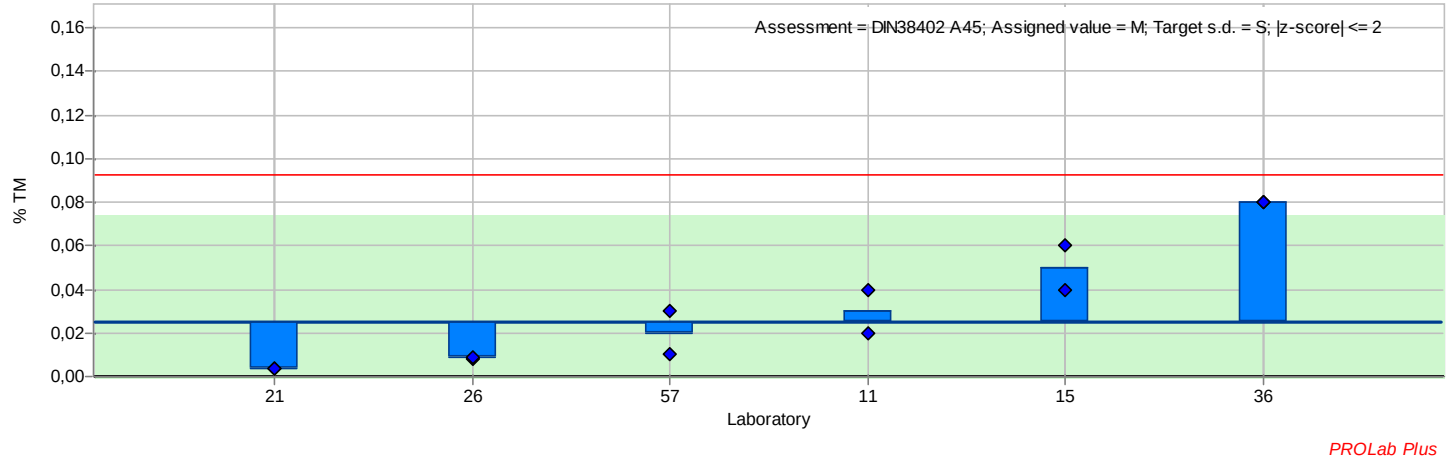
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,034 % TM**
Measurand:	**Sulfide expressed as S**	**Repeat. s.d**	**0,015 % TM**
Mean ± U(Mean):	**0,025 ± 0,049 % TM**	**Range of tolerance:**	**-0,043 - 0,093 % TM (|z-score| <= 2,0)**
No. of laboratories:	**3**	**Sample**	**DIN 38402 A45**
Assigned value	**0,025 % TM (Empirical value)**	**Target s.d.**	**0,034 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,030	0,014	0,2	0,020	0,040	no accreditation	Standardless info only	-
15	0,050	0,014	0,7	0,060	0,040	no accreditation	Wet chemistry EN196-2	-
21	0,004	0,000	-0,6	0,004	0,004	ISO 17025	Wet chemistry EN196-2	-
26	0,009	0,001	-0,5	0,008	0,009	ISO 17025	other	DIN 38405-D27
36	0,080	0,000	1,6	0,080	0,080	no accreditation	other	Calculation

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
57	0,020	0,014	-0,1	0,030	0,010	no accreditation	Wet chemistry EN196-2	SO4 difference

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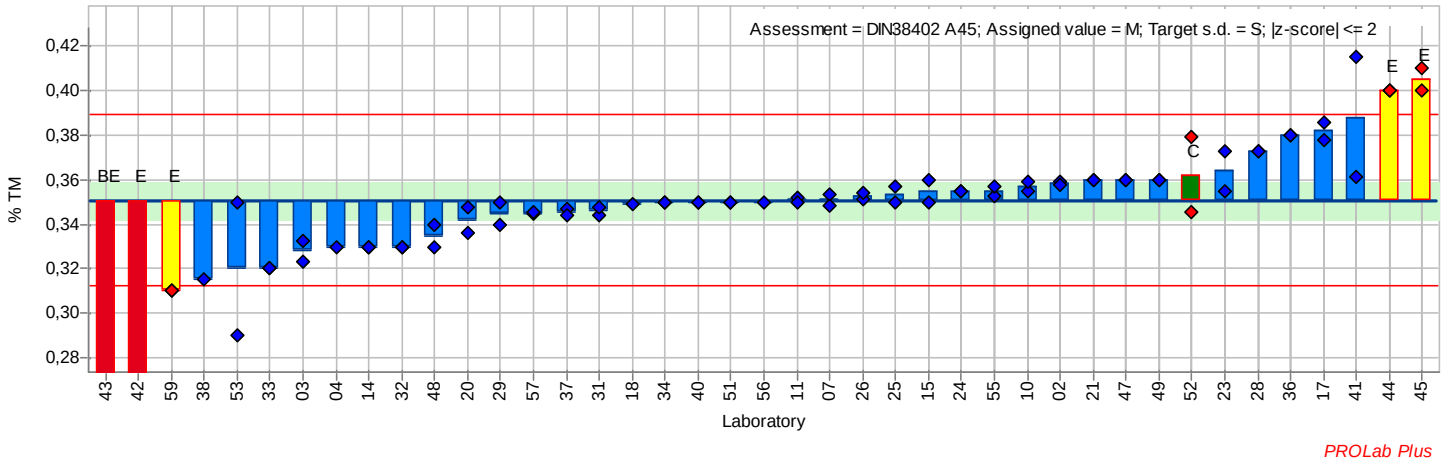
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,019 % TM**
Measurand:	**TiO2**	**Repeat. s.d**	**0,005 % TM**
Mean ± U(Mean):	**0,351 ± 0,008 % TM**	**Range of tolerance:**	**0,312 - 0,390 % TM (|z-score| <= 2,0)**
No. of laboratories:	**36**	**Sample**	**DIN 38402 A45**
Assigned value	**0,351 % TM (Empirical value)**	**Target s.d.**	**0,019 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,358	0,001	0,4	0,359	0,358	ISO 17025	XRF (fusion)	-
03	0,328	0,007	-1,2	0,333	0,324	no accreditation	XRF (fusion)	ISO 29581-2
04	0,330		-1,1	0,330		ISO 17025	ICP-OES	-
07	0,351	0,003	0,0	0,354	0,349	no accreditation	XRF (Pellet) info only	
10	0,357	0,003	0,3	0,355	0,359	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,351	0,001	0,0	0,352	0,350	no accreditation	XRF (fusion)	-
14	0,330	0,000	-1,1	0,330	0,330	no accreditation	XRF (fusion)	-
15	0,355	0,007	0,2	0,350	0,360	no accreditation	XRF (fusion)	-
17	0,382	0,006	1,6	0,378	0,386	no accreditation	XRF (fusion)	-
18	0,349		-0,1	0,349		no accreditation	XRF (fusion)	-
20	0,342	0,008	-0,5	0,336	0,348	no accreditation	XRF (fusion)	-
21	0,360	0,000	0,5	0,360	0,360	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,364	0,013	0,7	0,373	0,355	ISO 17025	XRF (Pellet) info only	
24	0,355	0,000	0,2	0,355	0,355	no accreditation	XRF (fusion)	-
25	0,353	0,005	0,1	0,357	0,350	ISO 17025	XRF (fusion)	-
26	0,352	0,002	0,1	0,351	0,354	ISO 17025	XRF (fusion)	-
28	0,373	0,000	1,1	0,373	0,373	ISO 17025	XRF (fusion)	-
29	0,345	0,007	-0,3	0,350	0,340	ISO 17025	XRF (fusion)	-
31	0,346	0,003	-0,3	0,344	0,348	ISO 17025	XRF (fusion)	-
32	0,330	0,000	-1,1	0,330	0,330	no accreditation	XRF (fusion)	-
33	0,320	0,000	-1,6	0,320	0,320	no accreditation	XRF (Pellet) info only	-
34	0,350	0,000	0,0	0,350	0,350	no accreditation	XRF (fusion)	-
36	0,380	0,000	1,5	0,380	0,380	ISO 17025	XRF (fusion)	-
37	0,345	0,002	-0,3	0,347	0,344	no accreditation	XRF (fusion)	-
38	0,315		-1,9	0,315		ISO 17025	ICP-OES	-
40	0,350	0,000	0,0	0,350	0,350	ISO 17025	XRF (fusion)	-
41	0,388	0,038	1,9	0,361	0,415	no accreditation	ICP-OES	C
42	0,233	0,008	-6,1	0,239	0,227	no accreditation	XRF (fusion)	-
43	0,203	0,015	-7,7	0,192	0,213	no accreditation	other	TXRF
44	0,400	0,000	2,5	0,400	0,400	no accreditation	XRF (fusion)	-
45	0,405	0,007	2,8	0,400	0,410	ISO 17025	XRF (fusion)	-
47	0,360	0,000	0,5	0,360	0,360	ISO 17025	XRF (fusion)	-
48	0,335	0,007	-0,8	0,340	0,330	ISO 17025	XRF (fusion)	-
49	0,360	0,000	0,5	0,360	0,360	no accreditation	XRF (fusion)	-
51	0,350	0,000	0,0	0,350	0,350	no accreditation	XRF (fusion)	-
52	0,362	0,024	0,6	0,345	0,379	no accreditation	XRF (Pellet) info only	C, EDXRF
53	0,320	0,042	-1,6	0,290	0,350	no accreditation	XRF (fusion)	C

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
55	0,355	0,003	0,2	0,353	0,357	no accreditation	XRF (fusion)	Reconstitution Method
56	0,350		0,0	0,350		no accreditation	XRF (fusion)	-
57	0,345	0,001	-0,3	0,345	0,346	ISO 17025	XRF (fusion)	-
59	0,310	0,000	-2,1	0,310	0,310	no accreditation	XRF (fusion)	-

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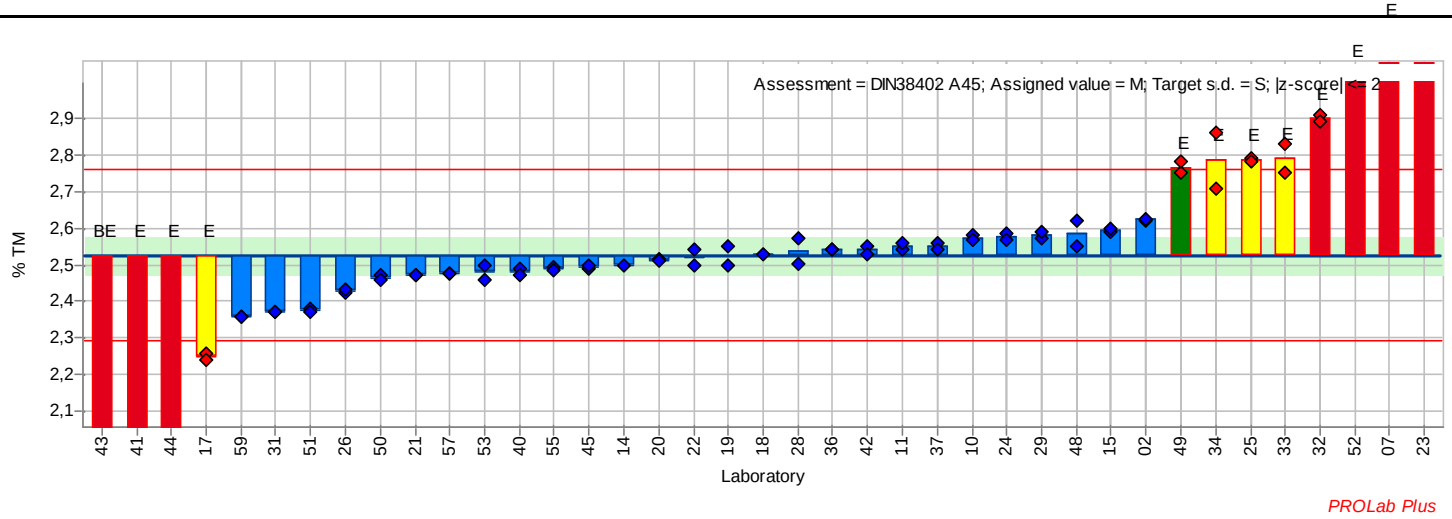
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,117 % TM**
Measurand:	**Total S expressed as SO3**	**Repeat. s.d**	**0,017 % TM**
Mean ± U(Mean):	**2,526 ± 0,051 % TM**	**Range of tolerance:**	**2,292 - 2,761 % TM (|z-score| <= 2,0)**
No. of laboratories:	**33**	**Sample**	**DIN 38402 A45**
Assigned value	**2,526 % TM (Empirical value)**	**Target s.d.**	**0,117 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	2,624	0,003	0,8	2,622	2,626	ISO 17025	XRF (fusion)	-
07	3,125	0,035	5,1	3,100	3,150	no accreditation	XRF (Pellet) info only	
10	2,574	0,008	0,4	2,579	2,568	no accreditation	XRF (fusion)	-
11	2,550	0,014	0,2	2,540	2,560	no accreditation	XRF (fusion)	-
14	2,500		-0,2	2,500		no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	2,595	0,007	0,6	2,590	2,600	no accreditation	XRF (fusion)	-
17	2,250	0,012	-2,4	2,258	2,241	no accreditation	XRF (fusion)	-
18	2,530		0,0	2,530		no accreditation	XRF (fusion)	-
19	2,525	0,035	0,0	2,500	2,550	no accreditation	XRF (fusion)	-
20	2,513	0,004	-0,1	2,515	2,510	no accreditation	combustion	-
21	2,470	0,000	-0,5	2,470	2,470	ISO 17025	Wet chemistry EN196-2	-
22	2,520	0,028	-0,1	2,540	2,500	no accreditation	XRF (fusion)	-
23	3,632	0,028	9,4	3,612	3,652	ISO 17025	XRF (Pellet) info only	
24	2,577	0,012	0,4	2,586	2,569	no accreditation	XRF (fusion)	-
25	2,785	0,007	2,2	2,790	2,780	ISO 17025	XRF (fusion)	-
26	2,429	0,006	-0,8	2,425	2,433	ISO 17025	combustion	-
28	2,536	0,048	0,1	2,570	2,502	ISO 17025	XRF (fusion)	-
29	2,580	0,014	0,5	2,570	2,590	ISO 17025	XRF (fusion)	-
31	2,370	0,000	-1,3	2,370	2,370	ISO 17025	combustion	-
32	2,900	0,014	3,2	2,910	2,890	no accreditation	XRF (fusion)	-
33	2,790	0,057	2,2	2,830	2,750	no accreditation	XRF (Pellet) info only	-
34	2,784	0,106	2,2	2,859	2,709	no accreditation	XRF (fusion)	C
36	2,540	0,000	0,1	2,540	2,540	no accreditation	other	SR3T gravimetric Bromine
37	2,550	0,014	0,2	2,560	2,540	no accreditation	XRF (fusion)	-
40	2,480	0,014	-0,4	2,490	2,470	ISO 17025	XRF (fusion)	-
41	0,940	0,028	-13,5	0,920	0,960	no accreditation	combustion	-
42	2,540	0,014	0,1	2,550	2,530	no accreditation	XRF (fusion)	-
43	0,817	0,027	-14,6	0,836	0,798	no accreditation	other	TXRF
44	2,010	0,014	-4,4	2,000	2,020	no accreditation	XRF (fusion)	-
45	2,495	0,007	-0,3	2,490	2,500	ISO 17025	combustion	-
48	2,585	0,049	0,5	2,550	2,620	ISO 17025	combustion	-
49	2,765	0,021	2,0	2,750	2,780	no accreditation	XRF (fusion)	-
50	2,465	0,007	-0,5	2,470	2,460	no accreditation	XRF (fusion)	-
51	2,375	0,007	-1,3	2,380	2,370	no accreditation	XRF (fusion)	-
52	3,016	0,011	4,2	3,024	3,008	no accreditation	XRF (Pellet) info only	EDRFA
53	2,480	0,028	-0,4	2,460	2,500	no accreditation	XRF (fusion)	-
55	2,490	0,007	-0,3	2,495	2,485	no accreditation	XRF (fusion)	Reconstitution Method

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
57	2,477	0,001	-0,4	2,477	2,478	ISO 17025	XRF (fusion)	-
59	2,360	0,000	-1,4	2,360	2,360	no accreditation	XRF (fusion)	-

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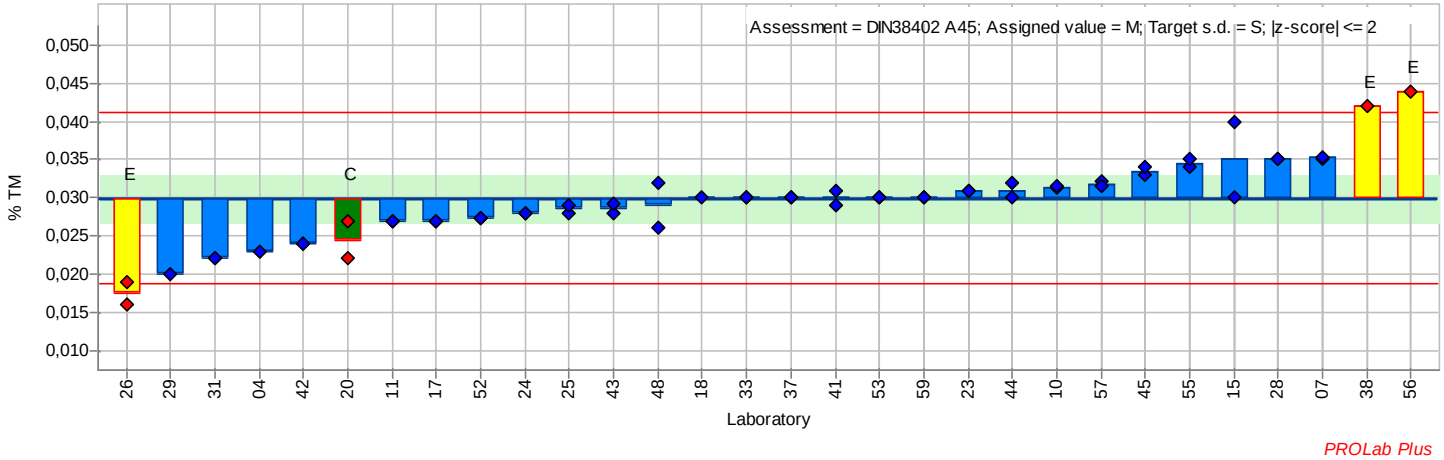
RV118

Sample:	**FLX-CRM 121**	**Reprod. s.d.**	**0,006 % TM**
Measurand:	**ZnO**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,030 ± 0,003 % TM**	**Range of tolerance:**	**0,019 - 0,041 % TM (|z-score| <= 2,0)**
No. of laboratories:	**23**	**Sample**	**DIN 38402 A45**
Assigned value	**0,030 % TM (Empirical value)**	**Target s.d.**	**0,006 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
04	0,023		-1,2	0,023		ISO 17025	ICP-OES	-
07	0,035	0,000	0,9	0,035	0,035	no accreditation	XRF (Pellet) info only	
10	0,031	0,000	0,3	0,031	0,031	no accreditation	XRF (fusion)	-
11	0,027	0,000	-0,5	0,027	0,027	no accreditation	XRF (fusion)	-
15	0,035	0,007	0,9	0,030	0,040	no accreditation	XRF (fusion)	C

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
17	0,027	0,000	-0,5	0,027	0,027	no accreditation	XRF (fusion)	-
18	0,030		0,0	0,030		no accreditation	XRF (fusion)	-
20	0,025	0,004	-1,0	0,027	0,022	no accreditation	XRF (Pellet) info only	C
23	0,031	0,000	0,2	0,031	0,031	ISO 17025	XRF (Pellet) info only	
24	0,028	0,000	-0,3	0,028	0,028	no accreditation	XRF (fusion)	-
25	0,029	0,001	-0,3	0,028	0,029	ISO 17025	XRF (fusion)	-
26	0,018	0,002	-2,2	0,016	0,019	ISO 17025	XRF (fusion)	-
28	0,035	0,000	0,9	0,035	0,035	ISO 17025	XRF (fusion)	-
29	0,020		-1,8	0,020		no accreditation	Standardless info only	fused bead trace
31	0,022	0,000	-1,4	0,022	0,022	ISO 17025	ICP-OES	digestion in aqua regia
33	0,030	0,000	0,0	0,030	0,030	no accreditation	XRF (Pellet) info only	-
37	0,030	0,000	0,0	0,030	0,030	no accreditation	XRF (fusion)	-
38	0,042		2,1	0,042		ISO 17025	ICP-OES	-
41	0,030	0,001	0,0	0,029	0,031	no accreditation	ICP-OES	-
42	0,024	0,000	-1,1	0,024	0,024	no accreditation	XRF (fusion)	-
43	0,029	0,001	-0,2	0,028	0,029	no accreditation	other	TXRF
44	0,031	0,001	0,2	0,032	0,030	no accreditation	XRF (fusion)	-
45	0,034	0,001	0,6	0,033	0,034	ISO 17025	XRF (fusion)	-
48	0,029	0,004	-0,2	0,032	0,026	ISO 17025	XRF (fusion)	C
52	0,027	0,000	-0,5	0,027	0,027	no accreditation	XRF (Pellet) info only	EDRFA
53	0,030	0,000	0,0	0,030	0,030	no accreditation	XRF (fusion)	-
55	0,035	0,001	0,8	0,034	0,035	no accreditation	XRF (fusion)	Reconstitution Method
56	0,044		2,5	0,044		no accreditation	XRF (fusion)	-
57	0,032	0,000	0,3	0,032	0,032	ISO 17025	XRF (fusion)	-
59	0,030	0,000	0,0	0,030	0,030	no accreditation	XRF (fusion)	-

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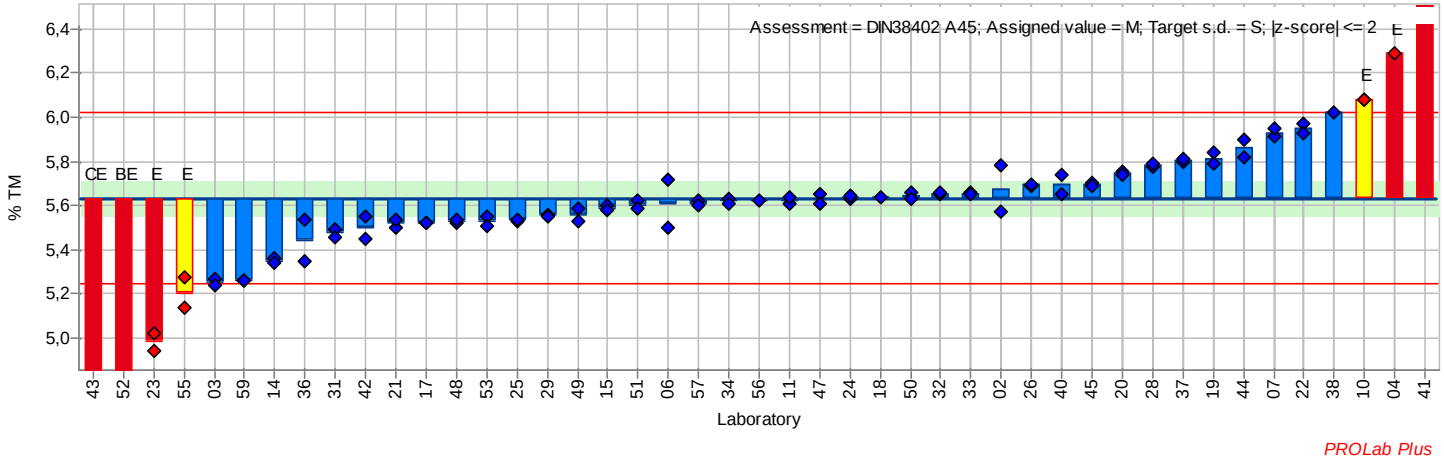
Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,195 % TM**
Measurand:	**Al2O3**	**Repeat. s.d**	**0,030 % TM**
Mean ± U(Mean):	**5,634 ± 0,076 % TM**	**Range of tolerance:**	**5,245 - 6,023 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**5,634 % TM (Empirical value)**	**Target s.d.**	**0,195 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	5,677	0,146	0,2	5,574	5,780	ISO 17025	XRF (fusion)	-
03	5,255	0,021	-1,9	5,270	5,240	no accreditation	XRF (fusion)	ISO 29581-2
04	6,290		3,4	6,290		ISO 17025	ICP-OES	-
06	5,610	0,156	-0,1	5,720	5,500	no accreditation	Wet chemistry EN196-2	-
07	5,930	0,028	1,5	5,910	5,950	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	6,079	0,002	2,3	6,077	6,080	no accreditation	XRF (fusion)	-
11	5,625	0,021	0,0	5,610	5,640	no accreditation	XRF (fusion)	-
14	5,350	0,014	-1,5	5,360	5,340	no accreditation	XRF (fusion)	-
15	5,590	0,014	-0,2	5,600	5,580	no accreditation	XRF (fusion)	-
17	5,524	0,002	-0,6	5,525	5,522	no accreditation	XRF (fusion)	-
18	5,640		0,0	5,640		no accreditation	XRF (fusion)	-
19	5,815	0,035	0,9	5,840	5,790	no accreditation	XRF (fusion)	-
20	5,747	0,007	0,6	5,752	5,742	no accreditation	XRF (fusion)	-
21	5,520	0,028	-0,6	5,500	5,540	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	5,950	0,028	1,6	5,970	5,930	no accreditation	XRF (fusion)	-
23	4,984	0,055	-3,3	5,023	4,945	ISO 17025	XRF (Pellet) info only	
24	5,638	0,008	0,0	5,632	5,644	no accreditation	XRF (fusion)	-
25	5,535	0,007	-0,5	5,530	5,540	ISO 17025	XRF (fusion)	-
26	5,692	0,006	0,3	5,688	5,697	ISO 17025	XRF (fusion)	-
28	5,780	0,011	0,8	5,773	5,788	ISO 17025	XRF (fusion)	-
29	5,555	0,007	-0,4	5,560	5,550	ISO 17025	XRF (fusion)	-
31	5,475	0,021	-0,8	5,490	5,460	ISO 17025	XRF (fusion)	-
32	5,655	0,007	0,1	5,650	5,660	no accreditation	XRF (fusion)	-
33	5,655	0,007	0,1	5,660	5,650	no accreditation	XRF (Pellet) info only	-
34	5,620	0,014	-0,1	5,630	5,610	no accreditation	XRF (fusion)	-
36	5,445	0,134	-1,0	5,540	5,350	ISO 17025	XRF (fusion)	-
37	5,805	0,007	0,9	5,800	5,810	no accreditation	XRF (fusion)	-
38	6,020		2,0	6,020		ISO 17025	XRF (fusion)	-
40	5,695	0,064	0,3	5,740	5,650	ISO 17025	XRF (fusion)	-
41	10,000	0,325	22,4	10,230	9,770	no accreditation	ICP-OES	C
42	5,500	0,071	-0,7	5,450	5,550	no accreditation	XRF (fusion)	-
43	1,373	0,289	-21,9	1,577	1,168	no accreditation	other	C, TXRF
44	5,860	0,057	1,2	5,820	5,900	no accreditation	XRF (fusion)	-
45	5,695	0,007	0,3	5,700	5,690	ISO 17025	XRF (fusion)	-
47	5,630	0,028	0,0	5,650	5,610	ISO 17025	XRF (fusion)	-
48	5,530	0,014	-0,5	5,520	5,540	ISO 17025	XRF (fusion)	-
49	5,560	0,042	-0,4	5,530	5,590	no accreditation	XRF (fusion)	-

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RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	5,645	0,021	0,1	5,660	5,630	no accreditation	XRF (fusion)	-
51	5,605	0,021	-0,1	5,620	5,590	no accreditation	XRF (fusion)	-
52	4,091	0,071	-7,9	4,040	4,141	no accreditation	XRF (Pellet) info only	EDRFA
53	5,530	0,028	-0,5	5,550	5,510	no accreditation	XRF (fusion)	-
55	5,206	0,095	-2,2	5,139	5,273	no accreditation	XRF (fusion)	Reconstitution Method
56	5,620		-0,1	5,620		no accreditation	XRF (fusion)	-
57	5,612	0,016	-0,1	5,623	5,601	ISO 17025	XRF (fusion)	-
59	5,260	0,000	-1,9	5,260	5,260	no accreditation	XRF (fusion)	-

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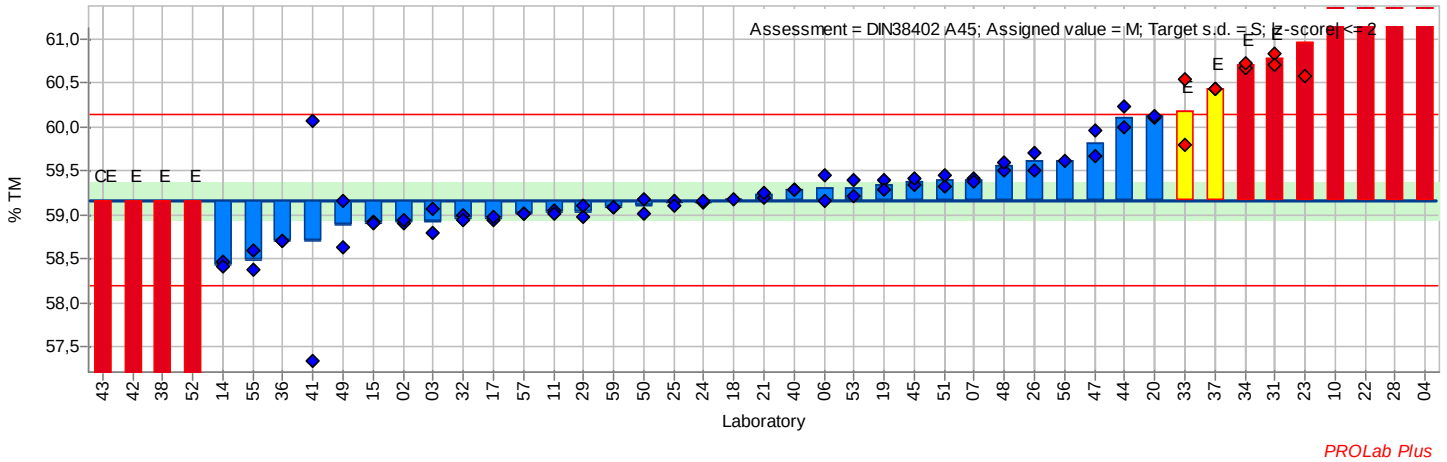
RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,488 % TM**
Measurand:	**CaO**	**Repeat. s.d**	**0,095 % TM**
Mean ± U(Mean):	**59,166 ± 0,209 % TM**	**Range of tolerance:**	**58,189 - 60,143 % TM (|z-score| <= 2,0)**
No. of laboratories:	**34**	**Sample**	**DIN 38402 A45**
Assigned value	**59,166 % TM (Empirical value)**	**Target s.d.**	**0,488 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	58,925	0,027	-0,5	58,906	58,944	ISO 17025	XRF (fusion)	-
03	58,927	0,196	-0,5	58,789	59,066	no accreditation	XRF (fusion)	ISO 29581-2
04	64,070		10,0	64,070		ISO 17025	ICP-OES	-
06	59,300	0,212	0,3	59,450	59,150	no accreditation	Wet chemistry EN196-2	-
07	59,400	0,028	0,5	59,420	59,380	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	61,870	0,212	5,5	61,720	62,020	no accreditation	XRF (fusion)	-
11	59,030	0,028	-0,3	59,050	59,010	no accreditation	XRF (fusion)	-
14	58,435	0,035	-1,5	58,460	58,410	no accreditation	XRF (fusion)	-
15	58,910	0,014	-0,5	58,920	58,900	no accreditation	XRF (fusion)	-
17	58,962	0,025	-0,4	58,944	58,980	no accreditation	XRF (fusion)	-
18	59,170		0,0	59,170		no accreditation	XRF (fusion)	-
19	59,345	0,078	0,4	59,400	59,290	no accreditation	XRF (fusion)	-
20	60,115	0,007	1,9	60,110	60,120	no accreditation	XRF (fusion)	-
21	59,225	0,035	0,1	59,200	59,250	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	62,020	0,028	5,8	62,040	62,000	no accreditation	XRF (fusion)	-
23	60,960	0,537	3,7	61,340	60,580	ISO 17025	XRF (Pellet) info only	
24	59,146	0,011	0,0	59,138	59,154	no accreditation	XRF (fusion)	-
25	59,135	0,035	-0,1	59,160	59,110	ISO 17025	XRF (fusion)	-
26	59,609	0,144	0,9	59,507	59,711	ISO 17025	XRF (fusion)	-
28	62,031	0,071	5,9	61,981	62,081	ISO 17025	XRF (fusion)	-
29	59,035	0,092	-0,3	58,970	59,100	ISO 17025	XRF (fusion)	-
31	60,770	0,085	3,3	60,830	60,710	ISO 17025	XRF (fusion)	-
32	58,960	0,042	-0,4	58,990	58,930	no accreditation	XRF (fusion)	-
33	60,170	0,523	2,1	60,540	59,800	no accreditation	XRF (Pellet) info only	-
34	60,695	0,035	3,1	60,670	60,720	no accreditation	XRF (fusion)	-
36	58,700	0,000	-1,0	58,700	58,700	ISO 17025	XRF (fusion)	-
37	60,425	0,007	2,6	60,430	60,420	no accreditation	XRF (fusion)	-
38	54,960		-8,6	54,960		ISO 17025	XRF (fusion)	-
40	59,280	0,000	0,2	59,280	59,280	ISO 17025	XRF (fusion)	-
41	58,705	1,930	-0,9	60,070	57,340	no accreditation	ICP-OES	C
42	46,700	0,000	-25,5	46,700	46,700	no accreditation	XRF (fusion)	-
43	24,343	4,572	-71,3	27,576	21,110	no accreditation	other	C, TXRF
44	60,105	0,163	1,9	60,220	59,990	no accreditation	XRF (fusion)	-
45	59,370	0,057	0,4	59,330	59,410	ISO 17025	XRF (fusion)	-
47	59,805	0,205	1,3	59,950	59,660	ISO 17025	XRF (fusion)	-
48	59,550	0,071	0,8	59,500	59,600	ISO 17025	XRF (fusion)	-
49	58,890	0,368	-0,6	59,150	58,630	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	59,095	0,120	-0,1	59,010	59,180	no accreditation	XRF (fusion)	-
51	59,385	0,092	0,4	59,320	59,450	no accreditation	XRF (fusion)	-
52	56,605	0,092	-5,2	56,540	56,670	no accreditation	XRF (Pellet) info only	EDRFA
53	59,305	0,120	0,3	59,220	59,390	no accreditation	XRF (fusion)	-
55	58,483	0,146	-1,4	58,380	58,586	no accreditation	XRF (fusion)	Reconstitution Method
56	59,620		0,9	59,620		no accreditation	XRF (fusion)	-
57	59,007	0,001	-0,3	59,008	59,006	ISO 17025	XRF (fusion)	-
59	59,080	0,000	-0,2	59,080	59,080	no accreditation	XRF (fusion)	-

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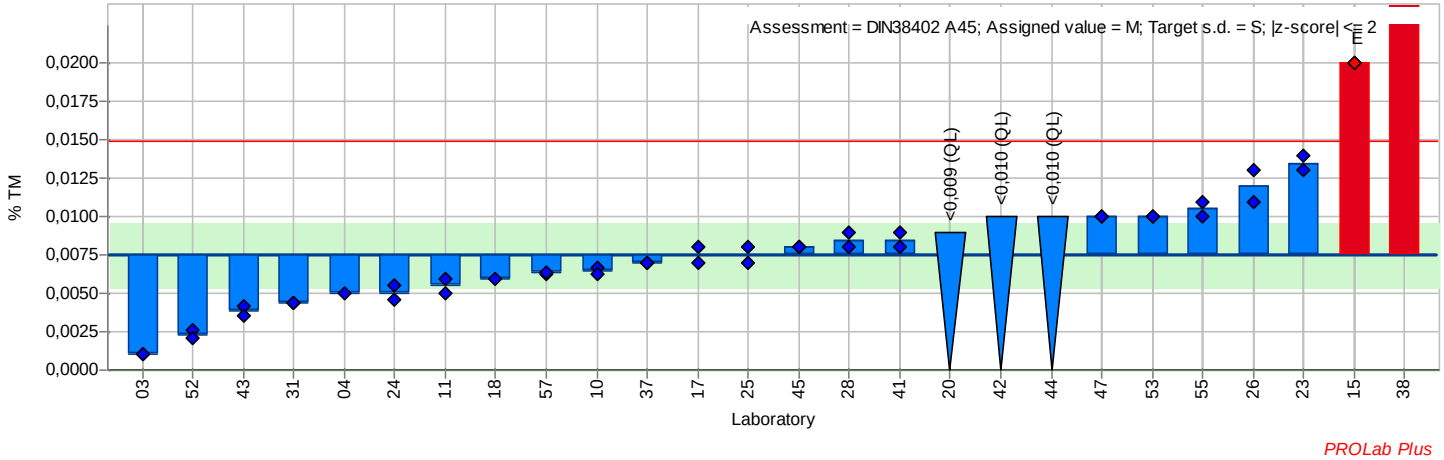
RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,004 % TM**
Measurand:	**Cr2O3**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,007 ± 0,002 % TM**	**Range of tolerance:**	**0,000 - 0,015 % TM (|z-score| <= 2,0)**
No. of laboratories:	**20**	**Sample**	**DIN 38402 A45**
Assigned value	**0,007 % TM (Empirical value)**	**Target s.d.**	**0,004 % TM (Empirical value)**

E



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
03	0,001	0,000	-1,7	0,001	0,001	no accreditation	XRF (fusion)	ISO 29581-2
04	0,005		-0,7	0,005		ISO 17025	ICP-OES	-
07						no accreditation	XRF (Pellet) info only	
10	0,006	0,000	-0,3	0,007	0,006	no accreditation	XRF (fusion)	-
11	0,005	0,001	-0,5	0,006	0,005	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	0,020	0,000	3,3	0,020	0,020	no accreditation	XRF (fusion)	-
17	0,007	0,001	0,0	0,008	0,007	no accreditation	XRF (fusion)	-
18	0,006		-0,4	0,006		no accreditation	XRF (fusion)	-
20				<0,009	<0,009	no accreditation	XRF (fusion)	-
23	0,013	0,001	1,6	0,013	0,014	ISO 17025	XRF (Pellet) info only	
24	0,005	0,001	-0,6	0,005	0,005	no accreditation	XRF (fusion)	-
25	0,007	0,001	0,0	0,008	0,007	ISO 17025	XRF (fusion)	-
26	0,012	0,001	1,2	0,011	0,013	ISO 17025	XRF (fusion)	-
28	0,009	0,001	0,3	0,009	0,008	ISO 17025	XRF (fusion)	-
31	0,004	0,000	-0,8	0,004	0,004	ISO 17025	ICP-OES	digestion in aqua regia
33						no accreditation	XRF (Pellet) info only	-
37	0,007	0,000	-0,1	0,007	0,007	no accreditation	XRF (fusion)	-
38	0,029		5,8	0,029		ISO 17025	ICP-OES	-
41	0,009	0,001	0,3	0,009	0,008	no accreditation	ICP-OES	-
42				<0,010	<0,010	no accreditation	XRF (fusion)	-
43	0,004	0,000	-1,0	0,004	0,004	no accreditation	other	TXRF
44				<0,010	<0,010	no accreditation	XRF (fusion)	-
45	0,008	0,000	0,1	0,008	0,008	ISO 17025	XRF (fusion)	-
47	0,010	0,000	0,7	0,010	0,010	ISO 17025	XRF (fusion)	-
52	0,002	0,000	-1,4	0,003	0,002	no accreditation	XRF (Pellet) info only	EDRFA
53	0,010	0,000	0,7	0,010	0,010	no accreditation	XRF (fusion)	-
55	0,010	0,001	0,8	0,011	0,010	no accreditation	XRF (fusion)	Reconstitution Method
57	0,006	0,000	-0,3	0,006	0,006	ISO 17025	XRF (fusion)	-

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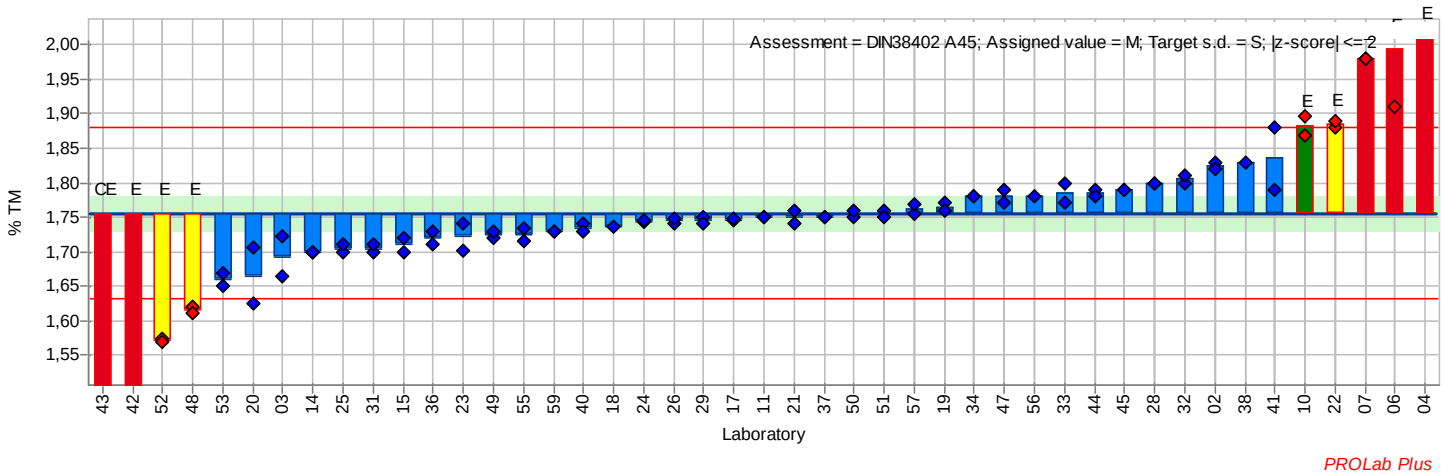
RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,062 % TM**
Measurand:	**Fe2O3**	**Repeat. s.d**	**0,011 % TM**
Mean ± U(Mean):	**1,756 ± 0,024 % TM**	**Range of tolerance:**	**1,631 - 1,881 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**1,756 % TM (Empirical value)**	**Target s.d.**	**0,062 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	1,825	0,007	1,1	1,830	1,820	ISO 17025	XRF (fusion)	-
03	1,692	0,041	-1,0	1,721	1,663	no accreditation	XRF (fusion)	ISO 29581-2
04	2,010		4,1	2,010		ISO 17025	ICP-OES	-
06	1,995	0,120	3,8	2,080	1,910	no accreditation	Wet chemistry EN196-2	C
07	1,980	0,000	3,6	1,980	1,980	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	1,882	0,019	2,0	1,869	1,896	no accreditation	XRF (fusion)	-
11	1,750	0,000	-0,1	1,750	1,750	no accreditation	XRF (fusion)	-
14	1,700	0,000	-0,9	1,700	1,700	no accreditation	XRF (fusion)	-
15	1,710	0,014	-0,7	1,720	1,700	no accreditation	XRF (fusion)	-
17	1,746	0,001	-0,2	1,745	1,747	no accreditation	XRF (fusion)	-
18	1,737		-0,3	1,737		no accreditation	XRF (fusion)	-
19	1,765	0,007	0,1	1,770	1,760	no accreditation	XRF (fusion)	-
20	1,666	0,059	-1,5	1,624	1,707	no accreditation	XRF (fusion)	C
21	1,750	0,014	-0,1	1,760	1,740	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	1,885	0,007	2,1	1,880	1,890	no accreditation	XRF (fusion)	-
23	1,722	0,028	-0,5	1,742	1,702	ISO 17025	XRF (Pellet) info only	
24	1,744	0,001	-0,2	1,743	1,745	no accreditation	XRF (fusion)	-
25	1,705	0,007	-0,8	1,700	1,710	ISO 17025	XRF (fusion)	-
26	1,744	0,006	-0,2	1,740	1,749	ISO 17025	XRF (fusion)	-
28	1,798	0,000	0,7	1,798	1,798	ISO 17025	XRF (fusion)	-
29	1,745	0,007	-0,2	1,750	1,740	ISO 17025	XRF (fusion)	-
31	1,705	0,007	-0,8	1,700	1,710	ISO 17025	XRF (fusion)	-
32	1,805	0,007	0,8	1,800	1,810	no accreditation	XRF (fusion)	-
33	1,785	0,021	0,5	1,770	1,800	no accreditation	XRF (Pellet) info only	-
34	1,780	0,000	0,4	1,780	1,780	no accreditation	XRF (fusion)	-
36	1,720	0,014	-0,6	1,730	1,710	ISO 17025	XRF (fusion)	-
37	1,750	0,000	-0,1	1,750	1,750	no accreditation	XRF (fusion)	-
38	1,830		1,2	1,830		ISO 17025	XRF (fusion)	-
40	1,735	0,007	-0,3	1,740	1,730	ISO 17025	XRF (fusion)	-
41	1,835	0,064	1,3	1,880	1,790	no accreditation	ICP-OES	C
42	1,090	0,014	-10,7	1,080	1,100	no accreditation	XRF (fusion)	-
43	0,943	0,191	-13,0	1,078	0,807	no accreditation	other	C, TXRF
44	1,785	0,007	0,5	1,790	1,780	no accreditation	XRF (fusion)	-
45	1,790	0,000	0,5	1,790	1,790	ISO 17025	XRF (fusion)	-
47	1,780	0,014	0,4	1,790	1,770	ISO 17025	XRF (fusion)	-
48	1,615	0,007	-2,3	1,620	1,610	ISO 17025	XRF (fusion)	-
49	1,725	0,007	-0,5	1,720	1,730	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
50	1,755	0,007	0,0	1,750	1,760	no accreditation	XRF (fusion)	-
51	1,755	0,007	0,0	1,760	1,750	no accreditation	XRF (fusion)	-
52	1,572	0,003	-3,0	1,574	1,570	no accreditation	XRF (Pellet) info only	EDRFA
53	1,660	0,014	-1,5	1,650	1,670	no accreditation	XRF (fusion)	-
55	1,726	0,013	-0,5	1,716	1,735	no accreditation	XRF (fusion)	Reconstitution Method
56	1,780		0,4	1,780		no accreditation	XRF (fusion)	-
57	1,762	0,011	0,1	1,754	1,770	ISO 17025	XRF (fusion)	-
59	1,730	0,000	-0,4	1,730	1,730	no accreditation	XRF (fusion)	-

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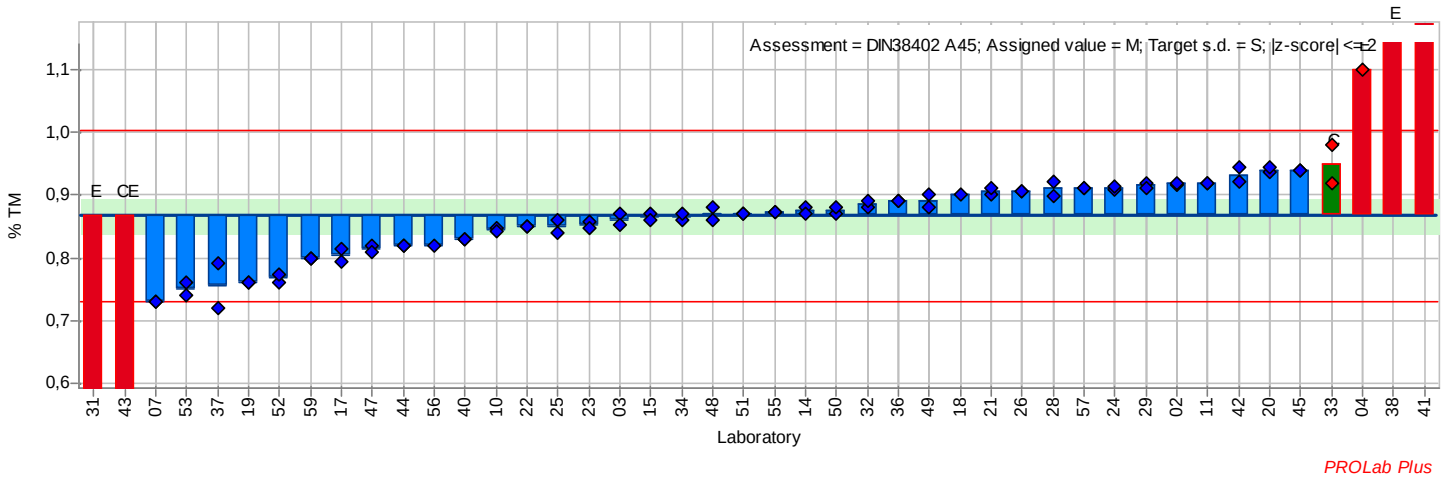
RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,068 % TM**
Measurand:	**K2O**	**Repeat. s.d**	**0,010 % TM**
Mean ± U(Mean):	**0,867 ± 0,027 % TM**	**Range of tolerance:**	**0,730 - 1,003 % TM (|z-score| <= 2,0)**
No. of laboratories:	**39**	**Sample**	**DIN 38402 A45**
Assigned value	**0,867 % TM (Empirical value)**	**Target s.d.**	**0,068 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,917	0,001	0,7	0,917	0,918	ISO 17025	XRF (fusion)	-
03	0,861	0,012	-0,1	0,870	0,853	no accreditation	XRF (fusion)	ISO 29581-2
04	1,100		3,4	1,100		ISO 17025	ICP-OES	-
07	0,730	0,000	-2,0	0,730	0,730	no accreditation	XRF (fusion)	-
10	0,845	0,005	-0,3	0,849	0,842	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,920	0,000	0,8	0,920	0,920	no accreditation	XRF (fusion)	-
14	0,875	0,007	0,1	0,880	0,870	no accreditation	XRF (fusion)	-
15	0,865	0,007	0,0	0,870	0,860	no accreditation	XRF (fusion)	-
17	0,804	0,016	-0,9	0,815	0,793	no accreditation	XRF (fusion)	-
18	0,902		0,5	0,902		no accreditation	XRF (fusion)	-
19	0,760	0,000	-1,6	0,760	0,760	no accreditation	XRF (fusion)	-
20	0,940	0,005	1,1	0,936	0,943	no accreditation	ICP-OES	-
21	0,905	0,007	0,6	0,900	0,910	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,850	0,000	-0,2	0,850	0,850	no accreditation	XRF (fusion)	-
23	0,852	0,007	-0,2	0,857	0,847	ISO 17025	XRF (Pellet) info only	
24	0,911	0,004	0,7	0,909	0,914	no accreditation	XRF (fusion)	-
25	0,850	0,014	-0,2	0,860	0,840	ISO 17025	XRF (fusion)	-
26	0,907	0,001	0,6	0,906	0,907	ISO 17025	ICP-OES	-
28	0,910	0,016	0,6	0,921	0,899	ISO 17025	XRF (fusion)	-
29	0,915	0,007	0,7	0,920	0,910	ISO 17025	XRF (fusion)	-
31	0,449	0,011	-6,1	0,441	0,457	ISO 17025	XRF (fusion)	-
32	0,885	0,007	0,3	0,880	0,890	no accreditation	XRF (fusion)	-
33	0,950	0,042	1,2	0,980	0,920	no accreditation	XRF (Pellet) info only	C
34	0,865	0,007	0,0	0,860	0,870	no accreditation	XRF (fusion)	-
36	0,890	0,000	0,3	0,890	0,890	no accreditation	other	AAS
37	0,756	0,050	-1,6	0,720	0,791	no accreditation	XRF (fusion)	C
38	1,150		4,1	1,150		ISO 17025	ICP-OES	-
40	0,830	0,000	-0,5	0,830	0,830	ISO 17025	XRF (fusion)	-
41	2,175	0,148	19,1	2,280	2,070	no accreditation	ICP-OES	C
42	0,932	0,016	1,0	0,944	0,921	no accreditation	XRF (fusion)	-
43	0,471	0,096	-5,8	0,539	0,404	no accreditation	other	C, TXRF
44	0,820	0,000	-0,7	0,820	0,820	no accreditation	XRF (fusion)	-
45	0,940	0,000	1,1	0,940	0,940	ISO 17025	XRF (fusion)	-
47	0,815	0,007	-0,8	0,820	0,810	ISO 17025	XRF (fusion)	-
48	0,870	0,014	0,1	0,860	0,880	ISO 17025	XRF (fusion)	-
49	0,890	0,014	0,3	0,880	0,900	no accreditation	XRF (fusion)	-
50	0,875	0,007	0,1	0,870	0,880	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	0,870	0,000	0,1	0,870	0,870	no accreditation	XRF (fusion)	-
52	0,768	0,010	-1,4	0,761	0,775	no accreditation	XRF (Pellet) info only	EDRFA
53	0,750	0,014	-1,7	0,740	0,760	no accreditation	XRF (fusion)	-
55	0,873	0,001	0,1	0,873	0,872	no accreditation	XRF (fusion)	Reconstitution Method
56	0,820		-0,7	0,820		no accreditation	XRF (fusion)	-
57	0,911	0,000	0,7	0,911	0,911	ISO 17025	XRF (fusion)	-
59	0,800	0,000	-1,0	0,800	0,800	no accreditation	XRF (fusion)	-

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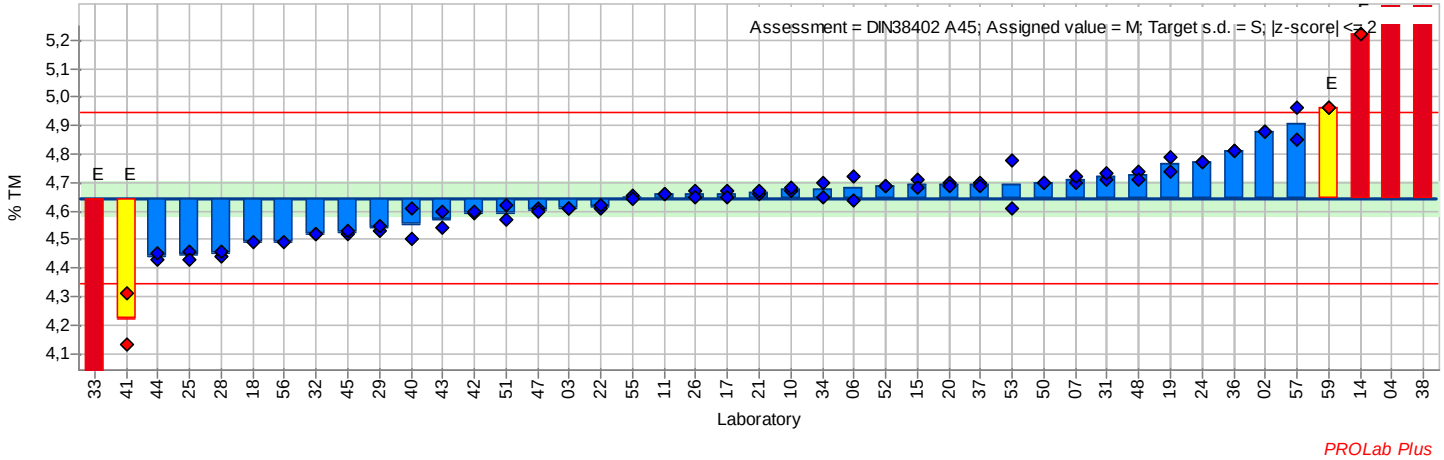
RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,151 % TM**
Measurand:	**LOI (1h @ 950°C) observed**	**Repeat. s.d**	**0,017 % TM**
Mean ± U(Mean):	**4,646 ± 0,057 % TM**	**Range of tolerance:**	**4,344 - 4,947 % TM (|z-score| <= 2,0)**
No. of laboratories:	**43**	**Sample**	**DIN 38402 A45**
Assigned value	**4,646 % TM (Empirical value)**	**Target s.d.**	**0,151 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	4,880	0,000	1,6	4,880	4,880	ISO 17025	1h@950°C	-
03	4,610	0,000	-0,2	4,610	4,610	no accreditation	Wet chemistry EN196-2	-
04	8,180		23,4	8,180		ISO 17025	1h@950°C	-
06	4,680	0,057	0,2	4,720	4,640	no accreditation	Wet chemistry EN196-2	-
07	4,710	0,014	0,4	4,700	4,720	no accreditation	1h@950°C	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	4,675	0,007	0,2	4,670	4,680	no accreditation	XRF (fusion)	-
11	4,660	0,000	0,1	4,660	4,660	no accreditation	Wet chemistry EN196-2	-
14	5,220	0,000	3,8	5,220	5,220	no accreditation	1h@950°C	corr. EN 196-2
15	4,695	0,021	0,3	4,710	4,680	no accreditation	1h@950°C	-
17	4,660	0,016	0,1	4,672	4,649	no accreditation	1h@950°C	-
18	4,490		-1,0	4,490		no accreditation	1h@950°C	-
19	4,765	0,035	0,8	4,740	4,790	no accreditation	1h@950°C	-
20	4,695	0,007	0,3	4,700	4,690	no accreditation	1h@950°C	-
21	4,665	0,007	0,1	4,660	4,670	ISO 17025	Wet chemistry EN196-2	-
22	4,615	0,007	-0,2	4,610	4,620	no accreditation	1h@950°C	-
24	4,772	0,000	0,8	4,772	4,772	no accreditation	1h@950°C	-
25	4,445	0,021	-1,3	4,460	4,430	ISO 17025	1h@950°C	-
26	4,660	0,014	0,1	4,670	4,650	ISO 17025	1h@950°C	-
28	4,450	0,014	-1,3	4,440	4,460	ISO 17025	1h@950°C	-
29	4,540	0,014	-0,7	4,530	4,550	ISO 17025	1h@950°C	due to S oxidation
31	4,720	0,014	0,5	4,710	4,730	no accreditation	1h@950°C	-
32	4,520	0,000	-0,8	4,520	4,520	no accreditation	1h@950°C	-
33	2,725	0,035	-12,7	2,750	2,700	no accreditation	1h@950°C	-
34	4,675	0,035	0,2	4,700	4,650	no accreditation	1h@950°C	-
36	4,810	0,000	1,1	4,810	4,810	ISO 17025	1h@950°C	-
37	4,695	0,007	0,3	4,700	4,690	no accreditation	1h@950°C	-
38	9,590		32,8	9,590		no accreditation	1h@950°C	-
40	4,555	0,078	-0,6	4,500	4,610	ISO 17025	XRF (fusion)	-
41	4,220	0,127	-2,8	4,310	4,130	no accreditation	1h@950°C	-
42	4,595	0,007	-0,3	4,590	4,600	no accreditation	1h@950°C	-
43	4,570	0,042	-0,5	4,600	4,540	no accreditation	1h@950°C	-
44	4,440	0,014	-1,4	4,430	4,450	no accreditation	1h@950°C	-
45	4,525	0,007	-0,8	4,520	4,530	ISO 17025	1h@950°C	-
47	4,605	0,007	-0,3	4,610	4,600	no accreditation	1h@950°C	-
48	4,725	0,021	0,5	4,740	4,710	ISO 17025	1h@950°C	-
50	4,700	0,000	0,4	4,700	4,700	no accreditation	XRF (fusion)	-
51	4,595	0,035	-0,3	4,570	4,620	ISO 17025	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
52	4,690	0,000	0,3	4,690	4,690	no accreditation	1h@950°C	-
53	4,695	0,120	0,3	4,780	4,610	no accreditation	1h@950°C	-
55	4,649	0,006	0,0	4,654	4,645	no accreditation	DIN EN 15169	Reconstitution Method
56	4,490		-1,0	4,490		no accreditation	1h@950°C	-
57	4,905	0,078	1,7	4,960	4,850	ISO 17025	1h@950°C	-
59	4,960	0,000	2,1	4,960	4,960	no accreditation	1h@950°C	-

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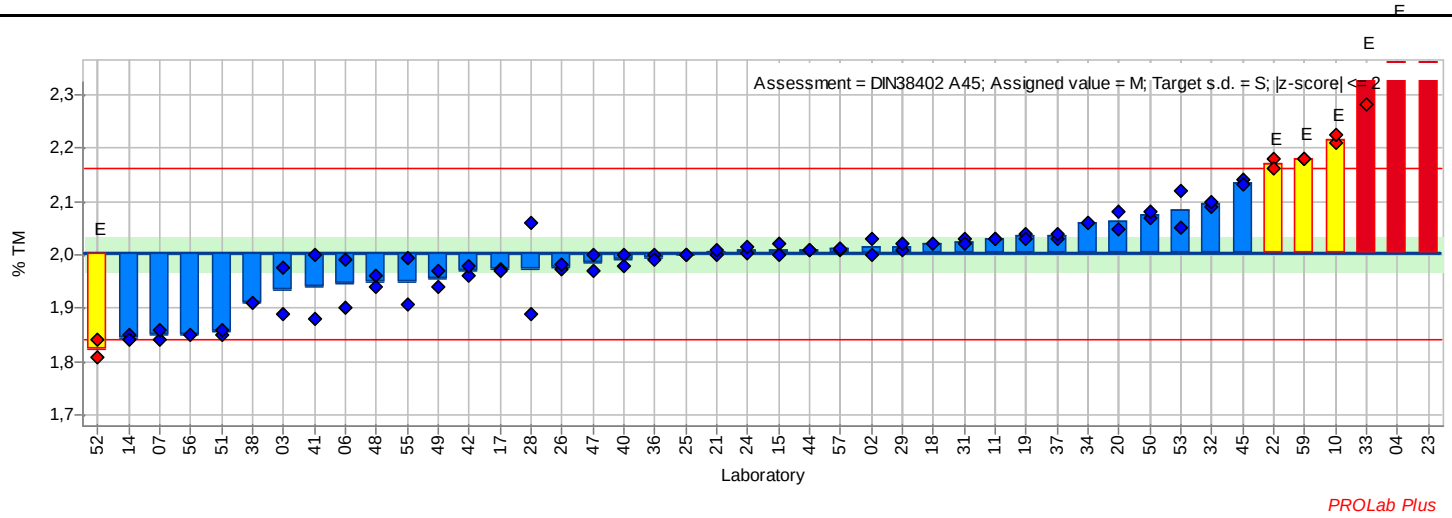
RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,080 % TM**
Measurand:	**MgO**	**Repeat. s.d**	**0,015 % TM**
Mean ± U(Mean):	**2,001 ± 0,031 % TM**	**Range of tolerance:**	**1,841 - 2,162 % TM (|z-score| <= 2,0)**
No. of laboratories:	**41**	**Sample**	**DIN 38402 A45**
Assigned value	**2,001 % TM (Empirical value)**	**Target s.d.**	**0,080 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	2,014	0,022	0,2	1,999	2,030	ISO 17025	XRF (fusion)	-
03	1,933	0,060	-0,9	1,975	1,890	no accreditation	XRF (fusion)	ISO 29581-2
04	2,410		5,1	2,410		ISO 17025	ICP-OES	-
06	1,945	0,064	-0,7	1,990	1,900	no accreditation	Wet chemistry EN196-2	-
07	1,850	0,014	-1,9	1,840	1,860	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	2,216	0,011	2,7	2,208	2,224	no accreditation	XRF (fusion)	-
11	2,030	0,000	0,4	2,030	2,030	no accreditation	XRF (fusion)	-
14	1,845	0,007	-1,9	1,850	1,840	no accreditation	XRF (fusion)	-
15	2,010	0,014	0,1	2,020	2,000	no accreditation	XRF (fusion)	-
17	1,972	0,002	-0,4	1,973	1,970	no accreditation	XRF (fusion)	-
18	2,020		0,2	2,020		no accreditation	XRF (fusion)	-
19	2,035	0,007	0,4	2,040	2,030	no accreditation	XRF (fusion)	-
20	2,064	0,023	0,8	2,080	2,047	no accreditation	XRF (fusion)	-
21	2,005	0,007	0,0	2,000	2,010	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	2,170	0,014	2,1	2,180	2,160	no accreditation	XRF (fusion)	-
23	2,454	0,011	5,6	2,461	2,446	ISO 17025	XRF (Pellet) info only	
24	2,010	0,008	0,1	2,004	2,015	no accreditation	XRF (fusion)	-
25	2,000	0,000	0,0	2,000	2,000	ISO 17025	XRF (fusion)	-
26	1,977	0,006	-0,3	1,972	1,981	ISO 17025	XRF (fusion)	-
28	1,974	0,120	-0,3	1,889	2,059	ISO 17025	XRF (fusion)	C
29	2,015	0,007	0,2	2,010	2,020	ISO 17025	XRF (fusion)	-
31	2,025	0,007	0,3	2,030	2,020	ISO 17025	XRF (fusion)	-
32	2,095	0,007	1,2	2,090	2,100	no accreditation	XRF (fusion)	-
33	2,350	0,099	4,3	2,280	2,420	no accreditation	XRF (Pellet) info only	-
34	2,060	0,000	0,7	2,060	2,060	no accreditation	XRF (fusion)	-
36	1,995	0,007	-0,1	2,000	1,990	ISO 17025	XRF (fusion)	-
37	2,035	0,007	0,4	2,030	2,040	no accreditation	XRF (fusion)	-
38	1,910		-1,1	1,910		ISO 17025	XRF (fusion)	-
40	1,990	0,014	-0,1	1,980	2,000	ISO 17025	XRF (fusion)	-
41	1,940	0,085	-0,8	2,000	1,880	no accreditation	ICP-OES	-
42	1,970	0,014	-0,4	1,960	1,980	no accreditation	XRF (fusion)	-
44	2,010	0,000	0,1	2,010	2,010	no accreditation	XRF (fusion)	-
45	2,135	0,007	1,7	2,140	2,130	ISO 17025	XRF (fusion)	-
47	1,985	0,021	-0,2	2,000	1,970	ISO 17025	XRF (fusion)	-
48	1,950	0,014	-0,6	1,940	1,960	ISO 17025	XRF (fusion)	-
49	1,955	0,021	-0,6	1,940	1,970	no accreditation	XRF (fusion)	-
50	2,075	0,007	0,9	2,070	2,080	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
51	1,855	0,007	-1,8	1,850	1,860	no accreditation	XRF (fusion)	-
52	1,825	0,023	-2,2	1,808	1,841	no accreditation	XRF (Pellet) info only	EDRFA
53	2,085	0,049	1,0	2,120	2,050	no accreditation	XRF (fusion)	-
55	1,950	0,061	-0,6	1,907	1,993	no accreditation	XRF (fusion)	Reconstitution Method
56	1,850		-1,9	1,850		no accreditation	XRF (fusion)	-
57	2,011	0,002	0,1	2,010	2,013	ISO 17025	XRF (fusion)	-
59	2,180	0,000	2,2	2,180	2,180	no accreditation	XRF (fusion)	-

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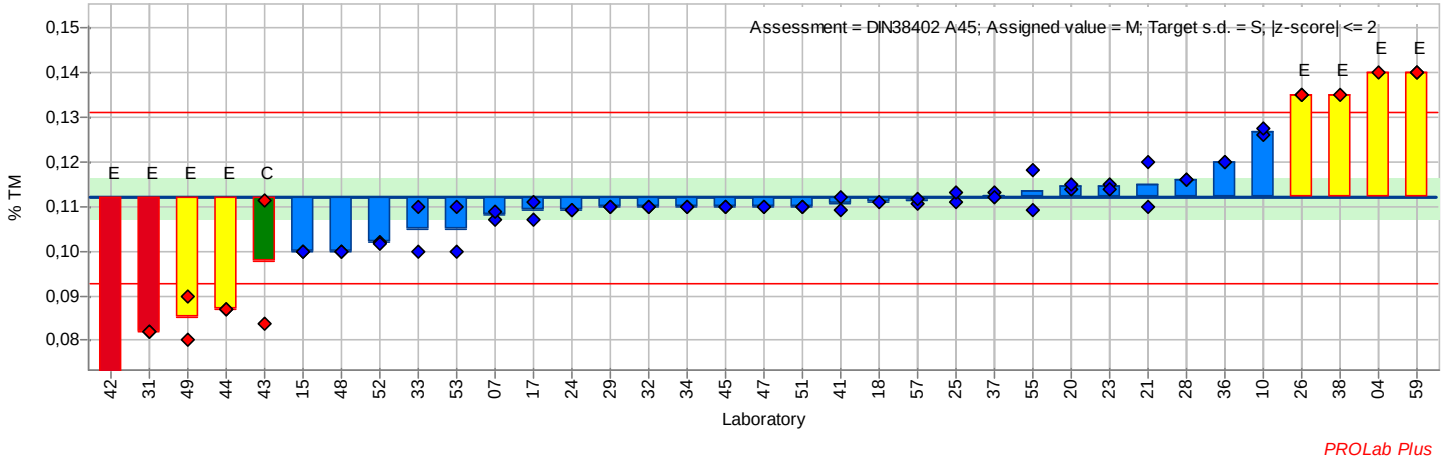
RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,010 % TM**
Measurand:	**Mn2O3**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,112 ± 0,004 % TM**	**Range of tolerance:**	**0,093 - 0,131 % TM (|z-score| <= 2,0)**
No. of laboratories:	**30**	**Sample**	**DIN 38402 A45**
Assigned value	**0,112 % TM (Empirical value)**	**Target s.d.**	**0,010 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
04	0,140		2,9	0,140		ISO 17025	ICP-OES	-
07	0,108	0,001	-0,4	0,107	0,109	no accreditation	XRF (Pellet) info only	
10	0,127	0,001	1,5	0,126	0,127	no accreditation	XRF (fusion)	-
14								-
15	0,100	0,000	-1,2	0,100	0,100	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
17	0,109	0,003	-0,3	0,111	0,107	no accreditation	XRF (fusion)	-
18	0,111		-0,1	0,111		no accreditation	XRF (fusion)	-
20	0,115	0,001	0,3	0,114	0,115	no accreditation	XRF (fusion)	-
21	0,115	0,007	0,3	0,110	0,120	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,115	0,001	0,3	0,115	0,114	ISO 17025	XRF (Pellet) info only	
24	0,109	0,000	-0,3	0,109	0,109	no accreditation	XRF (fusion)	-
25	0,112	0,001	0,0	0,111	0,113	ISO 17025	XRF (fusion)	-
26	0,135	0,000	2,4	0,135	0,135	ISO 17025	XRF (fusion)	-
28	0,116	0,000	0,4	0,116	0,116	ISO 17025	XRF (fusion)	-
29	0,110	0,000	-0,2	0,110	0,110	ISO 17025	XRF (fusion)	-
31	0,082	0,000	-3,1	0,082	0,082	ISO 17025	ICP-OES	digestion in aqua regia
32	0,110	0,000	-0,2	0,110	0,110	no accreditation	XRF (fusion)	-
33	0,105	0,007	-0,7	0,100	0,110	no accreditation	XRF (Pellet) info only	-
34	0,110	0,000	-0,2	0,110	0,110	no accreditation	XRF (fusion)	-
36	0,120	0,000	0,8	0,120	0,120	ISO 17025	XRF (fusion)	-
37	0,113	0,001	0,1	0,113	0,112	no accreditation	XRF (fusion)	-
38	0,135		2,4	0,135		ISO 17025	ICP-OES	-
41	0,111	0,002	-0,1	0,112	0,109	no accreditation	ICP-OES	-
42	0,051	0,001	-6,3	0,050	0,052	no accreditation	XRF (fusion)	-
43	0,098	0,020	-1,5	0,112	0,084	no accreditation	other	C, TXRF
44	0,087	0,000	-2,6	0,087	0,087	no accreditation	XRF (fusion)	calc. from MnO
45	0,110	0,000	-0,2	0,110	0,110	ISO 17025	XRF (fusion)	-
47	0,110	0,000	-0,2	0,110	0,110	no accreditation	XRF (fusion)	-
48	0,100	0,000	-1,2	0,100	0,100	ISO 17025	XRF (fusion)	-
49	0,085	0,007	-2,8	0,090	0,080	no accreditation	XRF (fusion)	-
51	0,110	0,000	-0,2	0,110	0,110	no accreditation	XRF (fusion)	-
52	0,102	0,000	-1,0	0,102	0,102	no accreditation	XRF (Pellet) info only	EDRFA
53	0,105	0,007	-0,7	0,110	0,100	no accreditation	XRF (fusion)	-
55	0,113	0,006	0,2	0,109	0,118	no accreditation	XRF (fusion)	Reconstitution Method
57	0,111	0,001	-0,1	0,111	0,112	ISO 17025	XRF (fusion)	-
59	0,140	0,000	2,9	0,140	0,140	no accreditation	XRF (fusion)	-

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RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,063 % TM**
Measurand:	**Na2O**	**Repeat. s.d**	**0,008 % TM**
Mean ± U(Mean):	**0,189 ± 0,027 % TM**	**Range of tolerance:**	**0,062 - 0,316 % TM (|z-score| <= 2,0)**
No. of laboratories:	**35**	**Sample**	**DIN 38402 A45**
Assigned value	**0,189 % TM (Empirical value)**	**Target s.d.**	**0,063 % TM (Empirical value)**

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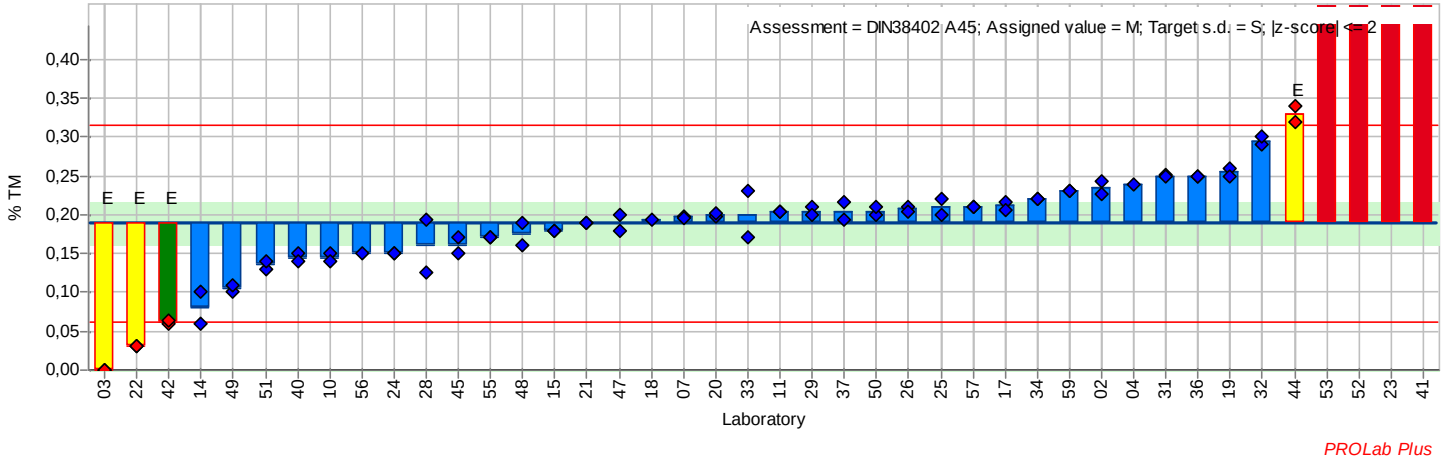

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,235	0,013	0,7	0,244	0,226	ISO 17025	XRF (fusion)	-
03	0,001	0,000	-3,0	0,001	0,001	no accreditation	XRF (fusion)	ISO 29581-2
04	0,240		0,8	0,240		ISO 17025	ICP-OES	-
07	0,197	0,002	0,1	0,198	0,196	no accreditation	XRF (Pellet) info only	
10	0,145	0,007	-0,7	0,150	0,140	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,205	0,000	0,2	0,205	0,205	no accreditation	XRF (fusion)	-
14	0,080	0,028	-1,7	0,100	0,060	no accreditation	other	EDXRF fusion
15	0,180	0,000	-0,1	0,180	0,180	no accreditation	XRF (fusion)	-
17	0,211	0,006	0,3	0,216	0,207	no accreditation	XRF (fusion)	-
18	0,194		0,1	0,194		no accreditation	XRF (fusion)	-
19	0,255	0,007	1,0	0,260	0,250	no accreditation	XRF (fusion)	-
20	0,200	0,004	0,2	0,197	0,202	no accreditation	ICP-OES	-
21	0,190	0,000	0,0	0,190	0,190	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,030	0,000	-2,5	0,030	0,030	no accreditation	XRF (fusion)	-
23	2,364	0,054	34,3	2,325	2,402	ISO 17025	XRF (Pellet) info only	
24	0,150	0,001	-0,6	0,150	0,151	no accreditation	XRF (fusion)	-
25	0,210	0,014	0,3	0,200	0,220	ISO 17025	XRF (fusion)	-
26	0,207	0,004	0,3	0,210	0,205	ISO 17025	ICP-OES	-
28	0,160	0,048	-0,5	0,194	0,126	ISO 17025	XRF (fusion)	C
29	0,205	0,007	0,2	0,210	0,200	ISO 17025	XRF (fusion)	-
31	0,250	0,001	1,0	0,251	0,249	ISO 17025	XRF (fusion)	-
32	0,295	0,007	1,7	0,290	0,300	no accreditation	XRF (fusion)	-
33	0,200	0,042	0,2	0,170	0,230	no accreditation	XRF (Pellet) info only	-
34	0,220	0,000	0,5	0,220	0,220	no accreditation	XRF (fusion)	-
36	0,250	0,000	1,0	0,250	0,250	no accreditation	other	AAS
37	0,205	0,017	0,2	0,193	0,217	no accreditation	XRF (fusion)	-
40	0,145	0,007	-0,7	0,150	0,140	no accreditation	other	AAS
41	7,740	1,216	119,0	8,600	6,880	no accreditation	ICP-OES	C
42	0,062	0,003	-2,0	0,060	0,064	no accreditation	XRF (fusion)	-
44	0,330	0,014	2,2	0,320	0,340	no accreditation	XRF (fusion)	-
45	0,160	0,014	-0,5	0,170	0,150	ISO 17025	XRF (fusion)	-
47	0,190	0,014	0,0	0,180	0,200	ISO 17025	XRF (fusion)	-
48	0,175	0,021	-0,2	0,160	0,190	ISO 17025	XRF (fusion)	-
49	0,105	0,007	-1,3	0,100	0,110	no accreditation	XRF (fusion)	-
50	0,205	0,007	0,2	0,200	0,210	no accreditation	XRF (fusion)	-
51	0,135	0,007	-0,9	0,130	0,140	no accreditation	XRF (fusion)	-
52	1,872	0,110	26,5	1,794	1,949	no accreditation	XRF (Pellet) info only	C, EDXRF

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
53	0,540	0,028	5,5	0,520	0,560	no accreditation	XRF (fusion)	-
55	0,172	0,000	-0,3	0,172	0,172	no accreditation	XRF (fusion)	-
56	0,150		-0,6	0,150		no accreditation	XRF (fusion)	-
57	0,210	0,001	0,3	0,211	0,210	ISO 17025	XRF (fusion)	-
59	0,230	0,000	0,6	0,230	0,230	no accreditation	XRF (fusion)	-

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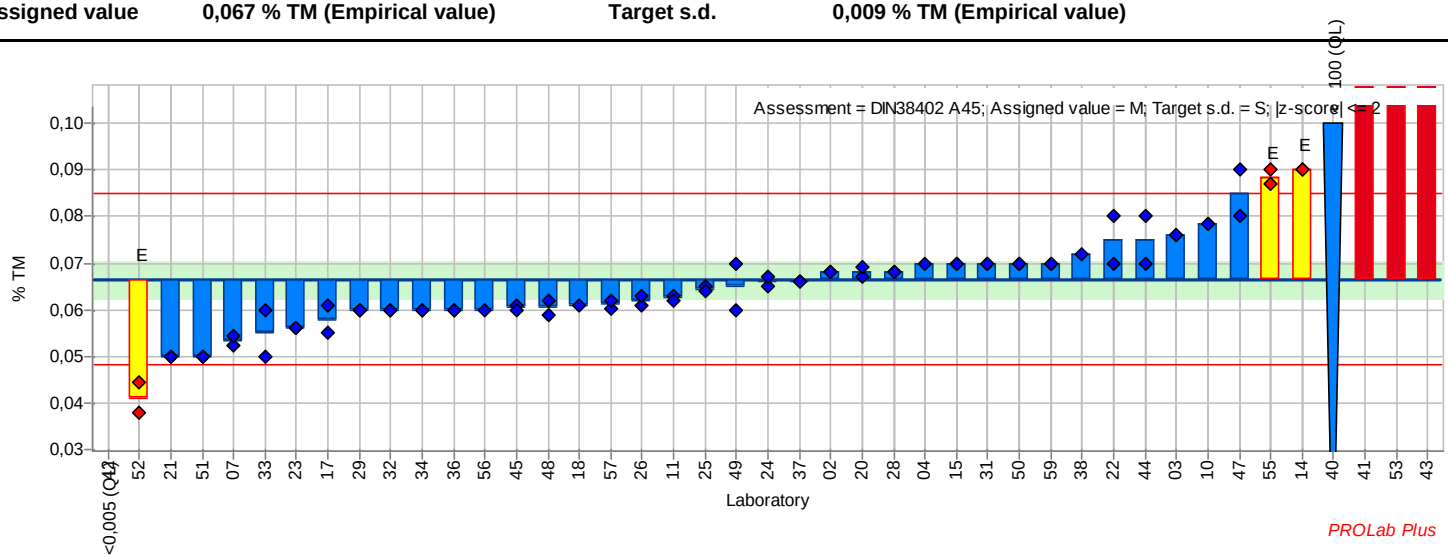
RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,009 % TM**	
Measurand:	**P2O5**	**Repeat. s.d**	**0,001 % TM**	
Mean ± U(Mean):	**0,067 ± 0,004 % TM**	**Range of tolerance:**	**0,048 - 0,085 % TM (|z-score| <= 2,0)**	BE
No. of laboratories:	**35**	**Sample**	**DIN 38402 A45**	
Assigned value	**0,067 % TM (Empirical value)**	**Target s.d.**	**0,009 % TM (Empirical value)**	



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,068	0,000	0,2	0,068	0,068	ISO 17025	XRF (fusion)	-
03	0,076	0,000	1,0	0,076	0,076	no accreditation	XRF (fusion)	ISO 29581-2
04	0,070		0,4	0,070		ISO 17025	ICP-OES	-
07	0,053	0,001	-1,4	0,052	0,054	no accreditation	XRF (Pellet) info only	
10	0,078	0,000	1,3	0,078	0,078	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,063	0,001	-0,4	0,063	0,062	no accreditation	XRF (fusion)	-
14	0,090	0,000	2,5	0,090	0,090	no accreditation	XRF (fusion)	-
15	0,070	0,000	0,4	0,070	0,070	no accreditation	XRF (fusion)	-
17	0,058	0,004	-0,9	0,055	0,061	no accreditation	XRF (fusion)	-
18	0,061		-0,6	0,061		no accreditation	XRF (fusion)	-
20	0,068	0,001	0,2	0,067	0,069	no accreditation	XRF (fusion)	-
21	0,050	0,000	-1,8	0,050	0,050	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	0,075	0,007	0,9	0,070	0,080	no accreditation	XRF (fusion)	-
23	0,056	0,000	-1,2	0,056	0,056	ISO 17025	XRF (Pellet) info only	
24	0,066	0,001	-0,1	0,065	0,067	no accreditation	XRF (fusion)	-
25	0,065	0,001	-0,2	0,065	0,064	ISO 17025	XRF (fusion)	-
26	0,062	0,001	-0,5	0,061	0,063	ISO 17025	XRF (fusion)	-
28	0,068	0,000	0,2	0,068	0,068	ISO 17025	XRF (fusion)	-
29	0,060	0,000	-0,7	0,060	0,060	ISO 17025	XRF (fusion)	-
31	0,070	0,000	0,4	0,070	0,070	ISO 17025	XRF (fusion)	-
32	0,060	0,000	-0,7	0,060	0,060	no accreditation	XRF (fusion)	-
33	0,055	0,007	-1,3	0,050	0,060	no accreditation	XRF (Pellet) info only	-
34	0,060	0,000	-0,7	0,060	0,060	no accreditation	XRF (fusion)	-
36	0,060	0,000	-0,7	0,060	0,060	ISO 17025	XRF (fusion)	-
37	0,066	0,000	-0,1	0,066	0,066	no accreditation	XRF (fusion)	-
38	0,072		0,6	0,072		ISO 17025	ICP-OES	-
40				<0,100	<0,100	ISO 17025	XRF (fusion)	-
41	0,139	0,004	7,8	0,136	0,141	no accreditation	XRF (Pellet) info only	
42				<0,005	<0,005	no accreditation	XRF (fusion)	-
43	0,364	0,055	32,3	0,403	0,325	no accreditation	other	C, TXRF
44	0,075	0,007	0,9	0,070	0,080	no accreditation	XRF (fusion)	-
45	0,060	0,001	-0,7	0,061	0,060	ISO 17025	XRF (fusion)	-
47	0,085	0,007	2,0	0,090	0,080	ISO 17025	XRF (fusion)	-
48	0,060	0,002	-0,7	0,059	0,062	ISO 17025	XRF (fusion)	-
49	0,065	0,007	-0,2	0,060	0,070	no accreditation	XRF (fusion)	-
50	0,070	0,000	0,4	0,070	0,070	no accreditation	XRF (fusion)	-
51	0,050	0,000	-1,8	0,050	0,050	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
52	0,041	0,005	-2,8	0,038	0,044	no accreditation	XRF (Pellet) info only	EDRFA
53	0,243	0,001	19,2	0,242	0,244	no accreditation	XRF (fusion)	-
55	0,088	0,002	2,4	0,090	0,087	no accreditation	XRF (fusion)	-
56	0,060		-0,7	0,060		no accreditation	XRF (fusion)	-
57	0,061	0,001	-0,6	0,060	0,062	ISO 17025	XRF (fusion)	-
59	0,070	0,000	0,4	0,070	0,070	no accreditation	XRF (fusion)	-

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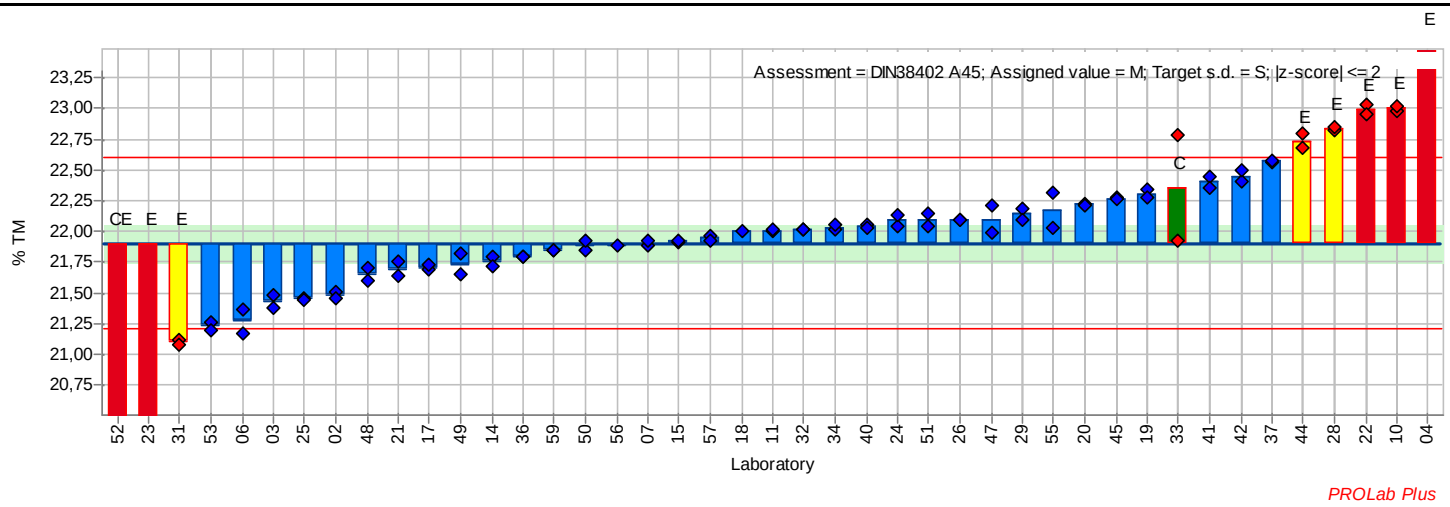
RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,349 % TM**
Measurand:	**SiO2**	**Repeat. s.d**	**0,074 % TM**
Mean ± U(Mean):	**21,905 ± 0,154 % TM**	**Range of tolerance:**	**21,206 - 22,604 % TM (|z-score| <= 2,0)**
No. of laboratories:	**32**	**Sample**	**DIN 38402 A45**
Assigned value	**21,905 % TM (Empirical value)**	**Target s.d.**	**0,349 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	21,488	0,036	-1,2	21,513	21,462	ISO 17025	XRF (fusion)	-
03	21,430	0,078	-1,4	21,485	21,375	no accreditation	XRF (fusion)	ISO 29581-2
04	23,530		4,7	23,530		ISO 17025	ICP-OES	-
06	21,270	0,141	-1,8	21,370	21,170	no accreditation	Wet chemistry EN196-2	-
07	21,905	0,021	0,0	21,890	21,920	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
10	23,000	0,028	3,1	22,980	23,020	no accreditation	XRF (fusion)	-
11	22,005	0,007	0,3	22,000	22,010	no accreditation	XRF (fusion)	-
14	21,760	0,057	-0,4	21,800	21,720	no accreditation	XRF (fusion)	-
15	21,920	0,014	0,0	21,910	21,930	no accreditation	XRF (fusion)	-
17	21,708	0,031	-0,6	21,686	21,730	no accreditation	XRF (fusion)	-
18	22,000		0,3	22,000		no accreditation	XRF (fusion)	-
19	22,305	0,049	1,1	22,340	22,270	no accreditation	XRF (fusion)	-
20	22,220	0,014	0,9	22,230	22,210	no accreditation	XRF (fusion)	-
21	21,695	0,078	-0,6	21,640	21,750	ISO 17025	XRF (fusion)	ISO 29581-2:2010
22	22,990	0,057	3,1	23,030	22,950	no accreditation	XRF (fusion)	-
23	20,130	0,071	-5,1	20,180	20,080	ISO 17025	XRF (Pellet) info only	
24	22,088	0,065	0,5	22,042	22,134	no accreditation	XRF (fusion)	-
25	21,455	0,007	-1,3	21,460	21,450	ISO 17025	XRF (fusion)	-
26	22,098	0,001	0,6	22,099	22,097	ISO 17025	XRF (fusion)	-
28	22,838	0,014	2,7	22,828	22,848	ISO 17025	XRF (fusion)	-
29	22,140	0,057	0,7	22,180	22,100	ISO 17025	XRF (fusion)	-
31	21,100	0,028	-2,3	21,120	21,080	ISO 17025	XRF (fusion)	-
32	22,015	0,007	0,3	22,010	22,020	no accreditation	XRF (fusion)	-
33	22,355	0,601	1,3	21,930	22,780	no accreditation	XRF (Pellet) info only	C
34	22,030	0,028	0,4	22,010	22,050	no accreditation	XRF (fusion)	-
36	21,800	0,000	-0,3	21,800	21,800	ISO 17025	XRF (fusion)	-
37	22,570	0,014	1,9	22,560	22,580	no accreditation	XRF (fusion)	-
40	22,040	0,014	0,4	22,050	22,030	ISO 17025	XRF (fusion)	-
41	22,405	0,064	1,4	22,450	22,360	no accreditation	XRF (Pellet) info only	
42	22,450	0,071	1,6	22,400	22,500	no accreditation	XRF (fusion)	-
44	22,735	0,078	2,4	22,790	22,680	no accreditation	XRF (fusion)	-
45	22,265	0,007	1,0	22,270	22,260	ISO 17025	XRF (fusion)	-
47	22,100	0,156	0,6	22,210	21,990	ISO 17025	XRF (fusion)	-
48	21,650	0,071	-0,7	21,700	21,600	ISO 17025	XRF (fusion)	-
49	21,735	0,120	-0,5	21,650	21,820	no accreditation	XRF (fusion)	-
50	21,890	0,057	0,0	21,850	21,930	no accreditation	XRF (fusion)	-
51	22,090	0,071	0,5	22,040	22,140	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
52	17,160	0,311	-13,6	16,940	17,380	no accreditation	XRF (Pellet) info only	C, EDXRF
53	21,230	0,042	-1,9	21,260	21,200	no accreditation	XRF (fusion)	-
55	22,169	0,204	0,8	22,025	22,313	no accreditation	XRF (fusion)	Reconstitution Method
56	21,890		0,0	21,890		no accreditation	XRF (fusion)	-
57	21,949	0,029	0,1	21,970	21,929	ISO 17025	XRF (fusion)	-
59	21,850	0,000	-0,2	21,850	21,850	no accreditation	XRF (fusion)	-

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RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,014 % TM**
Measurand:	**SrO**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,126 ± 0,007 % TM**	**Range of tolerance:**	**0,099 - 0,154 % TM (|z-score| <= 2,0)**
No. of laboratories:	**26**	**Sample**	**DIN 38402 A45**
Assigned value	**0,126 % TM (Empirical value)**	**Target s.d.**	**0,014 % TM (Empirical value)**

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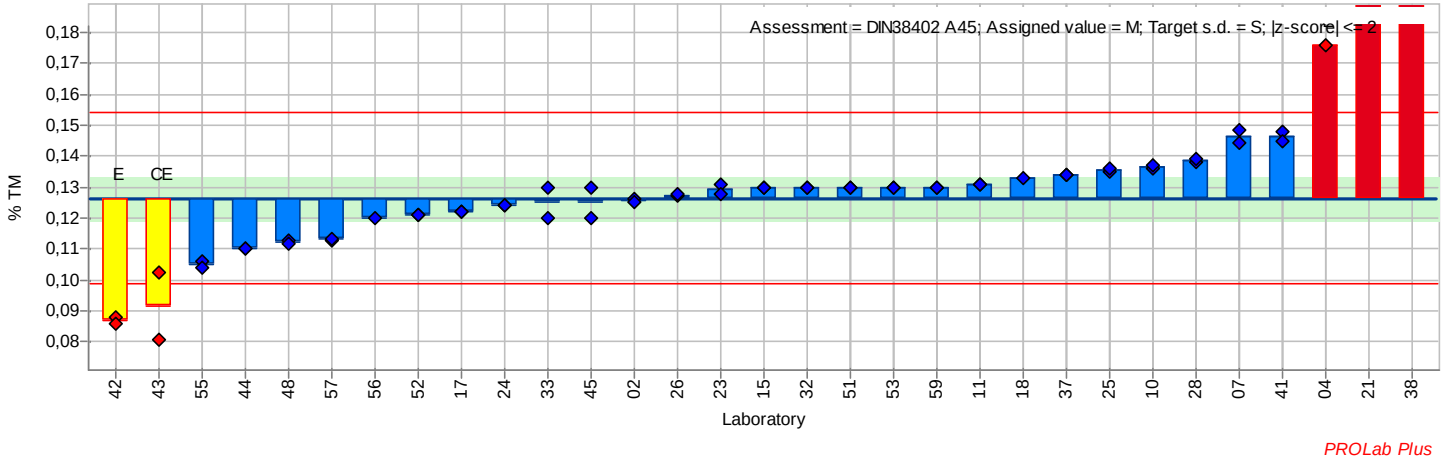

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,126	0,001	-0,1	0,126	0,125	ISO 17025	XRF (fusion)	-
04	0,176		3,6	0,176		ISO 17025	ICP-OES	-
07	0,146	0,003	1,4	0,148	0,144	no accreditation	XRF (Pellet) info only	
10	0,137	0,001	0,7	0,136	0,137	no accreditation	XRF (fusion)	-
11	0,131	0,000	0,3	0,131	0,131	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	0,130	0,000	0,3	0,130	0,130	no accreditation	XRF (fusion)	-
17	0,122	0,000	-0,3	0,122	0,122	no accreditation	XRF (fusion)	-
18	0,133		0,5	0,133		no accreditation	XRF (fusion)	-
21	0,206	0,001	5,7	0,205	0,207	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,130	0,002	0,2	0,131	0,128	ISO 17025	XRF (Pellet) info only	
24	0,124	0,000	-0,2	0,124	0,124	no accreditation	XRF (fusion)	-
25	0,136	0,001	0,7	0,135	0,136	ISO 17025	XRF (fusion)	-
26	0,128	0,001	0,1	0,127	0,128	ISO 17025	XRF (fusion)	-
28	0,139	0,001	0,9	0,138	0,139	ISO 17025	XRF (fusion)	-
32	0,130	0,000	0,3	0,130	0,130	no accreditation	XRF (fusion)	-
33	0,125	0,007	-0,1	0,120	0,130	no accreditation	XRF (Pellet) info only	-
37	0,134	0,000	0,5	0,134	0,134	no accreditation	XRF (fusion)	-
38	0,555		30,9	0,555		ISO 17025	ICP-OES	-
41	0,146	0,002	1,4	0,148	0,145	no accreditation	ICP-OES	-
42	0,087	0,001	-2,8	0,088	0,086	no accreditation	XRF (fusion)	-
43	0,092	0,015	-2,5	0,102	0,081	no accreditation	other	C, TXRF
44	0,110	0,000	-1,2	0,110	0,110	no accreditation	XRF (fusion)	-
45	0,125	0,007	-0,1	0,120	0,130	ISO 17025	XRF (fusion)	C
48	0,113	0,001	-1,0	0,113	0,112	ISO 17025	XRF (fusion)	-
51	0,130	0,000	0,3	0,130	0,130	no accreditation	XRF (fusion)	-
52	0,121	0,000	-0,4	0,121	0,121	no accreditation	XRF (Pellet) info only	EDRFA
53	0,130	0,000	0,3	0,130	0,130	no accreditation	XRF (fusion)	-
55	0,105	0,001	-1,5	0,106	0,104	no accreditation	XRF (fusion)	Reconstitution Method
56	0,120		-0,5	0,120		no accreditation	XRF (fusion)	-
57	0,113	0,001	-1,0	0,113	0,114	ISO 17025	XRF (fusion)	-
59	0,130	0,000	0,3	0,130	0,130	no accreditation	XRF (fusion)	-

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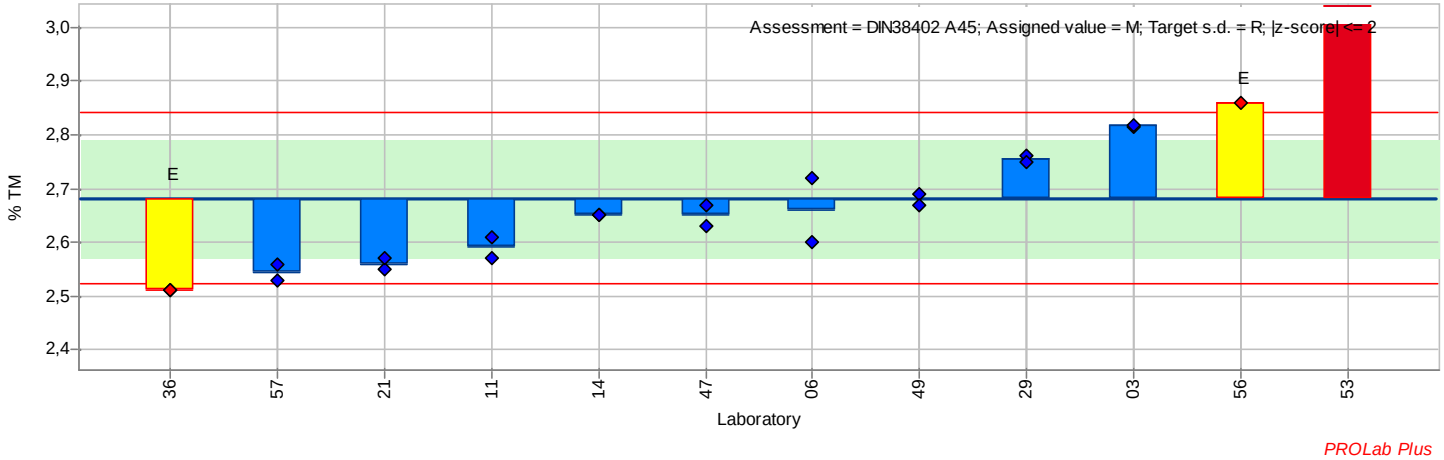
Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,152 % TM**
Measurand:	**Sulfate expressed as SO3**	**Repeat. s.d**	**0,026 % TM**
Mean ± U(Mean):	**2,682 ± 0,110 % TM**	**Range of tolerance:**	**2,522 - 2,842 % TM (|z-score| <= 2,0)**
No. of laboratories:	**12**	**Sample**	**DIN 38402 A45**
Assigned value	**2,682 % TM (Empirical value)**	**Target s.d.**	**0,080 % TM (Reference value)** E



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
03	2,817	0,002	1,7	2,815	2,818	no accreditation	Wet chemistry EN196-2	-
06	2,660	0,085	-0,3	2,720	2,600	no accreditation	Wet chemistry EN196-2	-
11	2,590	0,028	-1,2	2,570	2,610	no accreditation	Wet chemistry EN196-2	-
14	2,650	0,000	-0,4	2,650	2,650	no accreditation	Wet chemistry EN196-2	-
21	2,560	0,014	-1,5	2,550	2,570	ISO 17025	Wet chemistry EN196-2	-

FLUXANA® GmbH & Co.KG, Borschelstr.3, 47551 Bedburg-Hau Germany, GM Dr. Rainer Schramm, reg. in Kleve HRA 2935, personal liability FLUXANA Verwaltungs-GmbH Bedburg-Hau, reg. in Kleve HRB 8211, FLUxANA®is a registered trademark

RV118

Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
29	2,755	0,007	0,9	2,760	2,750	ISO 17025	Wet chemistry EN196-2	-
36	2,510	0,000	-2,2	2,510	2,510	ISO 17025	Wet chemistry EN196-2	-
47	2,650	0,028	-0,4	2,630	2,670	no accreditation	Wet chemistry EN196-2	-
49	2,680	0,014	0,0	2,690	2,670	no accreditation	Wet chemistry EN196-2	-
51						no accreditation	XRF (fusion)	-
53	3,135	0,049	5,7	3,170	3,100	no accreditation	Wet chemistry EN196-2	-
56	2,860		2,2	2,860		no accreditation	Wet chemistry EN196-2	-
57	2,545	0,021	-1,7	2,530	2,560	ISO 17025	Wet chemistry EN196-2	-

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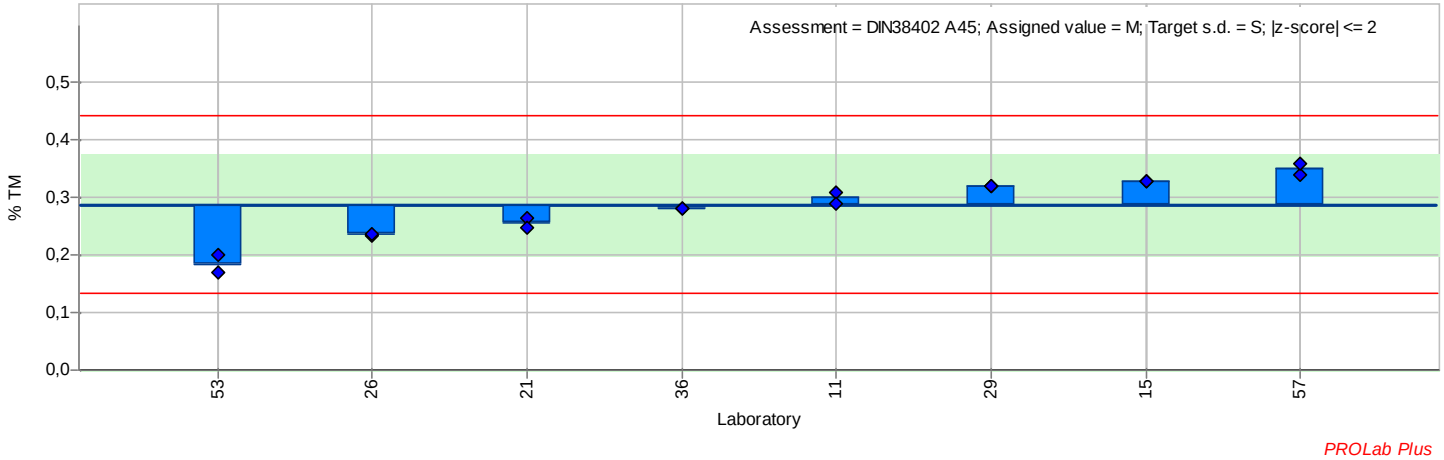
RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,078 % TM**
Measurand:	**Sulfide expressed as S**	**Repeat. s.d**	**0,014 % TM**
Mean ± U(Mean):	**0,288 ± 0,087 % TM**	**Range of tolerance:**	**0,133 - 0,444 % TM (|z-score| <= 2,0)**
No. of laboratories:	**5**	**Sample**	**DIN 38402 A45**
Assigned value	**0,288 % TM (Empirical value)**	**Target s.d.**	**0,078 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,300	0,014	0,2	0,310	0,290	no accreditation	Standardless info only	-
15	0,330	0,000	0,5	0,330	0,330	no accreditation	Wet chemistry EN196-2	-
21	0,256	0,011	-0,4	0,264	0,248	ISO 17025	Wet chemistry EN196-2	-
26	0,236	0,001	-0,7	0,235	0,237	ISO 17025	other	DIN 38405-D27
29	0,320	0,000	0,4	0,320	0,320	ISO 17025	Wet chemistry EN196-2	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
36	0,280	0,000	-0,1	0,280	0,280	no accreditation	other	Calculation
53	0,185	0,021	-1,3	0,170	0,200	no accreditation	Wet chemistry EN196-2	-
57	0,350	0,014	0,8	0,340	0,360	no accreditation	Wet chemistry EN196-2	SO4 difference

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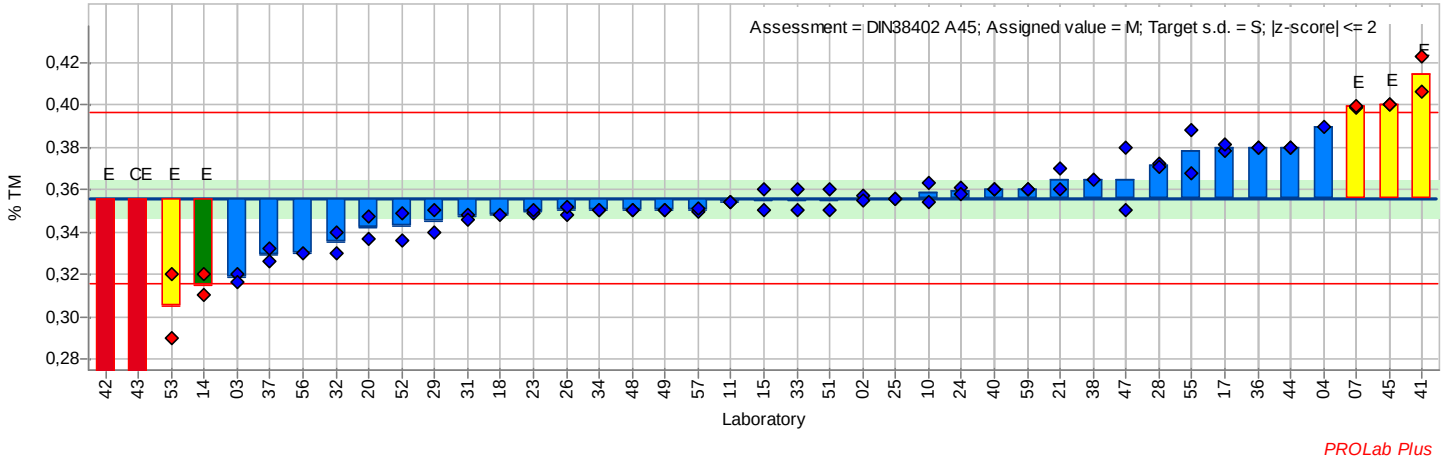
Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,020 % TM**
Measurand:	**TiO2**	**Repeat. s.d**	**0,007 % TM**
Mean ± U(Mean):	**0,356 ± 0,008 % TM**	**Range of tolerance:**	**0,315 - 0,397 % TM (|z-score| <= 2,0)**
No. of laboratories:	**36**	**Sample**	**DIN 38402 A45**
Assigned value	**0,356 % TM (Empirical value)**	**Target s.d.**	**0,020 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	0,356	0,001	0,0	0,357	0,355	ISO 17025	XRF (fusion)	-
03	0,318	0,003	-1,9	0,320	0,317	no accreditation	XRF (fusion)	ISO 29581-2
04	0,390		1,7	0,390		ISO 17025	ICP-OES	-
07	0,399	0,001	2,1	0,399	0,400	no accreditation	XRF (Pellet) info only	
10	0,359	0,006	0,1	0,363	0,354	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
11	0,354	0,000	-0,1	0,354	0,354	no accreditation	XRF (fusion)	-
14	0,315	0,007	-2,0	0,310	0,320	no accreditation	XRF (fusion)	-
15	0,355	0,007	-0,1	0,360	0,350	no accreditation	XRF (fusion)	-
17	0,380	0,002	1,2	0,378	0,381	no accreditation	XRF (fusion)	-
18	0,348		-0,4	0,348		no accreditation	XRF (fusion)	-
20	0,342	0,007	-0,7	0,347	0,337	no accreditation	XRF (fusion)	-
21	0,365	0,007	0,4	0,360	0,370	ISO 17025	XRF (fusion)	ISO 29581-2:2010
23	0,349	0,001	-0,3	0,349	0,350	ISO 17025	XRF (Pellet) info only	
24	0,359	0,002	0,2	0,361	0,358	no accreditation	XRF (fusion)	-
25	0,356	0,000	0,0	0,356	0,356	ISO 17025	XRF (fusion)	-
26	0,350	0,003	-0,3	0,348	0,352	ISO 17025	XRF (fusion)	-
28	0,371	0,001	0,8	0,372	0,371	ISO 17025	XRF (fusion)	-
29	0,345	0,007	-0,5	0,350	0,340	ISO 17025	XRF (fusion)	-
31	0,347	0,001	-0,4	0,348	0,346	ISO 17025	XRF (fusion)	-
32	0,335	0,007	-1,0	0,330	0,340	no accreditation	XRF (fusion)	-
33	0,355	0,007	-0,1	0,360	0,350	no accreditation	XRF (Pellet) info only	-
34	0,350	0,000	-0,3	0,350	0,350	no accreditation	XRF (fusion)	-
36	0,380	0,000	1,2	0,380	0,380	ISO 17025	XRF (fusion)	-
37	0,329	0,004	-1,3	0,332	0,326	no accreditation	XRF (fusion)	-
38	0,365		0,4	0,365		ISO 17025	ICP-OES	-
40	0,360	0,000	0,2	0,360	0,360	ISO 17025	XRF (fusion)	-
41	0,414	0,012	2,9	0,423	0,406	no accreditation	ICP-OES	-
42	0,212	0,000	-7,1	0,212	0,212	no accreditation	XRF (fusion)	-
43	0,230	0,049	-6,2	0,264	0,196	no accreditation	other	C, TXRF
44	0,380	0,000	1,2	0,380	0,380	no accreditation	XRF (fusion)	-
45	0,400	0,000	2,2	0,400	0,400	ISO 17025	XRF (fusion)	-
47	0,365	0,021	0,4	0,380	0,350	ISO 17025	XRF (fusion)	-
48	0,350	0,000	-0,3	0,350	0,350	ISO 17025	XRF (fusion)	-
49	0,350	0,000	-0,3	0,350	0,350	no accreditation	XRF (fusion)	-
51	0,355	0,007	-0,1	0,360	0,350	no accreditation	XRF (fusion)	-
52	0,343	0,009	-0,7	0,336	0,349	no accreditation	XRF (Pellet) info only	EDRFA
53	0,305	0,021	-2,5	0,320	0,290	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
55	0,378	0,014	1,1	0,388	0,368	no accreditation	XRF (fusion)	Reconstitution Method
56	0,330		-1,3	0,330		no accreditation	XRF (fusion)	-
57	0,351	0,001	-0,3	0,350	0,351	ISO 17025	XRF (fusion)	-
59	0,360	0,000	0,2	0,360	0,360	no accreditation	XRF (fusion)	-

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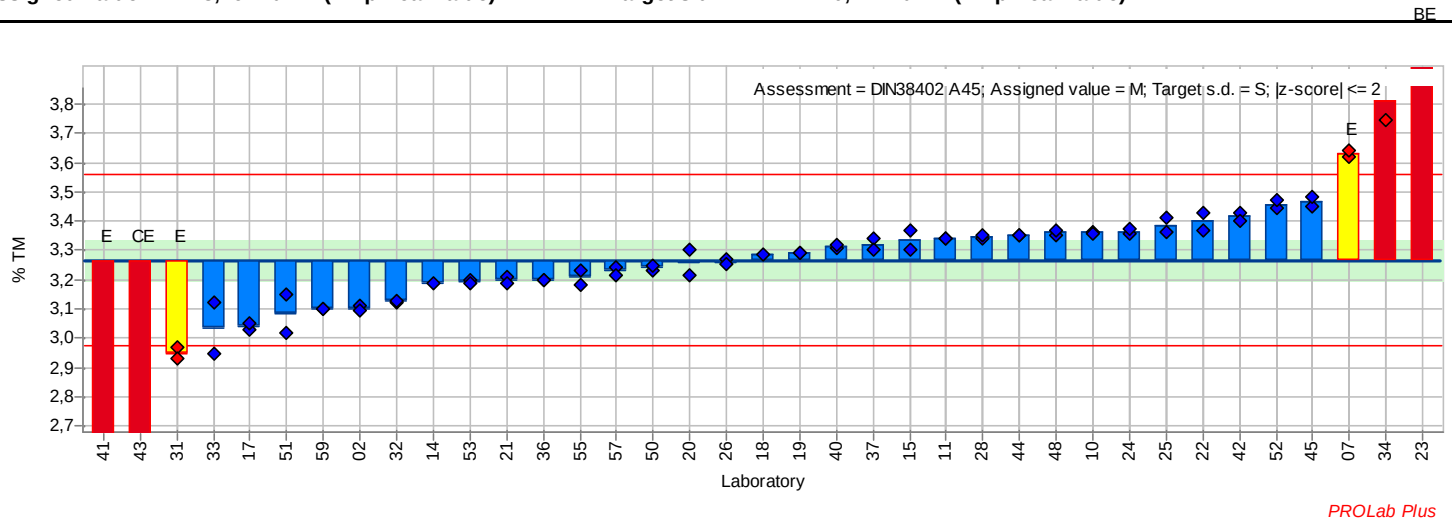
RV118

Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,147 % TM**
Measurand:	**Total S expressed as SO3**	**Repeat. s.d**	**0,025 % TM**
Mean ± U(Mean):	**3,267 ± 0,066 % TM**	**Range of tolerance:**	**2,973 - 3,560 % TM (|z-score| <= 2,0)**
No. of laboratories:	**31**	**Sample**	**DIN 38402 A45**
Assigned value	**3,267 % TM (Empirical value)**	**Target s.d.**	**0,147 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
02	3,101	0,011	-1,1	3,109	3,094	ISO 17025	XRF (fusion)	-
07	3,630	0,014	2,5	3,620	3,640	no accreditation	XRF (Pellet) info only	
10	3,361	0,004	0,6	3,364	3,358	no accreditation	XRF (fusion)	-
11	3,340	0,000	0,5	3,340	3,340	no accreditation	XRF (fusion)	-
14	3,190		-0,5	3,190		no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
15	3,335	0,049	0,5	3,300	3,370	no accreditation	XRF (fusion)	-
17	3,042	0,014	-1,5	3,032	3,052	no accreditation	XRF (fusion)	-
18	3,287		0,1	3,287		no accreditation	XRF (fusion)	-
19	3,290	0,000	0,2	3,290	3,290	no accreditation	XRF (fusion)	-
20	3,259	0,064	-0,1	3,214	3,304	no accreditation	combustion	-
21	3,200	0,014	-0,5	3,210	3,190	ISO 17025	Wet chemistry EN196-2	-
22	3,400	0,042	0,9	3,430	3,370	no accreditation	XRF (fusion)	-
23	4,023	0,024	5,2	4,006	4,040	ISO 17025	XRF (Pellet) info only	
24	3,364	0,011	0,7	3,356	3,372	no accreditation	XRF (fusion)	-
25	3,385	0,035	0,8	3,360	3,410	ISO 17025	XRF (fusion)	-
26	3,260	0,011	0,0	3,268	3,253	ISO 17025	combustion	-
28	3,346	0,005	0,5	3,343	3,350	ISO 17025	XRF (fusion)	-
31	2,950	0,028	-2,2	2,970	2,930	ISO 17025	combustion	-
32	3,125	0,007	-1,0	3,120	3,130	no accreditation	XRF (fusion)	-
33	3,035	0,120	-1,6	3,120	2,950	no accreditation	XRF (Pellet) info only	C
34	3,808	0,088	3,7	3,746	3,870	no accreditation	XRF (fusion)	-
36	3,200	0,000	-0,5	3,200	3,200	no accreditation	other	SR3T gravimetric Bromine
37	3,320	0,028	0,4	3,340	3,300	no accreditation	XRF (fusion)	-
40	3,315	0,007	0,3	3,310	3,320	ISO 17025	XRF (fusion)	-
41	1,320	0,042	-13,3	1,290	1,350	no accreditation	combustion	-
42	3,415	0,021	1,0	3,430	3,400	no accreditation	XRF (fusion)	-
43	1,770	0,335	-10,2	2,006	1,533	no accreditation	other	C, TXRF
44	3,350	0,000	0,6	3,350	3,350	no accreditation	XRF (fusion)	-
45	3,465	0,021	1,3	3,450	3,480	ISO 17025	combustion	-
48	3,360	0,014	0,6	3,350	3,370	ISO 17025	combustion	-
50	3,240	0,014	-0,2	3,230	3,250	no accreditation	XRF (fusion)	-
51	3,085	0,092	-1,2	3,150	3,020	no accreditation	XRF (fusion)	-
52	3,458	0,018	1,3	3,445	3,470	no accreditation	XRF (Pellet) info only	EDRFA
53	3,195	0,007	-0,5	3,200	3,190	no accreditation	XRF (fusion)	-
55	3,208	0,033	-0,4	3,232	3,185	no accreditation	XRF (fusion)	Reconstitution Method
57	3,231	0,020	-0,2	3,244	3,217	ISO 17025	XRF (fusion)	-
59	3,100	0,000	-1,1	3,100	3,100	no accreditation	XRF (fusion)	-

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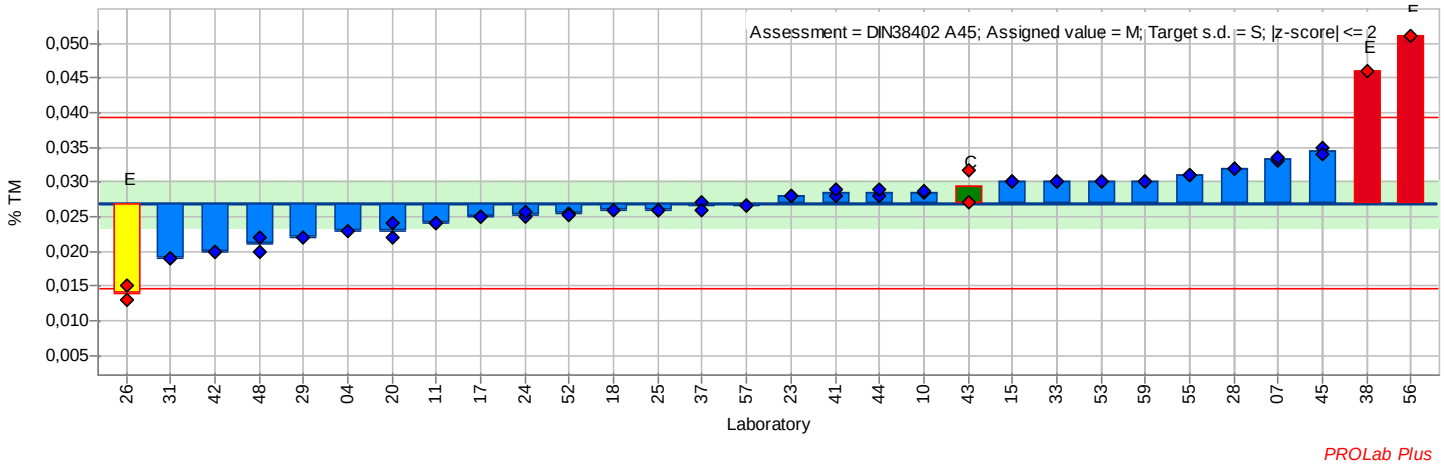
Sample:	**FLX-CRM 122**	**Reprod. s.d.**	**0,006 % TM**
Measurand:	**ZnO**	**Repeat. s.d**	**0,001 % TM**
Mean ± U(Mean):	**0,027 ± 0,003 % TM**	**Range of tolerance:**	**0,015 - 0,039 % TM (|z-score| <= 2,0)**
No. of laboratories:	**23**	**Sample**	**DIN 38402 A45**
Assigned value	**0,027 % TM (Empirical value)**	**Target s.d.**	**0,006 % TM (Empirical value)**



Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
04	0,023		-0,6	0,023		ISO 17025	ICP-OES	-
07	0,033	0,000	1,0	0,033	0,034	no accreditation	XRF (Pellet) info only	
10	0,029	0,000	0,3	0,028	0,029	no accreditation	XRF (fusion)	-
11	0,024	0,000	-0,5	0,024	0,024	no accreditation	XRF (fusion)	-
15	0,030	0,000	0,5	0,030	0,030	no accreditation	XRF (fusion)	-

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Lab code	Lab mean	s.d.	z-score	Conc. 1	Conc. 2	Accreditation	Analytical method	Comment
17	0,025	0,000	-0,3	0,025	0,025	no accreditation	XRF (fusion)	-
18	0,026		-0,2	0,026		no accreditation	XRF (fusion)	-
20	0,023	0,001	-0,6	0,024	0,022	no accreditation	XRF (Pellet) info only	-
23	0,028	0,000	0,2	0,028	0,028	ISO 17025	XRF (Pellet) info only	
24	0,025	0,000	-0,3	0,025	0,026	no accreditation	XRF (fusion)	-
25	0,026	0,000	-0,2	0,026	0,026	ISO 17025	XRF (fusion)	-
26	0,014	0,001	-2,1	0,013	0,015	ISO 17025	XRF (fusion)	-
28	0,032	0,000	0,8	0,032	0,032	ISO 17025	XRF (fusion)	-
29	0,022		-0,8	0,022		no accreditation	Standardless info only	fused bead trace
31	0,019	0,000	-1,3	0,019	0,019	ISO 17025	ICP-OES	digestion in aqua regia
33	0,030	0,000	0,5	0,030	0,030	no accreditation	XRF (Pellet) info only	-
37	0,026	0,001	-0,1	0,027	0,026	no accreditation	XRF (fusion)	-
38	0,046		3,1	0,046		ISO 17025	ICP-OES	-
41	0,029	0,001	0,3	0,028	0,029	no accreditation	ICP-OES	-
42	0,020	0,000	-1,1	0,020	0,020	no accreditation	XRF (fusion)	-
43	0,029	0,003	0,4	0,032	0,027	no accreditation	other	C, TXRF
44	0,029	0,001	0,3	0,028	0,029	no accreditation	XRF (fusion)	-
45	0,035	0,001	1,2	0,035	0,034	ISO 17025	XRF (fusion)	-
48	0,021	0,001	-1,0	0,020	0,022	ISO 17025	XRF (fusion)	C
52	0,025	0,000	-0,3	0,025	0,025	no accreditation	XRF (Pellet) info only	EDRFA
53	0,030	0,000	0,5	0,030	0,030	no accreditation	XRF (fusion)	-
55	0,031	0,000	0,7	0,031	0,031	no accreditation	XRF (fusion)	Reconstitution Method
56	0,051		3,9	0,051		no accreditation	XRF (fusion)	-
57	0,027	0,000	-0,1	0,027	0,026	ISO 17025	XRF (fusion)	-
59	0,030	0,000	0,5	0,030	0,030	no accreditation	XRF (fusion)	-

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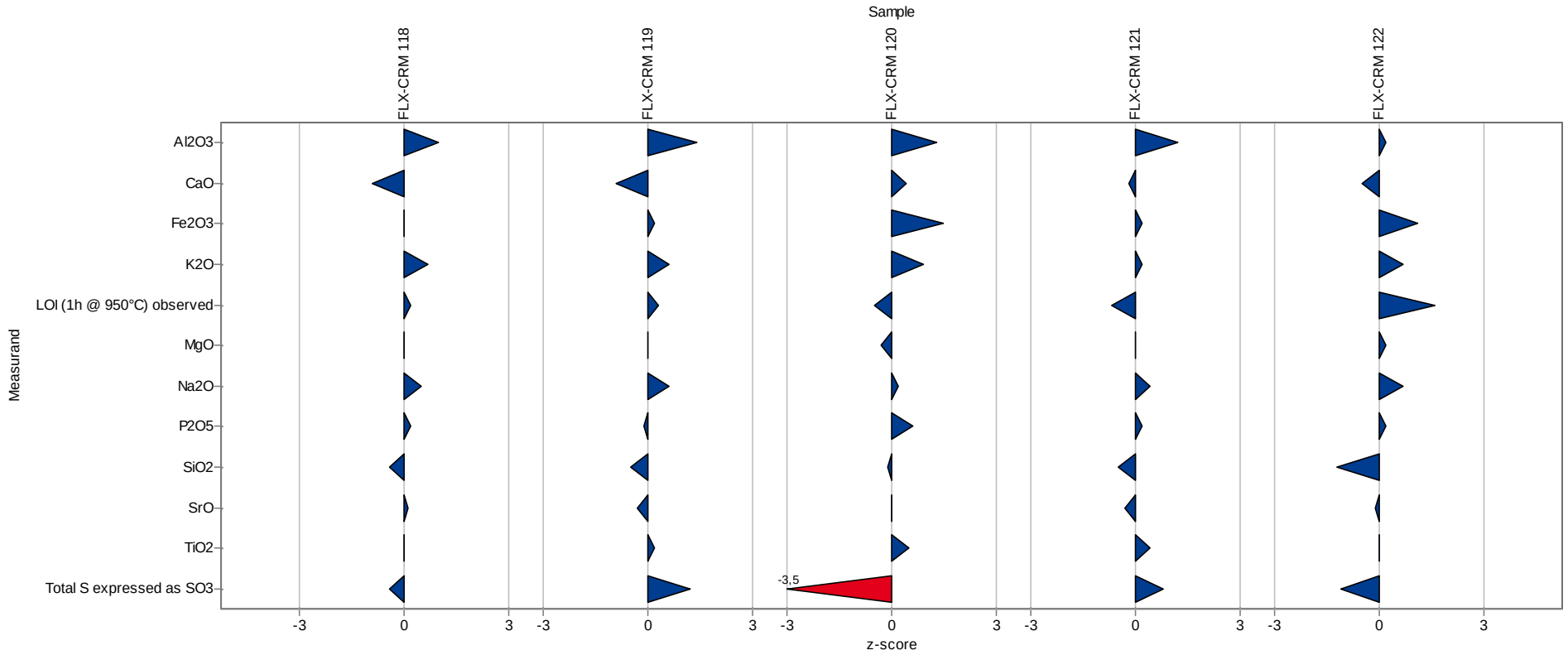
Laboratory chart of z-scores

Laboratory: 02



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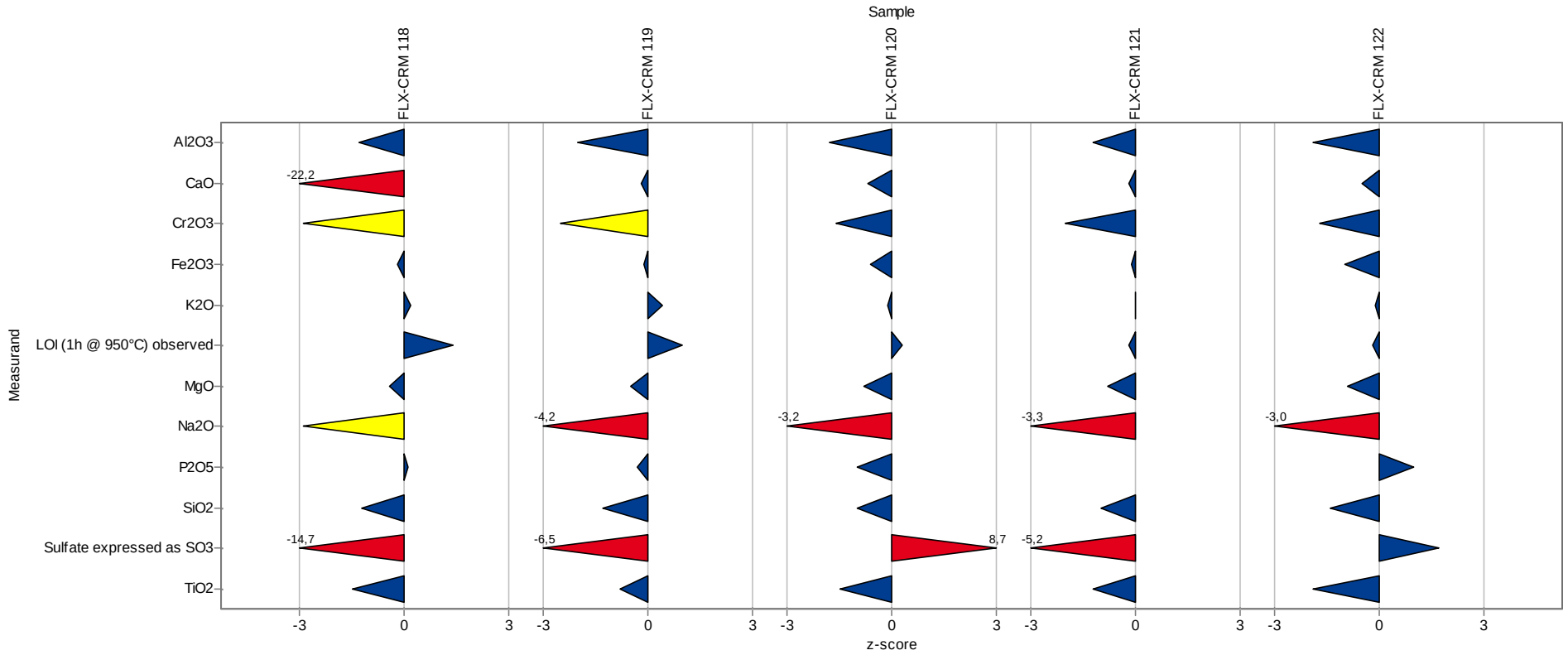
Laboratory chart of z-scores

Laboratory: 03



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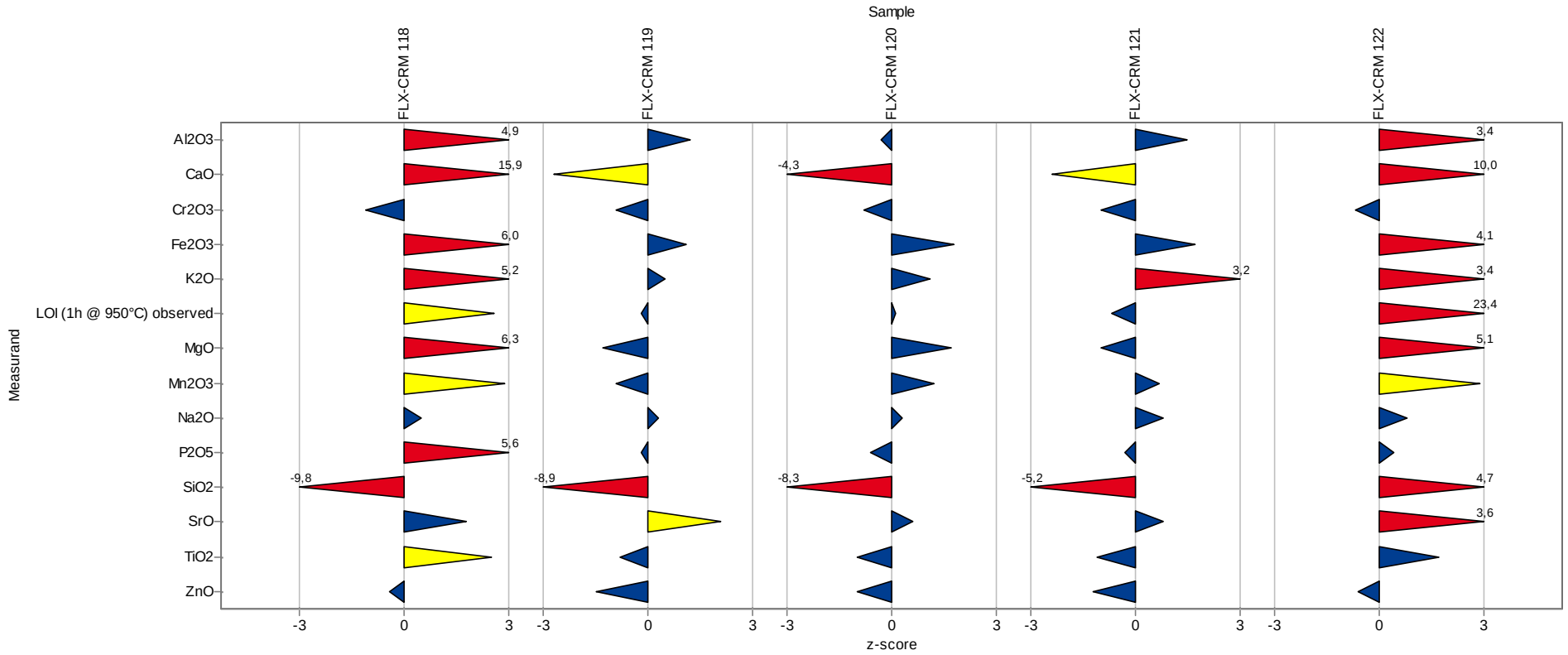
Laboratory chart of z-scores

Laboratory: 04



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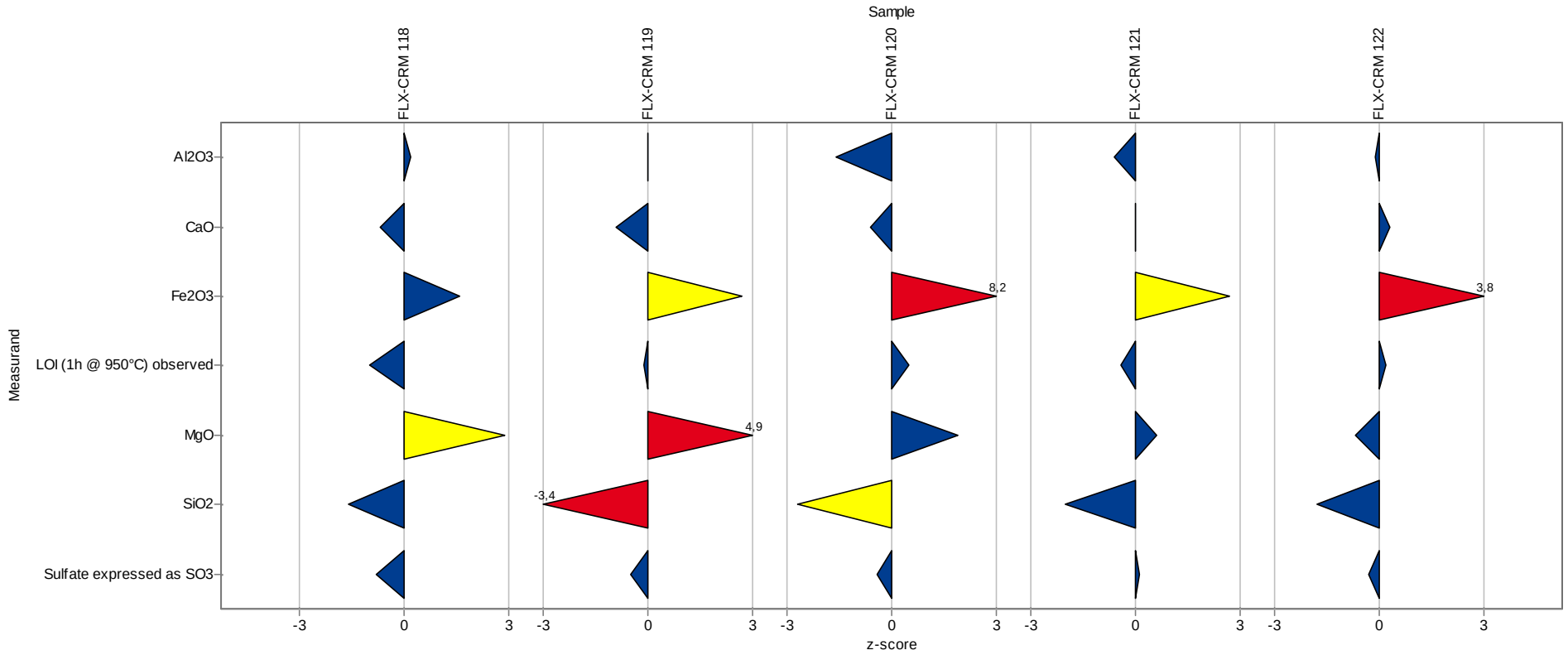
Laboratory chart of z-scores

Laboratory: 06



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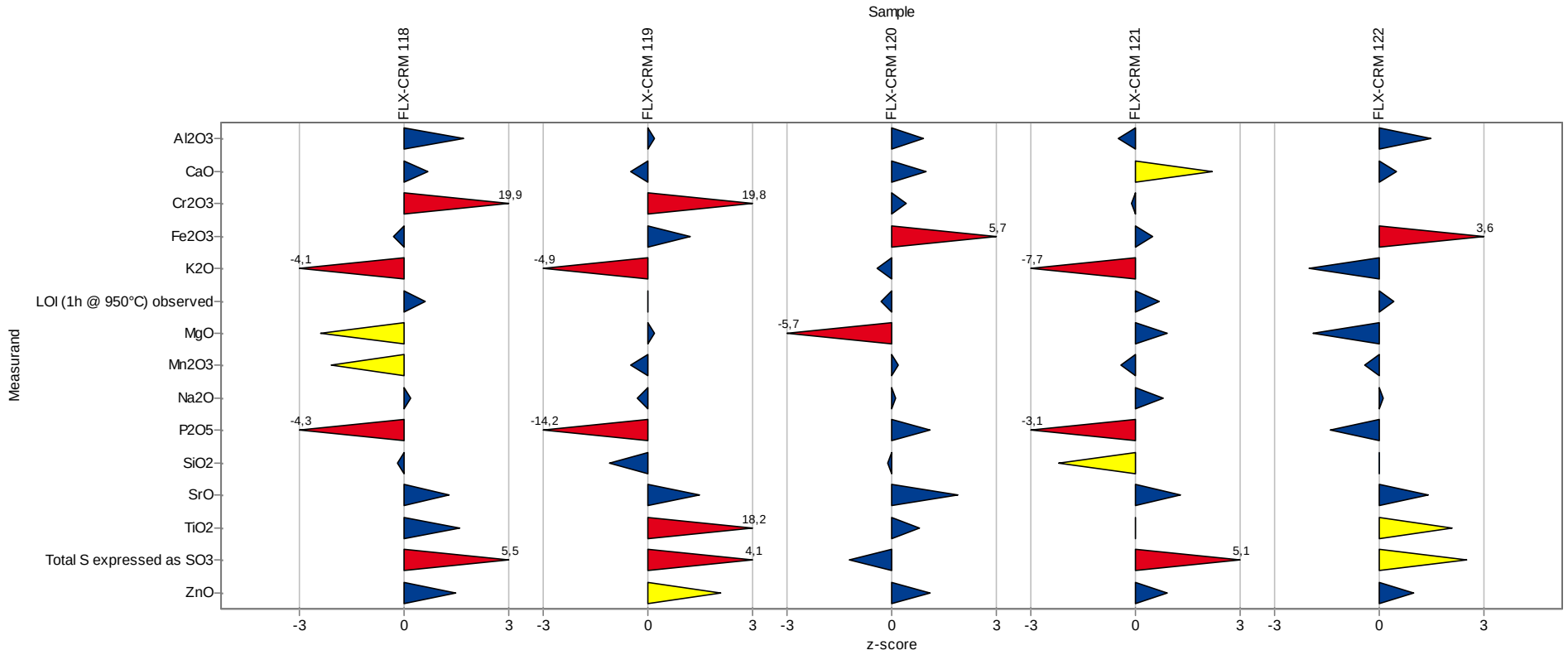
Laboratory chart of z-scores

Laboratory: 07



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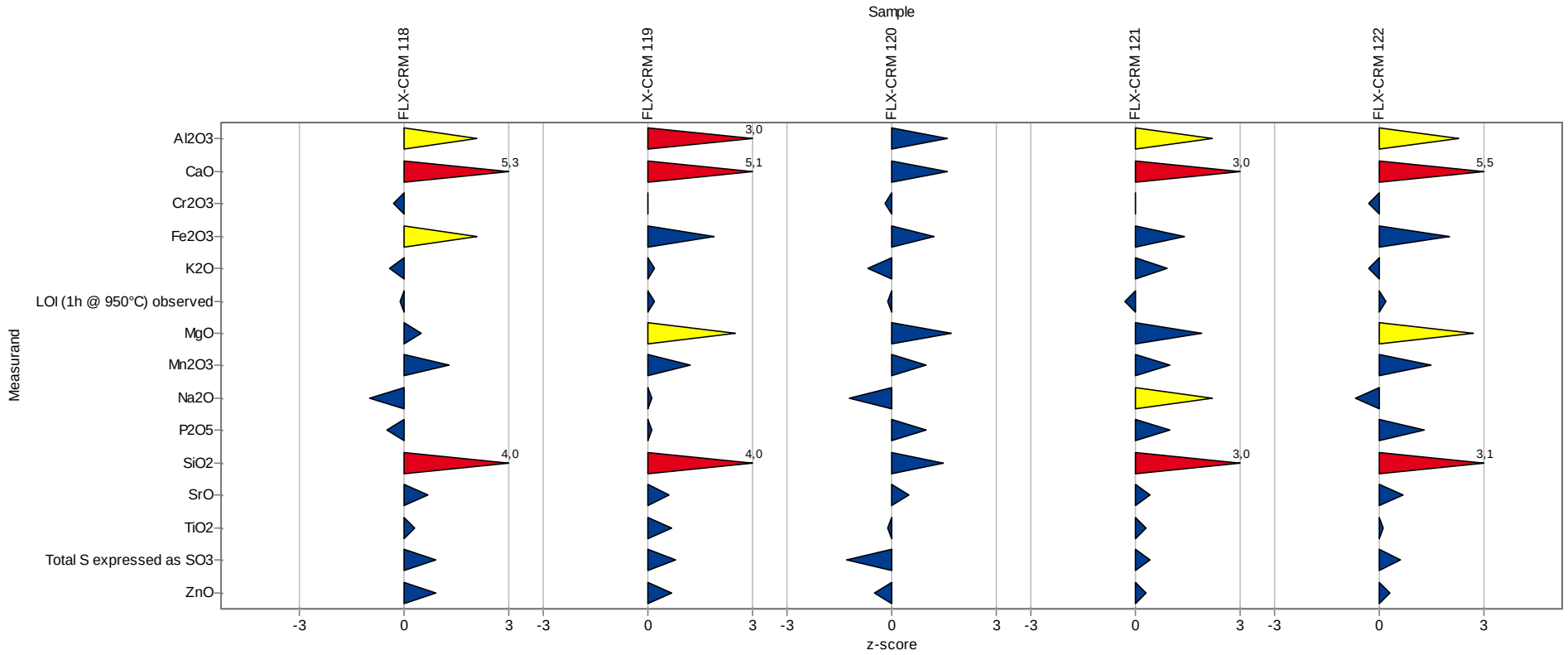
Laboratory chart of z-scores

Laboratory: 10



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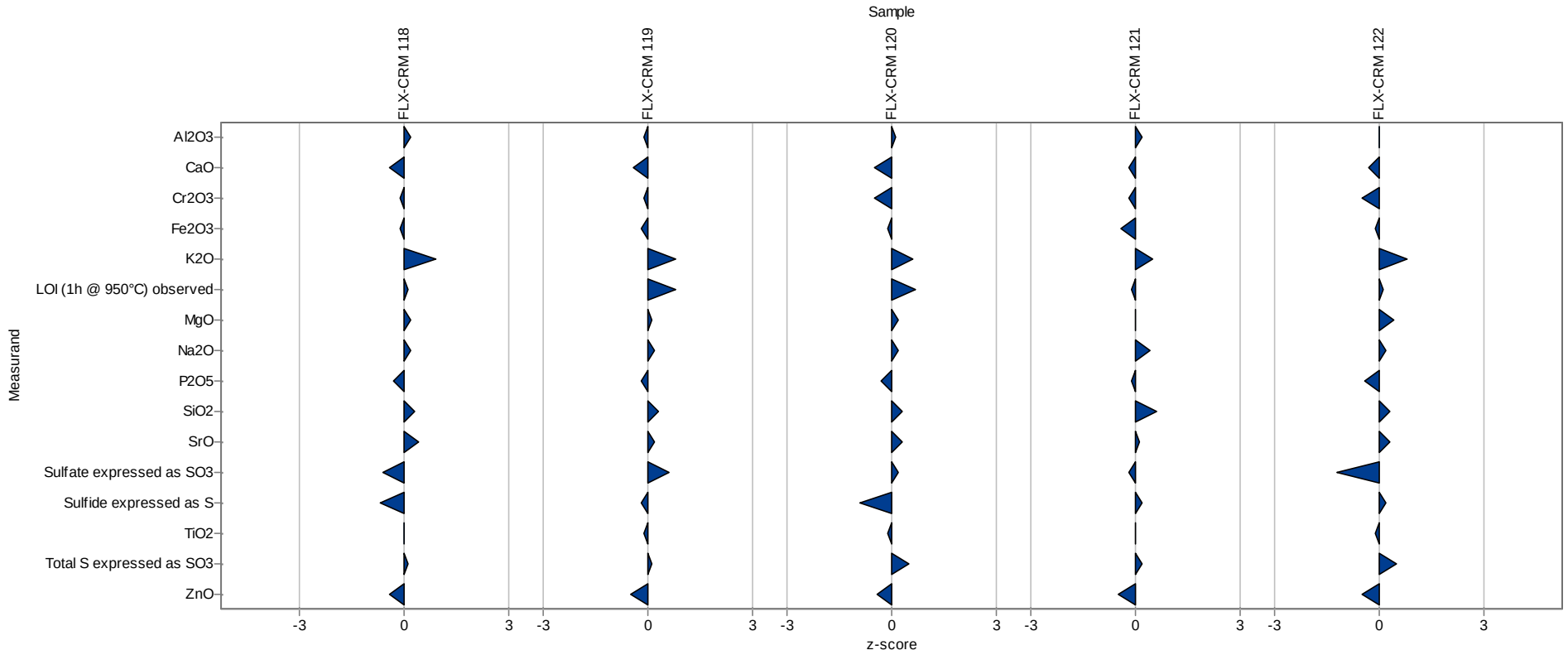
Laboratory chart of z-scores

Laboratory: 11



FLUXANA® GmbH & Co.KG, Borschelstr.3, 47551 Bedburg-Hau Germany, GM Dr. Rainer Schramm, reg. in Kleve HRA 2935, personal liability FLUXANA Verwaltungs-GmbH Bedburg-Hau, reg. in Kleve HRB 8211, FLUxANA®is a registered trademark

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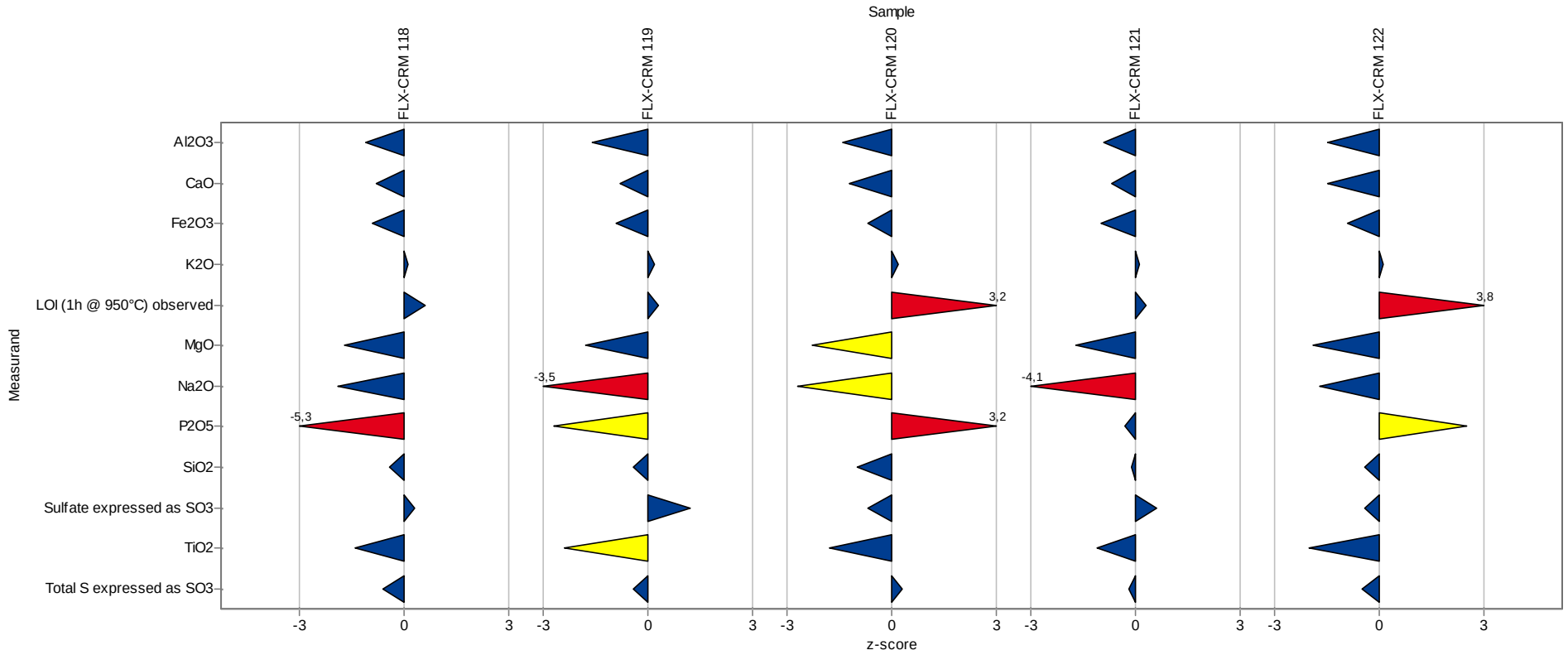
Laboratory chart of z-scores

Laboratory: 14



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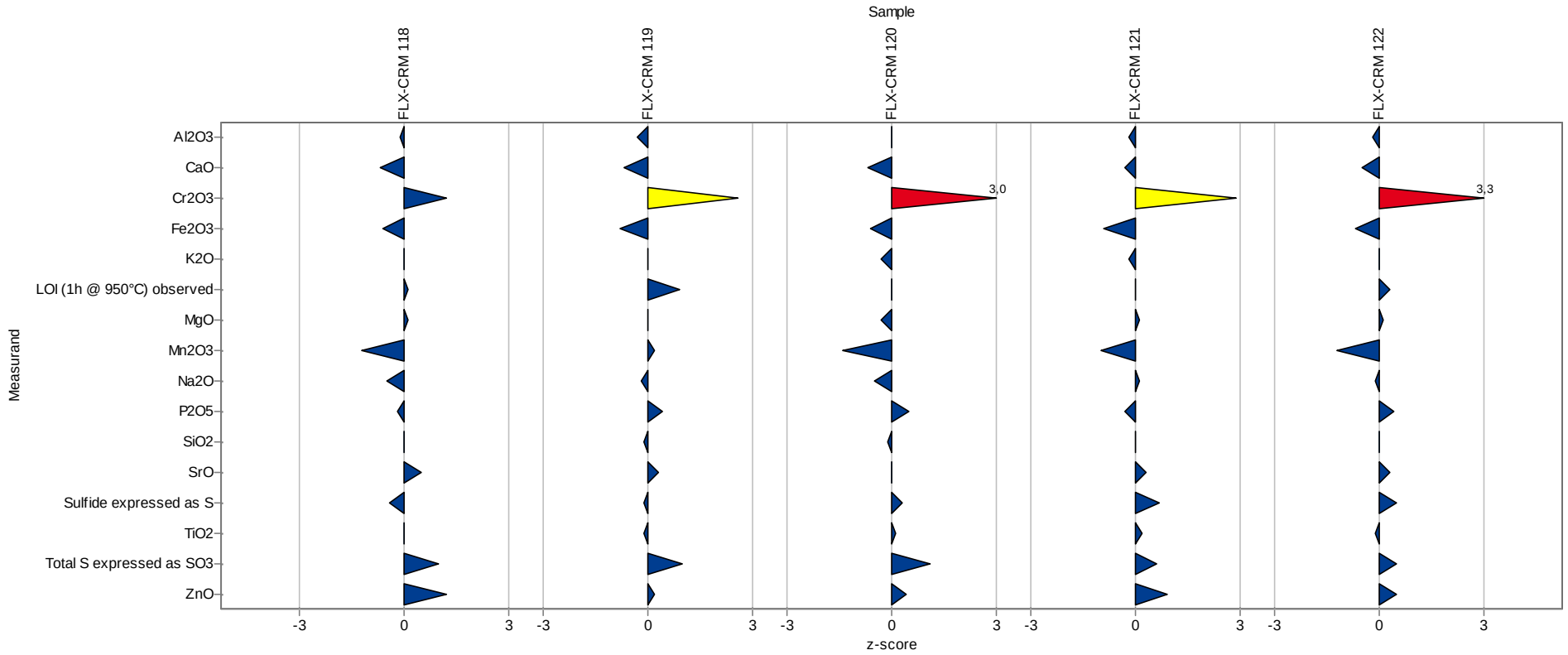
Laboratory chart of z-scores

Laboratory: 15



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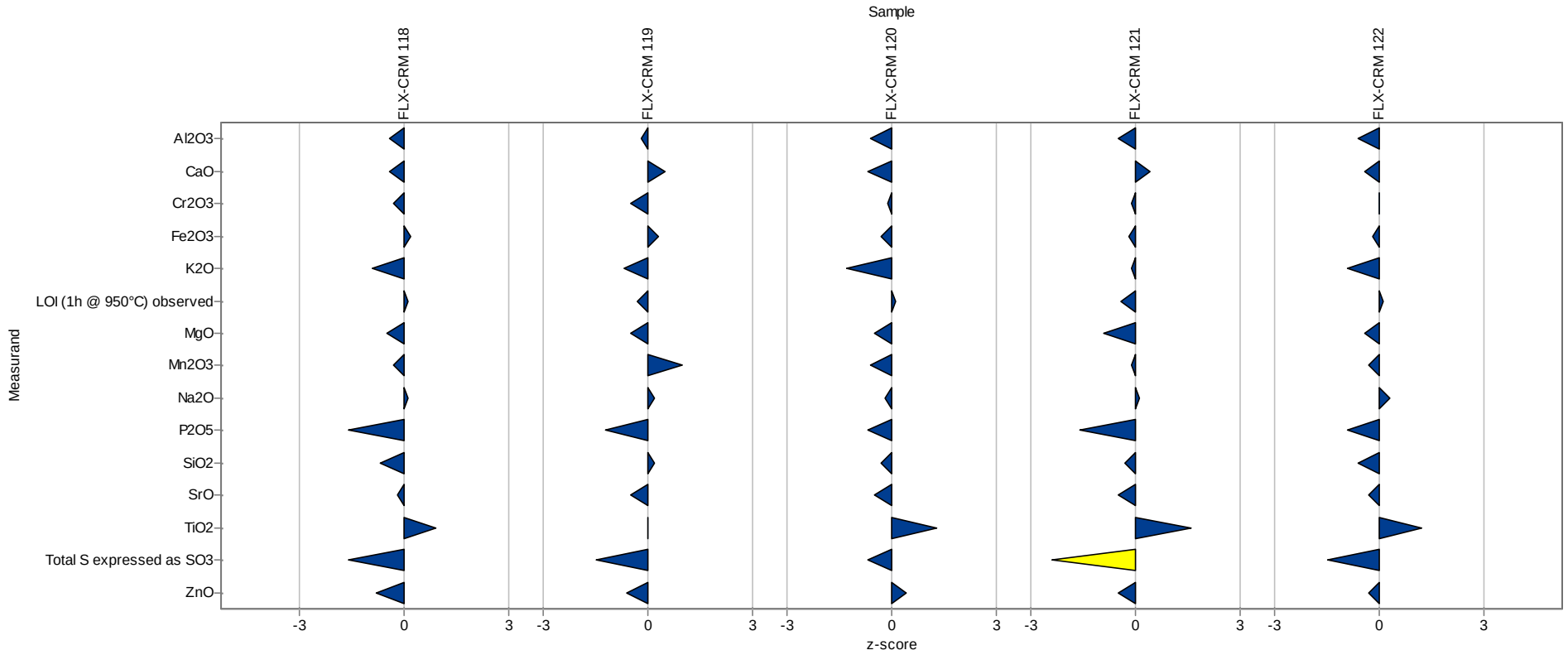
Laboratory chart of z-scores

Laboratory: 17



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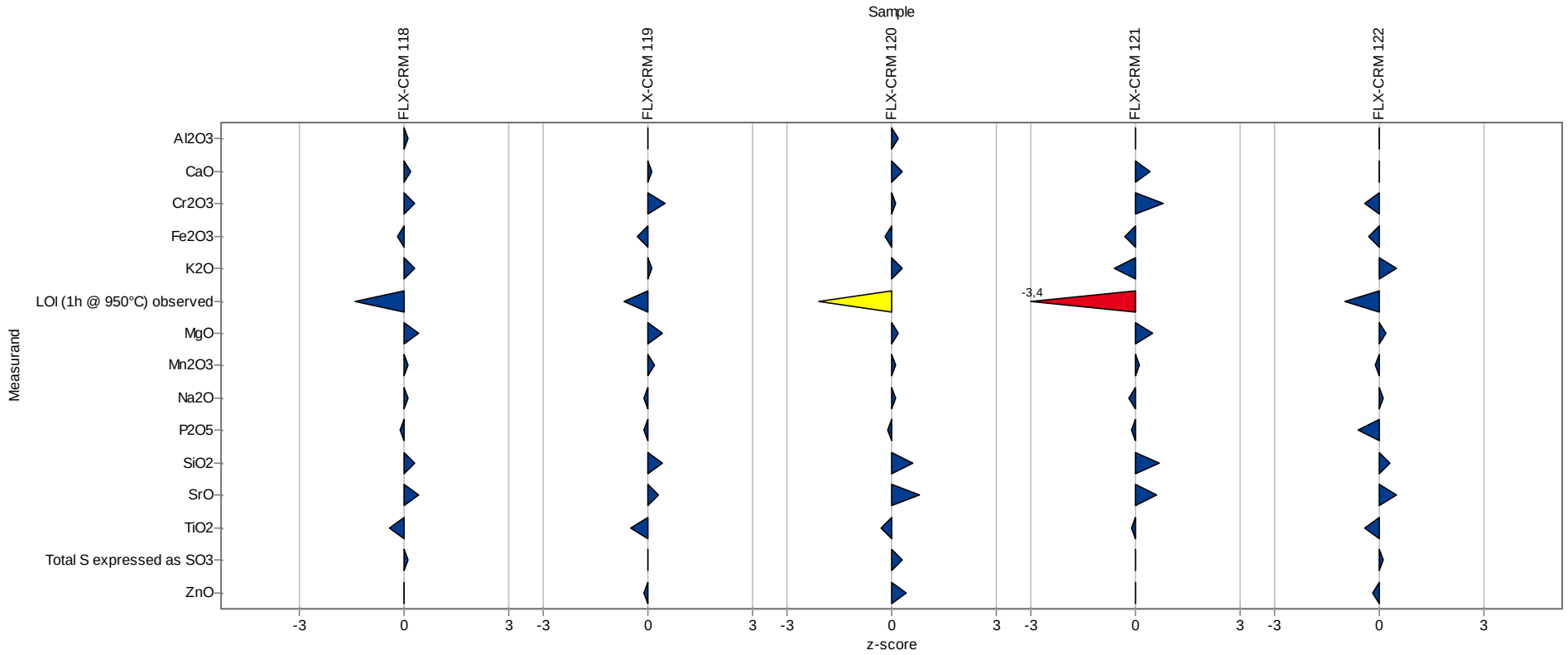
Laboratory chart of z-scores

Laboratory: 18



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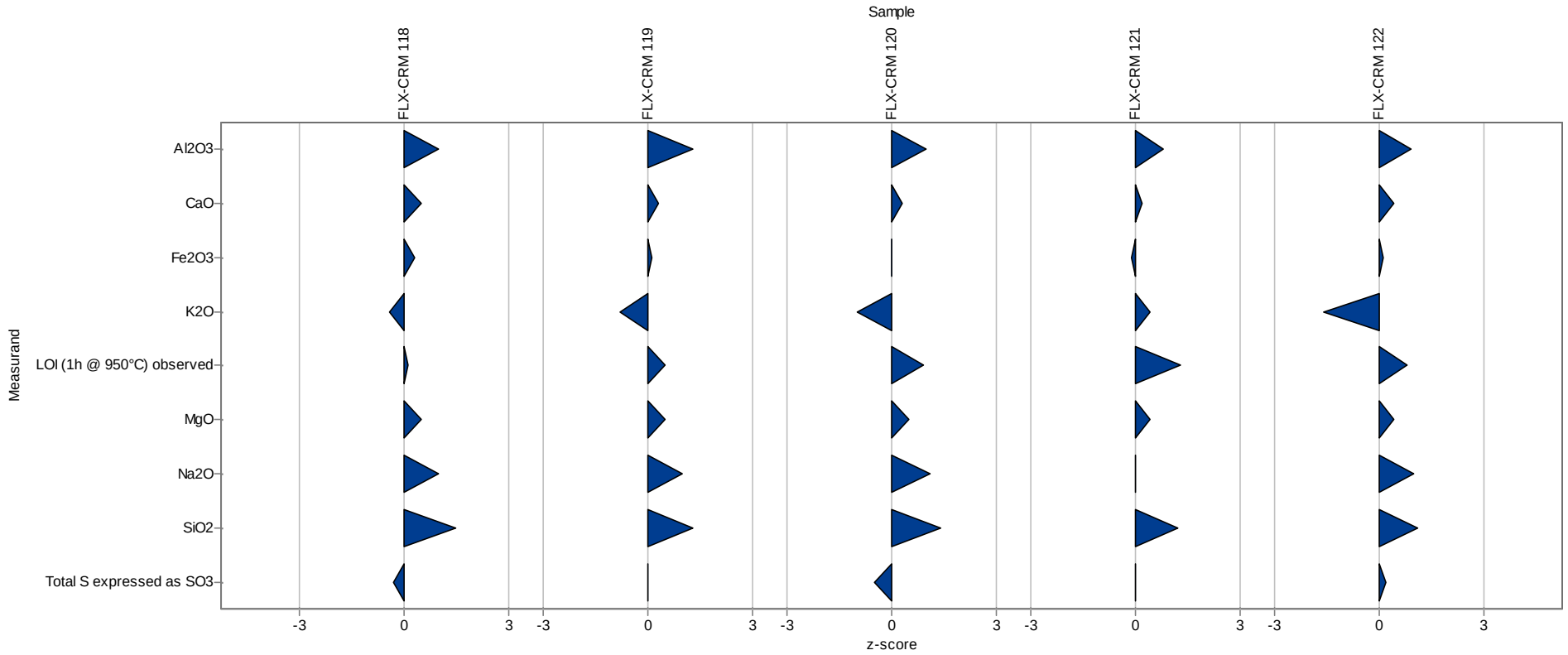
Laboratory chart of z-scores

Laboratory: 19



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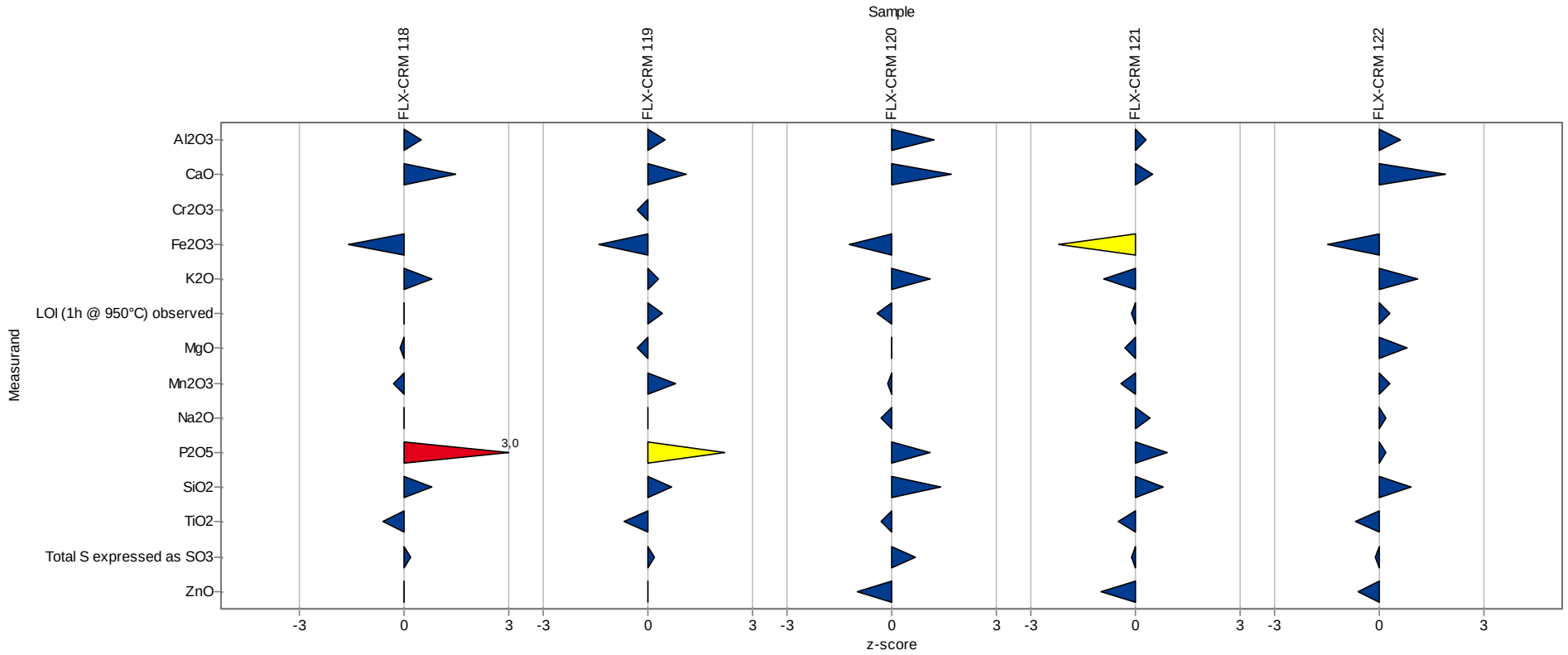
Laboratory chart of z-scores

Laboratory: 20



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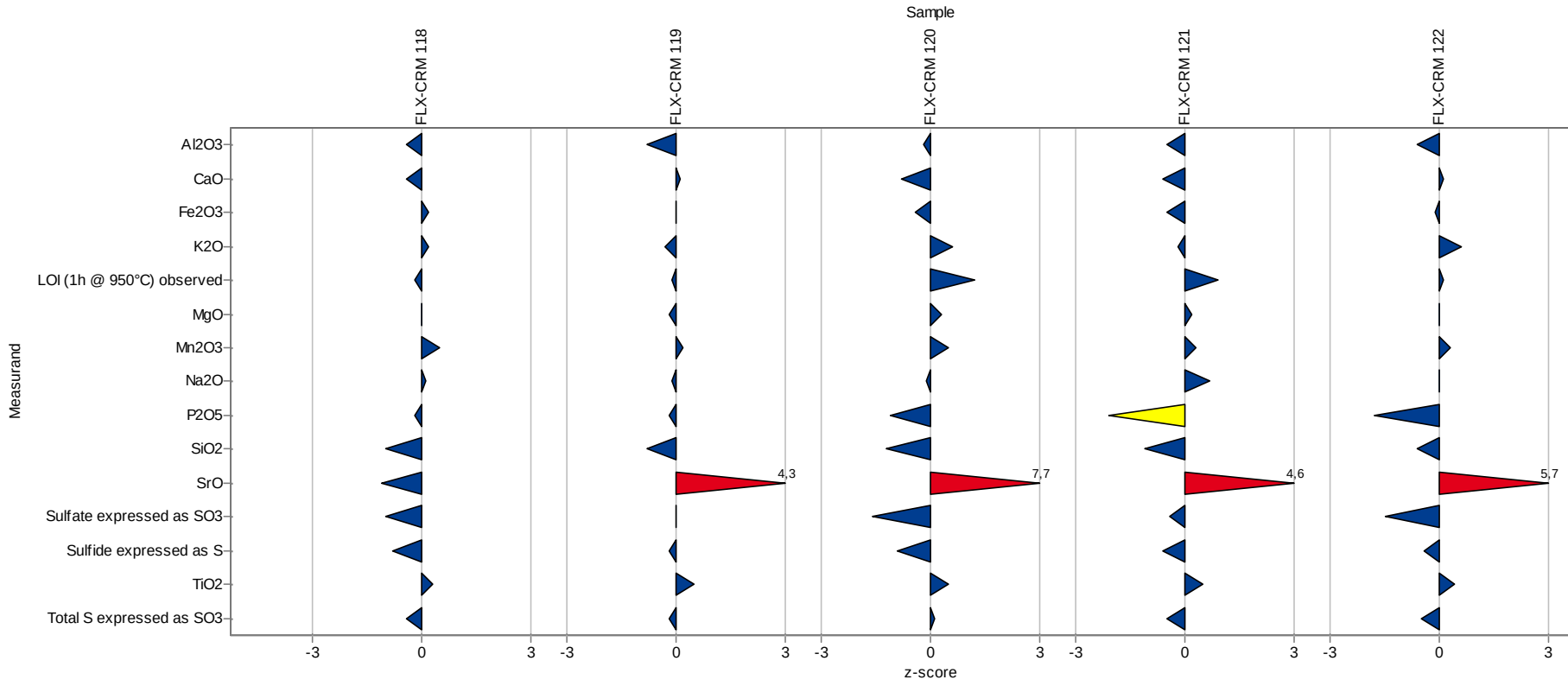
Laboratory chart of z-scores

Laboratory: 21



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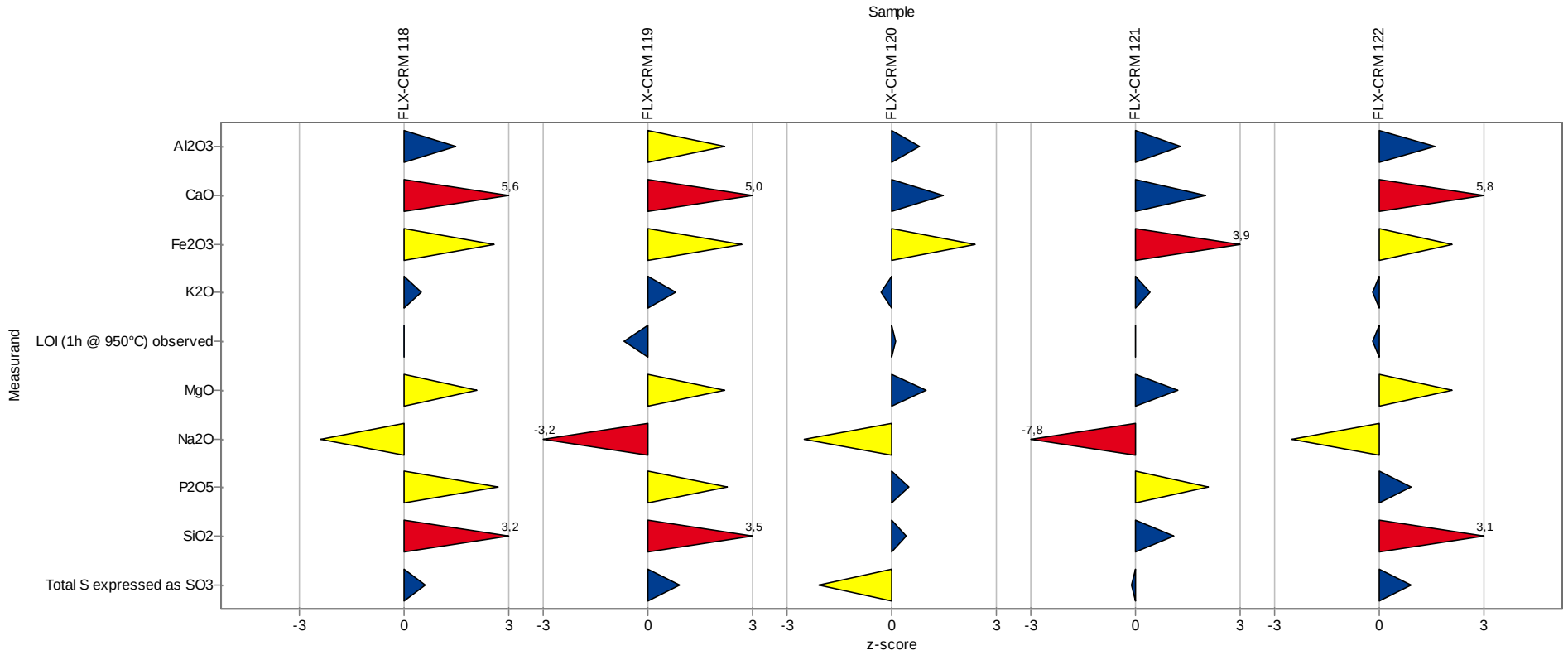
Laboratory chart of z-scores

Laboratory: 22



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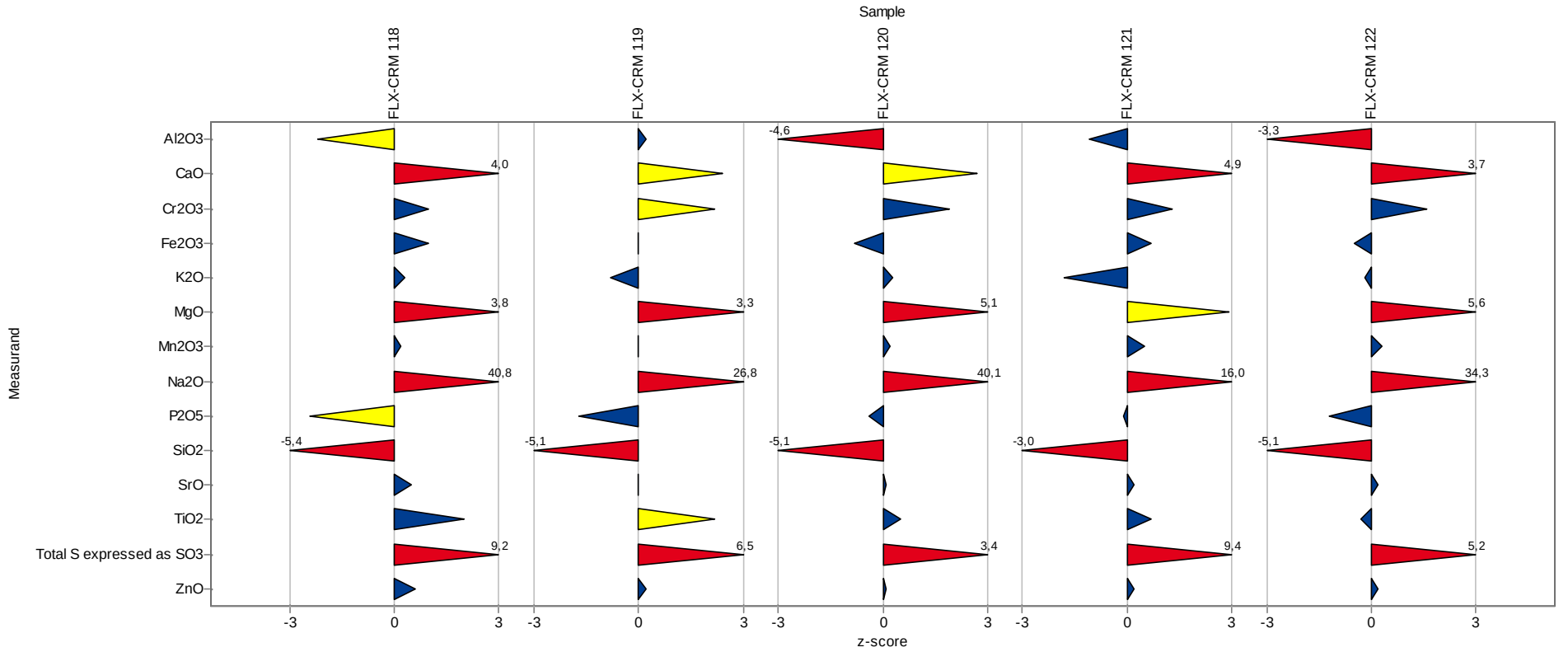
Laboratory chart of z-scores

Laboratory: 23



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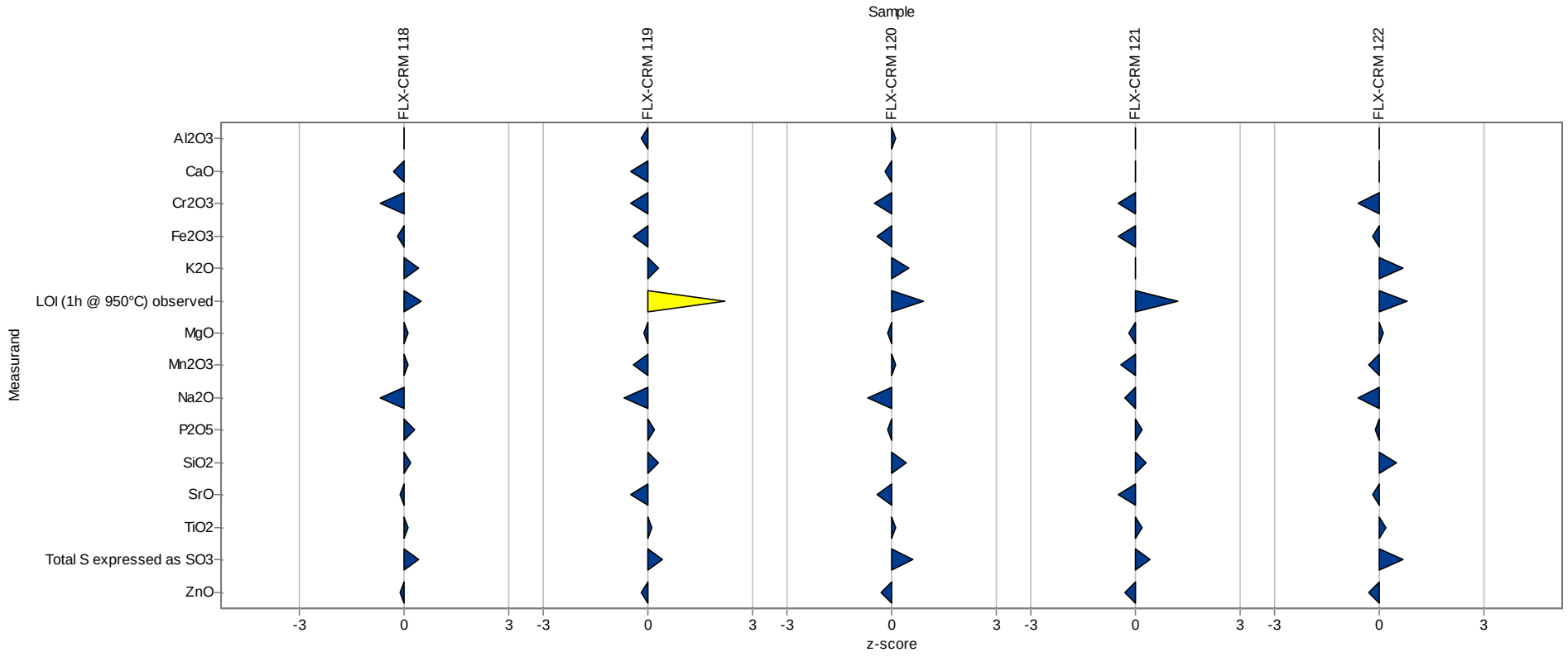
Laboratory chart of z-scores

Laboratory: 24



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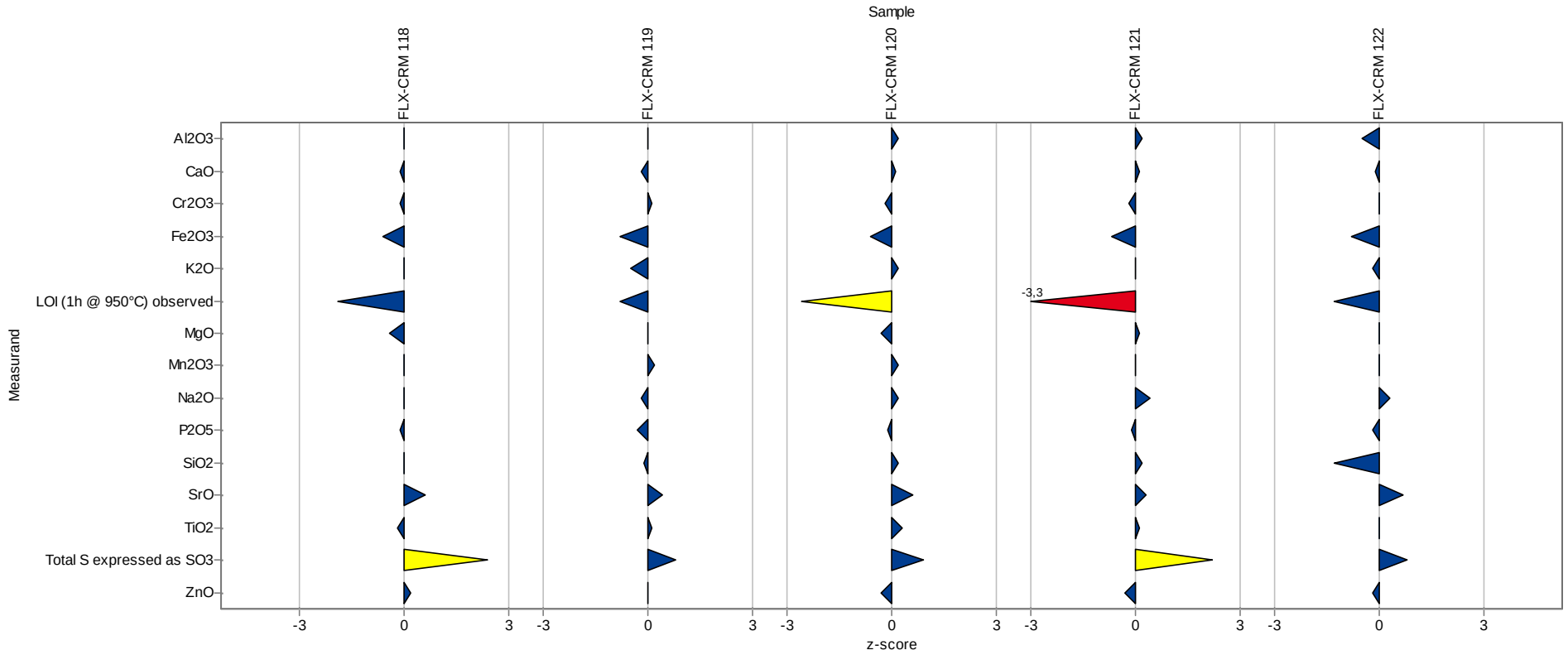
Laboratory chart of z-scores

Laboratory: 25



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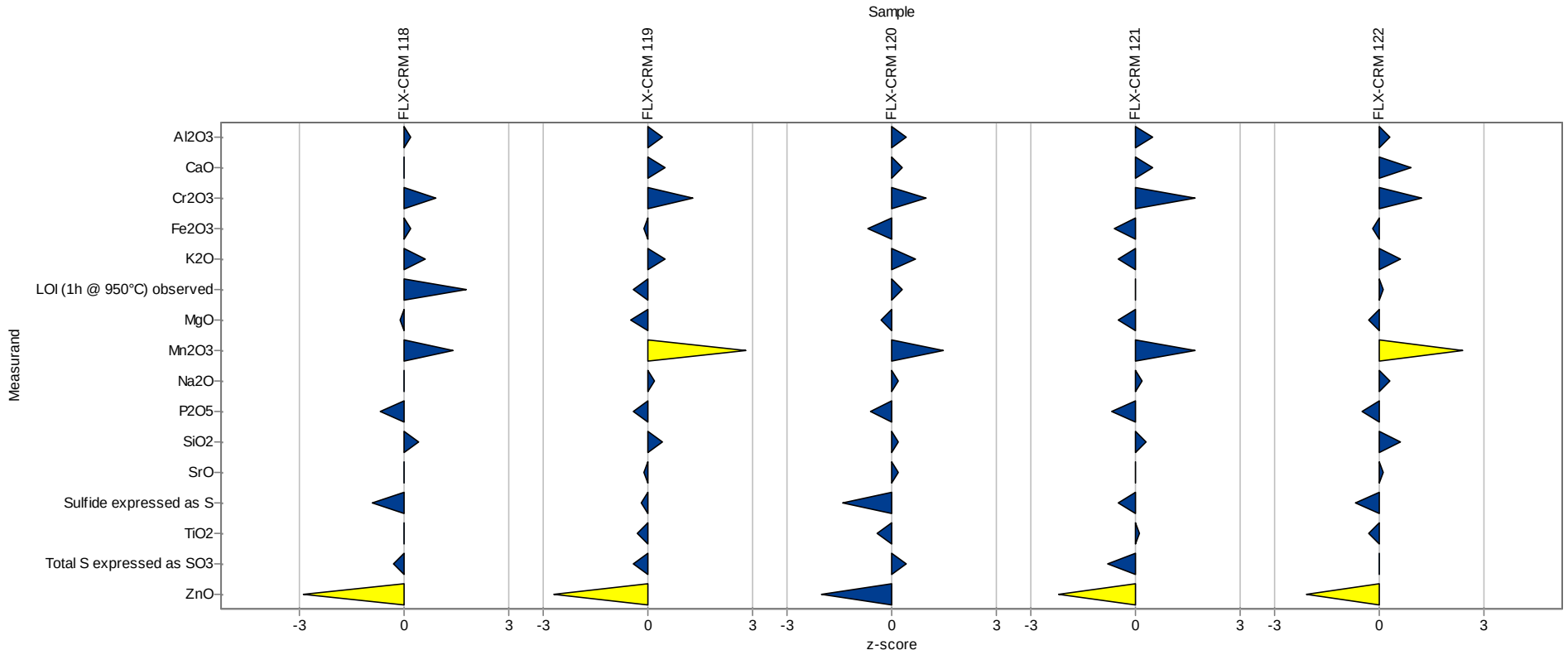
Laboratory chart of z-scores

Laboratory: 26



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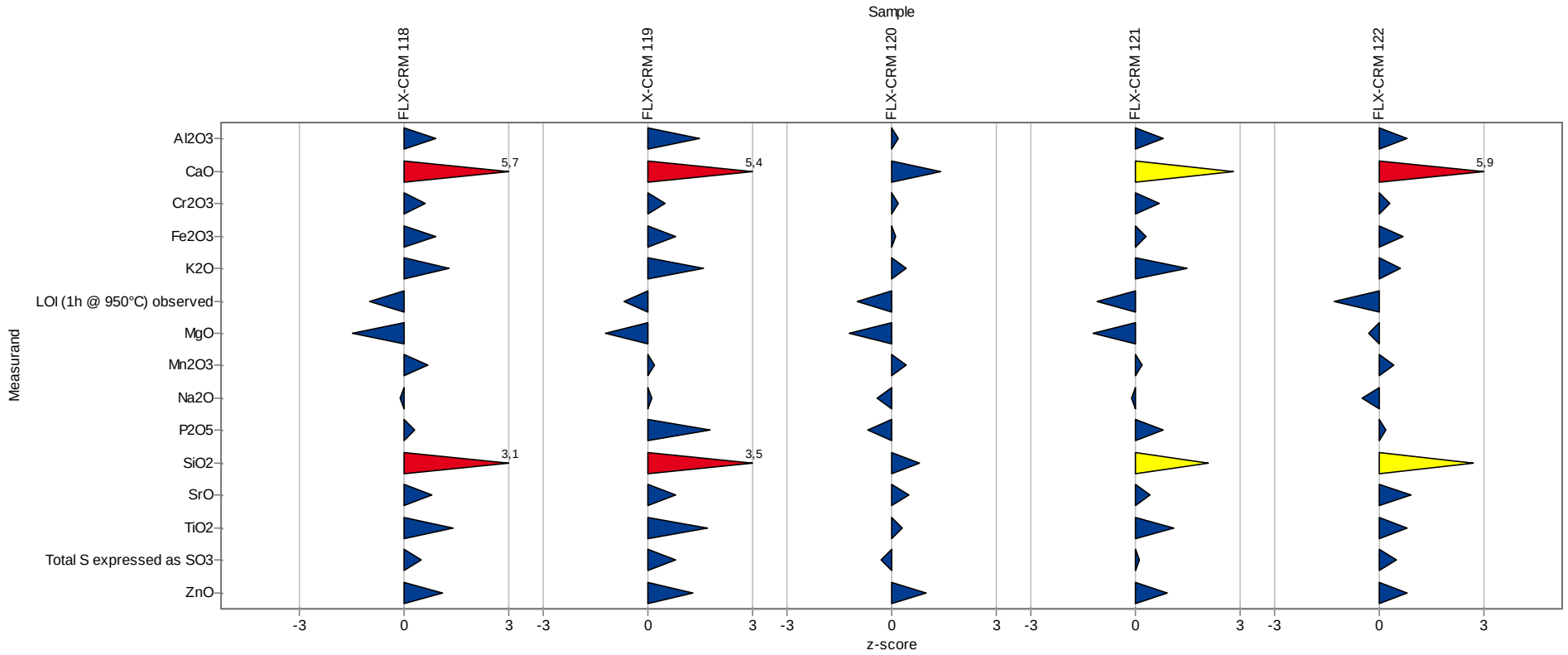
Laboratory chart of z-scores

Laboratory: 28



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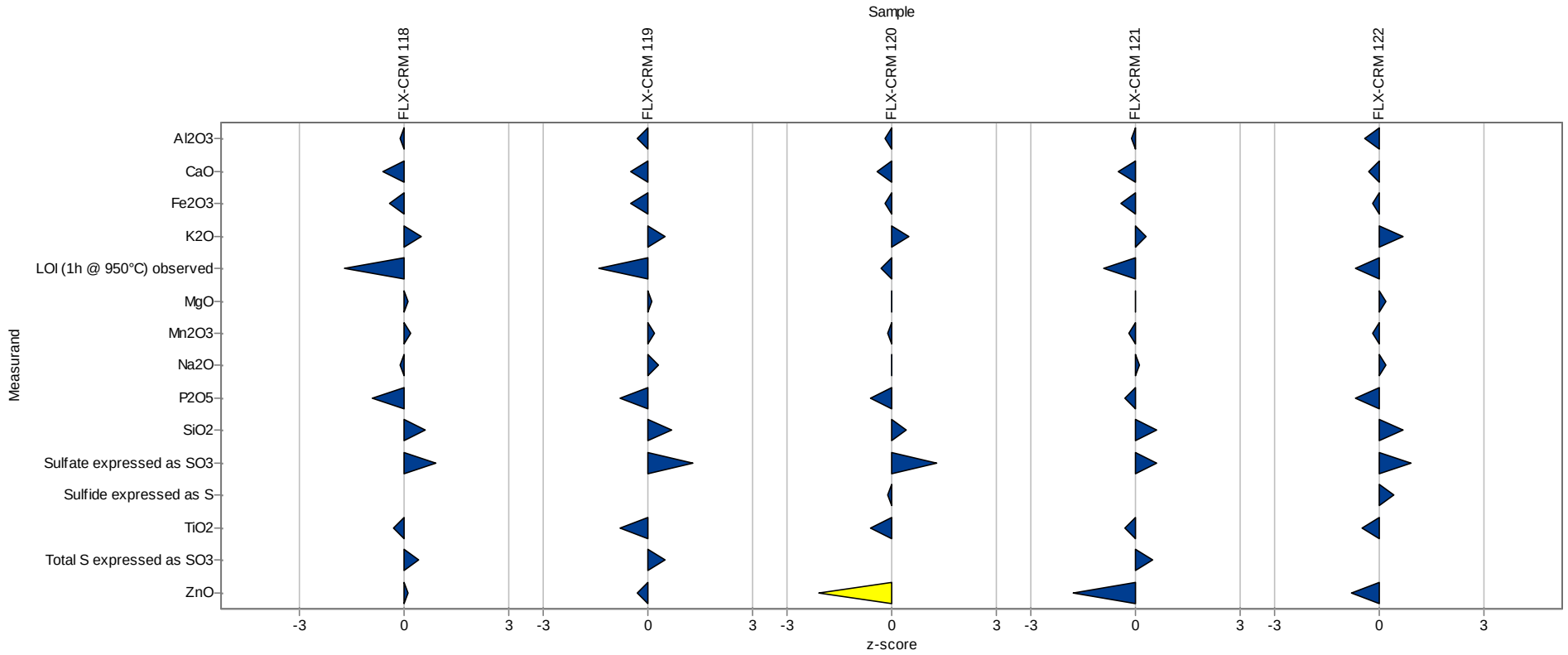
Laboratory chart of z-scores

Laboratory: 29



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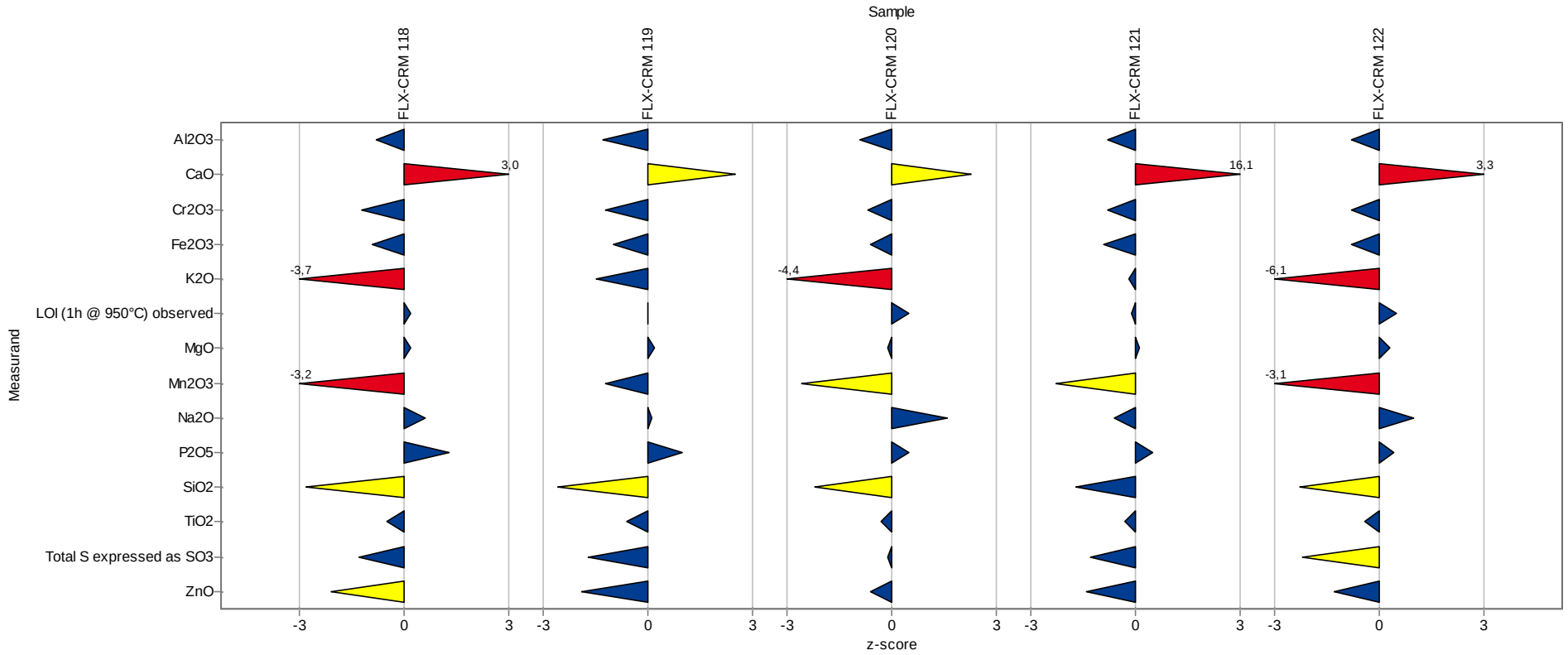
Laboratory chart of z-scores

Laboratory: 31



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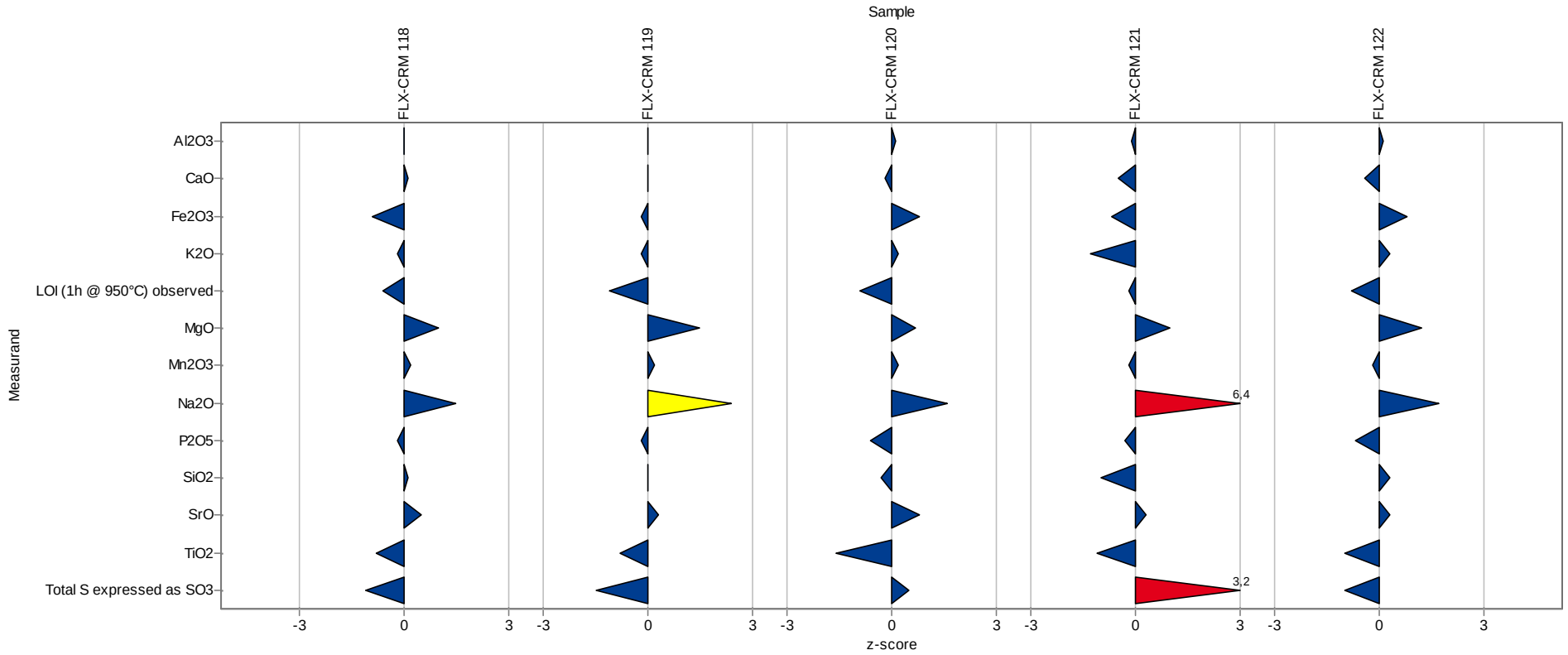
Laboratory chart of z-scores

Laboratory: 32



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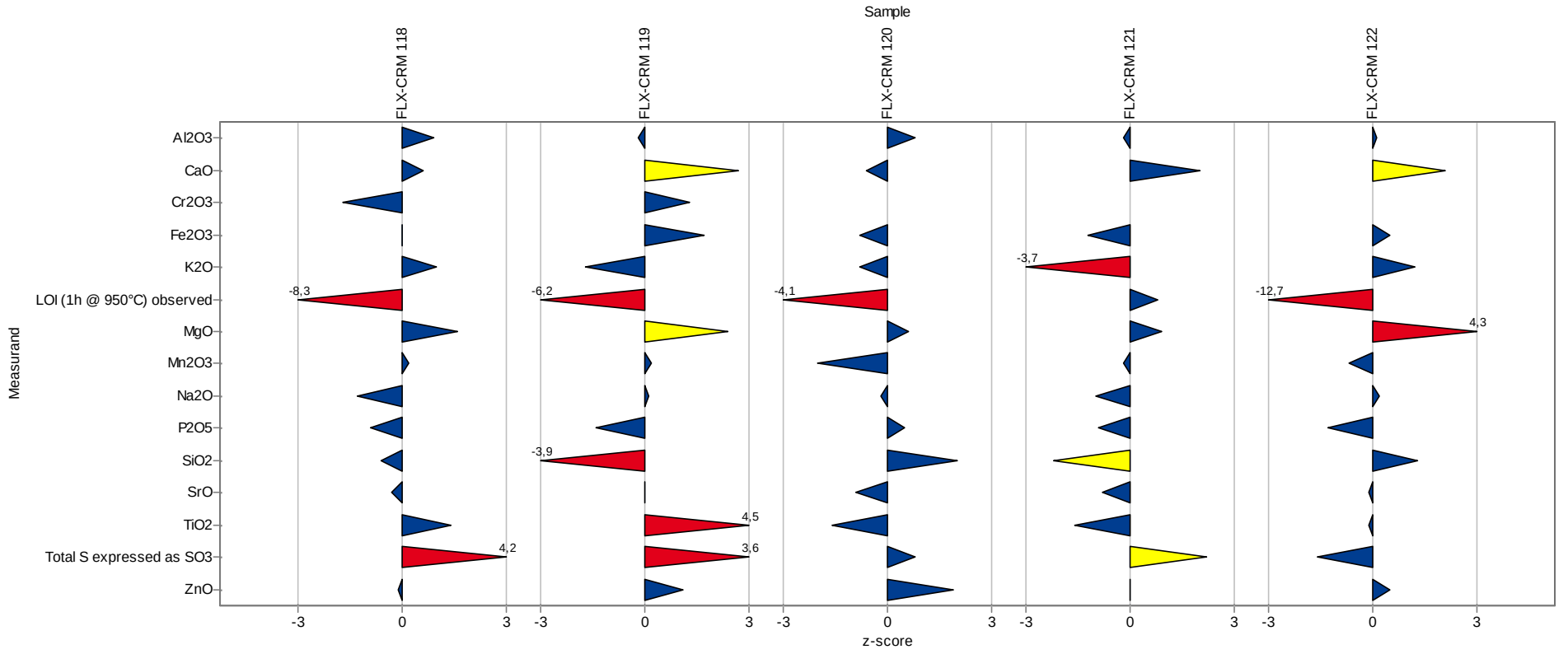
Laboratory chart of z-scores

Laboratory: 33



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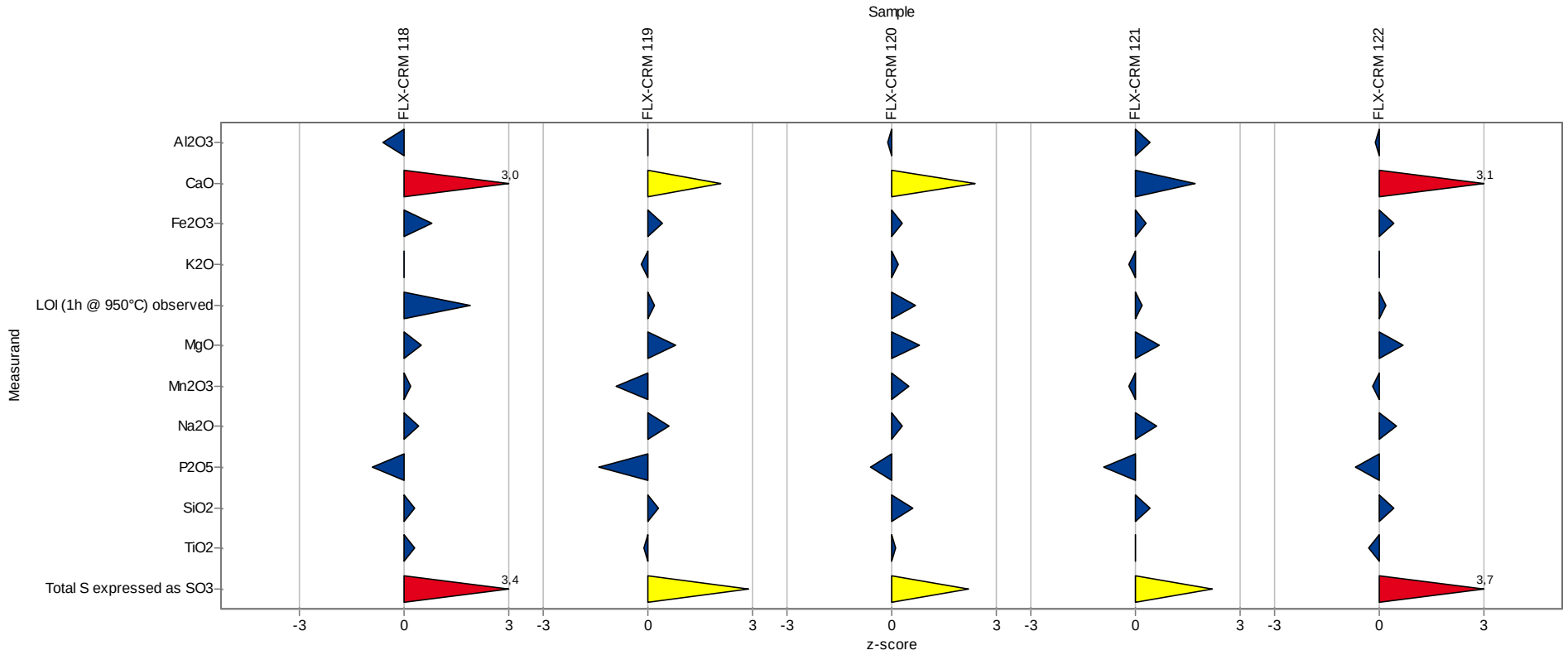
Laboratory chart of z-scores

Laboratory: 34



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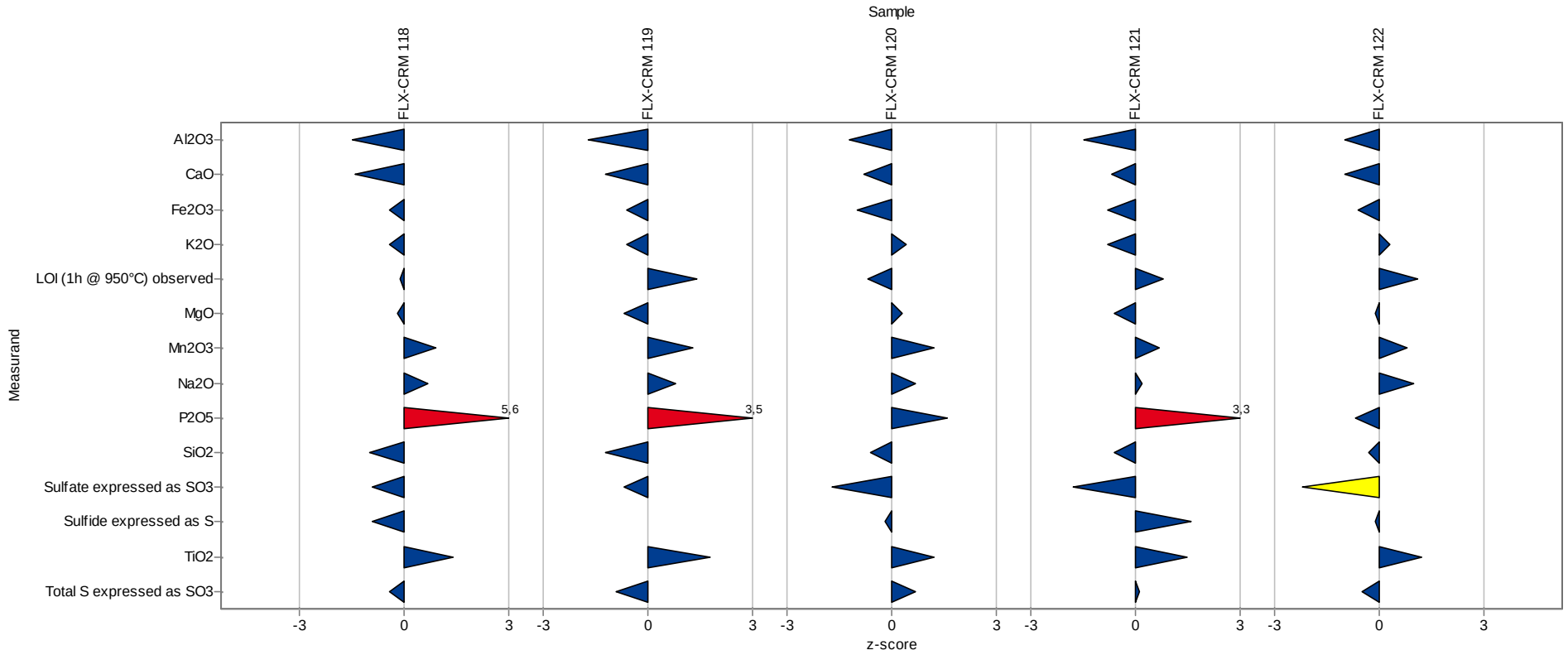
Laboratory chart of z-scores

Laboratory: 36



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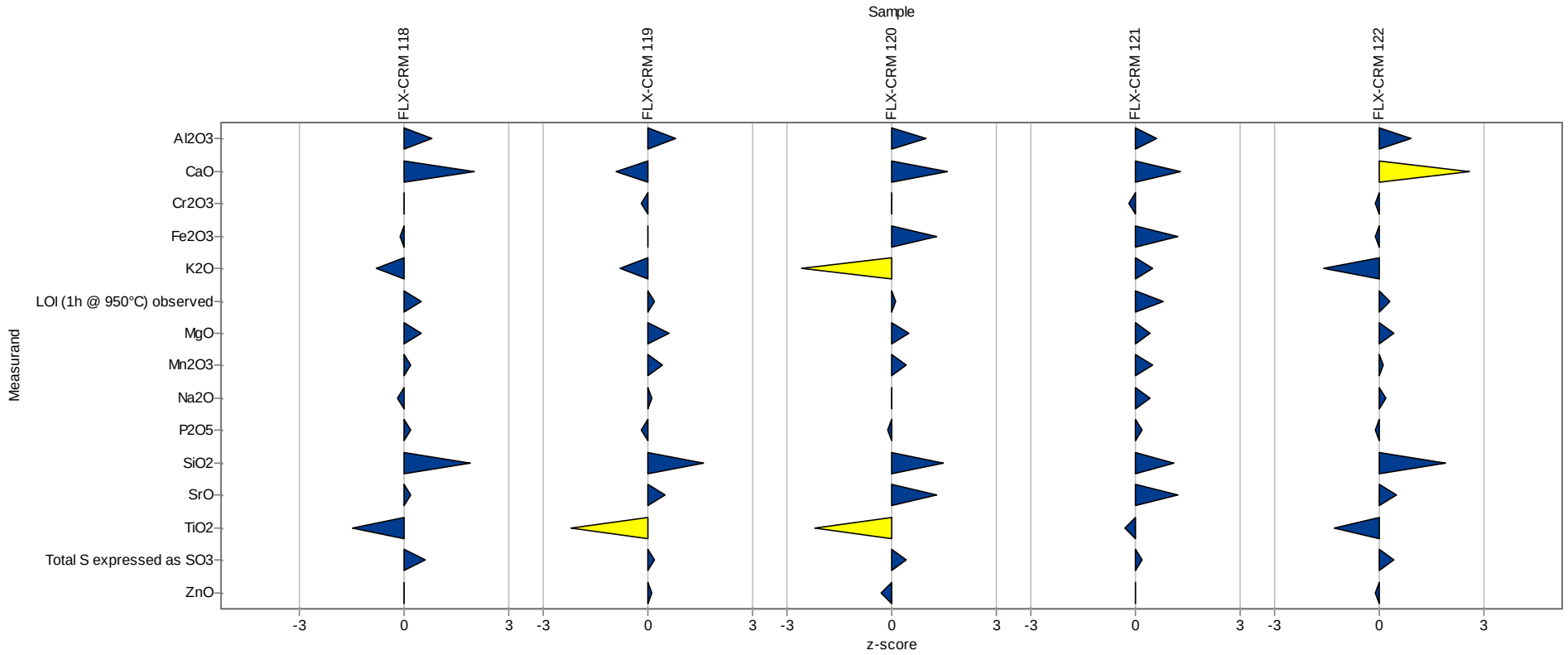
Laboratory chart of z-scores

Laboratory: 37



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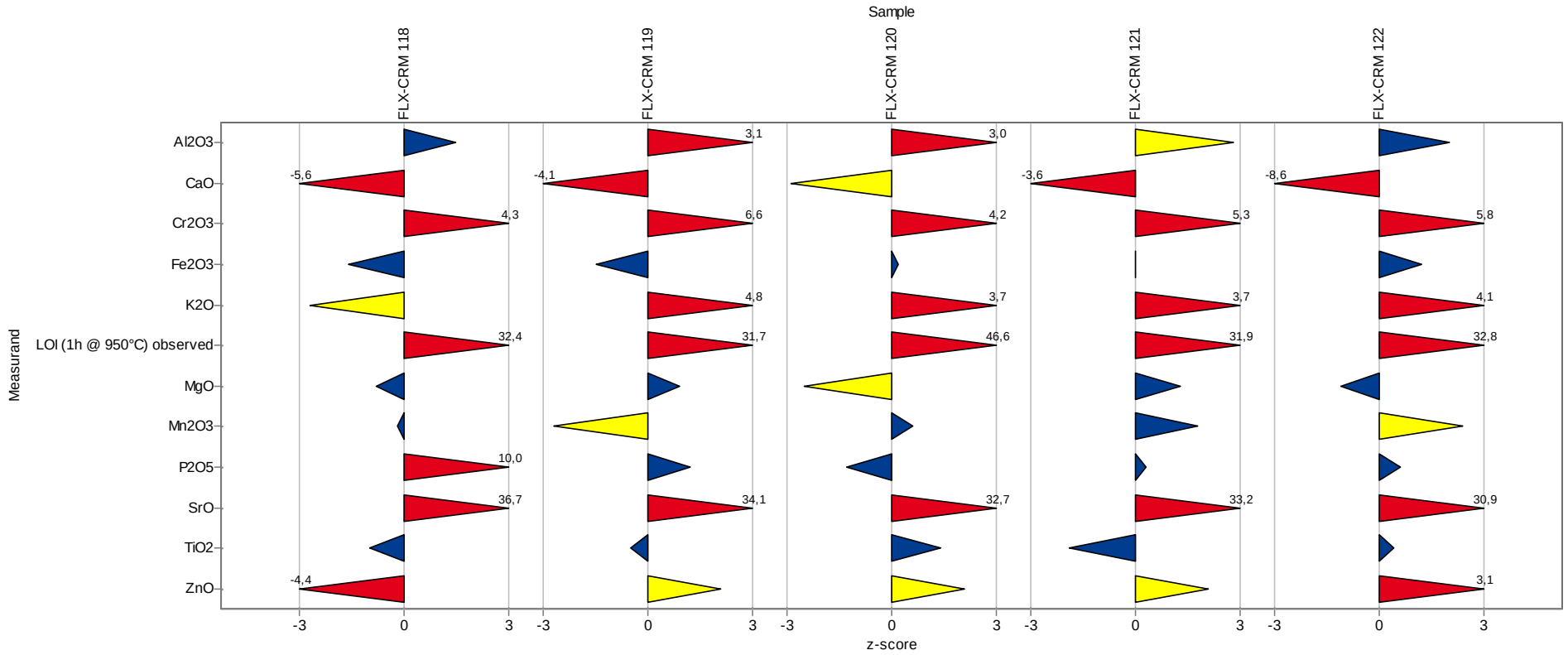
Laboratory chart of z-scores

Laboratory: 38



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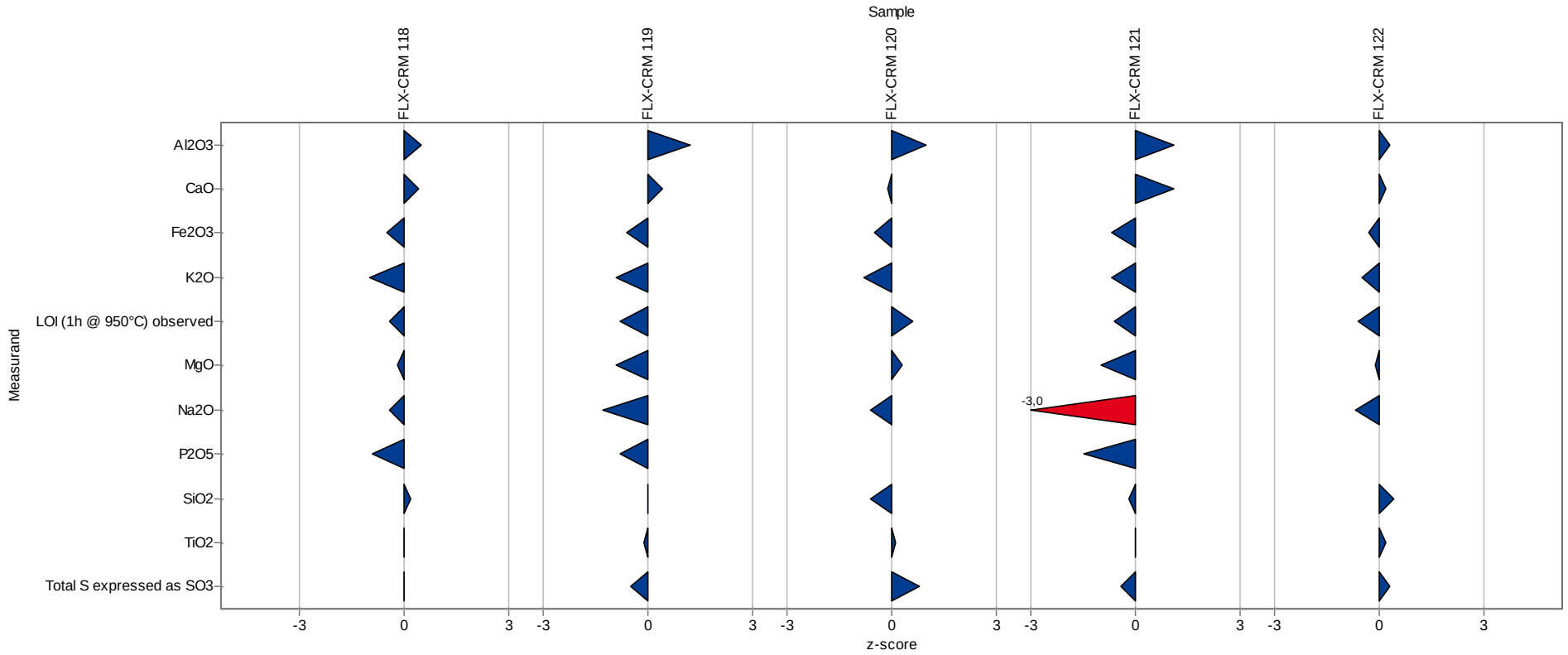
Laboratory chart of z-scores

Laboratory: 40



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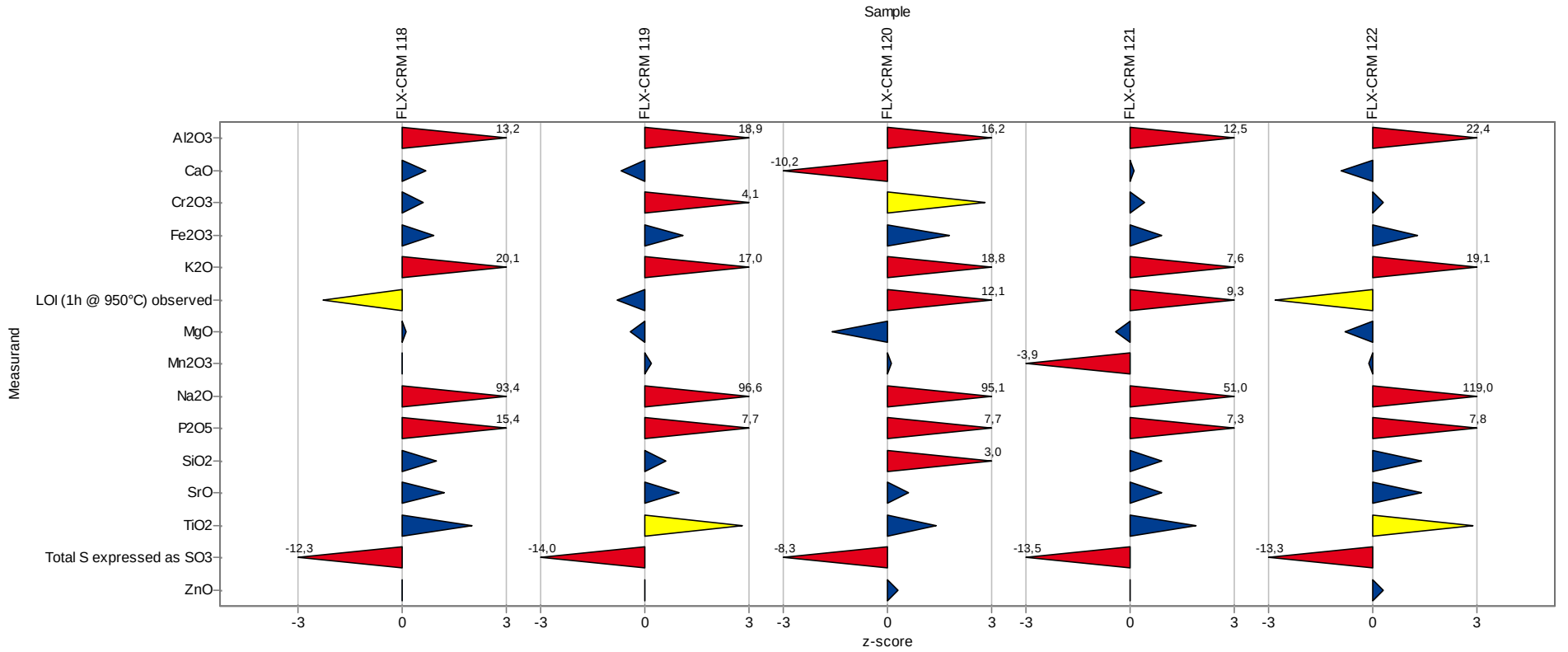
Laboratory chart of z-scores

Laboratory: 41



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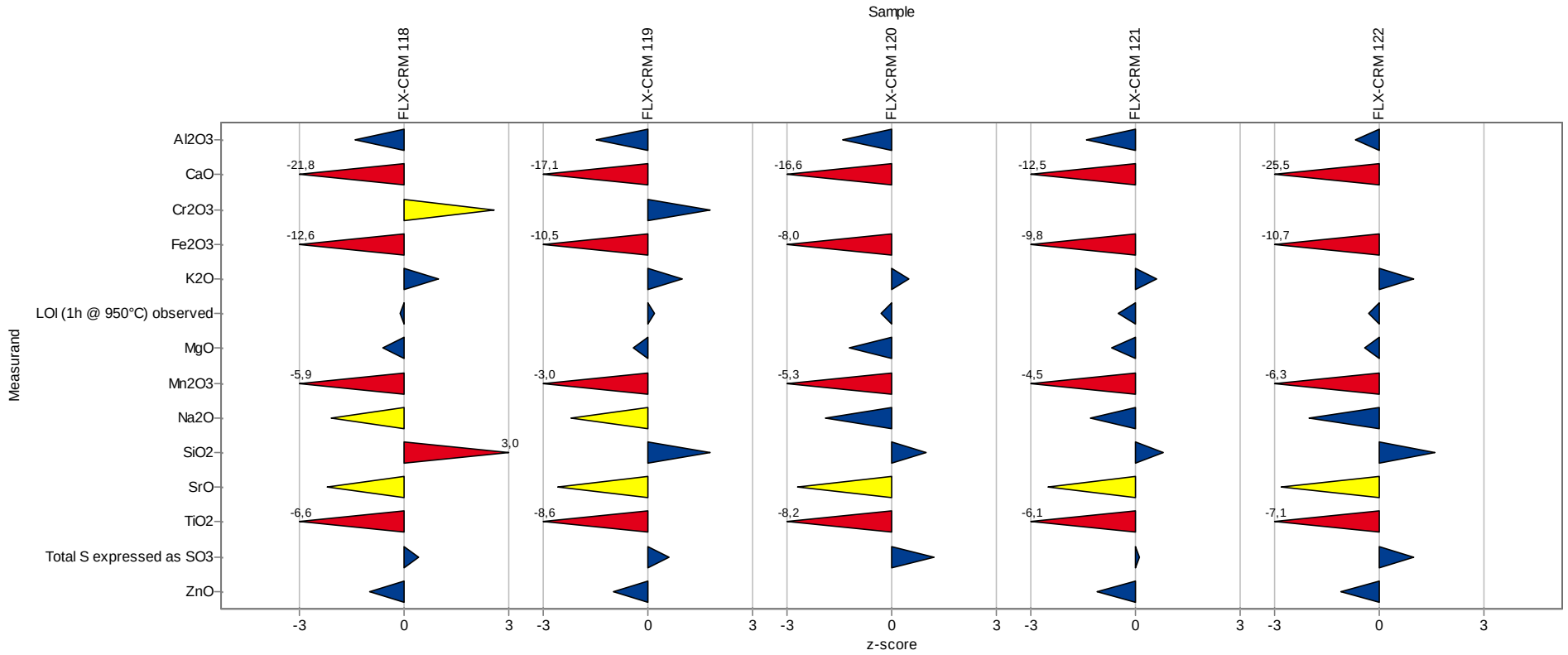
Laboratory chart of z-scores

Laboratory: 42



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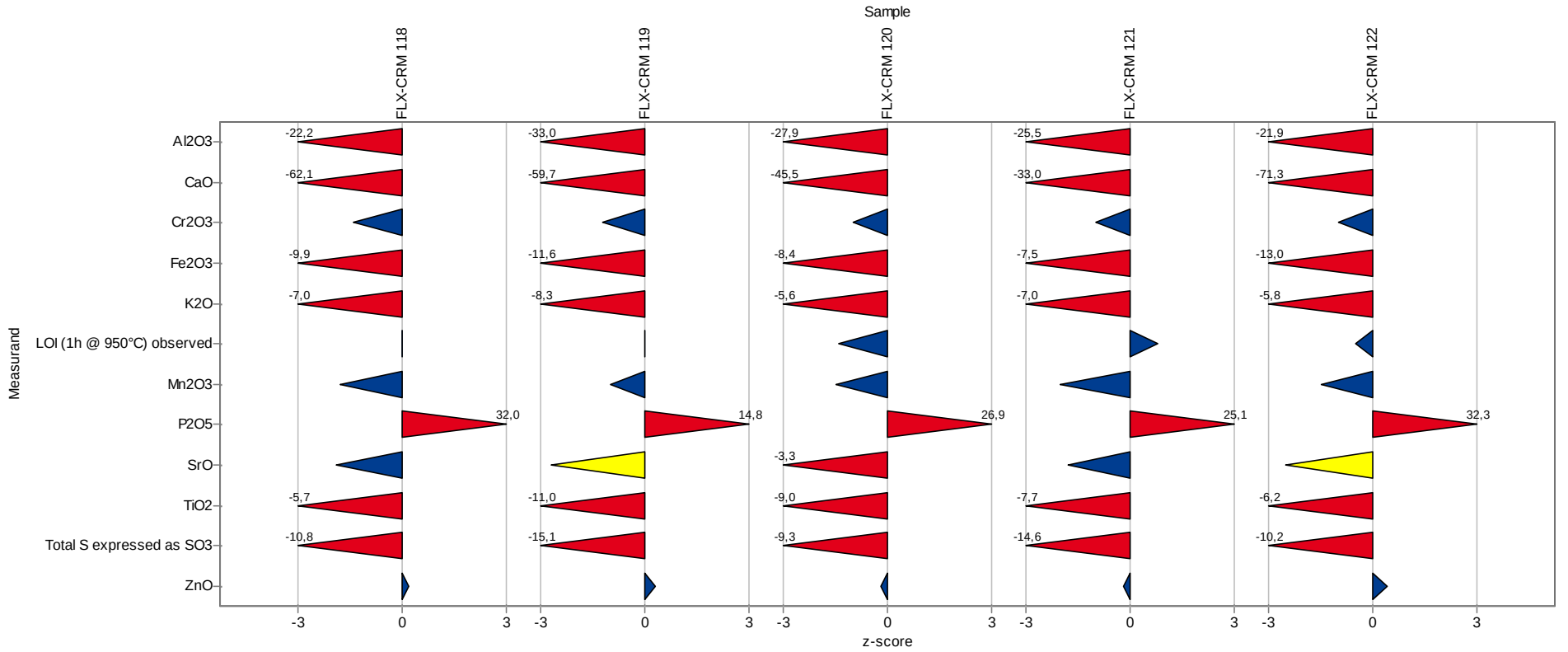
Laboratory chart of z-scores

Laboratory: 43



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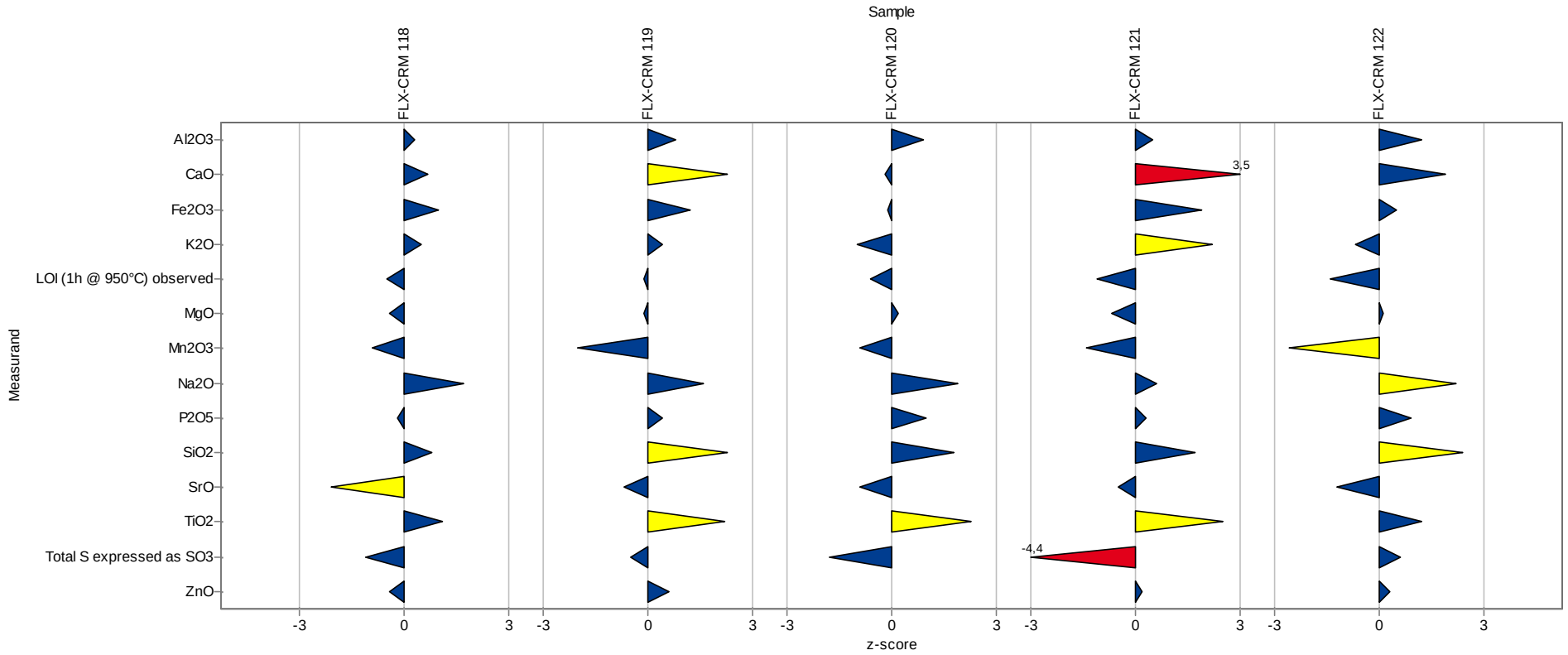
Laboratory chart of z-scores

Laboratory: 44



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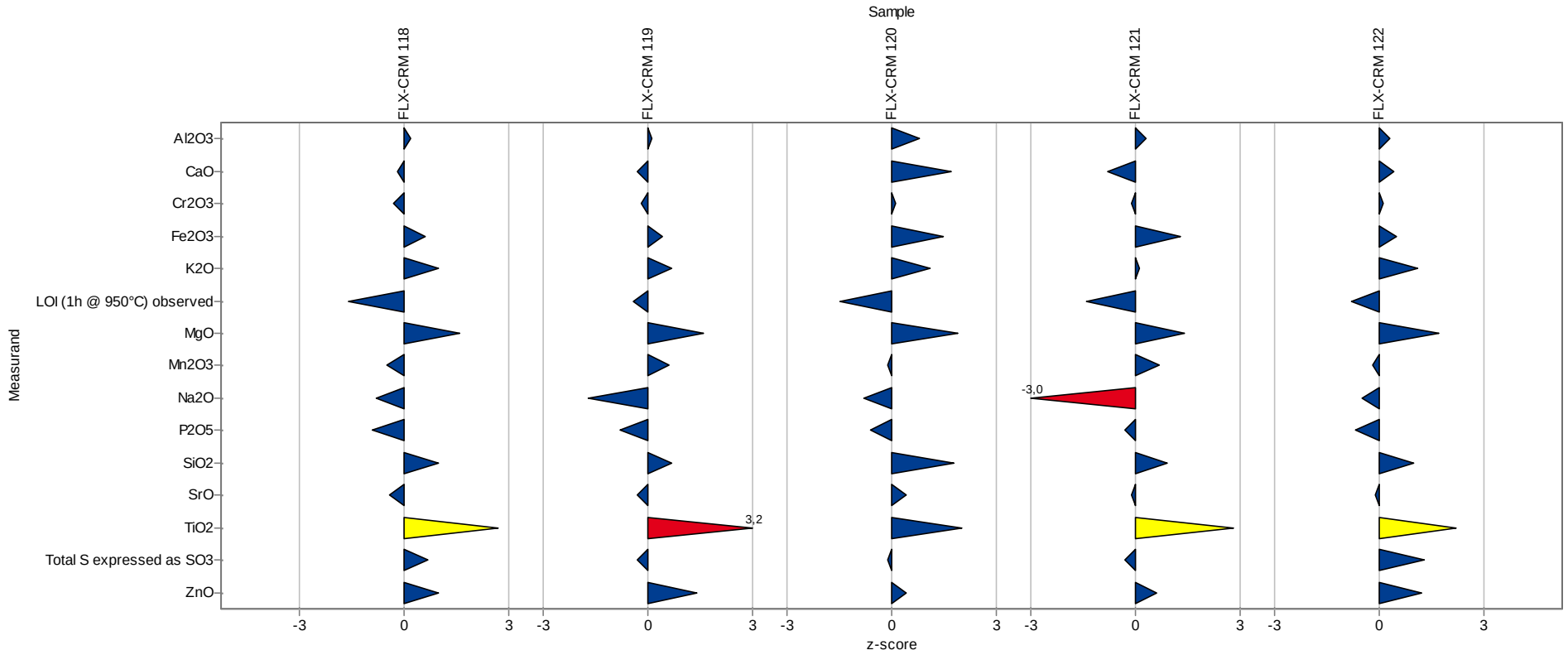
Laboratory chart of z-scores

Laboratory: 45



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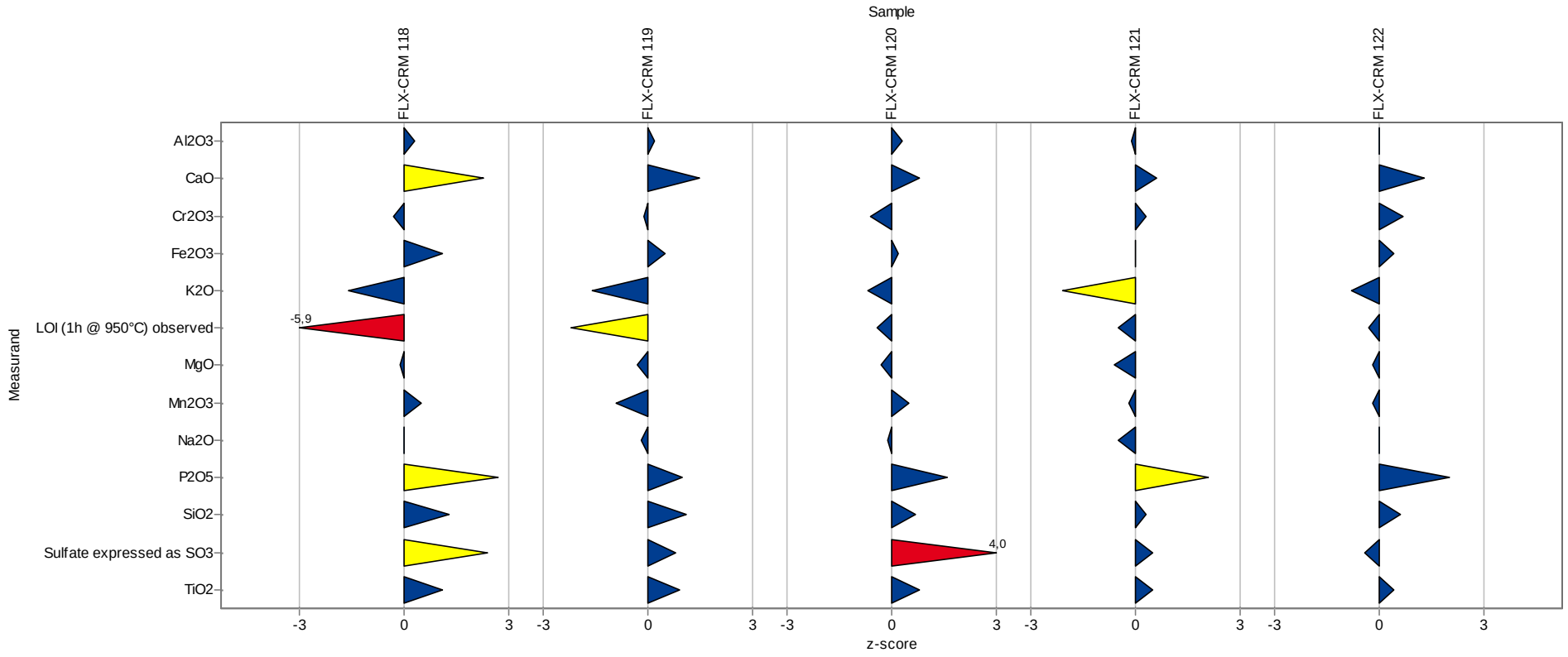
Laboratory chart of z-scores

Laboratory: 47



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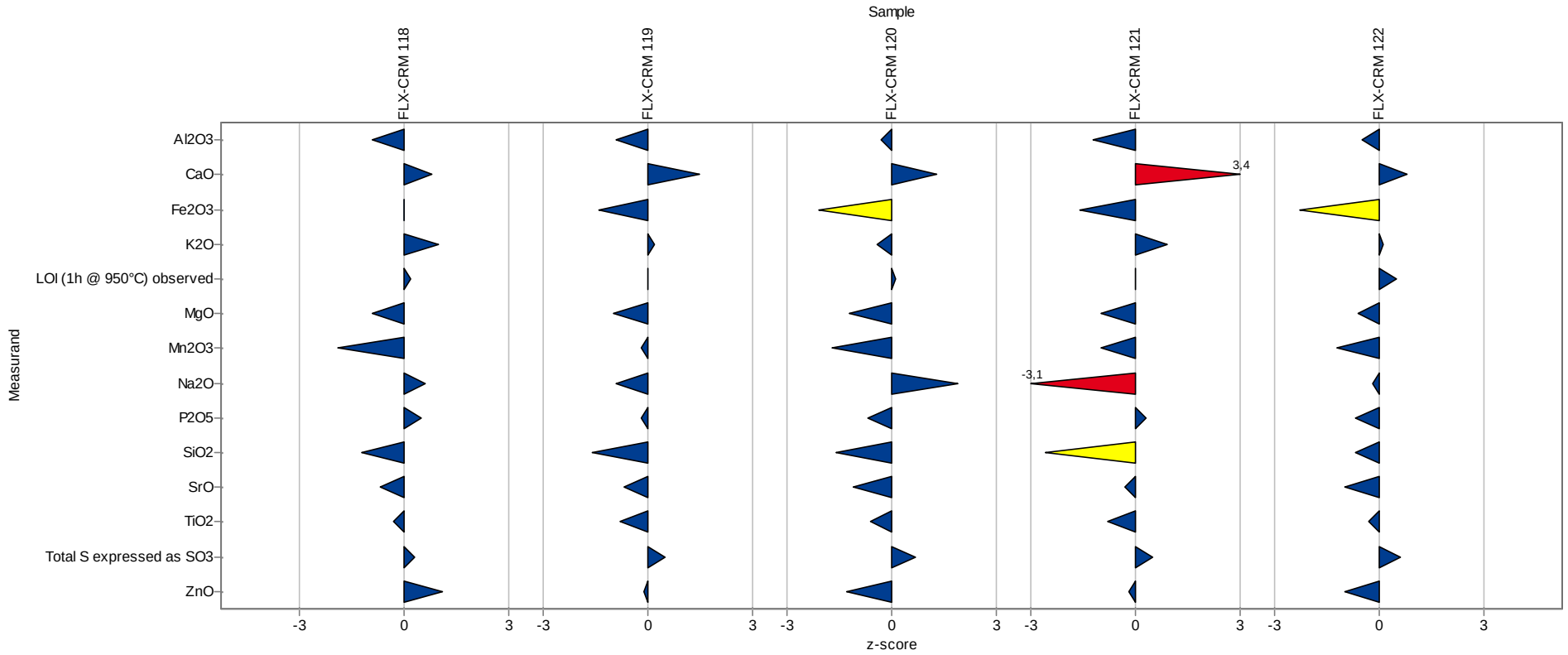
Laboratory chart of z-scores

Laboratory: 48



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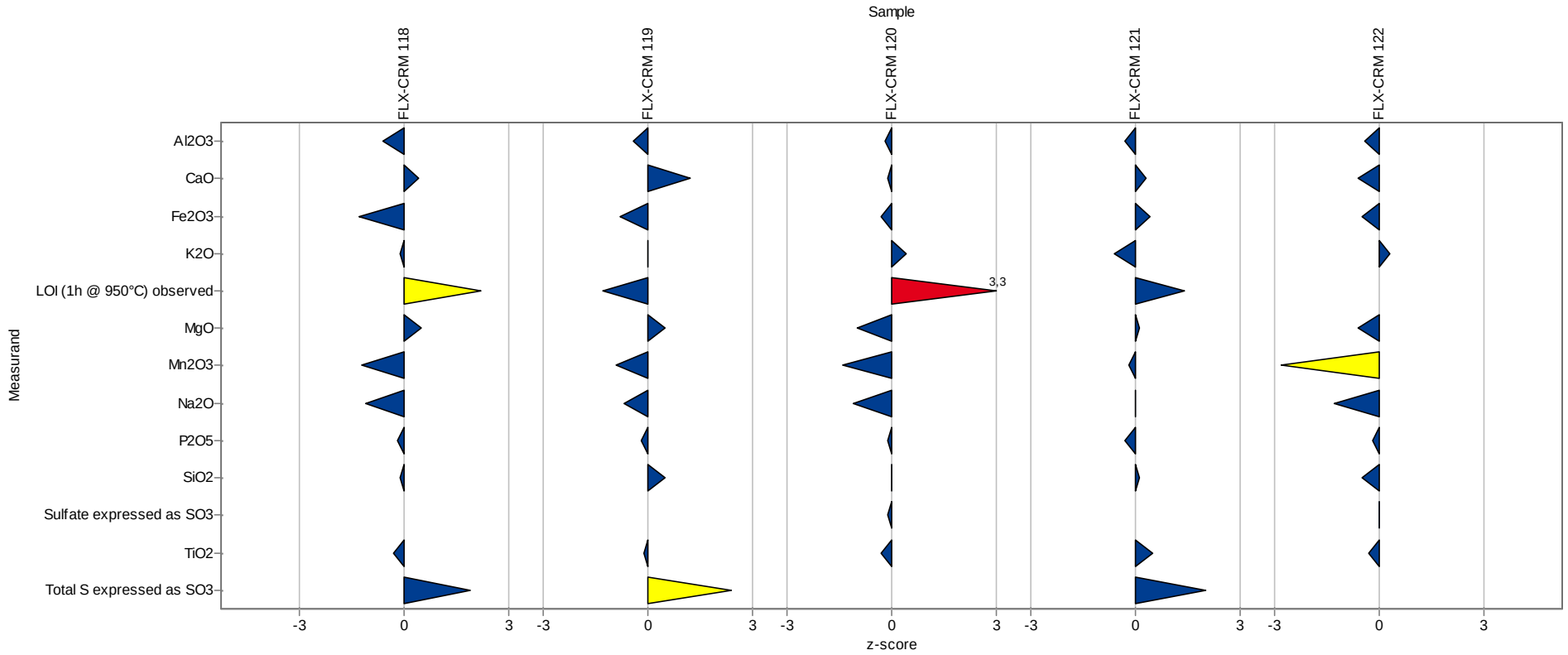
Laboratory chart of z-scores

Laboratory: 49



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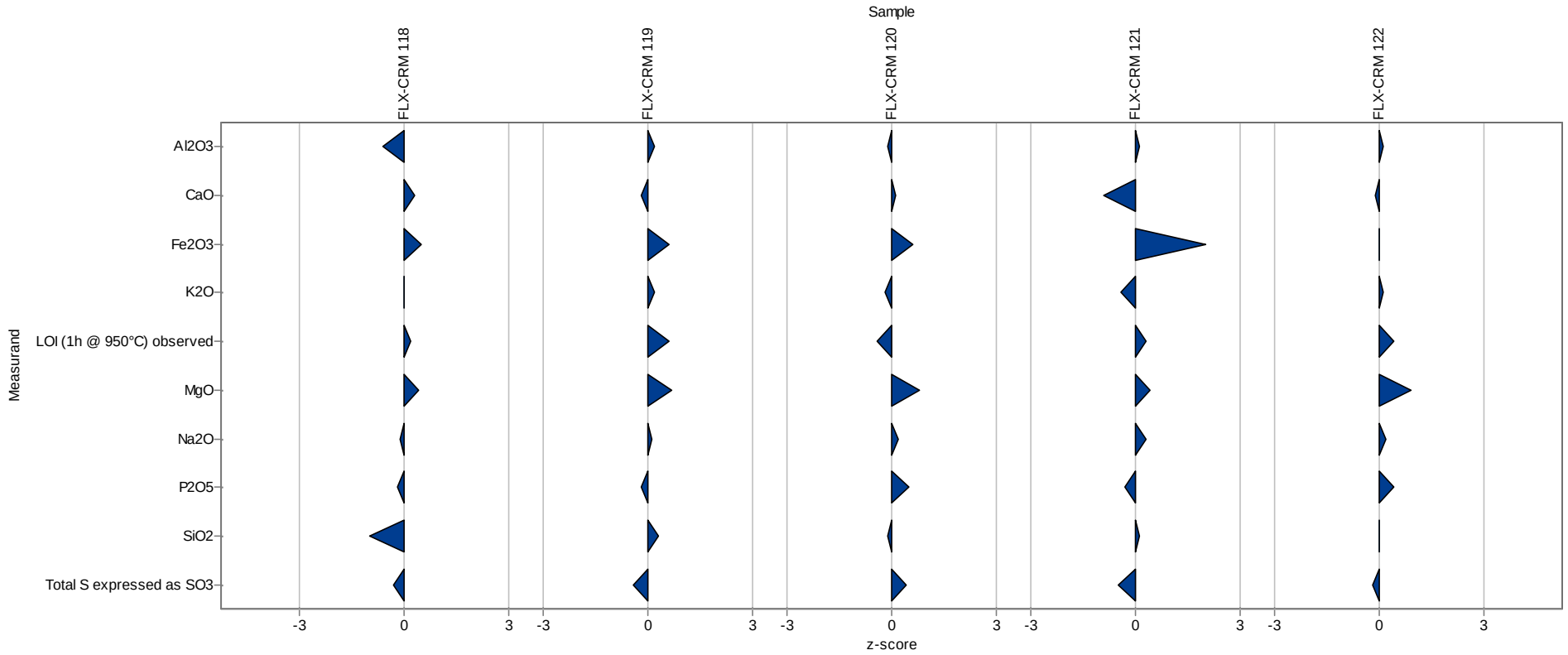
Laboratory chart of z-scores

Laboratory: 50



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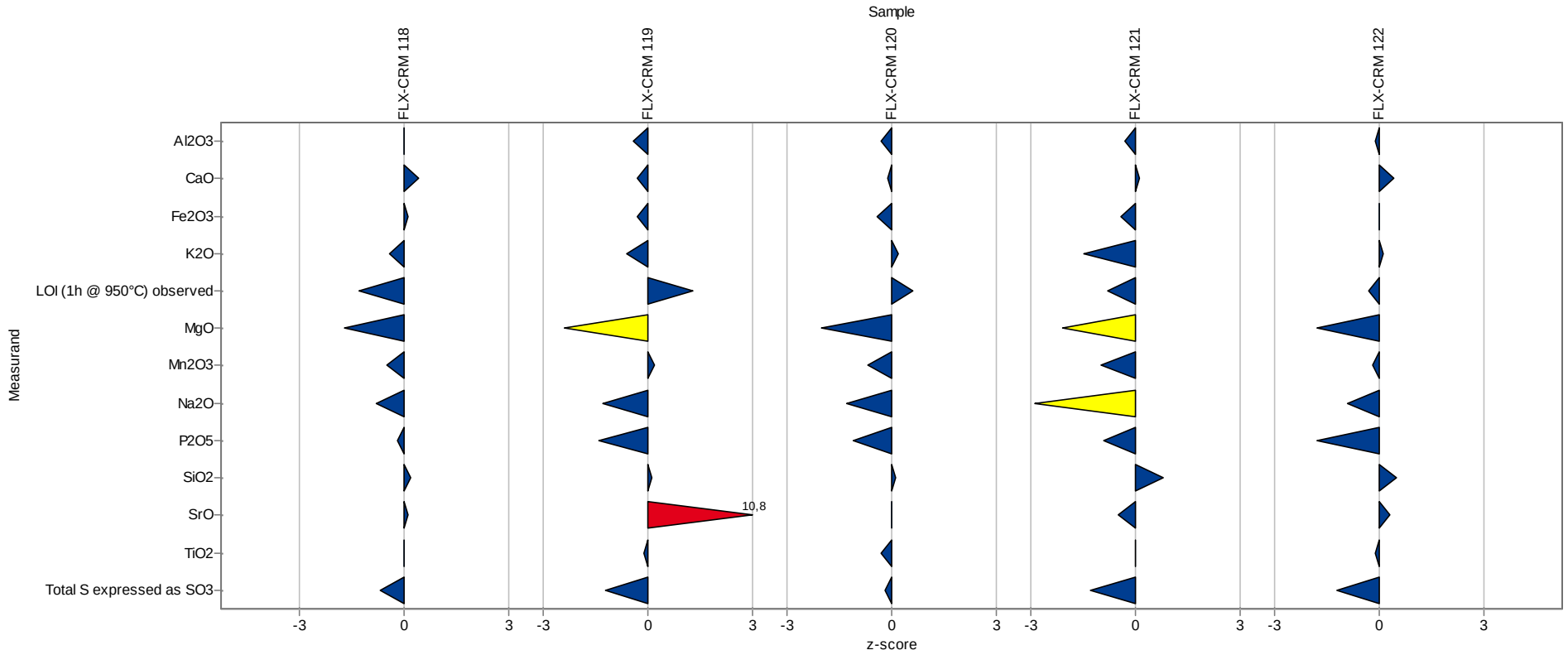
Laboratory chart of z-scores

Laboratory: 51



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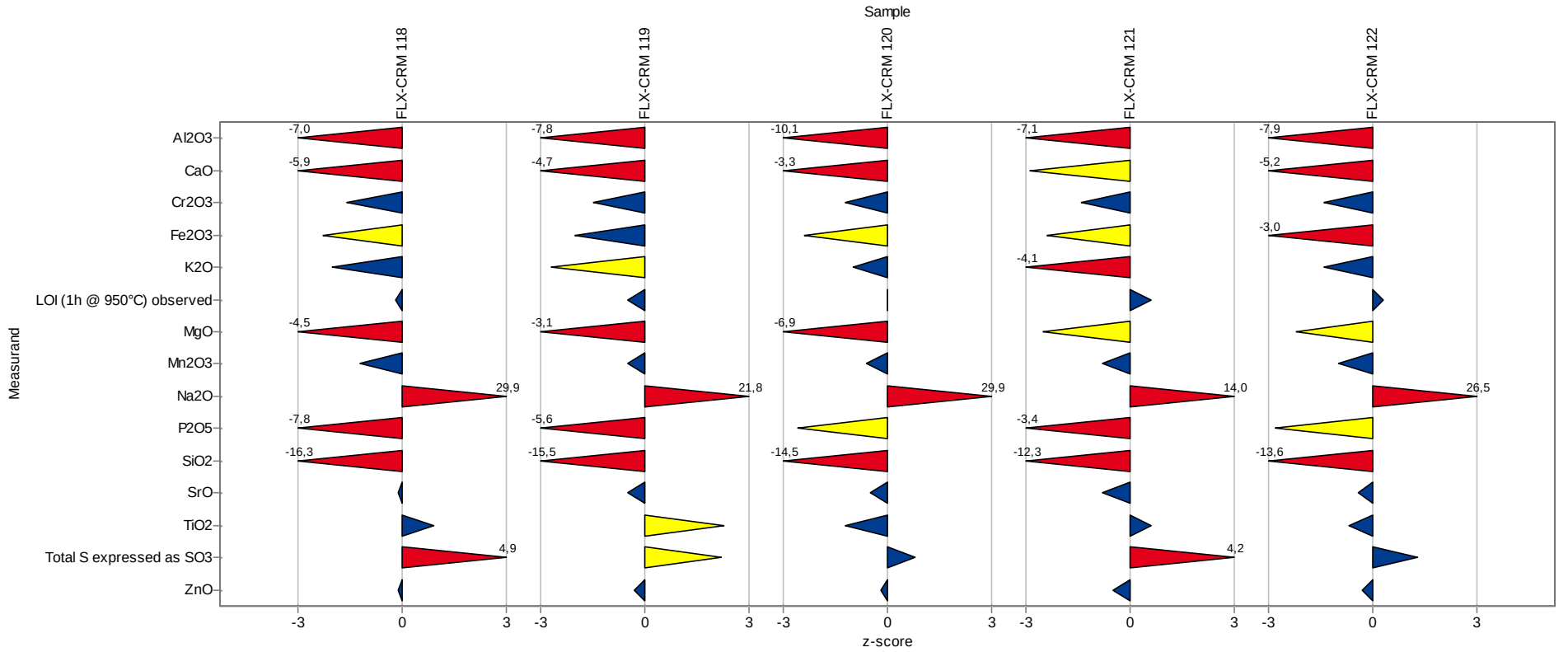
Laboratory chart of z-scores

Laboratory: 52



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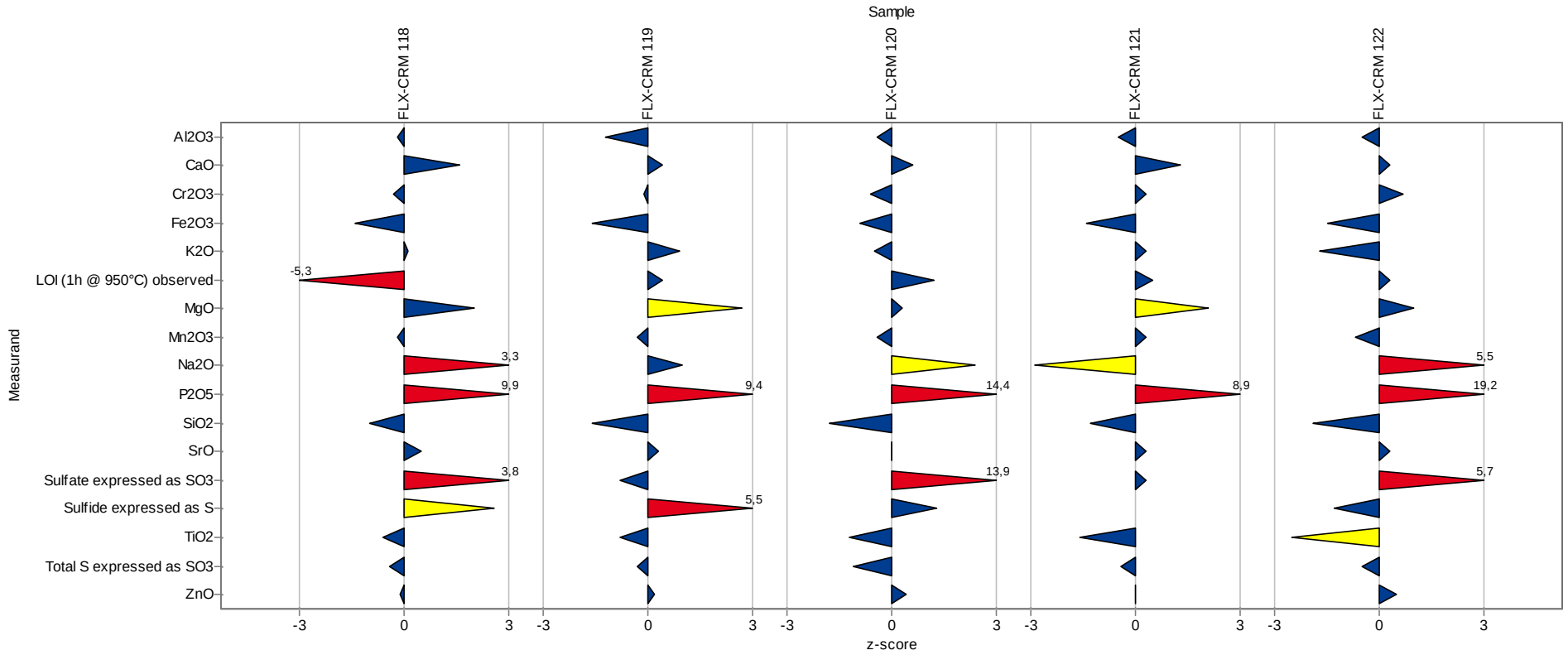
Laboratory chart of z-scores

Laboratory: 53



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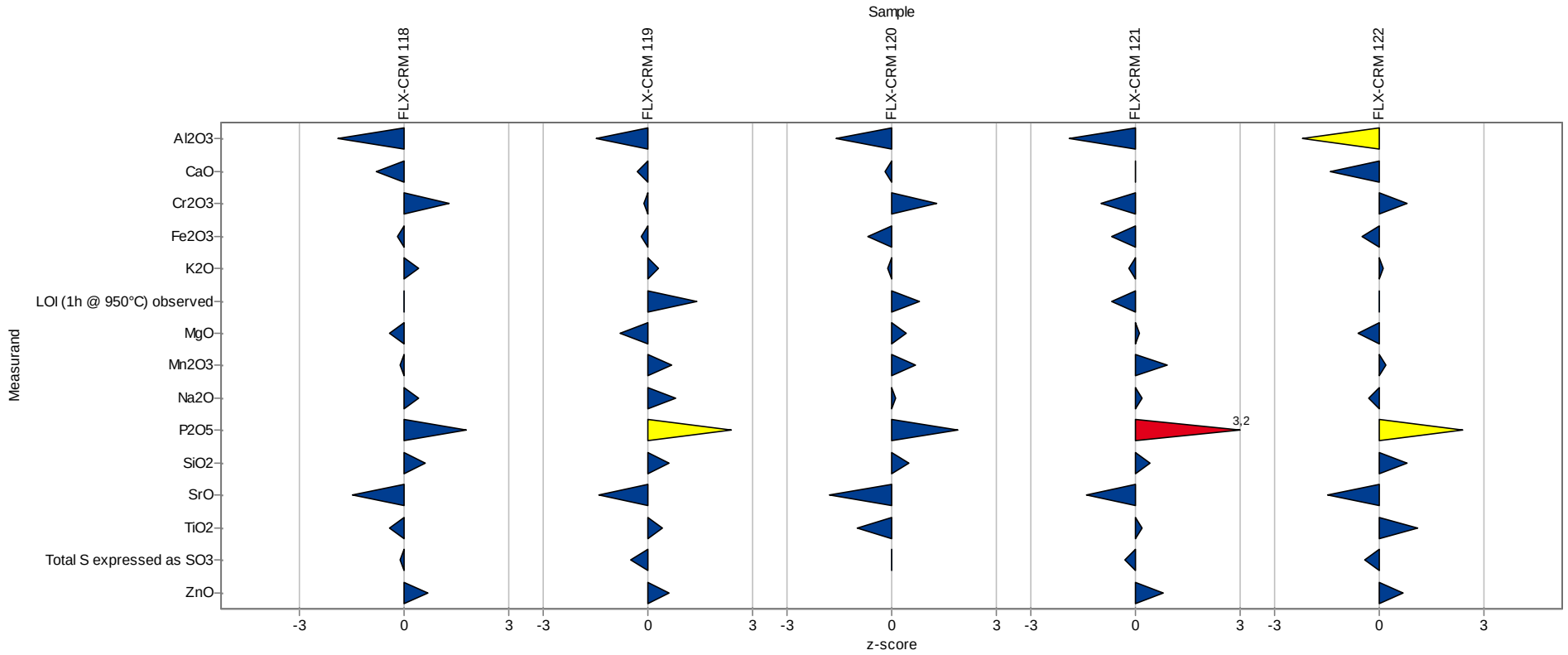
Laboratory chart of z-scores

Laboratory: 55



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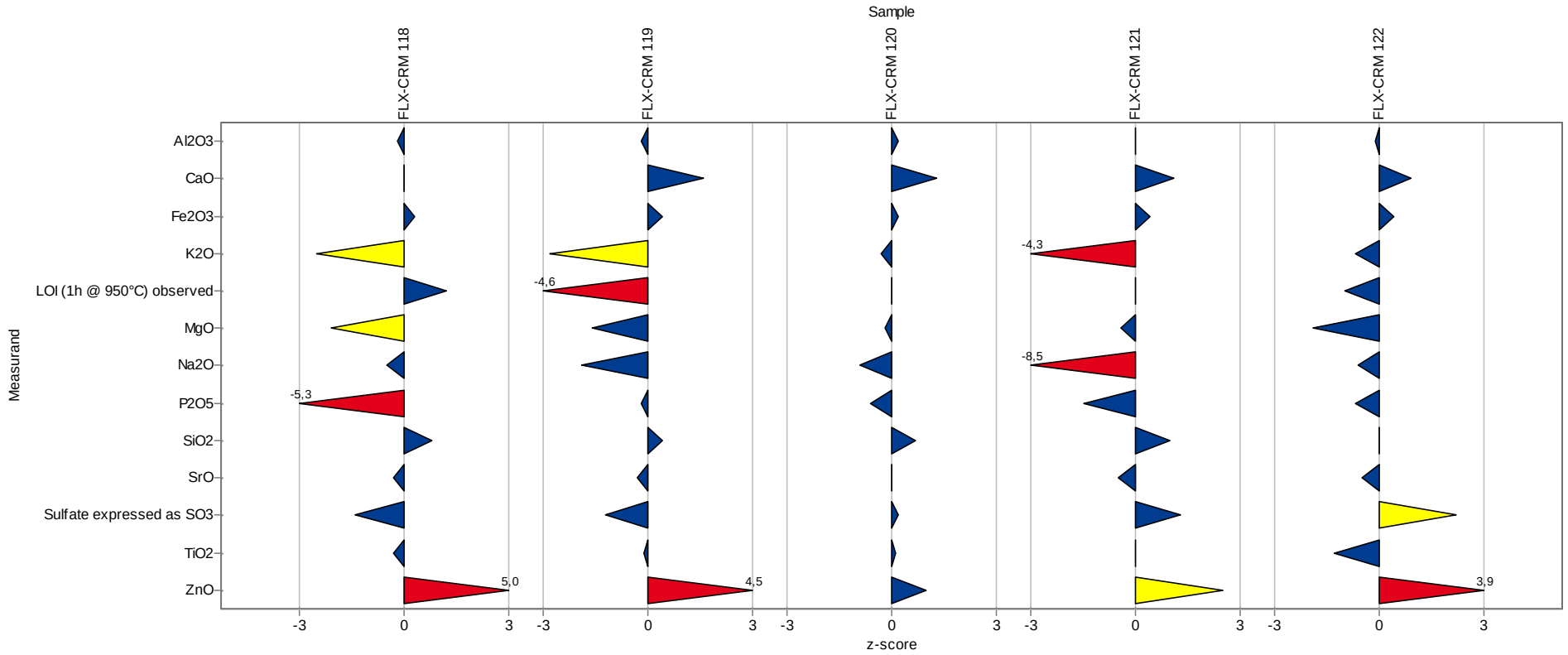
Laboratory chart of z-scores

Laboratory: 56



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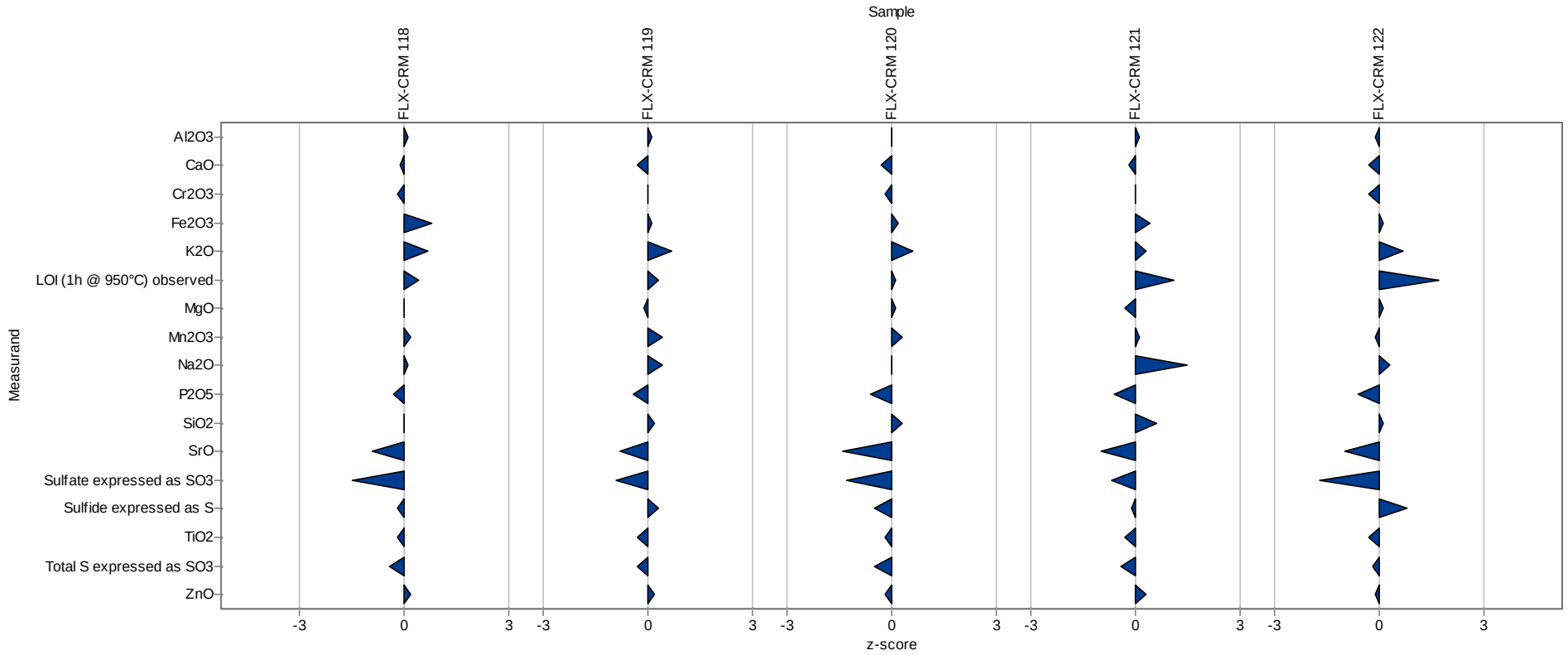
Laboratory chart of z-scores

Laboratory: 57



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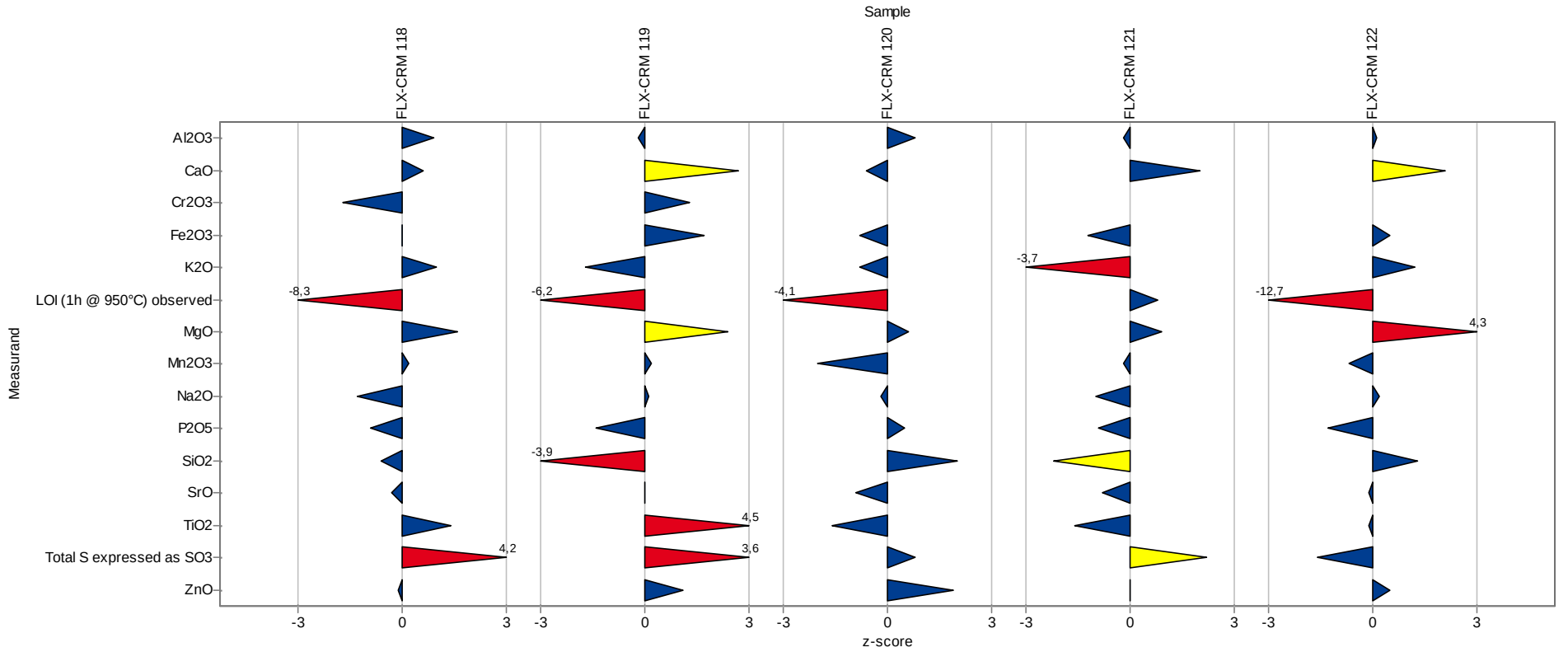
Laboratory chart of z-scores

Laboratory: 59



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