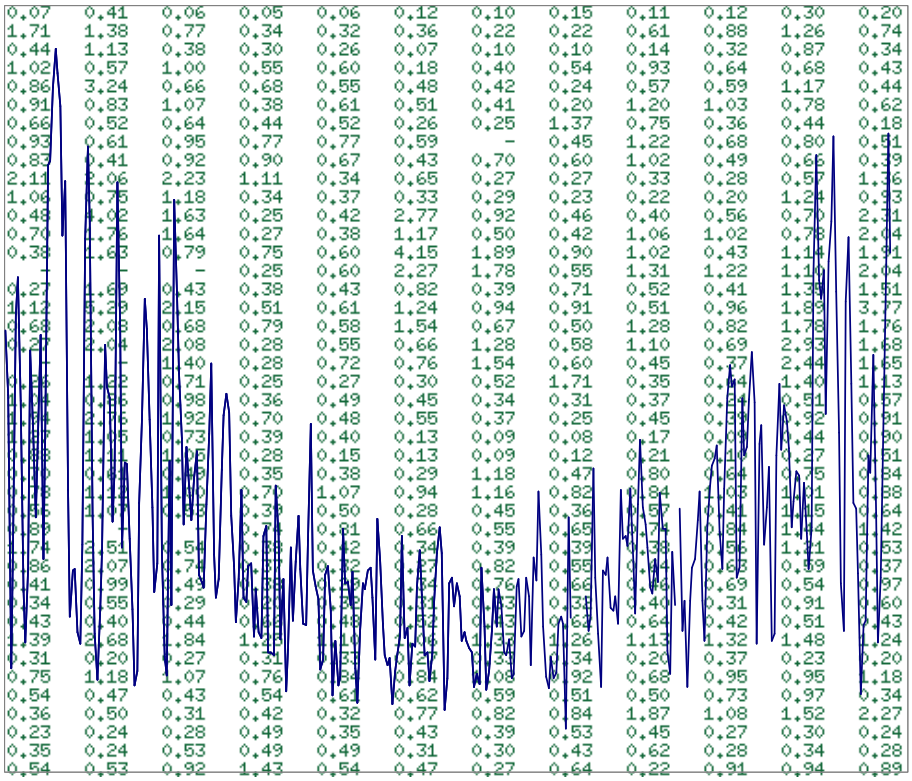
EMEP/CCC-Report 1/2007

EMEP Co-operative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe

Data Report 2005

Acidifying and eutrophying compounds and particulate matter

Anne-Gunn Hjellbrekke and Ann Mari Fjæraa



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NILU : EMEP/CCC-Report 1/2007
REFERENCE : O-7727
DATE : AUGUST 2007

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1. Introduction

Measurements of air quality in Europe have been carried out under the "Co-operative programme for monitoring and evaluation of the long-range transmission of air pollutants in Europe" (EMEP) since 1 October 1977. From the start, priority was given to sulphur dioxide and sulphate in air, and pH and sulphate in precipitation, gradually increasing to all main components in precipitation and ozone and nitrogen compounds in air. A few sites also measure VOC, POPs and heavy metals.

The EMEP data from 2005 for acidifying and eutrophying components in air and precipitation are presented in this report, which aims to give a short overview of the measurement data available. A complete set of data, including raw data, annual statistics and monthly means, can be downloaded from the web at http://www.nilu.no/projects/ccc/ under 'Measurement data'. The air and precipitation samples were analysed at the laboratories in the participating countries and the results have been forwarded to the Chemical Co-ordinating Centre (CCC) at the Norwegian Institute for Air Research (NILU).

The air and precipitation samples were analysed at the laboratories in the participating countries and the results have been forwarded to the Chemical Co-ordinating Centre (CCC) at the Norwegian Institute for Air Research (NILU).

2. The measurement network

The locations of the measurement sites for acidifying and eutrophying components are given in Table 1 and Figure 1. In addition to the network presented here, there are additional sites with other types of measurements.

In total, precipitation data from 84 stations and air data from 94 stations are presented in this report. The total number of measurement sites in this report is 109.

In some parts of Europe, the site density is low and highly unsatisfactory. There is a need for more sites especially in the Mediterranean region and in the eastern parts of Europe.

For detailed information on sites and their surroundings please see descriptions at http://www.nilu.no/projects/ccc/sitedescriptions/.

Table 1: List of EMEP monitoring stations in operation in 2005.

Country	Station codes	Station name	Location		Height above sea (m)
			Lat.	Long.	
Austria	AT0002R	Illmitz	47º46'N	16º46'E	117
	AT0004R	St. Koloman	47º39'N	13º12'E	851
	AT0005R	Vorhegg	46º40'N	12º58'E	1020
	AT0048R	Zoebelboden	47º50'N	14º26'E	899
Belarus	BY0004R	Vysokoe	55º20'N	23º26'E	163
Belgium	BE0001R	Offagne	49º52'N	5º12'E	430
	BE0032R	Eupen	50º37'N	6º00'E	295
	BE0035R	Vezin	50º30'N	4º59'E	160
Croatia	HR0002R	Puntijarka	45º54'N	15º58'E	988
	HR0004R	Zavizan	44º49'N	14º59'E	1594
Cyprus	CY0002R	Ayia Marina	33º02'N	33º03'E	532
Czech Rep.	CZ0001R	Svratouch	49º44'N	16º02'E	737
	CZ0003R	Košetice	49º35'N	15º05'E	534
Denmark	DK0003R	Tange	56º21'N	9º36'E	13
	DK0005R	Keldsnor	54º44'N	10º44'E	9
	DK0008R	Anholt	56º43'N	11º31'E	40
	DK0020R	Pedersker	55º01'N	14º56'E	5
	DK0031R	Ulborg	56º17'N	8º26'E	10
Estonia	EE0009R	Lahemaa	59º30'N	25º54'E	32
	EE0011R	Vilsandi	58º23'N	21º49'E	6
Finland	FI0004R	Ähtari	62º33'N	24º13'E	162
	FI0009R	Utö	59º47'N	21º23'E	7
	FI0017R	Virolahti II	60º31'N	27º41'E	4
	FI0022R	Oulanka	66º19'N	29º24'E	310
	FI0037R	Ähtari II	62º35'N	24º11'E	180
France	FR0001R	Vert-le-Petit	48º32'N	2º22'E	64
	FR0008R	Donon	48º30'N	7º08'E	775
	FR0009R	Revin	49º54'N	4º38'E	390
	FR0010R	Morvan	47º16'N	4º05'E	620
	FR0012R	Iraty	43º02'N	1º05'W	1300
	FR0013R	Peyrusse Vielle	47º22'N	0º06'E	236
	FR0014R	Montandon	47º11'N	6º30'E	746
	FR0015R	La Tardière	49º37'N	1º50'E	133
	FR0016R	Le Casset	45º39'N	6º31'E	1750
	FR0017R	Montfranc	46º08'N	1º23'E	497
Germany	DE0001R	Westerland	54º55'N	8º18'E	12
	DE0002R	Langenbrügge	52º48'N	10º45'E	74
	DE0003R	Schauinsland	47º55'N	7º54'E	1205
	DE0004R	Deuselbach	49º46'N	7º03'E	480
	DE0005R	Brotjacklriegel	48º49'N	13º13'E	1016
	DE0007R	Neuglobsow	53º09'N	13º02'E	62
	DE0008R	Schmücke	50º39'N	10º46'E	937
	DE0009R	Zingst	54º26'N	12º44'E	1
Greece	GR0001R	Aliartos	38º22'N	23º05'E	110
Hungary	HU0002R	K-puszta	46º58'N	19º35'E	125
Iceland	IS0002R	Irafoss	64º05N	21º01'W	61
	IS0090R	Reykjavik	64º05'N	21º01'W	66
	IS0091R	Storhofdi	63º24'N	20º17'W	118
Ireland	IE0001R	Valentina Observatory	51º56'N	10º14'W	9
Italy	IT0001R	Montelibretti	42º06'N	12º38'E	48
	IT0004R	Ispra	45º48'N	8º38'E	209
Latvia	LV0010R	Rucava	56º13'N	21º13'E	18
	LV0016R	Zoseni	57º08'N	25º55'E	183
Lithuania	LT0015R	Preila	55º21'N	21º04'E	5
Netherlands	NL0009R	Kollumerwaard	53º20'N	6º17'E	0
	NL0010R	Vredepeel	51º32'N	5º51'E	28

Table 1, cont.

Country	Station codes	Station name	Location		Height above sea (m)
			Lat.	Long.	
Norway	NO0001R	Birkenes	58º23'N	8º15'E	190
	NO0008R	Skreådalen	58º49'N	6º43'E	475
	NO0015R	Tustervatn	65º50'N	13º55'E	439
	NO0039R	Kårvatn	62º47'N	8º53'E	210
	NO0042G	Spitsbergen, Zeppelinfjell	78º54'N	11º53'E	474
	NO0055R	Karasjok	69º28'N	25º13'E	333
Poland	PL0002R	Jarczew	51º49'N	21º59'E	180
	PL0003R	Sniezka	50º44'N	15º44'E	1604
	PL0004R	Leba	54º45'N	17º32'E	2
	PL0005R	Diabla Gora	54º09'N	22º04'E	157
Portugal	PT0001R	Braganca	41º49'N	6º46'W	691
	PT0003R	Viana do Castelo	41º42'N	8º48'W	16
	PT0004R	Monte Velho	38º05'N	8º48'W	43
Russian Federation	RU0001R	Janiskoski	68º56'N	28º51'E	118
	RU0013R	Pinega	64º42'N	43º24'E	28
	RU0016R	Shepeljovo	59º58'N	29º07'E	4
	RU0020R	Lesnoy	56º31'N	32º56'E	340
Serbia and Montenegro	YU0005E	Kamenicki vis	43º24'N	21º57'E	813
Slovenia	SI0008R	Iskrba	45º34'N	14º52'E	520
Slovakia	SK0002R	Chopok	48º56'N	19º35'E	2008
	SK0004R	Stará Lesná	49º09'N	20º17'E	808
	SK0005R	Liesek	49º22'N	19º41'E	892
	SK0006R	Starina	49º03'N	22º16'E	345
	SK0007R	Topolniky	47º57'N	17º51'E	113
Spain	ES0007R	Viznar	37º14'N	3º32'W	1265
	ES0008R	Niembro	43º27'N	4º51'W	134
	ES0009R	Campisabolos	41º17'N	3º9'W	1360
	ES0010R	Cabo de Creus	42º19'N	3º19'E	23
	ES0011R	Barcarrola	38º29'N	6º55'W	393
	ES0012R	Zarra	39º5'N	1º6'W	885
	ES0013R	Penausende	41º17'N	5º52'W	985
	ES0014R	Els Torms	41º24'N	0º43'E	470
	ES0015R	Risco Llamo	39º31'N	4º21'W	1241
	ES0016R	O Saviñao	43º13'N	7º41'W	506
Sweden	SE0005R	Bredkälen	63º51'N	15º20'E	404
	SE0008R	Hoburgen	56º55'N	18º09'E	58
	SE0011R	Vavihill	56º01'N	13º09'E	172
	SE0012R	Aspvreten	58º48'N	17º23'E	20
	SE0014R	Råö	57º24'N	11º55'E	5
	SE0035R	Vindeln	64º15'N	19º46'E	225
Switzerland	CH0001G	Jungfraujoch	46º33'N	7º59'E	3573
	CH0002R	Payerne	46º48'N	6º57'E	510
	CH0003R	Tänikon	47º29'N	8º54'E	540
	CH0004R	Chaumont	47º03'N	6º59'E	1130
	CH0005R	Rigi	47º04'N	8º28'E	1030
Turkey	TR0001R	Cubuk II	40º30'N	33º00'E	1169
United Kingdom	GB0002R	Eskdalemuir	55º19'N	3º12'W	243
	GB0006R	Lough Navar	54º26'N	7º54'W	126
	GB0007R	Barcombe Mills	50º52'N	0º02'W	8
	GB0013R	Yarner Wood	50º36'N	3º43'W	119
	GB0014R	High Muffles	54º20'N	0º48'W	267
	GB0015R	Strath Vaich Dam	57º44'N	4º46'W	270
	GB0016R	Glen Dye	56º58'N	2º25'W	85

3. Site codes

The site codes used in this report are the codes used for data submission and storage in the EMEP database. The codes consist of the two-letter ISO code for the countries, a four-digit number and a letter indicating the type of station, regional (R) or global (G). The station numbers have been retained from previous codes used.

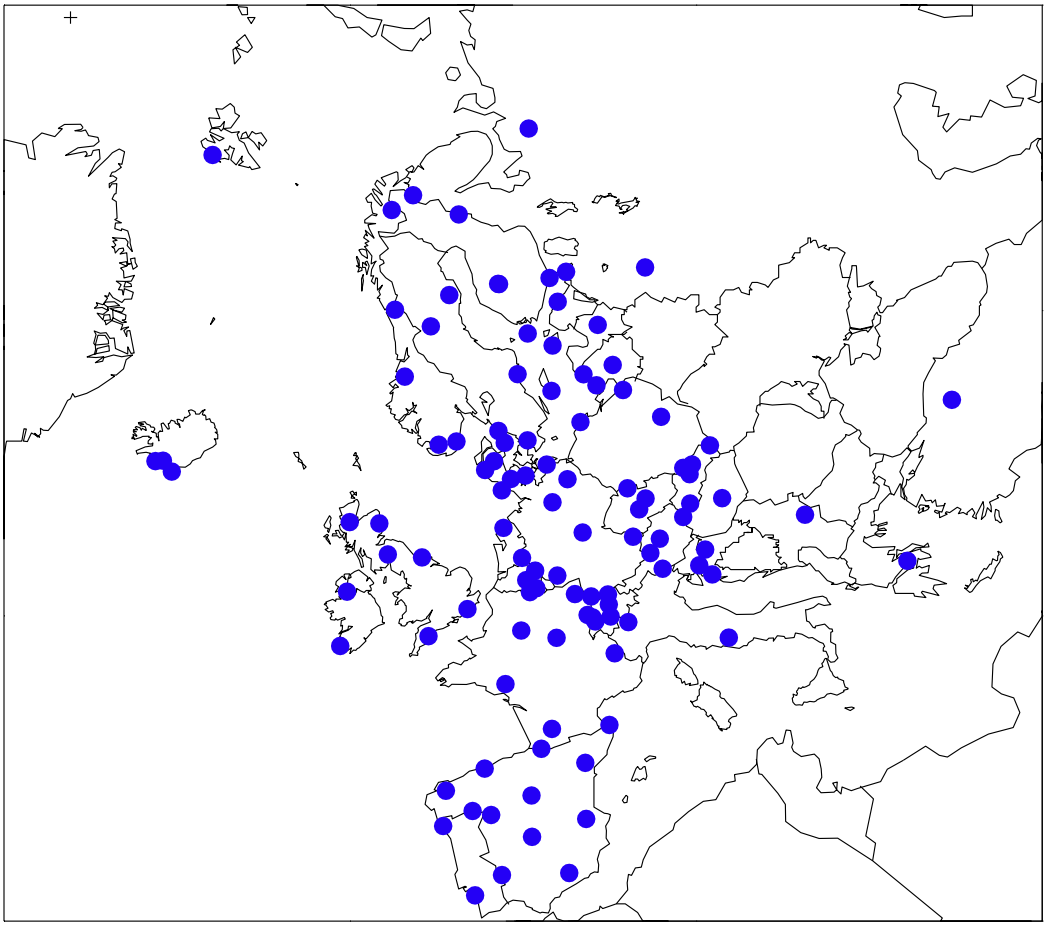

Figure 1: Location of the EMEP monitoring stations in operation in 2005. Sites with ozone/VOC measurements only are not included.

4. The measurement programme during 2005

EMEP's measurement programme during 2005 is presented in Table 2. A few sites have a less extensive measurement programme, as can be seen from the data tables in this report. Most sites measure air as well as precipitation components. However, some sites perform either the one or the other type of measurements.

Table 2: EMEP's measurement programme 2005.

	Components	Measurement period	Measurement frequency
Gas	SO_2, NO_2	24 hours	Daily
	O_3	hourly means stored	continuously
	Light hydrocarbons C_2-C_7	10-15 mins	twice weekly
	Ketones and aldehydes (VOC)	8 hours	twice weekly
	Hg	24 hours	weekly
Particles	SO_4^{2-}, NH_4^+, NO_3^-, Ca^{2+}, Mg^{2+}, Na^+, K^+, Cl^-	24 hours	daily
	Cd, Pb (first priority), Cu, Zn, As, Cr, Ni (second priority)	weekly	weekly
	PM mass	24 hours	daily
Gas + particles	HNO_3(g)+NO_3^-(p), NH_3(g)+NH_4^-(p)	24 hours	daily
	POPs (PAH, PCB, HCB, chlordane, lindane, α-HCH, DDT/DDE)	daily/weekly	once weekly
Precipitation	Amount, SO_4^{2-}, NO_3^-, Cl^-, pH, NH_4^+, Na^+, Mg^{2+}, Ca^{2+}, K^+, conductivity	24 hours/weekly	daily/weekly
	Hg, Cd, Pb (first priority), Cu, Zn, As, Cr, Ni (second priority)	weekly	weekly
	POPs (PAH, PCB, HCB, chlordane, lindane, α-HCH, DDT/DDE)	weekly	weekly

Measurements of VOC, heavy metals and POPs are made at a small number of sites only.

An evaluation of the VOC measurement programme within EMEP has been published earlier (Solberg et al., 1995). The VOC data from 2005 have been reported separately by Solberg (2007), while ozone data from 2005 have been reported by Fjæraa and Hjellbrekke (2007). Heavy metals and POPs were reported by Aas and Breivik (2007).

A list of data reports from EMEP/CCC can be found in Annex 5. The most resent data reports are also available on the web in pdf and word format at http://www.nilu.no/projects/ccc/reports.html.

5. Sampling and analytical methods

The recommended procedures for sampling and analysis of precipitation and air are described in the EMEP Manual for sampling and chemical analysis (EMEP/CCC, 1996 – revised 2001). The latest version is also available on the web at http://www.nilu.no/projects/ccc/manual/. The methods used by the participating countries are given in Annex 4.

Generally, concentrations of gaseous nitric acid and ammonia, and of nitrate and ammonium in aerosol particles are determined by filter pack sampling. However, sampling artefacts due to the volatile nature of ammonium nitrate, and the possible interaction with strong acids, e.g. sulphuric acid, make separation of gases and particles by simple aerosol filters unreliable. Therefore only the sums of nitric acid and nitrate, and of ammonium and ammonia are unbiased.

6. Laboratory intercomparison

During 2004 and 2005 the 23rd and 24th laboratory intercomparisons of analytical methods were carried out. The results are presented in Uggerud and Hjellbrekke (2007).

7. Calculation of excess sulphate in precipitation

The sulphate in precipitation is stored in the database as reported, i.e. total sulphate, and as corrected, non-marine sulphate, i.e. total sulphate minus sulphate originating from sea-salt particles.

When the sulphate concentrations originating from sea-salt are larger than the total sulphate, and the corrected sulphate concentrations consequently become less than zero, negative concentrations have been stored in the database and have been used to calculate averages in the report in order to avoid bias in the aggregates. Negative concentrations are mainly caused by random errors in the data and occur when non sea-salt sulphate concentrations are low compared to total sulphate.

CCC has since 1994 used a routine worked out by the Canadian Air and Precipitation Monitoring Network (CAPMoN) for calculation of the marine contribution to sulphate in precipitation. The routine has been adopted by the WMO GAW. A series of EMEP's sites will also report data to WMO, and common routines will necessarily fill the data bases with identical data. This is consequently a step in a harmonisation process between EMEP and WMO GAW.

Excess sulphate data as calculated with the old routine are available from the CCC as a continuation of the data series upon request.

8. Annual summaries of the data

8.1 Maps over Europe

Geographical distributions based on annual means of SO_2, NO_2 and SO_4^{--} in air and pH, NH_4^+, NO_3^-, Ca and excess SO_4^{--} in precipitation are shown in Figures 1.1–1.4 in Annex 1.

8.2 Annual summaries in tables

Annual statistics of the precipitation data are given in Annex 2 and of the air data in Annex 3. The precipitation component summaries contain:

- the precipitation weighted arithmetic mean value,
- the minimum and maximum daily concentrations,
- the wet deposition,
- percent of total precipitation amount analysed for a specific component (completeness for precipitation data),
- the number of data below the detection limit.

The wet depositions have been obtained by multiplying the weighted mean concentration by the total amount of precipitation in the period. The concentrations for days with missing precipitation data have consequently been assumed to be equal to the weighted average of the period.

Concentrations less than zero may exist in the database for sulphate in precipitation corrected for sea-salt. This occurs whenever the sea-salt contribution is larger than the total sulphate concentration, and it is caused by random errors in the results. The negative values have been included in the estimation of the weighted arithmetic mean values.

For air components the statistical summaries in Annex 3 contain:

- arithmetic mean and standard deviation,
- geometric mean and standard deviation,
- minimum and maximum daily concentrations,
- 5-percentile, median and 95-percentile,
- data capture,
- the number of data below the detection limit and total number of samples.

A description of the calculation procedures is given in Annex 6.

In addition to the statistical summaries in Annex 2 and Annex 3 annual averages are summarized in Tables 3-6. The units used for the results in this report are given in Table 7 and Table 8.

Table 3: Annual averages of main components in precipitation 2005.

Code	mm	mm off	pH	SO_4	XSO_4	NH4	NO_3	Na	Mg	Cl	Ca	K	cond
AT0002R	385.3	-	4.95	0.52	0.52	0.45	0.38	0.11	0.108	0.13	0.35	0.06	13
AT0005R	876.7	-	5.19	0.26	0.26	0.37	0.26	0.06	0.033	0.06	0.19	0.06	9
AT0048R	1324.9	-	5.00	0.30	0.29	0.42	0.37	0.15	0.028	0.22	0.24	0.04	12
BY0004R	492.3	-	5.19	1.87	1.50	0.94	0.38	1.49	0.532	5.03	3.51	-	37
CH0002R	694.6	-	5.37	0.28	0.27	0.54	0.28	0.08	0.028	0.14	0.29	0.07	10
CH0004R	905.8	-	5.10	0.26	0.25	0.31	0.26	0.10	0.023	0.17	0.22	0.04	9
CH0005R	1304.5	-	5.06	0.30	0.29	0.52	0.34	0.08	0.018	0.11	0.20	0.04	11
CZ0001R	802.7	-	4.73	0.57	0.55	0.71	0.52	0.13	0.028	0.22	0.21	0.07	19
CZ0003R	680.8	-	4.84	0.45	0.44	0.62	0.42	0.11	0.027	0.20	0.19	0.05	16
DE0001R	590.6	-	4.75	0.86	0.43	0.65	0.53	5.00	0.607	9.09	0.34	0.18	38
DE0002R	556.8	-	4.83	0.50	0.44	0.61	0.52	0.61	0.094	1.06	0.35	0.04	15
DE0003R	1435.0	-	4.88	0.33	0.32	0.35	0.32	0.15	0.026	0.23	0.20	0.02	9
DE0004R	574.3	-	4.83	0.44	0.42	0.55	0.39	0.21	0.041	0.34	0.26	0.06	11
DE0005R	1187.2	-	4.75	0.36	0.35	0.44	0.42	0.13	0.025	0.21	0.21	0.03	11
DE0007R	539.4	-	4.79	0.41	0.38	0.48	0.43	0.38	0.060	0.70	0.19	0.07	12
DE0008R	1079.1	-	4.71	0.50	0.48	0.57	0.51	0.24	0.040	0.40	0.20	0.04	13
DE0009R	491.8	-	4.75	0.56	0.47	0.54	0.52	1.02	0.147	1.84	0.29	0.09	17
DK0005R	432.8	-	4.94	0.71	0.52	0.68	0.61	2.35	0.284	4.07	0.36	0.21	33
DK0008R	591.9	-	4.69	0.79	0.34	0.42	0.46	5.32	0.599	9.47	0.26	0.22	50
DK0022R	723.2	-	4.89	0.58	0.36	0.56	0.44	2.71	0.302	4.93	0.15	0.12	31
EE0009R	555.0	-	4.10	0.27	-	0.13	0.28	0.25	0.046	0.72	0.21	0.04	28
EE0011R	567.5	-	4.88	0.48	0.36	-	0.27	1.45	0.194	2.38	0.37	0.26	19
ES0007R	294.4	-	6.54	0.58	0.54	0.35	0.33	0.43	0.252	0.59	1.55	0.14	18
ES0008R	603.6	-	4.23	1.05	0.64	0.45	1.60	5.83	0.584	8.01	0.54	0.28	66
ES0009R	317.0	-	6.17	0.56	0.52	0.37	0.62	0.43	0.113	0.51	1.79	0.14	18
ES0011R	327.6	-	5.89	0.41	0.34	0.23	0.24	0.78	0.124	1.20	0.68	0.17	14
ES0012R	245.9	-	6.71	0.99	0.93	0.55	0.94	0.71	0.280	0.85	4.93	0.22	38
ES0013R	267.6	-	5.90	0.26	0.23	0.11	0.13	0.36	0.050	0.37	0.41	0.10	7
ES0014R	295.2	-	6.39	0.81	0.73	0.57	0.66	0.52	0.354	1.40	2.31	0.19	27
ES0015R	325.6	-	6.37	0.66	0.60	0.55	0.59	0.58	0.125	0.89	1.08	0.14	22
ES0016R	518.6	-	5.72	0.51	0.42	0.40	0.29	1.42	0.145	1.40	0.44	0.27	18
FI0004R	594.1	-	4.78	0.22	0.21	0.14	0.21	0.10	0.021	0.17	0.07	0.07	10
FI0009R	349.8	597.4	4.66	0.44	0.33	0.26	0.40	1.31	0.173	2.17	0.19	0.11	23
FI0017R	553.2	-	4.72	0.47	0.44	0.26	0.33	0.33	0.065	0.58	0.22	0.31	16
FI0022R	624.8	-	4.79	0.17	0.17	0.08	0.14	0.07	0.010	0.10	0.03	0.03	9
FR0008R	1261.2	-	4.77	0.42	0.40	0.46	0.41	0.25	0.034	0.40	0.19	0.03	15
FR0009R	870.8	-	4.93	0.46	0.41	0.55	0.41	0.61	0.077	0.99	0.21	0.05	16
FR0010R	751.5	-	4.95	0.39	0.35	0.46	0.36	0.43	0.046	0.63	0.22	0.14	14
FR0012R	1252.4	-	5.10	0.36	0.32	0.32	0.24	0.40	0.058	0.62	0.26	0.03	11
FR0013R	689.7	-	4.99	0.43	0.38	0.37	0.28	0.58	0.077	0.97	0.27	0.05	14
FR0014R	1096.8	-	4.98	0.35	0.34	0.46	0.36	0.16	0.029	0.25	0.21	0.03	12
FR0015R	608.2	-	5.13	0.50	0.40	0.53	0.30	1.23	0.153	2.04	0.32	0.09	18
FR0016R	460.2	-	5.39	0.29	0.28	0.28	0.25	0.07	0.037	0.13	0.56	0.07	9
FR0017R	871.3	-	5.00	0.31	0.28	0.30	0.25	0.39	0.053	0.62	0.18	0.04	11
GB0002R	1505.5	-	5.01	0.38	0.24	0.28	0.23	1.75	0.189	3.02	0.14	0.13	19
HR0002R	-	1446.8	5.18	0.49	0.46	0.42	0.36	0.24	0.259	0.41	2.08	0.23	14
HR0004R	-	2018.8	5.42	0.44	0.36	0.29	0.35	1.17	0.267	1.29	2.75	0.17	15
HU0002R	478.9	610.5	5.68	0.63	0.56	0.44	0.52	1.33	0.159	0.68	0.96	0.17	20
IE0001R	1496.8	1494.9	5.31	1.42	0.17	0.22	0.09	14.96	1.931	27.13	0.67	0.81	105
IS0002R	1412.6	-	5.59	0.37	0.09	-	-	3.39	-	-	-	-	-
IS0090R	684.0	744.6	5.34	0.86	0.37	0.34	0.11	6.12	0.718	9.81	0.38	0.23	43
IS0091R	1493.1	1548.3	5.76	15.29	-0.40	0.94	0.06	188.41	22.460	342.00	8.67	7.15	1035
IT0001R	846.0	-	5.84	0.64	0.54	0.32	0.41	1.05	0.254	2.39	1.88	0.26	28
IT0004R	881.7	-	5.15	0.66	0.64	1.13	0.87	0.23	0.052	0.39	0.46	0.09	22
LT0015R	513.4	-	4.82	0.46	0.28	0.39	0.48	2.05	-	2.74	0.25	0.18	26
LV0010R	679.0	-	4.77	0.38	0.33	0.33	0.37	0.60	0.088	0.92	-	0.08	17
LV0016R	696.0	-	5.55	0.28	0.25	0.35	0.21	0.36	0.131	0.23	0.47	0.11	13
NL0009R	590.2	-	5.29	0.62	0.43	0.72	0.44	2.18	0.257	4.06	0.29	0.24	28
NO0001R	1240.6	-	4.68	0.56	0.43	0.42	0.47	1.63	0.183	2.72	0.13	0.08	25
NO0008R	732.7	-	5.20	0.44	0.06	0.05	0.07	4.59	0.530	8.76	0.20	0.19	32
NO0015R	1301.7	-	5.39	0.26	0.12	0.18	0.08	1.73	0.194	2.82	0.15	0.16	15
NO0039R	1733.3	-	5.33	0.23	0.09	0.08	0.05	1.64	0.191	2.74	0.12	0.10	14
NO0055R	410.1	-	5.12	0.27	0.24	0.16	0.13	0.41	0.032	0.57	0.08	0.18	8

Table 3, cont.

Code	mm	mm off	pH	SO_4	XSO_4	NH4	NO_3	Na	Mg	Cl	Ca	K	cond
PL0002R	489.0	-	4.64	0.69	0.67	0.71	0.46	0.22	0.036	0.63	0.22	0.12	21
PL0003R	1271.6	-	4.57	0.70	0.67	0.35	0.72	0.48	0.124	0.59	0.51	0.23	23
PL0004R	477.0	-	4.58	0.56	0.49	0.48	0.52	0.80	0.115	1.60	0.26	0.09	24
PL0005R	598.8	690.0	4.78	0.53	0.49	0.53	0.44	0.18	0.046	0.43	0.22	0.08	15
PT0001R	-	465.6	5.76	0.58	0.54	0.13	0.13	0.61	0.098	0.68	2.08	0.12	16
PT0003R	-	914.4	5.11	0.58	0.37	0.14	0.20	2.57	0.329	3.89	0.63	0.13	23
PT0004R	-	426.6	5.35	0.41	0.26	0.06	0.12	1.82	0.238	3.10	0.54	0.13	18
RU0013R	385.0	-	5.50	0.59	0.52	0.29	0.14	0.94	0.275	0.68	1.39	0.68	17
RU0016R	708.0	-	4.93	0.51	0.48	0.28	0.21	0.41	0.141	0.28	0.78	0.30	11
RU0020R	696.7	-	4.99	0.82	0.77	0.63	0.36	0.72	0.099	0.57	0.67	0.77	17
SE0005R	729.7	-	5.03	0.18	0.17	0.12	0.13	0.09	0.021	0.19	0.05	0.08	7
SE0011R	707.0	-	4.80	0.47	0.40	0.62	0.51	0.80	0.109	1.36	0.15	0.04	20
SE0014R	596.4	-	4.82	0.83	0.36	0.48	0.45	5.61	0.728	9.45	0.34	0.22	50
SI0008R	1565.0	1636.0	4.87	0.39	0.36	0.30	0.30	0.41	0.046	0.68	0.26	0.04	14
SK0002R	1144.4	-	4.85	0.41	0.40	0.37	0.25	0.17	0.019	0.15	0.17	0.13	11
SK0004R	854.2	-	4.73	0.49	0.47	0.36	0.28	0.21	0.030	0.20	0.30	0.13	14
SK0005R	806.0	-	4.64	0.62	0.60	0.47	0.39	0.21	0.040	0.38	0.34	0.15	18
SK0006R	892.6	-	4.60	0.58	0.56	0.39	0.40	0.23	0.036	0.31	0.29	0.19	18
SK0007R	600.0	-	4.98	0.52	0.50	0.53	0.36	0.21	0.075	0.26	0.45	0.13	15
TR0001R	335.8	-	5.54	1.01	0.96	0.34	0.41	0.55	0.252	0.50	1.98	0.20	21
YU0005R	856.9	-	5.54	1.06	1.00	0.88	0.44	0.70	0.245	0.68	1.34	0.19	36

Table 4: Annual averages of main components in air 2005.

Code	SO_2	NO_2	SO_4	XSO_4	SNO_3	NO_3	HNO_3	SNH_4	NH_4	NH_3
AT0002R	1.25	2.69	1.09	1.09	-	0.36	0.88	-	1.03	1.83
AT0004R	1.16	-	-	-	-	-	-	-	-	-
AT0005R	0.32	1.27	-	-	-	-	-	-	-	-
AT0048R	0.45	1.74	-	-	-	-	-	-	-	-
BE0001R	-	3.04	-	-	-	-	-	-	-	-
BE0032R	-	3.57	-	-	-	-	-	-	-	-
BE0035R	-	4.06	-	-	-	-	-	-	-	-
CH0001G	0.09	0.08	0.12	-	-	-	-	-	-	-
CH0002R	0.55	4.66	0.74	-	1.11	-	-	4.27	-	-
CH0003R	-	4.47	-	-	-	-	-	-	-	-
CH0004R	0.66	2.04	-	-	-	-	-	-	-	-
CH0005R	0.39	1.31	0.56	-	0.85	-	-	2.06	-	-
CZ0001R	1.56	3.88	1.06	-	1.03	-	-	2.82	-	-
CZ0003R	1.24	2.58	1.17	-	1.02	-	-	2.59	-	-
DE0001R	0.59	2.34	0.86	0.68	0.97	0.80	1.14	1.95	0.81	1.14
DE0002R	0.54	3.03	0.88	0.84	0.79	0.50	0.29	1.88	0.77	1.12
DE0003R	0.50	1.10	0.65	0.63	0.67	0.30	0.38	0.00	0.49	0.57
DE0007R	0.65	1.85	0.88	0.84	0.78	0.53	0.25	1.42	0.80	0.62
DE0008R	0.71	2.08	-	-	-	-	-	-	-	-
DE0009R	0.80	2.17	0.90	0.83	0.97	0.77	0.22	1.96	0.91	1.05
DK0003R	0.27	-	0.73	0.64	0.80	-	-	-	1.22	1.05
DK0005R	0.79	1.61	0.84	0.76	0.93	-	-	-	1.28	0.41
DK0008R	0.59	1.40	0.82	0.67	0.79	-	-	-	1.03	0.14
DK0031R	0.27	-	0.76	0.63	0.73	-	-	-	1.09	-
EE0009R	2.11	3.12	-	-	-	-	-	-	-	-
EE0011R	1.16	3.06	-	-	-	-	-	-	-	-
ES0007R	0.39	2.15	0.74	-	0.48	0.47	-	1.09	-	-
ES0008R	2.56	2.09	1.14	-	0.54	0.43	-	1.80	-	2.83
ES0009R	0.40	1.01	0.58	-	0.33	0.16	-	1.23	0.62	1.00
ES0010R	0.38	1.34	1.25	-	0.74	0.54	-	1.48	-	-
ES0011R	0.70	1.31	0.79	-	0.42	0.34	-	1.06	-	-
ES0012R	0.42	1.08	0.86	-	0.55	0.41	-	1.84	-	-
ES0013R	0.81	1.33	0.63	-	0.26	0.30	-	1.42	-	-
ES0014R	0.64	1.46	1.11	-	0.60	0.48	-	5.02	-	-
ES0015R	0.59	1.19	0.62	-	0.39	0.36	-	0.74	-	-
ES0016R	1.47	2.14	0.88	-	0.33	0.25	-	1.46	-	-
FI0009R	0.45	1.42	0.52	-	0.38	-	-	0.43	-	-
FI0017R	0.64	1.46	0.61	-	0.30	-	-	0.54	-	-
FI0022R	0.32	0.26	0.39	-	0.08	-	-	0.21	-	-
FI0037R	0.30	0.67	0.47	-	0.17	-	-	0.37	-	-
FR0001R	1.21	-	0.76	-	-	-	-	-	-	-
FR0008R	0.53	-	0.59	-	-	-	-	-	-	-
FR0009R	0.87	-	0.84	-	-	-	-	-	-	-
FR0010R	0.44	-	0.60	-	-	-	-	-	-	-
FR0012R	0.58	-	0.54	-	-	-	-	-	-	-
FR0013R	0.65	-	0.70	-	-	-	-	-	-	-
FR0014R	0.30	-	0.45	-	-	-	-	-	-	-
FR0015R	0.51	-	0.73	-	-	-	-	-	-	-
FR0016R	0.27	-	0.38	-	-	-	-	-	-	-
FR0017R	0.37	-	0.63	-	-	-	-	-	-	-
GB0002R	0.21	-	0.38	-	-	-	-	-	-	-
GB0006R	0.09	-	0.36	-	-	0.21	0.05	-	0.40	0.36
GB0007R	-	-	0.76	-	-	-	-	-	-	-
GB0013R	0.34	-	0.55	-	-	0.44	0.17	-	0.73	0.59
GB0014R	-	2.29	0.53	-	-	0.50	0.20	-	0.84	0.57
GB0015R	0.07	-	-	-	-	-	-	-	-	-
GB0016R	-	-	-	-	-	0.22	0.08	-	0.35	0.23
GR0001R	-	12.15	-	-	-	-	-	-	-	-
HU0002R	1.15	1.41	1.38	-	-	0.69	0.24	-	1.35	1.43
IE0001R	0.23	0.94	0.37	0.22	0.38	-	-	1.08	-	-
IS0002R	-	-	0.15	-	-	-	-	-	-	-
IS0091R	-	-	0.53	0.07	-	0.05	-	-	-	-

Table 4, cont.

Code	SO_2	NO_2	SO_4	XSO_4	SNO_3	NO_3	HNO_3	SNH_4	NH_4	NH_3
IT0001R	0.49	4.97	0.82	-	-	0.37	0.17	-	1.06	1.42
IT0004R	1.54	5.69	1.17	-	-	1.23	-	-	2.18	-
LT0015R	0.74	1.21	0.78	-	0.63	-	-	1.93	-	-
LV0010R	0.77	0.83	0.37	-	0.42	0.11	-	0.99	-	-
LV0016R	0.54	0.59	0.38	-	0.27	0.06	-	0.98	0.67	-
NL0009R	0.55	3.38	0.65	-	-	0.75	-	-	1.24	-
NL0010R	1.05	6.42	0.80	-	-	1.00	-	-	1.62	14.85
NO0001R	0.19	0.46	0.46	0.42	0.33	0.24	0.09	0.75	-	0.34
NO0015R	0.08	0.14	0.21	0.20	0.10	0.06	0.04	1.00	0.12	0.86
NO0039R	0.07	0.22	0.18	0.17	0.14	0.09	0.06	0.65	0.15	0.49
NO0042G	0.13	-	0.18	0.16	0.15	0.09	0.06	0.42	0.10	0.32
NO0055R	0.31	0.17	0.30	0.29	0.11	0.06	0.05	0.69	0.16	-
PL0002R	2.21	2.75	1.58	-	0.84	0.71	-	2.86	1.59	-
PL0003R	1.09	1.10	0.78	-	0.32	0.23	-	0.75	0.57	-
PL0004R	1.25	1.72	1.30	-	0.62	0.48	-	1.56	1.02	-
PL0005R	0.66	0.66	0.66	-	0.64	-	-	1.33	-	-
RU0001R	2.62	-	1.27	-	-	0.16	-	-	0.47	-
RU0016R	0.80	-	1.15	-	-	0.33	-	-	0.54	-
SE0005R	0.06	0.12	0.22	-	0.09	-	-	0.23	-	-
SE0008R	0.70	1.04	0.66	-	-	-	-	-	-	-
SE0011R	0.49	1.48	0.61	-	0.60	-	-	1.25	-	-
SE0014R	0.53	1.49	0.70	-	0.63	-	-	0.95	-	-
SI0008R	0.68	0.54	0.86	0.85	0.43	-	-	1.28	-	-
SK0002R	0.90	0.77	0.48	-	-	0.16	0.57	-	-	-
SK0005R	1.74	1.89	1.15	-	-	0.54	0.21	-	-	-
SK0006R	1.06	1.05	1.09	-	-	0.36	0.09	-	-	-
SK0007R	1.31	2.64	1.31	-	-	0.98	0.05	-	-	-
TR0001R	1.35	1.12	0.58	-	0.31	0.22	0.07	0.84	0.46	0.39
YU0005R	3.32	2.87	-	-	-	-	-	-	-	-

Table 5: Annual averages of base cations and sodium and chloride in aerosols.

Code	Na	Ca	Mg	K	Cl
AT0002R	0.07	0.19	0.03	0.21	-
DE0001R	2.14	0.21	0.33	0.33	-
DE0002R	0.39	0.14	0.06	0.13	-
DE0003R	0.14	0.21	0.04	0.06	-
DE0007R	0.41	0.15	0.09	0.13	-
DE0009R	0.77	0.23	0.14	0.13	-
DK0003R	1.11	-	-	-	-
DK0005R	1.07	-	-	-	-
DK0008R	1.85	-	-	-	-
DK0031R	1.51	-	-	-	-
IE0001R	1.73	0.18	0.22	0.09	-
IS0091R	-	-	-	-	9.75
LV0010R	0.22	-	0.02	0.10	-
NL0009R	-	0.09	-	-	-
NO0001R	0.46	0.06	0.06	0.05	0.39
NO0015R	0.28	0.04	0.03	0.02	0.36
NO0039R	0.18	0.03	0.02	0.02	0.18
NO0042G	0.27	0.06	0.04	0.02	0.29
NO0055R	0.21	0.03	0.03	0.03	0.23
SI0008R	0.07	0.13	0.02	0.15	0.03

Table 6: Annual averages of particulate matter.

Code	PM_{10}	PM_{10}-$PM_{2.5}$	$PM_{2.5}$	PM_1	SPM
AT0002R	26.74	-	21.94	15.73	-
AT0005R	10.00	-	-	-	-
AT0048R	11.14	-	9.32	-	-
CH0001G	-	-	-	-	2.87
CH0002R	19.80	-	15.10	-	-
CH0003R	18.41	-	-	-	-
CH0004R	10.98	-	8.58	7.06	-
CH0005R	11.76	-	-	-	-
CY0002R	28.88	-	-	-	-
CZ0001R	22.88	-	-	-	-
CZ0003R	20.67	-	18.65	-	-
DE0001R	19.61	-	-	-	-
DE0002R	17.71	-	13.37	7.64	-
DE0003R	9.72	-	7.28	-	-
DE0007R	13.79	-	-	-	-
DE0008R	12.16	-	-	-	-
DE0009R	17.23	-	-	-	-
DK0005R	24.58	-	-	-	-
ES0007R	21.77	-	10.88	-	-
ES0008R	17.30	-	9.03	-	-
ES0009R	11.89	-	7.69	-	-
ES0010R	20.60	-	11.65	-	-
ES0011R	18.98	-	10.20	-	-
ES0012R	15.33	-	7.80	-	-
ES0013R	12.85	-	7.74	-	-
ES0014R	16.84	-	9.91	-	-
ES0015R	15.16	-	7.98	-	-
ES0016R	13.62	-	9.52	-	-
IT0001R	28.68	-	-	-	-
IT0004R	40.35	-	29.79	-	-
LT0015R	-	-	-	-	16.13
NO0001R	6.75	2.67	4.07	-	-
PL0005R	18.95	-	-	-	-
SE0005R	-	-	-	-	0.58
SE0008R	-	-	-	-	1.97
SE0011R	15.17	-	10.93	-	2.32
SE0012R	9.59	-	9.64	-	-
SE0014R	-	-	-	-	1.70
SE0035R	7.81	-	-	-	-
SI0008R	15.86	-	14.50	-	-
SK0002R	-	-	-	-	5.97
SK0005R	22.16	-	-	-	-
SK0006R	18.44	-	-	-	-
SK0007R	-	-	-	-	19.55

Table 7: Units used for precipitation components.

Precipitation components	Units for W. mean, Min., Max.	Units for depositions
Amount	mm	mm
SO_4^{--}	mg S/l	mg S/m^2
NO_3^-	mg N/l	mg N/m^2
Cl^-	mg Cl/l	mg Cl/m^2
NH_4^+	mg N/l	mg N/m^2
H^+	µe H^+/l	µe H^+/m^2
pH	pH-units	µe H^+/m^2
Na^+	mg Na/l	mg Na/m^2
Mg^{2+}	mg Mg/l	mg Mg/m^2
K^+	mg K/l	mg K/m^2
Ca^{2+}	mg Ca/l	mg Ca/m^2

Table 8: Units used for air components.

Air components	Units for arithmetic and geometric mean values, arithmetic standard deviations, Min., Max, percentiles.
SO_2	µg S/m^3
NO_2	µg N/m^3
HNO_3	µg N/m^3
NH_3	µg N/m^3
SO_4^{2-}	µg S/m^3
NO_3^-	µg N/m^3
NH_4^+	µg N/m^3
H^+	Ne H^+/m^3
SPM, PM	µg/m^3
$HNO_3 + NO_3^-$	µg N/m^3
$NH_3 + NH_4^+$	µg N/m^3
Ca^{++}	µg/m^3
Cl^-	µg/m^3
Mg^{++}	µg/m^3
K^+	µg/m^3
Na^+	µg/m^3

9. Update

The data compiled in this report represent the best data available at present. If any further errors are detected, the data will be corrected in the database. It is important that users make certain that they have access to the most recent version of the database. For the data presented here the latest alteration was 4 July, 2007.

Scientific use of the EMEP data should be based on fresh copies of the data. Copies can be requested from the CCC (e-mail: anne-gunn.hjellbrekke@nilu.no) or downloaded from the internet at http://www.nilu.no/projects/ccc/. Information about the EMEP network and measurement data can also be found at http://www.emep.int.

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11. Acknowledgements

A large number of anonymous co-workers in participating countries have been involved in the many steps of collection of EMEP´s air and precipitation data. A list of participating institutes can be seen below. The staff at CCC wishes to express their gratitude and appreciation for continued good co-operation and efforts.

Closer at home, and of equal significance to the presentation of our work, the secretarial work, and far beyond, has been performed by Ms. Kristine Aasarød. Mona Johnsrud and Mona Waagsbø have been very helpful with data flow and database maintenance.

12. List of participating institutions

Austria	Umweltbundesamt
Belarus	Institute for Problems of Natural Resources and Ecology
Belgium	CELINE - IRCEL
Commission of the European Communities	Joint Research Center. Ispra Establishment
Croatia	Meteorological and Hydrological Service of Croatia
Cyprus	Ministry of Labour and Social Insurance
Czech Republic	Czech Hydrometeorological Institute
Denmark	National Environmental Research Institute (DMI)
Estonia	Estonian Environmental Research Laboratory Ltd.
Finland	Finnish Meteorological Institute (FMI)
France	l' Ecole des Mines de Douai Laboratories Wolff
Germany	Umweltbundesamt
Greece	Ministry of Environmental Physical Planning and Public Works University of Crete
Hungary	Meteorological Service, Institute for Atmospheric Physics, Dep. for Air Chemistry
Iceland	The Icelandic Meteorological Office
Ireland	Meteorological Service H.Q. Electricity Supply Board (ESB)
Italy	C.N.R. Istituto Inquinamento Atmosferico
Latvia	Latvian Environment, Geology and Meteorology Agency
Lithuania	Environmental Physics and Chemistry Laboratory, Institute of Physics
Netherlands	National Institute for Public Health and Environmental Protection (RIVM)
Norway	Norwegian Institute for Air Research (NILU)
Poland	Institute of Meteorology and Water Management Institute of Environmental Protection
Portugal	Instituto de Meteorologica
Russian Federation	Institute of Global Climate and Ecology
Serbia and Montenegro	Federal Hydrometeorological Institute
Slovakia	Slovak Hydrometeorological Institute
Slovenia	Hydrometeorological Institute of Slovenia
Spain	Dirección General de Calidad y Evaluacíon Ambiental
Sweden	Swedish Environmental Research Institute (IVL)
Switzerland	Swiss Federal Laboratory of Testing Materials and Research (EMPA)
Turkey	Refik Saydam Centre of Hygiene
United Kingdom	AEA Technology

Annex 1

Maps over Europe

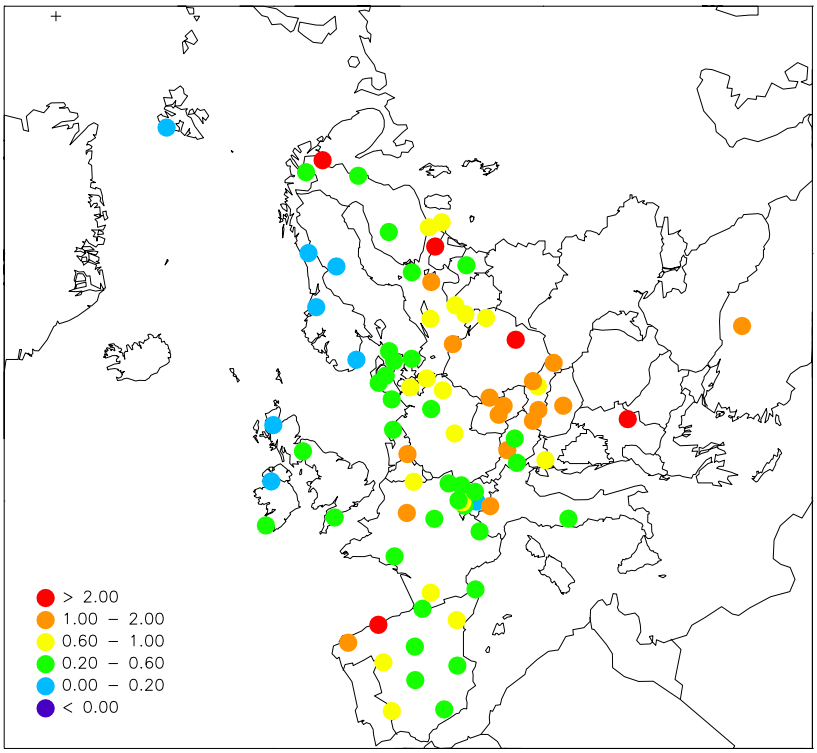

Figure 1.1: Geographical distribution of sulphur dioxide 2005. Unit: μg S/m^3.

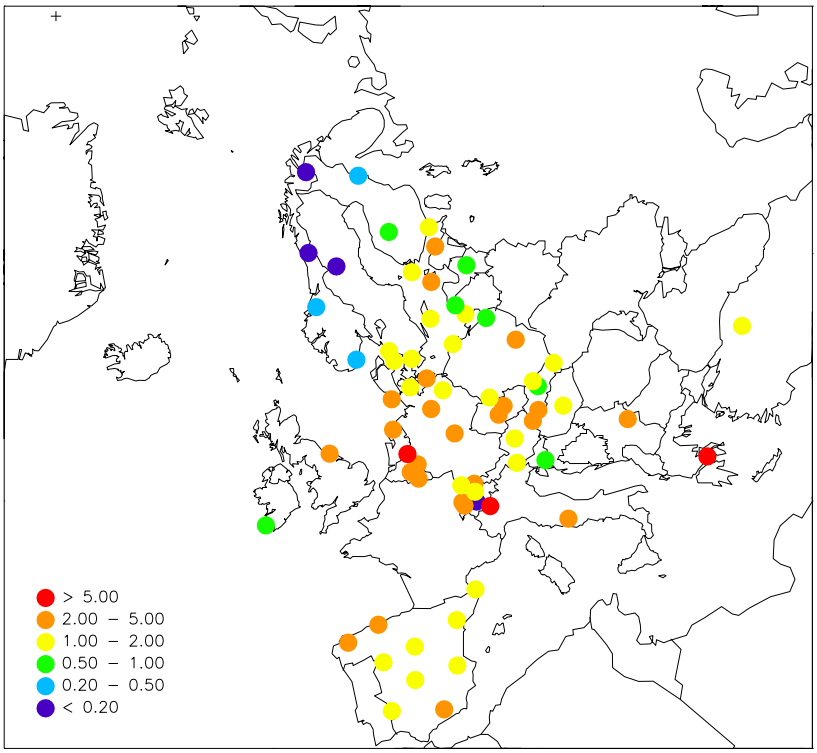

Figure 1.2: Geographical distribution of nitrogen dioxide 2005. Unit: μg N/m^3.

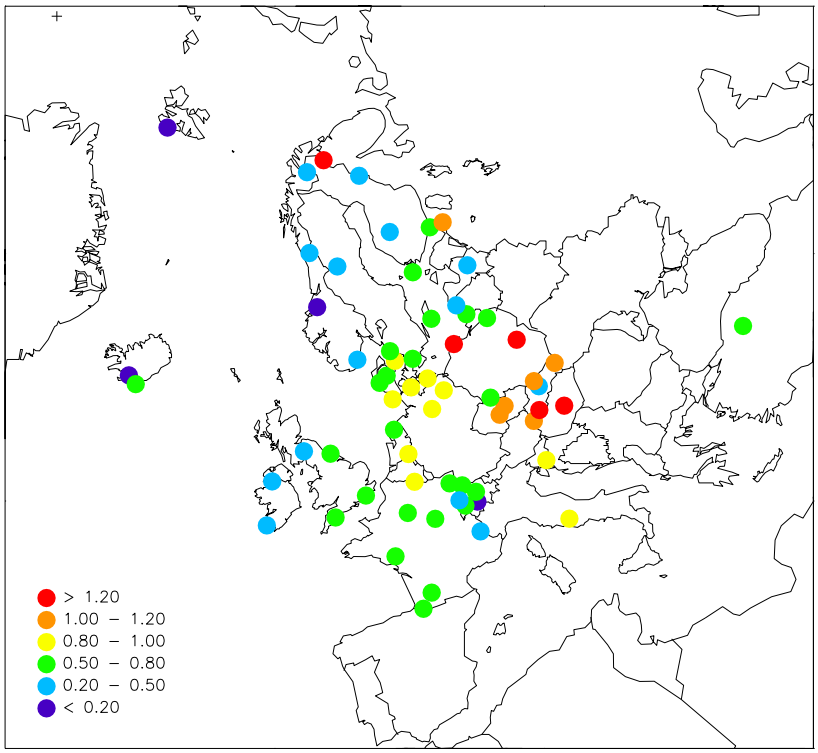

Figure 1.3: Geographical distribution of sulphate in aerosols 2005. Unit: μg S/m^3.

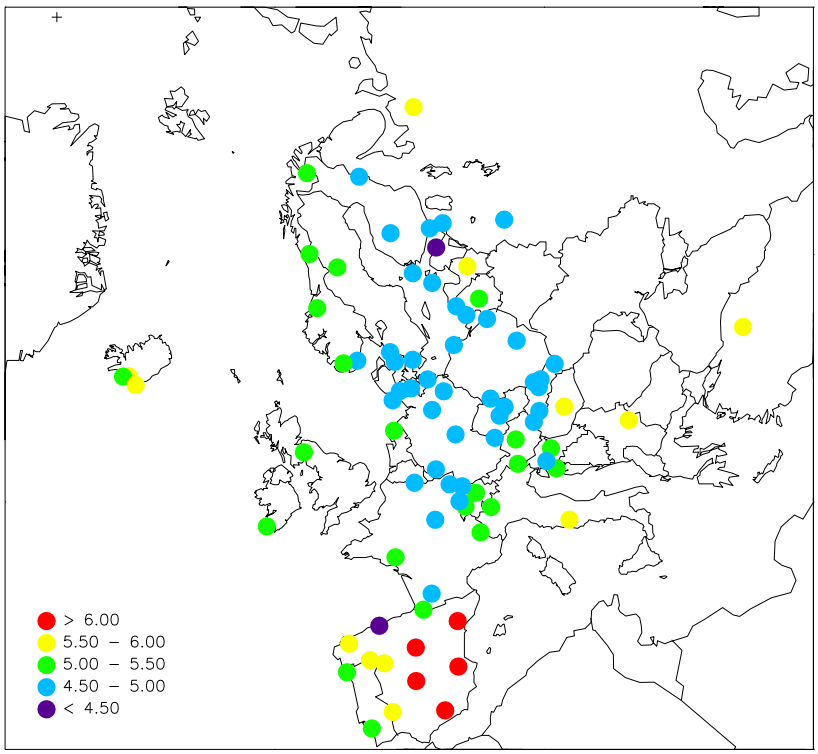

Figure 1.4: Geographical distribution of pH in precipitation 2005. Unit: pH units.

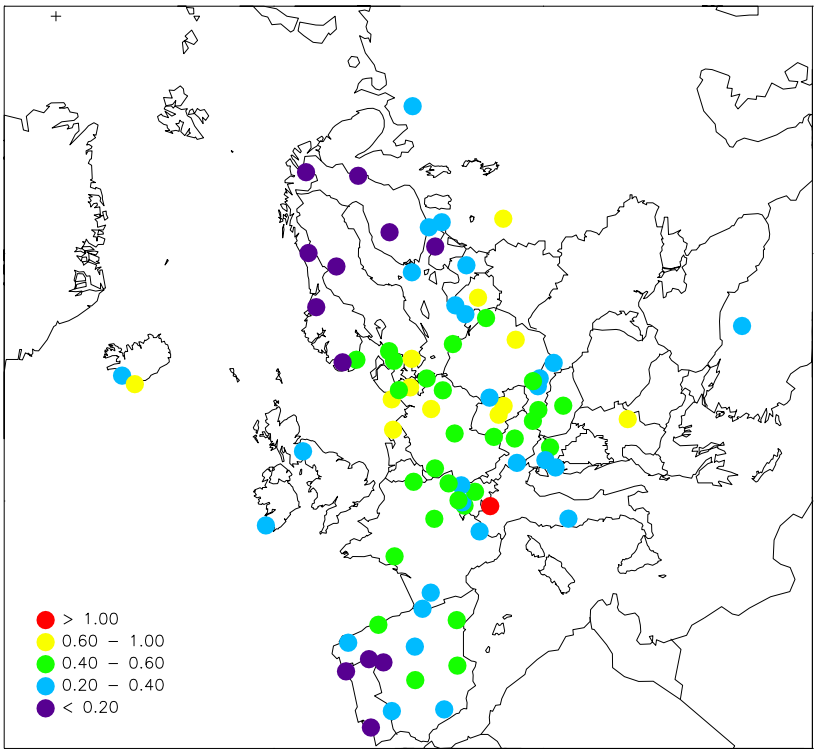

Figure 1.5: Geographical distribution of ammonium in precipitation 2005. Unit: mg N/l.

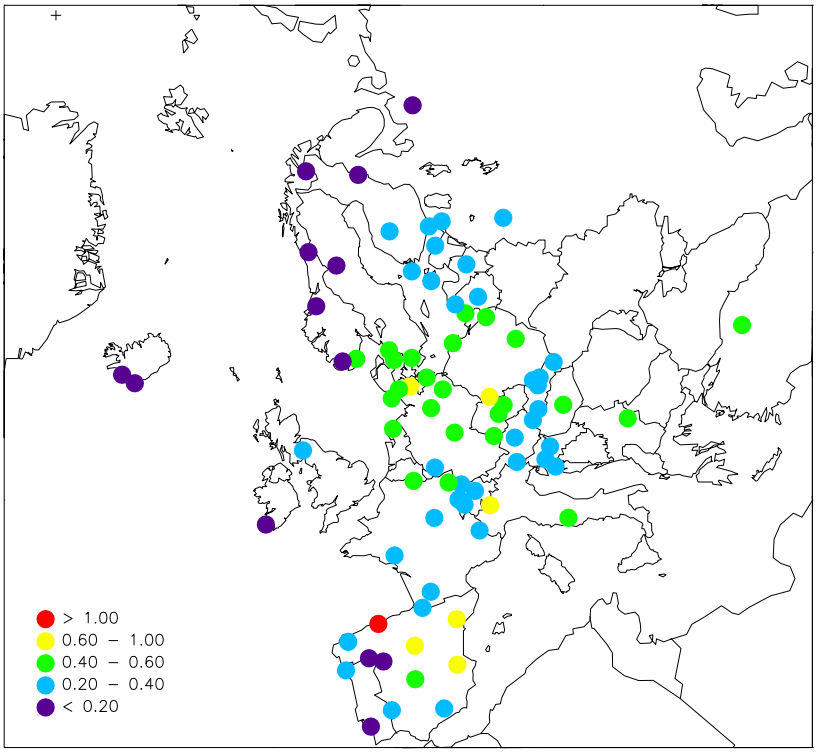

Figure 1.6: Geographical distribution of nitrate in precipitation 2005. Unit: mg N/l.

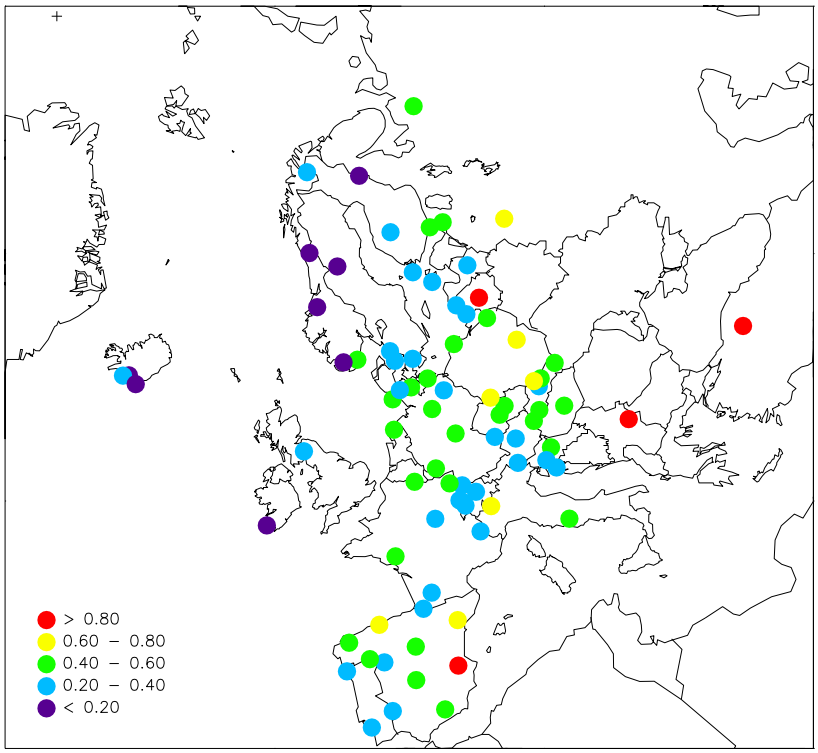

Figure 1.7: Geographical distribution of sulphate in precipitation 2005 (corrected for sea spray). Unit: mg S/l.

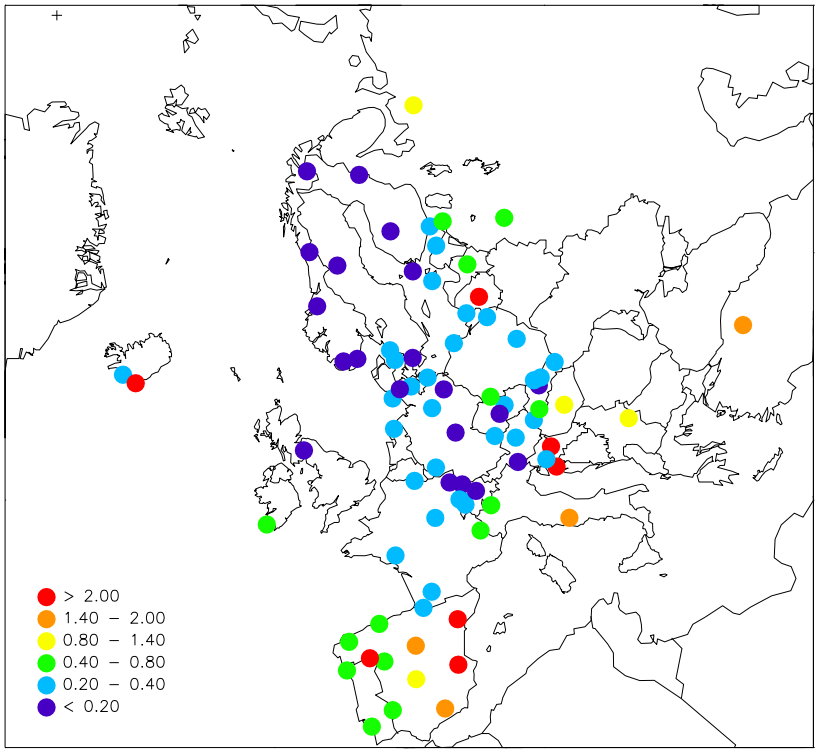

Figure 1.8: Geographical distribution of calcium in precipitation 2005. Unit: mg/l.

Annex 2

Annual statistics on precipitation data

AT0002R Illmitz Austria

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.35	0.00	3.70	136.5	100.0	0	72
Cl-	0.13	0.03	15.35	50.9	94.6	0	70
K+	0.06	0.02	3.66	23.4	96.3	0	71
Mg++	0.108	0.010	5.393	41.5	96.3	0	71
NH4+	0.45	0.02	8.16	175.0	100.0	0	72
NO3-	0.38	0.06	9.06	145.5	100.0	0	72
Na+	0.11	0.01	10.19	42.4	96.3	0	71
Precip	-	0.0	33.1	385.3	99.9	293	365
SO4--	0.52	0.06	4.31	199.3	100.0	0	72
SO4-- corr	0.52	0.06	3.86	201.9	96.3	0	71
cond	13.50	2.00	282.00	5201.0	100.0	0	72
pH	4.95	3.46	6.82	4279.4	100.0	0	72

AT0005R Vorhegg Austria

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.19	0.00	2.50	166.3	99.8	0	109
Cl-	0.06	0.03	1.24	51.3	98.8	0	110
K+	0.06	0.02	0.69	50.4	99.9	0	110
Mg++	0.033	0.010	1.614	29.0	99.9	0	110
NH4+	0.37	0.02	6.03	323.1	99.9	0	110
NO3-	0.26	0.02	5.79	228.8	99.9	0	111
Na+	0.06	0.01	1.09	50.7	99.1	0	108
Precip	-	0.0	36.4	876.7	99.9	252	365
SO4--	0.26	0.01	3.57	229.3	99.9	0	111
SO4-- corr	0.26	0.01	3.55	225.3	99.9	0	111
cond	8.74	1.00	85.00	7660.6	100.0	0	111
pH	5.19	4.12	6.80	5685.1	100.0	0	112

AT0048R Zoebelboden Austria

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.24	0.00	6.70	322.0	100.0	0	143
Cl-	0.22	0.01	9.20	293.9	98.4	0	138
K+	0.04	0.02	1.24	48.4	100.0	0	143
Mg++	0.028	0.010	0.655	37.0	100.0	0	143
NH4+	0.42	0.02	5.86	558.3	100.0	0	143
NO3-	0.37	0.05	5.66	485.2	100.0	0	142
Na+	0.15	0.01	4.44	200.6	100.0	0	143
Precip	-	0.0	32.7	1324.9	99.9	220	365
SO4--	0.30	0.03	2.93	402.9	100.0	0	142
SO4-- corr	0.29	0.03	2.77	385.8	100.0	0	142
cond	11.63	2.00	110.00	15405.6	100.0	0	144
pH	5.00	3.65	7.13	13192.0	100.0	0	145

BY0004R Vysokoe Belarus

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	3.51	0.89	19.20	1726.7	61.0	0	55
Cl-	5.03	1.23	27.56	2477.3	52.2	0	27
Mg++	0.532	0.080	3.430	262.0	61.0	0	55
NH4+	0.94	0.09	7.02	460.5	91.2	0	112
NO3-	0.38	0.03	1.26	188.1	75.2	0	56
Na+	1.49	0.01	10.90	731.9	61.3	0	56
Precip	-	0.0	26.2	492.3	99.9	240	365
SO4--	1.87	0.25	11.04	922.8	91.5	0	93
SO4-- corr	1.50	0.10	4.80	740.4	73.0	0	58
cond	37.03	3.00	110.00	18231.5	78.4	0	67
pH	5.19	4.19	8.38	3170.6	88.8	0	115

CH0002R Payerne Switzerland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.29	0.03	4.57	199.3	97.2	13	92
Cl-	0.14	0.00	2.02	93.6	97.2	0	92
K+	0.07	0.01	1.15	47.4	95.2	11	90
Mg++	0.028	0.001	0.268	19.3	97.2	0	92
NH4+	0.54	0.06	5.19	374.3	97.2	0	92
NO3-	0.28	0.04	1.61	197.0	97.2	0	92
Na+	0.08	0.01	1.11	56.1	97.2	15	92
Precip	-	0.0	39.3	694.6	99.7	225	364
SO4--	0.28	0.03	1.62	195.4	97.2	0	92
SO4-- corr	0.27	0.03	1.60	190.5	97.2	0	92
cond	10.03	2.48	65.15	6967.8	99.4	0	116
pH	5.37	4.18	7.51	2973.0	99.4	0	116

CH0004R Chaumont Switzerland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.22	0.03	2.39	196.7	99.9	9	45
Cl-	0.17	0.03	1.54	157.4	99.9	0	45
K+	0.04	0.01	0.25	31.9	94.7	4	44
Mg++	0.023	0.003	0.154	21.0	99.9	0	45
NH4+	0.31	0.05	1.63	279.7	99.9	0	45
NO3-	0.26	0.07	1.98	238.1	99.9	0	45
Na+	0.10	0.01	0.86	95.1	99.9	3	45
Precip	-	0.0	68.3	905.8	100.0	6	53
SO4--	0.26	0.04	1.88	234.6	99.9	0	45
SO4-- corr	0.25	0.04	1.83	226.1	99.9	0	45
cond	9.04	3.35	76.69	8184.6	100.0	0	46
pH	5.10	3.92	6.73	7191.4	100.0	0	46

CH0005R Rigi Switzerland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.20	0.03	2.94	258.6	98.9	22	117
Cl-	0.11	0.01	3.46	137.7	98.9	0	117
K+	0.04	0.01	1.52	57.0	98.9	12	117
Mg++	0.018	0.002	0.259	23.9	98.9	0	117
NH4+	0.52	0.05	4.42	681.7	98.9	0	117
NO3-	0.34	0.07	3.10	438.5	98.9	0	117
Na+	0.08	0.01	2.13	98.7	98.9	19	117
Precip	-	0.0	89.7	1304.5	97.0	203	354
SO4--	0.30	0.03	2.08	390.7	98.9	0	117
SO4-- corr	0.29	0.03	2.07	382.4	98.9	0	117
cond	11.27	2.93	83.62	14696.1	99.7	0	131
pH	5.06	3.82	6.97	11452.0	99.7	0	131

CZ0001R Svratouch Czech Republic

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.21	0.02	2.95	171.8	99.6	2	45
Cl-	0.22	0.04	1.27	178.4	99.1	0	44
K+	0.07	0.02	0.33	56.4	99.6	0	45
Mg++	0.028	0.004	0.170	22.2	99.6	0	45
NH4+	0.71	0.20	7.50	566.5	99.9	0	46
NO3-	0.52	0.22	4.71	417.9	99.1	0	44
Na+	0.13	0.01	1.38	103.8	99.6	0	45
Precip	-	0.0	86.3	802.7	100.0	3	53
SO4--	0.57	0.22	4.01	454.7	99.1	0	44
SO4-- corr	0.55	0.21	3.97	445.0	99.1	0	44
cond	18.70	10.10	111.20	15011.1	99.6	0	45
pH	4.73	3.88	6.30	14865.1	99.9	0	46

CZ0003R Kosetice Czech Republic

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.19	0.02	10.03	130.3	84.1	7	90
Cl-	0.20	0.03	1.61	134.5	86.4	0	97
K+	0.05	0.00	0.77	31.2	83.6	4	83
Mg++	0.027	0.001	0.719	18.2	84.1	0	90
NH4+	0.62	0.08	9.56	420.0	80.3	0	107
NO3-	0.42	0.10	3.65	283.8	86.4	0	97
Na+	0.11	0.01	1.66	74.1	84.1	0	90
Precip	-	0.0	40.1	680.8	99.9	187	365
SO4--	0.45	0.11	3.93	304.9	86.4	0	97
SO4-- corr	0.44	0.10	3.90	297.3	86.4	0	97
cond	15.64	5.20	98.80	10650.2	86.0	0	101
pH	4.84	4.00	6.91	9797.8	86.0	0	102

DE0001R Westerland Germany

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.34	0.10	1.80	198.8	96.0	0	40
Cl-	9.09	0.50	68.10	5367.4	97.8	0	41
K+	0.18	0.05	1.41	108.6	96.0	0	40
Mg++	0.607	0.054	4.541	358.3	96.0	0	40
NH4+	0.65	0.01	2.64	384.5	96.0	1	40
NO3-	0.53	0.16	1.73	312.2	97.8	0	41
Na+	5.00	0.31	38.25	2953.3	96.0	0	40
Precip	-	0.0	35.5	590.6	100.0	5	53
SO4--	0.86	0.46	3.74	509.1	97.8	0	41
SO4-- corr	0.43	0.07	1.54	254.7	97.8	0	41
cond	37.60	13.00	211.00	22207.4	97.8	0	41
pH	4.75	4.13	5.99	10499.2	97.8	0	41

DE0002R Langenbrugge Germany

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.35	0.10	3.10	197.4	95.1	1	46
Cl-	1.06	0.20	6.90	592.1	99.6	0	49
K+	0.04	0.19	0.19	24.6	98.5	20	48
Mg++	0.094	0.060	0.473	52.1	98.5	3	48
NH4+	0.61	0.07	4.99	337.4	98.5	0	48
NO3-	0.52	0.07	2.28	289.7	99.6	0	49
Na+	0.61	0.12	4.24	341.5	98.5	0	48
Precip	-	0.0	48.2	556.8	100.0	2	53
SO4--	0.50	0.08	2.67	276.8	99.6	0	49
SO4-- corr	0.44	0.04	2.64	247.1	99.6	0	49
cond	14.88	6.00	50.00	8283.1	99.4	0	47
pH	4.83	4.03	7.20	8256.2	96.0	0	46

DE0003R Schauinsland Germany

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.20	0.00	1.80	287.0	98.9	3	47
Cl-	0.23	0.00	1.40	325.3	100.0	6	48
K+	0.02	0.01	0.41	29.5	98.9	32	47
Mg++	0.026	0.002	0.158	37.1	98.9	22	47
NH4+	0.35	0.05	1.26	497.7	98.9	0	47
NO3-	0.32	0.11	1.46	451.7	100.0	0	48
Na+	0.15	0.00	0.97	210.7	98.9	8	47
Precip	-	0.2	100.3	1435.0	100.0	4	53
SO4--	0.33	0.06	1.11	470.2	100.0	0	48
SO4-- corr	0.32	0.06	1.09	452.3	100.0	0	48
cond	8.65	4.00	43.00	12419.6	100.0	0	48
pH	4.88	3.99	6.20	18945.6	100.0	0	48

DE0004R Deuselbach Germany

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.26	0.00	1.10	149.8	98.2	1	43
Cl-	0.34	0.00	3.80	194.4	98.5	1	44
K+	0.06	0.01	0.54	33.0	98.2	24	43
Mg++	0.041	0.002	0.311	23.7	98.2	7	43
NH4+	0.55	0.07	2.85	318.2	98.2	0	43
NO3-	0.39	0.07	2.19	225.9	98.5	0	44
Na+	0.21	0.01	2.52	122.9	98.2	3	43
Precip	-	0.0	39.1	574.3	100.0	7	53
SO4--	0.44	0.15	1.67	253.3	98.5	0	44
SO4-- corr	0.42	0.13	1.58	243.0	98.5	0	44
cond	11.27	4.00	63.00	6472.6	98.5	0	44
pH	4.83	3.86	6.47	8476.0	98.5	0	44

DE0005R Brotjacklriegel Germany

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.21	0.00	2.60	245.9	99.8	10	48
Cl-	0.21	0.00	2.70	252.8	99.8	4	48
K+	0.03	0.01	0.23	32.3	99.8	32	48
Mg++	0.025	0.002	0.226	29.7	99.8	24	48
NH4+	0.44	0.13	1.84	522.1	99.8	0	48
NO3-	0.42	0.17	2.71	504.4	99.8	0	48
Na+	0.13	0.00	1.76	156.4	99.8	11	48
Precip	-	0.0	104.4	1187.2	99.1	2	52
SO4--	0.36	0.13	1.80	428.2	99.8	0	48
SO4-- corr	0.35	0.12	1.77	415.1	99.8	0	48
cond	10.86	5.00	83.00	12897.1	99.8	0	48
pH	4.75	3.84	6.17	20852.8	99.8	0	48

DE0007R Neuglobsow Germany

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.19	0.10	0.70	104.8	98.6	0	42
Cl-	0.70	0.10	8.70	379.3	99.9	0	43
K+	0.07	0.01	0.35	37.7	98.6	17	42
Mg++	0.060	0.004	0.698	32.6	98.6	8	42
NH4+	0.48	0.13	2.53	259.4	98.6	0	42
NO3-	0.43	0.17	1.82	231.8	99.9	0	43
Na+	0.38	0.02	6.02	206.5	98.6	1	42
Precip	-	0.1	62.3	539.4	100.0	8	53
SO4--	0.41	0.14	1.36	223.0	99.9	0	43
SO4-- corr	0.38	0.12	1.20	203.9	99.9	0	43
cond	12.10	4.00	62.00	6527.3	99.9	0	43
pH	4.79	3.94	6.20	8694.7	99.9	0	43

DE0008R Schmucke Germany

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.20	0.00	1.70	216.3	98.3	5	48
Cl-	0.40	0.00	3.20	431.0	99.2	2	49
K+	0.04	0.01	0.37	40.8	98.3	25	48
Mg++	0.040	0.005	0.277	43.2	98.3	14	48
NH4+	0.57	0.23	2.86	616.8	98.3	0	48
NO3-	0.51	0.28	2.97	547.7	99.2	0	49
Na+	0.24	0.01	2.10	262.0	98.3	5	48
Precip	-	0.2	107.3	1079.1	100.0	1	53
SO4--	0.50	0.21	1.84	542.7	99.2	0	49
SO4-- corr	0.48	0.20	1.83	519.2	99.2	0	49
cond	13.25	6.00	95.00	14294.2	99.2	0	49
pH	4.71	3.89	6.26	21008.6	99.2	0	49

DE0009R Zingst Germany

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.29	0.10	1.60	140.8	97.4	0	40
Cl-	1.84	0.19	13.06	906.4	100.0	0	41
K+	0.09	0.01	0.27	45.7	97.4	7	40
Mg++	0.147	0.030	0.932	72.4	97.4	0	40
NH4+	0.54	0.18	2.83	266.4	97.4	0	40
NO3-	0.52	0.13	1.93	257.6	100.0	0	41
Na+	1.02	0.11	7.75	503.4	97.4	0	40
Precip	-	0.0	29.1	491.8	92.3	8	49
SO4--	0.56	0.19	1.60	276.1	100.0	0	41
SO4-- corr	0.47	0.14	1.52	231.0	100.0	0	41
cond	17.24	8.50	57.40	8479.7	100.0	0	41
pH	4.75	4.16	6.83	8776.8	100.0	0	41

DK0005R Keldsnor Denmark

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.36	0.11	1.24	153.9	100.0	0	24
Cl-	4.07	0.55	33.56	1763.4	92.6	0	23
K+	0.21	0.06	0.93	89.8	100.0	0	24
Mg++	0.284	0.044	2.289	123.1	92.6	0	23
NH4+	0.68	0.13	2.67	295.2	100.0	0	24
NO3-	0.61	0.30	1.63	263.8	100.0	0	24
Na+	2.35	0.31	18.72	1018.9	100.0	0	24
Precip	-	5.4	66.2	432.8	99.7	0	24
SO4--	0.71	0.30	1.99	309.1	100.0	0	24
SO4-- corr	0.52	0.21	1.52	224.6	100.0	0	24
cond	33.15	12.51	136.00	14347.8	100.0	0	24
pH	4.94	4.50	6.16	5021.0	92.6	0	23

DK0008R Anholt Denmark

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.26	0.04	2.20	151.5	89.8	0	22
Cl-	9.47	1.08	106.63	5602.8	89.8	0	22
K+	0.22	0.03	2.34	129.0	89.8	0	22
Mg++	0.599	0.060	6.828	354.3	89.8	0	22
NH4+	0.42	0.08	1.68	248.2	89.8	0	22
NO3-	0.46	0.22	1.47	273.2	89.8	0	22
Na+	5.32	0.56	59.60	3147.5	89.8	0	22
Precip	-	0.8	95.5	591.9	99.7	0	25
SO4--	0.79	0.24	5.07	465.8	89.8	0	22
SO4-- corr	0.34	0.08	2.15	204.3	89.8	0	22
cond	49.83	12.26	393.00	29491.7	89.8	0	22
pH	4.69	4.11	5.16	12105.9	89.8	0	22

DK0022R Sepstrup Sande Denmark

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.15	0.02	0.73	107.7	100.0	0	24
Cl-	4.93	0.53	34.54	3565.0	100.0	0	24
K+	0.12	0.01	0.74	90.2	92.7	0	23
Mg++	0.302	0.023	2.175	218.2	100.0	0	24
NH4+	0.56	0.17	2.28	403.5	100.0	0	24
NO3-	0.44	0.16	1.58	319.8	100.0	0	24
Na+	2.71	0.23	18.15	1960.5	99.5	0	23
Precip	-	2.2	78.8	723.2	99.7	0	24
SO4--	0.58	0.23	1.87	422.6	100.0	0	24
SO4-- corr	0.36	0.18	1.09	260.5	100.0	0	24
cond	30.57	10.90	134.00	22107.8	98.0	0	23
pH	4.89	4.14	6.33	9410.4	100.0	0	24

EE0009R Lahemaa Estonia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.21	0.01	1.17	114.6	81.7	2	56
Cl-	0.72	0.05	86.80	397.3	90.9	1	90
K+	0.04	0.01	0.37	22.0	81.7	15	56
Mg++	0.046	0.005	0.177	25.3	81.7	6	56
NH4+	0.13	0.01	2.00	73.6	88.7	9	71
NO3-	0.28	0.01	31.00	152.5	90.9	7	90
Na+	0.25	0.01	1.38	137.9	81.7	1	56
Precip	-	0.0	44.3	555.0	99.9	231	365
SO4--	0.27	0.01	1.24	149.3	90.9	3	90
cond	27.87	2.00	2790.00	15469.0	99.6	0	129
pH	4.10	2.01	7.86	43900.8	99.6	0	129

EE0011R Vilsandi Estonia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.37	0.10	2.00	210.6	100.0	0	24
Cl-	2.38	0.30	9.20	1352.8	94.7	0	22
K+	0.26	0.01	1.70	145.4	100.0	1	24
Mg++	0.194	0.022	0.615	110.1	100.0	0	24
NO3-	0.27	0.01	1.98	154.0	94.7	0	22
Na+	1.45	0.15	5.36	822.0	100.0	0	24
Precip	-	0.0	66.5	567.5	99.4	28	52
SO4--	0.48	0.16	1.56	272.9	94.7	0	22
SO4-- corr	0.36	0.15	1.41	202.9	94.7	0	22
cond	19.48	5.00	68.00	11054.9	100.0	0	24
pH	4.88	4.25	6.44	7426.9	100.0	0	24

ES0007R Viznar Spain

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	1.55	0.40	11.70	455.1	77.3	0	35
Cl-	0.59	0.15	3.39	174.1	81.2	5	41
K+	0.14	0.06	0.71	41.0	77.3	0	35
Mg++	0.252	0.080	1.300	74.1	77.3	0	35
NH4+	0.35	0.02	1.23	103.5	80.9	7	36
NO3-	0.33	0.10	2.72	96.6	81.2	0	41
Na+	0.43	0.14	4.00	126.5	77.3	0	35
Precip	-	0.0	28.0	294.4	100.0	310	365
SO4--	0.58	0.18	2.56	170.9	81.2	0	41
SO4-- corr	0.54	0.17	2.36	158.9	81.2	0	41
cond	17.93	8.00	92.10	5279.4	82.9	0	46
pH	6.54	6.28	7.30	85.9	82.9	0	46

ES0008R Niembro Spain

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.54	0.14	7.60	322.7	91.0	0	114
Cl-	8.01	0.58	65.30	4821.9	91.7	0	124
K+	0.28	0.07	4.60	169.3	91.0	0	114
Mg++	0.584	0.070	4.700	351.9	91.0	0	114
NH4+	0.45	0.02	6.73	271.6	91.5	1	117
NO3-	1.60	0.12	18.89	964.4	91.7	0	124
Na+	5.83	0.52	43.50	3514.1	91.0	0	114
Precip	-	0.0	40.8	603.6	100.0	224	365
SO4--	1.05	0.24	5.55	632.9	91.7	0	124
SO4-- corr	0.64	-0.60	5.31	387.7	91.7	0	124
cond	65.90	24.60	199.99	39684.8	88.9	0	114
pH	4.23	3.01	6.83	35220.4	91.7	0	124

ES0009R Campisabalos Spain

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	1.79	0.21	16.90	565.7	84.8	0	53
Cl-	0.51	0.15	3.33	162.2	87.0	12	57
K+	0.14	0.03	0.98	43.4	84.8	1	53
Mg++	0.113	0.020	1.000	35.9	84.8	0	53
NH4+	0.37	0.02	3.36	116.9	86.8	7	54
NO3-	0.62	0.09	4.09	196.1	87.0	0	57
Na+	0.43	0.05	3.60	134.8	84.8	2	53
Precip	-	0.0	32.0	317.0	100.0	281	365
SO4--	0.56	0.04	3.52	178.3	87.0	1	57
SO4-- corr	0.52	0.02	3.43	165.7	87.0	1	57
cond	18.16	2.50	132.90	5749.9	87.4	4	60
pH	6.17	5.59	7.41	215.6	87.4	0	60

ES0011R Barcarrola Spain

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.68	0.22	4.07	222.0	94.7	0	47
Cl-	1.20	0.15	7.25	391.6	96.8	1	50
K+	0.17	0.06	1.02	57.2	94.7	0	47
Mg++	0.124	0.040	0.900	40.7	94.7	0	47
NH4+	0.23	0.02	2.60	75.8	96.7	8	49
NO3-	0.24	0.04	2.37	79.2	96.8	3	50
Na+	0.78	0.14	4.10	256.4	94.7	0	47
Precip	-	0.0	44.8	327.6	100.0	306	365
SO4--	0.41	0.12	2.08	134.7	96.8	0	50
SO4-- corr	0.34	0.07	1.77	112.0	96.8	0	50
cond	14.33	5.60	73.70	4686.9	96.8	0	50
pH	5.89	5.39	6.88	419.3	96.8	0	50

ES0012R Zarra Spain

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	4.93	0.80	39.10	1212.2	87.4	0	50
Cl-	0.85	0.15	14.05	209.3	92.8	3	65
K+	0.22	0.07	1.90	55.0	87.4	0	50
Mg++	0.280	0.090	1.700	68.9	87.4	0	50
NH4+	0.55	0.02	3.11	136.1	91.9	1	57
NO3-	0.94	0.13	14.41	231.6	92.8	0	65
Na+	0.71	0.24	4.70	174.4	87.4	0	50
Precip	-	0.0	29.4	245.9	100.0	289	365
SO4--	0.99	0.17	24.25	243.6	92.8	0	65
SO4-- corr	0.93	0.14	23.59	228.1	92.8	0	65
cond	38.43	8.20	192.60	9446.3	93.2	0	67
pH	6.71	6.22	8.08	47.5	93.6	0	71

ES0013R Penausende Spain

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.41	0.17	2.82	110.6	83.8	0	43
Cl-	0.37	0.15	4.17	99.3	85.5	20	55
K+	0.10	0.03	0.48	26.6	83.8	4	43
Mg++	0.050	0.020	0.190	13.3	83.8	0	43
NH4+	0.11	0.02	1.41	30.1	84.4	15	47
NO3-	0.13	0.04	2.20	35.3	85.5	8	55
Na+	0.36	0.05	6.20	96.1	83.8	2	43
Precip	-	0.0	30.2	267.6	100.0	289	365
SO4--	0.26	0.10	2.15	69.8	85.5	0	55
SO4-- corr	0.23	0.07	2.03	61.7	85.5	0	55
cond	7.29	2.50	38.90	1949.6	86.8	7	65
pH	5.90	5.03	6.96	337.4	86.8	0	65

ES0014R Els Torms Spain

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	2.31	0.60	14.40	682.3	88.8	0	30
Cl-	1.40	0.41	11.57	413.6	89.6	0	33
K+	0.19	0.07	1.10	56.8	88.8	0	30
Mg++	0.354	0.110	2.200	104.5	88.8	0	30
NH4+	0.57	0.02	3.40	168.3	89.6	2	33
NO3-	0.66	0.15	6.05	196.1	89.6	0	33
Na+	0.52	0.15	2.40	153.3	88.8	0	30
Precip	-	0.0	34.2	295.2	100.0	321	365
SO4--	0.81	0.19	7.96	239.2	89.6	0	33
SO4-- corr	0.73	0.17	7.63	216.4	89.6	0	33
cond	27.00	7.60	194.40	7968.9	89.6	0	33
pH	6.39	5.83	7.29	119.7	89.6	0	33

ES0015R Risco Llano Spain

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	1.08	0.45	10.20	352.0	80.6	0	29
Cl-	0.89	0.15	17.28	289.3	86.7	4	40
K+	0.14	0.06	0.56	44.7	80.6	0	29
Mg++	0.125	0.060	0.800	40.6	80.6	0	29
NH4+	0.55	0.16	3.50	178.7	83.1	0	34
NO3-	0.59	0.04	3.19	192.8	86.7	1	40
Na+	0.58	0.22	2.04	188.1	80.6	0	29
Precip	-	0.0	47.0	325.6	100.0	305	365
SO4--	0.66	0.14	14.07	213.9	86.7	0	40
SO4-- corr	0.60	0.12	13.27	195.1	86.7	0	40
cond	21.69	6.60	132.30	7062.5	88.7	0	42
pH	6.37	6.07	7.74	140.3	88.8	0	43

ES0016R O Savi‡ao Spain

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.44	0.12	5.40	225.5	89.6	0	76
Cl-	1.40	0.15	13.79	724.3	91.1	2	87
K+	0.27	0.03	1.90	138.1	89.6	1	76
Mg++	0.145	0.010	0.700	75.0	89.6	1	76
NH4+	0.40	0.02	5.06	204.5	90.5	4	81
NO3-	0.29	0.04	4.53	148.3	91.1	6	87
Na+	1.42	0.22	12.60	731.7	89.6	0	76
Precip	-	0.0	33.6	518.6	100.0	241	365
SO4--	0.51	0.09	7.20	262.5	91.1	0	87
SO4-- corr	0.42	0.06	6.74	218.1	91.1	0	87
cond	18.41	2.50	199.30	9496.8	92.7	2	94
pH	5.72	4.81	7.75	987.8	92.7	0	94

FI0004R Ahtari Finland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.07	0.01	1.79	38.8	99.9	0	45
Cl-	0.17	0.03	3.94	98.3	99.9	0	45
K+	0.07	0.01	1.00	42.4	99.9	0	45
Mg++	0.021	0.004	0.418	12.7	99.9	0	45
NH4+	0.14	0.00	1.12	82.5	99.9	0	45
NO3-	0.21	0.04	0.97	126.3	99.9	0	45
Na+	0.10	0.01	1.94	59.7	99.9	0	45
Precip	-	0.0	79.4	594.1	100.0	7	53
SO4--	0.22	0.09	0.98	131.6	99.9	0	45
SO4-- corr	0.21	0.08	0.88	126.5	99.9	0	45
cond	10.35	5.00	33.00	6151.4	99.9	0	45
pH	4.78	4.22	5.55	9945.0	99.9	0	45

FI0009R Uto Finland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.19	0.03	0.94	65.0	97.9	0	29
Cl-	2.17	0.17	26.73	759.4	97.9	0	29
K+	0.11	0.04	0.58	38.5	97.9	0	29
Mg++	0.173	0.031	1.470	60.6	97.9	0	29
NH4+	0.26	0.07	1.10	89.1	97.9	0	29
NO3-	0.40	0.09	2.34	138.0	97.9	0	29
Na+	1.31	0.12	12.04	459.9	97.9	0	29
Precip	-	0.0	63.0	349.8	99.5	13	53
Precip off	-	0.00	46.50	597.4	99.9	219	365
SO4--	0.44	0.13	2.40	153.1	97.9	0	29
SO4-- corr	0.33	0.07	2.31	114.9	97.9	0	29
cond	22.63	7.00	122.00	7915.2	97.9	0	29
pH	4.66	3.83	5.79	7670.1	97.9	0	29

FI0017R Virolahti II Finland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.22	0.04	2.95	119.7	100.0	0	46
Cl-	0.58	0.03	9.00	321.0	100.0	0	46
K+	0.31	0.01	2.50	172.0	100.0	0	46
Mg++	0.065	0.007	0.964	36.0	100.0	0	46
NH4+	0.26	0.00	2.06	144.5	100.0	0	46
NO3-	0.33	0.13	3.35	184.8	100.0	0	46
Na+	0.33	0.02	6.31	180.1	100.0	0	46
Precip	-	0.0	59.4	553.2	100.0	6	53
SO4--	0.47	0.11	4.37	260.7	100.0	0	46
SO4-- corr	0.44	0.11	4.17	243.4	100.0	0	46
cond	16.20	7.00	112.00	8962.5	100.0	0	46
pH	4.72	3.78	6.63	10436.0	100.0	0	46

FI0022R Oulanka Finland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.03	0.01	0.14	19.1	99.9	0	50
Cl-	0.10	0.02	1.10	63.3	99.9	0	50
K+	0.03	0.01	0.30	21.1	99.9	0	50
Mg++	0.010	0.002	0.081	6.5	99.9	2	50
NH4+	0.08	0.00	0.36	49.3	99.9	0	50
NO3-	0.14	0.04	0.53	85.6	99.9	0	50
Na+	0.07	0.01	0.67	41.1	99.9	0	50
Precip	-	0.0	59.0	624.8	100.0	1	53
SO4--	0.17	0.04	0.57	109.6	99.9	0	50
SO4-- corr	0.17	0.04	0.56	106.2	99.9	0	50
cond	8.74	3.00	26.00	5460.5	99.9	0	50
pH	4.79	4.32	5.30	10172.4	99.9	0	50

FR0008R Donon France

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.19	0.02	3.18	238.8	98.7	0	173
Cl-	0.40	0.03	10.45	505.7	98.7	7	173
K+	0.03	0.01	0.37	42.2	98.7	55	173
Mg++	0.034	0.010	0.930	43.1	98.7	71	173
NH4+	0.46	0.04	3.26	574.9	98.7	0	173
NO3-	0.41	0.07	3.02	514.2	98.7	0	173
Na+	0.25	0.01	6.84	315.2	98.7	7	173
Precip	-	0.1	44.0	1261.2	99.9	155	365
SO4--	0.42	0.06	2.60	534.9	98.7	0	173
SO4-- corr	0.40	0.06	2.55	508.6	98.7	0	173
cond	15.23	3.30	95.80	19210.0	98.8	0	175
pH	4.77	3.88	6.62	21275.8	98.8	0	175

FR0009R Revin France

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.21	0.01	3.44	179.9	87.6	1	139
Cl-	0.99	0.05	39.87	866.9	87.6	0	139
K+	0.05	0.01	1.21	46.4	87.6	25	139
Mg++	0.077	0.010	2.940	66.7	87.6	21	139
NH4+	0.55	0.08	4.40	481.0	87.6	0	139
NO3-	0.41	0.08	3.01	357.1	87.6	0	139
Na+	0.61	0.03	22.47	527.6	87.6	0	139
Precip	-	0.1	34.4	870.8	99.9	179	365
SO4--	0.46	0.10	4.41	401.2	87.6	0	139
SO4-- corr	0.41	0.10	3.87	357.5	87.6	0	139
cond	16.08	3.60	202.40	14002.6	87.7	0	141
pH	4.93	3.75	6.78	10183.9	87.7	0	141

FR0010R Morvan France

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.22	0.01	3.17	164.3	97.0	1	136
Cl-	0.63	0.03	6.71	474.5	97.0	2	136
K+	0.14	0.01	2.77	106.6	97.0	12	136
Mg++	0.046	0.010	0.460	34.7	97.0	40	136
NH4+	0.46	0.01	2.98	344.0	97.0	4	136
NO3-	0.36	0.06	2.35	272.6	97.0	0	136
Na+	0.43	0.01	4.12	321.5	97.0	1	136
Precip	-	0.1	28.0	751.5	99.9	201	365
SO4--	0.39	0.02	2.18	289.9	97.0	0	136
SO4-- corr	0.35	0.02	2.16	263.7	97.0	0	136
cond	13.85	2.60	99.30	10404.8	97.0	0	136
pH	4.95	3.74	6.77	8353.6	97.0	0	136

FR0012R Iraty France

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.26	0.01	6.84	319.8	98.8	3	135
Cl-	0.62	0.03	5.34	783.3	98.8	6	135
K+	0.03	0.01	0.62	37.4	98.8	54	135
Mg++	0.058	0.010	0.470	72.0	98.8	26	135
NH4+	0.32	0.01	5.93	397.8	98.8	8	135
NO3-	0.24	0.03	3.98	296.1	98.8	0	135
Na+	0.40	0.01	3.46	504.3	98.8	2	135
Precip	-	0.1	60.0	1252.4	99.9	210	365
SO4--	0.36	0.05	4.06	446.6	98.8	0	135
SO4-- corr	0.32	0.03	3.98	405.2	98.8	0	135
cond	11.01	2.50	97.10	13787.5	98.8	0	135
pH	5.10	4.02	6.90	9993.4	98.8	0	135

FR0013R Peyrusse Vieille France

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.27	0.02	3.39	188.6	91.2	0	116
Cl-	0.97	0.08	10.79	671.8	91.2	0	116
K+	0.05	0.01	0.31	36.0	91.2	24	116
Mg++	0.077	0.010	0.720	53.2	91.2	16	116
NH4+	0.37	0.01	2.52	257.3	91.2	3	116
NO3-	0.28	0.04	2.37	196.5	91.2	0	116
Na+	0.58	0.02	6.17	399.4	91.2	0	116
Precip	-	0.1	32.0	689.7	99.9	207	365
SO4--	0.43	0.08	4.28	294.8	91.2	0	116
SO4-- corr	0.38	0.06	4.12	261.9	91.2	0	116
cond	13.99	3.30	83.30	9650.0	91.4	0	118
pH	4.99	4.07	6.40	7082.1	91.4	0	118

FR0014R Montandon France

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.21	0.01	3.50	227.9	98.9	1	150
Cl-	0.25	0.03	5.53	276.1	98.9	12	150
K+	0.03	0.01	0.32	29.6	98.9	67	150
Mg++	0.029	0.010	0.410	32.2	98.9	56	150
NH4+	0.46	0.01	3.27	505.0	98.9	1	150
NO3-	0.36	0.03	3.20	398.8	98.9	0	150
Na+	0.16	0.01	3.31	172.6	98.9	10	150
Precip	-	0.1	64.4	1096.8	99.9	186	365
SO4--	0.35	0.03	2.72	385.8	98.9	0	150
SO4-- corr	0.34	0.02	2.70	371.1	98.9	0	150
cond	11.76	2.00	77.80	12893.4	98.9	0	151
pH	4.98	3.90	6.74	11387.8	98.9	0	151

FR0015R La TardiΦre France

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.32	0.01	9.38	193.3	97.0	1	103
Cl-	2.04	0.07	24.79	1242.8	97.0	0	103
K+	0.09	0.01	0.95	52.7	97.0	16	103
Mg++	0.153	0.010	1.710	93.2	97.0	9	103
NH4+	0.53	0.10	4.22	324.3	97.0	0	103
NO3-	0.30	0.04	3.42	179.8	97.0	0	103
Na+	1.23	0.03	14.40	746.3	97.0	0	103
Precip	-	0.1	47.8	608.2	99.9	216	365
SO4--	0.50	0.12	4.06	306.4	97.0	0	103
SO4-- corr	0.40	0.03	3.93	244.2	97.0	0	103
cond	18.36	4.60	96.70	11165.1	97.5	0	106
pH	5.13	4.05	6.79	4487.0	97.5	0	106

FR0016R Le Casset France

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.56	0.03	19.00	257.8	97.0	0	88
Cl-	0.13	0.03	5.68	58.5	97.0	10	88
K+	0.07	0.01	5.82	33.8	97.0	30	88
Mg++	0.037	0.010	0.720	17.1	97.0	32	88
NH4+	0.28	0.01	2.56	126.9	97.0	10	88
NO3-	0.25	0.01	1.90	114.2	97.0	2	88
Na+	0.07	0.01	0.93	32.0	97.0	14	88
Precip	-	0.1	31.5	460.2	99.9	272	365
SO4--	0.29	0.01	2.52	132.6	97.0	1	88
SO4-- corr	0.28	0.00	2.02	129.0	97.0	1	88
cond	8.59	1.80	103.40	3954.5	97.4	0	89
pH	5.39	4.48	7.56	1859.2	97.4	0	89

FR0017R France

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.18	0.02	4.83	156.8	93.6	0	127
Cl-	0.62	0.03	5.64	540.9	93.6	4	127
K+	0.04	0.01	1.00	34.1	93.6	52	127
Mg++	0.053	0.010	0.420	46.4	93.6	32	127
NH4+	0.30	0.01	2.99	259.9	93.6	3	127
NO3-	0.25	0.03	2.39	218.6	93.6	0	127
Na+	0.39	0.01	3.37	338.3	93.6	3	127
Precip	-	0.1	32.6	871.3	99.9	193	365
SO4--	0.31	0.05	3.09	268.0	93.6	0	127
SO4-- corr	0.28	0.05	3.04	239.8	93.6	0	127
cond	11.12	2.50	74.40	9690.5	93.7	0	128
pH	5.00	3.88	6.92	8628.5	93.7	0	128

GB0002R Eskdalemuir United Kingdom

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.14	0.01	1.81	210.7	99.8	25	212
Cl-	3.02	0.00	38.80	4552.4	99.8	5	212
K+	0.13	0.00	1.40	193.3	97.9	5	206
Mg++	0.189	0.005	2.171	285.0	99.8	14	212
NH4+	0.28	0.00	15.87	420.6	97.9	8	206
NO3-	0.23	0.01	19.62	343.7	99.8	5	212
Na+	1.75	0.01	24.86	2634.5	99.8	2	212
Precip	-	0.0	30.1	1505.5	99.9	144	365
SO4--	0.38	0.04	8.67	567.0	99.8	0	212
SO4-- corr	0.24	-0.12	8.45	359.8	99.8	0	212
cond	19.28	5.00	2750.00	29025.8	99.7	47	209
pH	5.01	2.43	7.08	14725.9	97.9	0	206

HR0002R Puntijarka Croatia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	2.08	0.43	10.57	3005.7	98.5	0	135
Cl-	0.41	0.06	2.27	598.0	95.7	0	129
K+	0.23	0.03	4.91	338.8	98.5	0	135
Mg++	0.259	0.017	1.527	374.4	98.5	0	135
NH4+	0.42	0.00	3.28	605.9	95.5	0	130
NO3-	0.36	0.06	2.34	518.8	98.6	0	136
Na+	0.24	0.02	1.44	352.0	95.5	0	131
Precip off	-	0.10	53.80	1446.8	44.9	0	164
SO4--	0.49	0.02	3.07	708.7	98.6	0	136
SO4-- corr	0.46	0.01	3.06	667.8	98.6	0	136
cond	14.22	5.00	173.00	20567.4	99.0	0	144
pH	5.18	4.22	7.30	9612.5	99.0	0	144

HR0004R Zavizan Croatia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	2.75	0.52	79.53	5559.1	99.7	0	139
Cl-	1.29	0.03	10.63	2611.6	99.7	0	138
K+	0.17	0.01	15.98	349.4	99.7	0	139
Mg++	0.267	0.010	11.705	538.0	99.7	0	139
NH4+	0.29	0.00	2.29	595.2	98.5	0	133
NO3-	0.35	0.00	2.93	716.1	99.7	0	138
Na+	1.17	0.03	23.36	2354.4	99.7	0	139
Precip off	-	0.10	85.60	2018.8	42.7	0	156
SO4--	0.44	0.00	2.91	879.5	99.7	0	138
SO4-- corr	0.36	-0.23	2.83	719.8	99.7	0	138
cond	15.40	3.00	296.00	31085.6	99.7	0	138
pH	5.42	4.33	8.09	7671.3	99.7	0	138

HU0002R K-Puszta Hungary

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.96	0.11	9.50	457.8	99.9	0	62
Cl-	0.68	0.23	5.40	324.4	100.0	0	63
K+	0.17	0.03	1.45	83.7	99.9	2	62
Mg++	0.159	0.025	0.940	76.2	99.9	7	62
NH4+	0.44	0.02	3.70	210.2	100.0	10	63
NO3-	0.52	0.11	2.75	249.4	100.0	0	63
Na+	1.33	0.84	5.67	636.8	99.1	0	61
Precip	-	0.4	33.4	478.9	99.9	302	365
Precip off	-	1.20	42.50	606.1	99.9	302	365
SO4--	0.63	0.00	3.83	302.3	100.0	0	63
SO4-- corr	0.56	-0.07	3.64	266.7	100.0	0	63
cond	20.38	5.30	103.10	9760.0	99.8	0	61
pH	5.68	4.86	6.92	994.7	99.8	0	61

IE0001R Valentia Obs. Ireland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.67	0.03	24.05	1009.3	98.7	7	189
Cl-	27.13	0.06	1088.19	40602.9	98.7	0	189
K+	0.81	0.03	24.52	1205.1	98.7	11	189
Mg++	1.931	0.025	78.906	2890.9	98.7	13	189
NH4+	0.22	0.02	12.58	325.7	98.7	46	189
NO3-	0.09	0.01	1.54	127.5	98.7	5	189
Na+	14.96	0.06	600.72	22400.3	98.7	0	189
Precip	-	0.0	62.2	1496.8	99.9	121	365
Precip off	-	0.00	48.80	1494.9	99.9	109	365
SO4--	1.42	0.04	50.59	2117.6	98.7	0	189
SO4-- corr	0.17	-0.02	3.15	247.1	98.7	0	189
cond	104.98	4.30	3740.00	157135.8	98.7	0	189
pH	5.31	4.09	6.87	7296.8	98.7	0	189

IS0002R Irafoss Iceland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Na+	3.39	0.05	58.30	4783.7	99.9	1	169
Precip	-	0.0	54.8	1412.6	99.9	194	365
SO4--	0.37	0.05	4.60	526.0	99.9	4	169
SO4-- corr	0.09	-0.41	2.91	130.7	99.9	4	169
pH	5.59	4.70	7.60	3615.5	100.0	0	171

IS0090R Reykjavik Iceland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.38	0.06	3.99	259.3	98.8	0	53
Cl-	9.81	0.23	126.00	6711.9	98.8	0	53
K+	0.23	0.01	2.32	156.8	98.8	1	53
Mg++	0.718	0.030	8.070	491.2	98.8	0	53
NH4+	0.34	0.10	3.99	233.6	98.8	0	53
NO3-	0.11	0.01	2.02	77.0	98.8	1	53
Na+	6.12	0.12	68.79	4189.2	98.8	0	53
Precip	-	0.0	47.6	684.0	100.0	5	59
Precip off	-	0.00	58.40	744.6	100.0	3	59
SO4--	0.86	0.06	7.89	591.4	98.8	0	53
SO4-- corr	0.37	-1.23	7.17	255.4	98.8	0	53
cond	42.71	3.50	420.10	29213.6	99.7	0	50
pH	5.34	4.34	6.81	3123.5	99.7	0	50

IS0091R Storhofdi Iceland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	8.67	0.11	84.00	12948.3	100.0	0	52
Cl-	342.00	3.27	2696.29	510644.3	100.0	0	52
K+	7.15	0.09	60.00	10670.7	100.0	0	52
Mg++	22.460	0.250	207.000	33534.9	100.0	0	52
NH4+	0.94	0.01	6.36	1407.8	100.0	7	52
NO3-	0.06	0.01	1.20	82.4	100.0	18	52
Na+	188.41	2.42	1700.00	281319.2	100.0	0	52
Precip	-	0.0	94.3	1493.1	100.0	2	58
Precip off	-	0.00	77.50	1565.8	100.0	2	58
SO4--	15.29	0.41	125.39	22834.4	100.0	0	52
SO4-- corr	-0.40	-16.90	4.28	-601.3	100.0	0	52
cond	1034.77	19.50	6000.00	1545044.9	100.0	0	52
pH	5.76	4.94	6.92	2615.1	98.8	0	51

IT0001R Montelibretti Italy

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	1.88	0.03	19.00	1585.9	100.0	0	53
Cl-	2.39	0.03	17.56	2022.5	100.0	0	53
K+	0.26	0.01	6.26	220.0	100.0	0	53
Mg++	0.254	0.010	7.780	215.1	100.0	0	53
NH4+	0.32	0.00	5.59	267.4	100.0	0	53
NO3-	0.41	0.08	3.05	345.1	100.0	0	53
Na+	1.05	0.00	9.78	889.7	100.0	0	53
Precip	-	1.2	50.4	846.0	14.5	0	53
SO4--	0.64	0.12	11.67	543.3	100.0	0	53
SO4-- corr	0.54	-0.02	11.52	457.0	100.0	0	53
cond	28.35	0.30	164.10	23983.7	100.0	0	53
pH	5.84	4.80	7.70	1209.7	99.6	0	52

IT0004R Ispra Italy

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.46	0.04	10.88	405.5	99.0	0	61
Cl-	0.39	0.13	20.42	340.5	99.7	0	63
K+	0.09	0.01	1.44	82.6	99.0	0	61
Mg++	0.052	0.005	1.631	45.6	99.0	0	61
NH4+	1.13	0.04	4.83	993.1	99.0	0	61
NO3-	0.87	0.14	10.27	763.2	99.7	0	63
Na+	0.23	0.04	10.13	205.3	99.0	0	61
Precip	-	0.0	82.6	881.7	99.9	300	365
SO4--	0.66	0.06	4.79	579.2	99.7	0	63
SO4-- corr	0.64	0.06	4.54	560.1	99.7	0	63
cond	21.59	5.93	70.00	19035.4	97.8	0	56
pH	5.15	3.79	8.21	6274.1	97.9	0	57

LT0015R Preila Lithuania

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.25	0.04	4.50	127.8	99.4	0	95
Cl-	2.74	0.17	73.60	1408.2	100.0	0	96
K+	0.18	0.05	2.32	91.8	100.0	0	96
NH4+	0.39	0.03	5.01	198.0	100.0	0	96
NO3-	0.48	0.06	8.92	247.5	100.0	0	96
Na+	2.05	0.15	37.70	1051.4	100.0	0	96
Precip	-	0.0	62.4	513.4	99.9	269	365
SO4--	0.46	0.13	5.84	233.5	100.0	0	96
SO4-- corr	0.28	0.05	2.93	145.5	100.0	0	96
cond	25.68	8.20	309.00	13183.4	100.0	0	96
pH	4.82	3.86	6.59	7721.9	100.0	0	96

LV0010R Rucava Latvia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Cl-	0.92	0.06	4.77	627.2	92.7	0	88
K+	0.08	0.01	0.29	54.6	95.5	1	99
Mg++	0.088	0.010	0.440	60.1	96.7	3	104
NH4+	0.33	0.03	1.95	221.2	97.4	0	113
NO3-	0.37	0.03	1.85	253.2	92.7	0	88
Na+	0.60	0.03	3.21	409.1	96.6	0	103
Precip	-	0.0	59.0	679.0	99.9	236	365
SO4--	0.38	0.05	1.50	256.3	92.7	0	88
SO4-- corr	0.33	0.04	1.47	223.9	92.7	0	88
cond	17.30	3.00	61.60	11744.2	98.2	0	115
pH	4.77	4.10	7.01	11462.7	98.2	0	115

LV0016R Zoseni Latvia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.47	0.05	3.51	326.4	88.2	0	77
Cl-	0.23	0.00	2.60	160.1	83.6	11	57
K+	0.11	0.00	0.64	74.5	88.3	1	75
Mg++	0.131	0.010	0.670	91.4	89.5	1	78
NH4+	0.35	0.04	2.24	246.0	94.6	0	103
NO3-	0.21	0.00	0.95	145.0	83.8	0	58
Na+	0.36	0.04	3.12	248.8	90.2	0	80
Precip	-	0.0	76.4	696.0	99.9	196	365
SO4--	0.28	0.06	1.31	193.1	83.5	0	57
SO4-- corr	0.25	0.05	1.30	174.4	83.5	0	57
cond	13.20	0.00	112.50	9186.2	95.7	0	109
pH	5.55	4.43	7.93	1953.4	95.9	0	109

NL0009R Kollumerwaard Netherlands

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.29	0.03	2.95	170.9	85.1	0	83
Cl-	4.06	0.07	69.19	2394.3	91.1	0	129
H+	-5.07	-137.70	52.70	-2992.0	91.3	0	139
K+	0.24	0.03	2.02	140.1	84.8	0	82
Mg++	0.257	0.012	1.728	151.6	85.1	0	83
NH4+	0.72	0.06	3.40	423.8	87.7	0	100
NO3-	0.44	0.04	2.85	258.0	90.6	0	127
Na+	2.18	0.10	15.03	1284.7	85.1	0	83
Precip	-	0.0	22.1	590.2	97.5	162	356
SO4--	0.62	0.08	4.11	366.5	91.1	0	129
SO4-- corr	0.43	0.03	1.57	252.6	91.1	0	129
cond	27.91	7.60	180.40	16468.8	83.8	0	78
pH	5.29	4.38	6.67	3024.7	91.3	0	139

NO0001R Birkenes Norway

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.13	0.01	1.27	163.2	99.3	9	153
Cl-	2.72	0.02	59.39	3373.8	99.3	0	154
K+	0.08	0.01	1.17	100.5	99.3	10	154
Mg++	0.183	0.005	3.781	226.6	99.3	10	154
NH4+	0.42	0.01	3.17	521.8	99.3	3	154
NO3-	0.47	0.01	3.18	585.6	99.3	7	154
Na+	1.63	0.01	37.10	2016.9	99.3	0	154
Precip	-	0.0	54.9	1240.6	99.9	165	365
SO4--	0.56	0.01	4.95	697.1	99.3	1	154
SO4-- corr	0.43	-0.34	3.73	531.3	99.3	1	154
cond	24.95	3.20	212.80	30958.7	98.6	0	135
pH	4.68	3.72	6.25	25695.8	98.5	0	134

NO0008R Skreaadalen Norway

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.20	0.03	0.87	144.8	83.8	0	21
Cl-	8.76	0.70	34.02	6418.9	83.8	0	21
K+	0.19	0.05	0.66	138.7	83.8	0	21
Mg++	0.530	0.045	2.159	388.0	83.8	0	21
NH4+	0.05	0.01	0.40	35.7	83.8	0	21
NO3-	0.07	0.01	0.76	49.8	83.8	0	21
Na+	4.59	0.34	20.20	3364.9	83.8	0	21
Precip	-	0.0	74.8	732.7	15.9	30	58
SO4--	0.44	0.08	1.49	324.1	83.8	0	21
SO4-- corr	0.06	-0.20	0.54	42.6	83.8	0	21
cond	32.46	4.70	124.10	23785.0	99.9	0	26
pH	5.20	3.81	6.28	4596.0	99.9	0	26

NO0015R Tustervatn Norway

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.15	0.01	1.79	196.5	91.7	6	185
Cl-	2.82	0.03	20.45	3673.1	94.0	0	187
K+	0.16	0.01	1.26	211.8	90.4	1	181
Mg++	0.194	0.005	1.339	252.4	91.9	13	187
NH4+	0.18	0.02	2.62	240.7	90.1	0	180
NO3-	0.08	0.01	1.94	108.8	94.0	6	187
Na+	1.73	0.02	11.24	2254.7	91.9	0	187
Precip	-	0.0	36.6	1301.7	99.7	124	364
SO4--	0.26	0.01	1.30	335.0	94.0	5	187
SO4-- corr	0.12	-0.08	1.26	162.9	94.0	5	187
cond	14.78	2.40	75.30	19236.4	92.1	0	161
pH	5.39	4.35	6.70	5318.9	90.2	0	154

NO0039R Kaarvatn Norway

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.12	0.01	0.78	199.1	99.5	6	172
Cl-	2.74	0.01	38.01	4745.9	99.6	1	173
K+	0.10	0.01	0.74	167.1	99.6	3	173
Mg++	0.191	0.005	2.335	330.7	99.6	18	173
NH4+	0.08	0.01	0.96	138.7	99.6	2	173
NO3-	0.05	0.01	0.76	93.4	99.6	26	173
Na+	1.64	0.03	20.49	2840.8	99.6	0	173
Precip	-	0.0	50.0	1733.3	99.7	190	364
SO4--	0.23	0.01	1.64	393.4	99.6	3	173
SO4-- corr	0.09	-0.20	1.01	161.9	99.6	3	173
cond	13.83	2.70	130.10	23973.3	99.2	0	161
pH	5.33	4.45	6.29	8178.4	99.1	0	159

NO0055R Karasjok Norway

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.08	0.01	0.67	33.2	98.1	7	137
Cl-	0.57	0.05	16.75	232.1	98.3	0	138
K+	0.18	0.03	2.36	74.3	96.8	0	132
Mg++	0.032	0.005	0.959	13.3	98.3	25	138
NH4+	0.16	0.02	2.41	63.9	98.1	0	137
NO3-	0.13	0.01	1.28	54.1	98.3	1	138
Na+	0.41	0.05	9.28	168.3	98.3	0	138
Precip	-	0.0	18.9	410.1	99.9	195	365
SO4--	0.27	0.01	3.28	110.0	98.3	1	138
SO4-- corr	0.24	-0.01	3.23	98.4	98.3	1	138
cond	8.22	2.90	50.30	3370.7	92.9	0	101
pH	5.12	4.15	6.25	3116.1	91.1	0	94

PL0002R Jarczew Poland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.22	0.00	4.00	108.1	98.0	0	140
Cl-	0.63	0.10	19.80	307.2	98.0	0	140
K+	0.12	0.01	1.08	57.3	98.0	0	140
Mg++	0.036	0.005	0.502	17.7	98.0	0	140
NH4+	0.71	0.03	5.83	348.1	98.0	0	140
NO3-	0.46	0.05	3.89	223.0	98.0	0	140
Na+	0.22	0.01	9.87	108.8	98.0	0	140
Precip	-	0.0	29.8	489.0	99.9	199	365
SO4--	0.69	0.05	5.43	335.2	98.0	0	140
SO4-- corr	0.67	0.04	5.38	325.8	98.0	0	140
cond	21.42	4.00	140.00	10476.6	98.0	0	140
pH	4.64	3.61	99.90	11113.3	99.9	0	364

PL0003R Sniezka Poland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.51	0.00	3.70	642.2	99.7	0	203
Cl-	0.59	0.10	6.10	745.3	99.7	0	203
K+	0.23	0.03	1.68	286.3	99.7	0	203
Mg++	0.124	0.022	1.620	158.3	99.7	0	203
NH4+	0.35	0.05	3.26	449.5	99.7	0	203
NO3-	0.72	0.13	4.39	920.3	99.7	0	203
Na+	0.48	0.06	5.04	615.8	99.7	0	203
Precip	-	0.0	62.6	1271.6	99.9	138	365
SO4--	0.70	0.12	5.12	896.3	99.7	0	203
SO4-- corr	0.67	0.12	4.70	845.6	99.7	0	203
cond	23.44	5.00	150.00	29806.4	99.7	0	203
pH	4.57	3.87	5.98	34151.3	99.7	0	203

PL0004R Leba Poland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.26	0.00	2.60	122.8	97.4	0	138
Cl-	1.60	0.20	15.10	763.1	97.4	0	138
K+	0.09	0.01	1.52	40.6	97.4	0	138
Mg++	0.115	0.008	1.111	55.0	97.4	0	138
NH4+	0.48	0.02	4.46	227.8	97.4	0	138
NO3-	0.52	0.10	3.71	245.8	97.4	0	138
Na+	0.80	0.05	7.08	382.7	97.4	0	138
Precip	-	0.0	16.4	477.0	99.9	194	365
SO4--	0.56	0.09	5.43	269.5	97.4	0	138
SO4-- corr	0.49	0.07	5.12	236.1	97.4	0	138
cond	24.35	5.00	174.00	11616.7	97.4	0	138
pH	4.58	3.56	6.97	12521.4	97.4	0	138

PL0005R Diabla Gora Poland

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.22	0.00	2.80	130.0	98.7	0	131
Cl-	0.43	0.05	5.10	257.9	99.6	5	143
K+	0.08	0.01	1.10	46.6	98.8	0	132
Mg++	0.046	0.005	0.577	27.5	98.8	0	132
NH4+	0.53	0.01	7.91	317.8	99.8	3	144
NO3-	0.44	0.09	4.09	261.4	98.7	0	143
Na+	0.18	0.01	2.63	106.3	98.8	0	132
Precip	-	0.0	36.3	598.8	99.9	215	365
Precip off	-	0.00	86.40	690.0	99.9	212	365
SO4--	0.53	0.04	4.29	314.4	99.8	0	144
SO4-- corr	0.49	0.03	4.24	335.5	99.1	0	143
cond	14.53	4.00	63.00	8701.9	81.1	0	75
pH	4.78	3.94	6.75	9848.9	99.8	0	145

PT0001R Braganca Portugal

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	2.08	0.10	20.30	968.7	49.3	0	14
Cl-	0.68	0.10	3.80	317.0	49.3	0	14
K+	0.12	0.04	0.57	56.7	49.3	7	14
Mg++	0.098	0.015	0.690	45.8	49.3	6	14
NH4+	0.13	0.01	0.34	59.0	49.3	4	14
NO3-	0.13	0.01	0.32	59.0	49.3	4	14
Na+	0.61	0.01	2.91	283.5	49.3	4	14
Precip off	-	0.00	31.40	465.6	99.9	273	365
SO4--	0.58	0.03	3.99	269.6	49.3	1	14
SO4-- corr	0.54	0.01	3.75	249.3	49.3	1	14
cond	16.02	2.00	104.00	7460.2	49.3	0	14
pH	5.76	5.25	7.19	806.5	49.3	0	14

PT0003R V. Do Castelo Portugal

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.63	0.05	5.60	572.1	72.2	2	47
Cl-	3.89	0.60	17.80	3552.7	73.0	0	48
K+	0.13	0.04	0.80	119.6	73.0	17	48
Mg++	0.329	0.080	1.540	300.6	73.0	0	48
NH4+	0.14	0.01	1.37	126.1	73.0	7	48
NO3-	0.20	0.01	1.33	185.1	73.0	3	48
Na+	2.57	0.54	12.17	2352.3	73.0	0	48
Precip off	-	0.00	79.00	914.4	99.9	239	365
SO4--	0.58	0.22	2.42	526.4	73.0	0	48
SO4-- corr	0.37	-0.07	1.71	334.8	73.0	0	48
cond	23.03	8.00	98.00	21055.3	73.0	0	48
pH	5.11	3.85	6.76	7060.4	73.0	0	48

PT0004R Monte Velho Portugal

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.54	0.10	2.70	230.3	94.6	0	20
Cl-	3.10	1.20	9.90	1321.1	94.6	0	20
K+	0.13	0.04	0.90	57.4	94.6	7	20
Mg++	0.238	0.060	0.820	101.7	94.6	0	20
NH4+	0.06	0.01	0.35	25.0	94.6	9	20
NO3-	0.12	0.01	0.44	53.3	94.6	7	20
Na+	1.82	0.47	6.67	776.9	94.6	0	20
Precip off	-	1.30	89.30	426.6	99.9	336	365
SO4--	0.41	0.25	0.72	176.0	94.6	0	20
SO4-- corr	0.26	-0.07	0.56	110.7	94.6	0	20
cond	18.14	9.00	43.00	7737.4	94.6	0	20
pH	5.35	4.72	6.38	1890.8	94.6	0	20

RU0013R Pinega Russian Federation

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	1.39	0.18	15.20	535.5	100.0	0	134
Cl-	0.68	0.06	8.89	260.0	99.3	0	131
K+	0.68	0.04	8.09	261.4	100.0	0	134
Mg++	0.275	0.043	3.044	105.8	100.0	0	134
NH4+	0.29	0.02	10.30	111.1	100.0	0	134
NO3-	0.14	0.01	1.90	53.3	99.3	0	131
Na+	0.94	0.07	8.59	361.5	100.0	0	134
Precip	-	0.0	25.5	385.0	99.9	231	365
SO4--	0.59	0.02	5.51	227.9	99.3	0	131
SO4-- corr	0.52	-0.04	5.27	201.3	99.3	0	131
cond	17.36	4.80	198.70	6685.7	99.9	0	132
pH	5.50	4.22	8.20	1209.5	98.3	0	108

RU0016R Shepeljovo Russian Federation

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.78	0.05	3.07	551.5	100.0	0	133
Cl-	0.28	0.03	2.15	199.0	100.0	0	133
K+	0.30	0.00	2.41	214.5	100.0	0	133
Mg++	0.141	0.000	1.719	100.0	100.0	0	133
NH4+	0.28	0.00	1.62	201.6	100.0	0	133
NO3-	0.21	0.00	1.63	152.5	99.6	0	130
Na+	0.41	0.01	2.93	292.9	100.0	0	133
Precip	-	0.0	44.8	708.0	99.9	232	365
SO4--	0.51	0.00	3.69	360.5	100.0	0	133
SO4-- corr	0.48	-0.02	3.63	342.0	100.0	0	133
cond	10.97	4.90	46.20	7765.1	100.0	0	133
pH	4.93	4.15	6.73	8358.4	98.9	0	121

RU0020R

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.67	0.13	4.01	468.3	100.0	0	105
Cl-	0.57	0.03	5.37	395.6	100.0	0	105
K+	0.77	0.14	18.12	537.9	100.0	0	105
Mg++	0.099	0.001	1.027	69.0	100.0	0	105
NH4+	0.63	0.02	4.52	438.7	100.0	0	105
NO3-	0.36	0.01	3.53	248.8	100.0	0	105
Na+	0.72	0.09	2.79	500.2	100.0	0	105
Precip	-	0.0	25.8	696.7	99.9	263	365
SO4--	0.82	0.06	10.89	571.7	100.0	0	105
SO4-- corr	0.77	0.02	10.66	538.9	100.0	0	105
cond	17.11	4.40	100.30	11920.8	100.0	0	105
pH	4.99	3.97	7.11	7065.5	100.0	0	105

SE0005R Bredkalen Sweden

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.05	0.01	0.38	33.9	99.4	22	49
Cl-	0.19	0.01	4.08	135.8	99.4	6	49
K+	0.08	0.02	0.86	61.1	99.4	32	49
Mg++	0.021	0.005	0.250	15.3	99.4	17	49
NH4+	0.12	0.01	1.54	90.1	99.4	3	49
NO3-	0.13	0.04	1.23	97.6	99.4	0	49
Na+	0.09	0.03	2.18	66.4	99.4	27	49
Precip	-	0.0	71.7	729.7	102.1	12	64
SO4--	0.18	0.03	1.00	131.9	99.4	0	49
SO4-- corr	0.17	0.01	0.96	125.4	99.4	0	49
cond	7.16	3.00	29.00	5227.2	98.9	0	47
pH	5.03	4.32	6.55	6888.2	99.4	0	51

SE0011R Vavihill Sweden

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.15	0.01	1.14	103.6	100.0	2	44
Cl-	1.36	0.14	8.59	960.9	100.0	0	44
K+	0.04	0.02	1.02	31.4	100.0	31	44
Mg++	0.109	0.030	0.850	77.4	100.0	0	44
NH4+	0.62	0.12	7.75	436.5	100.0	0	44
NO3-	0.51	0.18	5.71	358.5	100.0	0	44
Na+	0.80	0.03	5.53	562.7	100.0	2	44
Precip	-	0.0	67.3	707.0	99.9	18	62
SO4--	0.47	0.20	2.55	329.8	100.0	0	44
SO4-- corr	0.40	0.18	2.51	281.8	100.0	0	44
cond	20.32	11.00	98.00	14365.5	99.9	0	43
pH	4.80	4.04	7.13	11283.9	100.0	0	44

SE0014R Råö Sweden

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.34	0.01	9.41	204.1	99.4	6	130
Cl-	9.45	0.07	389.84	5638.5	99.5	0	134
K+	0.22	0.02	8.84	130.7	99.4	42	130
Mg++	0.728	0.005	29.310	434.2	99.4	3	130
NH4+	0.48	0.03	5.16	287.3	99.3	0	129
NO3-	0.45	0.06	5.33	269.2	99.5	0	135
Na+	5.61	0.03	234.50	3347.9	99.4	2	130
Precip	-	0.0	27.6	596.4	99.9	213	365
SO4--	0.83	0.08	22.68	496.7	99.5	0	135
SO4-- corr	0.36	-0.08	3.05	214.0	99.5	0	134
cond	50.19	4.00	1550.00	29930.4	98.4	0	117
pH	4.82	3.91	7.06	8978.0	99.7	0	141

SI0008R Iskrba Slovenia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.26	0.01	3.71	399.6	92.8	10	125
Cl-	0.68	0.05	22.28	1069.5	92.6	0	128
K+	0.04	0.01	0.29	54.2	92.7	41	124
Mg++	0.046	0.004	0.488	71.7	92.8	18	125
NH4+	0.30	0.01	4.47	475.2	92.8	1	125
NO3-	0.30	0.06	2.85	464.5	93.2	0	131
Na+	0.41	0.01	40.54	635.1	89.8	4	123
Precip	-	0.0	87.3	1565.0	99.4	194	363
Precip off	-	0.00	87.30	1636.0	99.9	188	365
SO4--	0.39	0.10	2.63	614.9	93.2	0	131
SO4-- corr	0.36	-2.01	2.61	559.2	93.2	0	131
cond	13.81	3.00	210.00	21614.7	90.8	0	100
pH	4.87	3.91	6.58	20906.5	90.8	0	100

SK0002R Chopok Slovakia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.17	0.01	2.12	188.2	88.5	2	133
Cl-	0.15	0.02	1.67	174.7	89.9	0	141
K+	0.13	0.00	1.42	150.7	88.5	18	133
Mg++	0.019	0.001	0.171	22.0	88.5	40	133
NH4+	0.37	0.08	1.90	427.6	88.5	0	133
NO3-	0.25	0.06	1.08	287.7	89.9	5	141
Na+	0.17	0.00	1.85	196.3	88.5	14	133
Precip	-	0.1	32.3	1144.4	99.9	147	365
SO4--	0.41	0.08	1.55	466.7	89.9	0	141
SO4-- corr	0.40	0.07	1.54	456.9	89.9	0	141
cond	10.96	4.20	40.50	12540.7	69.0	0	74
pH	4.85	4.19	6.05	16035.9	69.0	0	74

SK0004R Stara Lesna Slovakia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.30	0.01	3.74	260.7	94.0	4	93
Cl-	0.20	0.02	1.01	168.9	95.0	3	99
K+	0.13	0.01	1.28	111.5	94.0	15	93
Mg++	0.030	0.003	0.242	25.8	94.0	19	93
NH4+	0.36	0.02	1.38	309.3	94.0	0	93
NO3-	0.28	0.00	1.01	239.1	95.0	1	99
Na+	0.21	0.02	1.29	179.2	94.0	7	93
Precip	-	0.1	45.0	854.2	99.9	201	365
SO4--	0.49	0.08	1.95	415.8	95.0	0	99
SO4-- corr	0.47	0.07	1.92	403.4	95.0	0	99
cond	13.79	4.40	32.00	11775.1	82.1	0	57
pH	4.73	4.36	6.18	15845.8	82.1	0	57

SK0005R Liesek Slovakia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.34	0.05	4.37	272.4	95.0	0	39
Cl-	0.38	0.05	1.76	304.9	95.6	0	40
K+	0.15	0.01	1.03	119.3	95.0	0	39
Mg++	0.040	0.008	0.225	32.2	95.0	0	39
NH4+	0.47	0.11	1.47	379.1	93.7	0	38
NO3-	0.39	0.13	1.60	316.6	95.6	0	40
Na+	0.21	0.02	1.03	172.0	95.0	0	39
Precip	-	0.1	130.0	806.0	100.3	5	53
SO4--	0.62	0.22	1.89	500.4	95.6	0	40
SO4-- corr	0.60	0.20	1.86	485.2	95.6	0	40
cond	18.40	2.60	43.40	14828.7	92.2	0	35
pH	4.64	4.16	6.31	18563.3	92.2	0	35

SK0006R Starina Slovakia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.29	0.03	4.68	262.5	89.6	0	90
Cl-	0.31	0.05	2.73	279.9	91.1	0	98
K+	0.19	0.02	4.17	173.0	89.6	2	90
Mg++	0.036	0.004	0.426	31.9	89.6	5	90
NH4+	0.39	0.01	1.36	347.1	89.6	1	90
NO3-	0.40	0.04	1.51	355.3	91.1	0	98
Na+	0.23	0.02	1.09	205.8	88.9	2	89
Precip	-	0.1	45.0	892.6	99.9	201	365
SO4--	0.58	0.07	2.60	515.1	90.4	0	97
SO4-- corr	0.56	0.06	2.58	500.8	90.4	0	97
cond	17.56	4.80	49.80	15673.0	79.7	0	58
pH	4.60	4.10	6.69	22222.2	79.7	0	58

SK0007R Topoliniky Slovakia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	0.45	0.07	3.15	269.2	96.5	0	36
Cl-	0.26	0.04	1.65	154.2	100.0	0	39
K+	0.13	0.02	0.55	80.3	99.4	0	37
Mg++	0.075	0.013	0.278	45.1	99.4	0	37
NH4+	0.53	0.13	1.27	317.6	99.4	0	37
NO3-	0.36	0.01	1.13	215.6	100.0	0	39
Na+	0.21	0.02	0.72	126.2	99.4	1	37
Precip	-	0.8	66.2	600.0	100.3	14	53
SO4--	0.52	0.17	1.21	310.9	100.0	0	39
SO4-- corr	0.50	0.15	1.17	299.7	100.0	0	39
cond	15.14	6.60	44.50	9080.7	97.7	0	33
pH	4.98	4.29	6.89	6287.7	97.7	0	33

TR0001R Cubuk II Turkey

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	1.98	0.23	22.95	663.0	84.1	0	60
Cl-	0.50	0.06	4.18	166.9	93.3	0	81
K+	0.20	0.05	1.14	68.2	81.8	0	59
Mg++	0.252	0.012	5.287	84.6	81.8	0	59
NH4+	0.34	0.01	2.06	113.4	93.1	0	80
NO3-	0.41	0.12	8.97	139.3	93.3	0	81
Na+	0.55	0.05	7.92	184.8	81.2	0	57
Precip	-	0.2	22.5	335.8	100.0	283	365
SO4--	1.01	0.26	9.15	338.7	93.2	0	79
SO4-- corr	0.96	0.24	9.08	321.7	93.2	0	79
cond	21.33	8.25	174.10	7161.2	97.7	0	60
pH	5.54	3.94	7.95	957.0	97.7	0	60

YU0005R Kamenicki Vis Yugoslavia

January 2005 - December 2005

Component	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	1.34	0.17	8.79	1147.4	98.5	0	128
Cl-	0.68	0.04	8.12	585.3	99.8	0	130
K+	0.19	0.02	3.89	164.9	99.8	0	130
Mg++	0.245	0.020	2.900	209.5	99.8	0	131
NH4+	0.88	0.04	7.23	755.4	99.1	0	127
NO3-	0.44	0.02	5.73	374.6	99.8	0	130
Na+	0.70	0.13	7.25	599.6	99.4	0	129
Precip	-	0.0	44.7	856.9	99.7	231	364
SO4--	1.06	0.08	7.38	912.8	99.8	0	130
SO4-- corr	1.00	0.04	7.05	860.1	99.8	0	130
cond	35.54	7.00	243.00	30454.6	99.7	0	128
pH	5.54	3.75	7.94	2443.6	99.6	0	126

Annex 3

Annual statistics on gases and aerosol data

AT0002R Illmitz Austria

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.18	0.32	0.11	2.70	0.01	0.02	0.09	0.55	3.98	99.4	2	363
HNO3	0.88	0.35	0.81	1.50	0.25	0.38	0.85	1.50	2.41	99.4	0	363
K+	0.21	0.21	0.14	2.55	0.00	0.04	0.14	0.67	1.31	99.4	2	363
Mg++	0.034	0.035	0.025	2.092	0.001	0.009	0.022	0.100	0.342	99.1	59	362
NH3	1.83	0.99	1.48	2.22	0.01	0.38	1.81	3.45	5.54	99.1	1	362
NH4+	1.03	1.11	0.73	2.29	0.01	0.20	0.71	3.25	11.55	99.4	1	363
NO2	2.69	1.69	2.29	1.75	0.59	0.96	2.19	6.03	12.69	100.0	0	365
NO3-	0.36	0.52	0.17	3.42	0.02	0.03	0.13	1.47	3.44	99.4	0	363
Na+	0.07	0.06	0.06	2.01	0.00	0.02	0.06	0.21	0.50	99.4	1	363
PM1	15.73	12.70	12.36	1.98	1.86	4.14	12.66	40.66	93.70	98.6	0	360
PM10	26.74	21.40	20.84	2.01	3.16	7.10	20.55	68.07	157.18	99.5	0	363
PM25	21.94	19.04	16.66	2.07	3.09	5.49	16.20	58.84	146.09	98.1	0	358
SO2	1.25	3.47	0.63	2.79	0.05	0.14	0.53	3.90	60.70	99.4	0	363
SO4--	1.09	0.94	0.83	2.05	0.14	0.29	0.78	3.24	6.94	99.4	0	363
SO4-- corr	1.09	0.94	0.83	2.07	0.12	0.29	0.78	3.23	6.94	99.4	0	363

AT0004R St. Koloman Austria

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	1.16	1.91	0.52	4.01	0.00	0.01	0.50	4.46	22.81	95.1	0	8333

AT0005R Vorhegg Austria

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	1.27	0.80	1.10	1.68	0.34	0.51	1.02	3.00	6.39	96.2	0	351
PM10	10.00	7.66	7.52	2.18	1.01	2.01	7.95	25.62	43.84	95.3	0	348
SO2	0.32	0.43	0.20	2.48	0.00	0.05	0.17	1.15	6.69	94.1	0	8245

AT0048R Zoebelboden Austria

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	1.74	1.11	1.47	1.75	0.37	0.65	1.37	4.29	6.78	97.8	0	357
PM10	11.14	8.30	8.50	2.17	0.56	2.00	9.27	27.12	56.18	97.3	0	355
PM25	9.32	7.23	7.10	2.15	0.68	1.78	7.47	23.06	50.76	95.6	0	349
SO2	0.45	0.78	0.20	3.90	0.00	0.01	0.20	1.74	10.83	94.3	0	8263

BE0001R Offagne Belgium

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	3.04	1.93	2.58	1.74	0.23	1.13	2.48	6.78	18.07	78.8	0	6905

BE0032R Eupen Belgium

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	3.57	2.50	2.85	2.00	0.00	0.90	2.94	8.59	21.01	88.8	0	7781

BE0035R Vezin Belgium

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	4.06	2.83	3.16	2.23	0.00	0.68	3.39	9.71	14.69	34.7	0	3041

CH0001G Jungfraujoch Switzerland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	0.08	0.11	0.04	3.32	0.00	0.00	0.05	0.26	0.95	82.2	0	300
SO2	0.09	0.09	0.07	2.03	0.01	0.03	0.06	0.26	0.66	98.9	6	361
SO4--	0.12	0.14	0.06	3.27	0.01	0.01	0.06	0.39	1.03	98.9	63	361
SPM	2.87	3.59	1.65	2.78	0.50	0.50	1.40	10.74	21.60	89.6	99	327

CH0002R Payerne Switzerland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	1.11	0.90	0.83	2.19	0.09	0.23	0.80	3.00	5.80	100.0	0	365
NH3+NH4+	4.27	2.06	3.81	1.65	0.66	1.54	3.92	7.59	14.58	100.0	0	365
NO2	4.66	2.40	4.09	1.67	0.96	1.75	4.03	9.64	13.02	100.0	0	365
PM10	19.80	10.08	17.37	1.70	2.99	7.10	17.82	39.10	69.96	98.9	0	361
PM25	15.10	9.32	12.54	1.87	1.80	4.31	13.10	34.07	59.70	98.9	0	361
SO2	0.55	0.42	0.42	2.06	0.04	0.12	0.45	1.37	3.02	100.0	0	365
SO4--	0.74	0.47	0.62	1.83	0.09	0.21	0.64	1.54	3.55	95.9	0	350

CH0003R Tanikon Switzerland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	4.47	2.69	3.81	1.76	0.90	1.44	3.80	9.89	17.37	100.0	0	365
PM10	18.41	10.71	15.68	1.78	2.88	5.60	15.62	40.49	59.69	99.7	0	364

CH0004R Chaumont Switzerland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	2.04	1.15	1.77	1.70	0.48	0.76	1.76	4.15	7.13	99.7	0	364
PM1	7.06	4.39	5.85	1.88	1.10	1.90	6.10	15.69	28.10	98.9	0	361
PM10	10.98	6.72	8.95	1.98	1.03	2.56	9.91	24.52	34.79	95.6	0	349
PM25	8.58	5.78	6.88	1.99	1.10	2.10	7.50	20.81	38.10	98.1	0	358
SO2	0.66	0.56	0.46	2.51	0.00	0.08	0.57	1.81	3.05	99.7	0	364

CH0005R Rigi Switzerland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.85	0.69	0.62	2.27	0.05	0.16	0.66	2.26	5.02	100.0	0	365
NH3+NH4+	2.06	1.49	1.58	2.20	0.13	0.33	1.75	4.54	9.38	100.0	0	365
NO2	1.31	1.10	1.02	2.00	0.11	0.37	0.94	3.39	8.00	82.7	0	302
PM10	11.76	7.45	9.49	2.01	0.93	2.67	10.19	28.70	39.66	98.4	0	359
SO2	0.39	0.45	0.28	2.27	0.00	0.08	0.27	1.04	4.81	99.7	0	364
SO4--	0.56	0.39	0.45	2.05	0.02	0.12	0.49	1.26	3.23	100.0	0	365

CY0002R Ayia Marina Cyprus

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10	28.88	26.88	24.32	2.00	4.88	10.62	23.53	64.80	353.00	94.8	0	8280

CZ0001R Svratouch Czech Republic

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	1.03	0.63	0.87	1.82	0.09	0.32	0.87	2.17	4.81	92.8	0	339
NH3+NH4+	2.82	2.29	2.17	2.10	0.22	0.60	2.13	6.96	16.61	89.5	0	327
NO2	3.88	2.83	2.92	2.25	0.76	0.76	3.26	9.48	16.81	99.4	68	363
PM10	22.88	11.29	20.45	1.61	7.00	9.00	20.00	45.45	70.00	35.6	0	130
SO2	1.56	1.48	1.11	2.29	0.07	0.28	1.15	4.27	9.41	92.8	0	339
SO4--	1.06	0.79	0.80	2.19	0.07	0.18	0.89	2.72	4.87	93.4	0	341

CZ0003R Kosetice Czech Republic

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	1.02	0.61	0.86	1.86	0.03	0.32	0.89	2.15	3.50	98.0	0	358
NH3+NH4+	2.59	1.51	2.20	1.82	0.23	0.75	2.40	5.54	12.48	98.8	0	361
NO2	2.58	1.48	2.17	1.85	0.76	0.76	2.34	5.57	9.38	99.4	70	363
PM10	20.67	11.84	17.64	1.79	2.50	7.00	18.50	43.90	71.00	49.3	2	180
PM25	18.65	10.81	15.89	1.79	2.50	6.00	16.00	39.00	63.00	49.6	2	181
SO2	1.24	1.64	0.75	2.71	0.04	0.13	0.77	3.31	13.26	98.0	0	358
SO4--	1.17	0.87	0.91	2.15	0.01	0.30	0.96	2.79	6.34	98.0	1	358

DE0001R Westerland Germany

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.21	0.20	0.15	2.43	0.00	0.02	0.15	0.57	1.75	82.7	5	302
HNO3	1.14	1.05	0.80	2.36	0.06	0.20	0.80	3.01	6.02	93.7	0	342
HNO3+NO3-	0.97	0.78	0.64	2.99	0.01	0.06	0.76	2.53	4.43	89.6	36	327
K+	0.33	0.78	0.17	2.56	0.00	0.04	0.14	1.21	8.32	97.5	0	356
Mg++	0.332	0.333	0.209	3.081	0.000	0.020	0.250	0.929	2.540	98.6	7	360
NH3	1.14	1.05	0.80	2.36	0.06	0.20	0.80	3.01	6.02	93.7	0	342
NH3+NH4+	1.95	1.65	1.33	2.66	0.03	0.16	1.43	5.25	10.70	93.7	28	342
NH4+	0.81	0.96	0.49	3.79	0.00	0.00	0.46	2.91	5.35	98.1	4	358
NO2	2.34	2.12	1.54	2.64	0.19	0.31	1.71	6.98	12.64	98.4	0	359
NO3-	0.80	0.68	0.57	2.53	0.00	0.08	0.60	2.14	3.95	97.5	0	356
Na+	2.13	1.95	1.38	2.88	0.00	0.18	1.64	6.01	12.75	94.5	0	345
PM10	19.61	10.66	17.28	1.65	3.77	7.48	17.06	40.62	73.59	97.3	0	355
SO2	0.59	0.47	0.46	2.05	0.03	0.16	0.45	1.51	3.38	95.1	0	347
SO4--	0.86	0.52	0.71	1.95	0.02	0.26	0.76	2.00	3.05	97.5	0	356
SO4-- corr	0.68	0.56	0.45	2.88	-0.03	0.04	0.58	1.89	2.88	97.5	0	356

DE0002R Langenbrugge Germany

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.14	0.13	0.11	2.54	0.00	0.00	0.10	0.46	0.60	57.5	5	210
HNO3	0.29	0.27	0.19	2.62	0.01	0.04	0.20	0.80	1.64	58.1	1	212
HNO3+NO3-	0.79	0.46	0.65	2.08	0.01	0.21	0.70	1.68	2.87	57.5	8	210
K+	0.13	0.10	0.11	1.79	0.03	0.04	0.11	0.36	0.64	57.5	0	210
Mg++	0.064	0.054	0.046	2.822	0.000	0.000	0.050	0.170	0.290	57.3	23	209
NH3	1.12	0.75	0.87	2.16	0.05	0.21	0.88	2.70	3.43	57.5	0	210
NH3+NH4+	1.88	0.98	1.60	1.84	0.15	0.59	1.76	3.58	6.08	57.0	3	208
NH4+	0.77	0.71	0.53	3.13	0.00	0.00	0.53	2.44	3.57	57.5	2	210
NO2	3.03	2.13	2.44	1.95	0.19	0.85	2.37	6.73	16.48	77.0	0	281
NO3-	0.50	0.41	0.37	2.29	0.00	0.09	0.35	1.34	2.11	57.5	0	210
Na+	0.39	0.39	0.23	2.96	0.00	0.04	0.25	1.23	2.46	57.3	2	209
PM1	7.64	5.52	5.83	2.21	0.24	1.49	6.33	17.84	38.26	97.0	0	354
PM10	17.71	10.05	15.45	1.68	4.11	6.83	15.47	37.36	87.91	100.0	0	365
PM25	13.37	9.21	10.94	1.89	2.09	3.86	10.79	30.83	73.65	99.5	0	363
SO2	0.54	0.46	0.40	2.32	0.00	0.09	0.41	1.59	3.06	52.6	1	192
SO4--	0.88	0.53	0.73	1.86	0.05	0.26	0.72	1.87	3.27	57.5	0	210
SO4-- corr	0.84	0.54	0.68	2.01	0.02	0.22	0.68	1.86	3.25	57.0	0	208

DE0003R Schauinsland Germany

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.21	0.29	0.13	3.75	0.00	0.00	0.13	0.73	2.87	85.2	19	311
HNO3	0.38	0.28	0.29	2.11	0.02	0.09	0.30	0.88	1.64	93.7	0	342
HNO3+NO3-	0.67	0.47	0.49	2.49	0.03	0.07	0.57	1.52	2.61	93.7	43	342
K+	0.06	0.08	0.04	2.96	0.00	0.00	0.04	0.18	0.65	97.8	42	357
Mg++	0.041	0.053	0.034	2.997	0.000	0.000	0.020	0.120	0.460	98.1	48	358
NH3	0.57	0.54	0.33	3.96	0.00	0.00	0.41	1.67	3.11	97.5	11	356
NH3+NH4+	1.03	0.86	0.62	3.44	0.00	0.05	0.84	2.73	3.92	97.5	85	356
NH4+	0.49	0.52	0.36	3.23	0.00	0.00	0.35	1.66	2.62	97.8	2	357
NO2	1.10	0.87	0.89	1.90	0.19	0.35	0.82	2.83	6.96	89.6	0	327
NO3-	0.30	0.31	0.21	2.48	0.00	0.03	0.20	0.92	2.04	97.8	0	357
Na+	0.14	0.18	0.10	3.27	0.00	0.00	0.07	0.52	1.16	89.9	13	328
PM10	9.72	7.14	6.78	2.81	0.05	1.29	8.10	24.10	31.90	98.1	5	358
PM25	7.28	5.51	5.26	2.45	0.05	1.10	5.70	17.90	27.40	98.4	1	359
SO2	0.50	0.53	0.33	2.69	0.00	0.05	0.37	1.31	4.08	88.5	2	323
SO4--	0.65	0.52	0.48	2.28	0.03	0.11	0.54	1.49	3.56	97.8	0	357
SO4-- corr	0.63	0.52	0.46	2.32	0.03	0.10	0.53	1.49	3.55	97.8	0	357

DE0007R Neuglobsow Germany

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.15	0.15	0.11	2.63	0.00	0.00	0.10	0.46	0.76	89.0	6	325
HNO3	0.25	0.21	0.19	2.13	0.01	0.06	0.19	0.63	1.66	94.0	1	343
HNO3+NO3-	0.78	0.51	0.64	1.94	0.05	0.23	0.66	1.82	3.23	93.7	9	342
K+	0.13	0.12	0.09	2.18	0.00	0.03	0.09	0.36	0.93	98.1	5	358
Mg++	0.085	0.104	0.058	2.975	0.000	0.000	0.050	0.304	0.720	97.3	26	355
NH3	0.62	0.53	0.42	2.64	0.03	0.06	0.46	1.69	3.05	95.1	0	347
NH3+NH4+	1.42	0.88	1.12	2.19	0.08	0.17	1.29	3.21	5.44	94.2	24	344
NH4+	0.80	0.76	0.55	3.04	0.00	0.00	0.59	2.38	4.10	95.6	4	349
NO2	1.85	1.45	1.47	1.91	0.46	0.62	1.28	5.30	8.75	96.2	0	351
NO3-	0.53	0.47	0.38	2.31	0.00	0.09	0.39	1.53	3.04	95.6	0	349
Na+	0.41	0.46	0.24	3.25	0.00	0.02	0.25	1.46	2.61	97.3	6	355
PM10	13.79	9.88	11.14	1.93	1.00	4.00	11.00	33.00	85.00	99.5	0	363
SO2	0.65	0.80	0.39	2.78	0.00	0.05	0.37	2.02	7.45	89.6	3	327
SO4--	0.88	0.56	0.72	1.89	0.08	0.23	0.72	1.97	3.53	95.9	0	350
SO4-- corr	0.84	0.57	0.67	2.03	0.06	0.18	0.70	1.95	3.51	95.9	0	350

DE0008R Schmucke Germany

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	2.08	1.68	1.64	1.96	0.10	0.64	1.48	5.79	10.22	97.0	0	354
PM10	12.16	8.77	9.26	2.21	0.00	2.00	10.00	30.00	49.00	100.0	0	365
SO2	0.71	0.77	0.43	2.95	0.03	0.03	0.50	2.55	4.70	100.0	19	365

DE0009R Zingst Germany

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.23	0.21	0.16	2.67	0.00	0.02	0.16	0.65	1.34	94.5	7	345
HNO3	0.22	0.20	0.16	2.19	0.02	0.05	0.15	0.57	1.49	94.2	0	344
HNO3+NO3-	0.97	0.70	0.73	2.26	0.02	0.22	0.75	2.40	3.85	94.0	13	343
K+	0.13	0.12	0.09	2.18	0.00	0.03	0.09	0.36	0.93	98.1	5	358
Mg++	0.139	0.141	0.090	2.852	0.000	0.005	0.090	0.450	0.800	97.8	14	357
NH3	1.05	1.06	0.64	3.06	0.00	0.08	0.71	3.07	5.61	98.1	1	358
NH3+NH4+	1.96	1.67	1.31	2.77	0.04	0.13	1.49	4.99	10.08	97.8	32	357
NH4+	0.91	1.06	0.53	3.75	0.00	0.00	0.49	3.37	6.36	98.4	6	359
NO2	2.17	1.36	1.81	1.85	0.37	0.63	1.80	4.72	9.37	99.7	0	364
NO3-	0.77	0.71	0.53	2.45	0.00	0.12	0.48	2.23	4.23	98.4	0	359
Na+	0.77	0.76	0.47	2.96	0.00	0.06	0.53	2.43	4.09	94.8	0	346
PM10	17.23	10.93	14.54	1.79	1.30	5.52	14.10	41.24	69.50	94.0	0	343
SO2	0.80	0.71	0.63	1.96	0.14	0.23	0.60	2.17	7.36	94.2	0	344
SO4--	0.90	0.55	0.74	1.91	0.09	0.23	0.78	2.12	3.44	98.1	0	358
SO4-- corr	0.83	0.58	0.63	2.30	0.01	0.13	0.71	2.09	3.42	97.5	0	356

DK0003R Tange Denmark

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.80	0.75	0.53	2.57	0.02	0.12	0.52	2.52	4.35	95.5	0	349
NH3	1.05	0.85	0.74	2.75	0.00	0.13	0.87	2.99	6.15	96.6	8	353
NH4+	1.22	1.10	0.82	2.53	0.08	0.17	0.83	3.49	6.03	96.1	0	351
Na+	1.11	1.10	0.72	2.62	0.05	0.14	0.73	3.16	7.15	96.6	0	353
SO2	0.27	0.29	0.17	2.70	0.01	0.03	0.17	0.96	1.60	96.6	4	353
SO4--	0.73	0.49	0.60	1.93	0.07	0.20	0.62	1.74	2.73	95.8	0	350
SO4-- corr	0.64	0.51	0.46	2.46	-0.04	0.09	0.51	1.69	2.70	95.8	0	350

DK0005R Keldsnor Denmark

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.93	0.71	0.68	2.37	0.04	0.15	0.83	2.21	5.25	54.7	0	200
NH3	0.41	0.29	0.25	3.78	0.00	0.01	0.38	0.98	1.37	54.4	23	199
NH4+	1.28	1.01	0.90	2.48	0.04	0.17	1.01	3.29	6.11	54.7	0	200
NO2	1.61	1.50	1.05	2.71	-0.13	0.20	1.17	4.56	13.09	93.1	684	8153
Na+	1.07	0.67	0.86	2.06	0.05	0.21	0.98	2.51	3.98	53.9	0	197
PM10	24.58	9.86	22.84	1.47	7.92	12.45	22.57	47.24	58.71	61.3	0	224
SO2	0.79	0.78	0.41	3.93	0.01	0.03	0.56	2.44	4.36	54.7	3	200
SO4--	0.84	0.54	0.68	1.99	0.12	0.17	0.72	1.80	3.15	54.7	0	200
SO4-- corr	0.76	0.55	0.55	2.48	0.02	0.08	0.64	1.76	3.08	53.9	0	197

DK0008R Anholt Denmark

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.79	0.78	0.52	2.50	0.05	0.12	0.53	2.47	5.80	98.5	0	360
NH3	0.14	0.18	0.06	4.80	0.00	0.00	0.09	0.42	1.98	98.5	129	360
NH4+	1.03	1.10	0.64	2.74	0.02	0.11	0.63	3.45	7.95	98.5	0	360
NO2	1.40	1.06	1.05	2.18	0.04	0.31	1.04	3.36	8.56	80.5	1	294
Na+	1.85	3.28	1.22	2.39	0.05	0.28	1.32	4.06	49.74	98.5	0	360
SO2	0.59	0.61	0.36	2.92	0.00	0.05	0.41	1.74	5.00	98.5	3	360
SO4--	0.82	0.58	0.66	2.00	0.00	0.24	0.67	1.94	4.63	98.5	0	360
SO4-- corr	0.67	0.56	0.47	2.53	0.00	0.07	0.52	1.79	3.41	98.5	0	360

DK0031R Ulborg Denmark

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.73	0.72	0.46	2.76	0.02	0.09	0.47	2.38	4.03	95.3	1	348
NH4+	1.09	1.09	0.65	2.98	0.03	0.10	0.68	3.25	6.37	95.5	0	349
Na+	1.51	1.33	0.97	2.80	0.05	0.16	1.20	4.24	7.51	95.0	0	347
SO2	0.27	0.33	0.15	2.95	0.00	0.03	0.14	0.99	1.95	95.0	7	347
SO4--	0.76	0.52	0.62	1.92	0.10	0.23	0.61	1.93	2.82	95.5	0	349
SO4-- corr	0.63	0.56	0.42	2.73	-0.12	0.06	0.48	1.91	2.79	95.0	0	347

EE0009R Lahemaa Estonia

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	3.12	2.37	2.54	1.87	0.60	1.00	2.50	7.40	20.20	97.5	0	356
SO2	2.11	3.08	1.30	2.54	0.10	0.30	1.40	5.64	26.00	97.3	0	355

EE0011R Vilsandi Estonia

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	3.06	2.18	2.44	1.97	0.50	0.80	2.50	7.70	12.50	94.5	0	345
SO2	1.16	1.46	0.72	2.56	0.10	0.20	0.70	4.92	9.20	94.5	0	345

ES0007R Viznar Spain

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.48	0.35	0.38	1.96	0.03	0.15	0.41	1.01	4.27	98.3	1	359
NH3+NH4+	1.09	0.84	0.79	2.36	0.01	0.20	0.82	2.86	3.65	97.7	1	357
NO2	2.15	2.08	1.52	2.28	0.10	0.44	1.42	6.31	18.70	95.6	0	8375
NO3-	0.47	0.21	0.42	1.60	0.09	0.18	0.44	0.87	1.34	95.0	0	347
PM10	21.77	18.08	17.00	2.04	2.00	5.00	19.00	48.00	191.00	94.4	0	345
PM25	10.88	6.24	9.21	1.83	2.00	3.00	10.00	21.00	49.00	89.8	0	328
SO2	0.39	0.42	0.29	2.04	0.08	0.11	0.26	1.03	7.68	96.6	0	8462
SO4--	0.74	0.43	0.62	1.79	0.14	0.24	0.60	1.68	2.59	95.0	0	347

ES0008R Niembro Spain

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.54	0.42	0.45	1.81	0.03	0.20	0.42	1.25	5.10	95.3	1	348
NH3	2.83	2.12	1.37	6.07	0.01	0.01	2.71	6.86	8.29	99.9	4	53
NH3+NH4+	1.80	2.53	0.61	5.18	0.01	0.06	0.51	6.10	21.69	98.5	7	360
NO2	2.09	1.99	1.50	2.23	0.06	0.42	1.44	6.08	19.06	97.6	0	8552
NO3-	0.43	0.30	0.35	1.89	0.08	0.12	0.37	1.03	2.10	92.2	0	337
PM10	17.30	10.82	14.67	1.78	2.00	5.00	15.00	38.15	84.00	92.0	0	336
PM25	9.03	7.60	7.05	1.97	1.00	3.00	7.00	23.00	63.00	91.2	0	333
SO2	2.56	3.80	1.23	3.36	0.08	0.19	1.15	9.49	66.05	97.9	0	8575
SO4--	1.14	1.05	0.87	1.98	0.18	0.33	0.77	3.40	8.71	92.2	0	337

ES0009R Campisabalos Spain

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++ (pm10)	0.59	0.61	0.36	2.86	0.01	0.07	0.34	1.89	4.17	96.6	1	353
Ca++ (pm2.5)	0.20	0.18	0.14	2.35	0.03	0.03	0.14	0.74	0.77	12.9	0	47
Cl- (pm10)	0.45	0.19	0.43	1.40	0.24	0.28	0.38	0.86	1.25	14.0	0	51
Cl- (pm2.5)	0.38	0.12	0.37	1.32	0.22	0.26	0.34	0.63	0.65	10.1	0	37
HNO3+NO3-	0.33	0.13	0.31	1.42	0.14	0.19	0.30	0.62	1.07	98.3	0	359
K+ (pm10)	0.13	0.11	0.09	2.57	0.01	0.02	0.09	0.35	0.63	96.6	5	353
K+ (pm2.5)	0.09	0.10	0.05	3.48	0.01	0.01	0.05	0.33	0.40	10.1	2	37
Mg++ (pm10)	0.038	0.034	0.027	2.388	0.001	0.004	0.029	0.090	0.313	96.6	1	353
Mg++ (pm2.5)	0.014	0.015	0.010	2.441	0.002	0.002	0.011	0.049	0.089	14.0	1	51
NH3	1.00	0.78	0.60	3.83	0.01	0.02	0.95	2.50	3.97	97.5	2	51
NH3+NH4+	1.23	0.71	1.00	2.10	0.01	0.29	1.11	2.55	3.34	98.5	2	360
NH4+ (pm10)	0.64	0.49	0.39	3.90	0.01	0.01	0.51	1.82	1.89	13.7	3	50
NH4+ (pm2.5)	0.62	0.51	0.33	5.03	0.01	0.01	0.53	1.82	1.88	8.2	3	30
NO2	1.01	0.94	0.81	1.88	0.06	0.29	0.81	2.23	20.62	94.5	0	8281
NO3- (pm10)	0.23	0.15	0.19	1.83	0.05	0.07	0.20	0.49	0.94	92.1	0	336
NO3- (pm2.5)	0.16	0.09	0.14	1.77	0.05	0.05	0.14	0.34	0.42	13.2	0	48
Na+ (pm10)	0.49	0.31	0.36	2.59	0.02	0.06	0.49	0.99	1.24	96.6	18	353
Na+ (pm2.5)	0.32	0.30	0.15	4.34	0.02	0.02	0.30	0.91	0.93	11.0	11	40
PM10	11.89	11.77	8.65	2.18	1.00	3.00	8.00	30.50	124.00	91.5	0	334
PM25	7.69	5.42	6.21	1.93	1.00	2.00	6.00	17.00	44.00	89.3	0	326
SO2	0.40	0.61	0.25	2.30	0.08	0.10	0.20	1.23	11.09	95.3	0	8344
SO4--(pm10)	0.54	0.33	0.45	1.79	0.11	0.18	0.45	1.16	2.12	92.1	0	336
SO4--(pm2.5)	0.58	0.42	0.45	2.06	0.13	0.14	0.47	1.54	1.55	6.3	0	23

ES0010R Cabo de Creus Spain

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.74	3.07	0.48	2.01	0.03	0.18	0.50	1.29	58.00	97.2	2	355
NH3+NH4+	1.48	0.81	1.23	1.97	0.08	0.35	1.38	2.95	4.33	96.9	0	354
NO2	1.34	1.06	1.05	2.00	0.07	0.33	1.05	3.35	11.96	98.2	0	8600
NO3-	0.54	0.37	0.44	1.91	0.08	0.15	0.41	1.17	2.43	94.7	0	346
PM10	20.60	7.99	19.17	1.47	5.00	10.00	19.00	35.75	61.00	94.2	0	344
PM25	11.65	6.65	10.04	1.73	2.00	4.00	10.00	25.00	47.00	92.8	0	339
SO2	0.38	0.44	0.27	2.12	0.08	0.10	0.24	1.08	6.30	98.4	0	8616
SO4--	1.25	0.81	1.03	1.88	0.20	0.38	0.97	2.91	4.23	94.7	0	346

ES0011R Barcarrola Spain

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.42	0.24	0.36	1.81	0.03	0.15	0.36	0.89	1.60	99.6	5	364
NH3+NH4+	1.06	0.92	0.64	3.20	0.01	0.09	0.75	2.96	3.87	99.9	6	365
NO2	1.31	0.95	1.06	1.94	0.08	0.34	1.11	2.94	12.92	95.4	0	8361
NO3-	0.34	0.17	0.31	1.56	0.09	0.16	0.29	0.70	1.02	96.4	0	352
PM10	18.98	14.09	15.75	1.82	4.00	6.00	16.00	39.35	181.00	96.4	0	352
PM25	10.20	6.23	8.50	1.86	2.00	3.00	8.00	20.00	44.00	95.0	0	347
SO2	0.70	0.89	0.44	2.52	0.08	0.12	0.39	2.22	17.19	97.5	0	8537
SO4--	0.79	0.58	0.65	1.84	0.18	0.27	0.60	2.07	3.80	96.4	0	352

ES0012R Zarra Spain

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.55	0.40	0.46	1.76	0.10	0.18	0.47	1.09	5.59	97.7	0	357
NH3+NH4+	1.84	0.95	1.56	1.89	0.01	0.59	1.65	3.55	4.91	99.4	1	363
NO2	1.08	0.73	0.92	1.73	0.16	0.40	0.90	2.38	8.14	93.4	0	8182
NO3-	0.41	0.23	0.36	1.67	0.08	0.16	0.36	0.91	1.88	97.7	0	357
PM10	15.33	12.58	12.12	1.98	2.00	4.00	13.00	34.00	141.00	97.7	0	357
PM25	7.80	4.58	6.59	1.83	1.00	2.00	7.00	16.00	37.00	96.4	0	352
SO2	0.42	0.47	0.31	2.04	0.08	0.12	0.27	1.17	10.51	95.4	0	8359
SO4--	0.86	0.59	0.69	1.96	0.15	0.24	0.69	2.23	2.98	97.7	0	357

ES0013R Penausende Spain

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.26	0.20	0.20	2.25	0.03	0.03	0.19	0.63	1.19	98.0	32	358
NH3+NH4+	1.42	0.92	1.09	2.47	0.01	0.24	1.21	3.34	5.14	98.5	7	360
NO2	1.33	1.06	1.06	1.94	0.14	0.37	1.05	3.20	11.90	98.6	0	8641
NO3-	0.30	0.19	0.26	1.67	0.08	0.11	0.25	0.69	1.38	92.5	0	338
PM10	12.85	12.87	9.83	2.00	2.00	4.00	9.50	29.00	143.00	93.1	0	340
PM25	7.74	6.15	6.00	2.05	1.00	2.00	6.00	19.00	49.00	95.8	0	350
SO2	0.81	1.30	0.49	2.45	0.08	0.16	0.41	2.66	25.80	98.8	0	8652
SO4--	0.63	0.40	0.53	1.74	0.14	0.22	0.51	1.40	3.47	92.5	0	338

ES0014R Els Torms Spain

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.60	0.43	0.47	2.23	0.03	0.11	0.52	1.44	3.84	98.8	9	361
NH3+NH4+	5.02	3.68	3.98	2.11	0.09	1.07	4.58	9.78	23.06	97.2	0	355
NO2	1.46	1.09	1.20	1.85	0.15	0.47	1.14	3.52	10.33	96.8	0	8482
NO3-	0.48	0.40	0.39	1.83	0.07	0.16	0.36	1.28	3.26	93.6	0	342
PM10	16.84	9.62	14.47	1.75	3.00	5.10	15.00	36.00	68.00	93.3	0	341
PM25	9.91	5.77	8.37	1.83	1.00	3.00	9.00	22.00	34.00	91.7	0	335
SO2	0.64	0.89	0.46	2.05	0.08	0.18	0.42	1.72	29.14	97.6	0	8548
SO4--	1.11	0.76	0.89	1.99	0.13	0.28	0.93	2.53	4.98	93.6	0	342

ES0015R Risco Llano Spain

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.39	0.23	0.32	2.01	0.03	0.08	0.34	0.79	1.67	97.2	11	355
NH3+NH4+	0.74	0.63	0.55	2.13	0.06	0.17	0.52	2.06	4.27	98.0	0	358
NO2	1.19	1.06	0.92	2.01	0.05	0.30	0.91	2.97	15.07	94.2	0	8254
NO3-	0.36	0.20	0.31	1.69	0.05	0.11	0.32	0.75	1.84	94.7	0	346
PM10	15.16	12.85	11.23	2.24	1.00	3.00	12.00	35.95	129.00	93.1	0	340
PM25	7.98	5.71	6.39	2.00	1.00	2.00	7.00	16.00	49.00	92.9	0	339
SO2	0.59	0.93	0.38	2.43	0.08	0.10	0.35	1.72	21.26	96.0	0	8412
SO4--	0.62	0.39	0.52	1.85	0.08	0.18	0.51	1.41	2.34	94.7	0	346

ES0016R O Saviłao Spain

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.33	0.20	0.28	1.90	0.03	0.13	0.27	0.71	1.95	95.3	11	348
NH3+NH4+	1.46	0.90	1.14	2.26	0.01	0.23	1.25	3.11	5.01	97.5	2	356
NO2	2.14	1.66	1.75	1.85	0.27	0.66	1.71	4.81	17.29	97.2	0	8517
NO3-	0.25	0.20	0.21	1.73	0.05	0.10	0.20	0.59	2.44	89.8	0	328
PM10	13.62	10.84	11.10	1.84	3.00	5.00	11.00	32.00	93.00	89.0	0	325
PM25	9.52	7.16	7.28	2.11	1.00	2.00	7.00	23.00	45.00	79.4	0	290
SO2	1.47	3.23	0.66	3.13	0.08	0.14	0.57	5.56	86.50	98.0	0	8585
SO4--	0.88	0.69	0.68	2.03	0.18	0.23	0.66	2.25	4.71	89.8	0	328

FI0009R Uto Finland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.38	0.35	0.26	2.39	0.02	0.06	0.29	1.02	2.92	97.5	0	356
NH3+NH4+	0.43	0.46	0.26	3.05	0.00	0.04	0.30	1.37	2.91	96.1	3	351
NO2	1.42	1.16	1.10	2.07	-0.01	0.32	1.11	3.47	22.60	70.4	0	6164
SO2	0.45	0.41	0.33	2.13	0.04	0.11	0.31	1.18	3.50	93.6	0	342
SO4--	0.52	0.38	0.40	2.13	0.05	0.10	0.43	1.37	2.48	97.5	0	356

FI0017R Virolahti II Finland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.30	0.29	0.22	2.28	0.03	0.06	0.22	0.80	2.25	99.1	0	362
NH3+NH4+	0.54	0.50	0.39	2.26	0.04	0.10	0.40	1.36	5.28	96.1	0	351
NO2	1.46	1.32	1.08	2.23	-0.02	0.28	1.09	3.91	24.89	92.8	0	8131
SO2	0.64	0.72	0.37	3.05	0.01	0.06	0.38	2.21	4.50	95.5	1	349
SO4--	0.61	0.50	0.45	2.27	0.02	0.10	0.43	1.60	2.84	99.1	0	362

FI0022R Oulanka Finland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.08	0.06	0.06	2.02	0.02	0.02	0.05	0.23	0.31	100.0	0	53
NH3+NH4+	0.21	0.17	0.15	2.11	0.04	0.05	0.12	0.68	0.74	94.2	0	50
NO2	0.26	0.27	0.17	2.67	-0.03	0.03	0.17	0.80	4.71	97.5	0	8543
SO2	0.32	0.38	0.16	3.50	0.01	0.02	0.14	1.35	1.66	96.2	0	51
SO4--	0.39	0.26	0.32	1.87	0.05	0.12	0.34	0.84	1.53	100.0	0	53

FI0037R Ahtari II Finland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.17	0.12	0.14	1.90	0.03	0.05	0.15	0.47	0.56	100.0	0	53
NH3+NH4+	0.37	0.22	0.31	1.74	0.10	0.12	0.31	0.92	1.03	98.1	0	52
NO2	0.67	0.66	0.47	2.41	-0.03	0.11	0.49	1.79	9.97	98.9	0	8660
SO2	0.30	0.35	0.19	2.60	0.00	0.04	0.16	1.23	1.66	96.2	1	51
SO4--	0.47	0.29	0.39	1.79	0.11	0.16	0.36	0.95	1.71	100.0	0	53

FR0001R Vert-Le-Petit France

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	1.21	1.23	0.75	2.73	0.16	0.18	0.77	4.03	6.16	90.3	82	330
SO4--	0.76	0.47	0.64	1.80	0.04	0.26	0.63	1.63	3.27	89.8	1	328

FR0008R Donon France

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	0.53	0.47	0.40	2.08	0.14	0.18	0.42	1.37	3.40	99.1	164	362
SO4--	0.59	0.34	0.52	1.69	0.12	0.22	0.52	1.21	2.28	99.1	0	362

FR0009R Revin France

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	0.87	2.59	0.49	2.43	0.16	0.17	0.46	1.92	45.06	93.9	130	343
SO4--	0.84	0.45	0.74	1.64	0.23	0.33	0.72	1.68	3.07	89.8	0	328

FR0010R Morvan France

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	0.44	0.35	0.34	1.96	0.12	0.17	0.23	1.18	2.36	97.7	191	357
SO4--	0.60	0.34	0.52	1.73	0.13	0.20	0.55	1.31	2.46	97.7	0	357

FR0012R Iraty France

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	0.58	0.74	0.39	2.29	0.12	0.16	0.39	1.67	8.85	99.9	165	365
SO4--	0.54	0.39	0.44	1.95	0.04	0.13	0.47	1.11	5.16	99.9	1	365

FR0013R Peyrusse Vieille France

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	0.65	0.74	0.45	2.26	0.12	0.15	0.46	1.91	6.35	97.2	118	355
SO4--	0.70	0.44	0.59	1.80	0.13	0.22	0.58	1.63	3.04	97.2	0	355

FR0014R Montandon France

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	0.30	0.41	0.24	1.75	0.14	0.15	0.18	0.73	6.44	88.1	219	322
SO4--	0.45	0.30	0.39	1.67	0.12	0.17	0.38	0.97	2.90	89.2	0	326

FR0015R La TardiΦre France

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	0.51	0.49	0.39	1.97	0.12	0.17	0.42	1.16	6.88	99.9	127	365
SO4--	0.73	0.40	0.64	1.67	0.04	0.30	0.62	1.55	2.59	99.3	1	363

FR0016R Le Casset France

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	0.27	0.25	0.24	1.55	0.09	0.15	0.21	0.55	4.12	93.0	278	340
SO4--	0.38	0.29	0.30	1.91	0.04	0.11	0.30	0.88	2.90	92.8	4	339

FR0017R Montfranc France

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	0.37	0.32	0.29	1.92	0.14	0.15	0.18	0.98	2.91	97.7	195	357
SO4--	0.63	0.38	0.54	1.78	0.04	0.21	0.55	1.37	2.71	98.0	1	358

GB0002R Eskdalemuir United Kingdom

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	0.21	0.13	0.18	1.86	0.07	0.07	0.20	0.52	0.52	100.0	0	13
SO4--	0.38	0.41	0.26	2.21	0.02	0.09	0.23	1.20	2.69	96.6	0	353

GB0006R Lough Navar United Kingdom

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	0.05	0.03	0.04	1.67	0.02	0.02	0.04	0.11	0.11	99.9	0	12
NH3	0.36	0.15	0.33	1.59	0.12	0.12	0.35	0.70	0.70	99.9	0	12
NH4+	0.40	0.31	0.31	2.14	0.07	0.07	0.27	0.93	0.93	99.9	0	12
NO3-	0.21	0.20	0.15	2.41	0.04	0.04	0.14	0.64	0.64	99.9	0	12
SO2	0.09	0.06	0.07	1.82	0.03	0.03	0.07	0.20	0.20	100.0	0	13
SO4--	0.36	0.36	0.28	2.01	0.01	0.11	0.24	1.26	2.44	95.8	1	350

GB0007R Barcomb Mills United Kingdom

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO4--	0.76	0.52	0.60	2.12	0.01	0.18	0.64	1.63	4.10	92.0	0	336

GB0013R Yarner Wood United Kingdom

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	0.17	0.05	0.16	1.39	0.08	0.08	0.18	0.25	0.25	99.9	0	12
NH3	0.59	0.64	0.44	2.07	0.19	0.19	0.43	2.53	2.53	99.9	0	12
NH4+	0.73	0.39	0.65	1.68	0.25	0.25	0.57	1.53	1.53	99.9	0	12
NO3-	0.44	0.21	0.40	1.62	0.20	0.20	0.41	0.86	0.86	99.9	0	12
SO2	0.34	0.13	0.31	1.53	0.12	0.12	0.32	0.59	0.59	92.3	0	13
SO4--	0.55	0.47	0.41	2.18	0.02	0.14	0.41	1.43	3.78	75.1	0	274

GB0014R High Muffles United Kingdom

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	0.20	0.04	0.19	1.24	0.14	0.14	0.20	0.30	0.30	99.9	0	12
NH3	0.57	0.26	0.52	1.50	0.28	0.28	0.55	1.25	1.25	99.9	0	12
NH4+	0.84	0.40	0.76	1.59	0.34	0.34	0.65	1.60	1.60	99.9	0	12
NO2	2.29	1.93	1.67	2.27	0.15	0.40	1.64	6.03	10.96	87.7	0	320
NO3-	0.50	0.24	0.45	1.58	0.24	0.24	0.40	0.93	0.93	99.9	0	12
SO4--	0.53	0.41	0.40	2.23	0.02	0.15	0.39	1.46	2.07	59.9	0	219

GB0015R Strathvaich Dam United Kingdom

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO2	0.07	0.07	0.06	2.04	0.02	0.02	0.06	0.30	0.30	100.0	0	14

GB0016R Glen Dye United Kingdom

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	0.08	0.04	0.07	1.94	0.02	0.02	0.08	0.16	0.16	99.9	0	12
NH3	0.23	0.09	0.21	1.55	0.11	0.11	0.26	0.36	0.36	99.9	0	12
NH4+	0.35	0.24	0.28	1.96	0.08	0.08	0.24	0.79	0.79	99.9	0	12
NO3-	0.22	0.15	0.18	2.04	0.05	0.05	0.15	0.47	0.47	99.9	0	12

GR0001R Aliartos Greece

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	12.15	9.72	9.09	2.21	1.00	3.00	9.00	33.00	79.00	83.0	0	7267

HU0002R K-Puszta Hungary

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	0.24	0.21	0.19	2.07	0.01	0.07	0.19	0.51	2.08	98.3	2	359
NH3	1.43	0.86	1.05	2.72	0.02	0.17	1.41	2.91	3.82	98.3	8	359
NH4+	1.35	1.30	0.85	2.95	0.00	0.11	0.95	4.37	6.80	98.3	3	359
NO2	1.41	0.76	1.25	1.59	0.46	0.65	1.17	3.10	5.37	84.3	0	308
NO3-	0.69	0.73	0.45	2.53	0.04	0.10	0.40	2.40	4.67	98.3	0	359
SO2	1.15	1.82	0.65	2.92	0.03	0.12	0.64	3.35	23.08	98.3	0	359
SO4--	1.38	1.29	1.03	2.12	0.05	0.30	1.08	3.51	12.81	98.3	0	359

IE0001R Valentia Obs. Ireland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.17	0.41	0.12	2.27	0.03	0.03	0.13	0.39	7.69	99.6	45	364
HNO3+NO3-	0.38	0.80	0.17	3.09	0.02	0.04	0.13	1.36	9.90	99.9	0	365
K+	0.09	0.07	0.07	2.11	0.03	0.03	0.07	0.23	0.46	99.6	102	364
Mg++	0.224	0.232	0.131	3.057	0.025	0.025	0.150	0.688	1.340	99.6	84	364
NH3+NH4+	1.08	1.01	0.84	1.97	0.00	0.33	0.75	2.84	11.93	99.9	1	365
NO2	0.94	1.08	0.62	2.49	0.05	0.10	0.60	2.57	11.60	99.9	4	365
Na+	1.73	1.79	0.98	3.48	0.03	0.08	1.15	5.14	13.52	99.6	12	364
SO2	0.23	0.24	0.16	2.38	0.01	0.05	0.13	0.76	1.58	99.9	6	365
SO4--	0.37	0.43	0.21	3.52	0.01	0.01	0.29	1.02	6.08	99.6	28	364
SO4-- corr	0.22	0.42	0.10	4.40	-0.35	-0.01	0.08	0.88	5.85	99.6	28	364

IS0002R Irafoss Iceland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO4--	0.15	0.14	0.11	2.75	0.00	0.01	0.12	0.43	1.07	97.2	4	355

IS0091R Storhofdi Iceland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Cl-	9.75	4.87	8.69	1.61	3.60	3.77	8.95	22.00	22.90	99.8	0	24
NO3-	0.05	0.05	0.04	2.14	0.01	0.01	0.04	0.23	0.28	99.8	0	24
SO4--	0.53	0.22	0.49	1.48	0.26	0.26	0.45	1.01	1.04	99.8	0	24
SO4-- corr	0.07	0.09	0.07	3.10	-0.04	-0.04	0.05	0.29	0.31	99.8	0	24

IT0001R Montelibretti Italy

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	0.17	0.14	0.13	2.29	0.02	0.03	0.13	0.46	0.67	95.6	0	349
NH3	1.42	0.69	1.25	1.74	0.18	0.43	1.40	2.60	5.64	95.6	0	349
NH4+	1.06	0.62	0.90	1.75	0.20	0.36	0.92	2.33	4.01	95.6	0	349
NO2	4.97	2.08	4.57	1.52	1.40	2.24	4.70	9.50	13.70	89.6	0	327
NO3-	0.57	0.42	0.45	1.95	0.06	0.15	0.46	1.37	3.34	94.0	0	343
PM10	28.68	12.39	25.85	1.61	4.70	10.47	27.10	52.23	66.80	91.2	0	333
SO2	0.49	0.35	0.39	2.06	0.04	0.10	0.41	1.17	2.47	95.6	0	349
SO4--	0.82	0.53	0.64	2.11	0.04	0.16	0.71	1.82	2.91	95.6	0	349

IT0004R Ispra Italy

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NH4+ (pm10)	2.66	2.59	1.64	3.00	0.05	0.19	1.88	8.46	15.85	87.7	0	320
NH4+ (pm2.5)	2.18	2.06	1.36	2.95	0.02	0.17	1.58	6.99	11.14	95.6	0	349
NO2	5.69	3.63	4.68	1.89	0.83	1.59	4.48	12.85	18.19	98.3	0	359
NO3- (pm10)	1.66	2.09	0.71	4.33	0.02	0.07	0.94	6.10	13.23	88.2	0	322
NO3- (pm2.5)	1.23	1.61	0.46	5.03	0.00	0.02	0.56	4.94	8.94	94.8	0	346
PM10	40.35	28.42	29.87	2.39	0.80	5.57	34.12	100.72	147.87	88.2	0	322
PM25	29.79	23.38	21.10	2.46	1.10	4.21	23.51	77.08	111.69	95.6	0	349
SO2	1.54	1.02	1.06	2.94	0.00	0.09	1.40	3.17	4.77	91.1	0	333
SO4--(pm10)	1.41	1.03	1.03	2.40	0.04	0.22	1.21	3.30	5.39	88.2	0	322
SO4--(pm2.5)	1.17	0.83	0.87	2.34	0.04	0.20	1.00	2.79	4.34	95.6	0	349

LT0015R Preila Lithuania

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.63	0.49	0.48	2.15	0.02	0.13	0.45	1.69	2.68	99.9	0	365
NH3+NH4+	1.93	1.16	1.56	2.03	0.08	0.47	1.73	4.23	5.57	99.9	0	365
NO2	1.21	0.74	1.05	1.72	0.13	0.44	1.02	2.69	5.82	99.9	0	365
SO2	0.74	1.02	0.43	2.75	0.01	0.09	0.37	3.10	7.23	99.9	0	365
SO4--	0.78	0.60	0.60	2.11	0.02	0.15	0.59	1.85	4.23	99.9	0	365
SPM	16.13	11.97	12.80	1.96	2.60	4.69	12.08	41.47	69.72	99.9	0	365

LV0010R Rucava Latvia

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.42	0.39	0.31	2.24	0.02	0.09	0.29	1.31	2.36	98.5	0	360
K+	0.10	0.13	0.07	2.08	0.04	0.04	0.05	0.50	0.50	91.4	4	11
Mg++	0.017	0.010	0.015	1.766	0.005	0.005	0.020	0.040	0.040	91.4	1	11
NH3+NH4+	0.99	0.67	0.79	2.04	0.10	0.21	0.83	2.43	3.93	98.5	0	360
NO2	0.83	0.56	0.69	1.84	0.04	0.27	0.68	1.94	4.87	98.8	3	361
NO3-	0.11	0.17	0.06	2.97	0.01	0.01	0.05	0.39	1.30	97.7	6	357
Na+	0.22	0.10	0.20	1.50	0.09	0.09	0.19	0.48	0.48	91.4	0	11
SO2	0.77	0.88	0.46	2.82	0.01	0.08	0.47	2.52	6.84	97.8	3	357
SO4--	0.37	0.37	0.23	2.81	0.01	0.03	0.27	1.11	2.58	98.5	17	360

LV0016R Zoseni Latvia

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.27	0.24	0.19	2.25	0.02	0.05	0.20	0.78	1.92	99.6	0	364
NH3+NH4+	0.98	0.66	0.83	1.78	0.16	0.30	0.84	2.15	5.51	99.9	0	365
NH4+	0.67	0.51	0.52	2.11	0.03	0.15	0.54	1.67	4.17	99.9	9	365
NO2	0.59	0.47	0.45	2.23	0.03	0.09	0.48	1.41	3.36	99.6	19	364
NO3-	0.06	0.10	0.04	2.25	0.01	0.01	0.03	0.15	1.14	99.4	1	363
SO2	0.54	0.47	0.40	2.14	0.03	0.12	0.37	1.60	2.91	99.6	1	364
SO4--	0.38	0.30	0.29	2.20	0.01	0.08	0.30	1.05	1.64	99.9	2	365

NL0009R Kollumerwaard Netherlands

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.09	0.06	0.08	1.92	0.01	0.03	0.08	0.20	0.31	46.3	0	169
NH4+	1.24	0.99	0.94	2.16	-0.09	0.25	1.00	3.10	8.66	97.0	0	354
NO2	3.38	3.29	2.04	3.15	-0.32	0.23	2.35	10.45	20.61	93.8	0	8219
NO3-	0.75	0.71	0.66	2.20	0.00	0.00	0.56	2.18	5.43	97.0	0	354
SO2	0.55	0.71	0.43	3.15	-0.87	-0.20	0.40	1.89	7.94	99.3	0	8700
SO4--	0.65	0.54	0.55	2.03	-0.01	0.00	0.51	1.57	3.84	97.0	0	354

NL0010R Vreedepeel Netherlands

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NH3	14.85	8.71	12.48	1.85	1.85	4.21	13.09	33.09	51.38	80.0	0	292
NH4+	1.62	1.07	1.30	2.02	-0.03	0.37	1.38	3.71	5.77	94.8	0	346
NO2	6.42	4.03	5.22	1.96	0.41	1.68	5.39	14.43	31.64	96.5	0	8451
NO3-	1.00	0.76	0.80	2.15	0.00	0.13	0.73	2.50	3.64	94.8	0	346
SO2	1.05	1.43	0.70	3.17	-0.63	-0.15	0.63	3.67	20.40	99.8	0	8740
SO4--	0.80	0.61	0.65	2.11	-0.19	0.12	0.64	2.04	3.58	94.8	0	346

NO0001R Birkenes Norway

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.06	0.09	0.03	3.59	0.01	0.01	0.03	0.26	0.81	98.8	90	361
Cl-	0.39	0.82	0.10	5.86	0.01	0.01	0.09	1.72	9.22	98.3	86	359
HNO3	0.09	0.11	0.04	3.44	0.01	0.01	0.05	0.35	0.72	96.1	132	351
HNO3+NO3-	0.33	0.46	0.17	3.12	0.02	0.03	0.15	1.43	2.57	95.8	0	350
K+	0.05	0.06	0.03	2.89	0.01	0.01	0.04	0.15	0.59	98.8	51	361
Mg++	0.056	0.072	0.029	3.390	0.005	0.005	0.030	0.200	0.670	98.8	83	361
NH3	0.34	0.24	0.28	1.93	0.02	0.09	0.28	0.77	1.75	96.1	1	351
NH3+NH4+	0.75	0.72	0.52	2.37	0.06	0.14	0.50	2.53	4.09	96.1	0	351
NO2	0.46	0.58	0.29	2.55	0.01	0.07	0.29	1.36	6.63	99.9	6	365
NO3-	0.24	0.40	0.10	3.70	0.01	0.01	0.10	1.29	2.38	95.8	11	350
Na+	0.46	0.59	0.23	3.64	0.01	0.02	0.25	1.66	5.67	98.8	9	361
PM10	6.77	6.25	5.58	2.64	0.21	1.50	5.90	19.80	46.05	92.3	1	311
PM10-PM25	2.67	2.51	1.59	3.40	0.01	0.10	1.99	7.22	15.52	85.4	25	312
PM25	4.07	4.64	3.19	3.25	0.30	1.00	3.30	13.89	33.62	93.7	18	325
SO2	0.19	0.23	0.12	2.55	0.01	0.03	0.11	0.58	1.88	98.8	8	361
SO4--	0.46	0.51	0.26	3.29	0.01	0.03	0.28	1.38	2.76	98.6	4	360
SO4-- corr	0.42	0.50	0.21	3.87	-0.00	0.02	0.23	1.33	2.70	98.6	4	360

NO0015R Tustervatn Norway

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.04	0.07	0.02	2.93	0.00	0.01	0.02	0.11	0.84	98.8	103	361
Cl-	0.36	0.60	0.08	6.47	0.01	0.01	0.08	1.66	3.93	99.4	119	363
HNO3	0.04	0.06	0.02	2.82	0.01	0.01	0.01	0.16	0.37	95.0	210	347
HNO3+NO3-	0.10	0.12	0.07	2.31	0.02	0.02	0.06	0.30	1.14	86.0	0	314
K+	0.02	0.03	0.01	2.56	0.00	0.01	0.02	0.07	0.19	99.4	116	363
Mg++	0.033	0.046	0.016	3.274	0.000	0.005	0.010	0.130	0.260	99.1	153	362
NH3	0.86	0.68	0.65	2.13	0.09	0.18	0.66	2.08	4.43	94.5	0	345
NH3+NH4+	1.00	0.72	0.80	1.97	0.11	0.25	0.81	2.53	5.19	85.4	0	312
NH4+	0.12	0.17	0.05	4.00	0.00	0.01	0.06	0.42	1.30	86.0	45	314
NO2	0.14	0.12	0.10	2.51	0.01	0.01	0.11	0.38	0.83	95.8	39	350
NO3-	0.06	0.09	0.04	3.06	0.01	0.01	0.04	0.22	0.97	86.0	46	314
Na+	0.28	0.37	0.12	4.45	0.01	0.01	0.13	1.08	2.33	99.1	26	362
SO2	0.08	0.07	0.06	1.88	0.01	0.03	0.06	0.20	0.76	99.4	6	363
SO4--	0.21	0.25	0.13	3.11	0.01	0.02	0.13	0.67	2.12	99.4	13	363
SO4-- corr	0.20	0.25	0.09	4.13	-0.01	0.00	0.11	0.66	2.12	99.4	13	363

NO0039R Kaarvatn Norway

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.03	0.06	0.01	2.94	0.01	0.01	0.01	0.14	0.49	99.9	143	365
Cl-	0.18	0.36	0.05	4.98	0.01	0.01	0.03	0.72	2.88	97.7	149	357
HNO3	0.06	0.08	0.03	3.12	0.01	0.01	0.02	0.24	0.49	94.7	166	346
HNO3+NO3-	0.14	0.25	0.07	2.85	0.01	0.02	0.06	0.56	2.30	84.0	0	307
K+	0.02	0.03	0.01	2.62	0.01	0.01	0.02	0.07	0.28	99.9	118	365
Mg++	0.021	0.028	0.012	2.695	0.005	0.005	0.010	0.077	0.220	99.9	179	365
NH3	0.49	0.25	0.43	1.73	0.02	0.17	0.45	0.95	2.06	94.5	1	345
NH3+NH4+	0.65	0.40	0.56	1.78	0.07	0.22	0.59	1.38	3.61	83.8	0	306
NH4+	0.15	0.27	0.05	4.75	0.01	0.01	0.06	0.52	2.89	84.3	60	308
NO2	0.22	0.17	0.18	1.88	0.04	0.06	0.18	0.51	2.12	99.9	0	365
NO3-	0.09	0.20	0.04	3.43	0.01	0.01	0.04	0.36	2.09	84.0	42	307
Na+	0.18	0.23	0.09	3.72	0.01	0.01	0.11	0.61	1.88	99.9	25	365
SO2	0.07	0.07	0.05	1.97	0.01	0.02	0.05	0.17	0.80	99.9	16	365
SO4--	0.18	0.19	0.11	3.14	0.01	0.01	0.13	0.57	1.26	98.6	11	360
SO4-- corr	0.17	0.19	0.09	3.80	-0.05	0.01	0.11	0.57	1.25	98.6	11	360

NO0042G Zeppelin, Spitsbergen Norway

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.06	0.18	0.02	3.33	0.01	0.01	0.02	0.16	2.33	97.7	101	357
Cl-	0.29	0.43	0.10	5.11	0.01	0.01	0.11	1.33	2.50	98.0	79	358
HNO3	0.06	0.12	0.03	2.87	0.01	0.01	0.01	0.29	0.96	95.5	245	349
HNO3+NO3-	0.15	0.32	0.06	3.09	0.01	0.02	0.04	0.73	2.28	95.5	0	349
K+	0.02	0.02	0.01	2.41	0.01	0.01	0.01	0.05	0.28	97.7	151	357
Mg++	0.040	0.056	0.020	3.333	0.005	0.005	0.020	0.131	0.590	97.7	123	357
NH3	0.32	0.20	0.27	1.77	0.06	0.11	0.26	0.70	1.42	97.5	0	356
NH3+NH4+	0.42	0.36	0.34	1.82	0.09	0.15	0.31	1.08	2.73	97.5	0	356
NH4+	0.10	0.21	0.04	3.81	0.01	0.01	0.03	0.54	1.79	97.5	56	356
NO3-	0.09	0.23	0.03	3.90	0.01	0.01	0.03	0.52	1.64	97.7	69	357
Na+	0.27	0.26	0.17	3.02	0.01	0.02	0.19	0.83	1.50	97.7	8	357
SO2	0.13	0.21	0.08	2.54	0.01	0.01	0.07	0.43	1.89	95.8	28	350
SO4--	0.18	0.18	0.12	2.84	0.01	0.02	0.13	0.49	1.56	98.0	14	358
SO4-- corr	0.16	0.17	0.10	3.43	-0.02	0.01	0.12	0.47	1.52	98.0	14	358

NO0055R Karasjok Norway

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.03	0.10	0.01	2.93	0.01	0.01	0.01	0.10	1.42	99.9	134	365
Cl-	0.23	0.40	0.07	5.01	0.01	0.01	0.07	1.06	3.42	98.0	106	358
HNO3	0.05	0.08	0.02	3.15	0.01	0.01	0.01	0.22	0.51	96.1	210	351
HNO3+NO3-	0.11	0.15	0.07	2.54	0.01	0.02	0.06	0.41	1.26	96.1	0	351
K+	0.03	0.04	0.02	2.52	0.01	0.01	0.02	0.07	0.53	99.9	85	365
Mg++	0.025	0.038	0.013	2.919	0.005	0.005	0.010	0.097	0.340	99.9	165	365
NH3+NH4+	0.69	0.47	0.57	1.81	0.09	0.23	0.54	1.54	3.43	87.6	0	320
NH4+	0.16	0.21	0.06	4.50	0.01	0.01	0.08	0.62	1.26	96.1	51	351
NO2	0.17	0.13	0.12	2.42	0.01	0.01	0.14	0.42	0.77	99.7	26	364
NO3-	0.06	0.09	0.04	2.86	0.01	0.01	0.03	0.20	0.81	96.1	39	351
Na+	0.21	0.25	0.12	2.99	0.01	0.02	0.14	0.75	1.96	99.9	4	365
SO2	0.31	0.61	0.12	3.40	0.01	0.03	0.08	1.48	5.30	99.9	5	365
SO4--	0.30	0.33	0.17	3.26	0.01	0.03	0.19	1.05	2.27	99.9	11	365
SO4-- corr	0.29	0.33	0.16	3.54	-0.06	0.02	0.17	1.03	2.27	99.9	11	365

PL0002R Jarczew Poland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.84	0.59	0.69	1.85	0.10	0.27	0.69	1.99	4.28	97.5	0	356
NH3+NH4+	2.86	1.73	2.47	1.68	0.66	1.06	2.30	6.31	11.44	98.0	0	358
NH4+	1.59	1.05	1.31	1.89	0.16	0.44	1.35	3.41	8.17	98.0	0	358
NO2	2.75	1.16	2.52	1.52	0.70	1.20	2.60	4.86	8.80	96.6	0	353
NO3-	0.71	0.57	0.55	2.07	0.07	0.18	0.52	1.85	4.08	97.5	0	356
SO2	2.21	1.96	1.45	2.73	0.10	0.20	1.70	6.51	10.00	97.5	7	356
SO4--	1.58	0.81	1.37	1.80	0.10	0.47	1.44	3.17	4.98	98.3	3	359

PL0003R Sniezka Poland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.32	0.20	0.26	1.93	0.04	0.08	0.27	0.71	1.37	99.9	0	365
NH3+NH4+	0.75	0.47	0.61	2.03	0.03	0.17	0.65	1.70	3.06	99.9	1	365
NH4+	0.57	0.38	0.45	2.21	0.03	0.10	0.49	1.37	2.44	99.9	8	365
NO2	1.10	0.65	0.92	1.89	0.20	0.30	0.90	2.30	3.60	99.9	0	365
NO3-	0.23	0.15	0.18	1.98	0.03	0.06	0.19	0.54	0.93	99.9	0	365
SO2	1.09	0.65	0.91	1.89	0.20	0.30	1.00	2.37	3.70	99.9	0	365
SO4--	0.78	0.50	0.62	2.10	0.10	0.10	0.66	1.71	3.15	99.9	26	365

PL0004R Leba Poland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.62	0.51	0.46	2.24	0.04	0.10	0.46	1.59	3.59	99.9	0	365
NH3+NH4+	1.56	1.00	1.24	2.05	0.10	0.33	1.33	3.30	6.28	99.9	0	365
NH4+	1.02	0.79	0.75	2.30	0.03	0.17	0.79	2.52	4.82	99.9	2	365
NO2	1.72	1.07	1.45	1.81	0.30	0.50	1.50	4.00	8.10	98.6	0	360
NO3-	0.48	0.48	0.32	2.62	0.01	0.06	0.33	1.39	3.55	99.9	2	365
SO2	1.25	1.23	0.85	2.53	0.10	0.10	0.90	3.74	10.20	99.9	25	365
SO4--	1.30	0.64	1.14	1.74	0.10	0.47	1.20	2.45	3.57	99.9	3	365

PL0005R Diabla Gora Poland

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.64	0.64	0.44	2.32	0.08	0.12	0.43	1.89	5.34	93.4	0	341
NH3+NH4+	1.33	0.79	1.17	1.63	0.26	0.56	1.11	3.29	5.42	93.4	0	341
NO2	0.66	0.30	0.61	1.44	0.15	0.35	0.59	1.12	3.46	99.7	0	364
PM10	18.95	10.28	16.61	1.67	4.98	7.69	15.85	38.01	58.10	98.6	0	360
SO2	0.66	0.96	0.37	2.81	0.04	0.08	0.36	2.51	8.68	93.4	0	341
SO4--	0.66	0.45	0.52	2.07	0.06	0.15	0.57	1.61	2.76	93.4	0	341

RU0001R Janiskoski Russian Federation

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NH4+	0.47	0.46	0.26	4.12	0.00	0.01	0.38	1.40	3.34	81.9	0	299
NO3-	0.16	0.30	0.08	3.11	0.00	0.01	0.08	0.59	2.70	81.9	0	299
SO2	2.62	5.44	0.62	5.38	0.00	0.06	0.43	14.60	37.60	81.9	0	299
SO4--	1.27	1.51	0.68	3.36	0.00	0.08	0.76	4.65	9.94	81.9	0	299

RU0016R Shepeljovo Russian Federation

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NH4+	0.54	0.33	0.39	2.80	0.01	0.04	0.51	1.15	1.58	57.3	0	209
NO3-	0.33	0.38	0.21	3.01	0.00	0.01	0.22	0.99	3.77	57.3	0	209
SO2	0.80	1.37	0.34	3.51	0.06	0.06	0.27	3.95	8.61	57.3	0	209
SO4--	1.15	1.34	0.66	3.06	0.03	0.09	0.69	4.38	8.37	57.3	0	209

SE0005R Bredkalen Sweden

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.09	0.19	0.05	2.77	0.00	0.01	0.04	0.33	1.99	99.7	17	364
NH3+NH4+	0.23	0.41	0.10	3.71	0.01	0.01	0.12	0.84	5.94	99.7	84	364
NO2	0.12	0.14	0.08	2.24	0.05	0.05	0.05	0.41	1.15	99.7	270	364
SO2	0.06	0.10	0.02	3.36	0.01	0.01	0.01	0.28	0.69	99.7	228	364
SO4--	0.22	0.28	0.12	2.98	0.00	0.02	0.12	0.76	2.10	99.7	3	364
SPM	0.58	0.76	0.44	1.73	0.38	0.38	0.38	2.40	6.04	99.9	337	365

SE0008R Hoburg Sweden

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	1.04	0.71	0.82	2.10	0.05	0.27	0.86	2.40	5.19	99.7	7	364
SO2	0.70	0.75	0.46	2.67	0.01	0.10	0.52	2.15	6.93	99.7	4	364
SO4--	0.66	0.47	0.50	2.27	0.00	0.11	0.57	1.62	2.87	99.9	1	365
SPM	1.97	3.00	0.91	3.23	0.38	0.38	0.38	7.53	22.79	99.9	224	365

SE0011R Vavihill Sweden

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.60	0.63	0.41	2.45	0.00	0.08	0.39	1.71	6.51	93.4	3	341
NH3+NH4+	1.25	1.10	0.88	2.48	0.01	0.19	0.90	3.38	7.54	93.4	2	341
NO2	1.48	1.15	1.20	1.84	0.31	0.50	1.15	3.92	10.63	94.7	0	346
PM10	15.18	9.64	13.58	1.98	4.52	6.23	13.15	36.50	86.30	82.2	139	7017
PM25	10.95	7.70	9.72	2.10	3.64	5.35	8.93	28.20	66.60	82.5	296	7045
SO2	0.49	0.64	0.29	2.83	0.01	0.06	0.30	1.89	5.25	93.4	7	341
SO4--	0.61	0.46	0.46	2.29	0.00	0.09	0.49	1.57	3.02	93.4	2	341
SPM	2.32	3.38	1.07	3.36	0.38	0.38	0.38	9.50	26.78	94.7	185	346

SE0012R Aspvreten Sweden

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10	9.59	7.44	8.44	2.54	1.94	3.79	8.07	24.18	79.40	98.6	918	8483
PM25	9.64	7.34	8.29	2.16	2.32	3.94	7.81	24.80	65.40	90.7	418	7863

SE0014R Rσ÷ Sweden

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	0.63	0.60	0.43	2.49	0.00	0.10	0.43	1.90	4.10	95.5	2	349
NH3+NH4+	0.95	0.86	0.64	2.56	0.01	0.13	0.68	2.74	5.59	96.1	2	351
NO2	1.49	0.91	1.27	1.74	0.34	0.53	1.24	3.47	6.41	98.8	0	361
SO2	0.53	0.44	0.38	2.61	0.01	0.08	0.41	1.37	3.05	95.8	12	350
SO4--	0.70	0.50	0.52	2.49	0.00	0.08	0.59	1.66	3.32	96.4	4	352
SPM	1.70	2.65	0.78	3.08	0.38	0.38	0.38	8.29	14.45	98.6	246	360

SE0035R Vindeln Sweden

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10	7.81	5.80	5.90	2.32	0.75	0.75	6.50	18.26	66.70	98.1	855	8593

SI0008R Iskrba Slovenia

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	0.13	0.15	0.07	3.41	0.00	0.00	0.08	0.40	1.39	98.3	26	359
Cl-	0.03	0.06	0.01	3.58	0.00	0.00	0.01	0.15	0.43	27.4	41	100
HNO3+NO3-	0.43	0.49	0.26	3.01	0.00	0.04	0.27	1.55	3.28	98.3	0	359
K+	0.15	0.14	0.10	2.73	0.00	0.02	0.11	0.51	0.83	53.9	7	197
Mg++	0.024	0.029	0.014	3.189	0.002	0.002	0.015	0.079	0.215	98.3	72	359
NH3+NH4+	1.28	1.02	0.94	2.39	0.01	0.23	0.99	3.36	6.75	98.3	1	359
NO2	0.54	0.30	0.48	1.62	0.12	0.25	0.43	1.20	1.67	84.1	0	307
Na+	0.07	0.08	0.04	3.11	0.00	0.00	0.05	0.23	0.57	98.3	39	359
PM10	15.86	10.17	13.10	1.90	1.70	3.94	14.00	33.86	66.40	97.2	0	355
PM25	14.50	9.20	12.34	1.75	2.90	4.50	12.20	30.27	61.70	96.3	0	352
SO2	0.68	1.04	0.27	4.40	0.00	0.03	0.27	2.65	7.11	98.3	3	359
SO4--	0.86	0.75	0.57	2.83	0.01	0.10	0.64	2.32	5.36	98.3	0	359
SO4-- corr	0.85	0.75	0.57	2.85	0.01	0.09	0.64	2.32	5.35	98.3	0	359

SK0002R Chopok Slovakia

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	0.57	2.27	0.03	4.78	0.00	0.01	0.02	10.00	10.00	99.9	22	365
NO2	0.77	0.93	0.60	1.97	0.02	0.17	0.60	1.61	10.00	99.9	55	365
NO3-	0.16	0.17	0.07	4.56	0.01	0.01	0.10	0.51	0.73	95.0	125	347
SO2	0.90	2.12	0.34	3.26	0.02	0.05	0.32	7.99	10.00	99.9	0	365
SO4--	0.48	0.43	0.32	2.66	0.03	0.05	0.39	1.32	2.85	95.0	0	347
SPM	5.97	4.57	4.34	2.41	0.35	0.64	4.66	15.14	20.06	81.8	0	52

SK0005R Liesek Slovakia

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	0.21	1.27	0.04	2.57	0.01	0.01	0.03	0.14	10.00	99.9	0	365
NO2	1.89	1.24	1.60	1.76	0.14	0.73	1.53	4.29	10.00	99.9	2	365
NO3-	0.54	0.32	0.46	1.75	0.07	0.19	0.46	1.18	2.05	98.5	0	360
PM10	22.16	8.95	20.49	1.50	10.40	10.68	19.84	41.17	42.87	82.4	0	51
SO2	1.74	2.00	1.02	2.93	0.07	0.16	0.99	5.21	14.84	98.3	0	359
SO4--	1.15	0.68	0.98	1.80	0.16	0.36	0.98	2.44	4.53	98.5	0	360

SK0006R Starina Slovakia

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	0.09	0.74	0.03	2.18	0.01	0.01	0.03	0.12	10.00	99.9	1	365
NO2	1.05	0.61	0.91	1.73	0.15	0.38	0.92	2.25	4.59	99.9	4	365
NO3-	0.36	0.31	0.28	2.08	0.01	0.09	0.27	0.98	2.78	99.6	1	364
PM10	18.44	7.79	17.14	1.45	8.46	10.05	16.30	38.41	44.64	85.1	0	52
SO2	1.06	1.22	0.62	2.94	0.04	0.10	0.61	3.67	9.68	99.4	0	363
SO4--	1.09	0.69	0.91	1.85	0.11	0.32	0.91	2.44	5.11	99.6	0	364

SK0007R Topoliniky Slovakia

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	0.05	0.03	0.04	1.75	0.01	0.02	0.04	0.11	0.28	98.5	0	360
NO2	2.64	1.58	2.29	1.68	0.68	1.14	2.09	5.96	10.18	98.8	0	361
NO3-	0.98	0.77	0.76	2.07	0.13	0.24	0.70	2.52	5.79	99.1	0	362
SO2	1.31	1.75	0.78	2.69	0.07	0.16	0.73	4.45	13.20	98.8	0	361
SO4--	1.31	0.93	1.07	1.87	0.23	0.41	1.04	3.28	7.01	98.5	0	360
SPM	19.55	6.99	18.10	1.45	6.41	9.78	18.49	32.45	37.50	78.9	0	50

TR0001R Cubuk II Turkey

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	0.07	0.07	0.05	1.98	0.01	0.02	0.04	0.20	0.72	90.7	187	331
HNO3+NO3-	0.31	0.21	0.25	1.93	0.01	0.09	0.27	0.76	1.47	93.2	0	340
NH3	0.39	0.32	0.27	2.55	0.03	0.04	0.34	0.99	2.00	90.7	19	331
NH3+NH4+	0.84	0.37	0.76	1.64	0.04	0.28	0.79	1.51	2.72	87.9	0	321
NH4+	0.46	0.24	0.38	2.09	0.01	0.08	0.45	0.85	1.21	89.9	5	328
NO2	1.12	1.26	0.66	3.19	0.03	0.03	0.71	3.43	9.04	92.6	22	338
NO3-	0.22	0.21	0.14	2.86	0.00	0.02	0.15	0.62	1.47	93.2	12	340
SO2	1.35	6.24	0.52	4.07	-0.02	0.02	0.58	3.97	111.97	91.0	33	332
SO4--	0.58	0.42	0.39	3.13	-0.01	0.04	0.53	1.37	2.59	92.1	7	336

YU0005R Kamenicki Vis Yugoslavia

January 2005 - December 2005

Component	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	2.87	0.97	2.70	1.42	1.20	1.50	2.70	4.90	5.20	33.3	0	122
SO2	3.32	1.81	3.04	1.45	2.00	2.50	2.50	8.00	12.50	68.8	0	251

Annex 4

Overview of sampling and analytical methods 2005

Country: **Austria**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Wet-only	Daily	
Precipitation amount, official gauge				
Sulphate	All	Wet-only	Daily	Ion chromatography
Nitrate	All	Wet-only	Daily	Ion chromatography
Ammonium	All	Wet-only	Daily	Ion chromatography
Magnesium	All	Wet-only	Daily	Ion chromatography
Sodium	All	Wet-only	Daily	Ion chromatography
Chloride	All	Wet-only	Daily	Ion chromatography
Calcium	All	Wet-only	Daily	Ion chromatography
Potassium	All	Wet-only	Daily	Ion chromatography
Conductivity	All	Wet-only	Daily	Conductivity meter
pH	All	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	All	Instrumental: UV-fluorescence	Hourly	UV-fluorescence
Sulphur dioxide	AT02	KOH-impregnated Whatman 40 filters, 21.6 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	All	Instrumental: Chemiluminescence	Daily	
Nitric acid				
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	AT02	Teflon filter, PALL Zefluor 2 µm, 47 mm diameter, 21.6 m^3/day	Daily	Ion chromatography
Nitrate	AT02	Teflon filter, PALL Zefluor 2 µm, 47 mm diameter, 21.6 m^3/day	Daily	Ion chromatography
Ammonium	AT02	Teflon filter, PALL Zefluor 2 µm, 47 mm diameter, 21.6 m^3/day	Daily	Ion chromatography
Sodium	AT02	Teflon filter, PALL Zefluor 2 µm, 47 mm diameter, 21.6 m^3/day	Daily	Ion chromatography
Calcium	AT02	Teflon filter, PALL Zefluor 2 µm, 47 mm diameter, 21.6 m^3/day	Daily	Ion chromatography
Magnesium	AT02	Teflon filter, PALL Zefluor 2 µm, 47 mm diameter, 21.6 m^3/day	Daily	Ion chromatography
Potassium	AT02	Teflon filter, PALL Zefluor 2 µm, 47 mm diameter, 21.6 m^3/day	Daily	Ion chromatography
Chloride	AT02	Teflon filter, PALL Zefluor 2 µm, 47 mm diameter, 21.6 m^3/day	Daily	Ion chromatography
PM_{10}	All	High Volume Sampler, glass fibre filters with organic binder, 720 m^3/day, EN 12341	Daily	Micro balance
$PM_{2.5}$	AT02	High Volume Sampler, glass fibre filters with organic binder, 720 m^3/day, EN 12341	Daily	Micro balance
PM_1	AT02	High Volume Sampler, glass fibre filters with organic binder, 720 m^3/day, EN 12341	Daily	Micro balance
Suspended particulate matter				
Sum of nitric acid and nitrate	AT02	Aerosol as for sulphate, KOH impregnated Whatman 40 filters, 21.6 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	AT02	Aerosol as for sulphate, citric acid impregnated Whatman 40 filters, 21.6 m^3/day	Daily	Ion chromatography
Acidity				
Heavy metals (Pb)	All	PM_{10}	Daily (irregular)	GF-AAS
Heavy metals (Cd)	AT02, AT05	PM_{10}	Daily (irregular)	GF-AAS

Country: **Belarus**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount		Bulk		
Precipitation amount, official gauge				
Sulphate		Bulk	Daily	Turbidimetry
Nitrate		Bulk	Daily	Photometry
Ammonium		Bulk	Daily	Photometry with Nessler reactive
Magnesium		Bulk	Daily	AAS
Sodium		Bulk	Daily	AAS
Chloride		Bulk	Daily	Mercurimetric
Calcium		Bulk	Daily	AAS
Potassium			Daily	AAS
Conductivity		Bulk	Daily	Conductivity meter
pH		Bulk	Daily	pH meter
Acidity			Daily	Titration
Air				
Sulphur dioxide				
Sulphur dioxide				
Nitrogen dioxide				
Nitric acid				
Ammonia				
Ozone				
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				
Heavy metals (Pb, Cd)				
Heavy metals (As, Ni)				

Country: **Belgium**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount		Instrumental: Rain gauge	Half hourly	Pulses counter
Precipitation amount, official gauge				
Sulphate				
Nitrate				
Ammonium				
Magnesium				
Sodium				
Chloride				
Calcium				
Potassium				
Conductivity				
pH				
Acidity				
Air				
Sulphur dioxide		Instrumental: UV-fluorescence	Half hourly	UV-fluorescence
Sulphur dioxide				
Nitrogen dioxide		Instrumental: Chemiluminescence	Half hourly	Chemiluminescence
Nitric acid				
Ammonia				
Ozone		Instrumental: UV monitor	Half hourly	UV absorption
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}		Instrumental: Beta absorption	Two-hourly	Beta absorption
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				
Heavy metals (Pb, Cd)				
Heavy metals (As, Ni)				

Country: **Croatia**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Bulk	Daily	
Precipitation amount, official gauge				
Sulphate	All	Bulk	Daily	Ion chromatography
Nitrate	All	Bulk	Daily	Ion chromatography
Ammonium	All	Bulk	Daily	Ion chromatography
Magnesium	All	Bulk	Daily	Ion chromatography
Sodium	All	Bulk	Daily	Ion chromatography
Chloride	All	Bulk	Daily	Ion chromatography
Calcium	All	Bulk	Daily	Ion chromatography
Potassium	All	Bulk	Daily	Ion chromatography
Conductivity	All	Bulk	Daily	Conductivity meter
pH	All	Bulk	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	All	Absorbing solution TCM, 1.6–2.5 m^3/day	Daily	Pararosanilin method
Nitrogen dioxide	All	Absorbing solution Trietanolamin, 1.6–2.5 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
Ozone				
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Czech Republic**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount, official gauge	All	Meteorological Station	Daily	Automatically gauge
Fluoride	All	Wet-only (weekly), bulk (daily) at CZ03	Weekly, daily at CZ03	Ion Chromatography
Sulphate	All	Wet-only (weekly), bulk (daily) at CZ03	Weekly, daily at CZ03	Ion chromatography
Nitrate	All	Wet-only (weekly), bulk (daily) at CZ03	Weekly, daily at CZ03	Ion chromatography
Ammonium	All	Wet-only (weekly), bulk (daily) at CZ03	Weekly, daily at CZ03	Spectrophotometric, Indophenol method, SFA, FIA
Magnesium	All	Wet-only (weekly), bulk (daily) at CZ03	Weekly, daily at CZ03	F-AAS
Sodium	All	Wet-only (weekly), bulk (daily) at CZ03	Weekly, daily at CZ03	F-AAS
Chloride	All	Wet-only (weekly), bulk (daily) at CZ03	Weekly, daily at CZ03	Ion chromatography
Calcium	All	Wet-only (weekly), bulk (daily) at CZ03	Weekly, daily at CZ03	F-AAS
Potassium	All	Wet-only (weekly), bulk (daily) at CZ03	Weekly, daily at CZ03	F-AAS
Conductivity	All	Wet-only (weekly), bulk (daily) at CZ03	Weekly, daily at CZ03	Conductivity electrode
pH	All	Wet-only (weekly), bulk (daily) at CZ03	Weekly, daily at CZ03	pH electrode
Trace metals:(Pb, Cd, Ni)	All	Bulk (weekly)	weekly	GF-AAS
Air				
Sulphur dioxide	All	KOH-impregnated Whatman 40 filter, 20 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	All	Absorbing solution NaOH and guajacol, 0.72 m^3/day	Daily	Spectrophotometric, modified Jacobs - Hochheiser method
Nitric acid				
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Whatman 40 filter, 20 m^3 /day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	All	Filter 47 mm, 55 m^3/day	Every 2nd day	Gravimetric
$PM_{2.5}$	All	Filter 47 mm, 55 m^3/day	Every 2nd day	Gravimetric
Heavy metals (Pb, Cd, Ni)	All	PM_{10}	Every 2nd day	GF-AAS
Suspended particulate matter				
Sum of nitric acid and nitrate	All	KOH-impregnated Whatman 40 filter, 20 m^3/day + Whatman 40 filter, 20 m^3/day	Daily	Ion Chromatography
Sum of ammonia and ammonium	All	Citric acid impregnated Whatman 40 filter, 20 m^3/day + Whatman filter, 20 m^3/day	Daily	Spectrophotometric, Indophenol method, SFA

Country: **Denmark**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	DK05, DK08, DK22	Wet-only	Two-weekly	
Precipitation amount, official gauge				
Sulphate	DK05, DK08, DK22	Wet-only	Two-weekly	Ion chromatography
Nitrate	DK05, DK08, DK22	Wet-only	Two-weekly	Ion chromatography
Ammonium	DK05, DK08, DK22	Wet-only	Two-weekly	ISO 11732 CFA (continuously flow analysis) and spectrophotometric detection
Magnesium	DK05, DK08, DK22	Wet-only	Two-weekly	Atomic absorption method
Sodium	DK05, DK08, DK22	Wet-only	Two-weekly	Atomic emission method
Chloride	DK05, DK08, DK22	Wet-only	Two-weekly	Ion chromatography
Calcium	DK05, DK08, DK22	Wet-only	Two-weekly	Atomic absorption method
Potassium	DK05, DK08, DK22	Wet-only	Two-weekly	Atomic emission method
Conductivity	DK05, DK08, DK22	Wet-only	Two-weekly	Conductivity meter
pH	DK05, DK08, DK22	Wet-only	Two-weekly	pH meter
Acidity				
Air				
Sulphur dioxide	DK03, DK05, DK08	KOH-impregnated Whatman 41 filters, 58 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	DK05	Monitor	Hourly	Chemiluminescence
Nitrogen dioxide	DK08	KI-method (glass sinter), 0.7 m^3/day	Daily	Spectrophotometric, EMEP manual (4.11)
Nitric acid				
Ammonia				
Ozone	DK05, DK31, DK41	UV-monitor	Hourly	UV-absorption
Sulphate	DK03, DK05, DK08	Millipore RAWP 1.2 μm, 58 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium	DK03, DK05, DK08	Millipore RAWP 1.2 μm, 58 m^3/day	Daily	Atomic absorption method
Heavy metals (Cr, Mn, Fe, Ni, Cu, Zn, As, Cd, Pb)	DK03, DK05, DK08	Millipore RAWP 1.2 μm, 58 m^3/day	Daily	Proton Induced X-ray Emission (PIXE)
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	DK05	SM200	Daily	Gravimetric
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	DK03, DK05, DK08	Aerosol filter as for sulphate + KOH-impregnated Whatman 41, 58 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	DK03, DK05, DK08	Aerosol filter as for sulphate + Oxalic acid impregnated Whatman 41, 58 m^3/day	Daily	ISO 11732 CFA (continuously flow analysis) and spectrophotometric detection
Acidity				

DK05: Air daily from 20th June 2005.

Country: **Estonia**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Bulk	Weekly	
Precipitation amount, official gauge				
Sulphate	All	Bulk	Weekly	Ion chromatography
Nitrate	All	Bulk	Weekly	Ion chromatography
Ammonium	All	Bulk	Weekly	Spectrophotometric, Indophenol method
Magnesium	All	Bulk	Weekly	Atomic absorption method
Sodium	All	Bulk	Weekly	Atomic emission method, addition of caesium
Chloride	All	Bulk	Weekly	Ion chromatography
Calcium	All	Bulk	Weekly	Atomic absorption method, addition of lanthanum
Potassium	All	Bulk	Weekly	Atomic emission method, addition of caesium
Conductivity	All	Bulk	Weekly	Conductivity meter
pH	All	Bulk	Weekly	pH meter
Acidity				
Air				
Sulphur dioxide	EE09	Instrumental: UV fluorescence	Daily	UV fluorescence
Sulphur dioxide	EE11	Instrumental: UV fluorescence	Daily	UV fluorescence
Nitrogen dioxide	EE09	Instrumental: Chemiluminescence	Daily	Chemiluminescence
Nitrogen dioxide	EE11	Instrumental: Chemiluminescence	Daily	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	All	UV monitor	Hourly	UV absorption
Sulphate	EE09	Whatman 40 filter, 4-5 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	EE09	Sampling High Volume Sampler	Weekly	Gravimetric
$PM_{2.5}$				
Heavy metals (As, Cd, Ni, Pb)	EE09	Sampling High Volume Sampler	Weekly	ICP-AAS
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Finland**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	NILU bulk sampler	Weekly	
Precipitation amount, official gauge	FI09		Daily	
Sulphate	All	NILU bulk sampler	Weekly	Ion chromatography
Nitrate	All	NILU bulk sampler	Weekly	Ion chromatography
Ammonium	All	NILU bulk sampler	Weekly	Ion chromatography
Magnesium	All	NILU bulk sampler	Weekly	Ion chromatography
Sodium	All	NILU bulk sampler	Weekly	Ion chromatography
Chloride	All	NILU bulk sampler	Weekly	Ion chromatography
Calcium	All	NILU bulk sampler	Weekly	Ion chromatography
Potassium	All	NILU bulk sampler	Weekly	Ion chromatography
Conductivity	All	NILU bulk sampler	Weekly	Conductivity meter
pH	All	NILU bulk sampler	Weekly	pH meter
Acidity				
Air				
Sulphur dioxide	All	NaOH-impregnated Whatman 40 filters, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
Nitrogen dioxide	All	Instrumental: Chemiluminescence	Hourly	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Whatman 40 filter, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	FI09, FI17, FI22, FI37	Whatman 40 + NaOH impregnated Whatman 40 filter, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
Sum of ammonia and ammonium	FI09, FI17, FI22, FI37	Oxalic acid impregnated Whatman 40 filter, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
Acidity				

1) Daily: FI09 and FI17; Weekly: FI22 and FI37

Country: **France**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Wet-only	Daily	
Precipitation amount, official gauge	All	Bulk	Daily	
Sulphate	All	Wet-only	Daily	Ion chromatography
Nitrate	All	Wet-only	Daily	Ion chromatography
Ammonium	All	Wet-only	Daily	Ion chromatography
Magnesium	All	Wet-only	Daily	Ion chromatography
Sodium	All	Wet-only	Daily	Ion chromatography
Chloride	All	Wet-only	Daily	Ion chromatography
Calcium	All	Wet-only	Daily	Ion chromatography
Potassium	All	Wet-only	Daily	Ion chromatography
Conductivity	All	Wet-only	Daily	Conductivity meter
pH	All	Wet-only	Daily	pH meter
Acidity				
Heavy metals (Pb, Cd, Ni, Cr, Cu, Zn, As)	FR13	Wet only	14 days	ICP-MS
Mercury	FR13	Wet only	14 days	ICP-MS
Air				
Sulphur dioxide	FR08,FR10, FR12,FR14, FR15,FR16, FR17	Absorbing solution H_2O_2, 2.5 m^3/day	Daily	Ion chromatography
	FR13, FR09	KOH-impregnated Whatman 40 filter, 14.4 m^3/day (Filterpack)	Daily, twice per week	Ion Chromatography
Nitrogen dioxide	FR08,FR13, FR15	Instrumental: Chemiluminescence	Hourly	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	FR08 FR10, FR12, FR14, FR15, FR16, FR17	Whatman 40 filter, 2.5 m^3/day	Daily	Ion chromatography
	FR13, FR09	Teflon filter Pall Gelman Zefluor, 2 μm, 14.4 m^3/j	Daily, twice per week	Ion chromatography
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	FR09, FR13	Teflon filter Pall Gelman Zefluor, 2 μm, 14.4 m^3/j + KOH impregnated Whatman 40, 14.4 m^3/day (Filterpack)	Daily, twice per week	Ion chromatography
Sum of ammonia and ammonium	FR09, FR13	Teflon filter Pall Gelman Zefluor, 2 μm, 14.4 m^3/j + citric acid impregnated Whatman 40, 14.4 m^3/day (Filterpack)	Daily, twice per week	Ion chromatography
Heavy metals	FR13	PM_{10}, quartz filter PALLFLEX QUAT-UP, 1 m^3/h	14 days	ICP-MS
Mercury	FR13	Pure gold preconcentration, Tekran 2537	Continuous	Cold vapour atomic fluorescence
Acidity				

Country: **Germany**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Bulk (daily) at DE02, wet-only (weekly) at all 8	Daily / weekly	By volume
Precipitation amount, official gauge				
Sulphate	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Bulk (daily) at DE02, wet-only (weekly) at all 8	Daily / weekly	Ion chromatography
Nitrate	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Bulk (daily) at DE02, wet-only (weekly) at all 8	Daily / weekly	Ion chromatography
Ammonium	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Bulk (daily) at DE02, wet-only (weekly) at all 8	Daily / weekly	Ion chromatography
Magnesium	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Bulk (daily) at DE02, wet-only (weekly) at all 8	Daily / weekly	Ion chromatography
Sodium	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Bulk (daily) at DE02, wet-only (weekly) at all 8	Daily / weekly	Ion chromatography
Chloride	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Bulk (daily) at DE02, wet-only (weekly) at all 8	Daily / weekly	Ion chromatography
Calcium	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Bulk (daily) at DE02, wet-only (weekly) at all 8	Daily / weekly	Ion chromatography
Potassium	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Bulk (daily) at DE02, wet-only (weekly) at all 8	Daily / weekly	Ion chromatography
Conductivity	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Bulk (daily) at DE02, wet-only (weekly) at all 8	Daily / weekly	Conductivity meter
pH	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Bulk (daily) at DE02, wet-only (weekly) at all 8	Daily / weekly	pH meter
Heavy metals (As, Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb, V, Zn)	DE01, DE02, DE03, DE07, DE08, DE09	Wet only	Weekly	Plasma mass spectrometry (ICP-MS)
Heavy metals (Hg)	DE01, DE02, DE07, DE09	Wet only	Weekly	Atomic fluorescence spectrometry (AFS)
Acidity				
Air				
Sulphur dioxide	DE01, DE02, DE03, DE07, DE08, DE09	KOH-impregnated Whatman 40 filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
Nitrogen dioxide	DE01, DE02, DE03, DE07, DE08, DE09	NaJ-impregnated glass sinters, 0.7 m^3/day	Daily	Flow injection analysis
Nitric acid	DE01, DE02, DE03, DE07, DE09	KOH-impregnated Whatman 40 filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
Ammonia	DE01, DE02, DE03, DE07, DE09	Oxalic acid-impregnated Whatman 40 filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
Ozone	All 11	UV-monitor	Half hourly	UV-absorption
VOCs	DE02, DE03, DE05, DE07, DE08, DE09	Steel canister	Twice a week	Gas chromatography + Flame ionization detection
Carbonyls	DE02, DE03, DE05, DE07, DE08, DE09	Cartridge	Twice a week	High performance liquid chromatography (HPLC)

Country: **Germany**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Sulphate	DE01, DE02, DE03, DE07, DE09	Teflon filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
Nitrate	DE01, DE02, DE03, DE07, DE09	Teflon filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
Ammonium	DE01, DE02, DE03, DE07, DE09	Teflon filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
Sodium	DE01, DE02, DE03, DE07, DE09	Teflon filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
Calcium	DE01, DE02, DE03, DE07, DE09	Teflon filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
Magnesium	DE01, DE02, DE03, DE07, DE09	Teflon filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
Potassium	DE01, DE02, DE03, DE07, DE09	Teflon filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
Chloride				
PM_{10}	DE01, DE02, DE03, DE07, DE09	Digitel High Volume Sampler DHA 80, round aerosol filters ø15 cm, Machery Nagel MN 85/90	Daily	Gravimetric by weight
$PM_{2.5}$	DE02, DE03	Digitel High Volume Sampler DHA 80, round aerosol filters ø15 cm, Machery Nagel MN 85/90	Daily	Gravimetric by weight
PM_1	DE02	Digitel High Volume Sampler DHA 80, round aerosol filters ø15 cm, Machery Nagel MN 85/90	Daily	Gravimetric by weight
Suspended particulate matter				
Sum of nitric acid and nitrate	DE01, DE02, DE03, DE07, DE09	Teflon filter + KOH impregnated filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
Sum of ammonia and ammonium	DE01, DE02, DE03, DE07, DE09	Aerosol filter + oxalic acid impregnated filter, 22 m^3/day (Filterpack)	Daily	Flow injection analysis
Heavy metals (As, Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb, V)	DE01, DE02, DE03, DE07, DE08, DE09	Low volume sampler, 55 m^3/day	Weekly	Plasma mass spectrometry (ICP-MS)
Heavy metals (Hg)	DE02, DE07, DE09	Mercury analyzer Tekran 2537A	Daily	Atomic fluorescence spectrometry (AFS)
Acidity				

Country: **Greece**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount				
Precipitation amount, official gauge				
Sulphate				
Nitrate				
Ammonium				
Magnesium				
Sodium				
Chloride				
Calcium				
Potassium				
Conductivity				
pH				
Acidity				
Air				
Sulphur dioxide	GR01	Instrumental UV-fluorescence	Hourly	UV-fluorescence
Nitrogen dioxide	GR01	Instrumental Chemiluminescence	Hourly	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	GR01	UV-monitor	Hourly	UV-absorption
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Hungary**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Wet-only	Daily	
Precipitation amount, official gauge				
Sulphate	All	Wet-only	Daily	Ion chromatography
Nitrate	All	Wet-only	Daily	Ion chromatography
Ammonium	All	Wet-only	Daily	Spectrophotometric, Indophenol method
Magnesium	All	Wet-only	Daily	Atomic absorption method
Sodium	All	Wet-only	Daily	Atomic absorption method
Chloride	All	Wet-only	Daily	Ion chromatography
Calcium	All	Wet-only	Daily	Atomic absorption method
Potassium	All	Wet-only	Daily	Atomic absorption method
Conductivity	All	Wet-only	Daily	Conductivity meter
pH	All	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	All	KOH-impregnated Whatman 40 filter, ~21 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	All	Iodide method (impregnated glass sinter), ~0.8 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid	All	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Ion chromatography
Ammonia	All	Alkaline impregnated Whatman 40 filter, ~21 m^3/day	Daily	Spectrophotometric, Indophenol method
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Ion chromatography
Nitrate	All	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Ion chromatography
Ammonium	All	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Spectrophotometric, Indophenol method
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	All	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	All	Alkaline impregnated Whatman 40 filter, ~21 m^3/day + Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Spectrophotometric, Indophenol method
Acidity				

Country: **Iceland**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Bulk	Daily	
Precipitation amount, official gauge				
Sulphate	All	Bulk	Daily	ICP-AES
Nitrate				
Ammonium				
Magnesium				
Sodium	All	Bulk	Daily	ICP-AES
Chloride				
Calcium				
Potassium				
Conductivity				
pH	All	Bulk	Daily	pH meter
Acidity				
Air				
Sulphur dioxide				
Nitrogen dioxide				
Nitric acid				
Ammonia				
Ozone				
Sulphate	All	Whatman 40 filter, 30 m^3/day	Daily	ICP-AES
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Ireland: IE01 (lab.: Met Eireann)**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	IE01	Bulk	Daily	
Precipitation amount, official gauge	IE01	Rain gauge	Daily	
Sulphate	IE01	Bulk	Daily	Ion chromatography
Nitrate	IE01	Bulk	Daily	Ion chromatography
Ammonium	IE01	Bulk	Daily	Ion chromatography
Magnesium	IE01	Bulk	Daily	Ion chromatography
Sodium	IE01	Bulk	Daily	Ion chromatography
Chloride	IE01	Bulk	Daily	Ion chromatography
Calcium	IE01	Bulk	Daily	Ion chromatography
Potassium	IE01	Bulk	Daily	Ion chromatography
Conductivity	IE01	Bulk	Daily	Conductivity meter
pH	IE01	Bulk	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	IE01	KOH-impregnated Whatman 40 filter, 20-25 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	IE01	NaI method (glass sinter) 0.7 m^3/day	Daily	Spectrophotometric, EMEP Manual 4.11
Nitric acid				
Ammonia				
Ozone				
Sulphate	IE01	Teflon filter, PALL Zefluor 2 μm, 47 mm diameter, 20-25 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium	IE01	Teflon filter, PALL Zefluor 2 μm, 47 mm diameter, 20-25 m^3/day	Daily	Ion chromatography
Calcium	IE01	Teflon filter, PALL Zefluor 2 μm, 47 mm diameter, 20-25 m^3/day	Daily	Ion chromatography
Magnesium	IE01	Teflon filter, PALL Zefluor 2 μm, 47 mm diameter, 20-25 m^3/day	Daily	Ion chromatography
Potassium	IE01	Teflon filter, PALL Zefluor 2 μm, 47 mm diameter, 20-25 m^3/day	Daily	Ion chromatography
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	IE01	Aerosol filter as for sulphate + KOH impregnated filter as for SO_2, 20-25 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	IE01	Aerosol filter as for sulphate + citric acid impregnated filter, 20-25 m^3/day	Daily	Ion chromatography
Acidity				

Country: **Ireland: IE02, IE03, IE04 (lab.: ESB)**	Main components and ozone - EMEP		Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Wet-only	Daily	
Precipitation amount, official gauge				
Sulphate	All	Wet-only	Daily	Ion chromatography
Nitrate	All	Wet-only	Daily	Ion chromatography
Ammonium	All	Wet-only	Daily	Ion chromatography
Magnesium	All	Wet-only	Daily	Ion chromatography
Sodium	All	Wet-only	Daily	Ion chromatography
Chloride	All	Wet-only	Daily	Ion chromatography
Calcium	All	Wet-only	Daily	Ion chromatography
Potassium	All	Wet-only	Daily	Ion chromatography
Conductivity	All	Wet-only	Daily	Conductivity meter
pH	All	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide				
Nitrogen dioxide				
Nitric acid				
Ammonia				
Ozone				
Sulphate	All	Gelman GN-6 Metricel filter, 20 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Italy: IT01 (lab.: CNR)**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	IT01	Wet-only	Daily	
Precipitation amount, official gauge				
Sulphate	IT01	Wet-only	Daily	Ion chromatography
Nitrate	IT01	Wet-only	Daily	Ion chromatography
Ammonium	IT01	Wet-only	Daily	Ion chromatography
Magnesium	IT01	Wet-only	Daily	Ion chromatography
Sodium	IT01	Wet-only	Daily	Ion chromatography
Chloride	IT01	Wet-only	Daily	Ion chromatography
Calcium	IT01	Wet-only	Daily	Ion chromatography
Potassium	IT01	Wet-only	Daily	Ion chromatography
Conductivity	IT01	Wet-only	Daily	Conductivity meter
pH	IT01	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	IT01	Diffusion tubes NaCl and Na2CO3 + glycerine, 17 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	IT01	Instrumental: Chemiluminescence	Daily	Chemiluminescence
Nitric acid	IT01	Diffusion tubes NaCl, 17 m^3/day	Daily	Ion chromatography
Ammonia	IT01	Diffusion tubes H3PO3, 17 m^3/day	Daily	Ion chromatography
Ozone	IT01	UV-monitor	Hourly	UV-absorption
Sulphate	IT01	Nylasorb filter, 17 m^3/day	Daily	Ion chromatography
Nitrate	IT01	Nylasorb filter, 17 m^3/day	Daily	Ion chromatography
Ammonium	IT01	Phosphorous acid impregnated filter, 17 m^3/day	Daily	Ion chromatography
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	IT01	Beta gauge monitor 24 m^3/day	Daily	Beta gauge monitor
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Italy, IT04 (lab.: JRC)**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	IT04	Wet-only	Daily	
Precipitation amount, official gauge				
Sulphate	IT04	Wet-only	Daily	Ion chromatography
Nitrate	IT04	Wet-only	Daily	Ion chromatography
Ammonium	IT04	Wet-only	Daily	Ion chromatography
Magnesium				
Sodium				
Chloride				
Calcium				
Potassium				
Conductivity				
pH	IT04	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	IT04	Instrumental: UV-fluorescence	Daily	UV-fluorescence
Nitrogen dioxide	IT04	Instrumental: Chemiluminescence	Daily	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	IT04	UV-monitor	Hourly	UV-absorption
Sulphate	IT04	Whatman quartz fibre filter QFF, 55 m^3/day	Daily	Ion chromatography
Nitrate	IT04	Whatman quartz fibre filter QFF, 55 m^3/day	Daily	Ion chromatography
Ammonium	IT04	Whatman quartz fibre filter QFF, 55 m^3/day	Daily	Ion chromatography
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}		Whatman quartz fibre filter QFF, 55 m^3/day	Daily	Weighing at 50% RH
$PM_{2.5}$		Whatman quartz fibre filter QFF, 55 m^3/day	Daily	Weighing at 50% RH
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity	IT04	Whatman quartz fibre filter QFF, 55 m^3/day	Daily	pH meter

Country: **Latvia**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Wet-only and bulk	Daily	Gravimetric
Precipitation amount, official gauge	All	Meteorological station	Daily	Gauge, Tretjakov type
Sulphate	All	LV16: Bulk, LV10: Wet-only	Daily	Ion chromatography
Nitrate	All	LV16: Bulk, LV10: Wet-only	Daily	Ion chromatography
Ammonium	All	LV16: Bulk, LV10: Wet-only	Daily	Spectrophotometric, Indophenol method
Magnesium	All	LV16: Bulk, LV10: Wet-only	Daily	Atomic absorption method
Sodium	All	LV16: Bulk, LV10: Wet-only	Daily	Atomic emission method
Chloride	All	LV16: Bulk, LV10: Wet-only	Daily	Ion chromatography
Calcium	All	LV16: Bulk, LV10: Wet-only	Daily	Atomic absorption method
Potassium	All	LV16: Bulk, LV10: Wet-only	Daily	Atomic emission method
Conductivity	All	LV16: Bulk, LV10: Wet-only	Daily	Conductivity meter
pH	All	LV16: Bulk, LV10: Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	All	KOH-impregnated Whatman 41 filter, 14-20 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	All	Absorbing KI solution in absorbing tubes with glass granules, 0.2-0.4 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Whatman 41 filter, 14-20 m^3/day	Daily	Ion chromatography
Nitrate	All	Whatman 41 filter, 14-20 m^3/day	Daily	Ion chromatography
Ammonium	All	Whatman 41 filter, 14-20 m^3/day	Daily	Spectrophotometric, Indophenol method
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	All	KOH-impregnated Whatman 41 filter, 14-20 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	All	Oxalic acid impregnated Whatman 41 filter, 14-20 m^3/day	Daily	Spectrophotometric, Indophenol method
Acidity				

Country: **Lithuania**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Wet-only	Daily	
Precipitation amount, official gauge				
Sulphate	All	Wet-only	Daily	Ion chromatography
Nitrate	All	Wet-only	Daily	Ion chromatography
Ammonium	All	Wet-only	Daily	Spectrophotometric, Indophenol method
Magnesium				
Sodium	All	Wet-only	Daily	Atomic emission method
Chloride	All	Wet-only	Daily	Ion chromatography
Calcium	All	Wet-only	Daily	Atomic absorption method
Potassium	All	Wet-only	Daily	Atomic emission method
Conductivity	All	Wet-only	Daily	Conductivity meter
pH	All	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	All	KOH-impregnated Whatman 40 filter, 24 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	All	KI-method (glass sinter), 0.4-0.7 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Whatman 40 filter, 24 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	All	KOH impregnated Whatman 40 filter, 16-17 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	All	Oxalic acid impregnated Whatman 40 filter, 16-17 m^3/day	Daily	Spectrophotometric, Indophenol method
Acidity				

Country: **The Netherlands**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Wet-only	Daily	
Precipitation amount, official gauge	All	Bulk	4 weekly	
Sulphate	NL0009	Wet-only	Daily [1]	Ion chromatography
Nitrate	NL0009	Wet-only	Daily [1]	Ion chromatography
Ammonium	NL0009	Wet-only	Daily [1]	CFA[2]
Magnesium	NL0009	Wet-only	Daily [1]	ICP/AES[3]
Sodium	NL0009	Wet-only	Daily [1]	ICP/AES
Chloride	NL0009	Wet-only	Daily [1]	Ion chromatography
Calcium	NL0009	Wet-only	Daily [1]	ICP/AES
Potassium	NL0009	Wet-only	Daily [1]	ICP/AES
Conductivity	NL0009	Wet-only	Daily [1]	Conductivity meter
pH	NL0009	Wet-only	Daily [1]	pH meter
Acidity	NL0009	Wet-only	Daily [1]	Titration
Air				
Sulphur dioxide	All	Instrumental: UV-fluorescence	Hourly	UV-fluorescence
Nitrogen dioxide	All	Instrumental: Chemiluminescence	Hourly	Chemiluminescence
Nitric acid				
Ammonia	NL10	Absorption in $NaHSO_4$, membrane separation, conductivity measurement	Hourly	Conductivity
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Whatman 42 filter, 2.5 m^3/day, filter mounted behind denuder	Daily	Ion chromatography
Nitrate	All	Whatman 42 filter, 2.5 m^3/day, filter mounted behind denuder	Daily	Ion chromatography
Ammonium	All	Whatman 42 filter, 2.5 m^3/day, filter mounted behind denuder	Daily	CFA[2]
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride	All	Whatman 42 filter, 2.5 m^3/day, filter mounted behind denuder	Daily	CFA[2]
PM_{10}	All[4]	Instrumental: beta absorption	Hourly	Beta absorption
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

[1] precipitation measurements on daily basis are only carried out on station NL0009; On both EMEP stations (NL0009 and NL0010) precipitation is carried out on a 4 weekly basis.
[2] continuous flow analysis
[3] inductively coupled plasma/atomic emission spectrometry
[4] measurements of PM_{10} at NL10 since 02-04-2003

Country: **Norway**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	NILU bulk sampler	Daily	By volume
Precipitation amount, official gauge				
Sulphate	All	NILU bulk sampler	Daily	Ion chromatography
Nitrate	All	NILU bulk sampler	Daily	Ion chromatography
Ammonium	All	NILU bulk sampler	Daily	Ion chromatography
Magnesium	All	NILU bulk sampler	Daily	Ion chromatography
Sodium	All	NILU bulk sampler	Daily	Ion chromatography
Chloride	All	NILU bulk sampler	Daily	Ion chromatography
Calcium	All	NILU bulk sampler	Daily	Ion chromatography
Potassium	All	NILU bulk sampler	Daily	Ion chromatography
Conductivity	All	NILU bulk sampler	Daily	Conductivity meter
pH	All	NILU bulk sampler	Daily	pH meter; potentiometric, glass electrode
Acidity				
Air				
Sulphur dioxide	All	KOH-impregnated Whatman 40 filter 25 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	All	NaI-impregnated glass sinters, 0.7 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium	All	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Calcium	All	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Magnesium	All	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Potassium	All	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Chloride	All	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
PM_{10}	NO01	Dichotomous sampler	Daily	by weight
$PM_{2.5}$	NO01	Dichotomous sampler	Daily	by weight
Suspended particulate matter				
Sum of nitric acid and nitrate	All	Aerosol filter as for sulphate + KOH impregnated filter as for SO_2, 25 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	All	Aerosol filter as for sulphate + oxalic acid impregnated filter, 25 m^3/day	Daily	Spectrophotometric, Indophenol method and IC
Acidity				

Country: **Poland: PL02, PL03, PL04 (lab. IMWM)**	Main components and ozone - EMEP		Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Bulk	Daily	
Precipitation amount, official gauge				
Sulphate	All	Bulk	Daily	Ion chromatography
Nitrate	All	Bulk	Daily	Ion chromatography
Ammonium	All	Bulk	Daily	Spectrophotometric, Chloramin T
Magnesium	All	Bulk	Daily	Atomic absorption method
Sodium	All	Bulk	Daily	Atomic absorption method
Chloride	All	Bulk	Daily	Ion chromatography
Calcium	All	Bulk	Daily	Atomic absorption method
Potassium	All	Bulk	Daily	Atomic absorption method
Conductivity	All	Bulk	Daily	Conductivity meter
pH	All	Bulk	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	All	KOH-impregnated Whatman 40 filter, 3.5-4.2 m^3/day	Daily	Thorin
Nitrogen dioxide	All	Absorbing solution TGS, 0.7 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Whatman 40 filter, 3.5-4.2 m^3/day	Daily	Thorin
Nitrate	All	Whatman 40 filter, 3.5-4.2 m^3/day	Daily	Spectrophotometric, Griess after hydrazine reduction
Ammonium	All	Whatman 40 filter, 3.5-4.2 m^3/day	Daily	Spectrophotometric, Chloramin T
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	All	NaF impregnated Whatman 40 filter, 3.5-4.2 m^3/day	Daily	Spectrophotometric, Griess after hydrazine reduction
Sum of ammonia and ammonium	All	Oxalic acid impregnated Whatman 40 filter, 3.5-4.2 m^3/day	Daily	Spectrophotometric, Chloramin T
Acidity				

Country: **Poland: PL05 (lab. IEP)**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	PL05	Wet-only	Daily	
Precipitation amount, official gauge	PL05	Wet-only	Daily	
Sulphate	PL05	Wet-only	Daily	Capillary Electrophoresis
Nitrate	PL05	Wet-only	Daily	Capillary Electrophoresis
Ammonium	PL05	Wet-only	Daily	Spectrophotometric, Indophenol method
Magnesium	PL05	Wet-only	Daily	Plasma emission spectrometry
Sodium	PL05	Wet-only	Daily	Plasma emission spectrometry
Chloride	PL05	Wet-only	Daily	Capillary Electrophoresis
Calcium	PL05	Wet-only	Daily	Plasma emission spectrometry
Potassium	PL05	Wet-only	Daily	Atomic emission method
Conductivity	PL05	Wet-only	Daily	Conductivity meter
pH	PL05	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	PL05	KOH-impregnated Whatman 40 filter, 16 m^3/day	Daily	Capillary Electrophoresis
Nitrogen dioxide	PL05	Iodide method (impregnated glass sinter), 0.7 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
Ozone	PL05	UV-monitor	Hourly	UV-absorption
Sulphate	PL05	Teflon filter Gelman Zefluor 2 μm, 16 m^3/day	Daily	Capillary Electrophoresis
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	PL05	High Volume Sampler (750 m^3/day)	Daily	By weight
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	PL05	Aerosol Teflon filter (as for sulphate) + NaOH impregnated Whatman 40 filter, 16 m^3/day	Daily	Capillary Electrophoresis
Sum of ammonia and ammonium	PL05	Aerosol Teflon filter (as for sulphate) + Oxalic acid impregnated Whatman 40 filter, 16 m^3/day	Daily	Spectrophotometric, Indophenol method
Acidity				

Country: **Portugal**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount				
Precipitation amount, official gauge	All	Rain gauge	Daily	
Sulphate	All	Bulk	Daily	Ion chromatography
Nitrate	All	Bulk	Daily	Ion chromatography
Ammonium	All	Bulk	Daily	Spectrophotometric, Indophenol method
Magnesium	All	Bulk	Daily	Ion chromatography
Sodium	All	Bulk	Daily	Ion chromatography
Chloride	All	Bulk	Daily	Ion chromatography
Calcium	All	Bulk	Daily	Ion chromatography
Potassium	All	Bulk	Daily	Ion chromatography
Conductivity	All	Bulk	Daily	Conductivity meter
pH	All	Bulk	Daily	pH meter
Acidity				
Air				
Sulphur dioxide				
Sulphur dioxide				
Nitrogen dioxide				
Nitric acid				
Ammonia				
Ozone	PT04	UV-monitor	Hourly	UV-absorption
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Russian Federation**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Bulk	Daily	
Precipitation amount, official gauge				
Sulphate	All	Bulk	Daily	Ion chromatography
Nitrate	All	Bulk	Daily	Ion chromatography
Ammonium	All	Bulk	Daily	Ion chromatography
Magnesium	All	Bulk	Daily	Ion chromatography
Sodium	All	Bulk	Daily	Ion chromatography
Chloride	All	Bulk	Daily	Ion chromatography
Calcium	All	Bulk	Daily	Ion chromatography
Potassium	All	Bulk	Daily	Ion chromatography
Conductivity	All	Bulk	Daily	Conductivity meter
pH	All	Bulk	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	RU01	NaOH-impregnated Whatman 40 filter, 10-15 m^3/day	Daily	UV-fluorescence
Sulphur dioxide	RU16, RU18	NaOH-impregnated Whatman 40 filter, 10-15 m^3/day	Daily	Ion chromatography
Nitrogen dioxide				
Nitric acid				
Ammonia				
Ozone				
Sulphate	All	Whatman 40 filter, 10-15 m^3/day	Daily	Ion chromatography
Nitrate	All	Whatman 40 filter, 10-15 m^3/day	Daily	Ion chromatography
Ammonium	All	Whatman 40 filter, 10-15 m^3/day	Daily	Ion chromatography
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Serbia and Montenegro**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Bulk	Daily	
Precipitation amount, official gauge				
Sulphate	All	Bulk	Daily	Ion chromatography
Nitrate	All	Bulk	Daily	Ion chromatography
Ammonium	All	Bulk	Daily	Ion chromatography
Magnesium	All	Bulk	Daily	Ion chromatography
Sodium	All	Bulk	Daily	Ion chromatography
Chloride	All	Bulk	Daily	Ion chromatography
Calcium	All	Bulk	Daily	Ion chromatography
Potassium	All	Bulk	Daily	Ion chromatography
Conductivity	All	Bulk	Daily	Conductivity meter
pH	All	Bulk	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	All	Absorbing solution TCM, 1.6-2.5 m^3/day	Daily	Pararosanilin method
Nitrogen dioxide	All	Absorbing solution TGS, 1.6-2.5 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
Ozone				
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Slovakia**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	SK02: Bulk, SK04, SK05, SK06, SK07: Wet-only	Daily	
Precipitation amount, official gauge	All	Reported from professional meteorological rain-gauges	Daily	
Sulphate	All	SK02: Bulk, SK04, SK05, SK06, SK07: Wet-only	Daily; weekly: SK05, SK07	Ion chromatography
Nitrate	All	SK02: Bulk, SK04, SK05, SK06, SK07: Wet-only	Daily; weekly: SK05, SK07	Ion chromatography
Ammonium	All	SK02: Bulk, SK04, SK05, SK06, SK07: Wet-only	Daily; weekly: SK05, SK07	Ion chromatography
Magnesium	All	SK02: Bulk, SK04, SK05, SK06, SK07: Wet-only	Daily; weekly: SK05, SK07	Ion chromatography
Sodium	All	SK02: Bulk, SK04, SK05, SK06, SK07: Wet-only	Daily; weekly: SK05, SK07	Ion chromatography
Chloride	All	SK02: Bulk, SK04, SK05, SK06, SK07: Wet-only	Daily; weekly: SK05, SK07	Ion chromatography
Calcium	All	SK02: Bulk, SK04, SK05, SK06, SK07: Wet-only	Daily; weekly: SK05, SK07	Ion chromatography
Potassium	All	SK02: Bulk, SK04, SK05, SK06, SK07: Wet-only	Daily; weekly: SK05, SK07	Ion chromatography
Conductivity	All	SK02: Bulk, SK04, SK05, SK06, SK07: Wet-only	Daily; weekly: SK05, SK07	Conductivity meter
pH	All	SK02: Bulk, SK04, SK05, SK06, SK07: Wet-only	Daily; weekly: SK05, SK07	pH meter
Acidity				
Air				
Sulphur dioxide	All	KOH-impregnated Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	All	Absorbing solution NaOH and guajacol, 0.5-0.6 m^3/day	Daily	Spectrophotometric, Modified Salzman method
Nitric acid	All	KOH-impregnated Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Whatman 40 filter, 26-30 m^3/day	Daily	Capillary electrophoresis
Nitrate	All	Whatman 40 filter, 26-30 m^3/day	Daily	Capillary electrophoresis
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	SK04, SK05, SK06	Partisol R&P, Sartorius nitrocellulose filter, 24 m^3/day	Weekly	Gravimetric method
$PM_{2.5}$				
Suspended particulate matter	SK02, SK07	Sartorius nitrocellulose filter, 26-30 m^3/day	Weekly	Gravimetric method
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Slovenia**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	SI08	Wet-only	Daily	By weight
Precipitation amount, official gauge	SI08	Bulk	Daily	
Sulphate	SI08	Wet-only	Daily	Ion chromatography
Nitrate	SI08	Wet-only	Daily	Ion chromatography
Ammonium	SI08	Wet-only	Daily	Ion chromatography
Magnesium	SI08	Wet-only	Daily	Ion chromatography
Sodium	SI08	Wet-only	Daily	Ion chromatography
Chloride	SI08	Wet-only	Daily	Ion chromatography
Calcium	SI08	Wet-only	Daily	Ion chromatography
Potassium	SI08	Wet-only	Daily	Ion chromatography
Conductivity	SI08	Wet-only	Daily	Conductivity meter
pH	SI08	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	SI08	KOH-impregnated Whatman 40 filter, 17-23 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	SI08	NaI-impregnated glass sinters, ~0.7 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
Ozone	SI08, SI31, SI32, SI33	UV-monitor	Hourly	UV-absorption
Sulphate	SI08	Teflon filter, Gelman Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium	SI08	Teflon filter, Gelman Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
Calcium	SI08	Teflon filter, Gelman Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
Magnesium	SI08	Teflon filter, Gelman Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
Potassium	SI08	Teflon filter, Gelman Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
Chloride	SI08	Teflon filter, Gelman Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
PM_{10}	SI08	Low volume sampler, 2.3 m^3/h, Quartz filter, Whatman 47 mm	Daily	Gravimetric method
$PM_{2.5}$	SI08	Low volume sampler, 2.3 m^3/h, Glass filter, Whatman 47 mm	Daily	Gravimetric method
Heavy metals (As, Cd, Cr, Cu, Ni, Pb) from PM_{10}	SI08	Low volume sampler, 2.3 m^3/h, Quartz filter, Whatman 47 mm	Daily (every 6th day)	ICP-MS
Suspended particulate matter				
Sum of nitric acid and nitrate	SI08	Teflon filter, Gelman Zefluor 2 μm + KOH impregnated Whatman 40 filter, 17-23 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	SI08	Teflon filter, Gelman Zefluor 2 μm + oxalic acid impregnated Whatman 40 filter, 17-23 m^3/day	Daily	Ion chromatography
Acidity				

Country: **Spain**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation	**All (except ES10)**			
Precipitation amount	All	Wet-only	Daily	
Precipitation amount, official gauge				
Sulphate	All	Wet-only	Daily	Ion chromatography
Nitrate	All	Wet-only	Daily	Ion chromatography
Ammonium	All	Wet-only	Daily	Visible spectrophotometry, Indophenol method
Magnesium	All	Wet-only	Daily	Flame atomic absorption spectroscopy
Sodium	All	Wet-only	Daily	Flame atomic absorption spectroscopy
Chloride	All	Wet-only	Daily	Ion chromatography
Calcium	All	Wet-only	Daily	Flame atomic absorption spectroscopy
Potassium	All	Wet-only	Daily	Flame atomic absorption spectroscopy
Conductivity	All	Wet-only	Daily	Conductivity meter
pH	All	Wet-only	Daily	pH meter
Acidity	All	Wet-only	Daily	Calculated from pH
Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn)	ES08, ES09	Wet-only	Weekly	ICP-mass
Air				
Sulphur dioxide	All	Instrumental: UV-fluorescence	Hourly	
Nitrogen dioxide	All	Instrumental: Chemiluminescence	Hourly	
Ammonia	ES08, ES09	Passive sampler	Weekly	Visible spectrophotometry, Indophenol method
Ozone	All	UV-monitor	Hourly	UV-absorption
Suspended particulate matter	All	Till 31/12/2002	Daily	Gravimetric method
PM_{10}	All	High volume sampler	Daily	Gravimetric method
$PM_{2.5}$	All	High volume sampler	Daily	Gravimetric method
Sum of nitric acid and nitrate	All	NaOH impregnated Whatman 40 filter, 35 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	All	Oxalic acid impregnated Whatman 40 filter, 35 m^3/day	Daily	Visible spectrophotometry, Indophenol method
Sulphate PM_{10}	All	Whatman GF/A filter, 720 m^3/day	Daily	Ion chromatography
Nitrate PM_{10}	All	Whatman GF/A filter, 720 m^3/day (from 02/2003)	Daily	Ion chromatography
Sodium PM_{10}	ES09	High volume sampler	Daily	Flame atomic absorption spectroscopy
Calcium PM_{10}	ES09	High volume sampler	Daily	Flame atomic absorption spectroscopy
Magnesium PM_{10}	ES09	High volume sampler	Daily	Flame atomic absorption spectroscopy
Potassium PM_{10}	ES09	High volume sampler	Daily	Flame atomic absorption spectroscopy
Ammonium PM_{10}	ES09	High volume sampler	24 hour, once a week	Visible spectrophotometry, Indophenol method
Chloride PM_{10}	ES09	High volume sampler	24 hour, once a week	Ion chromatography
Sulphate $PM_{2.5}$	ES09	High volume sampler	24 hour, once a week	Ion chromatography
Nitrate $PM_{2.5}$	ES09	High volume sampler	24 hour, once a week	Ion chromatography
Sodium $PM_{2.5}$	ES09	High volume sampler	24 hour, once a week	Flame atomic absorption spectroscopy
Calcium $PM_{2.5}$	ES09	High volume sampler	24 hour, once a week	Flame atomic absorption spectroscopy
Magnesium $PM_{2.5}$	ES09	High volume sampler	24 hour, once a week	Flame atomic absorption spectroscopy
Potassium $PM_{2.5}$	ES09	High volume sampler	24 hour, once a week	Flame atomic absorption spectroscopy
Ammonium $PM_{2.5}$	ES09	High volume sampler	24 hour, once a week	Visible spectrophotometry, Indophenol method
Chloride $PM_{2.5}$	ES09	High volume sampler	24 hour, once a week	Ion chromatography
Heavy metals (Cd, Cu, Pb)	ES08, ES09	PM_{10}, high volume sampler	24 hour, once a week	GF-AAS
Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn)	ES09	PM_{10}, high volume sampler	24 hour, once a week	GF-AAS (since 05/09/2005); but As, Cr, Ni and Zn data were not sent as they did not reach 90%.
VOCs	ES09	Canister	Twice a week	Gas chromatography with FID
Carbonyls	ES09	Cartridges of silica-DNPH	Twice a week	HPLC with UV-Vis detector

Country: **Sweden**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Wet-only	Weekly except SE02; daily at SE02	
Precipitation amount, official gauge				
Sulphate	All	Wet-only	Weekly except SE02; daily at SE02	Ion chromatography
Nitrate	All	Wet-only	Weekly except SE02; daily at SE02	Ion chromatography
Ammonium	All	Wet-only	Weekly except SE02; daily at SE02	Spectrophotometric, Flow injection analysis
Magnesium	All	Wet-only	Weekly except SE02; daily at SE02	Ion chromatography
Sodium	All	Wet-only	Weekly except SE02; daily at SE02	Ion chromatography
Chloride	All	Wet-only	Weekly except SE02; daily at SE02	Ion chromatography
Calcium	All	Wet-only	Weekly except SE02; daily at SE02	Ion chromatography
Potassium	All	Wet-only	Weekly except SE02; daily at SE02	Ion chromatography
Conductivity	All	Wet-only	Weekly except SE02; daily at SE02	Conductivity meter
pH	All	Wet-only	Weekly except SE02; daily at SE02	pH meter
Acidity				
Air				
Sulphur dioxide	All	KOH-impregnated Whatman 40 filter, 20 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	All	NaI-impregnated glass sinters, ~0.7 m^3/day	Daily	Spectrophotometric, Flow Injection Analysis
Nitric acid				
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Teflon filter, Gelman Zefluor 2 μm, 20 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}		TEOM (Tapered Element Oscillating Microbalance	Hourly	TEOM
$PM_{2.5}$		TEOM (Tapered Element Oscillating Microbalance	Hourly	TEOM
Suspended particulate matter	All	Black smoke on Whatman-filter	Daily	Reflectance
Sum of nitric acid and nitrate	All except SE08	Aerosol filter as for sulphate + KOH-impregnated Whatman 40 filter, 20 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	All except SE08	Aerosol filter as for sulphate + Oxalic acid impregnated Whatman 40 filter, 20 m^3/day	Daily	Flow injection analysis
Acidity				

Country: **Switzerland**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	CH02, CH04, CH05	Wet-only	Daily at CH02, CH05; weekly at CH04	
Precipitation amount, official gauge				
Sulphate	CH02, CH04, CH05	Wet-only	Daily at CH02, CH05; weekly at CH04	Ion chromatography
Nitrate	CH02, CH04, CH05	Wet-only	Daily at CH02, CH05; weekly at CH04	Ion chromatography
Ammonium	CH02, CH04, CH05	Wet-only	Daily at CH02, CH05; weekly at CH04	Ion chromatography
Magnesium	CH02, CH04, CH05	Wet-only	Daily at CH02, CH05; weekly at CH04	Ion chromatography
Sodium	CH02, CH04, CH05	Wet-only	Daily at CH02, CH05; weekly at CH04	Ion chromatography
Chloride	CH02, CH04, CH05	Wet-only	Daily at CH02, CH05; weekly at CH04	Ion chromatography
Calcium	CH02, CH04, CH05	Wet-only	Daily at CH02, CH05; weekly at CH04	Ion chromatography
Potassium	CH02, CH04, CH05	Wet-only	Daily at CH02, CH05; weekly at CH04	Ion chromatography
Conductivity	CH02, CH04, CH05	Wet-only	Daily at CH02, CH05; weekly at CH04	Conductivity meter
pH	CH02, CH04, CH05	Wet-only	Daily at CH02, CH05; weekly at CH04	pH meter
Acidity				
Air				
Sulphur dioxide	CH01	Absorbing solution H_2O_2, 4.1 m^3/day	Daily	Ion chromatography
Sulphur dioxide	CH02, CH04, CH05	Instrumental: UV-fluorescence	Daily	UV-fluorescence
Nitrogen dioxide	CH01, CH05	Chemiluminescence (Cranox)	Daily	Chemiluminescence (Cranox)
Nitrogen dioxide	CH02, CH03, CH04	Chemiluminescence	Daily	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	CH02, CH05	Schleicher & Schüll filter 589/4, 3.6 m^3/day (regularily checked against IC)	Daily	X-ray fluorescence (XRF)
Sulphate	CH01	Schleicher & Schüll filter 589/4, 4.1 m^3/day (regularily checked against IC)	Daily	X-ray fluorescence (XRF)
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	All	High Volume Samplers, Ederol 227/1/60, 720 m^3/day	Daily (CH01 2-day-samples)	Gravimetry
$PM_{2.5}$	CH02, CH04	High Volume Samplers, Ederol 227/1/60, 720 m^3/day	Daily	Gravimetry
PM_1	CH04	High Volume Samplers, Ederol 227/1/60, 720 m^3/day	Daily	Gravimetry
Suspended particulate matter				
Sum of nitric acid and nitrate	CH02, CH05	NaOH impregnated Schleicher & Schüll 589/4 filter, 18 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	CH02, CH05	Citric acid impregnated Schleicher & Schüll 589/4 filter, 18 m^3/day	Daily	Ion chromatography
Acidity				

Country: **Turkey**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Wet-only	Daily	
Precipitation amount, official gauge				
Sulphate	All	Wet-only	Daily	Ion chromatography
Nitrate	All	Wet-only	Daily	Ion chromatography
Ammonium	All	Wet-only	Daily	Spectrophotometric, Indophenol method
Magnesium	All	Wet-only	Daily	Atomic absorption method
Sodium	All	Wet-only	Daily	Atomic absorption method
Chloride	All	Wet-only	Daily	Ion chromatography
Calcium	All	Wet-only	Daily	Atomic absorption method
Potassium	All	Wet-only	Daily	Atomic absorption method
Conductivity	All	Wet-only	Daily	Conductivity meter
pH	All	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	All	KOH-impregnated Whatman 40 filter, 27 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	All	NaI-impregnated glass sinters, 0.72 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
Ozone				
Sulphate	All	Teflon filter, Gelman Zefluor 2 μm, 27 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	All	KOH-impregnated Whatman 40 filter, Teflon filter, Gelman Zeflour 2 μm, 27 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	All	Citric acid impregnated Whatman 40 filter, Teflon filter, Gelman Zeflour 2 μm, 27 m^3/day	Daily	Spectrophotometric, Indophenol method
Acidity				

Country: **United Kingdom**		Main components and ozone - EMEP	Year: 2005	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount		Bulk collector	Weekly then fortnightly	
Precipitation amount, official gauge				
Sulphate		Bulk collector	Weekly then fortnightly	Ion chromatography
Nitrate		Bulk collector	Weekly then fortnightly	Ion chromatography
Ammonium		Bulk collector	Weekly then fortnightly	Ion chromatography
Magnesium		Bulk collector	Weekly then fortnightly	Ion chromatography
Sodium		Bulk collector	Weekly then fortnightly	Ion chromatography
Chloride		Bulk collector	Weekly then fortnightly	Ion chromatography
Calcium		Bulk collector	Weekly then fortnightly	Ion chromatography
Potassium		Bulk collector	Weekly then fortnightly	Ion chromatography
Conductivity		Bulk collector	Weekly then fortnightly	Conductivity meter
pH		Bulk collector	Weekly then fortnightly	pH meter
Acidity				
Air				
Sulphur dioxide		Filter pack	Fortnightly	Ion chromatography
Nitrogen dioxide		Automatic monitor	Hourly	Chemiluminescence
Nitric acid		Note 1		
Ammonia		Note 1		
Ozone		UV-monitor	Hourly	UV-absorption
Sulphate		Whatman 41 filter, 1.1 m^3/day	Daily	Ion chromatography
Nitrate		Note 1	Monthly	
Ammonium		Note 1	Monthly	
Sodium		Note 1	Monthly	
Calcium		Note 1	Monthly	
Magnesium		Note 1	Monthly	
Potassium		Note 1	Monthly	
Chloride		Note 1	Monthly	
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	GB02	Note 2		
Sum of ammonia and ammonium	GB02	Note 2		
Acidity				

Note 1 These constituents of aerosol and gaseous species are made a number of sites in the UK The concentrations have not yet been reported. Should the UK report them this year?
Note 2 The TIN TIA measurements were discontinued before 2001

Annex 5

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Annex 6

Description of statistical calculation procedures

The geometric standard deviation is a dimensionless factor. If the data come from a random sample of independent data in a normal distribution, about 95% of the data will lie between

$$\overline{c_a} - 2sd_a \; and \; \overline{c_a} + 2sd_a$$

and between

$$\frac{\overline{c_g}}{sd_g^2} \; and \; \overline{c_g} \cdot sd_g^2$$

if the data come from a lognormal distribution.

In the computations of mean values and other statistics, the concentrations below the detection limit have been set equal to one half of the actual limit. An overview of the statistics and definitions is given below.

W.mean $\hat{c}$ is the precipitation weighted arithmetic mean concentration used for precipitation components:

$$\hat{c} = \frac{1}{\sum_i p_i} \cdot \sum_i c_i \cdot p_i$$

where p_i is precipitation amount day i with the measured concentration c_i of a specific component.

Arit mean $\overline{c_a}$ is the arithmetic mean value used for air components only, and N is number of days with data:

$$\overline{c_a} = \frac{1}{N} \sum_i c_i$$

Arit sd sd_a is the arithmetic standard deviation from the arithmetic mean value. It is computed for air components only:

$$sd_a = \left(\frac{\sum_i (c_i - \overline{c_a})^2}{N - 1} \right)^{\frac{1}{2}}$$

Geom mean $\overline{c_g}$ is the geometric mean value used for air components only, and it is computed from the arithmetic mean of ln c:

$$\overline{lnc} = \frac{1}{N} \cdot \sum_i lnc_i$$

$$\overline{c_g} = exp\left(\overline{lnc}\right)$$

Geom sd — sd_g is the geometric standard deviation from the geometric mean value. It is computed for air components only, and it is based on the standard deviation of ln c:

$$sdlnc = \left(\frac{\sum_i (lnc_i - \overline{lnc})^2}{N-1} \right)^{\frac{1}{2}}$$

$$sd_g = exp(sdlnc)$$

Min — is the minimum value reported for a specific component, and it is printed both for precipitation and air components.

5% — is the 5 percentile computed from the histogram of the daily results. The data have been divided into 30 classes of equal size with the addition of two extreme classes. The 5 percentile has been computed by linear interpolation of the two closest class marks. The percentile has been computed for air components only.

50% — is the 50 percentile, defined as above and computed for air data only.

95% — is the 95 percentile, defined as above and computed for air data only.

Max — is the maximum value reported for a specific component, and it is given for precipitation and air components.

Dep — is the wet deposition of a specific precipitation component. The deposition is the product of the total precipitation amount measured and the weighted arithmetic mean of a component measured at a site.

% anal — for precipitation components this is the percent of the total precipitation reported analysed for a specific component, and for air components based on the number of days with data.

Num bel — is the number of data below the detection limit (not used for precipitation amount).

Num day — is the number of days with measurements for a specific component.

Annex 7

EMEP Data Quality Objectives (DQO)

10 % accuracy or better for oxidized sulphur and oxidized nitrogen in single analysis in the laboratory,

15 % accuracy or better for other components in the laboratory,

0.1 units for pH,

15–25 % uncertainty for the combined sampling and chemical analysis (components to be specified later),

90 % data completeness of the daily values.

The targets, with respect to accuracy in the laboratory, for the very lowest concentrations of the main components in precipitation follow the WMO GAW (1992) recommendations for regional stations:

	Accuracy	
SO_4^{2-}	0.032 mg S/l	(1 µmol/l)
NO_3^-	0.014 mg N/l	(1 µmol/l)
NH_4^+	0.028 mg N/l	(2 µmol/l)
Cl^-	0.107 mg Cl/l	(3 µmol/l)
Ca^{2+}	0.012 mg Ca/l	(0.3 µmol/l)
K^+	0.012 mg K/l	(0.3 µmol/l)
Mg^{2+}	0.007 mg Mg/l	(0.3 µmol/l)
Na^+	0.007 mg Na/l	(0.3 µmol/l)

The targets for the wet analysis of components extracted from air filters are the same as for precipitation. For SO_2 the limit above for sulphate is valid for the medium volume method with impregnated filter. For NO_2 determined as NO_2^- in solution the accuracy for the lowest concentrations is 0.01 mg N/l.

The aim for data completeness is valid for the current definition used by the CCC. This definition will, however, be harmonised with the WMO GAW definition and modified.

It is understood that there is a need to investigate additional uncertainty caused by local influence on the measurements at the sites (not representative siting).