

## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 15, Norwegian Institute for Air Research NILU (Norway)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.396	0.367	0.351	0.061	0.742	S
A3	SO <sub>2</sub>	0.494	0.45	0.444	0.065	0.763	S
A4	SO <sub>2</sub>	0.215	0.2	0.21	0.068	0.075	S
A5	SO <sub>2</sub>	0.174	0.16	0.156	0.031	0.584	S

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B – Blank: You reported either no value or the detection limit

Please check the EMEP intercalibration website for Youden plots, updated expected values ect:  
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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 19, Centro Nacional de Sanidad Ambiental (Spain)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.33	0.367	0.351	0.061	-0.348	Q
A3	SO <sub>2</sub>	0.43	0.45	0.444	0.065	-0.221	S
A4	SO <sub>2</sub>	0.16	0.2	0.21	0.068	-0.735	U
A5	SO <sub>2</sub>	0.11	0.16	0.156	0.031	-1.513	U

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 20, Swedish Environmental Research Institute IVL, Gothenburg (Sweden)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.403	0.367	0.351	0.061	0.849	S
A3	SO <sub>2</sub>	0.504	0.45	0.444	0.065	0.924	Q
A4	SO <sub>2</sub>	0.2	0.2	0.21	0.068	-0.153	S
A5	SO <sub>2</sub>	0.162	0.16	0.156	0.031	0.174	S

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 34, Ministry of Environment and Urbanisation (Turkey)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.362	0.367	0.351	0.061	0.181	S
A3	SO <sub>2</sub>	0.45	0.45	0.444	0.065	0.087	S
A4	SO <sub>2</sub>	0.19	0.2	0.21	0.068	-0.293	S
A5	SO <sub>2</sub>	0.161	0.16	0.156	0.031	0.158	S

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 36, Hydrometeorological Institute of Slovenia (Slovenia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.449	0.367	0.351	0.061	1.608	U
A3	SO <sub>2</sub>	0.551	0.45	0.444	0.065	1.646	U
A4	SO <sub>2</sub>	0.27	0.2	0.21	0.068	0.879	U
A5	SO <sub>2</sub>	0.224	0.16	0.156	0.031	2.206	U

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 173, Company Petrokemija d.d. (Croatia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.29	0.367	0.351	0.061	-1.008	U
A3	SO <sub>2</sub>	0.32	0.45	0.444	0.065	-1.911	U
A4	SO <sub>2</sub>	0.2	0.2	0.21	0.068	-0.146	S
A5	SO <sub>2</sub>	0.1	0.16	0.156	0.031	-1.841	U

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 182, Research Institute for Analytical Instrumentation, ICIA (Romania)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	1.925	0.367	0.351	0.061	25.972	U
A3	SO <sub>2</sub>	2.455	0.45	0.444	0.065	30.896	U
A4	SO <sub>2</sub>	0.845	0.2	0.21	0.068	9.36	U
A5	SO <sub>2</sub>	1.035	0.16	0.156	0.031	28.802	U

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 183, Public health institute Uzice (Republic of Serbia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.35	0.367	0.351	0.061	-0.017	S
A3	SO <sub>2</sub>	0.45	0.45	0.444	0.065	0.087	S
A4	SO <sub>2</sub>	0.19	0.2	0.21	0.068	-0.293	S
A5	SO <sub>2</sub>	0.12	0.16	0.156	0.031	-1.186	U

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 184, Institute for Public Health Pozarevac (Republic of Serbia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.39	0.367	0.351	0.061	0.643	S
A3	SO <sub>2</sub>	0.46	0.45	0.444	0.065	0.24	S
A4	SO <sub>2</sub>	0.22	0.2	0.21	0.068	0.149	S
A5	SO <sub>2</sub>	0.18	0.16	0.156	0.031	0.781	Q

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 186, Public Health Institute - Kralevo (Republic of Serbia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.38	0.367	0.351	0.061	0.478	S
A3	SO <sub>2</sub>	0.46	0.45	0.444	0.065	0.24	S
A4	SO <sub>2</sub>	0.23	0.2	0.21	0.068	0.296	Q
A5	SO <sub>2</sub>	0.18	0.16	0.156	0.031	0.781	Q

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 187, Public Health Institute - Nis, Department for Sanitary Chemistry (Republic of Serbia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.34	0.367	0.351	0.061	-0.182	S
A3	SO <sub>2</sub>	0.44	0.45	0.444	0.065	-0.067	S
A4	SO <sub>2</sub>	0.22	0.2	0.21	0.068	0.149	S
A5	SO <sub>2</sub>	0.17	0.16	0.156	0.031	0.453	S

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 188, Institute of Public Health - Krusevac (Republic of Serbia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.379	0.367	0.351	0.061	0.461	S
A3	SO <sub>2</sub>	0.466	0.45	0.444	0.065	0.333	S
A4	SO <sub>2</sub>	0.229	0.2	0.21	0.068	0.282	Q
A5	SO <sub>2</sub>	0.178	0.16	0.156	0.031	0.715	Q

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 189, Institute of Public Health - Kikinda (Republic of Serbia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.37	0.367	0.351	0.061	0.313	S
A3	SO <sub>2</sub>	0.43	0.45	0.444	0.065	-0.221	S
A4	SO <sub>2</sub>	0.19	0.2	0.21	0.068	-0.293	S
A5	SO <sub>2</sub>	0.15	0.16	0.156	0.031	-0.202	S

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 190, Institute for occupational safety and preventive engineering - Novi Sad (Republic of Serbia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.18	0.367	0.351	0.061	-2.823	U
A3	SO <sub>2</sub>	0.28	0.45	0.444	0.065	-2.525	U
A4	SO <sub>2</sub>	0.07	0.2	0.21	0.068	-2.062	U
A5	SO <sub>2</sub>	0.12	0.16	0.156	0.031	-1.186	U

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 192, The Public Health Institute Sabac (Republic of Serbia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.27	0.367	0.351	0.061	-1.338	U
A3	SO <sub>2</sub>	0.43	0.45	0.444	0.065	-0.221	S
A4	SO <sub>2</sub>	0.18	0.2	0.21	0.068	-0.44	Q
A5	SO <sub>2</sub>	0.15	0.16	0.156	0.031	-0.202	S

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 193, Institute of Public Health of Vojvodina (Republic of Serbia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.34	0.367	0.351	0.061	-0.182	S
A3	SO <sub>2</sub>	0.52	0.45	0.444	0.065	1.162	Q
A4	SO <sub>2</sub>	0.42	0.2	0.21	0.068	3.097	U
A5	SO <sub>2</sub>	0.17	0.16	0.156	0.031	0.453	S

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 194, Institute of Public Health - Zrenjanin (Republic of Serbia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.373	0.367	0.351	0.061	0.362	S
A3	SO <sub>2</sub>	0.442	0.45	0.444	0.065	-0.036	S
A4	SO <sub>2</sub>	0.195	0.2	0.21	0.068	-0.219	S
A5	SO <sub>2</sub>	0.155	0.16	0.156	0.031	-0.039	S

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## EMEP – 31<sup>st</sup> intercomparison of analytical methods

Laboratory 198, Institute for public health - Sremska Mitrovica (Republic of Serbia)

### Sulphur dioxide in absorbing solution (A-samples)

Sample name	Determinand	Reported value <sup>¥</sup>	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm <sup>¤</sup>
A2	SO <sub>2</sub>	0.367	0.367	0.351	0.061	0.263	S
A3	SO <sub>2</sub>	0.426	0.45	0.444	0.065	-0.282	S
A4	SO <sub>2</sub>	0.19	0.2	0.21	0.068	-0.293	S
A5	SO <sub>2</sub>	0.152	0.16	0.156	0.031	-0.137	S

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