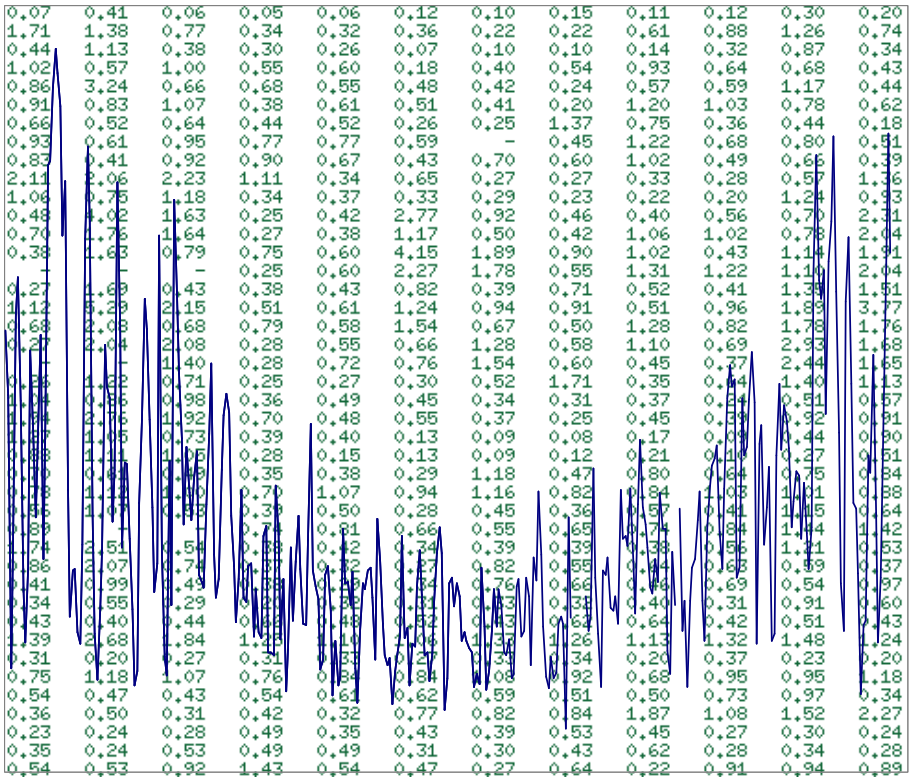
EMEP/CCC-Report 1/2010

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

Data Report 2008

Acidifying and eutrophying compounds and particulate matter

Anne-Gunn Hjellbrekke and Ann Mari Fjæraa



NILU
Norwegian Institute for Air Research
PO Box 100, NO-2027 Kjeller, Norway
Chemical Co-ordinating Centre of EMEP (CCC)

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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. Furthermore, VOC, POPs, heavy metals and particulate matter are included in the monitoring programme (ECE/EB.AIR/GE.1/2009/15).

The EMEP data from 2008 for particulate matter, 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://ebas.nilu.no and http://www.nilu.no/projects/ccc/.

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. Note that the site in Cyprus is outside the map domain shown in Figure 1.

In total, precipitation data from 91 stations and air data from 105 stations are presented in this report. The total number of measurement sites in this report is 128.

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 2008.

Country	Station codes	Station name	Location		Height above sea (m)
			Lat.	Long.	
Austria	AT0002R	Illmitz	47º46'N	16º46'E	117
	AT0005R	Vorhegg	46º40'N	12º58'E	1020
	AT0034G	Sonnblick	47º3'N	12º58'E	3106
	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
	DK0022R	Sepstrup Sande	55º05'N	9º36'E	60
	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
	FI0036R	Pallas (Matorova)	68º0'N	24º14'E	340
	FI0037R	Ähtari II	62º35'N	24º11'E	180
	FI0096G	Pallas (Sammaltunturi)	68º0'N	24 º9'E	340
France	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
	FR0018R	La Coulonche	48º38'N	0º27'W	309
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
	DE0044R	Melpitz	52º31'N	12º55'E	86
Greece	GR0001R	Aliartos	38º22'N	23º05'E	110
	GR0002R	Finokalia	35º19'N	25º40'E	250
Hungary	HU0002R	K-puszta	46º58'N	19º35'E	125
Iceland	IS0002R	Irafoss	64º05N	21º01'W	61
	IS0091R	Storhofdi	63º24'N	20º17'W	118
Ireland	IE0001R	Valentina Observatory	51º56'N	10º14'W	9
	IE0006R	Malin Head	55º22'N	7º20'W	20
	IE0007R	Glen Veagh	55º3'N	7º56'W	44
	IE0008R	Carnsore Point	52º11'N	6º22'W	9
	IE0009R	Johnstown Castle	52º18'N	6º30'W	62
	IE0031R	Mace Head	53º10'N	9º30'W	15
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

Table 1, cont.

Country	Station codes	Station name	Location		Height above sea (m)
			Lat.	Long.	
Lithuania	LT0015R	Preila	55º21'N	21º04'E	5
Moldova	MD0013R	Leova II	46°29'N	28°17'E	166
Netherlands	NL0007R	Eibergen	52º05'N	6º34'E	20
	NL0008R	Bilthoven	52º07'N	5º12'E	5
	NL0009R	Kollumerwaard	53º20'N	6º17'E	1
	NL0010R	Vredepeel	51º32'N	5º51'E	28
	NL0011R	Cabauw	51°18'N	4°56'E	60
	NL0091R	De Zilk	52°18'N	4°30'E	4
Norway	NO0001R	Birkenes	58º23'N	8º15'E	190
	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
	NO0056R	Hurdal	60°22'N	11°05'E	300
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
	RU0018R	Danki	54º54'N	37º48'E	150
	RU0020R	Lesnoy	56º31'N	32º56'E	340
Serbia	RS0005R	Kamenicki vis	43°24'N	21°57'E	813
Slovenia	SI0008R	Iskrba	45º34'N	14º52'E	520
	SI0032R	Krvavec	46°18'N	14°32'E	1740
Slovakia	SK0002R	Chopok	48º56'N	19º35'E	2008
	SK0004R	Stará Lesná	49º09'N	20º17'E	808
	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	3º09'W	1360
	ES0010R	Cabo de Creus	42º19'N	3º19'E	23
	ES0011R	Barcarrola	38º29'N	6º55'W	393
	ES0012R	Zarra	39º05'N	1º06'W	885
	ES0013R	Penausende	41°17'N	5°52'W	985
	ES0014R	Els Torms	41°24'N	0°43'E	470
	ES0016R	O Saviñao	43°13'N	7°41'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
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	Strait Vaich Dam	57°44'M	4°46'W	270
	GB0016R	Glen Dye	56°58'N	2°25'W	85
	GB0031R	Aston Hill	52°30'N	3°02'W	370
	GB0033R	Bush	55°52'N	3°12'W	180
	GB0036R	Harwell	51°34'N	1°19'W	137
	GB0037R	Ladybower Res.	53°23'N	1°45'W	420

Table 1, cont.

Country	Station codes	Station name	Location		Height above sea (m)
			Lat.	Long.	
United Kingdom, cont.	GB0038R	Lullington Heath	50°47'N	0°10'W	120
	GB0043R	Narberth	51°14'N	4°42'W	160
	GB0044R	Somerton	51°14'N	3°03'W	55
	GB0045R	Wicken Fen	52°17'N	0°17'W	5
	GB0048R	Auchencorth Moss	55°51'N	3°12'W	190
	GB0050R	St. Osyth	51°47'N	1°05'E	8
	GB0051R	Market Harborough	52°33'N	0°46'W	145
	GB0053R	Charlton Mackrell	51°03'N	2°42'W	54

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.

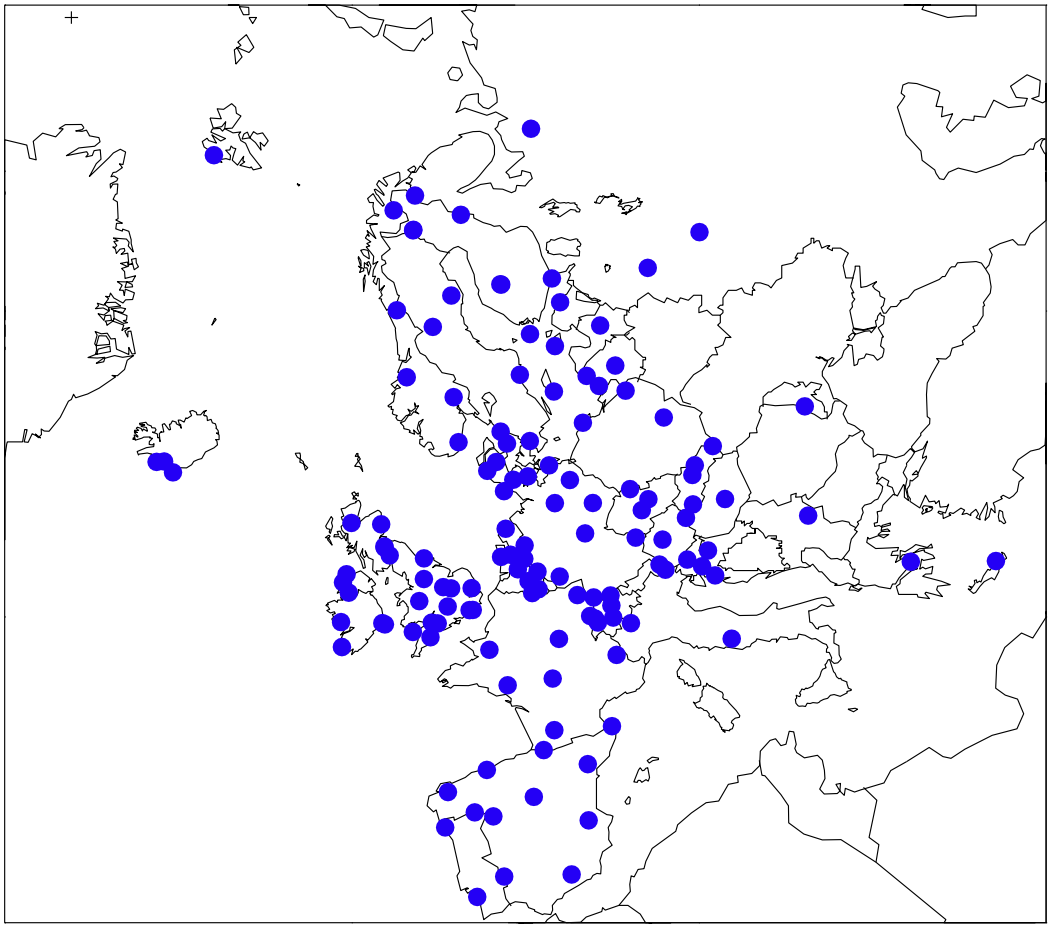

Figure 1: Location of the EMEP monitoring stations in operation in 2008. Sites with ozone/VOC measurements only are not included.

4. The measurement programme during 2008

EMEP's measurement programme during 2008 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 2008.

	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 (PM_{10} + $PM_{2.5}$)	24 hours	daily
	EC, OC and mineral dust in PM_{10}	daily/weekly	daily/weekly
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.

The VOC data from 2008 have been reported separately by Solberg (2010), while ozone data from 2008 have been reported by Fjæraa and Hjellbrekke (2010). Heavy metals and POPs were reported by Aas and Breivik (2010). More details of the fraction is presented in the PM status report (EMEP, 2010).

A list of data reports from EMEP/CCC can be found in Annex 5. The most recent 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

The 26th laboratory intercomparison is representative for the 2008 data (Uggerud and Hjellbrekke, 2009).

A series of EMEP's sites will also report data to WMO, and common reporting and quality assurance routines have been developed between EMEP and WMO GAW.

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.

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 further been adopted by the 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.

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.

8. Annual summaries of the data

8.1 Maps over Europe

Geographical distributions based on annual means of SO_2, NO_2 SO_4^{--}, PM_{10} and $PM_{2.5}$ in air and pH, NH_4^+, NO_3^-, Ca and excess SO_4^{--} in precipitation are shown 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.

Table 3: Annual averages of main components in precipitation 2008.

Code	mm	mm off	pH	SO_4	XSO_4	NH_4	NO_3	Na	Mg	Cl	Ca	K	cond
AT0002R	430.8	-	5.85	0.67	0.64	1.31	0.55	0.25	0.115	0.36	0.87	0.30	21
AT0005R	1241.1	-	5.69	0.21	0.20	0.29	0.24	0.11	0.037	0.41	0.31	0.03	7
AT0048R	1307.8	-	5.27	0.28	0.27	0.51	0.39	0.08	0.030	0.12	0.24	0.04	11
BY0004R	572.9	-	6.68	1.53	1.28	0.94	0.50	0.68	0.352	1.10	2.24	0.86	52
CH0002R	931.3	-	5.42	0.20	0.19	0.39	0.26	0.07	0.020	0.13	0.23	0.03	8
CH0004R	1151.0	-	5.29	0.17	0.16	0.25	0.21	0.07	0.019	0.12	0.20	0.03	7
CH0005R	1065.4	-	5.31	0.22	0.21	0.43	0.30	0.07	0.020	0.10	0.26	0.03	9
CZ0001R	691.2	-	4.93	0.55	0.54	0.67	0.52	0.13	0.042	0.23	0.33	0.11	16
CZ0003R	504.5	-	4.92	0.38	0.37	0.61	0.42	0.12	0.031	0.19	0.18	0.08	16
DE0001R	861.0	-	5.04	0.70	0.24	0.37	0.37	5.57	0.670	9.21	0.31	0.20	36
DE0002R	626.1	-	5.09	0.44	0.39	0.65	0.43	0.57	0.084	0.99	0.19	0.04	12
DE0003R	1691.6	-	5.07	0.25	0.24	0.30	0.27	0.12	0.023	0.21	0.21	0.02	7
DE0004R	647.0	-	5.24	0.28	0.27	0.34	0.26	0.21	0.043	0.35	0.31	0.03	7
DE0005R	1110.6	-	5.12	0.29	0.28	0.43	0.34	0.13	0.024	0.22	0.17	0.02	8
DE0007R	569.7	-	4.98	0.35	0.32	0.56	0.44	0.39	0.061	0.65	0.18	0.05	12
DE0008R	1246.8	-	4.89	0.36	0.34	0.47	0.41	0.22	0.031	0.34	0.15	0.02	10
DE0009R	565.6	-	4.92	0.49	0.39	0.47	0.43	1.20	0.160	2.01	0.22	0.11	15
DE0044R	566.5	-	5.17	0.48	0.46	0.85	0.54	0.25	0.051	0.43	0.31	0.09	12
DK0005R	611.1	-	5.11	0.46	0.33	0.54	0.47	1.57	0.184	2.63	0.25	0.17	-
DK0008R	599.5	-	4.75	0.48	0.20	0.25	0.38	3.43	0.382	5.97	0.23	0.15	-
DK0022R	877.9	-	5.01	0.40	0.24	0.43	0.39	1.94	0.196	3.23	0.12	0.09	-
DK0031R	875.7	-	4.94	0.42	0.17	0.23	0.28	2.98	0.332	5.10	0.20	0.14	-
EE0009R	881.2	-	4.62	0.31	0.29	0.15	0.23	0.25	0.063	0.39	0.52	0.06	9
EE0011R	706.4	-	4.81	0.38	0.31	0.19	0.24	0.82	0.157	1.42	0.69	0.10	14
ES0007R	555.8	-	6.44	0.46	0.42	0.35	0.21	0.44	0.137	0.50	0.75	0.11	12
ES0008R	1523.4	-	4.91	0.75	0.38	0.25	0.35	5.07	0.529	7.38	0.45	0.26	44
ES0009R	708.4	-	6.10	0.18	0.15	0.27	0.29	0.39	0.076	0.37	0.78	0.11	10
ES0011R	1002.2	-	5.66	0.31	0.22	0.10	0.16	1.14	0.165	1.50	0.98	0.19	14
ES0012R	753.0	-	6.32	0.32	0.29	0.33	0.27	0.33	0.086	0.32	0.95	0.11	11
ES0013R	466.6	-	5.45	0.21	0.18	0.25	0.28	0.35	0.054	0.37	0.40	0.20	12
ES0014R	617.6	-	6.57	0.47	0.37	0.44	0.36	1.37	0.155	1.77	2.09	0.21	24
ES0016R	1205.6	-	5.51	0.30	0.18	0.16	0.10	1.48	0.166	2.04	0.30	0.13	16
FI0004R	767.9	-	4.79	0.20	0.19	0.14	0.22	0.11	0.022	0.19	0.06	0.07	11
FI0017R	635.5	-	4.62	0.49	0.46	0.30	0.39	0.34	0.063	0.62	0.20	0.27	19
FI0022R	569.5	-	4.78	0.19	0.18	0.07	0.14	0.09	0.014	0.14	0.04	0.06	9
FI0036R	628.3	-	4.78	0.16	0.15	0.05	0.12	0.08	0.012	0.14	0.03	0.03	9
FR0008R	1380.5	-	5.05	0.23	0.21	0.38	0.27	0.24	0.052	0.44	0.19	0.18	15
FR0009R	1316.8	-	5.16	0.31	0.27	0.51	0.31	0.58	0.097	0.77	0.23	0.04	18
FR0010R	1201.2	-	5.22	0.22	0.19	0.38	0.23	0.34	0.066	0.68	0.36	0.12	14
FR0012R	1793.6	-	5.40	0.24	0.20	0.31	0.21	0.48	0.082	0.64	0.33	0.08	16
FR0013R	958.9	-	5.50	0.25	0.20	0.35	0.19	0.72	0.102	1.54	0.31	0.05	17
FR0014R	1200.4	-	5.49	0.19	0.18	0.32	0.23	0.16	0.052	0.17	0.30	0.04	12
FR0015R	973.4	-	5.75	0.30	0.17	0.42	0.18	1.62	0.207	2.70	0.21	0.08	22
FR0016R	893.0	-	5.65	0.21	0.20	0.17	0.16	0.10	0.063	0.16	0.70	0.05	12
FR0017R	1430.1	-	5.59	0.22	0.18	0.25	0.17	0.45	0.081	0.70	0.39	0.04	15
FR0018R	924.5	-	5.39	0.35	0.25	0.60	0.23	1.33	0.170	2.30	0.29	0.08	25
GB0002R	1469.5	-	5.18	0.28	0.14	0.24	0.14	1.69	0.188	2.81	0.19	0.09	16
GB0006R	1470.9	-	5.43	0.45	0.09	0.18	0.08	4.43	0.497	7.49	0.35	0.21	32
GB0013R	1164.5	-	4.91	0.41	0.20	0.23	0.22	2.52	0.297	4.21	0.26	0.13	23
GB0014R	862.5	-	5.15	0.47	0.34	0.38	0.29	1.68	0.218	2.82	0.34	0.22	19
GB0015R	1280.1	-	5.12	0.39	0.05	0.04	0.06	4.10	0.460	6.89	0.24	0.15	30
HR0002R	-	1149.00	5.58	0.49	0.46	0.41	0.31	0.33	0.199	0.57	1.25	0.95	15
HR0004R	-	1908.60	5.75	0.45	0.39	0.49	0.34	0.63	0.125	1.02	1.23	0.54	16
HU0002R	-	556.60	5.75	0.81	0.72	0.56	0.40	1.29	0.128	1.18	0.70	0.18	20
IE0001R	1955.9	1955.90	5.25	2.14	0.16	0.22	0.11	23.67	3.022	42.22	0.99	1.02	155
IE0007R	1090.9	-	5.52	0.67	0.10	0.07	0.08	6.89	0.861	12.12	0.36	0.27	50
IE0009R	968.6	-	5.63	0.40	0.20	0.34	0.14	2.54	0.292	4.36	0.25	0.14	25
IS0002R	1866.4	-	5.50	0.71	0.18	-	0.07	6.40	0.769	11.12	0.35	0.41	42
IS0091R	1521.2	1777.90	5.68	6.96	-0.72	0.30	0.36	93.21	12.048	188.08	5.34	3.69	625
IT0001R	1177.7	-	5.07	0.96	0.77	0.26	0.46	2.21	0.364	3.97	2.87	0.41	43
IT0004R	1292.0	-	4.99	0.38	0.36	0.73	0.52	0.28	0.039	0.26	0.34	0.04	14
LT0015R	547.1	-	4.72	0.64	-	0.50	0.50	2.69	-	4.12	0.72	0.16	31
LV0010R	931.8	-	4.77	0.40	0.34	0.37	0.39	0.62	0.094	0.94	0.18	0.07	20
LV0016R	822.8	-	4.90	0.30	0.29	0.30	0.26	0.18	0.057	0.22	0.17	0.04	13

Table 3, cont.

Code	mm	mm off	pH	SO_4	XSO_4	NH_4	NO_3	Na	Mg	Cl	Ca	K	cond
NL0009R	657.2	-	5.53	0.46	0.30	0.58	0.34	1.78	0.218	3.27	0.29	0.16	22
NO0001R	1989.9	-	4.77	0.39	0.26	0.29	0.35	1.59	0.205	2.59	0.13	0.08	22
NO0015R	1162.1	-	5.33	0.20	0.07	0.09	0.08	1.50	0.222	2.79	0.16	0.07	14
NO0039R	1422.2	-	5.37	0.18	0.05	0.08	0.07	1.49	0.217	2.60	0.13	0.10	14
NO0055R	371.4	-	5.22	0.21	0.17	0.14	0.14	0.44	0.070	0.72	0.25	0.28	9
NO0056R	1067.7	-	5.10	0.24	0.20	0.31	0.32	0.43	0.060	0.73	0.19	0.16	12
PL0002R	664.9	-	4.85	0.63	0.61	0.66	0.42	0.15	0.039	0.39	0.26	0.09	17
PL0003R	982.5	-	4.50	0.91	0.86	0.50	0.77	0.52	0.164	0.69	0.42	0.28	27
PL0004R	674.2	-	4.69	0.43	0.35	0.41	0.44	0.97	0.123	1.98	0.20	0.10	22
PL0005R	687.4	760.80	4.78	0.49	0.46	0.45	0.40	0.25	0.051	0.57	0.16	0.07	14
PT0001R	-	551.60	5.35	0.39	0.32	0.83	0.06	0.67	0.168	0.92	2.19	0.32	26
PT0003R	-	1156.90	5.18	0.41	0.18	0.14	0.06	2.81	0.379	5.14	0.41	0.14	26
PT0004R	-	420.70	5.44	0.54	0.16	0.19	0.10	4.49	0.601	8.47	0.83	0.26	42
RS0005R	741.0	-	4.29	0.84	0.81	0.88	0.34	0.42	0.135	0.45	0.90	1.00	23
RU0001R	448.4	-	4.97	0.41	0.36	0.08	0.07	0.82	0.082	1.47	0.21	0.34	13
RU0013R	663.5	-	5.53	0.49	0.42	0.29	0.20	0.98	0.120	1.38	0.43	0.43	17
RU0018R	791.1	-	4.94	0.55	0.52	0.21	0.28	0.47	0.074	0.64	0.39	0.29	14
RU0020R	818.1	-	5.26	0.43	0.38	0.32	0.28	0.70	0.076	1.11	0.40	0.43	16
SE0005R	194.5	-	5.04	0.19	0.18	0.11	0.14	0.17	0.044	0.16	0.14	0.07	7
SE0011R	739.8	-	4.83	0.38	0.28	0.42	0.44	1.19	0.147	1.84	0.18	0.06	20
SE0014R	686.4	-	4.85	0.68	0.32	0.62	0.38	4.37	0.555	6.96	0.28	0.35	41
SI0008R	1519.7	-	4.94	0.41	0.37	0.27	0.31	0.42	0.071	0.69	0.45	0.04	13
SK0002R	1352.0	-	4.93	0.49	0.47	0.43	0.29	0.18	0.036	0.23	0.16	0.09	13
SK0004R	746.8	-	4.82	0.48	0.46	0.27	0.27	0.28	0.042	0.28	0.24	0.09	16
SK0006R	857.8	-	4.75	0.53	0.51	0.32	0.32	0.16	0.041	0.21	0.23	0.08	16
SK0007R	528.2	-	5.30	0.37	0.36	0.47	0.33	0.16	0.076	0.22	0.37	0.08	12

Table 4: Annual averages of main components in air 2008.

Code	SO_2	NO_2	SO_4	XSO_4	SNO_3	NO_3	HNO_3	SNH_4	NH_4	NH_3
AT0002R	0.67	2.48	0.90	0.89	-	0.20	0.57	-	0.96	1.74
AT0005R	0.15	1.04	-	-	-	-	-	-	-	-
AT0048R	0.23	-	-	-	-	-	-	-	-	-
BE0001R	-	2.45	-	-	-	-	-	-	-	-
BE0032R	-	4.00	-	-	-	-	-	-	-	-
BE0035R	-	4.82	-	-	-	-	-	-	-	-
CH0001G	0.05	0.13	0.11	-	-	-	-	-	-	-
CH0002R	0.39	3.27	0.52	0.52	1.01	0.71	0.23	3.54	1.00	2.32
CH0003R	-	4.29	-	-	-	-	-	-	-	-
CH0004R	0.35	1.68	-	-	-	-	-	-	-	-
CH0005R	0.24	1.31	0.41	0.42	0.71	0.45	0.17	1.74	0.70	0.97
CZ0001R	0.95	2.23	0.77	-	0.84	-	-	2.45	-	-
CZ0003R	0.62	2.48	0.56	-	0.77	0.36	-	1.81	0.79	-
DE0001R*	0.42	2.21	0.69	0.53	0.35	0.17	0.19	2.03	0.58	1.45
DE0002R*	0.44	2.95	0.83	0.79	0.84	0.59	0.26	2.28	0.73	1.55
DE0003R*	0.20	1.02	0.48	0.46	0.40	0.21	0.19	1.17	0.34	0.84
DE0007R*	0.49	1.92	0.74	0.71	0.66	0.47	0.20	1.55	0.74	0.81
DE0008R	0.54	2.16	-	-	-	-	-	-	-	-
DE0009R*	0.50	2.39	0.75	0.68	0.85	0.65	0.20	1.75	0.67	1.08
DE0044R	-	-	0.79	-	-	0.63	-	-	1.35	-
DK0003R	0.17	-	0.52	0.43	0.64	-	-	1.85	0.87	0.97
DK0005R	0.55	2.61	0.71	0.60	0.91	-	-	1.64	1.19	0.46
DK0008R	0.43	1.73	0.73	0.55	0.78	-	-	1.05	0.89	0.16
DK0031R	0.18	-	0.56	0.43	0.64	-	-	1.39	0.83	0.56
EE0009R	0.93	2.45	-	-	-	-	-	-	-	-
EE0011R	0.79	2.45	-	-	-	-	-	-	-	-
ES0007R	0.43	1.95	0.55	-	0.49	0.41	-	0.91	-	-
ES0008R	0.79	1.43	0.80	-	0.50	0.34	-	1.52	-	0.76
ES0009R	0.28	0.51	0.30	-	0.37	0.09	-	0.95	0.78	0.84
ES0010R	0.16	1.30	0.83	-	0.61	0.48	-	1.31	-	-
ES0011R	0.26	0.87	0.51	-	0.38	0.29	-	1.38	-	-
ES0012R	0.31	0.80	0.91	-	0.42	0.41	-	1.15	-	-
ES0013R	0.24	1.12	0.40	-	0.33	0.25	-	0.93	-	-
ES0014R	0.40	1.19	0.71	-	0.54	0.46	-	3.82	-	-
ES0016R	0.44	1.31	0.55	-	0.43	0.23	-	1.42	-	-
FI0009R	0.31	1.19	0.44	0.39	0.35	-	-	0.42	0.34	-
FI0017R	0.41	1.33	0.46	0.45	0.23	-	-	0.40	0.31	-
FI0022R	0.16	0.28	0.23	0.22	0.04	-	-	0.10	0.06	-
FI0036R	0.21	-	0.23	0.22	0.04	-	-	0.10	0.07	-
FI0037R	0.14	0.52	0.37	0.35	0.12	-	-	0.29	0.16	-
FI0096G	-	0.24	-	-	-	-	-	-	-	-
FR0008R	-	4.66	-	-	-	-	-	-	-	-
FR0009R	0.17	-	0.28	-	0.45	0.35	0.09	1.03	0.60	0.40
FR0013R	0.23	3.39	0.46	-	0.47	0.37	0.11	1.43	0.60	0.84
FR0015R	0.20	9.57	0.75	-	0.86	0.73	0.12	5.45	1.31	4.17
GB0002R	-	1.54	0.33	-	-	-	-	-	-	-
GB0006R	-	-	0.30	-	-	0.21	0.06	-	0.32	0.49
GB0007R	-	-	0.73	-	-	-	-	-	-	-
GB0013R	-	1.63	0.56	-	-	0.36	0.16	-	0.56	0.39
GB0014R	-	2.00	0.41	-	-	0.41	0.16	-	0.54	0.68
GB0016R	-	-	-	-	-	0.14	0.11	-	0.20	0.17
GB0031R	-	1.93	-	-	-	-	-	-	-	-
GB0033R	-	2.44	-	-	-	-	-	-	-	-
GB0036R	1.03	3.08	-	-	-	-	-	-	-	-
GB0037R	0.88	2.34	-	-	-	-	-	-	-	-

* Data for the period 1st January to 31st August.

Table 4, cont.

Code	SO_2	NO_2	SO_4	XSO_4	SNO_3	NO_3	HNO_3	SNH_4	NH_4	NH_3
GB0038R	0.84	2.95	-	-	-	-	-	-	-	-
GB0043R	1.69	1.75	-	-	-	-	-	-	-	-
GB0044R	-	3.75	-	-	-	-	-	-	-	-
GB0045R	2.21	3.21	-	-	-	-	-	-	-	-
GB0050R	-	3.83	-	-	-	-	-	-	-	-
GB0051R	-	3.29	-	-	-	-	-	-	-	-
GB0053R	-	3.40	-	-	-	-	-	-	-	-
GR0001R	1.83	3.75	-	-	-	-	-	-	-	-
HU0002R	1.38	1.88	1.21	-	-	0.53	0.31	-	0.95	1.54
IE0001R	0.26	1.04	0.61	0.35	0.29	-	-	0.79	-	-
IE0006R	-	-	0.53	0.32	-	0.28	-	-	0.59	-
IE0008R	-	-	0.68	0.39	-	0.39	-	-	0.75	-
IS0002R	0.09	-	0.08	-0.03	-	-	-	-	-	-
IS0091R	-	-	0.56	0.10	-	0.06	-	-	-	-
IT0001R	0.27	4.78	0.61	-	-	0.35	0.17	-	1.01	1.79
IT0004R	0.36	6.82	0.78	-	-	0.93	-	-	1.50	-
LT0015R	0.55	0.91	0.94	-	0.70	-	-	1.56	-	-
LV0010R	0.39	0.79	0.69	0.67	0.46	0.44	-	1.08	0.72	-
LV0016R	0.23	0.63	0.60	-	0.29	0.26	-	0.84	0.57	-
MD0013R	0.45	-	0.56	-	0.78	0.26	0.52	1.16	0.49	0.67
NL0007R	0.35	5.19	-	-	-	-	-	-	-	6.97
NL0008R	0.91	-	0.67	-	-	-	-	-	1.10	-
NL0009R	0.50	4.36	0.55	-	-	0.68	-	-	1.00	-
NL0010R	0.60	7.18	0.64	-	-	-	-	-	1.20	14.14
NL0011R	0.61	6.37	-	-	-	-	-	-	-	-
NL0091R	1.10	5.18	0.57	-	-	0.57	-	-	0.88	1.74
NO0001R	0.07	0.34	0.28	0.24	0.19	0.15	0.04	0.49	0.14	0.35
NO0015R	0.03	0.14	0.15	0.13	0.09	0.07	0.02	0.98	0.07	0.92
NO0039R	0.03	0.20	0.14	0.12	0.07	0.04	0.02	0.70	0.06	0.65
NO0042G	0.07	-	0.14	0.12	0.10	0.08	0.02	0.33	0.06	0.28
NO0055R	0.35	0.19	0.22	0.20	0.07	0.05	0.02	-	0.10	-
NO0056R	0.04	0.73	0.21	0.20	0.16	0.11	0.05	0.44	0.11	0.33
PL0002R	1.76	2.97	1.52	-	0.71	0.60	-	2.95	1.37	-
PL0003R	1.06	0.96	0.83	-	0.45	0.33	-	0.64	0.51	-
PL0004R	1.05	1.57	1.35	-	0.55	0.43	-	1.24	0.84	-
PL0005R	0.59	0.82	0.61	-	0.75	0.52	0.51	1.52	-	0.99
RS0005R	10.25	2.53	-	-	-	-	-	-	-	-
RU0018R	0.12	-	0.16	-	-	0.04	-	-	0.26	-
SE0005R	0.04	0.11	0.17	-	0.07	-	-	0.18	-	-
SE0008R	0.47	1.17	0.53	-	-	-	-	-	-	-
SE0011R	0.30	1.38	0.49	-	0.55	-	-	0.99	-	-
SE0014R	0.33	1.34	0.62	-	0.57	-	-	0.76	-	-
SI0008R	0.41	0.41	0.76	0.75	0.20	-	-	0.92	-	-
SK0002R	0.15	0.54	0.23	-	-	0.06	0.01	-	-	-
SK0006R	0.67	1.27	0.79	0.79	-	0.30	0.02	-	0.78	0.20

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

Code	Na	Ca	Mg	K	Cl
AT0002R	0.09	0.13	0.03	0.22	-
CH0002R	0.14	0.35	0.03	0.17	-
CH0005R	0.10	0.29	0.03	0.08	-
DE0001R*	2.05	0.16	0.24	0.22	3.24
DE0002R*	0.50	0.13	0.10	0.15	0.46
DE0003R*	0.21	0.51	0.05	0.11	0.15
DE0007R*	0.42	0.32	0.07	0.17	0.49
DE0009R*	0.85	0.13	0.12	0.12	0.87
DK0003R	1.06	0.14	-	0.16	1.67
DK0005R	1.33	0.14	-	0.13	1.90
DK0008R	2.17	0.12	-	0.12	3.17
DK0031R	1.52	0.12	-	0.14	2.32
FI0009R	0.58	0.07	0.07	0.05	0.57
FI0017R	0.21	0.07	0.03	0.06	0.10
FI0022R	0.08	0.01	0.01	0.02	0.03
FI0036R	0.14	0.01	0.02	0.02	0.14
FI0037R	0.12	0.02	0.02	0.04	0.06
IE0001R	3.06	0.18	0.36	0.14	-
IE0006R	2.46	0.13	0.29	0.12	-
IE0008R	3.46	0.19	0.42	0.16	-
IS0002R	1.27	0.68	0.19	0.06	2.40
IS0091R	-	-	-	-	9.81
MD0013R	0.31	0.38	0.04	0.29	0.26
NL0008R	-	-	-	-	0.67
NL0009R	-	-	-	-	0.84
NL0010R	-	-	-	-	0.33
NL0091R	-	-	-	-	1.27
NO0001R	0.48	0.08	0.07	0.04	0.50
NO0015R	0.29	0.10	0.05	0.02	0.40
NO0039R	0.18	0.08	0.03	0.02	0.26
NO0042G	0.26	0.05	0.05	0.02	0.28
NO0055R	0.21	0.05	0.03	0.02	0.25
NO0056R	0.17	0.09	0.03	0.03	0.12
SI0008R	0.11	0.16	0.03	0.11	0.07
SK0006R	0.08	0.10	0.02	0.12	-

* Data for the period 1st January to 31st August.

Table 6: Annual averages of particulate matter.

Code	PM_{10}	PM_{10}-$PM_{2.5}$	$PM_{2.5}$	PM_1
AT0002R	20.77	-	16.39	11.39
AT0005R	7.92	-	-	-
AT0048R	8.57	-	-	-
CH0001G	2.78	-	-	-
CH0002R	18.77	-	11.88	9.48
CH0003R	16.74	-	-	-
CH0004R	9.57	-	-	-
CH0005R	9.77	-	6.92	5.61
CY0002R	35.60	-	15.98	-
CZ0001R	19.90	-	-	-
CZ0003R	17.06	-	14.56	8.58
DE0001R	18.32	-	-	-
DE0002R	15.21	-	10.99	6.18
DE0003R	7.15	-	5.29	-
DE0007R	12.26	-	-	-
DE0008R	9.40	-	-	-
DE0009R	14.32	-	-	-
DE0044R	20.97	-	16.81	-
DK0005R	18.09	-	-	-
EE0009R	7.02	-	-	-
ES0007R	18.39	-	9.74	-
ES0008R	17.18	-	8.85	-
ES0009R	7.65	-	5.99	-
ES0010R	17.85	-	7.96	-
ES0011R	13.99	-	6.23	-
ES0012R	16.74	-	5.78	-
ES0013R	9.78	-	6.58	-
ES0014R	13.89	-	8.25	-
ES0016R	10.00	-	6.12	-
FR0009R	15.59	-	9.92	-
FR0013R	12.19	-	7.66	-
FR0015R	13.23	-	-	-
GB0006R	12.66	-	-	-
GB0036R	14.23	-	10.05	-
GB0043R	17.63	-	-	-
GB0048R	8.47	-	5.39	-
GR0002R	17.62	-	-	-
HU0002R	26.34	-	-	-
IE0031R	-	-	10.00	-
IT0001R	30.91	-	22.09	-
IT0004R	-	-	20.34	-
LV0010R	25.94	-	18.00	-
LV0016R	21.44	-	16.17	-
MD0013R	19.29	-	-	-
NL0007R	23.98	-	-	-
NL0009R	23.82	-	-	-
NL0010R	21.14	-	-	-
NL0091R	24.68	-	-	-
NO0001R	5.88	-	3.00	2.21
PL0005R	15.66	-	-	-
SE0011R	11.29	-	8.62	-
SE0012R	8.64	-	6.97	-
SE0014R	16.04	-	6.43	-
SE0035R	6.43	-	-	-

Table 6, cont.

Code	PM10	PM_{10}-$PM_{2.5}$	$PM_{2.5}$	PM_1
SI0008R	16.04	-	10.60	-
SK0004R	11.35	-	-	-
SK0006R	13.57	-	-	-
SK0007R	18.18	-	-	-

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, NO	µg N/m^3
CO	ppb
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
OC	µg C/m^3
EC	µg C/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 7 June, 2010.

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://ebas.nilu.no and http://www.nilu.no/projects/ccc/. Information about the EMEP network and measurement data can also be found at http://www.emep.int.

10. References

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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 Leipzig (Melpitz), IFT
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. Environmental Protection Agency (EPA)
Italy	C.N.R. Istituto Inquinamento Atmosferico
Latvia	Latvian Environment, Geology and Meteorology Agency
Lithuania	Environmental Physics and Chemistry Laboratory, Institute of Physics
Moldova	State Hydrometeorological Service
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	Federal Hydrometeorological Institute
Slovakia	Slovak Hydrometeorological Institute
Slovenia	Environmental Agency of the Republic 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

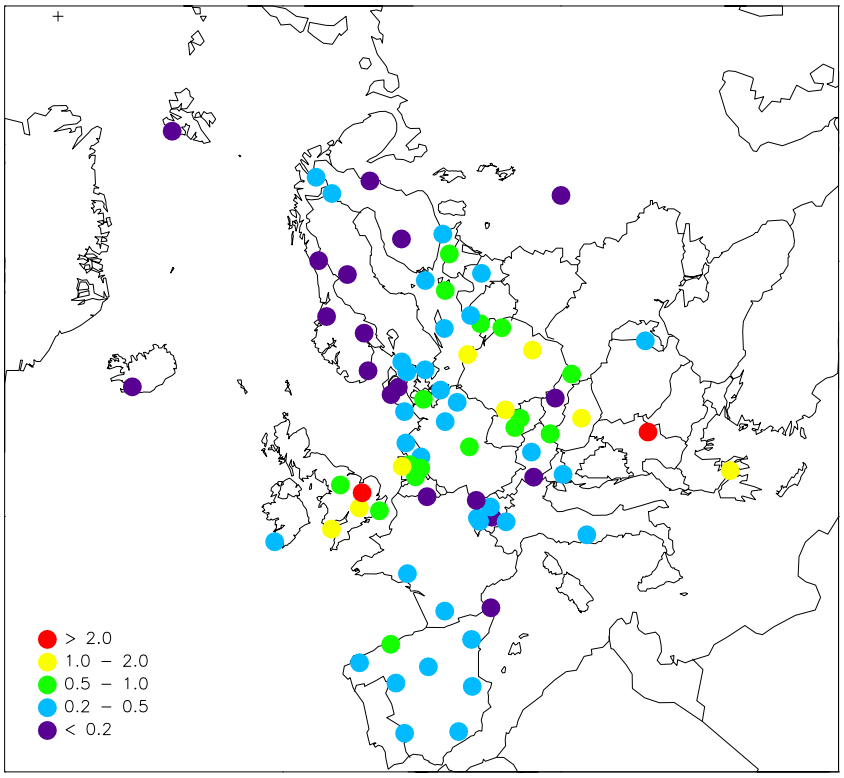

Figure 1.1: Geographical distribution of sulphur dioxide 2008. Unit: μg S/m^3.

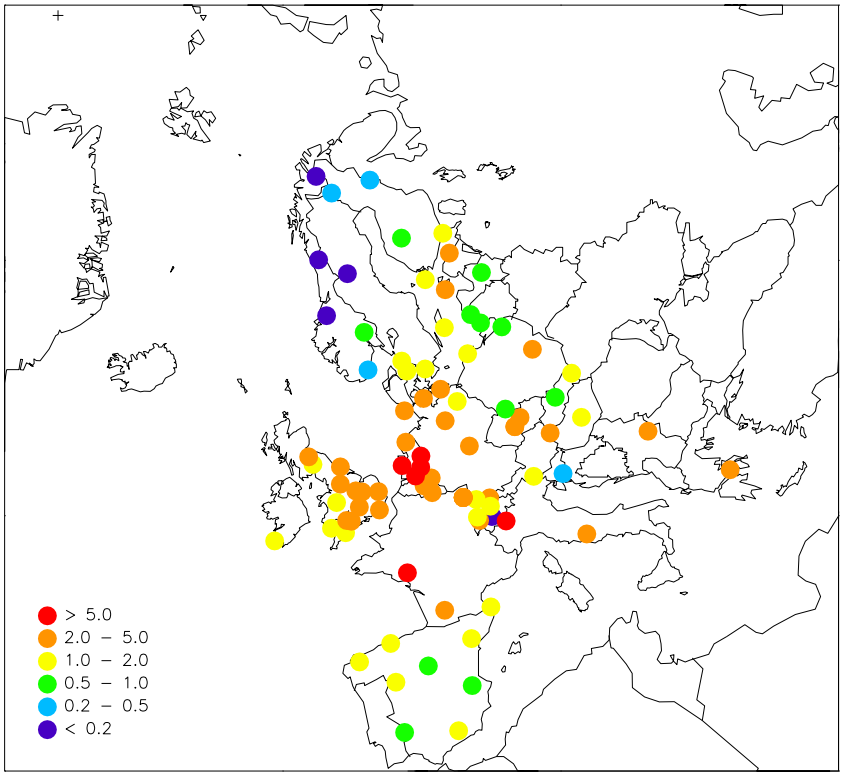

Figure 1.2: Geographical distribution of nitrogen dioxide 2008. Unit: μg N/m^3.

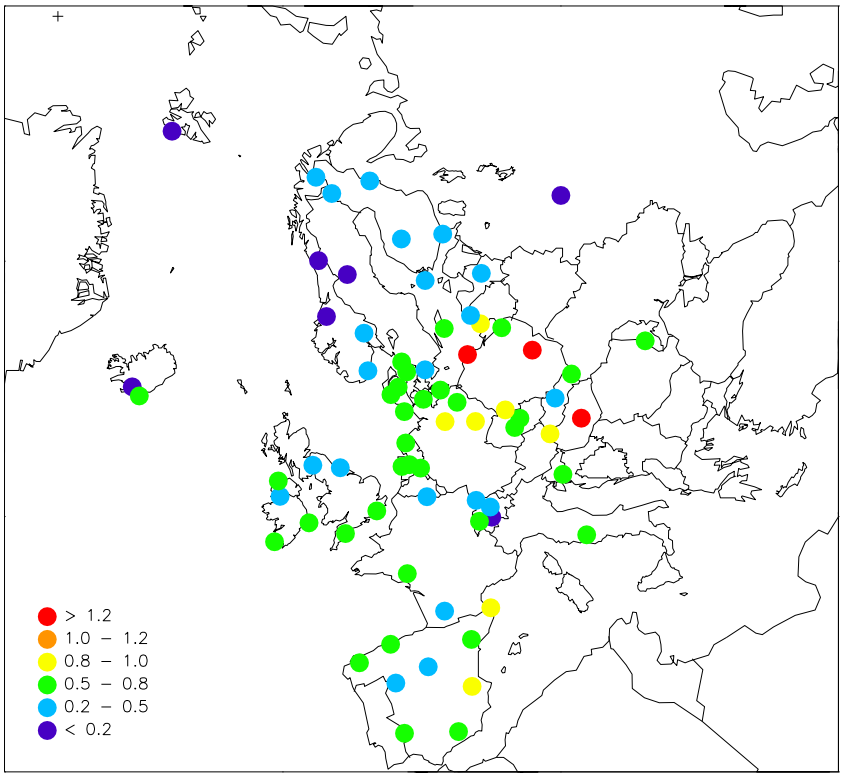

Figure 1.3: Geographical distribution of sulphate in aerosols 2008. Unit: μg S/m^3.

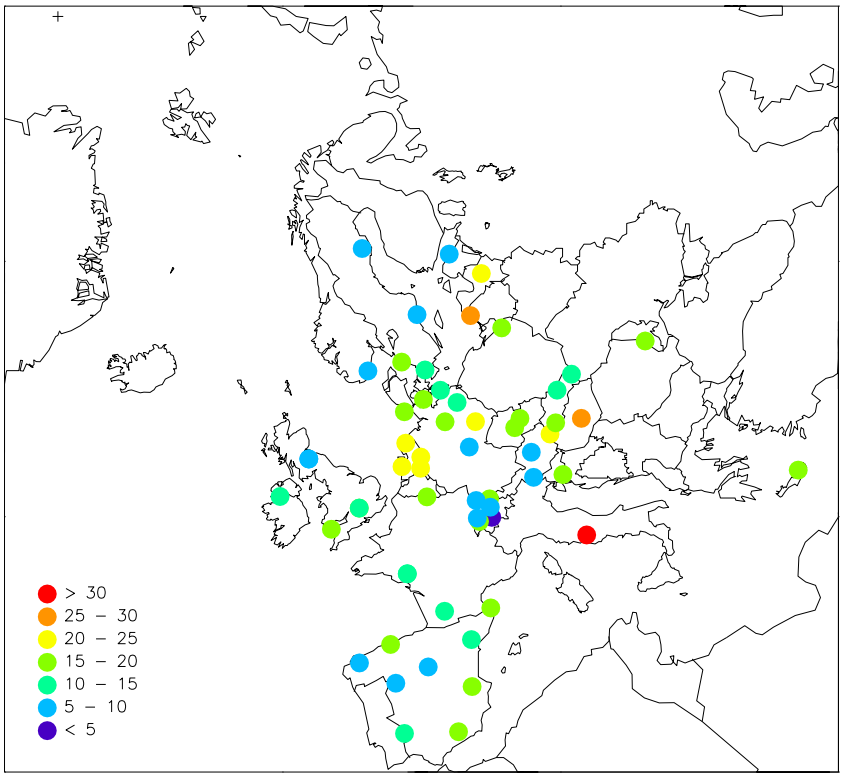

Figure 1.4: Geographical distribution of PM_{10} 2008. Unit: μg S/m^3.

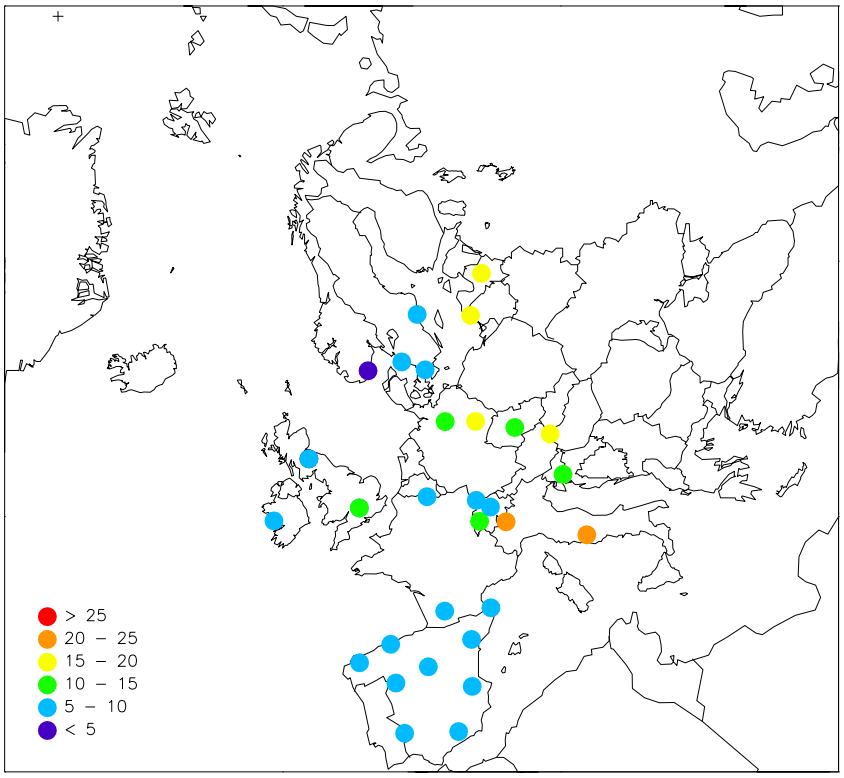

Figure 1.5: Geographical distribution of $PM_{2.5}$ 2008. Unit: $\mu g\ S/m^3$.

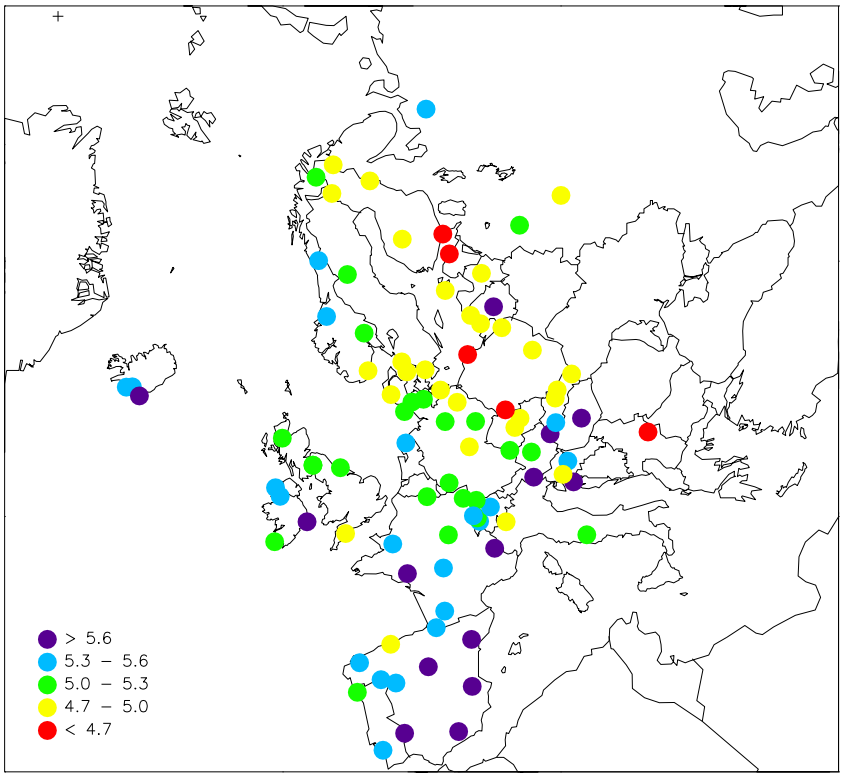

Figure 1.6: Geographical distribution of pH in precipitation 2008. Unit: pH units.

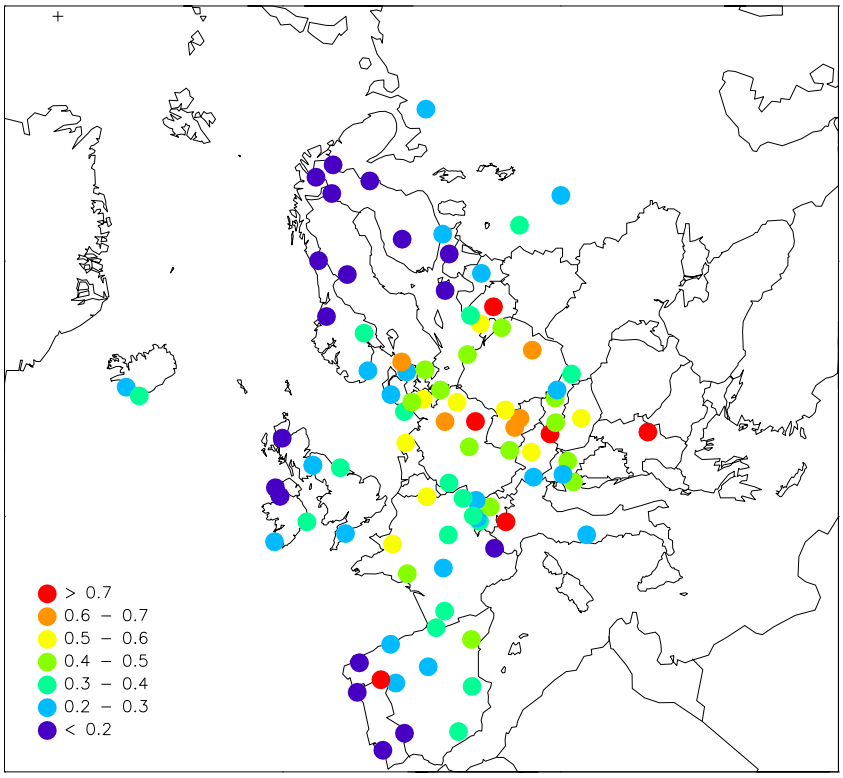

Figure 1.7: Geographical distribution of ammonium in precipitation 2008. Unit: mg N/l.

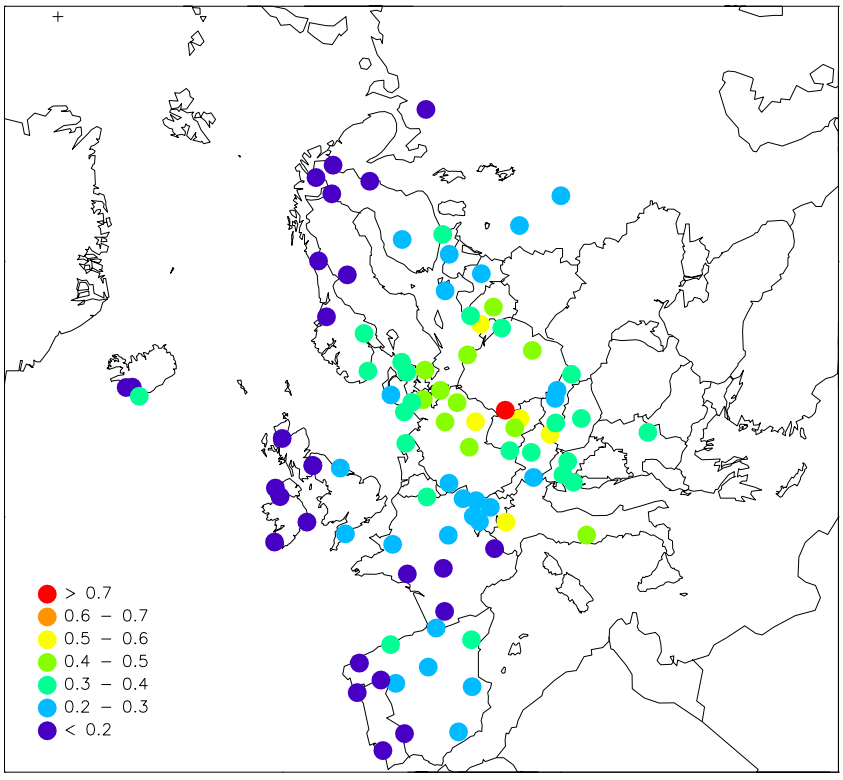

Figure 1.8: Geographical distribution of nitrate in precipitation 2008. Unit: mg N/l.

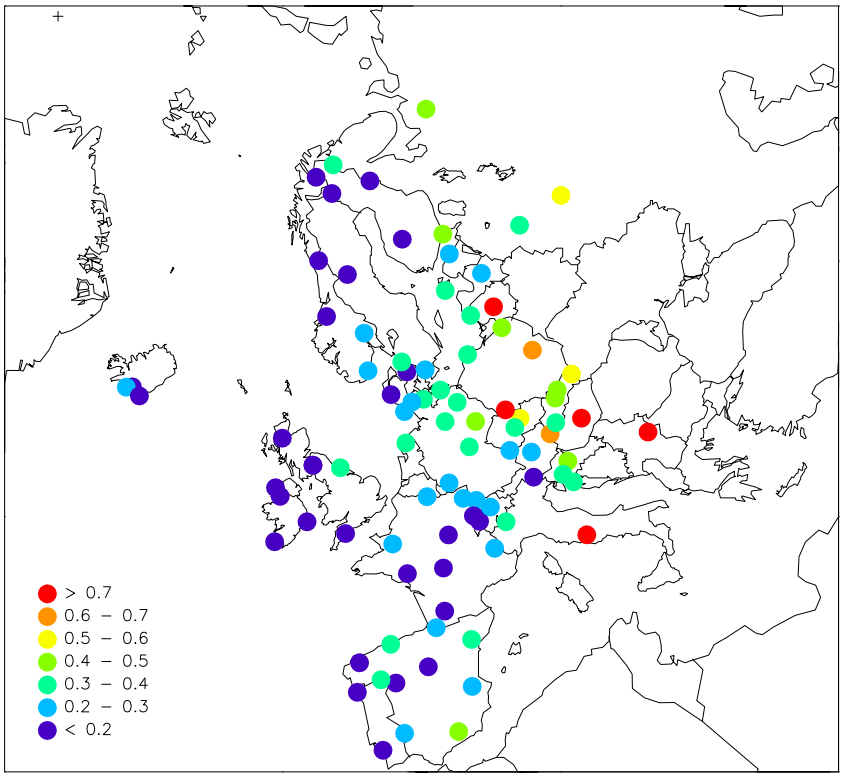

Figure 1.9: Geographical distribution of sulphate in precipitation 2008 (corrected for sea spray). Unit: mg S/l.

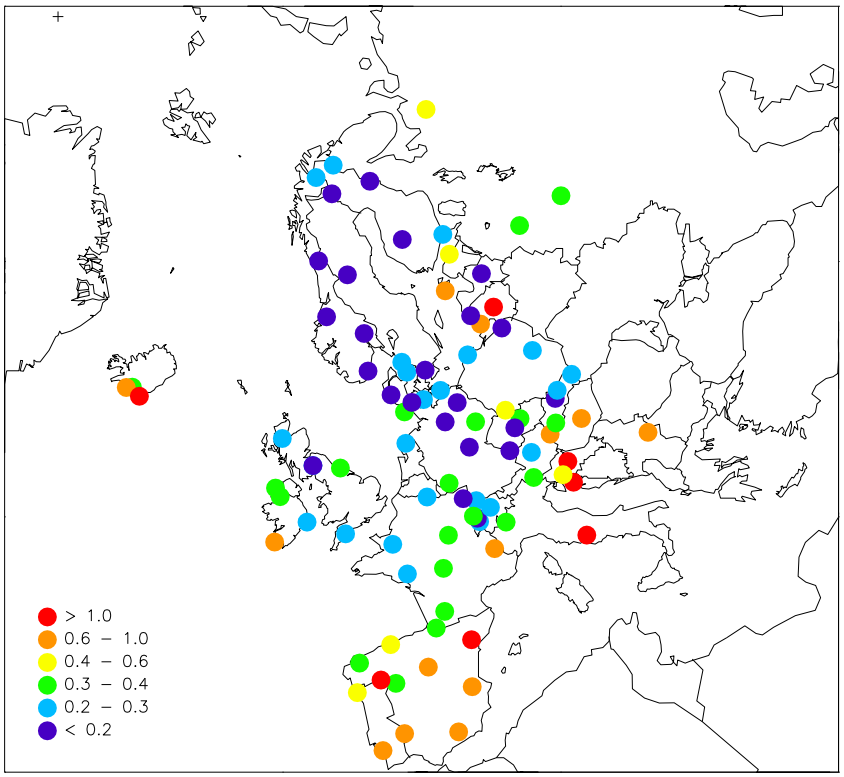

Figure 1.10: Geographical distribution of calcium in precipitation 2008. Unit: mg/l.

Annex 2

Annual statistics on precipitation data

AT0002R Illmitz

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.87	0.10	6.30	376.7	100.0	0	82
Cl-	precip	0.36	0.00	6.90	157.2	100.0	1	82
K+	precip	0.30	0.01	9.33	129.1	100.0	4	82
Mg++	precip	0.115	0.024	1.343	49.6	100.0	0	82
NH4+	precip	1.31	0.03	24.11	563.0	100.0	0	82
NO3-	precip	0.55	0.12	8.95	235.5	100.0	0	82
Na+	precip	0.25	0.02	4.85	107.2	100.0	0	82
Precip	precip	-	0.0	27.3	430.8	99.9	284	366
SO4--	precip	0.67	0.10	6.28	288.5	100.0	0	82
SO4-- corr	precip	0.64	0.10	6.27	277.2	100.0	0	82
cond	precip	20.62	5.00	212.00	8881.5	100.0	0	82
pH	precip	5.85	3.67	7.21	610.0	100.0	0	82

AT0005R Vorhegg

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.31	0.00	4.70	389.8	97.5	0	137
Cl-	precip	0.41	0.00	22.30	513.1	94.2	9	134
K+	precip	0.03	0.01	2.15	34.1	96.9	44	136
Mg++	precip	0.037	0.005	0.980	45.9	97.5	5	137
NH4+	precip	0.29	0.01	8.17	357.9	97.5	6	137
NO3-	precip	0.24	0.03	4.03	300.8	97.5	0	137
Na+	precip	0.11	0.01	2.87	139.9	97.5	2	137
Precip	precip	-	0.0	33.3	1241.1	99.9	228	366
SO4--	precip	0.21	0.01	3.09	261.2	97.5	0	137
SO4-- corr	precip	0.20	0.01	2.90	246.5	97.5	0	137
cond	precip	7.48	2.00	86.00	9284.3	97.5	0	137
pH	precip	5.69	4.85	7.02	2537.3	97.5	0	137

AT0048R Zoebelboden

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.24	0.00	4.80	320.3	100.0	0	187
Cl-	precip	0.12	0.00	7.00	156.0	100.0	19	186
K+	precip	0.04	0.01	2.93	46.4	100.0	24	187
Mg++	precip	0.030	0.005	0.615	39.7	100.0	6	187
NH4+	precip	0.51	0.03	6.60	671.6	100.0	0	187
NO3-	precip	0.39	0.07	7.64	514.3	100.0	0	186
Na+	precip	0.08	0.01	6.25	104.9	100.0	4	187
Precip	precip	-	0.0	33.3	1307.8	99.9	180	366
SO4--	precip	0.28	0.03	2.98	362.4	100.0	0	186
SO4-- corr	precip	0.27	0.03	2.75	346.7	100.0	0	186
cond	precip	10.75	3.00	122.00	14055.1	100.0	0	186
pH	precip	5.27	3.85	7.17	7068.6	100.0	0	187

BY0004R Vysokoe

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.24	0.11	16.88	1281.4	76.7	0	72
Cl-	precip	1.10	0.20	2.40	632.2	53.1	0	36
K+	precip	0.86	0.02	7.80	493.9	76.7	0	72
Mg++	precip	0.352	0.050	2.630	201.8	76.7	0	72
NH4+	precip	0.94	0.13	3.95	539.4	91.9	0	94
NO3-	precip	0.50	0.13	2.59	284.4	71.2	0	63
Na+	precip	0.68	0.04	4.61	391.7	76.7	0	72
Precip	precip	-	0.0	28.8	572.9	99.9	246	366
SO4--	precip	1.53	0.34	6.30	875.0	91.2	0	92
SO4-- corr	precip	1.28	0.26	3.94	732.2	73.2	0	59
cond	precip	51.52	12.00	160.00	29513.5	90.2	0	94
pH	precip	6.68	5.82	7.00	118.9	87.3	0	110

CH0002R Payerne

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.01	2.39	211.2	99.0	4	120
Cl-	precip	0.13	0.01	2.26	121.4	99.0	2	120
K+	precip	0.03	0.00	0.90	26.7	99.0	0	120
Mg++	precip	0.020	0.001	0.188	18.2	99.0	0	120
NH4+	precip	0.39	0.07	3.05	363.5	99.0	0	120
NO3-	precip	0.26	0.04	1.50	242.7	99.0	0	120
Na+	precip	0.07	0.00	1.24	68.9	99.0	4	120
Precip	precip	-	0.0	55.0	931.3	100.0	213	366
SO4--	precip	0.20	0.02	1.05	183.3	99.0	0	120
SO4-- corr	precip	0.19	0.02	1.00	177.2	99.0	0	120
cond	precip	7.98	1.86	90.92	7435.9	99.5	0	130
pH	precip	5.42	4.51	7.68	3506.9	99.5	0	130

CH0004R Chaumont

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.03	2.29	230.4	100.0	10	49
Cl-	precip	0.12	0.03	0.71	138.9	100.0	0	49
K+	precip	0.03	0.01	0.99	35.4	100.0	9	49
Mg++	precip	0.019	0.002	0.197	21.4	100.0	0	49
NH4+	precip	0.25	0.04	2.41	285.1	100.0	0	49
NO3-	precip	0.21	0.07	1.15	237.5	100.0	0	49
Na+	precip	0.07	0.01	0.58	86.7	100.0	1	49
Precip	precip	-	0.0	105.8	1151.0	100.0	3	53
SO4--	precip	0.17	0.05	1.11	194.7	100.0	0	49
SO4-- corr	precip	0.16	0.05	1.11	187.1	100.0	0	49
cond	precip	6.85	3.27	35.03	7881.6	100.0	0	49
pH	precip	5.29	4.48	6.99	5922.6	100.0	0	49

CH0005R Rigi

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.26	0.01	29.84	279.1	98.5	2	121
Cl-	precip	0.10	0.01	5.64	106.1	98.5	4	121
K+	precip	0.03	0.00	1.04	26.5	98.5	0	121
Mg++	precip	0.020	0.001	2.325	21.4	98.5	0	121
NH4+	precip	0.43	0.02	2.65	454.0	98.5	0	121
NO3-	precip	0.30	0.03	2.26	316.7	98.5	0	121
Na+	precip	0.07	0.00	3.62	74.4	98.5	10	121
Precip	precip	-	0.0	68.2	1065.4	97.5	193	357
SO4--	precip	0.22	0.02	5.47	234.7	98.5	0	121
SO4-- corr	precip	0.21	0.02	5.17	228.4	98.5	0	121
cond	precip	9.05	1.65	275.10	9641.9	99.5	0	139
pH	precip	5.31	4.12	8.01	5212.7	99.5	0	139

CZ0001R Svratouch

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.33	0.05	3.28	224.4	98.8	0	44
Cl-	precip	0.23	0.05	1.35	156.5	99.2	0	45
K+	precip	0.11	0.02	1.10	73.2	98.8	0	44
Mg++	precip	0.042	0.014	0.423	29.2	98.8	0	44
NH4+	precip	0.67	0.09	6.50	461.4	99.8	0	50
NO3-	precip	0.52	0.11	2.79	356.5	99.2	0	45
Na+	precip	0.13	0.02	1.93	89.0	98.8	0	44
Precip	precip	-	0.0	63.8	691.2	99.9	1	53
SO4--	precip	0.55	0.06	2.18	380.4	99.2	0	45
SO4-- corr	precip	0.54	0.05	2.10	369.8	99.2	0	45
cond	precip	16.44	4.20	58.20	11361.9	99.3	0	46
pH	precip	4.93	4.29	6.32	8078.1	99.2	0	45

CZ0003R Kosetice

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.02	0.74	89.3	85.9	2	87
Cl-	precip	0.19	0.04	1.41	94.3	85.0	0	88
K+	precip	0.08	0.01	0.62	40.6	85.9	0	87
Mg++	precip	0.031	0.005	0.144	15.8	85.9	0	87
NH4+	precip	0.61	0.14	4.10	310.0	90.4	0	106
NO3-	precip	0.42	0.13	1.98	213.7	85.0	0	88
Na+	precip	0.12	0.02	0.98	61.5	85.9	0	87
Precip	precip	-	0.0	19.5	504.5	99.9	192	366
SO4--	precip	0.38	0.08	2.37	192.1	85.0	0	88
SO4-- corr	precip	0.37	0.08	2.35	186.8	85.0	0	88
cond	precip	15.63	4.00	72.30	7884.1	89.5	0	103
pH	precip	4.92	4.13	6.74	6088.2	88.5	0	101

DE0001R Westerland

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.31	0.02	2.47	266.4	100.0	1	45
Cl-	precip	9.21	0.49	77.96	7930.4	100.0	0	45
K+	precip	0.20	0.01	1.52	168.5	100.0	5	45
Mg++	precip	0.670	0.049	5.924	576.9	100.0	0	45
NH4+	precip	0.37	0.06	2.22	319.8	100.0	0	45
NO3-	precip	0.37	0.09	1.65	316.2	100.0	0	45
Na+	precip	5.57	0.39	45.28	4798.0	100.0	0	45
Precip	precip	-	0.0	82.4	861.0	99.5	7	52
SO4--	precip	0.70	0.10	4.03	599.9	100.0	0	45
SO4-- corr	precip	0.24	-1.27	0.90	209.3	100.0	0	45
cond	precip	35.73	7.00	175.00	30760.9	99.9	0	44
pH	precip	5.04	4.14	6.46	7912.5	99.9	0	44

DE0002R Langenbrügge

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.01	1.48	116.9	100.0	13	129
Cl-	precip	0.99	0.01	19.17	618.4	100.0	2	129
K+	precip	0.04	0.01	0.69	27.1	100.0	63	129
Mg++	precip	0.084	0.005	1.420	52.7	100.0	42	129
NH4+	precip	0.65	0.01	5.12	405.5	100.0	2	129
NO3-	precip	0.43	0.07	3.00	272.0	100.0	0	129
Na+	precip	0.57	0.01	11.49	355.9	100.0	16	129
Precip	precip	-	0.0	28.2	626.1	99.9	237	366
SO4--	precip	0.44	0.05	3.18	274.9	100.0	0	129
SO4-- corr	precip	0.39	0.03	3.15	245.3	100.0	0	129
cond	precip	11.56	3.00	70.00	7240.2	93.1	0	118
pH	precip	5.09	4.09	7.28	5040.9	100.0	0	129

DE0003R Schauinsland

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.21	0.01	1.78	349.3	99.8	26	170
Cl-	precip	0.21	0.01	2.45	356.7	100.0	7	171
K+	precip	0.02	0.01	0.35	41.4	100.0	114	171
Mg++	precip	0.023	0.005	0.200	38.2	100.0	88	171
NH4+	precip	0.30	0.01	1.79	503.1	100.0	9	171
NO3-	precip	0.27	0.05	1.38	447.9	100.0	0	171
Na+	precip	0.12	0.00	1.61	209.0	100.0	38	171
Precip	precip	-	0.0	69.4	1691.6	99.9	194	366
SO4--	precip	0.25	0.04	1.77	423.2	100.0	0	171
SO4-- corr	precip	0.24	0.04	1.76	406.7	100.0	0	171
cond	precip	7.14	2.00	42.00	12077.2	99.8	0	168
pH	precip	5.07	4.34	6.34	14468.7	99.8	0	170

DE0004R Deuselbach

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.31	0.01	2.21	199.0	99.5	1	45
Cl-	precip	0.35	0.06	2.09	229.0	99.5	0	45
K+	precip	0.03	0.01	0.66	19.7	99.5	30	45
Mg++	precip	0.043	0.002	0.170	28.0	99.5	6	45
NH4+	precip	0.34	0.01	2.21	222.1	99.5	1	45
NO3-	precip	0.26	0.05	2.00	166.9	99.5	0	45
Na+	precip	0.21	0.01	1.41	135.4	99.5	4	45
Precip	precip	-	0.0	59.1	647.0	99.5	4	52
SO4--	precip	0.28	0.08	1.48	183.9	99.5	0	45
SO4-- corr	precip	0.27	0.08	1.47	172.0	99.5	0	45
cond	precip	7.32	3.00	34.00	4732.8	99.5	0	45
pH	precip	5.24	4.55	6.53	3685.5	99.5	0	45

DE0005R Brotjacklriegel

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.17	0.01	0.79	192.9	99.9	3	46
Cl-	precip	0.22	0.03	0.94	244.9	99.9	1	46
K+	precip	0.02	0.01	0.27	26.2	99.9	30	46
Mg++	precip	0.024	0.002	0.082	26.9	99.9	20	46
NH4+	precip	0.43	0.09	2.04	479.9	99.9	0	46
NO3-	precip	0.34	0.14	1.46	380.9	99.9	0	46
Na+	precip	0.13	0.01	0.67	145.6	99.9	10	46
Precip	precip	-	0.0	106.0	1110.6	99.5	5	52
SO4--	precip	0.29	0.05	1.35	322.5	99.9	0	46
SO4-- corr	precip	0.28	0.04	1.31	310.4	99.9	0	46
cond	precip	7.93	3.00	37.00	8808.7	99.9	0	46
pH	precip	5.12	4.37	6.28	8516.3	99.9	0	46

DE0007R Neuglobsow

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.01	5.09	104.9	100.0	5	125
Cl-	precip	0.65	0.01	8.79	370.9	100.0	1	125
K+	precip	0.05	0.01	0.34	28.5	100.0	57	125
Mg++	precip	0.061	0.005	0.590	34.7	100.0	34	125
NH4+	precip	0.56	0.01	5.94	319.5	100.0	2	125
NO3-	precip	0.44	0.07	3.14	253.2	100.0	0	125
Na+	precip	0.39	0.01	5.16	224.4	100.0	14	125
Precip	precip	-	0.0	22.0	569.7	99.9	241	366
SO4--	precip	0.35	0.09	2.06	201.8	100.0	0	125
SO4-- corr	precip	0.32	0.06	2.02	183.0	100.0	0	125
cond	precip	11.90	4.00	67.00	6777.8	99.2	0	119
pH	precip	4.98	4.10	6.93	6006.8	100.0	0	125

DE0008R Schmücke

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.15	0.01	1.85	188.5	99.8	5	47
Cl-	precip	0.34	0.05	1.60	424.9	99.8	0	47
K+	precip	0.02	0.01	0.23	30.4	99.8	30	47
Mg++	precip	0.031	0.002	0.149	38.9	99.8	15	47
NH4+	precip	0.47	0.14	2.32	579.6	99.8	0	47
NO3-	precip	0.41	0.18	1.65	510.5	99.8	0	47
Na+	precip	0.22	0.01	1.18	268.7	99.8	7	47
Precip	precip	-	0.0	126.2	1246.8	99.5	3	52
SO4--	precip	0.36	0.14	1.89	448.9	99.8	0	47
SO4-- corr	precip	0.34	0.14	1.87	427.2	99.8	0	47
cond	precip	10.34	6.00	42.00	12894.8	99.8	0	47
pH	precip	4.89	4.24	6.51	16101.9	99.8	0	47

DE0009R Zingst

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.22	0.06	3.73	123.3	100.0	0	46
Cl-	precip	2.01	0.32	6.85	1138.9	100.0	0	46
K+	precip	0.11	0.01	0.99	60.0	100.0	8	46
Mg++	precip	0.160	0.026	0.510	90.3	100.0	0	46
NH4+	precip	0.47	0.00	1.63	266.2	100.0	4	46
NO3-	precip	0.43	0.14	1.49	245.3	100.0	0	46
Na+	precip	1.20	0.12	3.83	679.1	100.0	0	46
Precip	precip	-	0.0	81.1	565.6	99.5	6	52
SO4--	precip	0.49	0.19	1.66	275.6	100.0	0	46
SO4-- corr	precip	0.39	0.09	1.47	218.6	100.0	0	46
cond	precip	14.97	7.00	30.00	8465.8	99.9	0	45
pH	precip	4.92	4.29	6.31	6809.5	100.0	0	46

DE0044R Melpitz

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.31	0.06	1.46	175.0	100.0	0	44
Cl-	precip	0.43	0.07	2.42	246.6	100.0	0	44
K+	precip	0.09	0.01	1.14	50.3	100.0	12	44
Mg++	precip	0.051	0.002	0.293	28.9	100.0	8	44
NH4+	precip	0.85	0.27	3.62	479.4	100.0	0	44
NO3-	precip	0.54	0.20	1.90	302.9	100.0	0	44
Na+	precip	0.25	0.01	1.71	140.6	100.0	5	44
Precip	precip	-	0.0	46.6	566.5	99.5	9	52
SO4--	precip	0.48	0.23	1.64	273.0	100.0	0	44
SO4-- corr	precip	0.46	0.23	1.58	260.7	100.0	0	44
cond	precip	11.74	5.00	48.00	6650.0	100.0	0	44
pH	precip	5.17	4.44	6.58	3795.8	100.0	0	44

DK0005R Keldsnor

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.25	0.06	0.68	154.9	75.9	0	21
Cl-	precip	2.63	0.16	12.10	1610.6	75.9	0	21
K+	precip	0.17	0.03	1.26	104.4	73.2	0	20
Mg++	precip	0.184	0.035	0.786	112.7	75.9	0	21
NH4+	precip	0.54	0.26	1.09	330.8	73.2	0	20
NO3-	precip	0.47	0.20	0.77	285.2	75.9	0	21
Na+	precip	1.57	0.31	6.84	960.2	75.9	0	21
Precip	precip	-	0.0	146.9	611.1	99.8	1	25
SO4--	precip	0.46	0.25	1.04	279.8	75.9	0	21
SO4-- corr	precip	0.33	0.15	0.76	200.2	75.9	0	21
pH	precip	5.11	4.39	6.39	4729.6	73.2	0	20

DK0008R Anholt

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.06	1.11	137.8	100.0	0	21
Cl-	precip	5.97	1.18	26.89	3576.3	100.0	0	21
K+	precip	0.15	0.03	2.29	90.8	100.0	0	21
Mg++	precip	0.382	0.072	1.715	228.7	100.0	0	21
NH4+	precip	0.25	0.00	0.62	151.4	100.0	0	21
NO3-	precip	0.38	0.12	1.11	224.8	100.0	0	21
Na+	precip	3.43	0.80	15.39	2058.7	100.0	0	21
Precip	precip	-	0.0	137.1	599.5	99.8	0	24
SO4--	precip	0.48	0.19	1.49	287.4	93.4	0	20
SO4-- corr	precip	0.20	0.11	0.65	119.3	93.4	0	20
pH	precip	4.75	4.37	5.84	10603.1	100.0	0	21

DK0022R Sepstrup Sande

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.05	0.51	106.6	99.9	0	22
Cl-	precip	3.23	0.12	8.68	2835.0	100.0	0	23
K+	precip	0.09	0.03	0.23	75.1	99.9	0	22
Mg++	precip	0.196	0.017	0.592	172.1	99.9	0	22
NH4+	precip	0.43	0.17	1.29	381.0	100.0	0	23
NO3-	precip	0.39	0.14	1.28	340.5	100.0	0	23
Na+	precip	1.94	0.11	5.23	1700.9	100.0	0	23
Precip	precip	-	0.0	72.9	877.9	99.8	0	24
SO4--	precip	0.40	0.18	1.57	354.5	100.0	0	23
SO4-- corr	precip	0.24	0.11	1.13	212.7	100.0	0	23
pH	precip	5.01	4.26	6.16	8594.2	100.0	0	23

DK0031R Ulborg

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.06	1.22	174.6	98.8	0	21
Cl-	precip	5.10	0.30	23.15	4465.1	100.0	0	22
K+	precip	0.14	0.03	0.75	119.1	100.0	0	22
Mg++	precip	0.332	0.020	1.527	290.7	100.0	0	22
NH4+	precip	0.23	0.09	1.08	203.1	100.0	0	22
NO3-	precip	0.28	0.13	0.97	244.3	100.0	0	22
Na+	precip	2.98	0.20	13.34	2607.3	100.0	0	22
Precip	precip	-	0.0	105.8	875.7	95.7	0	23
SO4--	precip	0.42	0.17	1.35	365.1	100.0	0	22
SO4-- corr	precip	0.17	0.07	0.41	148.5	100.0	0	22
pH	precip	4.94	4.30	6.74	10019.2	98.0	0	21

EE0009R Lahemaa

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.52	0.00	5.60	459.8	96.2	5	165
Cl-	precip	0.39	0.02	16.40	343.3	94.0	0	171
K+	precip	0.06	0.01	6.17	56.6	78.4	13	153
Mg++	precip	0.063	0.010	0.820	55.9	92.0	3	157
NH4+	precip	0.15	0.01	4.35	133.5	83.5	8	150
NO3-	precip	0.23	0.01	3.30	203.8	96.0	4	166
Na+	precip	0.25	0.03	20.70	217.1	98.9	0	167
Precip	precip	-	0.2	44.6	881.2	47.3	0	173
SO4--	precip	0.31	0.03	2.34	272.1	100.0	0	173
SO4-- corr	precip	0.29	-0.01	2.25	254.5	100.0	0	173
cond	precip	9.12	2.00	50.00	8040.6	93.8	0	130
pH	precip	4.62	3.85	6.61	21327.4	94.2	0	134

EE0011R Vilsandi

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.69	0.20	1.70	483.7	90.3	0	14
Cl-	precip	1.42	0.40	5.10	1005.2	90.3	0	14
K+	precip	0.10	0.04	0.20	67.9	90.3	0	14
Mg++	precip	0.157	0.050	0.360	110.9	90.3	0	14
NH4+	precip	0.19	0.02	0.67	131.0	51.2	0	9
NO3-	precip	0.24	0.01	1.16	168.4	90.3	2	14
Na+	precip	0.82	0.25	3.24	580.5	90.3	0	14
Precip	precip	-	7.0	123.8	706.4	23.0	0	14
SO4--	precip	0.38	0.21	1.13	270.8	90.3	0	14
SO4-- corr	precip	0.31	0.19	1.09	220.1	90.3	0	14
cond	precip	14.47	6.00	42.00	10220.5	90.3	0	14
pH	precip	4.81	4.26	5.65	10917.4	90.3	0	14

ES0007R Víznar

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.75	0.24	25.10	417.4	71.1	0	53
Cl-	precip	0.50	0.15	12.15	278.3	75.9	19	61
K+	precip	0.11	0.03	0.88	63.2	71.1	4	53
Mg++	precip	0.137	0.040	1.700	75.9	71.1	0	53
NH4+	precip	0.35	0.04	1.76	194.9	71.2	0	56
NO3-	precip	0.21	0.04	1.17	118.5	75.9	6	61
Na+	precip	0.44	0.06	10.50	246.8	71.1	6	53
Precip	precip	-	0.0	51.4	555.8	100.0	244	366
SO4--	precip	0.46	0.04	8.64	255.4	75.9	1	61
SO4-- corr	precip	0.42	0.02	7.76	236.2	75.9	1	61
cond	precip	12.17	2.50	159.70	6761.9	76.0	1	63
pH	precip	6.44	6.15	7.70	201.8	76.0	0	63

ES0008R Niembro

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.45	0.12	16.10	685.5	88.5	0	142
Cl-	precip	7.38	0.36	268.17	11242.1	90.1	0	157
K+	precip	0.26	0.03	6.70	394.8	88.5	1	142
Mg++	precip	0.529	0.040	19.500	805.8	88.5	0	142
NH4+	precip	0.25	0.02	6.54	375.8	89.1	5	148
NO3-	precip	0.35	0.04	16.01	527.3	90.1	7	157
Na+	precip	5.07	0.25	149.00	7723.1	88.5	0	142
Precip	precip	-	0.0	70.6	1523.4	100.0	166	366
SO4--	precip	0.75	0.16	18.39	1148.8	90.1	0	157
SO4-- corr	precip	0.38	-0.60	5.92	578.2	90.1	0	157
cond	precip	44.49	7.30	1088.00	67780.5	92.0	0	170
pH	precip	4.91	2.79	7.22	18655.2	92.0	0	170

ES0009R Campisabalos

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.78	0.13	7.50	549.0	77.5	0	71
Cl-	precip	0.37	0.15	4.32	264.8	78.1	33	78
K+	precip	0.11	0.03	0.30	80.7	77.5	1	71
Mg++	precip	0.076	0.010	0.360	54.1	77.5	2	71
NH4+	precip	0.27	0.02	1.24	187.5	77.6	2	72
NO3-	precip	0.29	0.04	1.24	207.9	78.1	6	77
Na+	precip	0.39	0.06	3.40	275.5	77.5	2	71
Precip	precip	-	0.0	44.4	708.4	100.0	237	366
SO4--	precip	0.18	0.04	1.19	126.7	78.1	5	77
SO4-- corr	precip	0.15	0.01	1.10	105.0	78.1	5	77
cond	precip	10.48	2.60	78.90	7426.0	78.3	0	79
pH	precip	6.10	5.61	7.60	568.4	78.3	0	79

ES0011R Barcarrola

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.98	0.24	12.90	979.7	64.8	0	55
Cl-	precip	1.50	0.15	4.21	1496.9	64.8	8	56
K+	precip	0.19	0.05	2.00	191.1	64.8	0	55
Mg++	precip	0.165	0.040	0.800	164.9	64.8	0	55
NH4+	precip	0.10	0.02	1.03	104.8	64.8	18	56
NO3-	precip	0.16	0.04	1.15	163.7	64.8	12	56
Na+	precip	1.14	0.14	5.30	1143.2	64.8	0	55
Precip	precip	-	0.0	51.4	1002.2	100.0	264	366
SO4--	precip	0.31	0.04	2.69	311.2	64.8	1	56
SO4-- corr	precip	0.22	-0.05	2.56	216.4	64.8	1	56
cond	precip	14.45	2.50	71.80	14444.9	64.8	1	56
pH	precip	5.66	4.68	7.52	2192.5	64.8	0	56

ES0012R Zarra

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.95	0.21	11.80	718.3	85.0	0	59
Cl-	precip	0.32	0.15	3.92	240.5	86.4	26	66
K+	precip	0.11	0.03	0.60	81.5	85.0	1	59
Mg++	precip	0.086	0.020	0.540	64.4	85.0	0	59
NH4+	precip	0.33	0.10	1.66	251.2	85.3	0	63
NO3-	precip	0.27	0.04	3.01	201.4	86.4	2	66
Na+	precip	0.33	0.06	4.80	246.6	85.0	3	59
Precip	precip	-	0.0	79.4	753.0	100.0	277	366
SO4--	precip	0.32	0.04	4.65	239.3	86.4	1	66
SO4-- corr	precip	0.29	0.02	4.54	218.6	86.4	1	66
cond	precip	11.11	2.50	123.20	8368.1	87.2	1	70
pH	precip	6.32	5.79	7.64	358.4	87.2	0	70

ES0013R Penausende

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.40	0.11	1.59	184.3	49.4	0	32
Cl-	precip	0.37	0.15	2.39	172.2	53.8	18	41
K+	precip	0.20	0.03	2.00	92.4	49.4	1	32
Mg++	precip	0.054	0.020	0.150	25.3	49.4	0	32
NH4+	precip	0.25	0.02	0.86	116.2	50.6	5	33
NO3-	precip	0.28	0.04	1.91	128.5	53.8	11	41
Na+	precip	0.35	0.13	1.38	162.0	49.4	0	32
Precip	precip	-	0.0	32.2	466.6	100.0	252	366
SO4--	precip	0.21	0.04	0.80	98.7	53.8	1	41
SO4-- corr	precip	0.18	0.02	0.76	85.2	53.8	1	41
cond	precip	12.28	2.50	60.60	5719.0	61.2	3	51
pH	precip	5.45	4.45	7.07	1673.2	61.2	0	51

ES0014R Els Torms

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.09	0.36	44.75	1289.7	60.6	0	49
Cl-	precip	1.77	0.15	14.56	1090.7	60.6	12	50
K+	precip	0.21	0.06	2.30	127.1	60.6	0	49
Mg++	precip	0.155	0.040	1.600	95.8	60.6	0	49
NH4+	precip	0.44	0.02	1.99	270.4	60.6	2	49
NO3-	precip	0.36	0.04	3.70	221.0	60.6	2	50
Na+	precip	1.37	0.17	9.30	844.6	60.6	0	49
Precip	precip	-	0.0	43.2	617.6	100.0	262	366
SO4--	precip	0.47	0.10	7.96	293.1	60.6	0	50
SO4-- corr	precip	0.37	0.07	7.58	226.6	60.6	0	50
cond	precip	24.28	5.60	207.00	14994.7	60.6	0	50
pH	precip	6.57	5.51	7.92	164.9	60.6	0	50

ES0016R O Saviñao

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.30	0.06	2.90	365.7	81.2	0	111
Cl-	precip	2.04	0.15	17.43	2451.6	85.3	7	120
K+	precip	0.13	0.03	0.70	155.0	81.2	2	111
Mg++	precip	0.166	0.010	1.300	199.6	81.2	1	111
NH4+	precip	0.16	0.02	2.60	197.4	82.1	11	115
NO3-	precip	0.10	0.04	1.46	124.4	85.3	37	120
Na+	precip	1.48	0.06	12.30	1776.1	81.2	1	111
Precip	precip	-	0.0	52.6	1205.6	100.0	179	366
SO4--	precip	0.30	0.07	2.78	362.9	85.3	0	120
SO4-- corr	precip	0.18	-0.10	1.88	218.0	85.3	0	120
cond	precip	15.73	2.50	242.00	18919.1	87.7	1	129
pH	precip	5.51	4.50	7.33	3721.7	87.7	0	129

FI0004R Ähtäri

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.06	0.01	1.40	42.2	99.8	0	47
Cl-	precip	0.19	0.02	1.55	146.3	99.8	0	47
K+	precip	0.07	0.01	0.68	50.8	99.8	0	47
Mg++	precip	0.022	0.002	0.192	16.8	99.8	1	47
NH4+	precip	0.14	0.00	4.30	106.5	99.8	0	47
NO3-	precip	0.22	0.04	3.80	165.5	99.8	0	47
Na+	precip	0.11	0.01	0.89	87.7	99.8	0	47
Precip	precip	-	0.0	46.1	767.9	98.3	1	52
SO4--	precip	0.20	0.05	2.42	156.0	99.8	0	47
SO4-- corr	precip	0.19	0.05	2.34	148.1	99.8	0	47
cond	precip	10.51	4.00	93.00	8071.4	99.8	0	47
pH	precip	4.79	4.02	5.36	12464.0	99.8	0	47

FI0017R Virolahti II

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.03	3.48	128.7	99.3	0	47
Cl-	precip	0.62	0.03	5.55	395.9	99.3	0	47
K+	precip	0.27	0.02	2.95	170.3	99.3	0	47
Mg++	precip	0.063	0.007	0.445	39.8	99.3	0	47
NH4+	precip	0.30	0.00	2.22	188.5	99.3	0	47
NO3-	precip	0.39	0.08	3.14	250.2	99.3	0	47
Na+	precip	0.34	0.02	2.80	219.5	99.3	0	47
Precip	precip	-	0.0	50.0	635.5	98.3	3	52
SO4--	precip	0.49	0.11	3.89	311.5	99.3	0	47
SO4-- corr	precip	0.46	0.11	3.83	292.9	99.3	0	47
cond	precip	19.08	7.00	94.00	12121.9	99.3	0	47
pH	precip	4.62	4.10	6.04	15115.5	99.3	0	47

FI0022R Oulanka

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.04	0.01	1.01	25.0	100.0	0	51
Cl-	precip	0.14	0.03	1.38	81.2	100.0	0	51
K+	precip	0.06	0.01	0.40	31.6	100.0	0	51
Mg++	precip	0.014	0.002	0.108	7.9	100.0	2	51
NH4+	precip	0.07	0.00	0.42	41.4	100.0	0	51
NO3-	precip	0.14	0.04	0.57	78.6	100.0	0	51
Na+	precip	0.09	0.01	0.90	50.4	100.0	0	51
Precip	precip	-	0.1	55.5	569.5	98.3	0	52
SO4--	precip	0.19	0.06	1.17	106.9	100.0	0	51
SO4-- corr	precip	0.18	0.05	1.16	102.6	100.0	0	51
cond	precip	9.38	4.00	36.00	5342.8	100.0	0	51
pH	precip	4.78	4.19	5.22	9506.8	100.0	0	51

FI0036R Pallas (Matorova)

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.03	0.01	0.27	17.5	100.0	0	48
Cl-	precip	0.14	0.03	3.27	84.7	100.0	0	48
K+	precip	0.03	0.00	0.15	20.7	100.0	2	48
Mg++	precip	0.012	0.002	0.229	7.7	100.0	2	48
NH4+	precip	0.05	0.00	0.60	33.2	100.0	2	48
NO3-	precip	0.12	0.03	0.78	77.1	100.0	0	48
Na+	precip	0.08	0.02	1.92	51.6	100.0	0	48
Precip	precip	-	0.0	43.1	628.3	99.4	4	53
SO4--	precip	0.16	0.05	1.47	101.7	100.0	0	48
SO4-- corr	precip	0.15	0.04	1.46	97.5	100.0	0	48
cond	precip	8.99	4.00	42.00	5646.7	100.0	0	48
pH	precip	4.78	4.07	5.40	10534.7	100.0	0	48

FR0008R Donon

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.03	1.77	267.2	95.3	26	157
Cl-	precip	0.44	0.03	6.08	606.4	95.4	20	163
K+	precip	0.18	0.03	5.43	255.9	95.3	96	157
Mg++	precip	0.052	0.025	0.300	72.2	95.3	75	157
NH4+	precip	0.38	0.02	4.72	520.2	95.3	14	157
NO3-	precip	0.27	0.01	2.32	371.6	95.7	3	164
Na+	precip	0.24	0.03	2.63	329.8	95.3	22	157
Precip	precip	-	0.1	37.0	1380.5	99.9	161	366
SO4--	precip	0.23	0.02	2.14	324.3	95.7	0	164
SO4-- corr	precip	0.21	0.01	2.06	296.9	95.7	0	164
cond	precip	14.73	2.70	86.30	20335.5	95.6	0	170
pH	precip	5.05	3.70	9.00	12402.0	96.4	0	171

FR0009R Revin

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.03	2.52	308.5	93.0	9	141
Cl-	precip	0.77	0.03	13.42	1014.8	92.8	4	146
K+	precip	0.04	0.01	0.30	56.0	93.6	83	143
Mg++	precip	0.097	0.025	1.100	127.8	93.6	35	143
NH4+	precip	0.51	0.02	2.57	669.6	93.1	6	142
NO3-	precip	0.31	0.03	3.34	411.4	92.8	0	146
Na+	precip	0.58	0.03	8.68	763.2	93.6	8	143
Precip	precip	-	0.1	37.8	1316.8	99.9	166	366
SO4--	precip	0.31	0.04	3.16	413.6	92.8	0	146
SO4-- corr	precip	0.27	0.04	3.04	357.0	92.8	0	146
cond	precip	18.43	3.30	101.60	24261.0	94.8	0	162
pH	precip	5.16	3.20	7.65	9203.3	94.5	0	161

FR0010R Morvan

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.36	0.03	10.12	432.5	94.0	15	157
Cl-	precip	0.68	0.03	17.83	810.7	95.6	6	168
K+	precip	0.12	0.03	2.11	148.5	94.0	41	157
Mg++	precip	0.066	0.025	0.640	79.5	94.0	70	157
NH4+	precip	0.38	0.02	6.47	456.3	94.0	10	157
NO3-	precip	0.23	0.01	2.06	273.6	95.6	2	168
Na+	precip	0.34	0.03	2.71	414.1	94.0	10	157
Precip	precip	-	0.1	60.4	1201.2	99.9	143	366
SO4--	precip	0.22	0.01	2.09	264.1	95.6	1	168
SO4-- corr	precip	0.19	0.00	1.97	230.8	95.6	1	168
cond	precip	14.29	3.80	252.00	17168.8	94.7	0	171
pH	precip	5.22	3.90	7.60	7255.8	87.7	0	168

FR0012R Iraty

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.33	0.03	8.61	591.6	96.6	26	149
Cl-	precip	0.64	0.03	33.64	1150.7	97.0	20	159
K+	precip	0.08	0.03	2.78	151.5	96.6	95	149
Mg++	precip	0.082	0.025	2.330	147.7	96.6	64	149
NH4+	precip	0.31	0.02	5.35	554.5	96.6	38	149
NO3-	precip	0.21	0.01	1.75	372.4	97.0	6	159
Na+	precip	0.48	0.03	19.88	853.7	96.6	22	149
Precip	precip	-	0.1	64.8	1793.6	99.9	160	366
SO4--	precip	0.24	0.01	2.80	433.8	97.0	6	159
SO4-- corr	precip	0.20	-0.16	2.78	364.5	97.0	6	159
cond	precip	15.99	2.70	145.00	28687.3	97.2	0	173
pH	precip	5.40	4.20	8.20	7180.7	97.2	0	173

FR0013R Peyrusse Vieille

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.31	0.03	23.19	297.5	95.8	14	125
Cl-	precip	1.54	0.03	17.76	1476.5	96.4	3	132
K+	precip	0.05	0.03	0.41	51.9	95.8	67	125
Mg++	precip	0.102	0.025	0.700	97.9	95.8	54	125
NH4+	precip	0.35	0.02	2.53	339.8	95.8	24	125
NO3-	precip	0.19	0.01	1.91	186.1	96.4	3	132
Na+	precip	0.72	0.03	5.74	692.7	95.8	9	125
Precip	precip	-	0.1	31.8	958.9	99.9	183	366
SO4--	precip	0.25	0.01	2.92	243.4	96.4	2	132
SO4-- corr	precip	0.20	-0.00	2.83	187.3	96.4	2	132
cond	precip	17.23	3.70	109.00	16524.8	97.1	0	148
pH	precip	5.50	4.20	7.55	3012.5	94.1	0	146

FR0014R Montandon

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.30	0.03	13.33	366.2	94.2	20	134
Cl-	precip	0.17	0.03	4.28	202.5	96.6	28	147
K+	precip	0.04	0.03	0.34	42.6	94.2	97	134
Mg++	precip	0.052	0.025	0.550	62.9	94.2	72	134
NH4+	precip	0.32	0.02	2.94	379.8	93.1	11	133
NO3-	precip	0.23	0.01	1.77	271.6	96.6	4	147
Na+	precip	0.16	0.03	3.10	188.4	93.4	28	133
Precip	precip	-	0.1	37.0	1200.4	99.9	172	366
SO4--	precip	0.19	0.01	2.02	230.4	96.6	3	147
SO4-- corr	precip	0.18	-0.00	1.94	215.8	96.6	3	147
cond	precip	12.20	3.30	75.20	14642.2	96.3	0	155
pH	precip	5.49	4.45	7.75	3864.9	93.7	0	150

FR0015R La Tardière

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.21	0.03	1.17	208.3	97.0	8	130
Cl-	precip	2.70	0.03	21.43	2629.2	97.6	2	136
K+	precip	0.08	0.03	0.49	76.5	97.0	50	130
Mg++	precip	0.207	0.025	1.650	201.4	97.0	31	130
NH4+	precip	0.42	0.02	4.54	408.6	94.9	9	128
NO3-	precip	0.18	0.01	3.19	176.4	97.6	2	136
Na+	precip	1.62	0.03	13.99	1573.1	97.0	5	130
Precip	precip	-	0.1	39.8	973.4	99.9	183	366
SO4--	precip	0.30	0.03	2.09	297.0	97.6	0	136
SO4-- corr	precip	0.17	-0.15	2.00	168.5	97.6	0	136
cond	precip	21.84	2.90	97.00	21262.4	97.9	0	139
pH	precip	5.75	4.55	8.05	1719.8	97.7	0	138

FR0016R Le Casset

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.70	0.03	16.80	627.8	93.0	11	107
Cl-	precip	0.16	0.03	2.54	142.7	93.1	27	109
K+	precip	0.05	0.03	0.63	47.1	93.0	65	107
Mg++	precip	0.063	0.025	0.570	56.5	93.0	68	107
NH4+	precip	0.17	0.02	1.80	150.6	93.0	42	107
NO3-	precip	0.16	0.01	2.03	146.8	93.1	2	109
Na+	precip	0.10	0.03	1.86	94.0	93.0	48	107
Precip	precip	-	0.1	65.0	893.0	99.9	238	366
SO4--	precip	0.21	0.01	3.52	191.7	93.1	12	109
SO4-- corr	precip	0.20	-0.00	3.43	181.9	93.1	12	109
cond	precip	12.05	2.20	108.00	10757.0	94.0	0	120
pH	precip	5.65	4.25	9.30	1991.7	91.2	0	119

FR0017R Montfranc

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.39	0.03	8.78	562.9	96.6	27	165
Cl-	precip	0.70	0.03	16.24	1008.3	97.1	11	168
K+	precip	0.04	0.03	0.35	62.9	96.6	116	165
Mg++	precip	0.081	0.025	0.660	116.4	96.6	73	165
NH4+	precip	0.25	0.02	4.62	352.3	94.5	36	164
NO3-	precip	0.17	0.01	2.81	248.8	97.4	2	169
Na+	precip	0.45	0.03	5.35	641.6	96.6	20	165
Precip	precip	-	0.1	46.2	1430.1	99.9	157	366
SO4--	precip	0.22	0.01	2.33	316.6	97.4	3	169
SO4-- corr	precip	0.18	-0.22	2.06	265.2	97.4	3	169
cond	precip	15.02	2.70	74.80	21477.7	98.2	0	176
pH	precip	5.59	4.33	8.80	3696.2	96.8	0	172

FR0018R La Coulonche

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.29	0.03	4.26	269.4	94.7	6	131
Cl-	precip	2.30	0.03	41.13	2130.4	95.2	4	136
K+	precip	0.08	0.03	1.53	73.5	94.7	54	131
Mg++	precip	0.170	0.025	2.770	157.5	94.7	33	131
NH4+	precip	0.60	0.02	5.66	552.2	93.2	4	129
NO3-	precip	0.23	0.01	2.69	217.1	95.2	1	136
Na+	precip	1.33	0.03	22.85	1232.2	94.7	5	131
Precip	precip	-	0.1	25.8	924.5	59.0	5	216
SO4--	precip	0.35	0.01	4.15	325.1	95.2	1	136
SO4-- corr	precip	0.25	-0.00	4.13	228.5	95.2	1	136
cond	precip	24.52	4.70	162.00	22663.7	96.4	0	147
pH	precip	5.39	3.49	7.65	3762.5	96.1	0	146

GB0002R Eskdalemuir biweekly

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.04	1.66	283.3	86.0	0	21
Cl-	precip	2.81	0.20	9.30	4127.3	86.0	0	21
K+	precip	0.09	0.02	0.73	136.0	86.0	0	21
Mg++	precip	0.188	0.025	0.603	275.8	86.0	0	21
NH4+	precip	0.24	0.04	3.01	358.6	86.0	0	21
NO3-	precip	0.14	0.02	0.95	198.6	86.0	0	21
Na+	precip	1.69	0.14	5.57	2484.5	86.0	0	21
Precip	precip	-	0.0	142.7	1469.5	97.7	1	26
SO4--	precip	0.28	0.10	1.10	412.9	86.0	0	21
SO4-- corr	precip	0.14	0.04	0.84	205.0	86.0	0	21
cond	precip	15.67	6.00	59.00	23024.3	86.0	0	21
pH	precip	5.18	4.59	7.01	9725.1	86.0	0	21

GB0002R Eskdalemuir daily

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.21	0.03	3.79	368.8	99.0	0	220
Cl-	precip	3.38	0.00	38.60	5852.4	99.0	0	220
K+	precip	0.14	0.02	2.39	246.0	99.0	0	220
Mg++	precip	0.229	0.012	2.528	396.6	99.0	0	220
NH4+	precip	0.23	-0.01	2.81	404.6	99.0	1	220
NO3-	precip	0.14	-0.01	2.54	243.4	99.0	2	220
Na+	precip	1.99	0.02	22.28	3454.4	99.0	0	220
Precip	precip	-	0.0	29.8	1732.6	99.9	136	366
SO4--	precip	0.31	0.03	1.84	542.0	99.0	0	220
SO4-- corr	precip	0.15	-0.17	1.60	254.6	99.0	0	220
cond	precip	18.10	3.00	149.00	31363.2	97.9	0	200
pH	precip	5.14	4.00	6.82	12538.6	99.0	0	220

GB0006R Lough Navar

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.35	0.05	1.69	518.6	100.0	0	25
Cl-	precip	7.49	0.50	30.60	11014.5	100.0	0	25
K+	precip	0.21	0.03	0.69	306.3	100.0	0	25
Mg++	precip	0.497	0.041	2.221	731.6	100.0	0	25
NH4+	precip	0.18	0.02	1.49	259.6	100.0	0	25
NO3-	precip	0.08	0.00	1.31	112.6	100.0	0	25
Na+	precip	4.43	0.34	18.26	6510.2	100.0	0	25
Precip	precip	-	0.0	129.7	1470.9	96.4	1	26
SO4--	precip	0.45	0.09	1.46	667.3	100.0	0	25
SO4-- corr	precip	0.09	-0.07	0.73	129.7	100.0	0	25
cond	precip	31.94	6.00	108.00	46978.2	98.8	0	23
pH	precip	5.43	4.70	6.32	5457.9	100.0	0	25

GB0013R Yarner Wood

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.26	0.07	1.12	304.4	88.4	0	19
Cl-	precip	4.21	0.30	15.50	4902.4	88.4	0	19
K+	precip	0.13	0.04	0.36	151.9	88.4	0	19
Mg++	precip	0.297	0.049	1.123	346.1	88.4	0	19
NH4+	precip	0.23	0.02	0.83	266.5	88.4	0	19
NO3-	precip	0.22	0.04	0.87	258.3	88.4	0	19
Na+	precip	2.52	0.18	8.95	2932.6	88.4	0	19
Precip	precip	-	0.0	122.6	1164.5	97.7	4	26
SO4--	precip	0.41	0.12	0.88	473.6	88.4	0	19
SO4-- corr	precip	0.20	0.04	0.60	231.3	88.4	0	19
cond	precip	23.33	8.00	66.00	27170.4	86.9	0	17
pH	precip	4.91	4.50	5.50	14296.1	88.4	0	19

GB0014R High Muffles

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.34	0.07	2.09	296.5	100.0	0	25
Cl-	precip	2.82	0.10	15.20	2432.3	100.0	0	25
K+	precip	0.22	0.07	2.37	187.1	100.0	0	25
Mg++	precip	0.218	0.043	1.061	188.0	100.0	0	25
NH4+	precip	0.38	0.13	0.92	327.2	100.0	0	25
NO3-	precip	0.29	0.14	0.90	250.9	100.0	0	25
Na+	precip	1.68	0.08	9.26	1452.7	100.0	0	25
Precip	precip	-	0.0	89.4	862.5	99.4	2	27
SO4--	precip	0.47	0.20	1.52	407.9	100.0	0	25
SO4-- corr	precip	0.34	0.14	1.19	288.8	100.0	0	25
cond	precip	19.10	9.00	62.00	16473.7	99.5	0	24
pH	precip	5.15	4.48	6.29	6161.8	100.0	0	25

GB0015R Strath Vaich Dam

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.24	0.12	1.39	310.2	97.0	0	17
Cl-	precip	6.89	0.60	22.90	8820.3	97.0	0	17
K+	precip	0.15	0.04	0.49	196.8	97.0	0	17
Mg++	precip	0.460	0.073	1.611	589.1	97.0	0	17
NH4+	precip	0.04	-0.01	0.33	45.6	97.0	1	17
NO3-	precip	0.06	0.01	0.58	78.1	97.0	0	17
Na+	precip	4.10	0.41	13.93	5251.0	97.0	0	17
Precip	precip	-	0.0	191.7	1280.1	99.4	1	21
SO4--	precip	0.39	0.13	1.11	501.7	97.0	0	17
SO4-- corr	precip	0.05	-0.01	0.72	69.4	97.0	0	17
cond	precip	29.99	7.00	92.00	38392.3	96.5	0	16
pH	precip	5.12	4.52	5.37	9634.8	97.0	1	17

HR0002R Puntijarka

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.25	0.22	14.27	1437.0	99.2	0	118
Cl-	precip	0.57	0.09	2.23	653.9	97.0	0	113
K+	precip	0.95	0.03	14.27	1094.0	99.2	0	118
Mg++	precip	0.199	0.025	1.777	228.7	99.2	0	118
NH4+	precip	0.41	0.01	5.00	471.3	99.1	0	116
NO3-	precip	0.31	0.00	1.96	357.4	99.2	0	118
Na+	precip	0.33	0.01	1.50	377.5	97.0	0	114
Precip off	precip	-	0.00	55.60	1149.0	99.9	220	366
SO4--	precip	0.49	0.05	7.26	567.5	97.8	0	117
SO4-- corr	precip	0.46	0.02	7.17	529.1	97.8	0	117
cond	precip	14.96	3.00	113.00	17194.0	99.5	0	124
pH	precip	5.58	4.32	7.35	3026.9	99.5	0	124

HR0004R Zavizan

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.23	0.13	24.70	2347.3	99.6	0	152
Cl-	precip	1.02	0.05	10.54	1943.9	99.5	0	150
K+	precip	0.54	0.02	3.70	1027.4	99.6	0	152
Mg++	precip	0.125	0.015	1.304	237.8	99.6	0	152
NH4+	precip	0.49	0.01	1.87	943.2	99.1	0	148
NO3-	precip	0.34	0.05	2.55	656.7	99.6	0	152
Na+	precip	0.63	0.03	5.83	1203.0	99.5	0	150
Precip off	precip	-	0.00	113.30	1908.6	99.9	199	366
SO4--	precip	0.45	0.05	2.67	857.7	99.6	0	152
SO4-- corr	precip	0.39	0.04	2.60	752.0	99.6	0	152
cond	precip	15.97	3.00	137.00	30477.7	99.6	0	153
pH	precip	5.75	4.35	7.65	3363.6	99.6	0	153

HU0002R K-puszta

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.70	0.03	4.50	387.3	96.8	2	78
Cl-	precip	1.18	0.17	6.08	673.3	86.2	0	85
K+	precip	0.18	0.03	0.79	100.0	96.8	3	78
Mg++	precip	0.128	0.025	0.660	71.8	96.8	4	78
NH4+	precip	0.56	0.02	2.57	313.8	99.6	1	94
NO3-	precip	0.40	0.13	3.08	225.9	86.2	0	85
Na+	precip	1.29	0.30	4.48	728.7	96.8	0	78
Precip off	precip	-	0.10	42.00	556.6	99.9	267	366
SO4--	precip	0.81	0.22	4.78	454.1	86.2	0	85
SO4-- corr	precip	0.72	0.17	4.72	403.5	86.2	0	85
cond	precip	20.25	9.50	102.10	11421.9	98.1	0	88
pH	precip	5.75	5.03	7.18	975.3	98.1	0	88

IE0001R Valentia Observatory

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.99	0.03	41.76	1938.9	97.7	20	215
Cl-	precip	42.22	0.40	1967.06	82577.4	97.1	0	202
K+	precip	1.02	0.03	40.16	1986.6	97.1	10	203
Mg++	precip	3.022	0.025	140.623	5910.5	97.7	12	216
NH4+	precip	0.22	0.02	7.03	436.2	97.7	48	215
NO3-	precip	0.11	0.01	1.28	214.9	97.7	3	215
Na+	precip	23.67	0.25	1102.05	46303.5	97.7	0	215
Precip	precip	-	0.0	63.7	1955.9	99.9	93	366
Precip off	precip	-	0.00	63.70	1955.9	99.9	93	366
SO4--	precip	2.14	0.08	93.82	4177.6	97.7	0	215
SO4-- corr	precip	0.16	-0.12	1.58	309.2	97.7	0	215
cond	precip	155.16	4.40	6670.00	303478.3	97.7	0	215
pH	precip	5.25	4.32	7.03	10864.6	97.7	0	215

IE0007R Glen Veagh

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.36	0.03	2.99	397.6	96.4	15	188
Cl-	precip	12.12	0.13	119.82	13218.8	96.4	0	188
K+	precip	0.27	0.03	2.42	296.2	96.4	27	188
Mg++	precip	0.861	0.025	8.388	938.8	96.4	21	188
NH4+	precip	0.07	0.02	1.92	76.7	96.4	111	188
NO3-	precip	0.08	0.01	1.54	89.3	96.4	7	188
Na+	precip	6.89	0.03	67.11	7514.2	96.4	1	188
Precip	precip	-	0.0	22.2	1090.9	78.7	70	288
SO4--	precip	0.67	0.03	5.74	730.8	96.4	0	188
SO4-- corr	precip	0.10	-0.06	1.74	103.9	96.4	0	188
cond	precip	50.30	3.60	462.00	54878.2	96.4	0	188
pH	precip	5.52	4.86	7.02	3274.1	96.4	0	188

IE0009R Johnstown Castle

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.25	0.03	4.16	246.4	80.6	21	131
Cl-	precip	4.36	0.26	36.53	4220.5	80.4	0	129
K+	precip	0.14	0.03	2.53	140.9	80.5	29	130
Mg++	precip	0.292	0.025	2.585	282.7	80.5	15	130
NH4+	precip	0.34	0.02	18.01	324.5	80.4	36	129
NO3-	precip	0.14	0.01	2.65	138.4	80.4	11	129
Na+	precip	2.54	0.15	19.72	2463.8	80.4	0	129
Precip	precip	-	0.0	21.8	968.6	98.1	149	359
SO4--	precip	0.40	0.06	2.57	386.4	80.4	0	129
SO4-- corr	precip	0.20	0.01	2.00	188.6	80.4	0	129
cond	precip	24.56	4.30	178.00	23788.8	80.4	0	129
pH	precip	5.63	4.03	8.09	2271.9	80.4	0	129

IS0002R Irafoss

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.35	0.00	25.10	651.8	100.0	2	170
Cl-	precip	11.12	0.30	837.40	20756.9	100.0	0	171
K+	precip	0.41	0.10	22.50	764.7	100.0	52	170
Mg++	precip	0.769	0.000	77.800	1435.5	100.0	0	170
NO3-	precip	0.07	0.00	1.39	135.1	100.0	12	171
Na+	precip	6.40	0.10	642.40	11944.4	100.0	0	170
Precip	precip	-	0.0	100.4	1866.4	99.9	195	366
SO4--	precip	0.71	0.10	54.70	1319.1	100.0	2	170
SO4-- corr	precip	0.18	-0.27	3.38	337.4	100.0	2	170
cond	precip	42.18	2.40	1323.00	78732.5	99.4	0	151
pH	precip	5.50	4.80	7.70	5925.5	100.0	0	171

IS0091R Storhofdi

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	5.34	0.28	83.12	8122.0	82.0	0	45
Cl-	precip	188.08	5.02	646.38	286114.1	82.0	0	45
K+	precip	3.69	0.11	12.62	5613.1	82.0	0	45
Mg++	precip	12.048	0.001	42.830	18327.1	82.0	0	45
NH4+	precip	0.30	0.01	2.99	460.2	82.0	20	45
NO3-	precip	0.36	0.00	9.27	544.0	82.0	17	45
Na+	precip	93.21	3.34	323.59	141788.2	82.0	0	45
Precip	precip	-	0.0	84.6	1521.2	98.6	4	57
Precip off	precip	-	0.00	102.00	1802.1	100.0	1	58
Precip off	precip	-	7.00	146.00	1777.9	99.6	0	24
SO4--	precip	6.96	0.01	28.61	10593.9	82.0	2	45
SO4-- corr	precip	-0.72	-21.75	8.17	-1090.1	82.0	2	45
cond	precip	625.12	8.30	2000.00	950926.1	84.5	0	47
pH	precip	5.68	5.02	6.54	3193.3	84.5	0	46

IT0001R Montelibretti

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.87	0.30	48.96	3379.5	100.0	0	48
Cl-	precip	3.97	0.31	38.79	4679.6	100.0	0	48
K+	precip	0.41	0.04	19.51	482.4	100.0	0	48
Mg++	precip	0.364	0.090	5.020	429.1	100.0	0	48
NH4+	precip	0.26	0.00	5.32	302.2	100.0	0	48
NO3-	precip	0.46	0.03	25.45	544.3	100.0	0	48
Na+	precip	2.21	0.24	25.90	2604.5	100.0	0	48
Precip	precip	-	1.0	63.0	1177.7	13.1	0	48
SO4--	precip	0.96	0.18	19.79	1126.6	100.0	0	48
SO4-- corr	precip	0.77	0.06	16.30	901.8	100.0	0	48
cond	precip	42.72	10.30	466.00	50313.4	100.0	0	48
pH	precip	5.07	3.90	6.70	10075.5	100.0	0	48

IT0004R Ispra

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.34	0.02	8.34	433.3	100.0	0	120
Cl-	precip	0.26	0.02	9.18	337.4	97.5	0	118
K+	precip	0.04	0.00	0.92	48.2	98.8	0	119
Mg++	precip	0.039	0.001	0.864	50.3	98.9	0	119
NH4+	precip	0.73	0.01	10.50	947.4	100.0	0	120
NO3-	precip	0.52	0.06	9.01	667.5	100.0	0	120
Na+	precip	0.28	0.01	6.03	355.2	100.0	0	120
Precip	precip	-	0.0	56.3	1292.0	99.9	244	366
SO4--	precip	0.38	0.04	4.82	495.6	100.0	0	120
SO4-- corr	precip	0.36	0.03	4.31	471.2	100.0	0	120
cond	precip	14.38	3.71	68.00	18572.5	98.5	0	95
pH	precip	4.99	3.95	7.34	13139.9	99.3	0	103

LT0015R Preila

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.72	0.10	7.00	396.7	56.0	0	131
Cl-	precip	4.12	0.51	135.33	2254.9	100.0	0	131
K+	precip	0.16	0.02	3.88	89.6	100.0	0	131
NH4+	precip	0.50	0.05	7.32	274.0	100.0	0	131
NO3-	precip	0.50	0.05	7.32	274.0	100.0	0	131
Na+	precip	2.69	0.25	88.00	1470.9	100.0	0	131
Precip	precip	-	0.0	26.7	547.1	99.9	234	366
SO4--	precip	0.64	0.13	7.50	352.5	100.0	0	132
cond	precip	30.55	6.30	594.00	16716.7	100.0	0	131
pH	precip	4.72	3.80	6.32	10439.3	100.0	0	131

LV0010R Rucava

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.01	2.08	164.4	91.4	17	116
Cl-	precip	0.94	0.02	8.14	871.8	88.4	1	101
K+	precip	0.07	0.01	1.05	66.3	91.4	35	116
Mg++	precip	0.094	0.002	0.600	87.5	91.6	8	117
NH4+	precip	0.37	0.02	1.92	341.6	97.4	1	156
NO3-	precip	0.39	0.02	1.44	360.3	86.5	0	97
Na+	precip	0.62	0.03	5.01	581.7	91.6	2	117
Precip	precip	-	0.0	39.1	931.8	100.0	178	366
SO4--	precip	0.40	0.05	2.46	368.6	88.4	0	101
SO4-- corr	precip	0.34	0.02	2.39	321.8	88.4	0	101
cond	precip	19.72	4.60	86.90	18379.1	98.9	0	162
pH	precip	4.77	3.84	7.32	15893.3	98.6	0	161

LV0016R Zoseni

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.17	0.01	1.32	143.8	83.3	18	106
Cl-	precip	0.22	0.04	5.28	181.3	78.1	1	84
K+	precip	0.04	0.01	0.28	35.1	83.3	54	106
Mg++	precip	0.057	0.010	0.460	47.1	83.3	19	106
NH4+	precip	0.30	0.01	1.76	246.8	95.5	1	149
NO3-	precip	0.26	0.05	1.41	209.5	78.3	0	85
Na+	precip	0.18	0.01	3.86	146.0	83.3	8	106
Precip	precip	-	0.0	24.5	822.8	100.0	162	366
SO4--	precip	0.30	0.04	1.39	250.8	78.3	0	85
SO4-- corr	precip	0.29	0.04	1.37	239.2	78.3	0	85
cond	precip	12.99	2.80	55.50	10691.9	95.6	0	151
pH	precip	4.90	4.18	6.88	10301.3	95.6	0	151

NL0009R Kollumerwaard

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.29	0.04	1.95	193.1	86.6	0	94
Cl-	precip	3.27	0.06	40.06	2146.7	88.7	0	117
H+	precip	3.90	-353.40	87.10	2561.7	90.0	0	126
K+	precip	0.16	-0.00	1.42	107.2	86.6	0	94
Mg++	precip	0.218	0.022	1.648	143.4	85.8	0	93
NH4+	precip	0.58	0.06	3.25	384.5	88.2	0	105
NO3-	precip	0.34	0.03	2.48	221.9	89.5	0	118
Na+	precip	1.78	0.05	14.37	1168.2	85.8	0	93
Precip	precip	-	0.0	22.1	657.2	84.7	134	310
SO4--	precip	0.46	0.09	2.97	305.2	89.5	0	118
SO4-- corr	precip	0.30	0.03	2.87	199.6	88.7	0	117
cond	precip	22.30	5.00	106.80	14651.6	84.5	0	84
pH	precip	5.53	4.20	6.85	1954.1	90.0	0	126

NO0001R Birkenes

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.13	0.01	0.92	264.1	99.7	2	175
Cl-	precip	2.59	0.01	26.74	5152.3	99.2	1	174
K+	precip	0.08	0.01	1.33	160.2	99.7	13	175
Mg++	precip	0.205	0.005	1.545	407.6	99.7	3	175
NH4+	precip	0.29	0.01	3.51	569.6	99.7	8	175
NO3-	precip	0.35	0.01	3.12	692.0	99.2	12	174
Na+	precip	1.59	0.04	13.56	3159.9	99.7	0	175
Precip	precip	-	0.0	64.6	1989.9	99.9	153	366
SO4--	precip	0.39	0.01	2.76	768.4	99.2	6	174
SO4-- corr	precip	0.26	-0.20	2.37	511.3	99.2	6	174
cond	precip	21.64	4.30	116.40	43065.1	99.5	0	170
pH	precip	4.77	4.00	6.59	33930.6	99.4	0	161

NO0015R Tustervatn

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.01	1.62	185.2	94.6	12	169
Cl-	precip	2.79	0.01	45.72	3246.7	96.1	2	170
K+	precip	0.07	0.01	1.56	85.2	93.6	21	165
Mg++	precip	0.222	0.005	3.629	258.1	94.7	17	170
NH4+	precip	0.09	0.01	2.19	101.1	93.5	13	163
NO3-	precip	0.08	0.01	2.27	93.1	96.1	19	170
Na+	precip	1.50	0.01	27.80	1749.1	94.7	0	170
Precip	precip	-	0.0	39.8	1162.1	99.9	156	366
SO4--	precip	0.20	0.01	2.03	226.5	96.1	6	170
SO4-- corr	precip	0.07	-0.47	2.00	79.9	96.1	6	170
cond	precip	13.88	2.10	113.10	16126.2	96.4	0	166
pH	precip	5.33	3.87	6.62	5436.6	95.1	0	156

NO0039R Kårvatn

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.13	0.01	1.61	190.5	99.4	5	162
Cl-	precip	2.60	0.02	24.02	3697.9	99.9	0	162
K+	precip	0.10	0.01	1.16	138.1	99.4	6	162
Mg++	precip	0.217	0.005	1.906	308.4	99.4	9	162
NH4+	precip	0.08	0.01	1.46	114.7	99.4	6	162
NO3-	precip	0.07	0.01	1.48	105.7	99.9	18	162
Na+	precip	1.49	0.01	15.21	2117.8	99.4	1	162
Precip	precip	-	0.0	41.6	1422.2	99.4	200	364
SO4--	precip	0.18	0.01	1.59	255.2	99.9	7	162
SO4-- corr	precip	0.05	-0.25	1.49	74.5	99.9	7	162
cond	precip	13.65	2.90	98.90	19415.0	99.8	0	157
pH	precip	5.37	4.65	6.58	6122.5	99.7	0	153

NO0055R Karasjok

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.25	0.04	3.22	94.4	97.2	0	112
Cl-	precip	0.72	0.07	7.80	267.2	98.0	0	114
K+	precip	0.28	0.05	2.81	105.2	96.5	0	108
Mg++	precip	0.070	0.005	0.548	26.0	98.5	1	114
NH4+	precip	0.14	0.01	1.98	51.8	97.8	4	110
NO3-	precip	0.14	0.01	1.06	52.6	98.7	3	115
Na+	precip	0.44	0.07	4.98	162.6	98.7	0	115
Precip	precip	-	0.0	35.0	371.4	99.9	228	366
SO4--	precip	0.21	0.01	1.94	77.9	98.7	2	115
SO4-- corr	precip	0.17	-0.24	1.79	64.2	98.7	2	115
cond	precip	9.24	3.10	52.00	3432.2	97.2	0	104
pH	precip	5.22	4.40	6.90	2225.3	94.4	0	90

NO0056R Hurdal

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.01	1.95	201.6	99.5	1	137
Cl-	precip	0.73	0.01	10.69	784.1	100.0	1	138
K+	precip	0.16	0.03	0.89	174.2	100.0	0	137
Mg++	precip	0.060	0.005	1.076	63.6	100.0	5	138
NH4+	precip	0.31	0.01	2.20	334.5	100.0	1	137
NO3-	precip	0.32	0.04	2.42	337.5	100.0	0	138
Na+	precip	0.43	0.05	6.31	463.8	100.0	0	138
Precip	precip	-	0.0	47.8	1067.7	99.9	228	366
SO4--	precip	0.24	0.01	2.48	259.2	100.0	3	138
SO4-- corr	precip	0.20	-0.02	2.42	219.2	100.0	3	138
cond	precip	11.89	3.80	81.90	12693.9	99.9	0	136
pH	precip	5.10	3.93	6.69	8462.3	99.4	0	136

PL0002R Jarczew

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.26	0.00	5.30	175.5	99.0	0	131
Cl-	precip	0.39	0.10	18.30	257.9	99.0	0	131
K+	precip	0.09	0.02	8.25	60.1	99.0	0	131
Mg++	precip	0.039	0.003	0.900	25.8	99.0	0	131
NH4+	precip	0.66	0.17	8.02	441.3	99.0	0	131
NO3-	precip	0.42	0.12	5.63	278.9	99.0	0	131
Na+	precip	0.15	0.02	9.10	99.1	99.0	0	131
Precip	precip	-	0.0	28.8	664.9	99.7	209	365
SO4--	precip	0.63	0.14	8.54	419.9	99.0	0	131
SO4-- corr	precip	0.61	0.12	8.03	408.5	99.0	0	131
cond	precip	16.97	5.50	143.40	11281.2	99.0	0	131
pH	precip	4.85	3.85	7.10	9418.6	99.0	0	131

PL0003R Sniezka

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.42	0.10	1.10	416.7	98.5	0	199
Cl-	precip	0.69	0.20	1.60	678.0	98.5	0	199
K+	precip	0.28	0.09	0.89	277.2	98.5	0	199
Mg++	precip	0.164	0.034	0.401	160.8	98.5	0	199
NH4+	precip	0.50	0.15	1.20	492.9	98.5	0	199
NO3-	precip	0.77	0.21	2.05	753.6	98.5	0	199
Na+	precip	0.52	0.15	1.29	515.3	98.5	0	199
Precip	precip	-	0.0	42.6	982.5	71.3	4	261
SO4--	precip	0.91	0.22	2.23	890.5	98.5	0	199
SO4-- corr	precip	0.86	0.19	2.14	847.4	98.5	0	199
cond	precip	27.17	10.10	67.00	26695.9	98.5	0	199
pH	precip	4.50	3.98	6.72	30863.8	98.5	0	199

PL0004R Leba

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.00	4.50	137.4	97.2	0	166
Cl-	precip	1.98	0.10	26.90	1332.7	97.2	0	167
K+	precip	0.10	0.02	3.00	68.9	97.2	0	166
Mg++	precip	0.123	0.005	1.325	82.8	97.2	0	166
NH4+	precip	0.41	0.04	6.86	276.2	97.2	0	167
NO3-	precip	0.44	0.07	9.44	299.0	97.2	0	167
Na+	precip	0.97	0.03	13.75	657.3	97.2	0	166
Precip	precip	-	0.0	29.4	674.2	65.0	42	238
SO4--	precip	0.43	0.08	7.26	289.4	97.2	0	167
SO4-- corr	precip	0.35	0.08	6.95	237.8	97.2	0	167
cond	precip	22.37	5.30	285.80	15081.9	97.2	0	167
pH	precip	4.69	3.25	6.95	13857.1	97.2	0	167

PL0005R Diabla Gora

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.00	1.60	110.5	95.4	0	132
Cl-	precip	0.57	0.05	22.70	392.3	92.0	2	151
K+	precip	0.07	0.01	7.20	49.3	95.4	0	132
Mg++	precip	0.051	0.008	1.529	35.0	95.4	0	132
NH4+	precip	0.45	0.01	3.09	311.1	96.9	5	153
NO3-	precip	0.40	0.06	3.03	274.8	95.0	0	153
Na+	precip	0.25	0.00	14.33	173.8	95.4	0	132
Precip	precip	-	0.0	26.0	687.4	99.9	211	366
Precip off	precip	-	0.00	26.80	760.8	99.9	165	366
SO4--	precip	0.49	0.07	3.50	335.3	96.9	0	154
SO4-- corr	precip	0.46	0.06	3.43	317.2	96.9	0	154
cond	precip	13.62	3.00	95.00	9361.7	94.0	0	104
pH	precip	4.78	3.95	6.39	11386.3	100.0	0	155

PT0001R Braganca

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.19	0.50	10.60	1209.0	11.4	0	9
Cl-	precip	0.92	0.40	2.80	504.7	11.4	0	9
K+	precip	0.32	0.04	1.35	176.3	11.4	4	9
Mg++	precip	0.168	0.015	0.710	92.8	11.4	1	9
NH4+	precip	0.83	0.01	4.00	458.7	11.4	1	9
NO3-	precip	0.06	0.01	0.20	30.4	11.4	6	9
Na+	precip	0.67	0.01	2.62	369.7	11.4	1	9
Precip off	precip	-	0.00	26.00	551.6	99.9	250	366
SO4--	precip	0.39	0.10	1.52	214.2	11.4	0	9
SO4-- corr	precip	0.32	0.06	1.37	175.9	11.4	0	9
cond	precip	26.01	6.00	79.00	14349.0	11.4	0	9
pH	precip	5.35	4.90	7.27	2466.6	11.4	0	9

PT0003R Viana do Castelo

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.41	0.10	1.90	474.1	40.4	0	34
Cl-	precip	5.14	0.60	21.80	5945.7	40.4	0	34
K+	precip	0.14	0.04	0.82	158.5	40.4	13	34
Mg++	precip	0.379	0.050	1.600	437.9	40.4	0	34
NH4+	precip	0.14	0.01	0.75	158.2	40.4	11	34
NO3-	precip	0.06	0.01	0.80	73.1	40.4	18	34
Na+	precip	2.81	0.24	14.64	3252.8	40.4	0	34
Precip off	precip	-	0.00	39.60	1156.9	99.9	205	366
SO4--	precip	0.41	0.14	1.12	474.5	40.4	0	34
SO4-- corr	precip	0.18	-0.10	0.74	207.1	40.4	0	34
cond	precip	26.41	7.00	99.00	30552.8	40.4	0	34
pH	precip	5.18	4.42	6.54	7618.5	40.4	0	34

PT0004R Monte Velho

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.83	0.10	4.00	347.6	89.9	0	27
Cl-	precip	8.47	1.10	24.40	3561.9	89.9	0	27
K+	precip	0.26	0.04	1.18	107.6	89.9	6	27
Mg++	precip	0.601	0.080	1.660	252.8	89.9	0	27
NH4+	precip	0.19	0.01	2.25	78.9	89.9	7	27
NO3-	precip	0.10	0.01	1.43	43.1	89.9	12	27
Na+	precip	4.49	0.38	13.76	1887.1	82.0	0	26
Precip off	precip	-	0.00	44.00	420.7	99.9	324	366
SO4--	precip	0.54	0.18	1.44	226.7	89.9	0	27
SO4-- corr	precip	0.16	-0.12	0.69	65.9	89.9	0	27
cond	precip	41.54	9.00	130.00	17477.7	89.9	0	27
pH	precip	5.44	4.93	6.79	1517.2	89.9	0	27

RS0005R Kamenicki vis

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.90	0.25	10.70	664.4	97.8	0	82
Cl-	precip	0.45	0.10	4.57	333.4	99.4	0	94
K+	precip	1.00	0.10	7.60	742.5	97.8	0	82
Mg++	precip	0.135	0.020	2.410	100.0	97.8	0	82
NH4+	precip	0.88	0.03	12.77	652.6	96.8	0	79
NO3-	precip	0.34	0.02	5.70	255.7	99.4	0	94
Na+	precip	0.42	0.05	17.56	310.2	97.3	0	81
Precip	precip	-	0.0	52.1	741.0	99.9	261	366
SO4--	precip	0.84	0.15	21.59	623.8	99.4	0	94
SO4-- corr	precip	0.81	0.14	21.38	596.2	99.4	0	94
cond	precip	23.12	4.00	231.00	17132.4	99.7	0	101
pH	precip	4.29	3.39	7.91	37653.2	99.8	0	102

RU0001R Janiskoski

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.21	0.04	2.81	96.1	100.0	17	153
Cl-	precip	1.47	0.16	24.18	659.7	100.0	0	153
K+	precip	0.34	0.03	6.51	152.9	100.0	2	153
Mg++	precip	0.082	0.008	0.440	36.6	100.0	0	153
NH4+	precip	0.08	0.02	1.88	33.9	100.0	73	153
NO3-	precip	0.07	0.01	2.31	31.0	100.0	80	153
Na+	precip	0.82	0.08	8.81	368.5	100.0	0	153
Precip	precip	-	0.0	23.4	448.4	99.9	213	366
SO4--	precip	0.41	0.02	6.74	185.7	100.0	3	153
SO4-- corr	precip	0.36	-0.09	6.19	161.2	100.0	3	153
cond	precip	12.99	3.60	121.70	5825.6	96.6	0	133
pH	precip	4.97	4.00	6.35	4840.1	96.5	0	127

RU0013R Pinega

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.43	0.04	5.79	284.4	100.0	13	173
Cl-	precip	1.38	0.14	18.41	918.3	100.0	0	173
K+	precip	0.43	0.03	5.28	286.6	100.0	1	173
Mg++	precip	0.120	0.001	1.292	79.3	100.0	1	173
NH4+	precip	0.29	0.02	2.47	191.4	100.0	27	173
NO3-	precip	0.20	0.01	2.03	129.2	100.0	25	173
Na+	precip	0.98	0.19	15.92	649.6	100.0	0	173
Precip	precip	-	0.0	39.7	663.5	99.9	193	366
SO4--	precip	0.49	0.02	5.29	325.8	100.0	1	173
SO4-- corr	precip	0.42	-0.04	4.52	276.6	100.0	1	173
cond	precip	17.18	4.80	105.00	11398.7	93.1	0	152
pH	precip	5.53	4.38	7.57	1953.1	97.6	0	146

RU0018R Danki

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.39	0.04	4.80	310.7	100.0	6	150
Cl-	precip	0.64	0.03	21.11	507.7	100.0	1	150
K+	precip	0.29	0.03	33.24	233.7	100.0	1	150
Mg++	precip	0.074	0.003	0.933	58.6	100.0	0	150
NH4+	precip	0.21	0.02	1.75	164.2	100.0	38	150
NO3-	precip	0.28	0.01	2.60	220.4	100.0	32	150
Na+	precip	0.47	0.01	11.03	371.5	100.0	1	150
Precip	precip	-	0.0	58.8	791.1	99.9	216	366
SO4--	precip	0.55	0.02	4.46	435.3	100.0	1	150
SO4-- corr	precip	0.52	-0.14	4.44	409.6	100.0	1	150
cond	precip	13.72	2.30	185.00	10851.0	98.8	0	135
pH	precip	4.94	3.98	6.75	9148.3	93.4	0	131

RU0020R Lesnoy

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.40	0.04	4.74	325.5	100.0	3	181
Cl-	precip	1.11	0.09	39.17	907.0	100.0	0	181
K+	precip	0.43	0.06	31.51	350.2	100.0	0	181
Mg++	precip	0.076	0.018	0.870	61.8	100.0	0	181
NH4+	precip	0.32	0.02	5.48	259.0	100.0	33	181
NO3-	precip	0.28	0.01	5.35	228.4	100.0	32	181
Na+	precip	0.70	0.09	12.81	576.7	100.0	0	181
Precip	precip	-	0.0	44.0	818.1	99.9	185	366
SO4--	precip	0.43	0.02	9.76	352.0	100.0	2	181
SO4-- corr	precip	0.38	-0.05	8.69	310.6	100.0	2	181
cond	precip	16.41	3.50	437.00	13425.6	99.4	0	168
pH	precip	5.26	4.15	7.20	4460.4	98.8	0	160

SE0005R Bredkälen

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.14	0.01	1.93	27.0	99.4	5	44
Cl-	precip	0.16	0.01	3.26	30.6	99.4	4	44
K+	precip	0.07	0.02	2.35	13.8	99.4	20	44
Mg++	precip	0.044	0.005	0.270	8.6	99.4	6	44
NH4+	precip	0.11	0.01	2.14	21.7	99.2	1	43
NO3-	precip	0.14	0.01	2.29	28.0	99.4	0	44
Na+	precip	0.17	0.03	5.39	32.3	99.4	10	44
Precip	precip	-	0.0	19.0	194.5	98.3	9	61
SO4--	precip	0.19	0.03	3.04	37.1	99.4	0	44
SO4-- corr	precip	0.18	0.03	2.89	34.5	99.4	0	44
cond	precip	7.06	2.00	20.00	1373.0	96.8	0	35
pH	precip	5.04	4.13	6.75	1789.7	99.8	0	48

SE0011R Vavihill

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.01	0.88	136.0	100.0	1	47
Cl-	precip	1.84	0.03	13.24	1360.1	100.0	0	47
K+	precip	0.06	0.02	0.39	40.5	100.0	28	47
Mg++	precip	0.147	0.005	0.830	108.6	100.0	1	47
NH4+	precip	0.42	0.06	2.71	312.6	100.0	0	47
NO3-	precip	0.44	0.08	2.95	324.5	100.0	0	47
Na+	precip	1.19	0.06	7.50	882.0	100.0	0	47
Precip	precip	-	0.0	50.4	739.8	99.9	14	62
SO4--	precip	0.38	0.10	1.41	281.5	100.0	0	47
SO4-- corr	precip	0.28	0.10	1.20	209.2	100.0	0	47
cond	precip	19.93	4.00	71.00	14744.0	100.0	0	47
pH	precip	4.83	4.09	5.52	10902.3	100.0	0	48

SE0014R Råö

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.28	0.01	7.38	190.5	99.5	4	153
Cl-	precip	6.96	0.15	94.54	4774.1	99.5	0	153
K+	precip	0.35	0.02	46.61	238.2	99.5	43	153
Mg++	precip	0.555	0.040	7.310	381.2	99.5	0	153
NH4+	precip	0.62	0.03	18.77	427.6	99.5	0	153
NO3-	precip	0.38	0.00	3.39	262.3	99.5	0	153
Na+	precip	4.37	0.03	59.67	2999.4	99.5	1	153
Precip	precip	-	0.0	27.2	686.4	99.9	194	366
SO4--	precip	0.68	0.06	39.83	465.2	99.5	0	153
SO4-- corr	precip	0.32	-0.32	39.11	221.5	99.5	0	153
cond	precip	41.11	5.00	369.00	28218.0	97.6	0	125
pH	precip	4.85	3.86	8.28	9779.9	99.8	0	163

SI0008R Iskrba

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.45	0.01	5.19	686.3	99.3	19	138
Cl-	precip	0.69	0.00	7.51	1047.9	99.4	1	138
K+	precip	0.04	0.00	0.28	60.5	99.3	16	138
Mg++	precip	0.071	0.002	0.486	107.5	99.3	35	138
NH4+	precip	0.27	0.00	2.28	413.3	99.3	3	138
NO3-	precip	0.31	0.03	2.42	465.5	99.4	0	138
Na+	precip	0.42	0.00	4.63	646.0	99.3	25	138
Precip	precip	-	0.0	44.8	1519.7	99.9	193	366
SO4--	precip	0.41	0.05	2.33	624.6	99.4	0	138
SO4-- corr	precip	0.37	0.03	2.32	568.9	99.4	0	138
cond	precip	13.08	3.00	50.00	19876.9	97.4	0	114
pH	precip	4.94	4.14	6.66	17422.9	97.4	0	114

SK0002R Chopok

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.01	1.99	215.9	94.8	0	181
Cl-	precip	0.23	0.01	2.45	315.3	95.7	0	186
K+	precip	0.09	0.01	1.08	114.5	95.0	0	182
Mg++	precip	0.036	0.002	0.487	48.8	95.0	0	181
NH4+	precip	0.43	0.07	2.64	581.7	94.9	0	180
NO3-	precip	0.29	0.03	1.79	392.0	95.9	0	189
Na+	precip	0.18	0.01	1.97	244.7	93.0	0	171
Precip	precip	-	0.1	66.8	1352.0	60.4	0	221
SO4--	precip	0.49	0.03	3.24	657.4	95.5	0	186
SO4-- corr	precip	0.47	0.03	3.12	637.8	95.5	0	186
cond	precip	13.30	2.10	56.30	17980.6	74.3	0	83
pH	precip	4.93	4.24	6.26	15877.9	74.3	0	83

SK0004R Stará Lesná

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.24	0.02	1.29	179.0	96.7	0	120
Cl-	precip	0.28	0.03	1.58	213.2	94.6	0	113
K+	precip	0.09	0.01	0.77	66.3	96.8	2	121
Mg++	precip	0.042	0.003	0.335	31.5	96.8	0	121
NH4+	precip	0.27	0.01	1.51	202.4	96.1	0	119
NO3-	precip	0.27	0.01	1.96	198.3	97.3	8	124
Na+	precip	0.28	0.04	1.53	209.8	95.4	0	113
Precip	precip	-	0.1	35.4	746.8	44.3	0	162
SO4--	precip	0.48	0.09	2.88	359.1	97.3	0	124
SO4-- corr	precip	0.46	0.08	2.81	339.7	97.3	0	124
cond	precip	15.55	4.60	45.60	11614.9	73.1	0	52
pH	precip	4.82	4.32	5.78	11227.1	73.1	0	52

SK0006R Starina

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.03	1.45	198.8	90.8	0	115
Cl-	precip	0.21	0.02	2.23	176.7	91.4	0	114
K+	precip	0.08	0.01	0.64	69.6	91.7	0	116
Mg++	precip	0.041	0.005	0.234	35.5	91.9	0	117
NH4+	precip	0.32	0.01	2.27	273.8	89.4	0	114
NO3-	precip	0.32	0.01	2.04	277.9	92.1	1	119
Na+	precip	0.16	0.01	1.27	137.7	91.3	0	113
Precip	precip	-	0.1	55.8	857.8	45.6	0	167
SO4--	precip	0.53	0.08	2.22	450.3	92.1	0	119
SO4-- corr	precip	0.51	0.08	2.16	437.7	92.1	0	119
cond	precip	16.11	3.60	40.80	13817.5	76.3	0	62
pH	precip	4.75	4.27	5.58	15144.3	76.3	0	62

SK0007R Topolniky

January 2008 - December 2008

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.37	0.09	2.57	194.6	99.8	0	40
Cl-	precip	0.22	0.03	1.36	117.5	99.8	0	40
K+	precip	0.08	0.02	0.35	44.2	99.1	0	39
Mg++	precip	0.076	0.020	0.335	40.1	99.6	0	39
NH4+	precip	0.47	0.04	1.50	247.6	99.4	0	39
NO3-	precip	0.33	0.04	2.15	172.0	99.8	0	40
Na+	precip	0.16	0.04	1.03	82.9	99.8	0	40
Precip	precip	-	0.0	40.9	528.2	99.5	10	51
SO4--	precip	0.37	0.13	2.44	197.0	99.8	0	40
SO4-- corr	precip	0.36	0.12	2.40	189.3	99.8	0	40
cond	precip	11.74	3.93	27.80	6202.4	94.4	0	30
pH	precip	5.30	4.62	6.33	2639.5	94.4	0	30

Annex 3

Annual statistics on gases and aerosol data

AT0002R Illmitz

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	250.10	116.57	229.75	1.48	107.00	138.00	214.00	483.00	982.00	94.2	0	8271
Ca++	aerosol	0.13	0.23	0.08	2.62	0.00	0.02	0.08	0.39	3.25	96.4	1	353
HNO3	air	0.57	0.27	0.50	1.79	0.01	0.18	0.55	1.05	1.47	96.6	0	354
K+	aerosol	0.22	0.21	0.16	2.22	0.03	0.05	0.15	0.61	1.42	96.4	0	353
Mg++	aerosol	0.030	0.040	0.020	2.423	0.002	0.006	0.020	0.089	0.492	96.4	13	353
NH3	air	1.74	0.78	1.56	1.61	0.17	0.67	1.67	3.12	6.12	96.6	0	354
NH4+	aerosol	0.96	0.84	0.71	2.22	0.05	0.18	0.75	2.62	6.15	96.4	0	353
NO2	air	2.48	1.58	2.07	1.83	0.38	0.75	2.04	5.37	10.33	99.2	0	363
NO3-	aerosol	0.20	0.31	0.12	2.67	0.00	0.03	0.09	0.78	2.58	96.4	0	353
Na+	aerosol	0.09	0.07	0.07	1.88	0.02	0.03	0.07	0.21	0.74	96.4	0	353
PM1 mass	pm1	11.39	6.62	9.71	1.78	1.82	3.53	9.75	24.09	44.74	100.0	0	366
PM10 mass	pm10	20.77	13.73	17.30	1.82	3.18	6.71	16.73	52.48	86.84	97.3	0	356
PM25 mass	pm25	16.39	11.63	13.44	1.85	2.69	5.39	12.89	44.00	66.53	98.6	0	361
SO2	air	0.66	0.80	0.44	2.54	0.01	0.13	0.44	1.83	7.11	94.7	3	347
SO2	air	0.67	1.15	0.35	3.04	-0.05	0.06	0.33	2.31	21.47	94.7	0	8316
SO4--	aerosol	0.90	0.70	0.69	2.15	0.01	0.22	0.71	2.28	4.47	96.4	1	353
SO4-- corr	aerosol	0.89	0.70	0.68	2.28	0.00	0.21	0.70	2.27	4.47	96.4	1	353

AT0005R Vorhegg

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	198.08	50.55	192.64	1.26	112.00	142.00	186.00	292.00	601.00	94.7	0	8315
NO2	air	1.04	0.64	0.90	1.66	0.15	0.47	0.85	2.37	4.63	93.2	0	341
PM10 mass	pm10	7.92	5.88	6.21	2.04	0.85	1.99	6.81	19.46	39.25	95.9	0	351
SO2	air	0.15	0.16	0.11	2.61	0.00	0.01	0.13	0.40	3.67	94.3	0	8284

AT0034G Sonnblick

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	150.34	35.64	146.39	1.26	86.00	107.00	141.00	215.00	290.00	93.2	0	8185

AT0048R Zoebelboden

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	8.57	7.56	6.45	2.19	0.08	1.80	6.80	20.66	74.49	97.3	0	356
SO2	air	0.23	0.24	0.16	2.51	0.00	0.03	0.15	0.70	2.48	92.7	0	8140

BE0001R Offagne

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	2.45	2.41	1.73	2.38	0.00	0.31	1.83	7.32	21.96	95.2	0	8363

BE0032R Eupen

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	4.00	3.29	2.98	2.21	0.31	0.92	3.05	10.98	36.60	88.9	0	7806

BE0035R Vezin

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	4.82	3.64	3.59	2.31	0.00	0.61	3.97	12.20	31.72	94.5	0	8301

CH0001G Jungfraujoch

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.03	0.07	0.03	2.62	-0.02	0.00	0.01	0.11	1.58	79.6	0	6995
NO2	air	0.13	0.13	0.10	2.16	0.01	0.02	0.10	0.42	0.84	37.4	0	137
NO2	air	0.13	0.17	0.08	2.65	0.00	0.01	0.08	0.41	1.95	51.5	0	4526
PM10 mass	pm10	2.78	5.93	1.47	2.60	0.50	0.50	1.40	7.20	58.70	100.0	108	366
SO2	air	0.05	0.04	0.03	2.30	0.01	0.01	0.04	0.11	0.35	98.1	87	359
SO4--	aerosol	0.11	0.11	0.06	2.87	0.01	0.01	0.06	0.32	0.63	99.7	36	365

CH0002R Payerne

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.35	0.39	0.23	2.48	0.07	0.07	0.25	0.83	3.74	50.5	52	185
HNO3	air	0.23	0.07	0.23	1.33	0.13	0.13	0.22	0.39	0.41	95.6	0	25
HNO3+NO3-	air+aerosol	1.01	1.01	0.70	2.31	0.09	0.19	0.68	2.82	7.43	98.4	0	360
K+	aerosol	0.17	0.14	0.12	2.19	0.02	0.02	0.12	0.43	0.93	50.5	10	185
Mg++	aerosol	0.032	0.033	0.024	1.996	0.012	0.012	0.027	0.078	0.331	50.5	78	185
NH3	air	2.32	1.04	2.13	1.52	0.96	1.04	1.99	4.81	4.95	88.0	0	23
NH3+NH4+	air+aerosol	3.54	2.28	2.98	1.80	0.53	1.06	3.06	7.16	17.06	96.7	0	354
NH4+	aerosol	1.00	0.52	0.88	1.71	0.33	0.33	0.90	2.23	2.33	88.0	0	23
NO2	air	3.27	2.15	2.69	1.87	0.49	0.99	2.56	8.25	11.82	98.6	0	361
NO3-	aerosol	0.71	0.48	0.59	1.86	0.22	0.22	0.59	2.08	2.40	95.6	0	25
Na+	aerosol	0.14	0.12	0.11	2.10	0.05	0.05	0.11	0.39	0.77	50.5	79	185
PM1 mass	pm1	9.48	7.46	7.48	2.03	0.10	2.60	7.50	23.84	49.50	97.5	0	357
PM10 mass	pm10	18.77	13.10	15.52	1.84	2.90	5.70	15.13	43.58	88.96	98.6	0	361
PM25 mass	pm25	11.88	10.20	9.09	2.05	1.20	3.13	8.75	31.86	67.40	100.0	0	366
SO2	air	0.39	0.21	0.34	1.70	0.06	0.15	0.33	0.82	1.39	97.0	0	355
SO4--	aerosol	0.52	0.32	0.43	1.89	0.07	0.14	0.46	1.16	2.07	99.7	0	365
SO4-- corr	aerosol	0.52	0.31	0.43	1.90	0.06	0.14	0.48	1.09	2.06	50.5	0	185

CH0003R Tänikon

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	4.29	2.71	3.62	1.78	0.69	1.50	3.51	10.50	17.65	99.7	0	365
PM10 mass	pm10	16.74	11.66	13.96	1.81	1.75	5.54	13.89	41.29	87.09	99.7	0	365

CH0004R Chaumont

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	1.68	1.30	1.36	1.88	0.28	0.47	1.32	4.65	8.38	99.7	0	365
PM10 mass	pm10	9.57	8.54	7.28	2.13	0.50	1.97	7.91	24.04	93.36	100.0	3	366
SO2	air	0.35	0.29	0.27	2.16	0.02	0.07	0.27	0.93	2.27	99.7	0	365

CH0005R Rigi

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.29	0.50	0.16	2.60	0.07	0.07	0.15	0.80	5.13	54.1	93	198
HNO3	air	0.17	0.05	0.17	1.35	0.07	0.08	0.17	0.30	0.32	95.6	0	25
HNO3+NO3-	air+aerosol	0.71	0.65	0.51	2.31	0.05	0.12	0.52	2.01	4.11	99.7	0	365
K+	aerosol	0.08	0.09	0.06	2.18	0.02	0.02	0.06	0.18	0.94	54.1	53	198
Mg++	aerosol	0.028	0.041	0.019	2.061	0.012	0.012	0.012	0.082	0.411	54.1	132	198
NH3	air	0.97	0.57	0.78	2.13	0.12	0.13	0.77	2.05	2.06	95.6	0	25
NH3+NH4+	air+aerosol	1.74	1.17	1.34	2.19	0.02	0.33	1.48	4.06	5.54	100.0	0	366
NH4+	aerosol	0.70	0.32	0.64	1.59	0.19	0.20	0.68	1.57	1.83	95.6	0	25
NO2	air	1.31	1.50	0.93	2.17	0.16	0.29	0.85	3.77	11.89	99.5	0	364
NO3-	aerosol	0.45	0.26	0.39	1.66	0.12	0.14	0.40	1.25	1.45	95.6	0	25
Na+	aerosol	0.10	0.10	0.07	1.94	0.05	0.05	0.05	0.32	0.86	54.1	140	198
PM1 mass	pm1	5.61	3.96	4.45	2.05	0.50	1.38	4.95	13.22	30.30	96.7	7	354
PM10 mass	pm10	9.77	8.12	7.49	2.09	0.50	2.20	8.01	24.93	69.57	97.0	1	355
PM25 mass	pm25	6.92	5.25	5.27	2.18	0.50	1.30	5.90	17.23	36.10	96.4	6	353
SO2	air	0.24	0.15	0.20	1.76	0.03	0.08	0.19	0.55	0.91	99.5	0	364
SO4--	aerosol	0.41	0.27	0.33	2.03	0.03	0.10	0.33	0.94	1.38	97.3	0	356
SO4-- corr	aerosol	0.42	0.28	0.33	2.04	0.03	0.10	0.34	0.98	1.38	54.1	0	198

CY0002R Ayia Marina

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	31.52	31.66	24.23	1.95	5.20	9.00	22.70	95.60	288.40	92.6	0	339
PM10 mass	pm10	35.60	46.99	25.21	2.17	3.00	7.00	25.30	94.29	966.30	97.9	0	8600
PM25 mass	pm25	15.98	12.60	13.25	1.80	1.30	5.60	13.40	40.91	123.80	63.7	0	233

CZ0001R Svratouch

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.84	0.53	0.69	1.92	0.02	0.23	0.70	1.86	3.34	92.0	0	337
NH3+NH4+	air+aerosol	2.45	1.83	2.01	1.88	0.19	0.66	2.08	5.40	16.44	92.8	0	340
NO2	air	2.23	1.76	1.75	2.00	0.76	0.76	2.01	4.72	14.40	98.8	125	362
PM10 mass	pm10	19.90	9.27	17.97	1.59	5.00	8.00	19.00	37.20	63.00	39.1	0	143
SO2	air	0.95	0.81	0.74	2.01	0.05	0.23	0.72	2.23	6.12	92.6	0	339
SO4--	aerosol	0.77	0.53	0.61	2.13	0.02	0.17	0.68	1.73	3.95	92.3	0	338

CZ0003R Kosetice

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	127.55	49.68	119.30	1.44	22.10	70.37	117.14	232.99	358.71	96.7	41	8498
Ca++	pm1	0.01	0.01	0.00	3.52	0.00	0.00	0.01	0.03	0.03	8.2	8	30
Cl-	pm1	0.02	0.03	0.01	5.61	0.00	0.00	0.01	0.09	0.12	8.2	10	30
HNO3+NO3-	air+aerosol	0.77	0.47	0.64	1.90	0.01	0.24	0.65	1.73	2.72	96.7	0	354
K+	pm1	0.05	0.04	0.04	3.10	0.00	0.00	0.05	0.12	0.14	8.2	1	30
Mg++	pm1	0.014	0.070	0.001	3.902	0.001	0.001	0.001	0.182	0.386	8.2	25	30
NH3+NH4+	air+aerosol	1.81	0.89	1.56	1.84	0.02	0.53	1.68	3.43	4.98	95.0	1	348
NH4+	pm1	0.79	0.42	0.66	1.96	0.17	0.18	0.83	1.55	1.65	8.2	0	30
NO	air	0.51	0.75	0.24	3.47	0.05	0.05	0.23	1.69	12.93	96.6	2076	8485
NO2	air	2.40	1.24	2.15	1.59	0.52	0.99	2.15	4.60	14.10	96.6	0	8485
NO2	air	2.48	1.12	2.22	1.66	0.76	0.76	2.44	4.37	8.86	99.9	48	366
NO3-	pm1	0.36	0.24	0.25	2.81	0.02	0.02	0.35	0.78	0.83	8.2	0	30
Na+	pm1	0.01	0.02	0.01	4.54	0.00	0.00	0.01	0.08	0.13	8.2	8	30
OC	pm10	3.50	1.61	3.11	1.67	1.30	1.31	3.67	6.34	6.63	6.8	0	25
PM1 mass	pm1	8.58	3.72	7.55	1.76	1.87	2.22	9.40	14.16	14.58	8.2	0	30
PM10 mass	pm10	17.06	10.97	13.69	2.06	1.00	4.00	15.00	38.00	89.00	90.6	136	7961
PM25 mass	pm25	14.56	6.78	13.16	1.58	5.00	6.00	14.00	27.50	45.00	50.3	0	184
SO2	air	0.62	0.73	0.45	2.15	0.03	0.14	0.43	1.65	9.04	96.7	0	354
SO2	air	1.15	0.98	0.93	1.83	0.12	0.40	0.80	2.80	12.26	91.7	3	8058
SO4--	aerosol	0.70	0.51	0.54	2.24	0.00	0.13	0.58	1.57	3.65	89.8	1	329
SO4--	pm1	0.56	0.29	0.49	1.78	0.17	0.17	0.55	1.10	1.12	8.2	0	30

DE0001R Westerland

January 2008 - 31 August 2008 (December for PM10 mass)

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.16	0.34	0.08	3.00	0.02	0.02	0.09	0.52	4.52	57.9	0	212
Cl-	aerosol	3.24	3.47	1.44	4.64	0.05	0.08	2.17	11.21	17.66	66.1	0	242
HNO3	air	0.19	0.20	0.14	2.23	0.02	0.04	0.14	0.50	2.14	66.4	0	243
HNO3+NO3-	air+aerosol	0.35	0.53	0.20	2.47	0.10	0.10	0.10	1.47	3.30	66.4	128	243
K+	aerosol	0.22	0.35	0.14	2.32	0.02	0.05	0.14	0.67	2.75	66.4	0	243
Mg++	aerosol	0.240	0.225	0.141	3.154	0.020	0.020	0.190	0.754	1.150	66.4	0	243
NH3	air	1.45	1.04	1.08	2.30	0.02	0.29	1.10	3.63	4.77	66.4	0	243
NH3+NH4+	air+aerosol	2.03	1.13	1.71	1.84	0.20	0.61	1.64	4.16	5.70	66.4	3	243
NH4+	aerosol	0.58	0.71	0.30	3.33	0.05	0.05	0.30	2.18	4.32	66.4	0	243
NO2	air	2.21	2.26	1.44	2.68	0.09	0.20	1.57	5.96	17.95	95.6	0	350
NO3-	aerosol	0.17	0.47	0.05	3.14	0.03	0.03	0.03	1.30	3.13	66.4	0	243
Na+	aerosol	2.05	1.91	1.06	4.08	0.02	0.08	1.78	6.27	9.63	66.4	0	243
PM10 mass	pm10	18.32	9.55	16.16	1.66	2.20	7.05	16.40	36.92	58.60	97.5	0	357
SO2	air	0.42	0.34	0.32	2.21	0.03	0.08	0.34	1.03	2.66	66.1	0	242
SO4--	aerosol	0.69	0.32	0.61	1.68	0.02	0.30	0.64	1.31	2.14	66.1	0	242
SO4-- corr	aerosol	0.53	0.32	0.44	1.97	-0.24	0.11	0.49	1.12	2.08	66.1	0	242

DE0002R Langenbrügge

January 2008 - 31 August 2008 (December for PM10 mass)

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.13	0.10	0.10	2.13	0.02	0.02	0.09	0.36	0.62	23.5	0	86
Cl-	aerosol	0.46	0.78	0.14	5.02	0.02	0.02	0.14	1.99	5.49	64.5	0	236
HNO3	air	0.26	0.18	0.20	2.11	0.02	0.06	0.20	0.61	0.94	64.8	0	237
HNO3+NO3-	air+aerosol	0.84	0.71	0.66	1.95	0.10	0.25	0.62	2.29	5.95	64.2	5	235
K+	aerosol	0.15	0.29	0.11	1.84	0.03	0.05	0.11	0.31	4.01	64.8	0	237
Mg++	aerosol	0.102	0.156	0.067	2.294	0.020	0.020	0.060	0.262	1.840	64.8	0	237
NH3	air	1.55	0.91	1.13	2.96	0.02	0.07	1.37	3.24	4.44	64.8	0	237
NH3+NH4+	air+aerosol	2.28	1.33	1.94	1.81	0.20	0.75	2.01	4.40	11.72	64.8	3	237
NH4+	aerosol	0.73	0.89	0.39	3.51	0.02	0.02	0.48	2.54	8.37	64.8	0	237
NO2	air	2.95	2.21	2.38	1.87	0.76	1.00	2.15	7.70	15.82	95.9	0	351
NO3-	aerosol	0.59	0.75	0.33	3.00	0.02	0.07	0.28	2.01	5.81	64.5	0	236
Na+	aerosol	0.50	0.53	0.29	3.02	0.02	0.04	0.31	1.66	2.92	64.8	0	237
PM1 mass	pm1	6.18	4.44	4.68	2.41	0.10	1.10	5.10	14.39	30.80	100.0	8	366
PM10 mass	pm10	15.21	9.61	12.99	1.74	2.50	5.24	12.40	32.49	75.10	100.0	0	366
PM25 mass	pm25	10.99	8.40	8.80	1.94	0.90	3.20	8.70	28.38	66.30	99.2	0	363
SO2	air	0.44	0.51	0.31	2.30	0.02	0.09	0.31	1.19	4.90	64.8	0	237
SO4--	aerosol	0.83	0.60	0.70	1.72	0.19	0.32	0.67	2.07	5.82	64.5	0	236
SO4-- corr	aerosol	0.79	0.60	0.65	1.80	0.17	0.26	0.62	2.03	5.74	64.5	0	236

DE0003R Schauinsland

January 2008 - 31 August 2008 (December for PM10 mass)

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.51	0.96	0.15	4.70	0.02	0.02	0.15	2.85	4.84	66.4	0	243
Cl-	aerosol	0.15	0.32	0.06	3.13	0.02	0.02	0.05	0.74	2.87	66.7	0	244
HNO3	air	0.19	0.22	0.12	2.64	0.01	0.02	0.13	0.49	1.89	66.7	2	244
HNO3+NO3-	air+aerosol	0.40	0.32	0.29	2.24	0.10	0.10	0.34	0.97	2.01	66.7	73	244
K+	aerosol	0.11	0.23	0.08	2.02	0.02	0.03	0.07	0.26	3.24	66.7	0	244
Mg++	aerosol	0.053	0.209	0.031	2.024	0.020	0.020	0.020	0.110	3.260	66.7	0	244
NH3	air	0.84	0.54	0.66	2.13	0.03	0.20	0.76	1.91	2.84	66.7	0	244
NH3+NH4+	air+aerosol	1.17	0.71	0.91	2.18	0.20	0.20	1.09	2.48	3.05	66.7	36	244
NH4+	aerosol	0.34	0.36	0.19	3.04	0.05	0.05	0.20	1.07	2.28	66.7	0	244
NO2	air	1.02	1.18	0.78	1.95	0.18	0.28	0.72	2.43	13.14	95.4	0	349
NO3-	aerosol	0.21	0.22	0.12	3.10	0.02	0.02	0.15	0.62	1.68	66.7	0	244
Na+	aerosol	0.21	0.34	0.10	3.19	0.02	0.02	0.10	0.73	3.32	66.7	0	244
PM10 mass	pm10	7.15	6.35	4.80	2.82	-0.20	0.70	5.90	17.27	49.30	100.0	7	366
PM25 mass	pm25	5.29	3.65	3.97	2.36	0.10	1.00	4.40	12.45	18.30	95.4	4	349
SO2	air	0.20	0.17	0.15	2.11	0.02	0.03	0.16	0.45	1.53	66.7	0	244
SO4--	aerosol	0.48	0.32	0.38	2.06	0.05	0.09	0.40	1.06	1.84	66.4	0	243
SO4-- corr	aerosol	0.46	0.32	0.36	2.14	-0.14	0.08	0.39	1.05	1.83	66.4	0	243

DE0007R Neuglobsow

January 2008 - 31 August 2008 (December for PM10 mass)

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.32	0.76	0.10	3.67	0.02	0.02	0.08	2.46	4.58	33.1	0	121
Cl-	aerosol	0.49	0.65	0.32	2.15	0.20	0.20	0.20	1.77	4.96	65.6	0	240
HNO3	air	0.20	0.17	0.14	2.47	0.01	0.04	0.15	0.50	1.21	65.6	2	240
HNO3+NO3-	air+aerosol	0.66	0.56	0.51	2.04	0.10	0.10	0.51	1.71	4.37	65.3	15	239
K+	aerosol	0.17	0.26	0.11	2.27	0.02	0.04	0.10	0.61	2.34	65.6	0	240
Mg++	aerosol	0.069	0.061	0.051	2.160	0.020	0.020	0.050	0.180	0.420	65.8	0	241
NH3	air	0.81	0.49	0.61	2.54	0.02	0.14	0.82	1.69	2.65	65.8	0	241
NH3+NH4+	air+aerosol	1.55	1.00	1.32	1.77	0.20	0.56	1.34	3.20	9.66	65.8	6	241
NH4+	aerosol	0.74	0.90	0.42	3.07	0.05	0.05	0.43	2.59	7.95	65.8	0	241
NO2	air	1.92	1.50	1.52	1.94	0.25	0.59	1.44	5.54	10.25	98.4	0	360
NO3-	aerosol	0.47	0.56	0.28	2.81	0.02	0.06	0.26	1.55	4.27	65.6	0	240
Na+	aerosol	0.42	0.50	0.24	2.99	0.02	0.05	0.24	1.56	3.27	65.8	0	241
PM10 mass	pm10	12.26	7.33	10.62	1.70	1.90	4.40	10.30	27.19	64.50	100.0	0	366
SO2	air	0.49	0.69	0.29	2.60	0.04	0.07	0.29	1.48	5.04	65.6	0	240
SO4--	aerosol	0.74	0.45	0.64	1.77	0.03	0.31	0.62	1.62	2.95	65.6	0	240
SO4-- corr	aerosol	0.71	0.45	0.59	1.88	0.03	0.22	0.59	1.61	2.89	65.6	0	240

DE0008R Schmücke

January 2008 - 31 August 2008 (December for PM10 mass)

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	2.16	1.53	1.79	1.81	0.36	0.72	1.68	5.31	10.71	97.3	0	356
PM10 mass	pm10	9.40	5.91	7.59	2.02	0.70	1.92	8.40	18.70	39.70	98.9	0	362
SO2	air	0.54	0.47	0.34	3.03	0.03	0.03	0.40	1.48	3.20	100.0	33	366

DE0009R Zingst

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.13	0.08	0.11	1.78	0.03	0.04	0.12	0.32	0.43	32.2	0	118
Cl-	aerosol	0.87	1.33	0.37	3.89	0.02	0.04	0.34	4.06	8.98	65.8	0	241
HNO3	air	0.20	0.17	0.15	2.23	0.02	0.05	0.14	0.52	1.20	65.8	0	241
HNO3+NO3-	air+aerosol	0.85	0.70	0.64	2.24	0.10	0.10	0.66	2.08	4.96	65.8	18	241
K+	aerosol	0.12	0.11	0.09	2.01	0.02	0.03	0.09	0.25	0.90	65.8	0	241
Mg++	aerosol	0.116	0.095	0.089	2.082	0.020	0.021	0.090	0.329	0.570	65.8	0	241
NH3	air	1.08	0.70	0.87	2.04	0.05	0.26	0.94	2.43	3.94	65.8	0	241
NH3+NH4+	air+aerosol	1.75	1.11	1.42	2.02	0.20	0.41	1.53	3.87	6.37	65.8	11	241
NH4+	aerosol	0.67	0.82	0.25	5.22	0.02	0.02	0.36	2.60	4.20	65.8	0	241
NO2	air	2.39	1.60	1.96	1.88	0.47	0.67	1.93	5.79	9.57	98.4	0	360
NO3-	aerosol	0.65	0.69	0.42	2.67	0.03	0.06	0.39	1.92	4.83	65.8	0	241
Na+	aerosol	0.85	0.84	0.57	2.52	0.04	0.12	0.60	2.74	5.01	65.8	0	241
PM10 mass	pm10	14.32	8.48	12.54	1.65	3.80	5.63	12.10	30.37	75.00	99.7	0	365
SO2	air	0.50	0.52	0.37	2.14	0.03	0.12	0.35	1.53	4.90	64.5	0	236
SO4--	aerosol	0.75	0.48	0.64	1.77	0.08	0.26	0.63	1.71	4.10	65.8	0	241
SO4-- corr	aerosol	0.68	0.49	0.54	2.02	0.06	0.14	0.59	1.70	4.07	65.8	0	241

DE0044R Melpitz

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm10	0.17	0.41	0.12	2.04	0.01	0.04	0.12	0.34	7.78	99.7	0	365
Ca++	pm25	0.09	0.26	0.06	2.15	0.00	0.02	0.06	0.17	4.75	98.4	0	360
Cl-	pm10	0.33	0.58	0.13	3.89	0.01	0.02	0.10	1.51	5.05	99.7	0	365
Cl-	pm25	0.15	0.20	0.08	3.13	0.00	0.02	0.07	0.54	1.56	99.2	0	363
K+	pm10	0.17	0.15	0.14	1.85	0.02	0.05	0.14	0.46	1.78	99.7	0	365
K+	pm25	0.14	0.14	0.11	2.00	0.02	0.04	0.10	0.38	1.46	99.2	0	363
Mg++	pm10	0.054	0.055	0.038	2.298	0.001	0.011	0.036	0.179	0.431	99.7	0	365
Mg++	pm25	0.020	0.021	0.015	2.174	0.001	0.004	0.013	0.058	0.210	98.6	0	361
NH4+	pm10	1.48	1.24	1.14	1.99	0.23	0.42	1.07	4.50	7.96	99.7	0	365
NH4+	pm25	1.35	1.07	1.08	1.91	0.07	0.41	1.03	3.98	7.37	99.2	0	363
NO3-	pm10	0.80	0.78	0.52	2.63	0.06	0.11	0.53	2.37	4.88	99.7	0	365
NO3-	pm25	0.63	0.69	0.34	3.28	0.03	0.06	0.37	1.96	4.30	99.2	0	363
Na+	pm10	0.28	0.41	0.14	3.86	0.00	0.01	0.13	1.06	3.17	99.7	0	365
Na+	pm25	0.10	0.15	0.05	3.65	0.00	0.00	0.04	0.41	1.36	95.6	0	350
OC	pm10	2.73	2.02	2.19	1.97	0.23	0.66	2.25	6.53	15.21	99.7	0	365
OC	pm25	1.81	1.44	1.37	2.25	0.03	0.33	1.43	4.56	10.48	99.2	0	363
PM10 mass	pm10	20.97	12.95	18.41	1.65	3.82	8.23	18.65	40.09	156.66	99.7	0	365
PM25 mass	pm25	16.81	11.61	14.38	1.73	2.54	5.89	14.42	34.46	152.35	99.2	0	363
SO4--	pm10	0.85	0.55	0.73	1.72	0.15	0.30	0.69	1.94	3.54	99.7	0	365
SO4--	pm25	0.79	0.52	0.67	1.75	0.13	0.28	0.65	1.80	4.23	99.2	0	363

DK0003R Tange

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.14	0.15	0.10	2.12	-0.00	0.03	0.09	0.48	1.07	95.8	3	351
Cl-	aerosol	1.67	1.62	0.99	3.08	0.06	0.12	1.16	5.43	9.17	97.5	0	357
HNO3+NO3-	air+aerosol	0.64	0.56	0.43	2.60	0.01	0.08	0.44	1.83	3.31	97.2	1	356
K+	aerosol	0.16	0.13	0.14	1.65	0.01	0.07	0.14	0.34	1.75	95.8	0	351
NH3	air	0.97	0.98	0.63	2.94	0.01	0.11	0.70	2.78	6.26	96.4	7	353
NH3+NH4+	air+aerosol	1.85	1.37	1.49	1.99	0.01	0.51	1.54	4.26	9.68	94.2	0	345
NH4+	aerosol	0.87	0.77	0.59	2.54	0.00	0.10	0.63	2.55	4.36	95.3	0	349
Na+	aerosol	1.06	0.93	0.68	2.86	0.03	0.09	0.86	3.05	5.00	96.4	2	353
SO2	air	0.17	0.20	0.11	2.46	0.00	0.03	0.10	0.57	1.88	97.5	5	357
SO4--	aerosol	0.52	0.34	0.43	1.87	0.03	0.17	0.43	1.13	2.53	97.5	0	357
SO4-- corr	aerosol	0.43	0.35	0.31	2.46	-0.01	0.06	0.35	1.08	2.52	97.5	0	357

DK0005R Keldsnor

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.14	0.13	0.11	1.97	0.02	0.04	0.11	0.43	0.95	93.6	1	343
Cl-	aerosol	1.90	1.74	1.22	2.88	0.01	0.18	1.37	5.36	10.00	93.9	4	344
HNO3+NO3-	air+aerosol	0.91	0.66	0.68	2.28	0.05	0.14	0.76	2.16	4.10	93.9	0	344
K+	aerosol	0.13	0.11	0.12	1.50	0.04	0.07	0.12	0.21	1.66	93.6	0	343
NH3	air	0.46	0.38	0.27	3.93	0.00	0.01	0.39	1.10	3.02	94.2	37	345
NH3+NH4+	air+aerosol	1.64	1.00	1.37	1.84	0.27	0.45	1.42	3.63	7.65	92.0	0	337
NH4+	aerosol	1.19	0.92	0.88	2.29	0.07	0.18	0.93	2.93	6.26	92.3	0	338
NO	air	0.33	0.88	0.15	3.43	-0.40	-0.01	0.10	1.38	41.13	91.9	5881	8076
NO2	air	2.61	2.43	1.77	2.50	-0.17	0.39	1.86	7.43	21.11	91.9	116	8069
Na+	aerosol	1.33	0.98	1.00	2.25	0.05	0.20	1.14	3.22	5.62	93.9	0	344
PM10 mass	pm10	18.09	8.55	16.21	1.62	1.86	6.73	16.96	35.55	60.28	99.2	2	363
SO2	air	0.55	0.51	0.35	2.88	0.01	0.05	0.41	1.52	3.48	94.2	2	345
SO4--	aerosol	0.71	0.41	0.61	1.70	0.12	0.25	0.60	1.56	3.09	93.9	0	344
SO4-- corr	aerosol	0.60	0.43	0.46	2.19	0.03	0.10	0.51	1.49	3.04	93.9	0	344

DK0008R Anholt

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.12	0.09	0.09	2.16	0.00	0.02	0.10	0.29	0.59	93.6	5	343
Cl-	aerosol	3.17	11.80	1.40	4.04	0.00	0.11	1.94	7.22	217.65	94.2	8	345
HNO3+NO3-	air+aerosol	0.78	2.52	0.44	2.68	0.01	0.09	0.48	1.77	46.03	93.9	0	344
K+	aerosol	0.12	0.06	0.10	1.75	0.01	0.04	0.11	0.21	0.56	93.6	0	343
NH3	air	0.16	0.24	0.07	4.78	0.00	0.00	0.10	0.48	2.98	93.9	104	344
NH3+NH4+	air+aerosol	1.05	2.70	0.67	2.36	0.05	0.15	0.69	2.36	48.70	93.9	0	344
NH4+	aerosol	0.89	2.54	0.50	2.72	0.03	0.10	0.53	2.21	45.72	93.9	0	344
NO	air	0.19	0.38	0.12	2.36	-0.30	0.03	0.11	0.55	13.87	83.1	6064	7303
NO2	air	1.73	1.69	1.21	2.29	0.03	0.35	1.13	5.11	15.53	83.2	93	7304
Na+	aerosol	2.17	8.70	1.21	2.75	0.02	0.19	1.45	4.16	161.31	93.9	2	344
SO2	air	0.43	1.85	0.22	2.62	0.00	0.05	0.22	1.00	34.07	94.2	0	345
SO4--	aerosol	0.73	2.53	0.53	1.74	0.00	0.23	0.53	1.24	47.25	94.2	0	345
SO4-- corr	aerosol	0.55	1.83	0.34	2.45	-0.05	0.06	0.38	1.16	33.74	94.2	0	345

DK0031R Ulborg

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.12	0.11	0.09	2.15	0.01	0.02	0.09	0.35	0.76	96.6	1	354
Cl-	aerosol	2.32	2.24	1.25	3.63	0.05	0.09	1.71	7.22	11.40	97.7	0	358
HNO3+NO3-	air+aerosol	0.64	0.63	0.41	2.81	0.00	0.07	0.47	1.82	4.84	97.7	2	358
K+	aerosol	0.14	0.06	0.12	1.55	0.03	0.06	0.12	0.25	0.47	96.6	0	354
NH3	air	0.56	0.71	0.27	3.60	0.00	0.03	0.23	2.27	3.60	98.0	25	359
NH3+NH4+	air+aerosol	1.39	1.15	0.97	2.46	0.10	0.21	1.07	3.74	7.82	98.0	0	359
NH4+	aerosol	0.83	0.86	0.51	2.86	0.04	0.08	0.58	2.65	5.81	98.0	0	359
Na+	aerosol	1.52	1.29	0.94	3.06	0.06	0.11	1.28	4.21	6.71	97.7	0	358
SO2	air	0.18	0.22	0.11	2.81	0.00	0.02	0.11	0.61	2.15	98.0	18	359
SO4--	aerosol	0.56	0.36	0.48	1.75	0.06	0.18	0.48	1.16	3.42	96.6	0	354
SO4-- corr	aerosol	0.43	0.39	0.30	2.59	-0.01	0.05	0.34	1.06	3.40	96.6	0	354

EE0009R Lahemaa

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	2.45	1.56	2.00	1.99	0.12	0.64	2.13	5.44	9.73	96.7	0	354
PM10 mass	pm10	7.02	3.83	6.12	1.64	1.80	2.64	5.80	16.16	22.60	98.1	0	53
SO2	air	0.93	1.10	0.62	2.36	0.03	0.17	0.57	2.86	8.85	96.7	0	354

EE0011R Vilsandi

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	2.45	1.56	2.00	1.99	0.12	0.64	2.13	5.44	9.73	96.7	0	354
SO2	air	0.79	0.69	0.59	2.12	0.12	0.19	0.56	2.24	4.51	99.2	0	363

ES0007R Viznar

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.49	0.22	0.45	1.52	0.16	0.22	0.46	0.93	1.73	97.2	0	356
NH3+NH4+	air+aerosol	0.91	0.94	0.49	3.34	0.01	0.07	0.56	2.86	4.64	96.6	1	354
NO	air	0.32	0.88	0.08	4.03	0.00	0.03	0.03	1.55	13.50	96.5	0	8475
NO2	air	1.95	2.12	1.18	3.05	0.03	0.16	1.23	6.25	26.05	96.5	0	8475
NO3-	pm10	0.41	0.20	0.37	1.64	0.04	0.15	0.37	0.77	1.23	94.5	0	346
PM10 mass	pm10	18.39	22.15	13.64	2.08	2.00	4.00	14.00	45.00	309.00	92.0	0	337
PM25 mass	pm25	9.74	8.09	8.14	1.81	1.00	3.00	9.00	19.00	112.00	84.3	0	309
SO2	air	0.43	0.48	0.27	2.60	0.00	0.08	0.26	1.38	6.19	98.6	0	8664
SO4--	pm10	0.55	0.30	0.49	1.61	0.15	0.23	0.48	1.09	3.24	94.5	0	346

ES0008R Niembro

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.50	0.32	0.42	1.73	0.10	0.21	0.39	1.14	2.20	99.1	0	363
NH3	air	0.76	0.55	0.29	8.63	0.01	0.01	0.78	1.76	2.46	91.8	10	48
NH3+NH4+	air+aerosol	1.52	0.84	1.27	1.92	0.04	0.38	1.39	3.08	5.58	98.3	0	360
NO	air	0.20	0.48	0.08	3.21	0.03	0.03	0.05	0.86	12.97	98.0	0	8608
NO2	air	1.43	1.45	0.98	2.41	0.03	0.23	0.98	4.08	17.41	98.0	0	8608
NO3-	pm10	0.34	0.30	0.26	2.05	0.01	0.11	0.24	0.95	2.23	93.6	1	343
PM10 mass	pm10	17.18	10.03	14.63	1.79	1.00	6.00	15.00	39.20	63.00	92.0	0	337
PM25 mass	pm25	8.85	5.74	7.16	2.00	0.50	2.00	7.00	19.15	33.00	91.7	3	336
SO2	air	0.79	1.16	0.47	2.60	0.08	0.12	0.44	2.60	27.06	99.3	0	8725
SO4--	pm10	0.80	0.45	0.69	1.69	0.22	0.31	0.68	1.74	2.52	93.6	0	343

ES0009R Campisabalos

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm10	0.31	0.37	0.19	2.67	0.01	0.04	0.16	1.04	2.74	61.9	2	227
Ca++	pm25	0.11	0.10	0.07	3.08	0.01	0.01	0.08	0.37	0.38	10.0	3	37
Cl-	pm10	0.60	0.40	0.49	1.89	0.16	0.23	0.38	1.26	1.46	10.8	0	40
Cl-	pm25	0.29	0.21	0.24	1.79	0.11	0.11	0.20	0.72	0.76	10.8	0	40
HNO3+NO3-	air+aerosol	0.37	0.15	0.34	1.49	0.14	0.19	0.32	0.67	1.12	90.4	0	331
K+	pm10	0.05	0.07	0.04	2.18	0.01	0.01	0.04	0.14	0.83	61.9	0	227
K+	pm25	0.03	0.02	0.02	2.15	0.01	0.01	0.02	0.08	0.08	10.8	2	40
Mg++	pm10	0.029	0.034	0.017	3.589	0.001	0.001	0.020	0.076	0.280	61.9	19	227
Mg++	pm25	0.011	0.009	0.005	4.943	0.001	0.001	0.010	0.030	0.030	10.8	12	40
NH3	air	0.84	0.70	0.23	11.44	0.01	0.01	0.83	1.97	2.32	84.2	12	44
NH3+NH4+	air+aerosol	0.95	0.56	0.80	1.91	0.01	0.27	0.85	1.85	4.77	96.1	1	352
NH4+	pm10	1.16	0.86	0.83	2.44	0.15	0.16	0.91	2.75	3.29	10.8	0	40
NH4+	pm25	0.78	0.53	0.61	2.07	0.18	0.20	0.67	1.99	2.07	8.7	0	32
NO	air	0.05	0.08	0.04	1.72	0.00	0.02	0.03	0.12	2.38	95.2	0	8362
NO2	air	0.51	0.65	0.32	2.58	0.02	0.06	0.31	1.59	9.75	95.2	0	8362
NO3-	pm10	0.17	0.10	0.13	2.21	0.01	0.04	0.19	0.32	0.56	61.9	9	227
NO3-	pm25	0.09	0.04	0.08	1.81	0.02	0.03	0.10	0.14	0.15	10.0	0	37
Na+	pm10	0.35	0.31	0.20	3.47	0.02	0.02	0.31	0.94	2.31	61.9	40	227
Na+	pm25	0.07	0.06	0.06	2.05	0.02	0.02	0.06	0.22	0.25	10.0	8	37
OC	pm10	2.43	0.99	2.23	1.56	0.89	0.91	2.50	4.56	4.75	10.9	0	40
OC	pm25	2.15	0.79	2.00	1.47	0.78	0.81	2.10	3.94	4.41	9.3	0	34
PM10 mass	pm10	7.65	9.19	4.27	3.10	0.50	0.95	4.00	26.30	63.00	53.7	9	197
PM25 mass	pm25	5.99	5.51	4.11	2.56	0.50	0.50	5.00	15.00	58.00	76.7	15	281
SO2	air	0.28	0.26	0.20	2.14	0.00	0.08	0.18	0.70	6.56	96.0	0	8432
SO4--	pm10	0.41	0.22	0.34	1.96	0.05	0.07	0.39	0.84	1.15	61.9	0	227
SO4--	pm25	0.30	0.13	0.27	1.68	0.06	0.08	0.31	0.62	0.65	10.0	0	37

ES0010R Cabo de Creus

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.61	0.37	0.53	1.73	0.14	0.23	0.53	1.34	3.62	90.4	0	331
NH3+NH4+	air+aerosol	1.31	0.76	1.07	2.09	0.01	0.35	1.23	2.72	5.93	94.5	3	346
NO	air	0.14	0.26	0.07	2.81	0.02	0.03	0.04	0.57	5.95	97.6	0	8575
NO2	air	1.30	1.02	1.03	1.94	0.03	0.37	1.02	3.16	12.92	97.6	0	8575
NO3-	pm10	0.48	0.24	0.43	1.70	0.03	0.17	0.45	0.97	1.70	87.1	0	319
PM10 mass	pm10	17.85	7.00	16.76	1.42	6.00	9.00	17.00	29.10	64.00	86.5	0	317
PM25 mass	pm25	7.96	4.13	7.09	1.62	2.00	3.00	7.00	15.60	35.00	89.3	0	327
SO2	air	0.16	0.13	0.14	1.70	0.08	0.08	0.12	0.42	1.16	98.6	0	8661
SO4--	pm10	0.83	0.42	0.74	1.64	0.07	0.35	0.71	1.64	2.51	87.1	0	319

ES0011R Barcarrola

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.38	0.16	0.35	1.43	0.13	0.21	0.33	0.67	1.23	98.0	0	359
NH3+NH4+	air+aerosol	1.38	0.71	1.19	1.84	0.05	0.40	1.32	2.52	5.98	99.9	0	366
NO	air	0.08	0.18	0.05	2.16	0.01	0.03	0.03	0.27	3.90	98.1	0	8620
NO2	air	0.87	0.72	0.63	2.57	0.03	0.05	0.71	2.01	9.57	98.1	0	8620
NO3-	pm10	0.29	0.14	0.26	1.52	0.04	0.15	0.25	0.56	0.92	88.3	0	323
PM10 mass	pm10	13.99	10.36	11.82	1.73	3.00	5.00	11.00	30.90	89.00	87.7	0	321
PM25 mass	pm25	6.23	3.35	5.45	1.68	1.00	2.00	5.00	13.00	19.00	85.4	0	313
SO2	air	0.26	0.37	0.18	2.16	0.08	0.08	0.15	0.82	6.80	98.5	0	8655
SO4--	pm10	0.51	0.26	0.46	1.52	0.19	0.25	0.43	1.02	2.16	88.3	0	323

ES0012R Zarra

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.42	0.19	0.38	1.50	0.14	0.21	0.38	0.77	1.32	98.6	0	361
NH3+NH4+	air+aerosol	1.15	0.59	0.99	1.77	0.05	0.41	1.00	2.24	4.30	97.2	0	356
NO	air	0.05	0.06	0.04	1.79	0.00	0.03	0.03	0.15	1.52	96.0	0	8435
NO2	air	0.80	0.58	0.64	2.05	0.03	0.20	0.67	1.81	10.28	96.0	0	8435
NO3-	pm10	0.41	0.24	0.36	1.67	0.05	0.16	0.35	0.90	1.79	92.5	0	339
PM10 mass	pm10	16.74	13.59	13.16	2.00	2.00	4.00	13.00	35.00	117.00	92.5	0	339
PM25 mass	pm25	5.78	3.43	4.86	1.84	1.00	2.00	5.00	11.80	25.00	93.6	0	343
SO2	air	0.31	0.18	0.28	1.57	0.08	0.14	0.27	0.60	3.10	98.4	0	8644
SO4--	pm10	0.91	0.71	0.71	2.01	0.17	0.25	0.66	2.28	4.50	92.5	0	339

ES0013R Penausende

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.33	0.30	0.25	2.11	0.03	0.07	0.25	0.95	1.90	98.6	11	361
NH3+NH4+	air+aerosol	0.93	0.50	0.81	1.72	0.08	0.32	0.80	1.96	3.00	99.6	0	365
NO	air	0.08	0.22	0.04	2.16	0.01	0.03	0.03	0.27	10.10	99.2	0	8716
NO2	air	1.12	1.11	0.83	2.14	0.03	0.27	0.81	2.84	25.89	99.2	0	8716
NO3-	pm10	0.25	0.14	0.21	1.72	0.01	0.11	0.21	0.57	1.00	91.2	1	334
PM10 mass	pm10	9.78	6.88	7.92	1.93	1.00	3.00	8.00	24.00	45.00	90.9	0	333
PM25 mass	pm25	6.58	4.52	5.14	2.09	1.00	1.00	6.00	16.00	30.00	91.8	0	336
SO2	air	0.24	0.28	0.18	2.05	0.02	0.08	0.16	0.64	6.76	99.3	0	8719
SO4--	pm10	0.40	0.17	0.36	1.54	0.08	0.19	0.35	0.73	1.08	91.2	0	334

ES0014R Els Torms

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.54	0.34	0.47	1.63	0.14	0.23	0.46	1.15	2.57	98.8	0	362
NH3+NH4+	air+aerosol	3.82	3.24	3.05	1.93	0.15	1.23	2.96	8.84	23.16	97.7	0	358
NO	air	0.12	0.21	0.06	2.68	0.00	0.02	0.04	0.58	3.08	96.8	0	8503
NO2	air	1.19	0.98	0.83	2.74	0.03	0.09	1.02	2.84	12.45	96.8	0	8503
NO3-	pm10	0.46	0.38	0.38	1.75	0.10	0.17	0.36	1.00	3.34	90.6	0	332
PM10 mass	pm10	13.89	11.06	11.49	1.80	3.00	4.00	12.00	29.45	88.00	90.1	0	330
PM25 mass	pm25	8.25	5.66	6.73	1.92	0.50	2.00	7.00	17.85	42.00	87.9	1	322
SO2	air	0.40	0.36	0.30	2.06	0.06	0.08	0.33	0.94	6.70	98.4	0	8642
SO4--	pm10	0.71	0.42	0.61	1.74	0.16	0.26	0.61	1.48	2.92	90.6	0	332

ES0016R O Saviñao

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.43	0.19	0.39	1.53	0.03	0.22	0.38	0.81	1.28	97.5	1	357
NH3+NH4+	air+aerosol	1.42	0.81	1.19	1.93	0.01	0.42	1.23	2.82	5.02	97.2	1	356
NO	air	0.13	0.41	0.06	2.64	0.00	0.03	0.03	0.46	6.67	98.5	0	8649
NO2	air	1.31	1.25	1.03	1.92	0.07	0.39	0.99	3.23	14.40	98.5	0	8649
NO3-	pm10	0.23	0.12	0.20	1.68	0.02	0.10	0.20	0.44	0.88	89.5	0	328
PM10 mass	pm10	10.00	7.41	8.38	1.78	2.00	3.00	8.00	20.70	71.00	88.7	0	325
PM25 mass	pm25	6.12	4.26	4.85	2.01	0.50	2.00	5.00	15.00	26.00	73.7	1	270
SO2	air	0.44	1.18	0.20	2.70	0.08	0.08	0.14	1.72	26.15	98.8	0	8675
SO4--	pm10	0.55	0.33	0.47	1.69	0.17	0.22	0.42	1.35	1.68	89.5	0	328

FI0009R Utö

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.07	0.08	0.04	2.22	0.00	0.01	0.05	0.16	0.72	99.7	0	365
Cl-	aerosol	0.57	0.68	0.19	7.20	0.00	0.00	0.30	2.00	5.05	99.7	26	365
HNO3+NO3-	air+aerosol	0.35	0.34	0.24	2.41	0.02	0.05	0.24	1.08	2.53	99.7	1	365
K+	aerosol	0.05	0.05	0.04	2.04	0.01	0.01	0.04	0.14	0.46	99.7	0	365
Mg++	aerosol	0.073	0.055	0.052	2.498	0.002	0.009	0.061	0.179	0.307	99.7	0	365
NH3+NH4+	air+aerosol	0.42	0.46	0.28	2.42	0.02	0.06	0.28	1.23	4.31	99.4	0	364
NH4+	aerosol	0.34	0.38	0.21	2.65	0.00	0.04	0.21	1.13	2.59	99.7	2	365
NO2	air	1.19	1.26	0.76	2.89	-0.18	0.08	0.81	3.57	19.44	98.5	0	8655
Na+	aerosol	0.58	0.47	0.38	3.01	0.00	0.06	0.46	1.49	2.83	99.7	2	365
SO2	air	0.31	0.22	0.24	2.11	0.02	0.07	0.26	0.75	1.51	99.7	0	365
SO4--	aerosol	0.44	0.33	0.34	2.06	0.04	0.10	0.35	1.08	2.13	99.7	0	365
SO4-- corr	aerosol	0.39	0.33	0.27	2.52	0.01	0.05	0.30	1.04	2.06	99.7	0	365

FI0017R Virolahti II

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.07	0.08	0.04	2.55	0.00	0.01	0.04	0.22	0.54	99.9	0	366
Cl-	aerosol	0.10	0.20	0.02	6.82	0.00	0.00	0.02	0.50	2.02	99.9	101	366
HNO3+NO3-	air+aerosol	0.23	0.20	0.16	2.31	0.01	0.04	0.17	0.62	1.39	99.9	8	366
K+	aerosol	0.06	0.06	0.04	2.14	0.00	0.01	0.04	0.16	0.63	99.9	1	366
Mg++	aerosol	0.029	0.025	0.019	2.689	0.001	0.003	0.021	0.078	0.168	99.9	3	366
NH3+NH4+	air+aerosol	0.40	0.34	0.29	2.23	0.03	0.08	0.29	1.14	1.69	99.7	0	365
NH4+	aerosol	0.31	0.30	0.21	2.41	0.02	0.05	0.20	0.97	1.64	99.9	0	366
NO2	air	1.33	1.12	1.05	1.96	0.16	0.37	1.02	3.34	13.84	98.3	0	8636
Na+	aerosol	0.21	0.21	0.12	2.96	0.00	0.02	0.13	0.59	1.45	99.9	1	366
SO2	air	0.41	0.43	0.27	2.54	0.01	0.06	0.28	1.11	4.04	99.9	1	366
SO4--	aerosol	0.46	0.39	0.35	2.08	0.06	0.10	0.35	1.22	3.51	99.9	0	366
SO4-- corr	aerosol	0.45	0.39	0.33	2.19	0.04	0.09	0.34	1.21	3.51	99.9	0	366

FI0022R Oulanka

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.01	0.01	0.01	2.21	0.00	0.00	0.01	0.03	0.03	98.3	0	52
Cl-	aerosol	0.03	0.07	0.01	6.56	0.00	0.00	0.00	0.20	0.33	98.3	17	52
HNO3+NO3-	air+aerosol	0.04	0.03	0.03	1.94	0.01	0.01	0.03	0.09	0.13	98.3	2	52
K+	aerosol	0.02	0.02	0.01	1.93	0.00	0.01	0.01	0.06	0.12	98.3	0	52
Mg++	aerosol	0.011	0.008	0.008	2.331	0.000	0.001	0.008	0.027	0.037	98.3	0	52
NH3+NH4+	air+aerosol	0.10	0.06	0.08	1.81	0.02	0.03	0.08	0.26	0.29	98.3	0	52
NH4+	aerosol	0.06	0.04	0.05	1.87	0.01	0.02	0.05	0.18	0.21	98.3	0	52
NO2	air	0.28	0.25	0.19	2.52	0.00	0.03	0.22	0.72	2.86	82.5	0	7248
Na+	aerosol	0.08	0.07	0.05	3.00	0.00	0.01	0.06	0.21	0.29	98.3	0	52
SO2	air	0.16	0.23	0.09	2.82	0.01	0.01	0.08	0.86	1.16	98.3	0	52
SO4--	aerosol	0.23	0.15	0.18	1.97	0.03	0.06	0.16	0.56	0.62	98.3	0	52
SO4-- corr	aerosol	0.22	0.15	0.17	2.03	0.03	0.05	0.16	0.56	0.61	98.3	0	52

FI0036R Pallas (Matorova)

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.01	0.02	0.01	2.95	0.00	0.00	0.01	0.04	0.21	99.7	53	365
Cl-	aerosol	0.14	0.26	0.02	8.81	0.00	0.00	0.02	0.67	1.70	99.7	125	365
HNO3+NO3-	air+aerosol	0.04	0.04	0.03	2.34	0.00	0.01	0.03	0.12	0.23	99.7	99	365
K+	aerosol	0.02	0.02	0.01	2.72	0.00	0.00	0.01	0.04	0.16	99.7	32	365
Mg++	aerosol	0.017	0.021	0.009	3.223	0.001	0.001	0.010	0.063	0.134	99.7	31	365
NH3+NH4+	air+aerosol	0.10	0.11	0.07	2.47	0.01	0.01	0.07	0.29	0.95	99.7	0	365
NH4+	aerosol	0.07	0.08	0.04	2.77	0.00	0.01	0.04	0.20	0.64	99.7	3	365
Na+	aerosol	0.14	0.18	0.06	4.80	0.00	0.00	0.08	0.57	1.14	99.7	12	365
SO2	air	0.21	0.63	0.04	5.80	0.01	0.01	0.03	1.02	7.85	99.7	100	365
SO4--	aerosol	0.23	0.24	0.14	2.88	0.01	0.03	0.14	0.77	1.57	99.7	1	365
SO4-- corr	aerosol	0.22	0.25	0.12	3.29	0.00	0.01	0.13	0.75	1.57	99.7	1	365

FI0037R Ähtäri II

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.02	0.02	0.02	2.08	0.00	0.01	0.01	0.07	0.14	96.4	0	51
Cl-	aerosol	0.06	0.11	0.02	7.36	0.00	0.00	0.00	0.30	0.55	96.4	12	51
HNO3+NO3-	air+aerosol	0.12	0.11	0.09	2.04	0.03	0.03	0.09	0.40	0.50	96.4	0	51
K+	aerosol	0.04	0.03	0.03	1.75	0.01	0.01	0.03	0.10	0.17	96.4	0	51
Mg++	aerosol	0.017	0.011	0.014	1.991	0.003	0.004	0.014	0.040	0.048	96.4	0	51
NH3+NH4+	air+aerosol	0.29	0.25	0.23	1.92	0.06	0.09	0.23	0.98	1.37	96.4	0	51
NH4+	aerosol	0.16	0.14	0.12	2.03	0.04	0.04	0.12	0.54	0.74	96.4	0	51
NO2	air	0.52	0.52	0.35	2.45	-0.02	0.08	0.34	1.60	4.97	98.1	0	8614
Na+	aerosol	0.12	0.09	0.09	2.38	0.01	0.02	0.10	0.31	0.41	96.4	0	51
SO2	air	0.14	0.12	0.10	2.28	0.01	0.03	0.10	0.50	0.54	96.4	0	51
SO4--	aerosol	0.37	0.29	0.28	1.99	0.09	0.09	0.28	1.07	1.46	96.4	0	51
SO4-- corr	aerosol	0.35	0.29	0.27	2.06	0.07	0.08	0.27	1.06	1.45	96.4	0	51

FI0096G Pallas (Sammaltunturi)

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	0.24	0.22	0.17	2.42	-0.05	0.03	0.18	0.65	3.71	96.9	0	8515

FR0008R Donon

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.01	0.16	1.34	1.63	0.00	0.00	0.00	0.00	6.00	67.3	0	5910
NO	air	0.01	0.17	1.35	1.66	0.00	0.00	0.00	0.00	9.00	67.3	0	5910
NO	air	0.01	0.17	1.38	1.63	0.00	0.00	0.00	0.00	5.00	68.4	0	6004
NO	air	0.02	0.22	1.52	1.74	0.00	0.00	0.00	0.00	9.00	68.4	0	6004
NO	air	0.16	0.81	1.99	2.02	0.00	0.00	0.00	1.00	10.00	30.4	0	2668
NO2	air	2.92	4.96	3.10	2.32	0.00	0.00	2.00	12.00	52.00	67.3	0	5910
NO2	air	2.94	4.97	3.12	2.32	0.00	0.00	2.00	12.00	56.00	68.4	0	6004
NO2	air	2.98	4.99	3.10	2.33	0.00	0.00	2.00	12.00	55.00	68.4	0	6004
NO2	air	2.99	4.96	3.10	2.32	0.00	0.00	2.00	12.00	53.00	67.3	0	5911
NO2	air	4.66	6.55	4.54	2.65	0.00	0.00	2.00	19.00	39.00	30.4	0	2667

FR0009R Revin

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.09	0.16	0.06	3.50	0.00	0.00	0.01	0.44	0.94	28.1	22	103
HNO3+NO3-	air+aerosol	0.45	0.58	0.38	3.86	0.00	0.00	0.28	1.61	3.38	28.4	7	104
NH3	air	0.40	0.93	0.13	9.55	0.00	0.00	0.01	1.64	8.20	28.1	23	103
NH3+NH4+	air+aerosol	1.03	1.42	0.73	5.85	0.00	0.00	0.59	4.45	8.23	28.4	6	104
NH4+	aerosol	0.60	0.93	0.44	4.20	0.00	0.00	0.29	2.42	4.90	28.4	10	104
NO3-	aerosol	0.35	0.52	0.26	4.49	0.00	0.00	0.15	1.43	3.27	28.4	9	104
PM10 mass	pm10	15.59	7.59	14.03	1.59	2.00	7.00	14.00	29.00	63.00	48.9	0	4295
PM25 mass	pm25	9.92	5.93	8.50	1.75	0.00	3.00	8.00	21.00	50.00	48.9	0	4291
SO2	air	0.17	0.26	0.13	3.62	0.00	0.00	0.08	0.89	1.14	28.1	12	103
SO4--	aerosol	0.28	0.34	0.21	4.68	0.00	0.00	0.10	1.04	1.31	28.4	11	104

FR0013R Peyrusse Vieille

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.11	0.11	0.07	2.85	0.00	0.00	0.07	0.34	0.60	28.4	23	104
HNO3+NO3-	air+aerosol	0.47	0.59	0.32	3.08	0.00	0.00	0.36	1.03	5.11	28.4	7	104
NH3	air	0.84	1.04	0.36	6.24	0.00	0.00	0.57	2.85	6.33	28.4	13	104
NH3+NH4+	air+aerosol	1.43	1.46	0.78	5.11	0.00	0.00	1.07	4.58	7.44	28.4	7	104
NH4+	aerosol	0.60	0.80	0.32	4.08	0.00	0.00	0.47	1.76	6.43	28.1	13	103
NO	air	0.05	0.27	1.11	1.38	0.00	0.00	0.00	0.00	5.00	98.5	0	8655
NO2	air	3.39	2.73	2.93	1.90	-1.00	0.00	3.00	8.00	42.00	98.5	0	8655
NO3-	aerosol	0.37	0.52	0.21	3.88	0.00	0.00	0.29	0.87	4.56	28.4	10	104
PM10 mass	pm10	12.19	6.46	10.63	1.73	-1.00	4.00	11.00	24.00	56.00	97.4	0	8559
PM25 mass	pm25	7.66	3.78	6.75	1.70	1.00	2.00	7.00	16.00	25.00	10.2	0	894
SO2	air	0.23	0.27	0.14	3.09	0.00	0.00	0.14	0.80	1.49	28.4	10	104
SO4--	aerosol	0.46	0.42	0.28	3.85	0.00	0.00	0.36	1.23	2.31	28.4	10	104

FR0015R La Tardière

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.12	0.13	0.07	3.18	0.00	0.01	0.09	0.34	0.84	21.6	23	79
HNO3+NO3-	air+aerosol	0.86	0.77	0.52	3.31	0.00	0.01	0.62	2.73	2.91	21.3	3	78
NH3	air	4.17	3.50	1.85	8.25	0.00	0.01	3.54	11.29	14.36	21.6	7	79
NH3+NH4+	air+aerosol	5.45	4.27	3.82	2.60	0.00	0.42	3.96	15.23	15.75	21.3	0	78
NH4+	aerosol	1.31	1.88	0.52	4.92	0.00	0.03	0.72	5.39	9.79	21.6	7	79
NO	air	1.80	2.75	1.65	1.85	0.00	0.00	1.00	4.00	88.00	93.6	0	8224
NO2	air	9.57	6.31	8.15	1.73	1.00	4.00	8.00	21.00	65.00	93.6	0	8224
NO3-	aerosol	0.73	0.71	0.41	3.84	0.00	0.01	0.43	2.49	2.84	21.6	5	79
PM10 mass	pm10	13.23	6.03	11.80	1.67	-3.00	5.00	13.00	24.00	57.00	69.9	0	6140
PM10 mass	pm10	14.05	8.84	12.08	1.88	-11.00	3.00	12.00	31.00	70.00	32.8	0	2884
SO2	air	0.20	0.19	0.13	2.85	0.00	0.01	0.15	0.72	1.00	21.6	8	79
SO4--	aerosol	0.75	0.60	0.51	3.28	0.00	0.01	0.59	1.94	3.14	21.6	4	79

FR0030R Puy de Dôme

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
OC	pm25	0.91	0.62	0.77	1.84	0.40	0.40	0.67	1.93	1.93	3.8	0	7
OC	pm25	0.93	0.65	0.80	1.79	0.30	0.31	0.76	2.60	3.20	21.6	0	36
TC	pm25	1.02	0.70	0.86	1.84	0.47	0.47	0.68	2.20	2.20	3.8	0	7
TC	pm25	1.12	0.75	0.97	1.75	0.38	0.40	0.94	3.01	3.78	21.6	0	36

GB0002R Eskdalemuir

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.38	0.40	0.54	1.69	0.00	0.00	0.40	0.90	8.70	93.4	0	8200
NO2	air	1.54	0.96	1.35	1.64	0.00	0.60	1.30	3.10	16.10	93.4	0	8200
SO4--	aerosol	0.33	0.27	0.26	2.03	0.00	0.10	0.24	0.93	1.64	91.5	0	335

GB0006R Lough Navar

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.06	0.06	0.05	1.94	0.02	0.02	0.04	0.22	0.22	91.3	0	11
NH3	air	0.49	0.37	0.40	1.94	0.13	0.13	0.40	1.49	1.49	99.7	0	12
NH4+	aerosol	0.32	0.32	0.23	2.34	0.08	0.08	0.21	0.96	0.96	99.7	0	12
NO3-	aerosol	0.21	0.20	0.14	2.50	0.04	0.04	0.11	0.62	0.62	99.7	0	12
PM10 mass	pm10	12.66	7.30	10.78	1.82	-1.00	4.00	12.00	27.00	61.00	96.0	0	8431
SO4--	aerosol	0.30	0.39	0.23	1.95	0.00	0.09	0.20	0.78	4.62	58.7	0	215

GB0007R Barcombe Mills

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
SO4--	aerosol	0.73	0.57	0.59	1.88	0.17	0.22	0.58	1.79	5.63	76.7	0	281

GB0013R Yarner Wood

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.16	0.12	0.12	2.08	0.04	0.04	0.11	0.40	0.40	99.7	0	12
NH3	air	0.39	0.22	0.34	1.75	0.15	0.15	0.37	0.84	0.84	99.7	0	12
NH4+	aerosol	0.56	0.46	0.41	2.16	0.16	0.16	0.30	1.37	1.37	99.7	0	12
NO	air	0.41	0.75	0.70	1.75	0.00	0.00	0.00	1.20	16.10	81.7	0	7175
NO2	air	1.63	2.01	1.25	2.40	0.00	0.00	1.10	5.70	19.30	81.7	0	7175
NO3-	aerosol	0.36	0.25	0.29	1.93	0.13	0.13	0.22	0.81	0.81	99.7	0	12
SO4--	aerosol	0.56	0.46	0.42	2.13	0.03	0.14	0.40	1.52	2.83	73.4	0	269

GB0014R High Muffles

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.16	0.09	0.14	1.76	0.04	0.04	0.15	0.34	0.34	99.7	0	12
NH3	air	0.68	0.62	0.52	2.04	0.19	0.19	0.51	2.47	2.47	99.7	0	12
NH4+	aerosol	0.54	0.34	0.47	1.77	0.19	0.19	0.46	1.32	1.32	99.7	0	12
NO	air	0.53	1.30	0.41	2.08	0.00	0.00	0.40	1.30	33.70	97.9	0	8600
NO2	air	2.00	2.67	1.11	3.06	0.00	0.10	1.00	7.20	20.70	97.9	0	8600
NO3-	aerosol	0.41	0.21	0.37	1.61	0.20	0.20	0.34	0.89	0.89	91.3	0	11
SO4--	aerosol	0.41	0.30	0.34	1.75	0.00	0.14	0.32	0.96	2.25	63.9	0	234

GB0016R Glen Dye

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.11	0.10	0.08	2.22	0.04	0.04	0.09	0.35	0.35	66.4	0	8
NH3	air	0.17	0.08	0.16	1.67	0.08	0.08	0.17	0.30	0.30	66.4	0	8
NH4+	aerosol	0.20	0.16	0.15	2.28	0.05	0.05	0.12	0.46	0.46	66.4	0	8
NO3-	aerosol	0.14	0.10	0.12	2.08	0.04	0.04	0.10	0.27	0.27	66.4	0	8

GB0031R Aston Hill

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.52	0.90	0.51	1.96	0.00	0.00	0.40	1.30	19.20	85.4	0	7503
NO2	air	1.93	2.46	1.32	2.30	0.00	0.30	1.30	5.70	24.00	85.4	0	7503

GB0033R Bush

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.58	2.21	0.70	2.17	0.00	0.00	0.00	1.50	46.10	90.0	0	7902
NO2	air	2.44	2.71	1.75	2.36	0.00	0.00	1.50	7.50	26.50	90.0	0	7902

GB0036R Harwell

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.97	2.91	0.83	2.67	0.00	0.00	0.30	3.00	46.30	97.9	0	8601
NO2	air	3.08	3.49	2.04	2.54	0.00	0.30	1.80	10.40	27.00	97.9	0	8601
PM10 mass	pm10	14.23	8.25	12.52	1.70	0.00	5.00	12.00	27.80	55.00	27.6	0	101
PM10 mass	pm10	18.81	10.09	16.77	1.62	-1.00	8.00	17.00	35.00	183.00	98.1	0	8613
PM25 mass	pm25	9.87	4.93	8.91	1.58	-2.00	5.00	9.00	20.00	56.00	94.4	0	8295
PM25 mass	pm25	10.05	7.94	7.75	2.15	0.00	2.00	8.00	22.90	55.00	49.5	0	181
SO2	air	1.03	2.18	0.95	1.99	0.00	0.00	0.70	2.60	86.10	94.6	0	8309

GB0037R Ladybower Res.

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.70	1.18	0.64	1.75	0.00	0.00	0.60	1.30	34.50	94.3	0	8282
NO2	air	2.34	2.69	1.60	2.46	0.00	0.20	1.50	7.00	26.20	94.3	0	8282
SO2	air	0.88	1.33	1.11	1.91	0.00	0.00	0.80	3.00	26.80	74.0	0	6502

GB0038R Lullington Heath

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.92	1.24	0.78	2.00	0.00	0.00	0.70	2.10	21.40	97.1	0	8527
NO2	air	2.95	2.67	2.27	1.99	0.00	0.80	2.10	7.80	23.80	97.1	0	8527
SO2	air	0.84	1.08	0.91	2.11	0.00	0.00	0.70	2.70	16.90	32.3	0	2837

GB0043R Narberth

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.80	0.83	0.66	1.91	0.00	0.10	0.70	1.60	14.60	94.1	0	8263
NO2	air	1.75	2.15	1.30	2.01	0.00	0.50	1.20	4.70	25.80	94.1	0	8263
PM10 mass	pm10	17.63	9.85	15.77	1.60	0.00	7.00	16.00	33.00	217.00	95.3	0	8371
SO2	air	1.69	2.73	1.27	2.06	0.00	0.30	1.20	4.30	83.60	94.0	0	8254

GB0044R Somerton

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	1.44	3.81	0.56	2.81	0.00	0.20	0.50	6.22	32.60	16.4	0	1437
NO2	air	3.75	4.62	1.87	3.34	0.10	0.30	1.50	14.61	21.70	16.4	0	1437

GB0045R Wicken Fen

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	1.15	3.18	0.62	2.64	0.00	0.00	0.50	4.00	87.40	93.8	0	8242
NO2	air	3.21	3.06	2.13	2.60	0.00	0.30	2.20	9.60	25.70	93.8	0	8242
SO2	air	2.21	0.94	2.05	1.49	0.00	1.20	2.00	3.90	19.40	96.2	0	8453

GB0048R Auchencorth Moss

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	6.58	6.69	5.38	2.31	-4.00	-1.00	5.00	20.00	48.00	95.5	0	8388
PM10 mass	pm10	8.47	6.64	7.13	2.05	-5.00	0.00	7.00	22.00	39.00	90.7	0	332
PM25 mass	pm25	3.32	5.21	3.43	2.39	-4.00	-2.00	2.00	13.00	44.00	88.1	0	7741
PM25 mass	pm25	5.39	5.47	4.67	2.24	-9.00	-1.00	4.00	14.00	36.00	81.7	0	299

GB0050R St. Osyth

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	176.75	78.04	165.91	1.39	77.20	111.50	163.00	317.50	1329.90	66.8	0	5871
NO	air	1.12	4.26	0.74	3.62	0.00	0.00	0.10	4.60	110.00	87.1	0	7652
NO2	air	3.83	3.63	2.57	2.59	0.00	0.50	2.70	11.60	33.70	87.1	0	7652

GB0051R Market Harborough

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	163.74	58.32	153.75	1.43	103.00	103.00	197.30	300.30	600.60	94.5	0	8303
NO	air	0.45	1.57	0.54	2.56	0.00	0.00	0.00	1.80	32.40	99.0	0	8696
NO2	air	3.29	3.04	2.40	2.19	0.10	0.70	2.30	9.50	23.90	99.0	0	8696

GB0053R Charlton Mackrell

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.68	1.70	0.72	2.79	0.00	0.00	0.00	3.20	18.70	28.8	0	2526
NO2	air	3.40	2.70	2.58	2.13	0.00	0.70	2.60	8.96	17.20	28.8	0	2526

GR0001R Aliartos

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	1.22	2.09	0.76	2.18	0.47	0.47	0.47	4.34	28.49	57.1	0	5013
NO2	air	3.75	3.51	2.35	2.77	0.30	0.61	2.43	10.94	20.98	57.1	0	5012
SO2	air	1.83	1.84	1.52	1.70	1.00	1.00	1.50	4.50	41.50	75.1	0	6596

GR0002R Finokalia

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	17.62	12.01	14.74	1.87	0.29	5.17	15.55	35.40	128.55	21.8	0	1915

HU0002R K-puszta

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.31	0.23	0.25	1.97	0.03	0.06	0.29	0.65	2.80	99.4	0	364
NH3	air	1.54	0.78	1.25	2.29	0.02	0.35	1.50	2.85	4.23	99.6	6	365
NH4+	aerosol	0.95	0.99	0.56	3.12	0.01	0.10	0.59	3.31	5.45	99.6	6	365
NO2	air	1.88	1.02	1.65	1.67	0.11	0.76	1.61	4.07	6.13	99.4	0	364
NO3-	aerosol	0.53	0.59	0.33	2.63	0.03	0.08	0.28	1.84	3.82	99.4	0	364
PM10 mass	pm10	26.34	17.32	21.49	1.92	1.86	7.16	21.77	60.95	194.46	93.9	0	8244
SO2	air	1.38	2.37	0.69	3.08	0.01	0.14	0.58	5.23	28.94	99.4	1	364
SO4--	aerosol	1.21	1.06	0.93	2.03	0.14	0.31	0.90	3.68	7.28	99.4	0	364
TC	pm10	7.94	4.17	6.99	1.69	2.33	2.33	7.07	17.48	17.48	4.9	0	18

IE0001R Valentia Observatory

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.18	0.45	0.09	2.86	0.03	0.03	0.10	0.52	7.11	98.5	111	361
HNO3+NO3-	air+aerosol	0.29	0.45	0.15	2.79	0.02	0.04	0.12	1.27	3.00	98.5	0	361
K+	aerosol	0.14	0.24	0.10	2.21	0.03	0.03	0.10	0.27	2.41	98.5	56	361
Mg++	aerosol	0.362	0.766	0.189	2.957	0.025	0.025	0.210	0.819	8.150	98.5	45	361
NH3+NH4+	air+aerosol	0.79	0.77	0.60	1.96	0.07	0.27	0.51	2.52	4.57	98.2	0	360
NO2	air	1.04	1.17	0.70	2.45	0.05	0.20	0.70	3.37	12.60	99.9	4	366
Na+	aerosol	3.06	6.06	1.67	3.05	0.03	0.19	1.87	6.93	65.45	98.5	5	361
SO2	air	0.26	0.59	0.15	2.69	0.01	0.03	0.14	0.67	10.05	98.8	7	362
SO4--	aerosol	0.61	1.01	0.34	2.83	0.01	0.06	0.35	1.87	10.10	98.5	8	361
SO4-- corr	aerosol	0.35	0.87	0.11	4.53	-0.21	-0.01	0.09	1.59	10.02	98.5	8	361

IE0006R Malin Head

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.13	0.08	0.10	1.94	0.01	0.03	0.11	0.28	0.58	100.0	1	366
K+	aerosol	0.12	0.07	0.10	1.73	0.03	0.04	0.10	0.24	0.40	100.0	0	366
Mg++	aerosol	0.289	0.223	0.219	2.158	0.030	0.060	0.210	0.773	1.190	100.0	0	366
NH4+	aerosol	0.59	0.91	0.34	2.44	0.08	0.13	0.26	2.83	8.13	100.0	0	366
NO3-	aerosol	0.28	0.55	0.09	4.10	0.01	0.01	0.07	1.41	5.03	100.0	0	366
Na+	aerosol	2.46	1.80	1.90	2.10	0.17	0.51	1.92	6.42	9.57	100.0	0	366
SO4--	aerosol	0.53	0.34	0.45	1.72	0.07	0.21	0.42	1.27	2.05	100.0	0	366
SO4-- corr	aerosol	0.32	0.38	0.17	3.20	0.01	0.02	0.18	1.15	2.01	100.0	0	366

IE0008R Carnsore Point

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.19	0.17	0.15	1.94	0.01	0.05	0.15	0.38	2.73	100.0	1	366
K+	aerosol	0.16	0.10	0.13	1.95	0.01	0.05	0.13	0.36	0.45	100.0	1	366
Mg++	aerosol	0.420	0.328	0.298	2.433	0.020	0.063	0.300	1.080	1.510	100.0	0	366
NH4+	aerosol	0.75	1.03	0.47	2.33	0.06	0.18	0.36	2.92	9.98	100.0	0	366
NO3-	aerosol	0.39	0.56	0.19	3.14	0.02	0.04	0.14	1.72	2.99	100.0	0	366
Na+	aerosol	3.46	2.65	2.48	2.43	0.06	0.54	2.56	8.86	12.41	100.0	0	366
SO4--	aerosol	0.68	0.39	0.58	1.77	0.00	0.22	0.58	1.48	2.40	100.0	1	366
SO4-- corr	aerosol	0.39	0.41	0.24	2.90	-0.03	0.04	0.22	1.29	2.24	100.0	1	366

IE0031R Mace Head

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM25 mass	pm25	10.00	8.07	7.67	2.24	0.00	1.90	8.40	22.05	174.00	62.3	0	5469

IS0002R Irafoss

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.68	0.22	0.64	1.48	0.04	0.41	0.66	1.05	1.97	96.6	0	354
Cl-	aerosol	2.40	2.95	1.59	2.40	0.06	0.41	1.46	6.69	30.93	96.6	0	354
K+	aerosol	0.06	0.05	0.05	1.96	0.01	0.02	0.05	0.15	0.49	96.6	0	354
Mg++	aerosol	0.188	0.164	0.147	1.995	0.010	0.050	0.140	0.442	1.660	96.6	0	354
Na+	aerosol	1.27	1.42	0.90	2.18	0.11	0.30	0.82	3.34	14.89	96.6	0	354
SO2	air	0.09	0.14	0.03	5.13	0.01	0.01	0.04	0.38	0.94	96.9	0	355
SO4--	aerosol	0.08	0.06	0.06	2.15	0.01	0.01	0.06	0.19	0.41	96.6	0	354
SO4-- corr	aerosol	-0.03	0.09	0.02	3.71	-0.74	-0.17	-0.02	0.09	0.29	96.6	0	354

IS0091R Storhofdi

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Cl-	aerosol	9.81	4.25	9.03	1.50	4.30	4.42	8.75	20.85	21.90	99.9	0	24
NO3-	aerosol	0.06	0.05	0.04	2.44	0.01	0.01	0.04	0.19	0.21	99.9	0	24
SO4--	aerosol	0.56	0.13	0.54	1.25	0.39	0.40	0.50	0.86	0.89	99.9	0	24
SO4-- corr	aerosol	0.10	0.12	0.10	2.30	-0.27	-0.21	0.10	0.29	0.29	99.9	0	24

IT0001R Montelibretti

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.17	0.13	0.12	2.25	0.01	0.04	0.12	0.44	0.71	93.4	0	342
NH3	air	1.79	0.69	1.65	1.52	0.32	0.76	1.69	3.06	4.24	93.4	0	342
NH4+	aerosol	1.01	0.64	0.86	1.77	0.11	0.32	0.86	2.46	4.16	93.4	0	342
NO2	air	4.78	2.13	4.30	1.63	0.60	1.80	4.45	8.73	11.90	97.3	0	356
NO3-	aerosol	0.62	0.45	0.51	1.86	0.08	0.18	0.50	1.46	3.75	93.4	0	342
NO3-	pm10_pm25	0.27	0.18	0.21	2.22	0.00	0.04	0.24	0.63	0.98	93.4	0	342
NO3-	pm25	0.35	0.40	0.22	2.57	0.02	0.06	0.20	1.17	3.34	93.4	0	342
PM10 mass	pm10	30.91	14.37	28.02	1.57	8.40	12.40	28.30	56.37	127.90	100.0	0	366
PM25 mass	pm25	22.09	11.73	19.10	1.76	1.20	7.79	19.95	45.84	61.90	91.8	0	336
SO2	air	0.27	0.19	0.22	1.97	0.00	0.06	0.22	0.63	1.30	93.4	0	342
SO4--	aerosol	0.72	0.46	0.58	1.99	0.07	0.15	0.62	1.67	2.74	93.4	0	342
SO4--	pm10_pm25	0.11	0.07	0.09	1.92	0.00	0.03	0.09	0.25	0.54	93.7	0	343
SO4--	pm25	0.61	0.42	0.47	2.20	0.04	0.10	0.51	1.47	2.48	93.4	0	342

IT0004R Ispra

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NH4+	pm25	1.50	1.91	0.89	2.77	0.07	0.18	0.91	5.89	12.24	96.9	0	355
NO2	air	6.82	5.01	5.26	2.06	1.60	1.87	4.60	16.74	24.77	51.9	0	190
NO3-	pm25	0.93	1.69	0.30	4.79	0.00	0.02	0.24	4.73	11.39	94.4	0	346
OC	pm25	6.88	7.54	4.17	2.94	-0.50	0.78	4.11	22.67	69.81	97.5	0	357
PM25 mass	pm25	20.34	20.95	13.14	2.68	0.26	2.56	13.24	66.97	119.80	95.8	0	351
SO2	air	0.36	0.26	0.30	1.86	0.02	0.13	0.27	0.91	1.96	82.2	0	301
SO4--	pm25	0.78	0.62	0.56	2.41	0.04	0.12	0.62	2.00	4.35	96.9	0	355
TC	pm25	8.58	9.00	5.42	2.72	-0.50	1.13	5.07	26.71	79.95	97.5	0	357

LT0015R Preila

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.70	0.59	0.53	2.07	0.05	0.19	0.51	1.92	4.38	95.5	0	350
NH3+NH4+	air+aerosol	1.56	1.15	1.24	2.00	0.08	0.47	1.15	3.93	6.39	95.3	0	349
NO2	air	0.91	0.71	0.70	2.15	0.01	0.23	0.68	2.43	4.41	89.1	2	326
SO2	air	0.55	1.01	0.30	2.71	0.01	0.08	0.29	1.87	10.90	95.3	2	349
SO4--	aerosol	0.94	0.52	0.83	1.64	0.15	0.39	0.80	2.07	3.10	95.6	0	350

LV0010R Rucava

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm25	0.23	0.26	0.14	2.56	0.02	0.04	0.12	1.01	1.20	90.7	0	48
Cl-	pm25	0.28	0.25	0.22	1.91	0.04	0.07	0.20	0.64	1.70	90.7	0	48
HNO3+NO3-	air+aerosol	0.46	0.45	0.32	2.43	0.03	0.07	0.32	1.40	3.25	98.9	0	362
K+	pm25	0.10	0.07	0.07	2.60	0.00	0.01	0.08	0.24	0.43	90.7	0	48
Mg++	pm25	0.040	0.045	0.027	2.500	0.002	0.006	0.032	0.089	0.299	90.7	0	48
NH3+NH4+	air+aerosol	1.08	0.74	0.86	2.06	0.04	0.27	0.89	2.53	4.51	97.3	0	356
NH4+	aerosol	0.72	0.57	0.51	2.59	0.02	0.06	0.58	1.93	3.48	97.8	19	358
NO2	air	0.79	0.60	0.63	2.06	0.02	0.17	0.64	1.90	4.39	98.6	5	361
NO3-	aerosol	0.07	0.14	0.04	2.83	0.01	0.01	0.03	0.25	1.29	100.0	10	366
NO3-	pm25	0.44	0.25	0.38	1.67	0.09	0.17	0.37	1.16	1.33	90.7	0	48
Na+	pm25	1.61	0.58	1.38	2.04	0.04	0.29	1.69	2.38	3.31	90.7	0	48
PM10 mass	pm10	25.94	14.63	22.06	1.83	1.10	8.40	23.10	53.61	94.40	66.9	0	245
PM25 mass	pm25	18.00	11.54	14.47	2.10	0.20	3.77	15.60	42.40	82.00	80.3	0	294
SO2	air	0.39	0.39	0.27	2.40	0.01	0.06	0.27	1.10	3.24	100.0	2	366
SO4--	aerosol	0.44	0.38	0.29	2.83	0.01	0.04	0.33	1.30	2.14	99.5	5	364
SO4--	pm25	0.69	0.33	0.62	1.59	0.14	0.26	0.62	1.14	2.31	90.7	0	48
SO4-- corr	pm25	0.67	0.33	0.59	1.60	0.14	0.25	0.59	1.10	2.27	90.7	0	48

LV0016R Zoseni

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm25	0.23	0.29	0.12	3.63	0.00	0.01	0.12	0.88	1.54	94.5	0	50
Cl-	pm25	0.17	0.12	0.13	2.11	0.01	0.04	0.14	0.56	0.58	94.5	0	50
HNO3+NO3-	air+aerosol	0.29	0.26	0.21	2.24	0.02	0.06	0.21	0.86	1.65	99.2	0	363
K+	pm25	0.11	0.12	0.06	4.68	0.00	0.00	0.07	0.35	0.71	94.5	0	50
Mg++	pm25	0.037	0.033	0.020	3.775	0.001	0.001	0.036	0.102	0.142	94.5	0	50
NH3+NH4+	air+aerosol	0.84	0.56	0.66	2.09	0.03	0.16	0.75	1.92	3.27	99.5	0	364
NH4+	aerosol	0.57	0.45	0.40	2.61	0.01	0.05	0.46	1.54	2.94	100.0	26	366
NO2	air	0.63	0.76	0.33	3.48	0.01	0.04	0.35	2.31	4.87	95.1	43	348
NO3-	aerosol	0.02	0.03	0.01	2.17	0.01	0.01	0.01	0.06	0.38	100.0	55	366
NO3-	pm25	0.26	0.11	0.24	1.47	0.08	0.14	0.22	0.49	0.64	94.5	0	50
Na+	pm25	1.32	0.49	1.16	1.77	0.21	0.26	1.43	1.91	2.46	94.5	0	50
PM10 mass	pm10	21.44	15.53	16.93	2.04	2.00	4.86	17.30	55.34	91.30	74.0	0	271
PM25 mass	pm25	16.17	8.29	13.97	1.80	1.80	5.06	15.10	32.01	48.80	83.3	0	305
SO2	air	0.23	0.25	0.15	2.62	0.01	0.03	0.14	0.69	1.65	100.0	8	366
SO4--	aerosol	0.48	0.40	0.35	2.31	0.01	0.08	0.36	1.43	2.19	100.0	1	366
SO4--	pm25	0.60	0.28	0.53	1.59	0.12	0.24	0.52	1.12	1.75	94.5	0	50

MD0013R Leova II

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.38	0.33	0.27	2.28	0.00	0.08	0.27	1.03	1.99	80.9	1	296
Cl-	aerosol	0.26	0.28	0.18	2.29	0.00	0.05	0.18	0.85	2.66	80.9	2	296
HNO3	air	0.52	0.35	0.46	1.59	0.00	0.25	0.43	1.07	3.39	80.9	2	296
HNO3+NO3-	air+aerosol	0.78	0.64	0.63	1.86	0.00	0.28	0.54	1.98	4.44	80.9	2	296
K+	aerosol	0.29	0.30	0.19	2.58	0.00	0.03	0.20	0.72	2.40	80.9	2	296
Mg++	aerosol	0.037	0.050	0.031	2.451	0.000	0.000	0.020	0.130	0.380	80.9	65	296
NH3	air	0.67	0.75	0.39	3.06	0.00	0.04	0.28	2.28	4.08	80.9	10	296
NH3+NH4+	air+aerosol	1.16	1.27	0.58	3.61	0.00	0.10	0.39	3.61	8.09	80.9	3	296
NH4+	aerosol	0.49	0.77	0.17	7.29	0.00	0.00	0.03	2.13	6.03	80.9	72	296
NO3-	aerosol	0.26	0.54	0.10	5.98	0.00	0.00	0.02	1.31	3.84	80.9	87	296
Na+	aerosol	0.31	0.80	0.17	2.75	0.00	0.03	0.17	0.92	13.03	80.9	2	296
PM10 mass	pm10	19.29	30.99	17.96	2.63	0.00	0.00	9.20	60.80	346.50	79.0	92	289
SO2	air	0.45	0.65	0.20	4.66	0.00	0.00	0.17	1.51	4.51	80.9	22	296
SO4--	aerosol	0.56	0.89	0.14	7.41	0.00	0.00	0.07	2.22	5.36	80.9	24	296

NL0007R Eibergen

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NH3	air	6.97	4.36	5.94	1.74	1.54	2.58	5.66	15.19	46.33	90.5	0	7949
NO	air	1.39	3.66	0.46	4.46	-0.49	-0.05	0.37	6.86	45.82	98.0	0	8606
NO2	air	5.19	3.21	4.33	1.84	0.50	1.57	4.32	11.94	23.40	98.0	0	8606
PM10 mass	pm10	23.98	15.97	19.62	2.06	-4.85	4.77	20.95	52.33	152.09	90.4	0	7938
SO2	air	0.35	0.71	0.34	3.00	-1.12	-0.42	0.24	1.33	10.21	98.5	0	8651

NL0008R Bilthoven

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Cl-	aerosol	0.67	0.97	0.48	3.21	-0.41	-0.18	0.34	3.00	5.55	83.9	0	307
NH4+	aerosol	1.10	0.88	0.80	2.42	-0.02	0.18	0.83	3.02	5.59	84.2	0	308
SO2	air	0.91	1.10	0.66	2.94	-0.87	-0.21	0.63	2.91	20.01	96.7	0	8492
SO4--	aerosol	0.67	0.53	0.51	2.09	0.05	0.18	0.47	1.86	3.15	84.2	0	308

NL0009R Kollumerwaard

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Cl-	aerosol	0.84	1.13	0.54	3.33	-0.23	-0.13	0.46	3.30	7.04	95.1	0	348
NH4+	aerosol	1.00	0.79	0.75	2.29	-0.14	0.19	0.81	2.49	5.56	95.3	0	349
NO	air	0.68	1.84	0.40	3.71	-1.79	-0.42	0.30	2.94	33.09	93.9	0	8252
NO2	air	4.36	3.69	2.95	2.84	-1.52	0.27	3.36	11.88	20.70	42.4	0	3726
NO3-	aerosol	0.68	0.53	0.51	2.20	0.17	0.17	0.56	1.60	3.58	95.3	88	349
PM10 mass	pm10	23.82	14.86	20.20	1.93	-4.65	6.37	21.08	49.35	320.09	93.6	0	8224
SO2	air	0.50	0.63	0.43	2.85	-1.05	-0.27	0.40	1.64	9.91	90.1	0	7916
SO4--	aerosol	0.55	0.43	0.43	2.12	0.03	0.09	0.45	1.54	3.02	95.1	0	348

NL0010R Vredepeel

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Cl-	aerosol	0.33	0.50	0.32	2.82	-0.55	-0.20	0.20	1.47	2.78	89.1	0	326
NH3	air	14.14	11.02	11.14	2.00	0.00	3.60	10.90	35.44	125.62	91.4	0	8026
NH4+	aerosol	1.20	0.95	0.88	2.52	-0.12	0.13	0.98	3.39	5.13	88.8	0	325
NO	air	2.50	5.31	0.87	4.34	-0.91	0.00	0.70	12.64	51.77	99.3	0	8722
NO2	air	7.18	4.17	6.13	1.76	1.00	2.46	6.04	15.85	28.33	99.3	0	8722
PM10 mass	pm10	21.14	16.78	16.26	2.39	-4.94	1.98	17.96	50.06	333.05	90.7	0	7970
SO2	air	0.60	0.81	0.46	2.76	-0.62	-0.19	0.41	2.12	10.33	99.4	0	8732
SO4--	aerosol	0.64	0.49	0.49	2.29	-0.05	0.08	0.51	1.74	2.88	88.8	0	325

NL0011R Cabauw

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	2.58	6.21	0.74	5.32	-1.25	-0.05	0.51	13.52	106.21	99.2	0	8712
NO2	air	6.37	4.34	4.95	2.14	-0.10	1.32	5.17	14.85	30.26	99.2	0	8712
SO2	air	0.61	0.90	0.44	3.17	-1.10	-0.21	0.40	2.19	16.11	98.4	0	8647

NL0091R De Zilk

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Cl-	aerosol	1.27	1.62	0.85	3.44	-0.37	-0.20	0.66	4.88	7.92	96.2	0	352
NH3	air	1.74	2.18	1.06	2.78	-0.30	0.10	0.90	6.60	16.90	83.5	0	7336
NH4+	aerosol	0.88	0.76	0.66	2.30	-0.04	0.14	0.65	2.31	5.80	96.4	0	353
NO	air	1.57	4.88	0.53	6.15	-1.35	-0.50	0.14	9.97	74.18	96.6	0	8481
NO2	air	5.18	4.62	3.38	2.88	-1.11	0.39	3.75	15.06	32.40	96.6	0	8481
NO3-	aerosol	0.57	0.51	0.40	2.30	0.17	0.17	0.45	1.68	2.91	93.7	144	343
PM10 mass	pm10	24.68	16.48	20.66	1.96	-4.69	5.61	22.11	51.47	422.26	91.7	0	8052
SO2	air	1.10	1.21	0.79	2.88	-0.78	-0.12	0.81	3.41	18.99	99.2	0	8715
SO4--	aerosol	0.57	0.45	0.43	2.36	-0.05	0.06	0.46	1.39	3.28	96.2	0	352

NO0001R Birkenes

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.08	0.17	0.04	2.97	0.01	0.01	0.05	0.22	2.02	95.8	32	351
Cl-	aerosol	0.50	0.81	0.13	6.41	0.01	0.01	0.17	2.05	6.84	95.6	80	350
HNO3	air	0.04	0.06	0.02	2.52	0.01	0.01	0.01	0.14	0.57	93.6	215	343
HNO3+NO3-	air+aerosol	0.19	0.27	0.11	2.86	0.02	0.02	0.11	0.66	2.59	93.6	0	343
K+	aerosol	0.04	0.03	0.03	2.57	0.01	0.01	0.03	0.10	0.32	95.8	52	351
Mg++	aerosol	0.073	0.077	0.042	3.227	0.005	0.005	0.050	0.214	0.480	95.8	47	351
NH3	air	0.35	0.21	0.30	1.77	0.03	0.13	0.28	0.79	1.28	93.1	3	341
NH3+NH4+	air+aerosol	0.49	0.37	0.40	1.91	0.03	0.17	0.38	1.13	2.57	93.9	0	344
NH4+	aerosol	0.14	0.27	0.04	5.59	0.01	0.01	0.04	0.53	2.04	93.9	110	344
NO2	air	0.34	0.33	0.25	2.21	0.01	0.08	0.24	1.07	2.01	99.9	4	366
NO3-	aerosol	0.15	0.24	0.07	3.80	0.01	0.01	0.07	0.58	2.51	93.6	29	343
Na+	aerosol	0.48	0.55	0.26	3.34	0.01	0.03	0.31	1.46	3.84	95.8	0	351
OC	pm10	0.80	0.68	0.76	2.15	0.07	0.20	0.78	2.36	3.03	98.3	1	90
OC	pm25	0.57	0.50	0.59	1.91	0.15	0.20	0.62	1.64	2.77	98.3	0	90
PM1 mass	pm1	2.21	1.83	2.13	1.96	0.22	0.68	2.26	5.73	12.02	89.6	0	85
PM10 mass	pm10	5.88	4.07	5.42	1.82	1.16	1.71	5.92	14.79	25.99	87.1	0	84
PM25 mass	pm25	3.00	3.12	2.86	1.88	0.80	1.02	2.93	9.32	19.61	96.1	0	87
SO2	air	0.07	0.10	0.04	2.99	0.01	0.01	0.03	0.23	0.96	96.4	152	353
SO4--	aerosol	0.28	0.31	0.20	2.41	0.01	0.05	0.22	0.70	4.18	95.6	2	350
SO4-- corr	aerosol	0.24	0.30	0.14	3.11	-0.01	0.02	0.17	0.67	4.13	95.6	2	350
TC	pm10	0.89	0.69	0.84	2.08	0.07	0.23	0.89	2.40	3.11	98.3	1	90
TC	pm25	0.65	0.53	0.67	1.83	0.19	0.23	0.69	1.78	2.80	98.3	0	90

NO0015R Tustervatn

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.10	0.19	0.04	3.67	0.01	0.01	0.05	0.43	1.43	99.9	57	366
Cl-	aerosol	0.40	0.79	0.08	6.83	0.01	0.01	0.06	1.99	6.86	99.1	133	363
HNO3	air	0.02	0.02	0.02	1.83	0.01	0.01	0.01	0.08	0.26	98.8	300	362
HNO3+NO3-	air+aerosol	0.09	0.17	0.05	2.53	0.02	0.02	0.04	0.32	1.64	98.0	0	359
K+	aerosol	0.02	0.02	0.01	2.59	0.01	0.01	0.01	0.07	0.16	99.9	155	366
Mg++	aerosol	0.053	0.082	0.021	3.866	0.005	0.005	0.020	0.227	0.570	99.9	132	366
NH3	air	0.92	0.95	0.60	2.72	0.03	0.10	0.66	2.83	6.71	98.3	10	360
NH3+NH4+	air+aerosol	0.98	0.98	0.69	2.39	0.03	0.17	0.71	2.84	6.82	98.3	0	360
NH4+	aerosol	0.07	0.11	0.02	4.59	0.01	0.01	0.02	0.28	1.00	99.4	148	364
NO2	air	0.14	0.14	0.09	2.70	0.01	0.01	0.11	0.35	1.28	97.5	37	357
NO3-	aerosol	0.07	0.16	0.02	3.79	0.01	0.01	0.02	0.25	1.57	98.6	107	361
Na+	aerosol	0.29	0.48	0.10	4.73	0.01	0.01	0.11	1.14	3.83	99.9	29	366
SO2	air	0.03	0.04	0.02	2.15	0.01	0.01	0.01	0.11	0.39	99.4	262	364
SO4--	aerosol	0.15	0.14	0.10	3.01	0.01	0.01	0.11	0.40	1.28	99.1	22	363
SO4-- corr	aerosol	0.13	0.14	0.07	3.86	-0.06	0.00	0.09	0.38	1.27	99.1	22	363

NO0039R Kårvatn

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.08	0.16	0.03	3.67	0.01	0.01	0.03	0.33	1.52	95.6	62	350
Cl-	aerosol	0.26	0.46	0.07	5.58	0.01	0.01	0.07	1.09	3.83	96.1	112	352
HNO3	air	0.02	0.04	0.02	2.04	0.01	0.01	0.01	0.08	0.49	96.4	290	353
HNO3+NO3-	air+aerosol	0.07	0.12	0.04	2.41	0.02	0.02	0.03	0.35	0.67	96.1	0	352
K+	aerosol	0.02	0.03	0.01	2.40	0.01	0.01	0.01	0.05	0.30	95.6	140	350
Mg++	aerosol	0.034	0.047	0.017	3.250	0.005	0.005	0.020	0.150	0.310	95.6	139	350
NH3	air	0.65	0.47	0.52	1.96	0.02	0.22	0.52	1.50	2.97	96.4	3	353
NH3+NH4+	air+aerosol	0.70	0.50	0.58	1.83	0.05	0.25	0.55	1.72	3.02	95.6	0	350
NH4+	aerosol	0.06	0.12	0.02	4.22	0.01	0.01	0.01	0.24	1.09	95.6	167	350
NO2	air	0.20	0.19	0.13	2.79	0.01	0.01	0.15	0.49	1.27	98.8	42	362
NO3-	aerosol	0.04	0.09	0.02	3.52	0.01	0.01	0.02	0.22	0.64	96.1	138	352
Na+	aerosol	0.18	0.26	0.08	3.65	0.01	0.01	0.08	0.68	2.34	95.6	19	350
SO2	air	0.03	0.04	0.02	2.21	0.01	0.01	0.01	0.09	0.32	96.4	213	353
SO4--	aerosol	0.14	0.18	0.08	3.19	0.01	0.01	0.08	0.47	1.33	95.6	21	350
SO4-- corr	aerosol	0.12	0.18	0.07	3.61	-0.04	-0.00	0.06	0.45	1.33	95.6	21	350

NO0042G Spitsbergen, Zeppelinfjell

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	122.69	31.06	118.70	1.30	73.19	78.48	116.47	166.35	224.72	74.5	0	3273
Ca++	aerosol	0.05	0.06	0.03	3.06	0.01	0.01	0.03	0.18	0.35	92.3	61	338
Cl-	aerosol	0.28	0.49	0.10	4.66	0.01	0.01	0.10	0.97	3.70	93.9	70	344
HNO3	air	0.02	0.04	0.02	1.93	0.01	0.01	0.01	0.09	0.31	96.4	302	353
HNO3+NO3-	air+aerosol	0.10	0.17	0.05	2.80	0.01	0.02	0.03	0.47	1.16	93.1	0	341
K+	aerosol	0.02	0.02	0.01	2.30	0.00	0.01	0.01	0.04	0.15	95.0	163	348
Mg++	aerosol	0.048	0.053	0.027	3.133	0.005	0.005	0.030	0.180	0.310	95.0	77	348
NH3	air	0.28	0.18	0.24	1.72	0.03	0.10	0.23	0.71	1.27	95.6	1	350
NH3+NH4+	air+aerosol	0.33	0.23	0.28	1.71	0.08	0.13	0.26	0.75	1.61	94.2	0	345
NH4+	aerosol	0.06	0.11	0.02	4.54	0.01	0.01	0.01	0.27	1.08	94.2	177	345
NO3-	aerosol	0.08	0.15	0.02	4.38	0.00	0.01	0.02	0.42	0.97	93.1	121	341
Na+	aerosol	0.26	0.30	0.15	3.15	0.01	0.02	0.16	0.74	2.10	95.0	10	348
SO2	air	0.07	0.12	0.03	3.08	0.01	0.01	0.01	0.36	0.73	96.4	186	353
SO4--	aerosol	0.14	0.15	0.08	3.65	0.01	0.01	0.09	0.45	1.06	93.9	37	344
SO4-- corr	aerosol	0.12	0.15	0.07	4.36	-0.11	-0.00	0.07	0.42	1.04	93.9	37	344

NO0055R Karasjok

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.05	0.09	0.03	2.78	0.01	0.01	0.04	0.13	0.98	96.7	51	354
Cl-	aerosol	0.25	0.42	0.07	5.54	0.01	0.01	0.07	1.11	2.66	99.9	120	366
HNO3	air	0.02	0.03	0.01	1.90	0.01	0.01	0.01	0.08	0.31	98.6	308	361
HNO3+NO3-	air+aerosol	0.07	0.12	0.04	2.20	0.01	0.02	0.04	0.20	1.28	98.6	0	361
K+	aerosol	0.02	0.02	0.01	2.38	0.01	0.01	0.01	0.05	0.14	96.7	130	354
Mg++	aerosol	0.033	0.041	0.017	3.100	0.005	0.005	0.020	0.130	0.260	96.7	126	354
NH3	air	0.78	0.79	0.51	2.53	0.03	0.14	0.44	2.55	5.13	99.1	4	363
NH3+NH4+	air+aerosol	0.86	0.80	0.60	2.31	0.03	0.19	0.53	2.62	5.13	95.8	0	351
NH4+	aerosol	0.10	0.15	0.04	4.65	0.01	0.01	0.05	0.42	1.14	95.8	89	351
NO2	air	0.19	0.17	0.13	2.53	0.01	0.01	0.15	0.43	1.85	99.9	38	366
NO3-	aerosol	0.05	0.10	0.02	3.19	0.01	0.01	0.02	0.17	1.07	99.1	101	363
Na+	aerosol	0.21	0.26	0.10	3.70	0.01	0.01	0.12	0.79	1.84	96.7	18	354
SO2	air	0.35	1.64	0.04	5.56	0.01	0.01	0.01	1.55	23.62	99.4	195	364
SO4--	aerosol	0.22	0.21	0.14	2.98	0.01	0.02	0.15	0.67	1.27	99.9	9	366
SO4-- corr	aerosol	0.20	0.22	0.12	3.25	-0.01	0.00	0.13	0.66	1.26	99.9	9	366

NO0056R Hurdal

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.09	0.16	0.04	3.13	0.01	0.01	0.05	0.31	1.88	98.6	35	361
Cl-	aerosol	0.12	0.25	0.03	4.36	0.01	0.01	0.01	0.65	2.04	98.8	193	362
HNO3	air	0.05	0.07	0.03	2.76	0.01	0.01	0.01	0.17	0.61	97.5	180	357
HNO3+NO3-	air+aerosol	0.16	0.26	0.10	2.71	0.02	0.02	0.10	0.51	3.27	95.6	0	350
K+	aerosol	0.03	0.03	0.02	2.39	0.01	0.01	0.03	0.10	0.19	98.6	58	361
Mg++	aerosol	0.032	0.045	0.017	2.967	0.005	0.005	0.020	0.120	0.440	98.6	125	361
NH3	air	0.33	0.15	0.30	1.54	0.03	0.16	0.30	0.62	1.11	98.0	1	359
NH3+NH4+	air+aerosol	0.44	0.30	0.38	1.67	0.03	0.18	0.38	0.92	3.58	96.9	0	355
NH4+	aerosol	0.11	0.22	0.03	5.08	0.01	0.01	0.03	0.42	2.63	96.9	109	355
NO2	air	0.73	0.85	0.44	2.77	0.01	0.10	0.43	2.69	5.59	99.4	3	364
NO3-	aerosol	0.11	0.21	0.05	3.53	0.01	0.01	0.06	0.40	2.66	95.8	38	351
Na+	aerosol	0.17	0.22	0.09	3.41	0.01	0.01	0.09	0.61	1.80	98.6	15	361
SO2	air	0.04	0.04	0.03	2.41	0.01	0.01	0.01	0.13	0.27	99.1	193	363
SO4--	aerosol	0.21	0.19	0.14	2.53	0.01	0.03	0.15	0.58	1.10	98.8	2	362
SO4-- corr	aerosol	0.20	0.19	0.12	2.89	-0.04	0.02	0.14	0.57	1.09	98.8	2	362

PL0002R Jarczew

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.71	0.52	0.55	2.07	0.12	0.16	0.53	1.87	3.03	98.6	0	361
NH3+NH4+	air+aerosol	2.95	2.28	2.45	1.77	0.34	1.05	2.33	6.75	18.13	98.6	0	361
NH4+	aerosol	1.37	0.94	1.10	1.98	0.07	0.38	1.06	3.28	5.09	98.6	0	361
NO2	air	2.97	1.38	2.71	1.54	1.00	1.30	2.70	5.90	9.90	97.5	0	357
NO3-	aerosol	0.60	0.50	0.43	2.39	0.04	0.10	0.43	1.67	3.03	98.6	0	361
SO2	air	1.76	1.26	1.39	2.04	0.10	0.40	1.40	4.10	7.10	98.6	2	361
SO4--	aerosol	1.52	0.67	1.36	1.66	0.10	0.57	1.46	2.70	3.60	98.6	2	361

PL0003R Sniezka

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.45	0.26	0.38	1.86	0.04	0.13	0.40	0.98	1.57	99.7	0	365
NH3+NH4+	air+aerosol	0.64	0.38	0.52	2.03	0.03	0.13	0.55	1.39	1.94	99.7	3	365
NH4+	aerosol	0.51	0.31	0.40	2.22	0.03	0.09	0.46	1.13	1.60	99.7	12	365
NO2	air	0.96	0.51	0.83	1.75	0.20	0.30	0.90	2.00	2.70	99.7	0	365
NO3-	aerosol	0.33	0.19	0.28	1.91	0.01	0.09	0.29	0.71	1.14	99.7	1	365
SO2	air	1.06	0.59	0.90	1.83	0.10	0.30	0.90	2.20	2.90	99.7	1	365
SO4--	aerosol	0.83	0.48	0.68	1.97	0.10	0.22	0.73	1.78	2.72	99.7	15	365

PL0004R Leba

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.55	0.51	0.39	2.38	0.04	0.09	0.38	1.62	3.57	98.8	0	362
NH3+NH4+	air+aerosol	1.24	0.81	1.05	1.80	0.13	0.44	0.98	2.84	6.01	98.8	0	362
NH4+	aerosol	0.84	0.76	0.60	2.32	0.03	0.14	0.57	2.29	5.36	98.8	2	362
NO2	air	1.57	1.08	1.31	1.80	0.30	0.52	1.20	4.18	7.20	98.8	0	362
NO3-	aerosol	0.43	0.48	0.26	2.87	0.01	0.05	0.26	1.41	3.52	98.8	6	362
SO2	air	1.05	0.76	0.82	2.10	0.10	0.20	0.90	2.30	5.90	98.8	10	362
SO4--	aerosol	1.35	0.53	1.24	1.55	0.22	0.53	1.30	2.30	3.57	98.8	0	362

PL0005R Diabla Gora

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.51	0.41	0.41	1.88	0.00	0.16	0.39	1.52	2.87	96.9	0	355
HNO3+NO3-	air+aerosol	0.75	0.59	0.60	1.90	0.14	0.23	0.55	2.01	4.59	99.4	0	364
NH3	air	0.99	0.59	0.85	1.79	0.08	0.31	0.90	1.88	4.35	90.7	0	332
NH3+NH4+	air+aerosol	1.52	0.65	1.39	1.57	0.09	0.72	1.34	2.85	4.39	90.7	0	332
NO2	air	0.82	0.48	0.72	1.68	0.02	0.36	0.70	1.70	4.15	99.1	0	363
NO3-	aerosol	0.52	0.56	0.30	3.02	0.00	0.05	0.27	1.70	3.05	98.6	0	361
PM10 mass	pm10	15.66	10.21	13.05	1.84	1.61	4.75	12.73	38.67	66.19	95.1	0	348
SO2	air	0.59	0.53	0.44	2.10	0.09	0.15	0.41	1.66	3.45	98.6	0	361
SO4--	aerosol	0.61	0.50	0.45	2.30	0.03	0.10	0.46	1.61	3.49	99.1	0	363

RS0005R Kamenicki vis

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	2.53	1.63	2.17	1.69	0.90	0.90	2.00	5.93	11.40	91.7	0	336
SO2	air	10.25	6.31	8.59	1.86	2.50	2.50	9.40	20.43	52.40	90.8	0	333

RU0018R Danki

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NH4+	aerosol	0.26	0.19	0.18	2.72	0.00	0.01	0.22	0.64	1.02	99.6	0	365
NO3-	aerosol	0.04	0.06	0.03	2.50	0.00	0.00	0.02	0.15	0.47	99.6	0	365
SO2	air	0.12	0.29	0.05	3.52	0.01	0.01	0.04	0.40	4.51	99.6	0	365
SO4--	aerosol	0.16	0.17	0.11	2.89	0.00	0.00	0.09	0.50	1.12	99.6	0	365

SE0005R Bredkälen

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.07	0.10	0.04	2.40	0.00	0.01	0.04	0.27	0.83	91.5	13	335
NH3+NH4+	air+aerosol	0.18	0.20	0.10	3.47	0.01	0.01	0.12	0.52	1.49	91.5	85	335
NO2	air	0.11	0.12	0.08	2.13	0.05	0.05	0.05	0.40	0.96	95.8	259	351
SO2	air	0.04	0.06	0.02	2.81	0.01	0.01	0.01	0.14	0.59	91.5	219	335
SO4--	aerosol	0.17	0.17	0.12	2.43	0.01	0.03	0.12	0.47	1.35	91.5	0	335

SE0008R Hoburgen

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	1.17	1.00	0.89	2.13	0.05	0.29	0.89	2.96	8.89	99.1	5	363
SO2	air	0.47	0.44	0.32	2.61	0.01	0.08	0.35	1.31	2.77	99.4	8	364
SO4--	aerosol	0.53	0.40	0.43	1.99	0.00	0.10	0.43	1.26	3.60	99.4	5	364

SE0011R Vavihill

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.55	0.49	0.39	2.36	0.00	0.09	0.39	1.70	2.99	97.7	1	358
NH3+NH4+	air+aerosol	0.99	0.78	0.73	2.34	0.01	0.15	0.74	2.51	5.22	97.7	2	358
NO2	air	1.38	1.07	1.13	1.83	0.25	0.48	1.03	3.37	8.71	98.3	0	360
OC	pm10	1.27	0.47	1.18	1.54	0.35	0.35	1.19	2.16	2.16	37.1	0	19
PM10 mass	pm10	11.29	7.43	9.32	1.96	-4.50	2.79	9.60	25.91	103.20	46.7	0	4098
PM25 mass	pm25	8.62	4.55	7.63	1.71	-4.70	3.20	7.80	17.40	36.40	84.5	0	7422
SO2	air	0.30	0.35	0.18	3.25	0.01	0.01	0.20	0.95	3.96	97.7	33	358
SO4--	aerosol	0.49	0.34	0.40	1.95	0.00	0.13	0.40	1.10	2.72	97.7	2	358
TC	pm10	1.44	0.56	1.35	1.56	0.39	0.39	1.40	2.66	2.66	37.1	0	19

SE0012R Aspvreten

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	8.64	7.43	6.58	2.43	-4.90	0.30	6.90	22.28	65.50	88.4	0	7763
PM25 mass	pm25	6.97	6.45	5.13	2.39	-4.60	0.70	5.20	19.18	55.60	70.6	0	6204

SE0014R Råö

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.57	0.60	0.37	2.54	0.03	0.08	0.39	1.73	4.84	98.0	0	359
NH3+NH4+	air+aerosol	0.76	0.73	0.53	2.44	0.01	0.11	0.58	2.13	6.28	98.0	2	359
NO2	air	1.34	0.99	1.11	1.79	0.32	0.48	1.10	2.94	9.33	99.7	0	365
PM10 mass	pm10	16.04	8.34	14.02	1.71	3.10	5.10	15.30	29.61	66.70	95.0	0	348
PM25 mass	pm25	6.43	3.83	5.53	1.73	1.10	2.28	5.70	13.32	26.20	97.0	0	355
SO2	air	0.33	0.28	0.24	2.49	0.01	0.05	0.27	0.82	2.40	98.0	12	359
SO4--	aerosol	0.62	0.36	0.52	1.86	0.00	0.15	0.57	1.37	2.27	98.0	1	359

SE0035R Vindeln

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	6.43	5.44	5.59	2.29	-11.00	-1.10	6.00	16.00	44.40	95.2	0	8360

SI0008R Iskrba

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.16	0.18	0.08	3.69	0.00	0.01	0.10	0.56	1.55	98.3	35	360
Cl-	aerosol	0.07	0.16	0.01	5.69	0.00	0.00	0.01	0.32	1.16	98.3	186	360
HNO3+NO3-	air+aerosol	0.20	0.19	0.14	2.29	0.01	0.03	0.15	0.61	1.58	98.3	0	360
K+	aerosol	0.11	0.07	0.09	1.87	0.00	0.04	0.09	0.26	0.46	98.3	0	360
Mg++	aerosol	0.034	0.032	0.020	3.175	0.001	0.002	0.024	0.099	0.176	98.3	0	360
NH3+NH4+	air+aerosol	0.92	0.61	0.72	2.10	0.09	0.19	0.82	1.97	2.94	98.3	0	360
NO2	air	0.41	0.24	0.36	1.66	0.07	0.19	0.33	0.93	1.55	99.6	1	365
Na+	aerosol	0.11	0.18	0.04	4.62	0.00	0.00	0.05	0.46	1.23	98.3	85	360
PM10 mass	pm10	16.04	6.80	14.56	1.59	2.30	6.40	15.20	29.70	36.70	92.3	0	338
PM25 mass	pm25	10.60	5.86	9.10	1.78	1.00	3.50	9.30	22.10	34.70	99.1	0	363
SO2	air	0.41	0.62	0.17	4.07	0.00	0.01	0.17	1.66	4.00	98.3	20	360
SO4--	aerosol	0.76	0.63	0.52	2.69	0.00	0.10	0.61	2.17	3.33	98.3	1	360
SO4-- corr	aerosol	0.75	0.63	0.51	2.59	-0.00	0.09	0.60	2.16	3.32	98.3	1	360

SI0032R Krvavec

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	144.13	31.42	141.60	1.22	0.00	102.56	136.75	196.58	350.43	89.8	0	7892

SK0002R Chopok

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.01	0.01	0.01	1.86	0.00	0.00	0.01	0.02	0.11	98.5	0	361
NO2	air	0.54	0.28	0.40	2.80	0.01	0.01	0.55	0.95	2.27	97.2	23	356
NO3-	aerosol	0.06	0.06	0.04	3.02	0.00	0.01	0.04	0.19	0.35	98.8	0	362
SO2	air	0.15	0.16	0.09	2.51	0.01	0.02	0.09	0.48	1.07	98.8	0	362
SO4--	aerosol	0.23	0.22	0.14	3.09	0.01	0.02	0.15	0.63	1.42	98.8	0	362

SK0004R Stará Lesná

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	11.35	4.60	10.59	1.58	2.87	3.15	10.84	21.21	22.25	56.0	0	35

SK0006R Starina

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.10	0.11	0.07	2.54	0.00	0.01	0.07	0.25	1.10	96.4	0	353
HNO3	air	0.02	0.02	0.02	1.97	0.00	0.01	0.01	0.06	0.14	96.7	0	354
K+	aerosol	0.12	0.09	0.09	2.28	0.00	0.03	0.09	0.30	0.67	96.2	0	352
Mg++	aerosol	0.017	0.013	0.013	2.094	0.000	0.003	0.014	0.042	0.115	96.2	1	352
NH3	air	0.20	0.20	0.13	2.64	0.02	0.03	0.12	0.60	1.31	96.4	0	353
NH4+	aerosol	0.78	0.53	0.63	2.04	0.02	0.22	0.65	1.84	3.59	96.4	0	353
NO2	air	1.27	0.85	1.03	2.08	0.01	0.41	1.04	3.03	6.41	97.3	2	356
NO3-	aerosol	0.30	0.33	0.21	2.40	0.00	0.05	0.21	0.92	3.77	97.0	0	355
Na+	aerosol	0.08	0.08	0.05	2.55	0.00	0.01	0.05	0.23	0.52	96.4	1	353
PM10 mass	pm10	13.57	6.21	11.29	2.77	0.06	3.43	13.87	28.67	30.49	52.7	0	33
SO2	air	0.67	0.91	0.35	3.15	0.01	0.06	0.36	2.34	6.19	96.2	0	352
SO4--	aerosol	0.79	0.56	0.62	2.12	0.01	0.19	0.65	1.93	4.28	97.0	0	355
SO4-- corr	aerosol	0.79	0.56	0.61	2.15	0.01	0.18	0.65	1.93	4.28	96.4	0	353

SK0007R Topolniky

January 2008 - December 2008

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	18.18	7.03	13.99	3.19	0.17	0.17	17.43	31.05	31.05	26.8	0	17

Annex 4

Overview of sampling and analytical methods 2008

Country: **Austria**		Main components and ozone - EMEP	Year: 2008	
	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				
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 14907	Daily	Micro balance
PM_1	AT02	High Volume Sampler, glass fibre filters with organic binder, 720 m^3/day, weighing acc. 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, citric acid impregnated Whatman 40 filters, 21.6 m^3/day	Daily	Ion chromatography
Acidity				

Country: **Belarus**		Main components and ozone - EMEP	Year: 2008	
	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		Bulk	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				

Country: **Belgium**		Main components and ozone - EMEP	Year: 2008	
	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		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				

Country: **Bulgaria**		Main components and ozone - EMEP	Year: 2008	
	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	BG0053R	Instrumental: UV-fluorescence	Hourly	UV-fluorescence
Nitrogen dioxide	BG0053R	Instrumental: Chemiluminescence	Hourly	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	BG0053R	UV-monitor	Hourly	UV-absorption
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	BG0053R	Automatic analyser SM200	Daily	Beta absorption
PM_{10}	BG0053R	Low volume sampler 2.3 m^3/h, Quartz filter; EN 12341	Daily	Gravimetric method
$PM_{2.5}$	BG0053R	Low volume sampler 2.3 m^3/h, Quartz filter; EN 14907	Daily	Gravimetric method
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Croatia**		Main components and ozone - EMEP	Year: 2008	
	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	2 new since 2006	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: **Czech Republic**		Main components and ozone - EMEP	Year: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount, official gauge	All	Meteorological Station	Daily	Automatically gauge
Fluoride	All	Wet-only (daily) at CZ03, bulk (weekly) at CZ01	Daily, weekly	Ion Chromatography
Sulphate	All	Wet-only (daily) at CZ03, bulk (weekly) at CZ01	Daily, weekly	Ion chromatography
Nitrate	All	Wet-only (daily) at CZ03, bulk (weekly) at CZ01	Daily, weekly	Ion chromatography
Ammonium	All	Wet-only (daily) at CZ03, bulk (weekly) at CZ01	Daily, weekly	Spectrophotometric, Indophenol method, SFA, FIA
Magnesium	All	Wet-only (daily) at CZ03, bulk (weekly) at CZ01	Daily, weekly	F-AAS
Sodium	All	Wet-only (daily) at CZ03, bulk (weekly) at CZ01	Daily, weekly	F-AAS
Chloride	All	Wet-only (daily) at CZ03, bulk (weekly) at CZ01	Daily, weekly	Ion chromatography
Calcium	All	Wet-only (daily) at CZ03, bulk (weekly) at CZ01	Daily, weekly	F-AAS
Potassium	All	Wet-only (daily) at CZ03, bulk (weekly) at CZ01	Daily, weekly	F-AAS
Conductivity	All	Wet-only (daily) at CZ03, bulk (weekly) at CZ01	Daily, weekly	Conductivity electrode
pH	All	Wet-only (daily) at CZ03, bulk (weekly) at CZ01	Daily, weekly	pH electrode
Air				
Sulphur dioxide	All	KOH-impregnated Whatman 40 filter, 20 m^3/day	Daily	Ion chromatography
Sulphur dioxide	CZ3	UV-fluorescence - monitor	Hourly	UV-fluorescence
Nitrogen dioxide	All	Absorbing solution NaOH and guajacol, 0.72 m^3/day	Daily	Spectrophotometric, modified Jacobs - Hochheiser method
Nitrogen dioxide	CZ3	Chemiluminescence - monitor	Hourly	Chemiluminescence
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_{10}	CZ3	Beta absorption - monitor	Hourly	Beta absorption
$PM_{2.5}$	All	Filter 47 mm, 55 m^3/day	Every 2nd day	Gravimetric
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: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	DK05, DK08, DK22, DK31	Wet-only	Two-weekly	
Precipitation amount, official gauge				
Sulphate	DK05, DK08, DK22, DK31	Wet-only	Two-weekly	Ion chromatography
Nitrate	DK05, DK08, DK22, DK31	Wet-only	Two-weekly	Ion chromatography
Ammonium	DK05, DK08, DK22, DK31	Wet-only	Two-weekly	ISO 11732 CFA (continuously flow analysis) and spectrophotometric detection
Magnesium	DK05, DK08, DK22, DK31	Wet-only	Two-weekly	Atomic absorption method
Sodium	DK05, DK08, DK22, DK31	Wet-only	Two-weekly	Atomic emission method
Chloride	DK05, DK08, DK22, DK31	Wet-only	Two-weekly	Ion chromatography
Calcium	DK05, DK08, DK22, DK31	Wet-only	Two-weekly	Atomic absorption method
Potassium	DK05, DK08, DK22, DK31	Wet-only	Two-weekly	Atomic emission method
Conductivity	DK05, DK08, DK22, DK31	Wet-only	Two-weekly	Conductivity meter
pH	DK05, DK08, DK22, DK31	Wet-only	Two-weekly	pH meter
Acidity				
Air				
Sulphur dioxide	DK05, DK08, DK22, DK31	KOH-impregnated Whatman 41 filters, 58 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	DK05	Monitor	Hourly	Chemiluminescence
Nitrogen oxide	DK08	Monitor	Hourly	Chemiluminescence
Nitric acid				
Ammonia	DK03, DK05, DK08, DK31	Oxalic acid impregnated Whatman 41, 58 m^3/day	Daily	ISO 11732 CFA (continuously flow analysis) and spectrophotometric detection
Ozone	DK05, DK31, DK41	UV-monitor	Hourly	UV-absorption
Sulphate	DK03, DK05, DK08, DK31	Millipore RAWP 1.2 μm, 58 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium	DK03, DK05, DK08, DK31	Millipore RAWP 1.2 μm, 58 m^3/day	Daily	ISO 11732 CFA (continuously flow analysis) and spectrophotometric detection
Sodium	DK03, DK05, DK08, DK31	Millipore RAWP 1.2 μm, 58 m^3/day	Daily	Atomic absorption method
Calcium				
Magnesium				
Potassium				
Chloride	DK03, DK05, DK08, DK31	Millipore RAWP 1.2 μm, 58 m^3/day		Atomic absorption method
PM_{10}	DK05	SM200	Daily	Beta absorption
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	DK03, DK05, DK08, DK31	Aerosol filter as for sulphate + KOH-impregnated Whatman 41, 58 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium				Replaced by separate measurements of ammonia and ammonium
Acidity				

Country: **Estonia**		Main components and ozone - EMEP	Year: 2008	
	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				
Sulphur dioxide	All	Instrumental: UV fluorescence	Daily/Hourly	UV fluorescence
Nitrogen dioxide				
Nitrogen dioxide	All	Instrumental: Chemiluminescence	Daily/Hourly	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	All	UV monitor	Daily/Hourly	UV absorption
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	EE09	High Volume Sampler	Weekly	Gravimetric
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Finland**		Main components and ozone - EMEP	Year: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	NILU bulk sampler	Weekly	
Precipitation amount, official gauge				
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	Teflon filter, Millipore Fluoropore 3 µm, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
Nitrate				
Ammonium				
Sodium	All	Teflon filter, Millipore Fluoropore 3 µm, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
Calcium	All	Teflon filter, Millipore Fluoropore 3 µm, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
Magnesium	All	Teflon filter, Millipore Fluoropore 3 µm, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
Potassium	All	Teflon filter, Millipore Fluoropore 3 µm, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
Chloride	All	Teflon filter, Millipore Fluoropore 3 µm, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	All	Aerosol filter as for sulphate + NaOH impregnated Whatman 40 filter, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
Sum of ammonia and ammonium	All	Aerosol filter as for sulphate + oxalic acid impregnated Whatman 40 filter, 24 m^3/day	Daily/Weekly[1)]	Ion chromatography
Acidity				

1) Daily: FI09 and FI17 and FI36; Weekly: FI22 and FI37

Country: **France**		Main components and ozone - EMEP	Year: 2008	
	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				
Mercury				
Air				
Sulphur dioxide	FR09,FR13, FR15	KOH-impregnated Whatman 40 filter, 14.4 m^3/day (Filterpack)	Daily, twice per wee	Ion chromatography
Nitrogen dioxide	FR08,FR13, FR15 FR19, FR30	Instrumental: Chemiluminescence Trace level analyzer	Hourly	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	FR08, FR10, FR12, FR14, FR15, FR16, FR17, FR19, FR30	UV-monitor	Hourly	UV-absorption
Sulphate	FR09 FR13, FR15	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}	FR09, FR13 (04/07 -> 31/12), FR15, FR30 FR13 (01/01 -> 03/07)	TEOM FDMS TEOM (Tapered Element Oscillating Microbalance)	Hourly	TEOM FDMS TEOM
$PM_{2.5}$	FR09, FR30	TEOM FDMS	Hourly	TEOM FDMS
Suspended particulate matter				
Sum of nitric acid and nitrate	FR09, FR13, FR15	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, FR15	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
Acidity				

Country: **Germany**		Main components and ozone - EMEP	Year: 2008	
	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
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	DE01, DE02, DE03, DE07, DE08, DE09	UV-monitor	Half hourly	UV-absorption
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	DE01, DE02, DE03, DE07, DE09	Teflon filter, 22 m^3/day (Filterpack)	Daily	Ion chromatography
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
Acidity				

Country: **Greece**		Main components and ozone - EMEP	Year: 2008	
	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: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	HU02	Wet-only	Daily	
Precipitation amount, official gauge				
Sulphate	HU02	Wet-only	Daily	Ion chromatography
Nitrate	HU02	Wet-only	Daily	Ion chromatography
Ammonium	HU02	Wet-only	Daily	Spectrophotometric, Indophenol method
Magnesium	HU02	Wet-only	Daily	Atomic absorption method
Sodium	HU02	Wet-only	Daily	Atomic absorption method
Chloride	HU02	Wet-only	Daily	Ion chromatography
Calcium	HU02	Wet-only	Daily	Atomic absorption method
Potassium	HU02	Wet-only	Daily	Atomic absorption method
Conductivity	HU02	Wet-only	Daily	Conductivity meter
pH	HU02	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	HU02	KOH-impregnated Whatman 40 filter, ~21 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	HU02	Iodide method (impregnated glass sinter), ~0.8 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid	HU02	KOH-impregnated Whatman 40 filter, ~21 m^3/day	Daily	Ion chromatography
Ammonia	HU02	Alkaline impregnated Whatman 40 filter, ~21 m^3/day	Daily	Spectrophotometric, Indophenol method
Ozone	HU02	UV-monitor	Hourly	UV-absorption
Sulphate	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Ion chromatography
Nitrate	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Ion chromatography
Ammonium	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Spectrophotometric, Indophenol method
Sodium	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Weekly	Atomic absorption method
Calcium	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Weekly	Atomic absorption method
Magnesium	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Weekly	Atomic absorption method
Potassium	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Weekly	Atomic absorption method
Chloride				
	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	72 hour	Atomic absorption method
	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	72 hour	Atomic absorption method
PM_{10}	HU02	Particulate Analyzer	Hourly	Beta-absorption
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate	HU02	KOH-impregnated Whatman 40 filter, ~21 m^3/day + Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	HU02	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: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	IS02	NILU bulk sampler	Daily	By volume
Precipitation amount, official gauge				
Sulphate	IS02	NILU bulk sampler	Daily	Ion chromatography
Nitrate	IS02	NILU bulk sampler	Daily	Ion chromatography
Ammonium				
Magnesium	IS02	NILU bulk sampler	Daily	ICP-OES
Sodium	IS02	NILU bulk sampler	Daily	ICP-OES
Chloride	IS02	NILU bulk sampler	Daily	Jan-Feb: Spectrophotometry by FIA; Mar-Dec: Ion chromatography
Calcium	IS02	NILU bulk sampler	Daily	ICP-OES
Potassium	IS02	NILU bulk sampler	Daily	ICP-OES
Conductivity	IS02	NILU bulk sampler	Daily	Conductivity meter
pH	IS02	NILU bulk sampler	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	IS02	KOH impregnated Whatman 40 filter, 30 m^3/day	Daily	ICP-OES except Ion chromatography in Mar-Jun
Nitrogen dioxide				
Nitric acid				
Ammonia				
Ozone				
Sulphate	IS02	Whatman 40 filter, 30 m^3/day, prefilter for aerosol	Daily	ICP-AES
Nitrate				
Ammonium				
Sodium	IS02	Whatman 40 filter, 30 m^3/day, prefilter for aerosol	Daily	ICP-AES
Calcium	IS02	Whatman 40 filter, 30 m^3/day, prefilter for aerosol	Daily	ICP-AES
Magnesium	IS02	Whatman 40 filter, 30 m^3/day, prefilter for aerosol	Daily	ICP-AES
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 Éireann)**		Main components and ozone - EMEP	Year: 2008	
	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: (lab.: Met Éireann)**	Main components and ozone - EMEP		Year: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	IE05, IE07, IE09	Wet-only	Daily	
Precipitation amount, official gauge				
Sulphate	IE05, IE07, IE09	Wet-only	Daily	Ion chromatography
Nitrate	IE05, IE07, IE09	Wet-only	Daily	Ion chromatography
Ammonium	IE05, IE07, IE09	Wet-only	Daily	Ion chromatography
Magnesium	IE05, IE07, IE09	Wet-only	Daily	Ion chromatography
Sodium	IE05, IE07, IE09	Wet-only	Daily	Ion chromatography
Chloride	IE05, IE07, IE09	Wet-only	Daily	Ion chromatography
Calcium	IE05, IE07, IE09	Wet-only	Daily	Ion chromatography
Potassium	IE05, IE07, IE09	Wet-only	Daily	Ion chromatography
Conductivity	IE05, IE07, IE09	Wet-only	Daily	Conductivity meter
pH	IE05, IE07, IE09	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide				
Nitrogen dioxide				
Nitric acid				
Ammonia				
Ozone				
Sulphate	IE05, IE06, IE08	Whatman 41 filters, 1441 150, 720 m^3/day	Daily	Ion chromatography
Nitrate	IE05, IE06, IE08	Whatman 41 filters, 1441 150, 720 m^3/day	Daily	Ion chromatography
Ammonium	IE05, IE06, IE08	Whatman 41 filters, 1441 150, 720 m^3/day	Daily	Ion chromatography
Sodium	IE05, IE06, IE08	Whatman 41 filters, 1441 150, 720 m^3/day	Daily	Ion chromatography
Calcium	IE05, IE06, IE08	Whatman 41 filters, 1441 150, 720 m^3/day	Daily	Ion chromatography
Magnesium	IE05, IE06, IE08	Whatman 41 filters, 1441 150, 720 m^3/day	Daily	Ion chromatography
Potassium	IE05, IE06, IE08	Whatman 41 filters, 1441 150, 720 m^3/day	Daily	Ion chromatography
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: 2008	
	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
$PM_{2.5}$	IT01	Beta gauge monitor 24 m^3/day	Daily	Beta gauge monitor
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: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	IT04	Wet-only	Daily	Sampler gauge
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	IT04	Wet-only	Daily	Ion chromatography
Sodium	IT04	Wet-only	Daily	Ion chromatography
Chloride	IT04	Wet-only	Daily	Ion chromatography
Calcium	IT04	Wet-only	Daily	Ion chromatography
Potassium	IT04	Wet-only	Daily	Ion chromatography
Conductivity	IT04	Wet-only	Daily	Conductivity meter
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	PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Ion chromatography
Nitrate	IT04	PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Ion chromatography
Ammonium	IT04	PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Ion chromatography
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$	IT04	PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Weighing at 50% RH
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				
EC/OC	IT04	PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Thermo optical

Country: **Latvia**		Main components and ozone - EMEP	Year: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Wet-only	Daily	Gravimetric
Precipitation amount, official gauge	All	Meteorological station	Daily	Gauge, Tretjakov type
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	ICP-MS
Sodium	All	Wet-only	Daily	ICP-MS
Chloride	All	Wet-only	Daily	Ion chromatography
Calcium	All	Wet-only	Daily	ICP-MS
Potassium	All	Wet-only	Daily	ICP-MS
Conductivity	All	Wet-only	Daily	Conductivity meter
pH	All	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	All	KOH-impregnated Whatman 41 filter, 16-23 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	All	NaI-impregnated glass sinters, 0.3-0.7 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Whatman 41 filter, 16-23 m^3/day	Daily	Ion chromatography
Nitrate	All	Whatman 41 filter, 16-23 m^3/day	Daily	Ion chromatography
Ammonium	All	Whatman 41 filter, 16-23 m^3/day	Daily	Spectrophotometric, Indophenol method
PM_{10}	All	Membrane filter, mixed cellulose ester, 0.45 µm, 24 m^3/day	Daily	Beta absorption
$PM_{2.5}$	All	Membrane filter, mixed cellulose ester, 0.45 µm, 24 m^3/day	Daily	Beta absorption
Sulphate $PM_{2.5}$	All	Membrane filter, mixed cellulose ester, 0.45 µm, 168 m^3/week	Weekly	Ion chromatography
Nitrate $PM_{2.5}$	All	Membrane filter, mixed cellulose ester, 0.45 µm, 168 m^3/week	Weekly	Ion chromatography
Sodium $PM_{2.5}$	All	Membrane filter, mixed cellulose ester, 0.45 µm, 168 m^3/week	Weekly	Ion chromatography
Calcium $PM_{2.5}$	All	Membrane filter, mixed cellulose ester, 0.45 µm, 168 m^3/week	Weekly	Ion chromatography
Magnesium $PM_{2.5}$	All	Membrane filter, mixed cellulose ester, 0.45 µm, 168 m^3/week	Weekly	Ion chromatography
Potassium $PM_{2.5}$	All	Membrane filter, mixed cellulose ester, 0.45 µm, 168 m^3/week	Weekly	Ion chromatography
Chloride $PM_{2.5}$	All	Membrane filter, mixed cellulose ester, 0.45 µm, 168 m^3/week	Weekly	Ion chromatography
Suspended particulate matter				
Sum of nitric acid and nitrate	All	Aerosol filter as for sulphate + KOH-impregnated filter as for SO_2, 16-23 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	All	Aerosol filter as for sulphate + oxalic acid impregnated filter, 16-23 m^3/day	Daily	Spectrophotometric, Indophenol method
Acidity				

Country: **Lithuania**		Main components and ozone - EMEP	Year: 2008	
	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: **Moldova**		Main components and ozone - EMEP	Year: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	MD13	NILU bulk sampler	Daily	By volume
Precipitation amount, official gauge				
Sulphate	MD13	NILU bulk sampler	Daily	Ion chromatography
Nitrate	MD13	NILU bulk sampler	Daily	Ion chromatography
Ammonium	MD13	NILU bulk sampler	Daily	Ion chromatography
Magnesium	MD13	NILU bulk sampler	Daily	Ion chromatography
Sodium	MD13	NILU bulk sampler	Daily	Ion chromatography
Chloride	MD13	NILU bulk sampler	Daily	Ion chromatography
Calcium	MD13	NILU bulk sampler	Daily	Ion chromatography
Potassium	MD13	NILU bulk sampler	Daily	Ion chromatography
Conductivity	MD13	NILU bulk sampler	Daily	Conductivity meter
pH	MD13	NILU bulk sampler	Daily	pH meter; potentiometric, glass electrode
Acidity				
Air				
Sulphur dioxide	MD13	KOH-impregnated Whatman 40 filter 25 m^3/day	Daily	Ion chromatography
Nitrogen dioxide				
Nitric acid				
Ammonia				
Ozone				
Sulphate	MD13	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Nitrate	MD13	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Ammonium	MD13	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Sodium	MD13	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Calcium	MD13	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Magnesium	MD13	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Potassium	MD13	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Chloride	MD13	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
PM_{10}	MD13	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
$PM_{2.5}$				
PM_1				
Suspended particulate matter				
Sum of nitric acid and nitrate	MD13	Aerosol filter as for sulphate + KOH impregnated filter as for SO_2, 25 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	MD13	Aerosol filter as for sulphate + oxalic acid impregnated filter, 25 m^3/day	Daily	Spectrophotometric, Indophenol method and IC
Acidity				
EC/OC				

Country: **The Netherlands**		Main components and ozone - EMEP	Year: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	All	Wet-only	Daily	
Precipitation amount, official gauge				
Sulphate	NL09	Wet-only	Daily [1]	Ion chromatography
Nitrate	NL09	Wet-only	Daily [1]	Ion chromatography
Ammonium	NL09	Wet-only	Daily [1]	CFA[2]
Magnesium	NL09	Wet-only	Daily [1]	ICP/MS[3]
Sodium	NL09	Wet-only	Daily [1]	ICP/MS
Chloride	NL09	Wet-only	Daily [1]	Ion chromatography
Calcium	NL09	Wet-only	Daily [1]	ICP/MS
Potassium	NL09	Wet-only	Daily [1]	ICP/MS
Conductivity	NL09	Wet-only	Daily [1]	Conductivity meter
pH	NL09	Wet-only	Daily [1]	pH meter
Acidity	NL09	Wet-only	Daily [1]	Titration
Air				
Sulphur dioxide	All	Instrumental: UV-fluorescence	Hourly	UV-fluorescence
Nitrogen dioxide	NL07,NL09,NL10,NL11,NL91	Instrumental: Chemiluminescence	Hourly	Chemiluminescence
Nitric acid				
Ammonia	NL07,NL10,NL91	Absorption in $NaHSO_4$, membrane separation, conductivity measurement	Hourly	Conductivity
Ozone	NL07,NL09,NL10,NL11,NL91	UV-monitor	Hourly	UV-absorption
Sulphate	NL08,NL09,NL10,NL91	Whatman 42 filter, 2.5 m^3/day, filter mounted behind denuder	Daily	Ion chromatography
Nitrate	NL08,NL09,NL10,NL91	Whatman 42 filter, 2.5 m^3/day, filter mounted behind denuder	Daily	Ion chromatography
Ammonium	NL08,NL09,NL10,NL91	Whatman 42 filter, 2.5 m^3/day, filter mounted behind denuder	Daily	CFA[2]
Sodium				
Calcium	NL08,NL09,NL10	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 27.6 m^3/day	Every other day	ICP/MS
Magnesium				
Potassium				
Chloride	NL08,NL09,NL10,NL91	Whatman 42 filter, 2.5 m^3/day, filter mounted behind denuder	Daily	Ion chromatography
PM_{10}	NL07,NL09,NL10[4],NL91	Instrumental: beta absorption	Hourly	Beta absorption
$PM_{2.5}$	NL09,NL10,NL11,NL91	Whatman QMA filter 47 mm, 55.2 m^3/day	Daily	Gravimetric
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Norway**	Main components and ozone - EMEP	Year: 2008

[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/mass spectrometry
[4] measurements of PM_{10} at NL10 since 02-04-2003

	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	All	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
Ammonium	All	Teflon filter, Gelman Zefluor 2 µm, 25 m^3/day	Daily	Ion chromatography
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	Kleinfiltergerät Whatman QM-A 47 mm	6+1	by weight, RH 50%
$PM_{2.5}$	NO01	Kleinfiltergerät Whatman QM-A 47 mm	6+1	by weight, RH 50%
PM_1	NO01	Kleinfiltergerät Whatman QM-A 47 mm	6+1	by weight, RH 50%
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				
EC/OC	NO01	Kleinfiltergerät Whatman QM-A 47 mm, 55 m^3/day	6+1	Thermal optical transmission

Country: **Poland: PL02, PL03, PL04 (lab. IMWM)**	Main components and ozone - EMEP		Year: 2008	
	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: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	PL05	Wet-only	Daily	
Precipitation amount, official gauge	PL05	Total	Daily	Standard rain gauge
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	Plasma emission spectrometry
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 PALL 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 PALL Zefluor 2 μm + NaOH impregnated Whatman 40 filter, 16 m^3/day	Daily	Capillary Electrophoresis
Sum of ammonia and ammonium	PL05	Aerosol Teflon filter PALL Zefluor 2 μm + Oxalic acid impregnated Whatman 40 filter, 16 m^3/day	Daily	Spectrophotometric, Indophenol method
Acidity				

Country: **Portugal**		Main components and ozone - EMEP	Year: 2008	
	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: 2008	
	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**		Main components and ozone - EMEP	Year: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount				
Precipitation amount, official gauge	RS05	Meteorological rain gauge	Daily	
Sulphate	RS05	Bulk	Daily	Ion chromatography
Nitrate	RS05	Bulk	Daily	Ion chromatography
Ammonium	RS05	Bulk	Daily	Ion chromatography
Magnesium	RS05	Bulk	Daily	Ion chromatography
Sodium	RS05	Bulk	Daily	Ion chromatography
Chloride	RS05	Bulk	Daily	Ion chromatography
Calcium	RS05	Bulk	Daily	Ion chromatography
Potassium	RS05	Bulk	Daily	Ion chromatography
Conductivity	RS05	Bulk	Daily	Conductivity meter
pH	RS05	Bulk	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	RS05	Absorbing solution TCM, 1.6-2.5 m^3/day	Daily	Pararosanilin method
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				

Country: **Slovakia**		Main components and ozone - EMEP	Year: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	SK02,SK04, SK06, SK07	Bulk: SK02: Wet-only: SK04, SK06, SK07	Daily	
Precipitation amount, official gauge	SK02,SK04, SK06, SK07	Reported from professional meteorological rain-gauges	Daily	
Sulphate	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography
Nitrate	SK02,SK04, SK06, SK07l	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography
Ammonium	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography
Magnesium	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography
Sodium	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography
Chloride	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography
Calcium	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography
Potassium	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography
Conductivity	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Conductivity meter
pH	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	pH meter
Acidity				
Air				
Sulphur dioxide	SK02,SK06	KOH-impregnated Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography - Dionex
Nitrogen dioxide	SK02,SK06	Absorbing solution NaOH and guajacol, 0.5-0.6 m^3/day	Daily	Spectrophotometric, Modified Salzman method
Nitric acid	SK02,SK06	KOH-impregnated Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography - Dionex
Ammonia	SK06	Citric acid-impregnated Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography - Dionex
Ozone	SK02,SK04,SK06, SK07	UV-monitor	Hourly	UV-absorption
Sulphate	SK02,SK06	Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography - Dionex
Nitrate	SK02,SK06	Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography - Dionex l
Ammonium	SK06	Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography - Dionex
Sodium	SK06	Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography - Dionex
Calcium	SK06	Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography - Dionex
Magnesium	SK06	Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography - Dionex
Potassium	SK06	Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography - Dionex
Chloride				
PM_{10}	SK04, SK06, SK07	Partisol R&P, Sartorius nitrocellulose filter, 24 m^3/day	Weekly	Gravimetric method
$PM_{2.5}$				
Suspended particulate matter	SK02	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: 2008	
	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
Carbon monoxide	SI32	Trace level analyzer	Hourly	ndir
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
As in PM_{10}	SI08	Low volume sampler, 2.3 m^3/h, Quartz filter, Whatman 47 mm	Daily – analysis 1 sample/week	Gravimetric method
Cd in PM_{10}	SI08	Low volume sampler, 2.3 m^3/h, Quartz filter, Whatman 47 mm	Daily – analysis 1 sample/week	Gravimetric method
Ni in PM_{10}	SI08	Low volume sampler, 2.3 m^3/h, Quartz filter, Whatman 47 mm	Daily – analysis 1 sample/week	Gravimetric method
Pb in PM_{10}	SI08	Low volume sampler, 2.3 m^3/h, Quartz filter, Whatman 47 mm	Daily – analysis 1 sample/week	Gravimetric method
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: 2008	
	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	Atomic absorption spectroscopy
Sodium	All	Wet-only	Daily	Atomic absorption spectroscopy
Chloride	All	Wet-only	Daily	Ion chromatography
Calcium	All	Wet-only	Daily	Atomic absorption spectroscopy
Potassium	All	Wet-only	Daily	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	Pulsed UV-Fluorescence
Nitrogen dioxide/NO/NOx	All	Instrumental: Chemiluminescence	Hourly	Chemiluminiscence
Ammonia	ES08, ES09	Passive sampler	Weekly	Visible spectrophotometry, Indophenol method
Ozone	All	UV-monitor	Hourly	UV-absorption
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	Atomic absorption spectroscopy
Calcium PM_{10}	ES09	High volume sampler	Daily	Atomic absorption spectroscopy
Magnesium PM_{10}	ES09	High volume sampler	Daily	Atomic absorption spectroscopy
Potassium PM_{10}	ES09	High volume sampler	Daily	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	Atomic absorption spectroscopy
Calcium $PM_{2.5}$	ES09	High volume sampler	24 hour, once a week	Atomic absorption spectroscopy
Magnesium $PM_{2.5}$	ES09	High volume sampler	24 hour, once a week	Atomic absorption spectroscopy
Potassium $PM_{2.5}$	ES09	High volume sampler	24 hour, once a week	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
VOCs	ES09	Canister	Twice a week	Gas chromatography with FID

Country: **Spain**		Main components and ozone - EMEP	Year: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Carbonyls	ES09	Cartridges of silica-DNPH	Twice a week	HPLC with UV-Vis detector
EC/OC PM_{10}	ES09	PM_{10} High volume sampler	24 hour, once a week	Thermal optical
EC/OC $PM_{2.5}$	ES09	$PM_{2.5}$ High volume sampler	24 hour, once a week	Thermal optical
Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn)	ES08, ES09	PM10 high volume sampler	24 hour, once a week	ICP mass
PAHs	ES08	PM10 high volume sampler	24 hour, once every 8 days	Gas chromatography – mass spectrometry
CAMPAIGNS (≈ four weeks)				
Air				
Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn)	ES07, ES10, ES11, ES12, ES13	PM10 high volume sampler	24 hour, once a week	ICP mass
PAHs	ES07, ES10, ES11, ES12, ES13	PM10 high volume sampler	24 hour, once a week	Gas chromatography – mass spectrometry
Hg	ES07, ES10, ES11, ES12, ES13	PM10 high volume sampler	24 hour, once a week	Atomic absorption spectroscopy
Total deposition				
Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn)	ES07, ES10, ES11, ES12, ES13	Bulk sampler	Monthly	ICP-mass
PAHs	ES07, ES10, ES11, ES12, ES13	Bulk sampler	Monthly	Gas chromatography – mass spectrometry
Hg	ES07, ES10, ES11, ES12, ES13	Bulk sampler	Monthly	Atomic absorption spectroscopy

The campaigns were carried out to decide which 5 points will be selected for the indicative measurements according to Directive 2004/107/EC (heavy metals in air in ES08 and ES09 and PAHs in air in ES08 are regular measurements).

Country: **Sweden**		Main components and ozone - EMEP	Year: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	SE05, SE11, SE14	Wet-only	Weekly except SE14; daily at SE14	
Precipitation amount, official gauge				
Sulphate	SE05, SE11, SE14	Wet-only	Weekly except SE14; daily at SE14	Ion chromatography
Nitrate	SE05, SE11, SE14	Wet-only	Weekly except SE14; daily at SE14	Ion chromatography
Ammonium	SE05, SE11, SE14	Wet-only	Weekly except SE14; daily at SE14	Spectrophotometric, Flow injection analysis
Magnesium	SE05, SE11, SE14	Wet-only	Weekly except SE14; daily at SE14	Ion chromatography
Sodium	SE05, SE11, SE14	Wet-only	Weekly except SE14; daily at SE14	Ion chromatography
Chloride	SE05, SE11, SE14	Wet-only	Weekly except SE14; daily at SE14	Ion chromatography
Calcium	SE05, SE11, SE14	Wet-only	Weekly except SE14; daily at SE14	Ion chromatography
Potassium	SE05, SE11, SE14	Wet-only	Weekly except SE14; daily at SE14	Ion chromatography
Conductivity	SE05, SE11, SE14	Wet-only	Weekly except SE14; daily at SE14	Conductivity meter
pH	SE05, SE11, SE14	Wet-only	Weekly except SE14; daily at SE14	pH meter
Acidity				
Air				
Sulphur dioxide	SE05, SE08, SE11, SE14	KOH-impregnated Whatman 40 filter, 20 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	SE05, SE08, SE11, SE14	NaI-impregnated glass sinters, ~0.7 m^3/day	Daily	Spectrophotometric, Flow Injection Analysis
Nitric acid				
Ammonia				
Ozone	SE05, SE11, SE12, SE13, SE14, SE32, SE35, SE39	UV-monitor	Hourly	UV-absorption
Sulphate	SE05, SE08, SE11, SE14	Teflon filter, Gelman Zefluor 2 μm, 20 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	SE11, SE12	TEOM (Tapered Element Oscillating Microbalance	Hourly	TEOM
$PM_{2.5}$	SE11, SE12	TEOM (Tapered Element Oscillating Microbalance	Hourly	TEOM
PM_{10}	SE14	IVL Sampler PModell S10	Daily	Gravimetric
$PM_{2.5}$	SE14	IVL Sampler PModell S10	Daily	Gravimetric
Sum of nitric acid and nitrate	SE05, SE11, SE14	Aerosol filter as for sulphate + KOH-impregnated Whatman 40 filter, 20 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	SE05, SE11, SE14	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: 2008	
	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, CH02, CH04, CH05	Instrumental: UV-fluorescence	Daily	UV-fluorescence
Nitrogen dioxide	CH01, CH02, CH05	Instrumental: Chemiluminescence-monitor	Daily	Chemiluminescence (photolytic converter)
Nitrogen dioxide	CH03, CH04	Instrumental: Chemiluminescence-monitor	Daily	Chemiluminescence (molybdenum converter)
Nitric acid	CH02, CH05	KOH impregnated Mini-Denuder / CEH DELTA-System, 0.5 m^3/day	Biweekly	Ion chromatography
Ammonia	CH02, CH05	Citric acid impregnated Mini-Denuder / CEH DELTA-System, 0.5 m^3/day	Biweekly	Ion chromatography
Ozone	All	Instrumental: 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	CH02, CH05	KOH impregnated Whatman 1 filter, Delrin filterholder / CEH DELTA-System, 0.5 m^3/day	Biweekly	Ion chromatography
Ammonium	CH02, CH05	Citric acid impregnated Whatman 1 filter, Delrin filterholder / CEH DELTA-System, 0.5 m^3/day	Biweekly	Ion chromatography
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	All	High Volume Samplers, Whatman QMA 1851-150, 720 m^3/day	Daily	Gravimetry
$PM_{2.5}$	CH02, CH05	High Volume Samplers, Whatman QMA 1851-150, 720 m^3/day	Daily	Gravimetry
PM_1	CH02, CH05	High Volume Samplers, Whatman QMA 1851-150, 720 m^3/day	Daily	Gravimetry
Suspended particulate matter				
Sum of nitric acid and nitrate	CH02, CH05	NaOH impregnated Whatman 40 filter / NILU filterholder, 18 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	CH02, CH05	Citric acid impregnated Whatman 40 filter / NILU filterholder, 18 m^3/day	Daily	Ion chromatography
Acidity				

Country: **Turkey**		Main components and ozone - EMEP	Year: 2008	
	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, 32 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	All	NaI-impregnated glass sinters, 0.72 m^3/day	Daily	Spectrophotometric
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, 32 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	All	Citric acid impregnated Whatman 40 filter, 32 m^3/day	Daily	Spectrophotometric, Indophenol method
Acidity				

Country: **United Kingdom**		Main components and ozone - EMEP	Year: 2008	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	GB02, GB06, GB13, GB14, GB15	Bulk collector	Fortnightly	Mass of water collected
Precipitation amount, official gauge				
Sulphate	GB02, GB06, GB13, GB14, GB15	Bulk collector	Fortnightly	Ion chromatography
Nitrate	GB02, GB06, GB13, GB14, GB15	Bulk collector	Fortnightly	Ion chromatography
Ammonium	GB02, GB06, GB13, GB14, GB15	Bulk collector	Fortnightly	Ion chromatography
Magnesium	GB02, GB06, GB13, GB14, GB15	Bulk collector	Fortnightly	Ion chromatography
Sodium	GB02, GB06, GB13, GB14, GB15	Bulk collector	Fortnightly	Ion chromatography
Chloride	GB02, GB06, GB13, GB14, GB15	Bulk collector	Fortnightly	Ion chromatography
Calcium	GB02, GB06, GB13, GB14, GB15	Bulk collector	Fortnightly	Ion chromatography
Potassium	GB02, GB06, GB13, GB14, GB15	Bulk collector	Fortnightly	Ion chromatography
Conductivity	GB02, GB06, GB13, GB14, GB15	Bulk collector	Fortnightly	Conductivity meter
pH	GB02, GB06, GB13, GB14, GB15	Bulk collector	Fortnightly	pH meter
Acidity				
Air				
Sulphur dioxide	GB36, GB37, GB38, GB43, GB45	Instrumental	Hourly	UV fluorescence
Nitrogen dioxide	2008: 15 sites	Instrumental	Hourly	Chemiluminescence
Nitrogen Monoxide	2008: 15 sites	Instrumental	Hourly	Chemiluminescence
Nitric acid	Sites reporting to be confirmed	Delta sampler (low volume denuder and filter pack)	Monthly	Ion chromatography
Ammonia	Sites reporting to be confirmed	Delta sampler (low volume denuder and filter pack)	Monthly	Florria
Ozone	2008: 21 sites	UV-monitor	Hourly	UV-absorption
Sulphate	Sites reporting to be confirmed	Delta sampler (low volume denuder and filter pack)	Monthly	Ion chromatography
Nitrate	Sites reporting to be confirmed	Delta sampler (low volume denuder and filter pack)	Monthly	Ion chromatography
Ammonium	Sites reporting to be confirmed	Delta sampler (low volume denuder and filter pack)	Monthly	
Sodium	Sites reporting to be confirmed	Delta sampler (low volume denuder and filter pack)	Monthly	
Calcium	Sites reporting to be confirmed	Delta sampler (low volume denuder and filter pack)	Monthly	
Magnesium	Sites reporting to be confirmed	Delta sampler (low volume denuder and filter pack)	Monthly	
Potassium	Sites reporting to be confirmed	Delta sampler (low volume denuder and filter pack)	Monthly	
Chloride	Sites reporting to be confirmed	Delta sampler (low volume denuder and filter pack)	Monthly	
PM_{10}	GB06, GB36, GB43, GB48	FDMS, Partisol and volatile correction model to TEOM data	Daily	
$PM_{2.5}$	GB36, GB48	FDMS and Partisol		
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Annex 5

List of data reports

Data Report October 1977-September 1978.
EMEP/CCC-Report 3/80 by J. Schaug, H. Dovland, J.E. Skjelmoen.
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Lillestrøm, Norwegian Institute for Air Research, 1984.

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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:

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

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

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 precision and detection limit follow the DQO of the WMO GAW precipitation programme (WMO, 2004):

Measurement parameter	Detection limits	Precision	
		Overall	Laboratory
pH (pH units)		± 0.1 pH unit at pH > 5 ± 0.03 pH unit at pH < 5	± 0.04 pH unit at pH > 5 ± 0.02 pH unit at pH < 5
SO_4^{2-} (mg S L^{-1})	0.02	0.02	0.01
NO_3^- (mg N L^{-1})	0.02	0.01	0.01
Cl^- (mg L^{-1})	0.04	0.02	0.02
NH_4^+ (mg N L^{-1})	0.02	0.02	0.01
Ca^{++} (mg L^{-1})	0.02	0.02	0.01
Mg^{++} (mg L^{-1})	0.01	0.01	0.01
Na^+ (mg L^{-1})	0.02	0.01	0.01
K^+ (mg L^{-1})	0.02	0.01	0.01
Standard Gauge Precipitation Depth (mm)	0.02	0.2 daily 0.3 weekly	n/a n/a
Sample Depth (mm)	0.2	0.1 daily 0.3 weekly	n/a n/a

n/a: Not applicable

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.