

Summary statistics EMEP laboratory intercalibration Round 34

Sulphur dioxide in absorbing solution (A-samples)

Sample	Component	Unit	N	Expected value	Mean value	Median	Standard deviation	RSD (%)
A2	SO2	µg S/ml	11	0.802	0.779	0.77	0.039	5.0
A3	SO2	µg S/ml	11	0.842	0.794	0.804	0.02	2.6
A4	SO2	µg S/ml	11	0.401	0.387	0.384	0.018	4.7
A5	SO2	µg S/ml	12	0.441	0.416	0.417	0.016	3.8

Nitrogen dioxide in absorbing solution (C-samples)

Sample	Component	Unit	N	Expected value	Mean value	Median	Standard deviation	RSD (%)
C1	NO2	ug N/ml	26	0.146	0.138	0.142	0.02	14.5
C2	NO2	ug N/ml	26	0.132	0.126	0.129	0.015	11.7
C3	NO2	ug N/ml	27	0.059	0.062	0.057	0.015	24.2
C4	NO2	ug N/ml	27	0.073	0.077	0.071	0.02	25.5

Sulphur dioxide and nitric acid on impregnated filters (B-samples)

Sample	Component	Unit	N	Expected value	Mean value	Median	Standard deviation	RSD (%)
B1	SO2	ug S/filter	16	40.08	40.2	39.67	3.02	7.5
B2	SO2	ug S/filter	16	52.1	53.85	54.00	3.28	6.1
B5	SO2	ug S/filter	16	120.2	111.61	112.15	5.30	4.7
B6	SO2	ug S/filter	16	132.2	132.59	131.96	7.50	5.7
B1	HNO3	ug N/filter	15	16.36	16.06	16.05	0.65	4.0
B2	HNO3	ug N/filter	16	21.27	22.11	22.13	0.95	4.3
B5	HNO3	ug N/filter	16	49.08	47.69	47.40	3.27	6.9
B6	HNO3	ug N/filter	16	53.99	57.06	56.56	2.75	4.8

Ammonia on impregnated filters (J-samples)

Sample	Component	Unit	N	Expected value	Mean value	Median	Standard deviation	RSD (%)
J1	NH3	ug N/filter	17	24.06	22.744	23.023	2.07	9.1
J2	NH3	ug N/filter	16	26.07	25.238	25.532	1.515	6.0
J4	NH3	ug N/filter	18	40.1	39.184	38.864	5.618	14.3
J5	NH3	ug N/filter	17	46.12	43.379	44.623	5.16	11.9

Precipitation (G-samples)

Sample	Component	Unit	N	Expected value	Mean value	Median	Standard deviation	RSD (%)
G1	SO4	mg S/l	50	0.927	0.93	0.93	0.034	3.6
G2	SO4	mg S/l	53	0.618	0.624	0.623	0.035	5.6
G3	SO4	mg S/l	49	1.603	1.627	1.62	0.06	3.7
G4	SO4	mg S/l	51	1.498	1.513	1.51	0.064	4.3
G1	NH4	mg N/l	50	0.16	0.16	0.16	0.012	7.6
G2	NH4	mg N/l	50	0.214	0.216	0.215	0.013	5.9
G3	NH4	mg N/l	49	0.321	0.326	0.325	0.014	4.4
G4	NH4	mg N/l	51	0.481	0.489	0.489	0.021	4.2
G1	NO3	mg N/l	51	0.364	0.367	0.368	0.011	3.1
G2	NO3	mg N/l	51	0.398	0.401	0.402	0.014	3.4
G3	NO3	mg N/l	52	0.729	0.739	0.736	0.031	4.2
G4	NO3	mg N/l	52	0.821	0.828	0.825	0.035	4.2
G1	Na	mg/l	53	0.365	0.361	0.367	0.021	5.7
G2	Na	mg/l	53	0.343	0.339	0.343	0.02	6.0
G3	Na	mg/l	53	0.78	0.778	0.784	0.03	3.8
G4	Na	mg/l	52	0.608	0.604	0.605	0.024	4.0
G1	Mg	mg/l	51	0.124	0.122	0.123	0.007	5.7
G2	Mg	mg/l	51	0.083	0.082	0.083	0.004	5.2
G3	Mg	mg/l	50	0.103	0.104	0.103	0.004	4.2
G4	Mg	mg/l	51	0.186	0.186	0.185	0.008	4.4
G1	Cl	mg/l	48	0.232	0.233	0.233	0.016	6.8
G2	Cl	mg/l	48	0.309	0.306	0.309	0.014	4.7
G3	Cl	mg/l	47	0.54	0.537	0.539	0.024	4.5
G4	Cl	mg/l	49	0.386	0.386	0.384	0.022	5.7
G1	Ca	mg/l	48	0.153	0.149	0.15	0.021	13.8
G2	Ca	mg/l	48	0.102	0.1	0.103	0.024	24.0
G3	Ca	mg/l	48	0.23	0.228	0.228	0.021	9.2
G4	Ca	mg/l	48	0.23	0.229	0.23	0.023	10.1
G1	K	mg/l	51	0.204	0.195	0.198	0.018	9.2
G2	K	mg/l	51	0.272	0.261	0.265	0.023	8.7
G3	K	mg/l	52	0.407	0.399	0.402	0.026	6.5
G4	K	mg/l	52	0.34	0.332	0.336	0.022	6.6
G1	pH	pH-unit	52	4.4	4.443	4.43	0.088	2.0
G2	pH	pH-unit	51	4.57	4.586	4.6	0.057	1.3
G3	pH	pH-unit	50	4.1	4.114	4.12	0.038	0.9
G4	pH	pH-unit	50	4.18	4.186	4.2	0.04	1.0
G1	Cond.	µS/cm	51	24	22.637	23.5	2.391	10.6
G2	Cond.	µS/cm	51	18.1	17.637	18.1	1.435	8.1
G3	Cond.	µS/cm	50	45.1	44.427	45.475	3.539	8.0
G4	Cond.	µS/cm	51	41.7	40.361	41.3	2.811	7.0

Heavy metals in precipitation (H-samples)

Sample	Component	Unit	N	Expected value	Mean value	Median	Standard deviation	RSD (%)
H1	As	µg/l	28	0.6	0.658	0.615	0.135	20.5
H2	As	µg/l	30	0.85	0.962	0.9	0.205	21.3
H3	As	µg/l	35	7	6.995	6.97	0.356	5.1
H4	As	µg/l	36	9.5	9.513	9.34	0.534	5.6
H1	Cd	µg/l	34	0.09	0.091	0.09	0.008	8.8
H2	Cd	µg/l	34	0.1	0.102	0.101	0.011	10.6
H3	Cd	µg/l	38	1	1.004	1	0.051	5.1
H4	Cd	µg/l	42	1.1	1.11	1.11	0.089	8.0
H1	Cr	µg/l	34	0.6	0.578	0.6	0.104	18.0
H2	Cr	µg/l	32	0.9	0.913	0.9	0.081	8.8
H3	Cr	µg/l	39	6.5	6.53	6.5	0.518	7.9
H4	Cr	µg/l	40	9	9.179	9.046	0.58	6.3
H1	Cu	µg/l	31	0.8	0.858	0.846	0.173	20.1
H2	Cu	µg/l	32	1.1	1.156	1.1	0.486	42.1
H3	Cu	µg/l	37	10.5	10.376	10.4	0.5	4.8
H4	Cu	µg/l	38	11	10.924	10.877	0.564	5.2
H1	Pb	µg/l	35	1.3	1.306	1.3	0.109	8.3
H2	Pb	µg/l	33	0.9	0.926	0.9	0.136	14.7
H3	Pb	µg/l	45	18	18.465	18.2	1.335	7.2
H4	Pb	µg/l	45	22	22.375	22	2.003	9.0
H1	Ni	µg/l	32	1	0.971	1.019	0.202	20.8
H2	Ni	µg/l	32	1.1	1.086	1.12	0.237	21.8
H3	Ni	µg/l	39	8.6	8.501	8.6	1.557	18.3
H4	Ni	µg/l	39	12	11.89	12	2.24	18.8
H1	Zn	µg/l	40	10.5	11.184	10.75	3.881	34.7
H2	Zn	µg/l	40	15	15.182	15.038	4.154	27.4
H3	Zn	µg/l	44	95	95.929	95.324	17.167	17.9
H4	Zn	µg/l	44	125	125.656	125	22.913	18.2