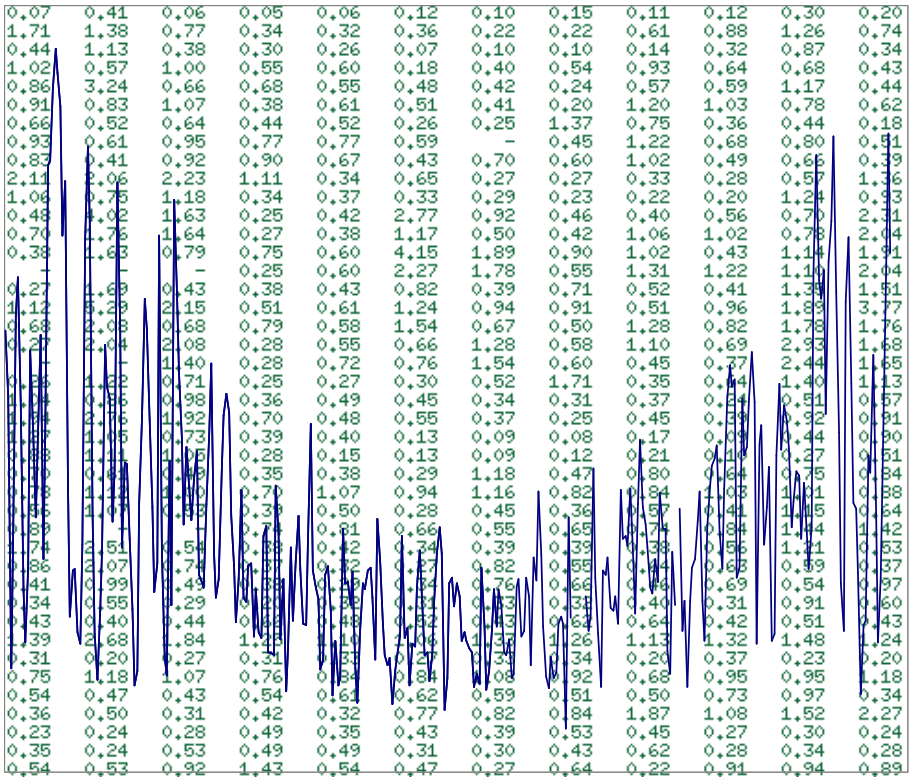
EMEP/CCC-Report 2/2013

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

Data Report 2011

Acidifying and eutrophying compounds and particulate matter

Anne-Gunn Hjellbrekke and Ann Mari Fjæraa



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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 2011 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.

In total, precipitation data from 88 stations and air data from 110 stations are presented in this report. The total number of measurement sites in this report is 131.

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 2011.

Country	Station codes	Station name	Location		Height above sea (m)
			Lat.	Long.	
Armenia	AM0001R	Amberd	40º23'N	44º15'E	2080
Austria	AT0002R	Illmitz	47º46'N	16º46'E	117
	AT0005R	Vorhegg	46º40'N	12º58'E	1020
	AT0048R	Zoebelboden	47º50'N	14º26'E	899
Belarus	BY0004R	Vysokoe	52º20'N	23º26'E	163
Belgium	BE0001R	Offagne	49º52'N	5º12'E	430
	BE0032R	Eupen	51º27'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	35º02'N	33º03'E	532
Czech Rep.	CZ0001R	Svratouch	49º44'N	16º03'E	737
	CZ0003R	Kosetice	49º35'N	15º05'E	534
Denmark	DK0003R	Tange	56º21'N	9º36'E	13
	DK0005R	Keldsnor	54º44'N	10º44'E	10
	DK0008R	Anholt	56º43'N	11º31'E	40
	DK0010B	Nord, Greenland	81°36'N	16°40'W	20
	DK0012R	Risoe	55º41'N	12º05'E	3
	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	62º32'N	24º13'E	162
	FI0009R	Utö	59º46'N	21º22'E	7
	FI0017R	Virolahti II	60º31'N	27º41'E	4
	FI0022R	Oulanka	66º19'N	29º24'E	310
	FI0036R	Pallas (Matorova)	68º00'N	24º14'E	340
	FI0037R	Ähtari II	62º35'N	24º11'E	180
	FI0050R	Hyytiälä	61º51'N	24º17'E	181
France	FR0008R	Donon	48º30'N	7º08'E	775
	FR0009R	Revin	49º54'N	4º38'E	390
	FR0010R	Morvan	47º16'N	4º05'E	620
	FR0013R	Peyrusse Vieille	43º37'N	0º11'E	200
	FR0014R	Montandon	47º18'N	6º50'E	836
	FR0015R	La Tardiére	46º39'N	0º45'W	133
	FR0016R	Le Casset	45º00'N	6º28'E	1750
	FR0017R	Montfranc	45º48'N	2º04'E	810
	FR0018R	La Coulonche	48º38'N	0º27'W	309
	FR0019R	Pic du Midi	42°56'N	0°09'E	2877
	FR0030R	Puy de Dôme	45º46'N	2º57'E	1465
Georgia	GE0001R	Abastumani	41º45'N	42º49'E	1650
Germany	DE0001R	Westerland	54º55'N	8º18'E	12
	DE0002R	Langenbrügge/Waldhof	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	53º10'N	13º02'E	62
	DE0008R	Schmücke	50º39'N	10º46'E	937
	DE0009R	Zingst	54º26'N	12º44'E	1
	DE0044R	Melpitz	51º31'N	12º55'E	86
Greece	GR0001R	Aliartos	38º22'N	23º05'E	110
Hungary	HU0002R	K-puszta	46º58'N	19º35'E	125
Iceland	IS0002R	Irafoss	64º05'N	21º01'W	66
Ireland	IE0001R	Valentia Observatory	51º56'N	10º14'W	11
	IE0005R	Oak Park	52º52'N	6º55'W	59
	IE0006R	Malin Head	55º22'N	7º20'W	20
	IE0007R	Glenveagh	55º03'N	7º56'W	44
	IE0008R	Carnsore Point	52º11'N	6º22'W	9
	IE0009R	Johnstown Castle	52º18'N	6º30'W	62
Italy	IT0001R	Montelibretti	42º06'N	12º38'E	48
	IT0004R	Ispra	45º48'N	8º38'E	209
Latvia	LV0010R	Rucava	56º09'N	21º10'E	18
Lithuania	LT0015R	Preila	55º21'N	21º04'E	5
Macedonia	MK0007R	Lazaropole	41º19'N	20º25'E	1332
Moldova	MD0013R	Leova II	46º29'N	28º17'E	166
Montenegro	ME0008R	Zabljak	43º09'N	19º08'E	1450

Table 1, cont.

Country	Station codes	Station name	Location		Height above sea (m)
			Lat.	Long.	
Netherlands	NL0007R	Eibergen	52º05'N	6º34'E	20
	NL0008R	Bilthoven	52º07'N	5º12'E	5
	NL0009R	Kollumerwaard	53º20'N	6º16'E	1
	NL0010R	Vredepeel	51º32'N	5º51'E	28
	NL0011R	Cabauw Zijdeweg	51º58'N	4º55'E	60
	NL0091R	De Zilk	52º18'N	4º30'E	4
Norway	NO0001R	Birkenes	58º23'N	8º15'E	190
	NO0002R	Birkenes II	58º23'N	8º15'E	219
	NO0015R	Tustervatn	65º50'N	13º55'E	439
	NO0039R	Kårvatn	62º47'N	8º53'E	210
	NO0042G	Spitsbergen, Zeppelinfjell	78º54'N	11º53'E	474
	NO0056R	Hurdal	60º22'N	11º04'E	300
Poland	PL0002R	Jarczew	51º49'N	21º59'E	180
	PL0003R	Sniezka	50º44'N	15º44'E	1603
	PL0004R	Leba	54º45'N	17º32'E	2
	PL0005R	Diabla Gora	54º09'N	22º04'E	157
Romania	RO0008R	Poiana Stampei	47º19'N	25º08'E	908
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	43º24'N	21º57'E	813
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
Slovenia	SI0008R	Iskrba	45º34'N	14º52'E	520
	SI0032R	Krvavec	46º18'N	14º32'E	1740
Spain	ES0001R	San Pablo de los Montes	39º33'N	4º20'W	917
	ES0007R	Viznar	37º14'N	3º32'W	1265
	ES0008R	Niembro	43º26'N	4º51'W	134
	ES0009R	Campisabalos	41º17'N	3º08'W	1360
	ES0010R	Cabo de Creus	42º19'N	3º19'E	23
	ES0011R	Barcarrola	38º28'N	6º55'W	393
	ES0012R	Zarra	39º05'N	1º06'W	885
	ES0013R	Penausende	41º17'N	5º52'W	985
	ES0014R	Els Torms	41º24'N	0º43'E	470
	ES0016R	O Saviñao	43º14'N	7º42'W	506
	ES0017R	Doñana	37º01'N	6º20'W	5
	ES1778R	Montseny	41º46'N	2º21'E	700
Sweden	SE0005R	Bredkälen	63º51'N	15º20'E	404
	SE0011R	Vavihill	56º01'N	13º09'E	175
	SE0012R	Aspvreten	58º48'N	17º23'E	20
	SE0014R	Råö	57º23'N	11º55'E	5
Switzerland	CH0001G	Jungfraujoch	46º33'N	7º59'E	3578
	CH0002R	Payerne	46º48'N	6º56'E	489
	CH0003R	Tänikon	47º28'N	8º54'E	539
	CH0004R	Chaumont	47º03'N	6º58'E	1137
	CH0005R	Rigi	47º04'N	8º28'E	1031
United Kingdom	GB0002R	Eskdalemuir	55º18'N	3º12'W	243
	GB0006R	Lough Navar	54º26'N	7º52'W	126
	GB0013R	Yarner Wood	50º35'N	3º42'W	119
	GB0014R	High Muffles	54º20'N	0º48'W	267
	GB0015R	Strath Vaich Dam	57º44'N	4º46'W	270
	GB0031R	Aston Hill	52º30'N	3º02'W	370
	GB0033R	Bush	55º51'N	3º12'W	180
	GB0036R	Harwell	51º34'N	1º19'W	137
	GB0037R	Ladybower Res.	53º24'N	1º45'W	420
	GB0038R	Lullington Heath	50º47'N	0º10'E	120
	GB0043R	Narberth	51º14'N	4º42'W	160
	GB0045R	Wicken Fen	52º18'N	0º17'W	5
	GB0048R	Auchencorth Moss	55º47'N	3º14'W	260
	GB0050R	St. Osyth	51º46'N	1º05'E	8
	GB0051R	Market Harborough	52º33'N	0º46'W	145
	GB0053R	Charlton Mackrell	51º03'N	2º41'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.

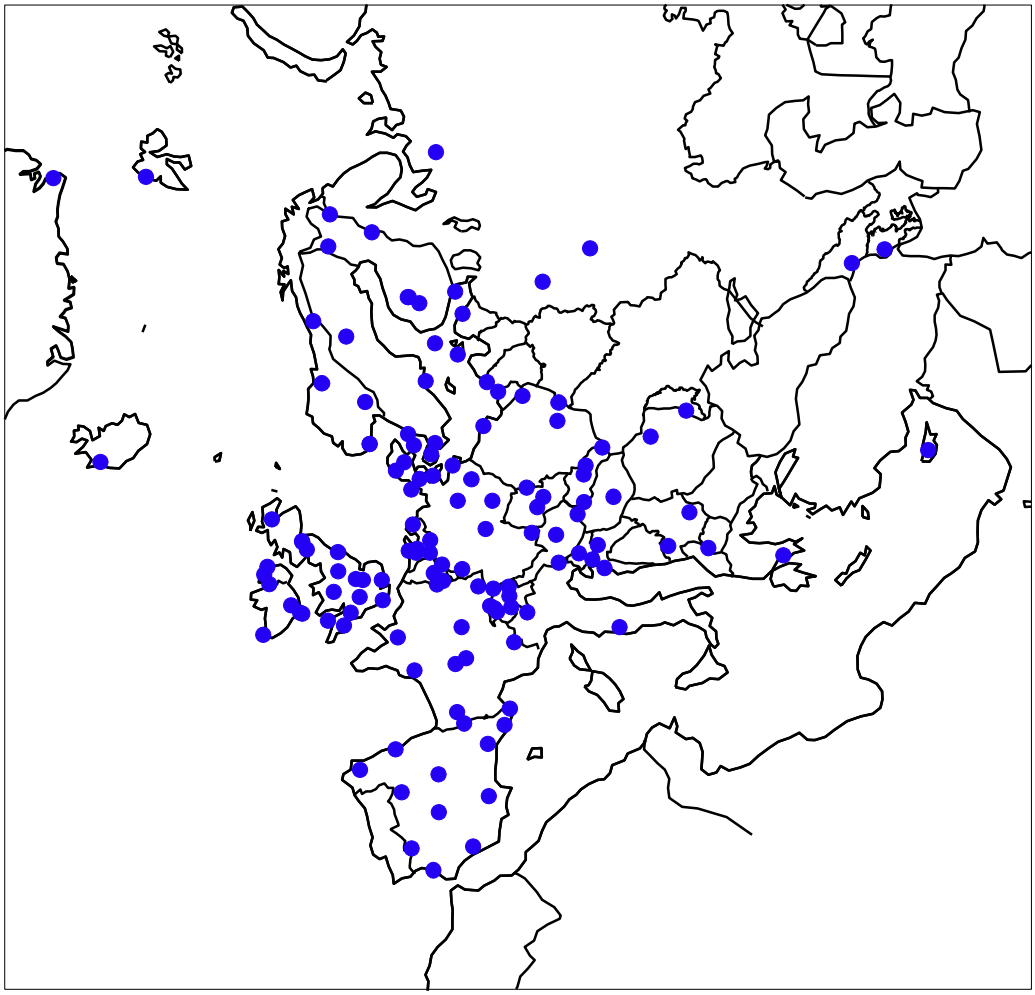

Figure 1: Location of the EMEP monitoring stations in operation in 2011. Sites with ozone/VOC measurements only are not included.

4. The measurement programme during 2011

EMEP's measurement programme during 2011 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 2011.

	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 2011 have been reported separately by Solberg (2013), while ozone data from 2011 have been reported by Hjellbrekke and Fjæraa (2013). Heavy metals and POPs were reported by Aas and Breivik (2013). More details on particulate matter measurements are presented in the PM status report (EMEP, 2013).

A list of data reports from EMEP/CCC can be found in Annex 5. All data reports are also available on the web in pdf 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, 1995 – revised 2002). 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 29th laboratory intercomparison is representative for the 2011 data. Results are presented at http://www.nilu.no/projects/ccc/intercomparison/.

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.

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 2011.

Code	mm	mm off	pH	SO_4	XSO_4	NH_4	NO_3	Na	Mg	Cl	Ca	K	cond
AM0001R	-	389.00	6.25	0.86	0.82	0.69	0.61	0.51	0.19	0.85	2.82	0.45	36
BY0004R	471.6	-	5.13	0.77	0.68	0.83	0.52	0.34	0.13	0.56	0.52	0.37	50
CH0002R	612.4	-	5.67	0.19	0.18	0.40	0.24	0.10	0.02	0.17	0.23	0.03	7
CH0004R	869.2	-	5.40	0.15	0.15	0.26	0.20	0.09	0.02	0.15	0.22	0.04	6
CH0005R	1203.1	-	5.46	0.18	0.18	0.41	0.25	0.06	0.02	0.10	0.23	0.03	8
CZ0001R	617.5	-	5.10	0.44	0.44	0.53	0.39	0.06	0.03	0.14	0.43	0.06	15
CZ0003R	642.2	-	5.33	0.37	0.36	0.51	0.34	0.08	0.03	0.16	0.32	0.05	13
DE0001R	680.6	-	5.29	0.87	0.24	0.57	0.39	7.38	0.90	13.36	0.41	0.29	55
DE0002R	560.2	-	5.21	0.31	0.28	0.65	0.39	0.32	0.04	0.54	0.11	0.03	12
DE0003R	1575.7	-	5.27	0.16	0.15	0.29	0.21	0.15	0.01	0.23	0.11	0.05	7
DE0004R	652.7	-	5.10	0.24	0.23	0.37	0.27	0.22	0.03	0.38	0.20	0.04	10
DE0005R	1286.6	-	5.08	0.19	0.18	0.37	0.27	0.10	0.01	0.24	0.08	0.08	9
DE0007R	731.3	-	5.17	0.31	0.28	0.64	0.38	0.25	0.03	0.44	0.13	0.07	12
DE0008R	1076.7	-	5.11	0.26	0.24	0.47	0.33	0.25	0.02	0.35	0.07	0.03	10
DE0009R	919.2	-	5.25	0.29	0.21	0.45	0.31	0.86	0.09	1.47	0.20	0.06	16
DE0044R	529.5	-	5.28	0.37	0.35	0.70	0.36	0.24	0.03	0.44	0.18	0.05	12
DK0005R	585.8	-	-	0.42	0.28	0.61	0.39	1.85	0.20	3.23	0.19	0.12	-
DK0008R	533.8	-	-	0.58	0.25	0.41	0.40	4.15	0.50	7.73	0.23	0.16	-
DK0022R	755.7	-	-	0.50	0.23	0.46	0.36	3.66	0.46	5.91	0.19	0.14	-
DK0031R	668.1	-	-	0.43	0.20	0.34	0.34	3.15	0.30	5.09	0.16	0.16	-
EE0009R	675.5	-	4.66	0.24	0.22	0.12	0.20	0.27	0.06	0.37	0.45	0.07	7
EE0011R	762.6	-	4.71	0.31	0.25	0.27	0.31	0.87	0.15	1.31	0.54	0.14	14
ES0001R	514.4	-	-	0.22	0.18	0.19	0.19	0.38	0.07	0.59	0.46	0.10	-
ES0007R	512.2	-	6.41	0.29	0.25	0.30	0.20	0.57	0.17	0.75	0.98	0.09	14
ES0008R	459.2	-	4.88	0.85	0.46	0.38	0.73	4.65	0.61	7.20	1.44	0.21	50
ES0009R	488.2	-	6.23	0.51	0.46	0.64	0.70	0.63	0.22	0.88	2.02	0.17	24
ES0011R	425.2	-	6.02	0.25	0.20	0.10	0.20	0.68	0.21	1.08	1.22	0.28	14
ES0012R	344.2	-	6.41	0.54	0.46	0.42	0.57	0.90	0.28	1.76	2.56	0.21	26
ES0013R	254.8	-	5.96	0.32	0.28	0.43	0.30	0.49	0.11	0.56	0.64	0.22	12
ES0014R	298.8	-	6.17	0.35	0.32	0.55	0.28	0.32	0.12	0.43	1.27	0.18	15
ES0016R	785.6	-	5.67	0.14	0.09	0.11	0.07	0.76	0.18	1.07	0.48	0.21	10
ES0017R	575.2	-	5.44	0.37	0.21	0.13	0.18	1.87	0.23	2.65	0.42	0.10	17
FI0004R	738.7	-	4.88	0.17	0.16	0.14	0.20	0.13	0.02	0.21	0.05	0.04	9
FI0017R	739.2	-	4.76	0.36	0.33	0.23	0.31	0.32	0.06	0.56	0.16	0.19	14
FI0022R	516.0	-	4.82	0.17	0.16	0.07	0.14	0.08	0.02	0.13	0.04	0.03	9
FI0036R	792.9	-	4.87	0.14	0.14	0.06	0.11	0.07	0.01	0.11	0.03	0.02	8
FR0008R	1316.4	-	5.13	0.19	0.17	0.29	0.23	0.19	0.03	0.31	0.12	0.04	8
FR0009R	962.6	-	5.21	0.24	0.20	0.39	0.29	0.42	0.05	0.70	0.17	0.06	11
FR0010R	884.7	-	5.43	0.16	0.14	0.26	0.17	0.28	0.04	0.49	0.14	0.10	8
FR0013R	658.5	-	5.26	0.30	0.23	0.30	0.24	0.75	0.11	1.34	0.39	0.06	13
FR0014R	894.6	-	5.26	0.20	0.19	0.35	0.26	0.21	0.03	0.30	0.23	0.04	9
FR0015R	777.0	-	5.69	0.32	0.15	0.40	0.18	2.03	0.24	3.66	0.22	0.09	20
FR0016R	902.0	-	5.45	0.14	0.13	0.14	0.13	0.10	0.02	0.13	0.28	0.06	6
FR0017R	909.9	-	5.42	0.17	0.12	0.23	0.14	0.51	0.07	0.90	0.16	0.04	9
FR0018R	696.2	-	5.52	0.25	0.17	0.49	0.23	0.92	0.12	1.55	0.20	0.06	14
GB0002R	1504.9	-	5.31	0.33	0.15	0.25	0.18	2.21	0.25	3.86	0.17	0.10	19
GB0006R	1618.1	-	5.53	0.38	0.08	0.10	0.06	3.51	0.38	6.25	0.28	0.15	26
GB0013R	654.0	-	5.12	0.44	0.22	0.31	0.27	2.72	0.30	4.80	0.26	0.14	24
GB0014R	468.2	-	4.99	0.57	0.47	0.64	0.45	1.18	0.14	2.05	0.34	0.08	20
GB0015R	1436.4	-	5.31	0.40	0.07	0.05	0.06	3.99	0.44	7.16	0.21	0.14	29
GB0036R	470.0	-	5.36	0.28	0.22	0.43	0.27	0.78	0.08	1.32	0.19	0.05	12
GB0048R	1052.6	-	5.31	0.25	0.13	0.20	0.13	1.40	0.15	2.50	0.12	0.06	14
HR0002R	-	763.50	5.17	0.51	0.49	0.45	0.35	0.24	0.09	0.35	0.75	0.64	15
HR0004R	-	1393.00	5.47	0.42	0.39	0.33	0.33	0.43	0.07	0.69	0.89	0.46	14
HU0002R	-	423.80	5.82	0.75	0.68	0.53	0.39	1.14	0.12	0.84	0.63	0.12	18
IE0001R	2215.4	1722.80	5.36	0.52	0.06	0.05	0.05	5.55	0.70	9.69	0.22	0.20	39
IE0005R	118.6	641.80	5.84	0.24	0.13	0.25	0.13	1.34	0.17	2.41	0.15	0.03	14
IE0007R	1537.1	-	5.15	0.51	0.09	0.07	0.10	5.05	0.66	8.76	0.19	0.19	37
IE0009R	567.3	831.60	5.15	0.39	0.13	0.14	0.16	3.07	0.38	5.38	0.14	0.11	26
IS0002R	1769.5	-	5.33	0.40	0.06	-	0.05	3.90	0.41	6.94	0.25	0.31	28
IT0001R	377.0	-	-	0.70	0.53	0.06	0.62	2.01	0.40	3.92	4.94	0.36	-
IT0004R	783.9	-	5.43	0.39	0.37	0.74	0.52	0.21	0.05	0.21	0.50	0.04	12
LT0015R	564.5	-	5.01	0.66	0.41	0.41	0.51	3.02	-	4.87	0.60	0.17	30
LV0010R	866.5	-	5.27	0.54	0.46	0.46	0.48	0.99	0.20	2.07	0.41	0.07	20
MD0013R	333.2	-	6.24	0.62	0.59	-	0.44	0.27	0.18	0.93	1.19	0.52	18
ME0008R	1031.9	-	6.55	1.85	1.74	1.81	0.39	0.78	0.44	2.45	1.31	1.98	33

Table 3, cont.

Code	mm	mm off	pH	SO_4	XSO_4	NH_4	NO_3	Na	Mg	Cl	Ca	K	cond
NL0009R	679.0	-	-	0.54	0.25	0.62	0.35	3.50	0.43	6.11	0.36	0.22	34
NO0001R	1777.5	-	4.86	0.38	0.26	0.42	0.39	1.50	0.19	2.65	0.12	0.10	22
NO0015R	1430.4	-	5.35	0.24	0.11	0.15	0.06	1.66	0.21	3.02	0.12	0.09	20
NO0039R	1500.1	-	5.48	0.19	0.05	0.17	0.05	1.60	0.20	3.03	0.10	0.09	15
NO0056R	1299.4	-	5.04	0.25	0.23	0.47	0.32	0.27	0.04	0.49	0.13	0.07	11
PL0002R	564.7	-	4.90	0.53	0.52	0.51	0.36	0.11	0.04	0.30	0.25	0.10	15
PL0003R	918.4	-	4.54	0.79	0.76	0.38	0.50	0.42	0.11	0.58	0.27	0.18	22
PL0004R	559.7	-	5.11	0.34	0.28	0.44	0.39	0.77	0.10	1.44	0.17	0.12	16
PL0005R	480.5	629.00	4.94	0.47	0.45	0.54	0.44	0.22	0.05	0.50	0.20	0.07	13
RS0005R	-	507.60	4.94	1.19	1.16	0.75	0.42	0.37	0.13	0.57	1.24	0.30	27
RU0001R	520.5	-	5.21	0.46	0.43	0.18	0.22	0.37	0.05	0.85	0.44	0.47	12
RU0013R	538.8	-	5.66	0.48	0.42	0.45	0.17	0.71	0.16	1.11	0.68	0.45	17
RU0018R	590.8	-	4.98	0.51	0.50	0.41	0.30	0.16	0.06	0.33	0.48	0.18	12
RU0020R	612.4	-	5.07	0.41	0.40	0.37	0.26	0.13	0.04	0.26	0.34	0.13	10
SE0011R	809.4	-	5.16	0.39	0.29	0.56	0.44	1.21	0.15	2.17	0.16	0.12	19
SE0012R	478.1	-	4.97	0.36	0.33	0.53	0.38	0.30	0.05	0.52	0.12	0.08	14
SE0014R	735.7	-	4.98	0.71	0.23	0.43	0.40	5.75	0.69	10.34	0.34	0.25	33
SI0008R	1059.8	-	4.91	0.37	0.35	0.28	0.28	0.20	0.05	0.34	0.25	0.06	11
SK0002R	910.4	-	5.04	0.56	0.55	0.45	0.27	0.16	0.02	0.13	0.20	0.06	10
SK0004R	673.9	-	4.75	0.60	0.59	0.34	0.35	0.10	0.03	0.13	0.28	0.05	15
SK0006R	646.2	-	4.22	0.59	0.58	0.43	0.43	0.14	0.03	0.17	0.23	0.08	16
SK0007R	366.6	-	5.10	0.52	0.52	0.62	0.52	0.09	0.06	0.14	0.42	0.05	15

Table 4: Annual averages of main components in air 2011.

Code	SO_2	NO_2	SO_4	XSO_4	SNO_3	NO_3	HNO_3	SNH_4	NH_4	NH_3
AM0001R	0.27	1.76	0.71	0.71	0.36	0.28	0.08	1.26	0.43	0.83
AT0002R	0.83	3.09	-	-	-	-	-	-	-	-
AT0005R	0.17	1.01	-	-	-	-	-	-	-	-
AT0048R	0.27	1.39	-	-	-	-	-	-	-	-
BE0001R	-	2.69	-	-	-	-	-	-	-	-
BE0032R	-	3.65	-	-	-	-	-	-	-	-
BE0035R	-	4.40	-	-	-	-	-	-	-	-
CH0001G	0.03	0.06	0.11	-	-	0.07	-	-	0.08	-
CH0002R	0.27	3.60	0.57	0.55	1.18	0.96	0.26	4.41	1.48	2.81
CH0003R	-	3.91	-	-	-	-	-	-	-	-
CH0004R	-	1.92	-	-	-	-	-	-	-	-
CH0005R	0.19	1.07	0.40	0.39	0.78	0.61	0.18	1.94	1.01	1.03
CY0002R	1.00	0.87	1.08	1.08	-	0.03	-	-	0.69	-
CZ0001R	1.23	1.91	0.99	-	0.96	-	-	2.02	-	-
CZ0003R	0.89	2.50	1.04	-	1.01	-	-	2.31	-	-
DE0001R	0.46	2.50	0.69	0.66	-	0.68	-	-	1.23	1.12
DE0002R	0.63	2.66	0.92	0.91	-	0.64	0.26	-	1.45	1.78
DE0003R	0.24	0.74	0.28	0.27	-	0.12	-	-	0.52	-
DE0007R	0.71	1.81	0.75	0.74	-	0.42	0.20	-	0.94	0.90
DE0008R	0.64	1.75	0.52	0.52	-	0.35	-	-	0.69	-
DE0009R	0.68	2.35	0.68	0.67	-	0.51	-	-	1.11	0.96
DE0044R	-	3.48	0.86	0.86	-	0.71	-	-	2.42	-
DK0003R	0.19	-	0.67	0.57	0.92	-	-	-	1.21	1.30
DK0005R	-	3.07	-	-	-	-	-	-	-	-
DK0008R	0.33	2.40	0.79	0.66	0.94	-	-	-	1.18	0.24
DK0010G	0.07	-	0.12	0.09	-	0.01	-	-	0.04	0.00
DK0012R	0.33	2.81	0.77	0.70	1.13	-	-	-	1.51	0.77
DK0031R	0.14	-	0.71	0.57	0.87	-	-	-	1.06	0.33
EE0009R	1.15	2.77	-	-	-	-	-	-	-	-
ES0007R	0.44	1.88	0.58	-	0.45	0.39	-	1.40	-	-
ES0008R	0.41	1.30	0.81	-	0.66	0.40	-	2.04	-	0.83
ES0009R	0.19	0.48	0.27	0.27	0.29	0.07	-	0.88	0.26	0.73
ES0010R	0.17	0.77	0.78	-	0.51	0.46	-	1.53	-	-
ES0011R	0.18	0.74	-	-	0.36	-	-	1.31	-	-
ES0012R	0.23	0.89	-	-	0.48	-	-	1.62	-	-
ES0013R	0.25	1.11	-	-	0.39	-	-	0.88	-	-
ES0014R	0.39	1.30	-	-	0.59	-	-	3.88	-	-
ES0016R	0.20	1.29	-	-	0.38	-	-	1.66	-	-
ES0017R	0.27	1.78	-	-	0.56	-	-	1.67	-	-
ES1778R	-	-	0.67	-	-	0.11	-	-	0.20	-
FI0009R	0.32	-	0.42	0.37	0.35	-	-	0.39	0.30	-
FI0017R	0.60	1.40	0.40	0.39	0.25	-	-	0.41	0.28	-
FI0022R	0.26	-	0.27	0.26	0.07	-	-	0.15	0.12	-
FI0036R	0.26	-	0.23	0.21	0.05	-	-	0.11	0.09	-
FI0037R	0.24	-	0.31	0.30	0.14	-	-	0.28	0.19	-
FR0013R	-	1.08	-	-	-	-	-	-	-	-
FR0015R	-	1.84	-	-	-	-	-	-	-	-
FR0030R	0.17	0.85	-	-	-	-	-	-	-	-
GB0002R	-	0.98	-	-	-	-	-	-	-	-
GB0013R	-	1.26	-	-	-	-	-	-	-	-
GB0014R	-	2.25	-	-	-	-	-	-	-	-
GB0031R	-	1.58	-	-	-	-	-	-	-	-
GB0033R	-	1.89	-	-	-	-	-	-	-	-
GB0036R	0.24	3.09	0.52	0.43	-	0.37	0.04	-	0.14	1.47
GB0037R	1.86	2.74	-	-	-	-	-	-	-	-

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	0.82	2.29	-	-	-	-	-	-	-	-
GB0043R	0.88	1.36	-	-	-	-	-	-	-	-
GB0045R	1.08	3.50	-	-	-	-	-	-	-	-
GB0048R	0.21	1.08	0.37	-0.14	-	0.20	0.03	-	0.50	1.05
GB0050R	-	4.61	-	-	-	-	-	-	-	-
GB0051R	-	2.82	-	-	-	-	-	-	-	-
GB0053R	-	2.32	-	-	-	-	-	-	-	-
GE0001R	0.23	-	1.10	-	0.69	0.96	-	0.02	0.15	-0.01
GR0001R	1.66	3.21	-	-	-	-	-	-	-	-
HU0002R	1.34	2.17	1.35	-	-	0.56	0.31	-	1.34	1.52
IE0001R	0.25	1.26	0.37	0.16	0.42	-	-	0.95	-	-
IE0005R	-	-	0.32	0.19	-	0.26	-	-	0.55	-
IE0006R	-	-	0.40	0.18	-	0.22	-	-	0.53	-
IE0008R	-	-	0.63	0.22	-	0.37	-	-	0.97	-
IS0002R	0.09	-	0.18	0.08	-	-	-	-	-	-
IT0001R	0.52	4.91	0.77	-	-	0.30	0.24	-	1.22	1.83
IT0004R	0.37	4.21	0.55	-	-	1.30	-	-	1.61	-
LT0015R	0.36	1.04	0.90	-	0.71	-	-	0.98	-	-
LV0010R	0.33	0.88	0.20	0.19	-	0.03	-	-	0.52	-
MD0013R	0.37	0.17	0.44	0.42	0.56	0.37	0.20	0.80	0.41	0.41
ME0008R	2.15	1.32	-	-	-	-	-	-	-	-
MK0007R	2.08	1.51	-	-	-	-	-	-	-	-
NL0007R	0.51	4.59	-	-	-	-	-	-	-	9.22
NL0008R	0.60	-	0.94	0.88	-	1.16	-	-	1.56	-
NL0009R	0.28	3.33	0.82	0.76	-	1.19	-	-	1.55	-
NL0010R	0.64	5.54	0.97	0.93	-	1.33	-	-	1.82	-
NL0011R	0.95	6.22	-	-	-	-	-	-	-	-
NL0091R	0.85	5.33	0.96	0.94	-	1.11	-	-	1.38	1.73
NO0002R	0.11	0.43	0.33	0.29	0.37	0.27	0.11	0.63	0.32	0.31
NO0015R	0.08	0.14	0.13	0.11	0.25	0.19	0.05	0.94	0.23	0.71
NO0039R	0.07	0.26	0.13	0.12	0.17	0.12	0.04	0.88	0.15	0.72
NO0042G	0.10	-	0.12	0.09	0.11	0.07	0.03	0.39	0.07	0.32
NO0056R	0.10	0.79	0.26	0.25	0.34	0.25	0.10	0.71	0.41	0.30
PL0002R	1.47	3.10	1.35	-	0.84	0.70	-	2.94	1.53	-
PL0003R	1.07	1.03	0.84	-	0.40	0.30	-	0.67	0.52	-
PL0004R	0.84	1.49	1.24	-	0.72	0.58	-	1.43	1.04	-
PL0005R	0.52	1.15	0.23	0.22	0.92	0.07	0.47	2.47	0.47	0.85
RO0008R	2.41	2.97	-	-	-	-	-	-	-	-
RS0005R	8.48	0.80	-	-	-	-	-	-	-	-
RU0018R	0.44	-	0.61	-	-	0.34	-	-	0.41	-
RU0020R	0.08	-	0.51	-	-	0.21	-	-	0.17	-
SE0005R	0.07	0.14	0.15	0.14	0.04	-	-	0.16	-	-
SE0011R	0.34	1.38	0.53	0.49	0.63	-	-	1.26	-	-
SE0012R	0.20	0.59	0.39	0.36	0.24	-	-	0.40	-	-
SE0014R	0.31	1.35	0.62	0.47	0.66	-	-	0.94	-	-
SI0008R	0.51	0.57	2.66	2.66	0.25	0.09	-	0.99	-	-
SK0002R	0.20	0.90	0.36	0.35	-	0.14	0.02	-	-	-
SK0006R	0.68	1.26	1.02	1.01	-	0.36	0.03	-	1.08	0.39

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

Code	Matrix	Na	Ca	Mg	K	Cl
AM0001R	Aerosol	0.07	0.53	0.04	0.12	0.06
CH0001G	Aerosol	0.00	0.02	0.00	0.01	-
CH0001G	PM_1	0.01	0.07	0.00	0.01	-
CH0002R	Aerosol	0.16	0.39	0.04	0.20	-
CH0005R	Aerosol	0.10	0.31	0.02	0.07	-
CY0002R	$PM_{2.5}$	0.12	0.24	0.01	0.12	0.06
CZ0003R	Aerosol	0.10	0.13	0.04	0.10	-
DE0001R	$PM_{2.5}$	0.42	0.04	0.05	0.07	0.54
DE0002R	Aerosol	0.46	0.13	0.06	0.20	0.43
DE0002R	$PM_{2.5}$	0.17	0.02	0.02	0.09	0.14
DE0003R	$PM_{2.5}$	0.03	0.01	0.01	0.05	0.05
DE0007R	Aerosol	0.39	0.09	0.05	0.14	0.41
DE0007R	$PM_{2.5}$	0.13	0.02	0.01	0.09	0.08
DE0008R	$PM_{2.5}$	0.05	0.01	0.01	0.05	0.06
DE0009R	$PM_{2.5}$	-	0.02	0.01	0.10	0.15
DE0044R	PM_{10}	0.28	0.94	0.29	0.13	0.38
DE0044R	$PM_{2.5}$	0.07	0.07	0.01	0.07	0.11
DK0003R	Aerosol	1.20	0.14	-	0.13	2.05
DK0008R	Aerosol	1.68	0.13	-	0.11	2.63
DK0010G	Aerosol	0.18	0.03	-	0.01	0.25
DK0012R	Aerosol	0.99	0.17	-	0.13	1.51
DK0031R	Aerosol	1.56	0.13	-	0.10	2.63
ES0009R	$PM_{2.5}$	0.26	0.09	0.01	0.04	0.04
ES1778R	PM_1	0.03	0.01	0.00	0.05	0.11
ES1778R	PM_{10}	0.43	0.29	0.12	0.15	0.27
ES1778R	$PM_{2.5}$	0.10	0.03	0.02	0.07	0.12
FI0009R	Aerosol	0.60	0.08	0.08	0.06	0.60
FI0017R	Aerosol	0.21	0.08	0.03	0.06	0.12
FI0022R	Aerosol	0.13	0.02	0.02	0.02	0.07
FI0036R	Aerosol	0.15	0.02	0.02	0.02	0.16
FI0037R	Aerosol	0.14	0.03	0.02	0.04	0.07
GB0036R	PM_{10}	1.74	0.07	0.13	0.04	-
GB0036R	$PM_{2.5}$	1.48	0.08	0.09	0.02	-
GB0048R	PM_{10}	0.57	0.06	0.05	0.04	1.04
GB0048R	$PM_{2.5}$	0.44	0.05	0.04	0.05	0.72
GE0001R	Aerosol	-	-	-	-	1.66
IE0001R	Aerosol	2.47	0.10	0.29	0.12	-
IE0005R	Aerosol	0.86	0.08	0.18	0.07	-
IE0006R	Aerosol	2.04	0.10	0.31	0.10	-
IE0008R	Aerosol	2.72	0.15	0.38	0.23	-
IS0002R	Aerosol	1.03	0.24	0.16	0.06	2.41
LV0010R	$PM_{2.5}$	0.15	0.17	0.02	0.10	0.08
MD0013R	Aerosol	0.12	0.38	0.05	0.28	0.35
NL0008R	Aerosol	0.86	0.21	0.13	-	1.01
NL0009R	Aerosol	0.97	0.17	0.14	-	1.18
NL0010R	Aerosol	0.64	0.29	0.12	-	0.68
NL0091R	Aerosol	-	-	-	-	1.75
NO0002R	Aerosol	0.53	0.04	0.08	0.08	0.53
NO0015R	Aerosol	0.25	0.03	0.03	0.05	0.32
NO0039R	Aerosol	0.21	0.03	0.03	0.05	0.24
NO0042G	Aerosol	0.26	0.04	0.04	0.04	0.35
NO0056R	Aerosol	0.19	0.04	0.03	0.08	0.10
PL0005R	$PM_{2.5}$	0.30	0.08	0.02	0.11	0.06
SE0005R	Aerosol	0.15	0.03	0.02	0.02	0.19
SE0011R	Aerosol	0.54	0.07	0.06	0.08	0.56
SE0012R	Aerosol	0.34	0.06	0.04	0.04	0.24
SE0014R	Aerosol	1.91	0.12	0.23	0.28	2.81
SI0008R	Aerosol	0.09	0.16	0.04	0.17	0.05
SI0008R	$PM_{2.5}$	0.04	0.07	0.02	0.18	0.04
SK0002R	Aerosol	-	-	-	-	0.07
SK0006R	Aerosol	0.11	0.11	0.02	0.20	0.12

Table 6: Annual averages of particulate matter.

Code	PM_{10}	$PM_{2.5}$	PM_1	SPM
AT0002R	24.37	19.27	13.73	-
AT0005R	9.24	-	-	-
AT0048R	11.24	-	-	-
CH0001G	2.98	-	-	-
CH0002R	17.28	12.18	9.02	-
CH0003R	15.56	-	-	-
CH0004R	9.18	-	-	-
CH0005R	8.33	6.92	-	-
CY0002R	23.32	16.55	-	-
CZ0001R	16.08	-	-	-
CZ0003R	17.52	16.07	-	-
DE0001R	22.07	-	-	-
DE0002R	18.72	14.24	8.51	-
DE0003R	9.27	7.16	-	-
DE0007R	16.55	13.14	-	-
DE0008R	11.13	8.48	-	-
DE0009R	18.65	-	-	-
DE0044R	24.12	20.08	-	-
DK0012R	27.28	-	-	-
ES0007R	17.29	8.98	-	-
ES0008R	18.42	7.75	-	-
ES0009R	-	4.88	-	-
ES0010R	17.04	8.07	-	-
ES0011R	-	8.36	-	-
ES0012R	-	5.63	-	-
ES0013R	-	5.23	-	-
ES0014R	-	7.62	-	-
ES0016R	-	8.50	-	-
ES1778R	18.52	11.79	10.60	-
FI0009R	-	6.36	-	-
FI0017R	11.01	7.20	-	-
FI0050R	6.40	4.95	3.87	-
FR0009R	27.64	15.71	-	-
FR0013R	21.33	14.85	-	-
FR0014R	18.92	-	-	-
FR0015R	20.80	13.22	-	-
FR0018R	11.10	-	-	-
GB0006R	9.59	-	-	-
GB0036R	18.12	11.86	-	-
GB0043R	11.74	-	-	-
GB0048R	7.80	4.62	-	-
GR0001R	29.12	-	-	-
IT0001R	29.23	-	-	-
IT0004R	-	22.15	-	-
LV0010R	14.38	11.39	-	-
MD0013R	15.87	-	-	-
MK0007R	15.68	-	-	-
NL0007R	26.72	-	-	-
NL0009R	23.08	12.84	-	-
NL0010R	28.55	15.97	-	-
NL0011R	-	15.25	-	-
NL0091R	23.67	12.67	-	-
NO0002R	7.04	4.15	-	-
NO0039R	3.58	2.60	-	-
NO0056R	5.88	4.35	-	-
PL0005R	17.04	12.79	-	-
RO0008R	17.85	-	-	-
SE0005R	3.94	1.94	-	-
SE0011R	16.16	9.47	-	-
SE0012R	8.07	6.41	-	-
SE0014R	16.97	7.90	-	-
SI0008R	16.33	14.32	-	-

Table 7: EC/OC.

Code	Matrix	EC	OC	TC
CY0002R	$PM_{2.5}$	0.22	1.68	-
CZ0003R	$PM_{2.5}$	0.46	2.98	3.49
DE0002R	$PM_{2.5}$	0.39	3.14	3.53
DE0003R	$PM_{2.5}$	0.15	1.48	1.63
DE0007R	$PM_{2.5}$	0.37	3.01	3.38
DE0008R	$PM_{2.5}$	0.23	1.59	1.82
DE0044R	$PM_{2.5}$	1.08	2.15	-
ES0009R	$PM_{2.5}$	0.13	1.81	-
ES1778R	PM_{10}	0.34	2.40	2.73
ES1778R	$PM_{2.5}$	0.29	1.91	2.20
GB0036R	PM_{10}	0.36	2.27	2.63
IT0004R	$PM_{2.5}$	1.71	7.51	9.19
NL0011R	$PM_{2.5}$	0.54	2.25	2.79
NO0002R	PM_{10}	0.11	0.92	0.98
NO0002R	$PM_{2.5}$	0.11	0.68	0.80
NO0039R	PM_{10}	0.07	0.91	0.98
NO0039R	$PM_{2.5}$	0.07	0.68	0.74
NO0056R	PM_{10}	0.17	1.28	1.46
NO0056R	$PM_{2.5}$	0.17	0.89	1.05
PL0005R	$PM_{2.5}$	0.58	3.44	-
SE0012R	PM_{10}	0.23	1.76	-
SI0008R	$PM_{2.5}$	0.35	3.80	-

Table 8: 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 9: 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 further errors are detected, the data will be corrected in the database. It is important that users make sure that they have access to the most recent version of the database. For the data presented here the latest alteration was 5 August, 2013.

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

Aas, W., Breivik, K. (2013) Heavy metals and POP measurements, 2011. Kjeller, NILLU (EMEP/CCC-Report 4/2013).

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11. Acknowledgements

A large number of co-workers in participating countries have been involved in the many steps of collection of EMEP's measurement 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 the secretarial work, and far beyond, has been performed by Ms. Kristine Aasarød. Rita Larsen Våler and Mona Waagsbø have been very helpful with data flow and database maintenance.

12. List of participating institutions

Armenia	Environmental Impact Monitoring Center
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	Department of Environmental Science, Aarhus University
Estonia	Estonian Environmental Research Laboratory Ltd.
Finland	Finnish Meteorological Institute (FMI)
France	l' Ecole des Mines de Douai
Georgia	National Environmental Agency
Germany	Umweltbundesamt Leibniz Institute for Tropospheric Research
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
Kazakhstan	Hydrometeorological Monitoring
Latvia	Latvian Environment, Geology and Meteorology Agency
Lithuania	Center for Physical Sciences and Technology
Macedonia	Ministry of Environment and Physical Planning
Moldova	State Hydrometeorological Service
Montenegro	Hydrometeorological Institute of Montenegro
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
Romania	National Environmental Protection Agency
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)
United Kingdom	Ricardo-AEA

Annex 1

Maps over Europe

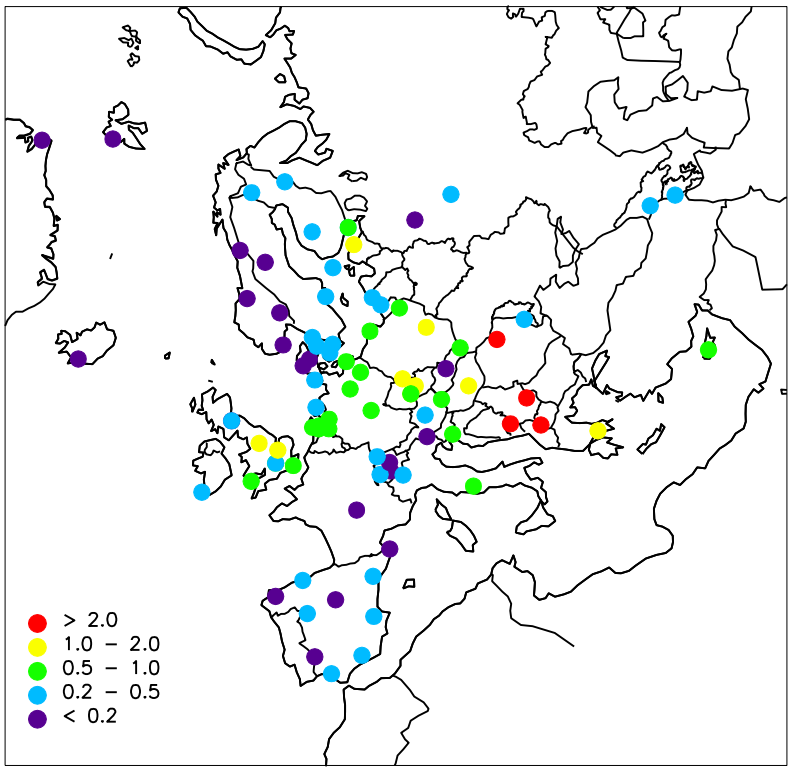

Figure 1.1: Geographical distribution of sulphur dioxide 2011. Unit: μg S/m^3.

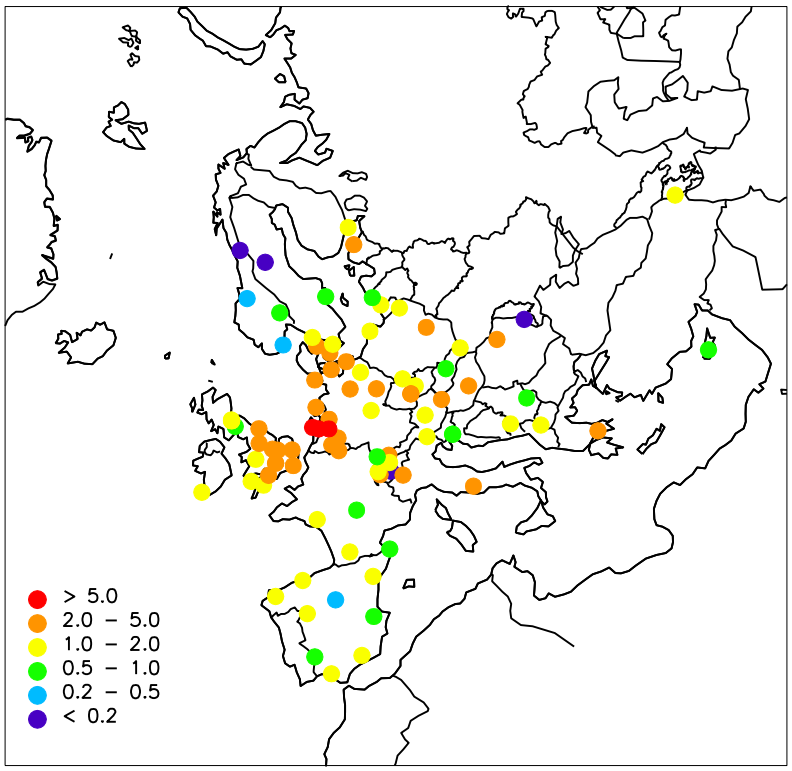

Figure 1.2: Geographical distribution of nitrogen dioxide 2011. Unit: μg N/m^3.

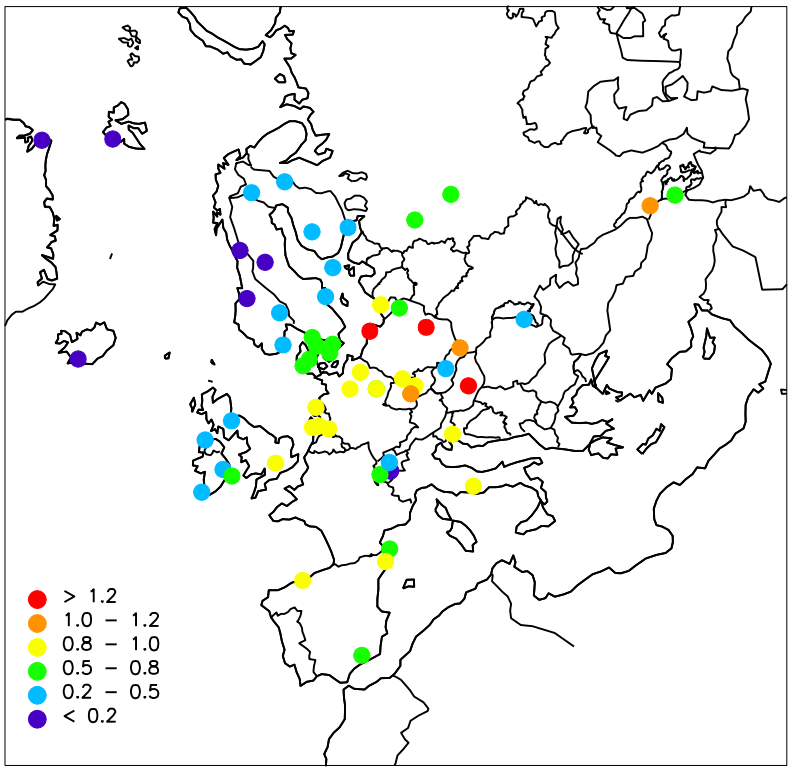

Figure 1.3: Geographical distribution of sulphate in aerosols 2011. Unit: μg S/m^3.

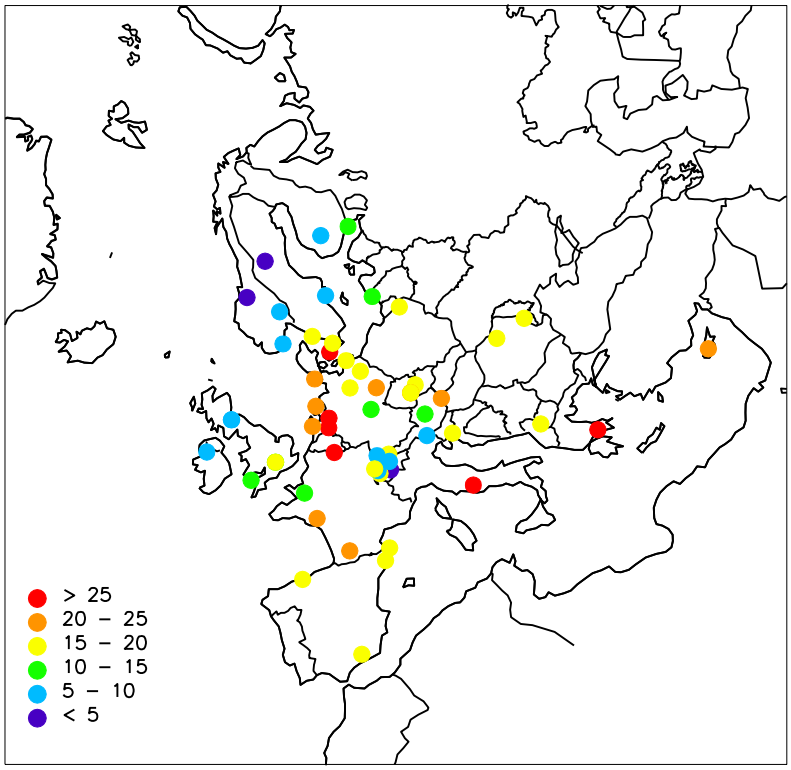

Figure 1.4: Geographical distribution of PM_{10} 2011. Unit: μg/m^3.

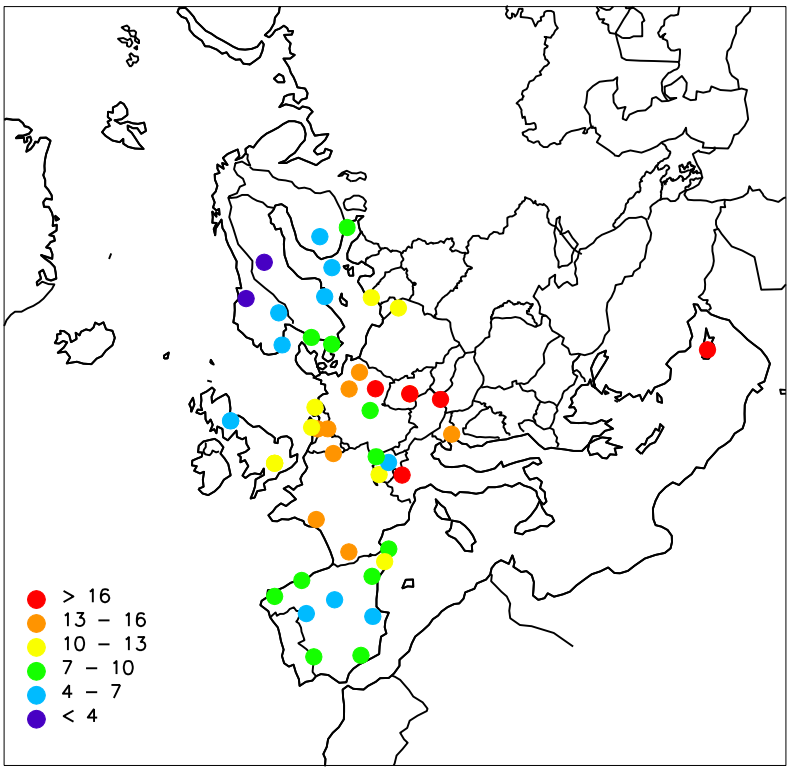

Figure 1.5: Geographical distribution of $PM_{2.5}$ 2011. Unit: $\mu g/m^3$.

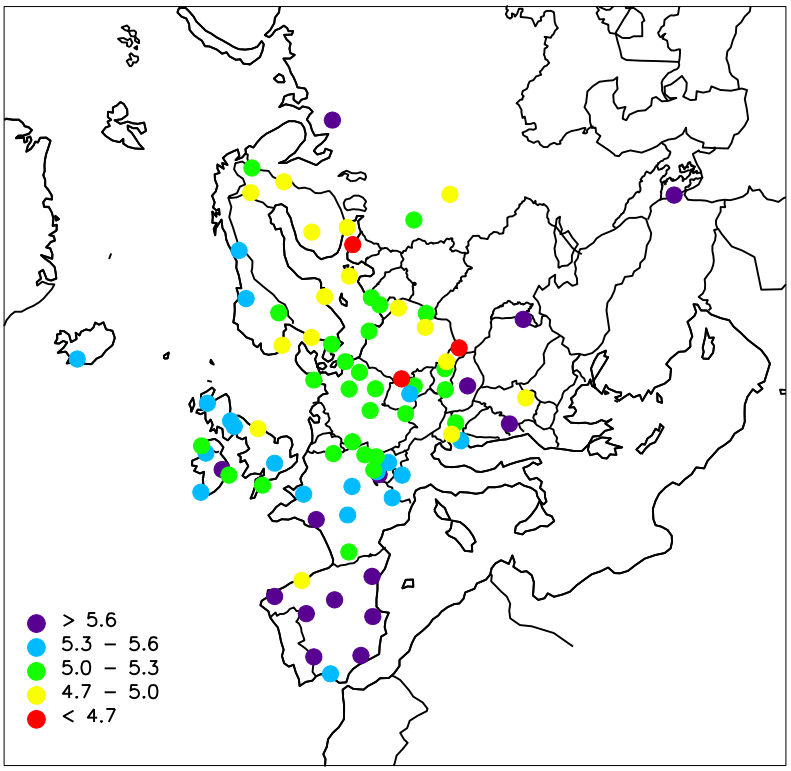

Figure 1.6: Geographical distribution of pH in precipitation 2011. Unit: pH units.

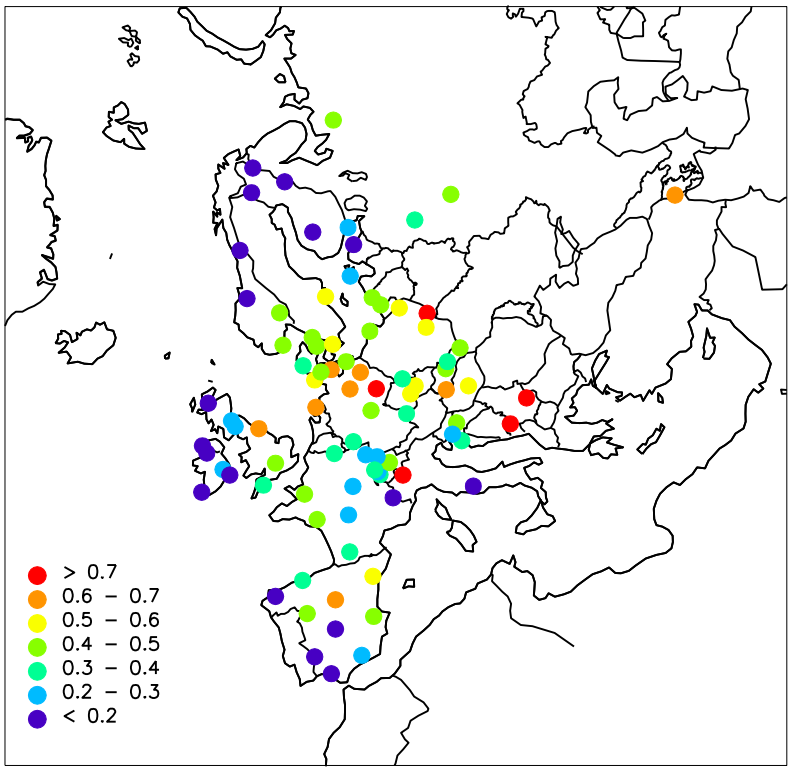

Figure 1.7: Geographical distribution of ammonium in precipitation 2011. Unit: mg N/l.

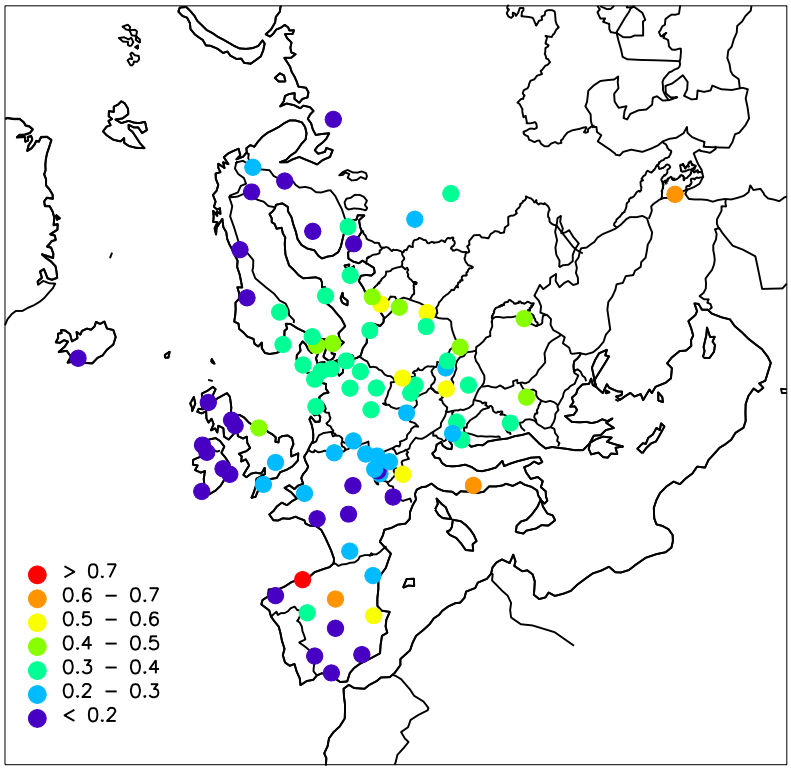

Figure 1.8: Geographical distribution of nitrate in precipitation 2011. Unit: mg N/l.

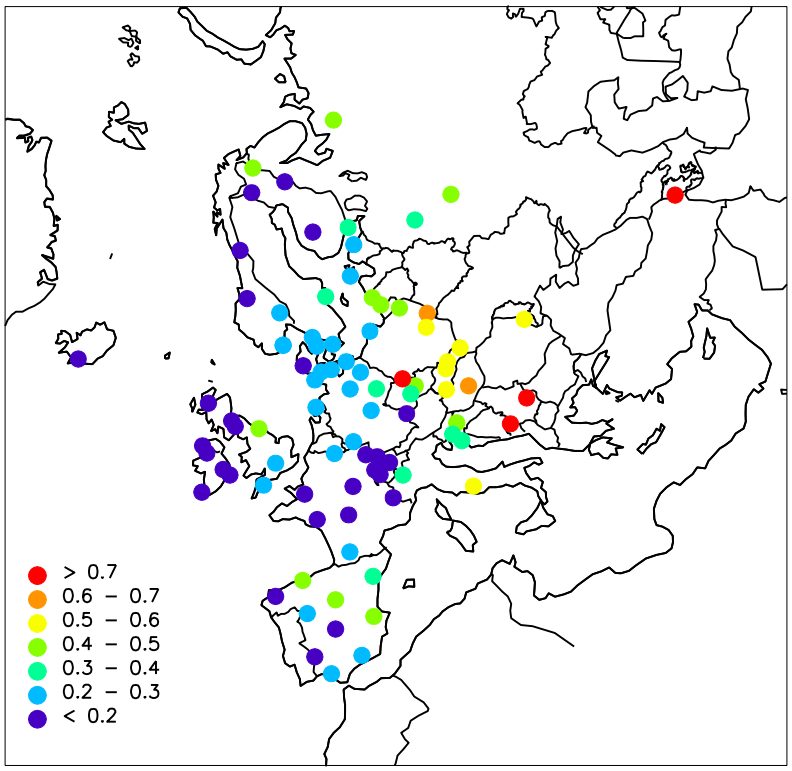

Figure 1.9: Geographical distribution of sulphate in precipitation 2011 (corrected for sea spray). Unit: mg S/l.

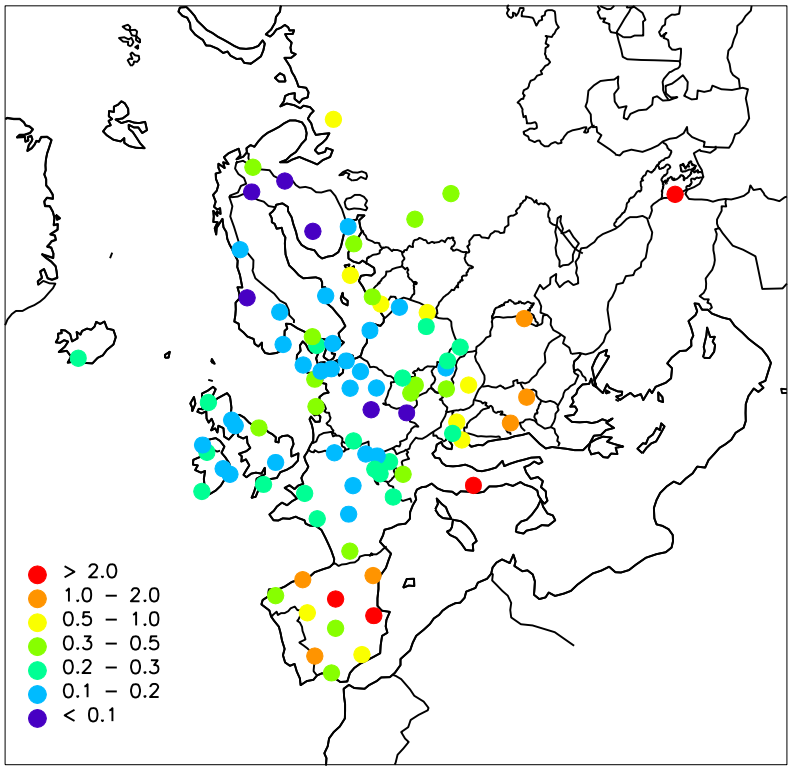

Figure 1.10: Geographical distribution of calcium in precipitation 2011. Unit: mg/l.

Annex 2

Annual statistics on precipitation data

AM0001R Amberd

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.82	0.36	7.99	1097.6	91.1	0	52
Cl-	precip	0.85	0.05	5.79	330.5	98.3	0	60
K+	precip	0.45	0.02	3.54	175.7	97.1	0	58
Mg++	precip	0.191	0.018	0.943	74.3	95.3	0	58
NH4+	precip	0.69	0.05	1.53	267.7	97.5	0	59
NO3-	precip	0.61	0.02	3.44	235.7	98.3	0	60
Na+	precip	0.51	0.03	3.57	198.9	98.3	0	60
Precip off	precip	-	0.00	52.00	389.0	94.2	67	132
SO4--	precip	0.86	0.07	2.77	335.3	98.3	0	60
SO4-- corr	precip	0.82	-0.09	2.72	318.6	98.3	0	60
cond	precip	35.77	3.70	159.40	13914.2	98.3	0	60
pH	precip	6.25	5.02	7.79	219.1	98.3	0	60

BY0004R Vysokoe

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.52	0.10	3.80	245.0	86.8	0	60
Cl-	precip	0.56	0.13	3.88	266.1	69.8	0	40
K+	precip	0.37	0.04	4.77	176.6	86.8	0	60
Mg++	precip	0.128	0.010	0.870	60.2	86.8	0	60
NH4+	precip	0.83	0.20	4.26	392.5	96.1	0	73
NO3-	precip	0.52	0.05	2.99	246.1	95.4	0	69
Na+	precip	0.34	0.03	3.20	160.7	89.6	0	63
Precip	precip	-	0.9	26.9	471.6	99.9	288	365
SO4--	precip	0.77	0.11	10.91	364.0	96.8	0	75
SO4-- corr	precip	0.68	0.09	4.75	321.9	91.7	0	65
cond	precip	50.49	10.00	88.00	23809.7	100.0	0	77
pH	precip	5.13	4.60	6.72	3519.0	10.9	0	10

CH0002R Payerne

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.03	2.98	140.5	98.6	11	93
Cl-	precip	0.17	0.01	2.42	105.7	98.6	6	93
K+	precip	0.03	0.00	1.24	20.7	98.6	1	93
Mg++	precip	0.020	0.001	0.231	12.5	98.6	0	93
NH4+	precip	0.40	0.07	2.78	241.6	98.6	0	93
NO3-	precip	0.24	0.03	1.61	146.7	98.6	0	93
Na+	precip	0.10	0.00	1.41	62.4	98.6	0	93
Precip	precip	-	0.0	34.7	612.4	100.0	242	365
SO4--	precip	0.19	0.01	1.57	113.7	98.6	0	93
SO4-- corr	precip	0.18	0.01	1.54	108.5	98.6	0	93
cond	precip	7.21	1.61	43.21	4414.5	99.0	0	97
pH	precip	5.67	4.69	6.95	1313.9	99.0	0	97

CH0004R Chaumont

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.22	0.03	2.62	191.6	99.9	7	39
Cl-	precip	0.15	0.04	0.57	128.2	99.9	0	39
K+	precip	0.04	0.01	1.39	31.1	99.9	0	39
Mg++	precip	0.020	0.002	0.167	17.5	99.9	0	39
NH4+	precip	0.26	0.03	3.38	221.4	99.9	0	39
NO3-	precip	0.20	0.04	1.84	171.8	99.9	0	39
Na+	precip	0.09	0.01	0.41	76.8	99.9	0	39
Precip	precip	-	0.0	83.1	869.2	97.5	9	51
SO4--	precip	0.15	0.02	1.13	134.9	99.9	0	39
SO4-- corr	precip	0.15	0.02	1.11	128.6	99.9	0	39
cond	precip	6.43	2.79	48.43	5587.0	99.9	0	40
pH	precip	5.40	4.84	7.06	3442.5	99.9	0	40

CH0005R Rigi

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.03	6.12	271.8	99.3	18	115
Cl-	precip	0.10	0.01	1.44	115.0	99.3	11	115
K+	precip	0.03	0.00	0.25	34.4	99.3	5	115
Mg++	precip	0.017	0.001	0.504	20.5	99.3	1	115
NH4+	precip	0.41	0.01	2.11	489.8	99.3	0	115
NO3-	precip	0.25	0.02	1.99	305.7	99.3	0	115
Na+	precip	0.06	0.00	0.82	69.5	99.3	0	115
Precip	precip	-	0.0	63.5	1203.1	99.7	224	364
SO4--	precip	0.18	0.01	1.76	220.5	99.3	0	115
SO4-- corr	precip	0.18	0.01	1.75	214.6	99.3	0	115
cond	precip	7.59	1.87	64.23	9127.9	99.7	0	123
pH	precip	5.46	4.26	7.41	4128.5	99.7	0	123

CZ0001R Svratouch

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.43	0.02	2.88	266.0	98.6	2	39
Cl-	precip	0.14	0.01	0.73	83.2	98.6	1	39
K+	precip	0.06	0.00	1.04	38.5	98.6	2	39
Mg++	precip	0.027	0.001	0.087	16.6	98.6	1	39
NH4+	precip	0.53	0.10	1.85	327.0	98.6	0	39
NO3-	precip	0.39	0.00	1.29	239.5	98.6	1	39
Na+	precip	0.06	0.01	0.52	37.4	98.6	8	39
Precip	precip	-	0.0	73.4	617.5	99.1	3	52
SO4--	precip	0.44	0.01	2.15	272.9	98.6	0	39
SO4-- corr	precip	0.44	0.01	2.14	269.7	98.6	0	39
cond	precip	15.14	3.19	49.70	9351.1	98.6	0	39
pH	precip	5.10	4.23	6.79	4945.0	98.6	0	39

CZ0003R Kosetice

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.32	0.02	1.90	205.4	85.7	2	58
Cl-	precip	0.16	0.01	2.00	100.6	87.1	8	63
K+	precip	0.05	0.00	0.20	31.5	85.7	4	58
Mg++	precip	0.029	0.001	0.266	18.4	85.7	2	58
NH4+	precip	0.51	0.10	3.39	329.0	86.5	0	63
NO3-	precip	0.34	0.03	2.76	215.3	87.1	0	63
Na+	precip	0.08	0.01	0.94	49.6	85.7	18	58
Precip	precip	-	0.0	47.5	642.2	99.9	201	365
SO4--	precip	0.37	0.03	4.79	235.0	87.1	0	63
SO4-- corr	precip	0.36	0.03	4.79	230.3	87.1	0	63
cond	precip	12.92	4.07	73.60	8296.9	87.3	0	64
pH	precip	5.33	4.31	7.00	2975.8	86.5	0	61

DE0001R Westerland

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.41	0.11	1.48	273.9	100.0	0	35
Cl-	precip	13.36	1.08	59.65	8871.3	100.0	0	35
K+	precip	0.29	0.02	1.17	193.5	100.0	1	35
Mg++	precip	0.901	0.086	3.852	598.5	100.0	0	35
NH4+	precip	0.57	0.08	3.72	377.5	100.0	0	35
NO3-	precip	0.39	0.09	2.10	261.0	100.0	0	35
Na+	precip	7.38	0.67	32.62	4899.8	100.0	0	35
Precip	precip	-	0.0	74.3	664.2	99.1	17	52
Precip	precip	-	1.2	63.0	680.6	99.1	16	52
SO4--	precip	0.87	0.33	3.03	579.1	100.0	0	35
SO4-- corr	precip	0.24	0.03	1.38	162.7	99.5	0	35
cond	precip	55.26	13.80	229.50	36703.9	90.2	0	30
pH	precip	5.29	4.53	6.49	3398.7	90.2	0	30

DE0002R Waldhof

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.11	0.00	5.17	61.2	98.2	45	119
Cl-	precip	0.54	0.07	11.48	299.9	98.6	0	121
K+	precip	0.03	0.00	0.75	17.4	98.5	67	120
Mg++	precip	0.041	0.003	0.446	23.2	98.5	51	120
NH4+	precip	0.65	0.11	3.94	364.5	98.5	0	120
NO3-	precip	0.39	0.10	2.85	216.9	98.6	0	121
Na+	precip	0.32	0.00	7.27	176.3	98.5	19	120
Precip	precip	-	0.2	28.2	560.2	99.9	237	365
SO4--	precip	0.31	0.10	2.00	172.9	98.6	0	121
SO4-- corr	precip	0.28	0.07	1.98	159.1	98.6	0	121
cond	precip	11.70	3.60	105.10	6553.2	97.9	0	115
pH	precip	5.21	3.94	6.58	3485.7	97.2	0	114

DE0003R Schauinsland

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.11	0.00	1.27	176.7	96.0	51	133
Cl-	precip	0.23	0.05	2.16	362.5	96.1	0	134
K+	precip	0.05	0.00	2.05	73.2	96.0	95	133
Mg++	precip	0.014	0.003	0.182	22.5	96.0	92	133
NH4+	precip	0.29	0.01	2.96	450.4	96.0	7	133
NO3-	precip	0.21	0.01	1.35	328.0	96.1	1	134
Na+	precip	0.15	0.01	1.39	235.8	96.0	28	133
Precip	precip	-	0.1	70.5	1575.7	99.9	205	365
SO4--	precip	0.16	0.03	1.18	252.3	96.1	0	134
SO4-- corr	precip	0.15	0.03	1.16	236.1	96.1	0	134
cond	precip	6.85	2.40	31.30	10800.3	90.8	0	127
pH	precip	5.27	4.60	6.92	8489.8	90.8	0	128

DE0004R Deuselbach

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.01	1.22	133.8	99.8	5	40
Cl-	precip	0.38	0.12	1.27	245.5	99.8	0	40
K+	precip	0.04	0.00	0.53	27.6	99.8	22	40
Mg++	precip	0.031	0.003	0.148	20.2	99.8	10	40
NH4+	precip	0.37	0.06	2.13	240.0	99.8	0	40
NO3-	precip	0.27	0.08	1.68	173.2	99.8	0	40
Na+	precip	0.22	0.01	0.84	141.4	99.8	6	40
Precip	precip	-	0.1	62.1	652.7	99.1	7	52
SO4--	precip	0.24	0.11	1.04	158.0	99.8	0	40
SO4-- corr	precip	0.23	0.10	0.97	146.8	99.8	0	40
cond	precip	9.90	4.10	33.40	6460.2	99.8	0	40
pH	precip	5.10	4.34	6.37	5145.3	99.8	0	40

DE0005R Brotjacklriegel

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.08	0.01	1.54	98.6	99.9	12	42
Cl-	precip	0.24	0.10	0.74	307.1	99.9	0	42
K+	precip	0.08	0.00	1.28	105.6	99.9	27	42
Mg++	precip	0.012	0.003	0.172	15.8	99.9	29	42
NH4+	precip	0.37	0.01	6.14	481.7	99.9	1	42
NO3-	precip	0.27	0.09	4.71	342.0	99.9	0	42
Na+	precip	0.10	0.01	0.73	125.1	99.9	12	42
Precip	precip	-	0.1	107.5	1286.6	99.1	7	52
SO4--	precip	0.19	0.10	1.37	249.5	99.9	0	42
SO4-- corr	precip	0.18	0.10	1.31	237.6	99.9	0	42
cond	precip	8.91	3.80	69.80	11461.8	99.9	0	42
pH	precip	5.08	4.38	6.43	10751.0	99.9	0	42

DE0007R Neuglobsow

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.13	0.00	1.15	93.3	98.7	28	105
Cl-	precip	0.44	0.09	10.86	319.4	98.5	0	104
K+	precip	0.07	0.00	0.93	52.9	98.7	42	105
Mg++	precip	0.029	0.003	0.728	21.1	98.7	48	105
NH4+	precip	0.64	0.01	5.10	464.7	98.7	1	105
NO3-	precip	0.38	0.09	2.82	276.3	98.5	0	104
Na+	precip	0.25	0.01	6.36	184.2	98.7	13	105
Precip	precip	-	0.0	46.8	731.3	99.9	232	365
SO4--	precip	0.31	0.08	2.26	223.7	98.5	0	104
SO4-- corr	precip	0.28	0.08	1.90	208.4	98.5	0	104
cond	precip	11.96	3.50	70.10	8744.7	94.6	0	102
pH	precip	5.17	4.23	6.78	4922.8	94.6	0	102

DE0008R Schmücke

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.07	0.00	0.76	79.8	99.9	17	42
Cl-	precip	0.35	0.02	3.20	378.3	99.9	1	42
K+	precip	0.03	0.00	0.49	29.0	99.9	28	42
Mg++	precip	0.017	0.003	0.229	18.1	99.9	28	42
NH4+	precip	0.47	0.09	2.43	511.3	99.9	0	42
NO3-	precip	0.33	0.16	1.81	359.6	99.9	0	42
Na+	precip	0.25	0.00	2.18	266.1	99.9	3	42
Precip	precip	-	0.2	69.0	1076.7	99.1	6	52
SO4--	precip	0.26	0.09	1.12	280.3	99.9	0	42
SO4-- corr	precip	0.24	0.09	1.11	262.8	99.9	0	42
cond	precip	10.21	4.50	44.70	10996.3	99.9	0	42
pH	precip	5.11	4.35	6.27	8316.6	99.9	0	42

DE0009R Zingst

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.05	1.15	178.9	99.9	0	42
Cl-	precip	1.47	0.22	9.53	1352.6	99.9	0	42
K+	precip	0.06	0.01	0.41	50.3	99.9	15	42
Mg++	precip	0.091	0.010	0.550	83.9	99.9	1	42
NH4+	precip	0.45	0.16	2.06	410.1	99.9	0	42
NO3-	precip	0.31	0.06	1.03	283.3	99.9	0	42
Na+	precip	0.86	0.10	5.79	793.6	99.9	0	42
Precip	precip	-	0.5	100.5	919.2	99.1	9	52
SO4--	precip	0.29	0.16	0.99	264.3	99.9	0	42
SO4-- corr	precip	0.21	-0.19	0.96	197.9	99.9	0	42
cond	precip	15.90	7.80	56.40	14613.9	99.9	0	42
pH	precip	5.25	4.58	6.56	5175.5	99.9	0	42

DE0044R Melpitz

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.03	0.68	94.0	100.0	1	38
Cl-	precip	0.44	0.19	1.64	233.3	100.0	0	38
K+	precip	0.05	0.00	0.24	25.9	100.0	16	38
Mg++	precip	0.031	0.003	0.116	16.6	100.0	10	38
NH4+	precip	0.70	0.01	6.65	373.1	100.0	1	38
NO3-	precip	0.36	0.15	2.23	190.6	100.0	0	38
Na+	precip	0.24	0.01	1.08	126.3	100.0	4	38
Precip	precip	-	2.0	59.2	529.5	99.1	14	52
SO4--	precip	0.37	0.16	3.33	198.0	100.0	0	38
SO4-- corr	precip	0.35	0.15	3.26	187.8	100.0	0	38
cond	precip	12.30	6.20	74.10	6513.7	100.0	0	38
pH	precip	5.28	4.47	6.46	2770.4	100.0	0	38

DK0005R Keldsnor

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.05	0.72	110.3	95.8	0	19
Cl-	precip	3.23	0.29	14.14	1894.5	99.2	0	20
K+	precip	0.12	0.03	0.38	69.2	89.6	0	19
Mg++	precip	0.200	0.017	0.927	117.1	99.2	0	20
NH4+	precip	0.61	0.01	2.63	358.5	89.6	0	19
NO3-	precip	0.39	0.16	1.74	230.1	99.2	0	20
Na+	precip	1.85	0.15	9.80	1083.5	99.2	0	20
Precip	precip	-	0.0	91.7	585.8	99.8	1	24
SO4--	precip	0.42	0.19	0.96	248.2	97.9	0	19
SO4-- corr	precip	0.28	0.12	0.80	162.6	97.9	0	19

DK0008R Anholt

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.04	3.20	121.5	100.0	0	21
Cl-	precip	7.73	0.61	145.72	4125.1	94.2	0	20
K+	precip	0.16	0.02	3.12	85.2	100.0	0	21
Mg++	precip	0.497	0.017	8.910	265.5	94.2	0	20
NH4+	precip	0.41	0.19	2.23	220.2	99.8	0	20
NO3-	precip	0.40	0.20	1.50	215.7	100.0	0	21
Na+	precip	4.15	0.33	75.80	2215.4	89.4	0	19
Precip	precip	-	-0.0	70.4	533.8	99.8	2	24
SO4--	precip	0.58	0.15	6.78	312.4	100.0	0	21
SO4-- corr	precip	0.25	0.13	0.59	134.9	94.2	0	20

DK0022R Sepstrup Sande

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.04	0.58	143.9	89.2	0	19
Cl-	precip	5.91	0.11	26.25	4465.9	89.8	0	20
K+	precip	0.14	0.00	0.54	108.4	89.2	1	19
Mg++	precip	0.462	0.005	1.822	349.3	71.6	0	16
NH4+	precip	0.46	0.13	2.47	345.6	89.2	0	19
NO3-	precip	0.36	0.11	1.50	273.2	89.8	0	20
Na+	precip	3.66	0.15	15.10	2762.3	79.5	0	17
Precip	precip	-	0.0	84.1	755.7	91.5	0	22
SO4--	precip	0.50	0.17	1.45	379.2	89.8	0	20
SO4-- corr	precip	0.23	0.05	0.75	173.4	89.8	0	20

DK0031R Ulborg

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.03	1.10	107.4	96.8	0	21
Cl-	precip	5.09	0.33	44.03	3402.5	96.6	0	20
K+	precip	0.16	0.01	1.13	107.6	95.3	0	19
Mg++	precip	0.302	0.014	2.790	201.6	94.6	0	19
NH4+	precip	0.34	0.12	2.00	228.0	95.5	0	20
NO3-	precip	0.34	0.15	4.31	226.7	96.8	0	21
Na+	precip	3.15	0.24	21.24	2104.6	94.6	0	19
Precip	precip	-	0.0	88.3	668.1	95.7	1	23
SO4--	precip	0.43	0.17	2.28	284.9	96.8	0	21
SO4-- corr	precip	0.20	0.11	0.69	130.8	96.6	0	20

EE0009R Lahemaa

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.45	0.00	5.60	305.7	99.9	13	132
Cl-	precip	0.37	0.05	7.70	252.4	100.0	18	133
K+	precip	0.07	0.01	1.46	47.3	99.9	5	132
Mg++	precip	0.058	0.010	0.990	39.2	99.9	44	132
NH4+	precip	0.12	0.01	3.05	82.9	99.9	29	132
NO3-	precip	0.20	0.01	1.79	135.2	100.0	9	133
Na+	precip	0.27	0.01	8.85	183.0	99.9	0	132
Precip	precip	-	0.2	80.3	675.5	99.9	235	365
SO4--	precip	0.24	0.05	2.56	164.1	100.0	0	133
SO4-- corr	precip	0.22	0.03	2.51	150.5	100.0	0	133
cond	precip	7.18	5.00	36.00	4849.4	95.7	69	104
pH	precip	4.66	3.69	7.94	14788.3	96.2	0	106

EE0011R Vilsandi

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.54	0.00	2.00	411.6	100.0	2	22
Cl-	precip	1.31	0.20	4.20	1000.0	100.0	0	22
K+	precip	0.14	0.03	0.63	107.7	100.0	0	22
Mg++	precip	0.150	0.010	1.510	114.3	100.0	3	22
NH4+	precip	0.27	0.01	1.92	202.5	100.0	3	22
NO3-	precip	0.31	0.02	2.40	236.7	100.0	0	22
Na+	precip	0.87	0.04	2.30	661.7	100.0	0	22
Precip	precip	-	2.8	99.8	762.6	85.1	30	52
SO4--	precip	0.31	0.15	2.72	237.7	100.0	0	22
SO4-- corr	precip	0.25	0.14	2.63	189.6	100.0	0	22
cond	precip	14.48	5.00	74.00	11044.3	100.0	4	22
pH	precip	4.71	3.60	6.79	14999.8	100.0	0	22

ES0001R San Pablo de los Montes

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.46	0.05	3.14	238.6	92.8	1	62
Cl-	precip	0.59	0.15	3.07	303.8	94.6	25	74
K+	precip	0.10	0.03	0.60	49.1	92.8	14	62
Mg++	precip	0.071	0.020	0.330	36.4	92.8	0	62
NH4+	precip	0.19	0.02	1.25	99.5	93.8	14	67
NO3-	precip	0.19	0.04	1.99	96.0	94.6	17	74
Na+	precip	0.38	0.05	1.38	197.3	92.8	9	62
Precip	precip	-	0.0	52.0	514.4	100.0	278	365
SO4--	precip	0.22	0.05	2.03	111.0	94.6	10	74
SO4-- corr	precip	0.18	-0.01	1.94	94.8	94.6	10	74

ES0007R Víznar

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.98	0.23	12.20	501.5	94.7	0	54
Cl-	precip	0.75	0.15	8.18	383.3	96.1	13	59
K+	precip	0.09	0.03	1.02	44.3	94.7	13	54
Mg++	precip	0.174	0.050	1.200	89.3	94.7	0	54
NH4+	precip	0.30	0.02	2.32	152.1	95.7	1	57
NO3-	precip	0.20	0.04	3.01	99.9	96.1	3	59
Na+	precip	0.57	0.05	7.40	290.9	94.7	7	54
Precip	precip	-	0.0	42.2	512.2	100.0	295	365
SO4--	precip	0.29	0.05	3.43	147.9	96.1	4	59
SO4-- corr	precip	0.25	0.03	3.24	126.6	96.1	4	59
cond	precip	13.76	4.10	436.00	7046.6	96.5	0	65
pH	precip	6.41	6.08	7.35	201.6	96.5	0	65

ES0008R Niembro

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.44	0.26	56.50	658.9	95.7	0	136
Cl-	precip	7.20	0.44	55.80	3305.3	96.3	0	149
K+	precip	0.21	0.03	3.10	96.6	95.7	4	136
Mg++	precip	0.608	0.060	8.000	279.1	95.7	0	136
NH4+	precip	0.38	0.02	4.52	173.9	95.9	17	140
NO3-	precip	0.73	0.04	9.43	334.6	96.3	8	149
Na+	precip	4.65	0.23	33.00	2137.3	95.7	0	136
Precip	precip	-	0.0	27.4	459.2	100.0	227	365
SO4--	precip	0.85	0.05	25.90	392.5	96.3	1	149
SO4-- corr	precip	0.46	-0.21	23.77	213.0	96.3	1	149
cond	precip	49.99	6.70	1538.00	22957.6	96.3	0	153
pH	precip	4.88	3.28	7.34	5995.3	96.3	1	153

ES0009R Campisabalos

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.02	0.33	16.00	988.7	89.8	0	72
Cl-	precip	0.88	0.15	4.27	428.3	91.0	9	82
K+	precip	0.17	0.03	1.10	81.7	89.8	5	72
Mg++	precip	0.223	0.020	1.300	108.8	89.8	0	72
NH4+	precip	0.64	0.02	6.70	310.2	90.7	2	78
NO3-	precip	0.70	0.12	5.04	340.0	91.0	0	82
Na+	precip	0.63	0.05	2.20	307.0	89.8	3	72
Precip	precip	-	0.0	32.2	488.2	100.0	254	365
SO4--	precip	0.51	0.05	4.24	249.7	91.0	2	82
SO4-- corr	precip	0.46	0.01	4.06	224.1	91.0	2	82
cond	precip	23.89	4.50	140.30	11662.1	93.6	0	90
pH	precip	6.23	5.23	7.54	289.5	93.6	0	90

ES0011R Barcarrota

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.22	0.19	13.40	517.2	78.7	0	62
Cl-	precip	1.08	0.15	6.40	459.4	78.7	9	63
K+	precip	0.28	0.03	3.10	118.1	78.7	3	62
Mg++	precip	0.207	0.020	1.300	87.9	78.7	0	62
NH4+	precip	0.10	0.02	1.33	42.5	78.7	21	63
NO3-	precip	0.20	0.04	4.86	82.7	78.7	16	63
Na+	precip	0.68	0.05	4.30	287.8	78.7	5	62
Precip	precip	-	0.0	38.6	425.2	100.0	293	365
SO4--	precip	0.25	0.05	3.47	107.1	78.7	5	63
SO4-- corr	precip	0.20	0.02	3.24	84.2	78.7	5	63
cond	precip	13.90	2.20	104.40	5911.1	78.7	0	63
pH	precip	6.02	5.50	7.36	407.4	78.7	0	63

ES0012R Zarra

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.56	0.72	14.40	879.4	61.4	0	49
Cl-	precip	1.76	0.54	68.60	604.5	63.6	0	57
K+	precip	0.21	0.03	5.20	71.0	61.4	1	49
Mg++	precip	0.283	0.110	1.900	97.4	61.4	0	49
NH4+	precip	0.42	0.02	4.09	144.1	61.6	2	52
NO3-	precip	0.57	0.07	8.83	196.1	63.6	0	57
Na+	precip	0.90	0.05	9.20	307.9	61.4	2	49
Precip	precip	-	0.0	32.4	344.2	100.0	301	365
SO4--	precip	0.54	0.05	13.35	185.6	63.6	1	57
SO4-- corr	precip	0.46	0.02	11.39	156.9	63.6	1	57
cond	precip	26.27	10.00	387.00	9041.2	63.7	0	58
pH	precip	6.41	5.75	7.62	135.2	63.7	0	58

ES0013R Penausende

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.64	0.05	3.14	163.1	88.6	1	69
Cl-	precip	0.56	0.15	4.12	142.1	90.7	18	77
K+	precip	0.22	0.03	7.60	56.0	88.6	10	69
Mg++	precip	0.106	0.020	0.410	27.0	88.6	0	69
NH4+	precip	0.43	0.02	5.20	110.2	90.0	2	73
NO3-	precip	0.30	0.04	3.36	77.7	90.7	7	77
Na+	precip	0.49	0.05	2.40	125.9	88.6	6	69
Precip	precip	-	0.0	13.6	254.8	100.0	279	365
SO4--	precip	0.32	0.05	2.11	81.6	90.7	10	77
SO4-- corr	precip	0.28	-0.02	1.96	71.2	90.7	10	77
cond	precip	12.19	3.10	77.70	3105.1	90.7	0	78
pH	precip	5.96	5.28	7.16	278.4	90.7	0	78

ES0014R Els Torms

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.27	0.05	11.70	378.3	85.4	1	41
Cl-	precip	0.43	0.15	2.58	128.0	85.4	9	41
K+	precip	0.18	0.03	1.80	52.8	85.4	8	41
Mg++	precip	0.123	0.010	0.800	36.7	85.4	1	41
NH4+	precip	0.55	0.02	3.84	163.8	85.4	4	41
NO3-	precip	0.28	0.04	3.12	85.2	85.4	3	41
Na+	precip	0.32	0.05	1.85	94.3	85.4	5	41
Precip	precip	-	0.0	38.6	298.8	100.0	309	365
SO4--	precip	0.35	0.05	2.09	103.4	85.4	5	41
SO4-- corr	precip	0.32	0.04	1.97	95.5	85.4	5	41
cond	precip	15.03	1.60	82.40	4489.9	85.4	0	41
pH	precip	6.17	5.64	7.35	201.1	85.4	0	41

ES0016R O Saviñao

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.48	0.05	22.30	374.1	93.5	4	99
Cl-	precip	1.07	0.15	16.94	837.5	95.1	22	106
K+	precip	0.21	0.03	87.00	161.7	93.5	40	99
Mg++	precip	0.183	0.010	19.000	144.1	93.5	1	99
NH4+	precip	0.11	0.02	5.45	83.8	95.0	24	104
NO3-	precip	0.07	0.04	0.91	54.8	95.1	60	106
Na+	precip	0.76	0.05	10.40	596.0	93.5	11	99
Precip	precip	-	0.0	55.8	785.6	100.0	229	365
SO4--	precip	0.14	0.05	7.68	111.8	95.1	26	106
SO4-- corr	precip	0.09	-0.01	6.81	68.0	95.1	26	106
cond	precip	9.92	2.60	502.00	7791.0	95.1	0	111
pH	precip	5.67	4.76	8.18	1683.2	95.1	0	111

ES0017R Doñana

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.42	0.05	4.90	244.5	81.7	1	38
Cl-	precip	2.65	0.15	9.57	1521.9	82.1	1	40
K+	precip	0.10	0.03	0.28	56.1	81.7	8	38
Mg++	precip	0.234	0.040	0.800	134.9	81.7	0	38
NH4+	precip	0.13	0.02	1.17	74.0	82.1	11	40
NO3-	precip	0.18	0.04	1.06	101.2	82.1	11	40
Na+	precip	1.87	0.20	6.90	1075.7	81.7	0	38
Precip	precip	-	0.0	62.4	575.2	100.0	308	365
SO4--	precip	0.37	0.05	1.30	211.4	82.1	1	40
SO4-- corr	precip	0.21	-0.02	1.07	123.9	82.1	1	40
cond	precip	17.41	3.20	56.80	10012.2	82.1	0	40
pH	precip	5.44	4.80	6.87	2095.2	82.1	0	40

FI0004R Ähtäri

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.05	0.01	1.90	38.5	91.5	0	45
Cl-	precip	0.21	0.01	2.71	156.8	91.5	0	45
K+	precip	0.04	0.01	0.59	32.3	91.5	0	45
Mg++	precip	0.023	0.004	0.273	16.9	91.5	0	45
NH4+	precip	0.14	0.03	1.68	104.3	91.5	0	45
NO3-	precip	0.20	0.07	2.46	144.6	91.5	0	45
Na+	precip	0.13	0.01	1.74	96.9	91.5	0	45
Precip	precip	-	0.0	48.1	738.7	100.0	3	53
SO4--	precip	0.17	0.04	1.72	124.9	91.5	0	45
SO4-- corr	precip	0.16	0.02	1.61	116.7	91.5	0	45
cond	precip	8.86	4.00	73.00	6547.9	91.5	0	45
pH	precip	4.88	3.99	5.92	9631.4	91.5	0	45

FI0017R Virolahti II

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.04	7.70	119.9	88.2	0	41
Cl-	precip	0.56	0.03	5.31	413.6	88.2	0	41
K+	precip	0.19	0.02	2.44	141.6	88.2	0	41
Mg++	precip	0.057	0.012	0.934	42.3	88.2	0	41
NH4+	precip	0.23	0.00	1.52	166.6	88.2	0	41
NO3-	precip	0.31	0.12	4.13	228.7	88.2	0	41
Na+	precip	0.32	0.02	3.86	235.1	88.2	0	41
Precip	precip	-	0.0	68.5	739.2	98.1	5	52
SO4--	precip	0.36	0.13	3.64	264.2	88.2	0	41
SO4-- corr	precip	0.33	0.12	3.60	244.4	88.2	0	41
cond	precip	14.44	7.00	81.00	10669.8	88.2	0	41
pH	precip	4.76	4.18	6.12	12859.2	88.2	0	41

FI0022R Oulanka

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.04	0.01	0.51	23.3	99.7	0	49
Cl-	precip	0.13	0.03	1.47	68.0	99.7	0	49
K+	precip	0.03	0.00	1.25	13.0	99.7	3	49
Mg++	precip	0.015	0.002	0.183	7.9	99.7	2	49
NH4+	precip	0.07	0.00	0.84	38.2	99.7	1	49
NO3-	precip	0.14	0.01	0.82	72.0	99.7	1	49
Na+	precip	0.08	0.02	0.95	39.9	99.7	0	49
Precip	precip	-	0.0	42.5	516.0	100.0	2	53
SO4--	precip	0.17	0.04	1.79	85.5	99.7	0	49
SO4-- corr	precip	0.16	0.04	1.77	82.1	99.7	0	49
cond	precip	8.57	4.00	46.00	4420.6	99.7	0	49
pH	precip	4.82	4.14	6.02	7742.9	99.7	0	49

FI0036R Pallas (Matorova)

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.03	0.01	0.39	22.4	99.6	0	49
Cl-	precip	0.11	0.01	2.83	87.2	99.6	0	49
K+	precip	0.02	0.00	0.30	17.1	99.6	4	49
Mg++	precip	0.012	0.004	0.213	9.3	99.6	0	49
NH4+	precip	0.06	0.00	0.62	51.1	99.6	1	49
NO3-	precip	0.11	0.02	0.75	87.3	99.6	0	49
Na+	precip	0.07	0.01	1.60	51.6	99.6	0	49
Precip	precip	-	0.0	62.6	792.9	99.7	2	53
SO4--	precip	0.14	0.01	0.69	113.3	99.6	1	49
SO4-- corr	precip	0.14	0.01	0.68	108.9	99.6	1	49
cond	precip	7.59	3.00	29.00	6016.5	99.6	0	49
pH	precip	4.87	4.24	5.62	10636.9	99.6	0	49

FR0008R Donon

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.01	2.02	158.8	97.1	5	147
Cl-	precip	0.31	0.03	3.35	404.8	97.2	10	149
K+	precip	0.04	0.01	0.43	50.3	97.1	37	147
Mg++	precip	0.028	0.010	0.240	37.2	97.1	67	147
NH4+	precip	0.29	0.01	28.51	383.6	97.1	7	147
NO3-	precip	0.23	0.03	9.01	302.3	97.2	0	149
Na+	precip	0.19	0.01	2.02	249.3	97.1	14	147
Precip	precip	-	0.0	44.6	1316.4	99.9	185	365
SO4--	precip	0.19	0.01	7.65	245.6	97.2	2	149
SO4-- corr	precip	0.17	0.00	7.59	224.6	97.2	2	149
cond	precip	8.15	2.50	176.30	10726.7	97.7	0	159
pH	precip	5.13	4.16	6.77	9721.0	97.7	0	159

FR0009R Revin

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.17	0.01	2.11	162.3	94.2	1	125
Cl-	precip	0.70	0.03	9.33	674.4	94.6	1	127
K+	precip	0.06	0.01	1.26	54.6	94.2	16	125
Mg++	precip	0.053	0.010	0.500	51.4	94.2	24	125
NH4+	precip	0.39	0.01	2.49	372.6	94.2	3	125
NO3-	precip	0.29	0.03	2.11	282.9	94.6	0	127
Na+	precip	0.42	0.01	5.02	401.3	94.2	2	125
Precip	precip	-	0.0	48.8	962.6	99.9	188	365
SO4--	precip	0.24	0.04	1.83	229.3	94.6	0	127
SO4-- corr	precip	0.20	0.02	1.59	196.6	94.6	0	127
cond	precip	11.16	3.60	79.90	10743.8	97.1	0	138
pH	precip	5.21	4.18	7.05	5877.1	97.1	0	138

FR0010R Morvan

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.14	0.01	2.30	121.0	88.4	3	98
Cl-	precip	0.49	0.03	11.65	431.3	88.6	3	101
K+	precip	0.10	0.01	1.91	86.0	88.4	10	98
Mg++	precip	0.035	0.010	0.750	31.3	88.4	31	98
NH4+	precip	0.26	0.01	2.77	227.7	88.4	8	98
NO3-	precip	0.17	0.01	2.24	150.2	88.6	3	101
Na+	precip	0.28	0.01	6.34	251.4	88.4	3	98
Precip	precip	-	0.0	34.0	884.7	99.9	217	365
SO4--	precip	0.16	0.01	1.42	144.1	88.6	2	101
SO4-- corr	precip	0.14	0.01	1.39	122.8	88.6	2	101
cond	precip	7.57	2.00	52.90	6695.9	90.3	0	123
pH	precip	5.43	4.27	6.96	3305.4	90.3	0	123

FR0013R Peyrusse Vieille

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.39	0.01	3.69	257.1	90.3	2	96
Cl-	precip	1.34	0.03	12.40	883.7	90.4	2	96
K+	precip	0.06	0.01	2.05	39.3	90.3	8	96
Mg++	precip	0.107	0.010	0.710	70.1	90.3	19	96
NH4+	precip	0.30	0.01	1.98	199.1	90.3	5	96
NO3-	precip	0.24	0.01	1.77	159.0	90.4	2	96
Na+	precip	0.75	0.01	6.49	494.7	90.3	2	96
Precip	precip	-	0.0	54.2	658.5	99.9	217	365
SO4--	precip	0.30	0.02	1.96	196.0	90.4	0	96
SO4-- corr	precip	0.23	0.02	1.78	154.5	90.4	0	96
cond	precip	13.21	2.00	57.80	8701.2	91.8	0	118
pH	precip	5.26	3.83	6.81	3606.4	91.8	0	118

FR0014R Montandon

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.01	1.76	209.7	90.4	3	117
Cl-	precip	0.30	0.03	3.17	269.0	90.2	14	117
K+	precip	0.04	0.01	1.51	38.4	90.4	39	117
Mg++	precip	0.032	0.010	0.280	28.5	90.4	57	117
NH4+	precip	0.35	0.01	5.18	314.8	90.4	4	117
NO3-	precip	0.26	0.03	4.88	229.5	90.2	0	117
Na+	precip	0.21	0.01	2.40	188.0	90.4	10	117
Precip	precip	-	0.0	39.2	894.6	99.3	221	363
SO4--	precip	0.20	0.01	4.25	183.3	90.2	2	117
SO4-- corr	precip	0.19	0.01	4.21	168.1	90.2	2	117
cond	precip	8.75	2.00	111.40	7828.4	91.3	0	128
pH	precip	5.26	4.23	6.91	4887.9	91.3	0	128

FR0015R La Tardière

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.22	0.04	4.44	172.6	84.8	0	109
Cl-	precip	3.66	0.07	22.92	2846.2	85.0	0	111
K+	precip	0.09	0.01	0.56	72.7	84.8	6	109
Mg++	precip	0.243	0.010	1.350	188.7	84.8	5	109
NH4+	precip	0.40	0.03	2.19	314.2	84.8	0	109
NO3-	precip	0.18	0.01	1.30	140.2	85.0	3	111
Na+	precip	2.03	0.03	12.09	1576.3	84.8	0	109
Precip	precip	-	0.0	65.8	777.0	99.9	207	365
SO4--	precip	0.32	0.04	1.55	250.0	85.0	0	111
SO4-- corr	precip	0.15	-0.11	1.34	118.3	85.0	0	111
cond	precip	19.97	4.80	89.30	15514.7	86.2	0	128
pH	precip	5.69	5.06	7.05	1584.7	86.2	0	128

FR0016R Le Casset

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.28	0.01	3.52	248.1	89.6	5	83
Cl-	precip	0.13	0.03	3.75	116.2	89.6	15	83
K+	precip	0.06	0.01	1.26	56.0	89.6	22	83
Mg++	precip	0.024	0.010	0.230	21.7	89.6	41	83
NH4+	precip	0.14	0.01	2.06	123.9	89.6	20	83
NO3-	precip	0.13	0.01	1.55	117.1	89.6	4	83
Na+	precip	0.10	0.01	2.34	85.5	89.6	18	83
Precip	precip	-	0.0	78.2	902.0	99.9	258	365
SO4--	precip	0.14	0.01	1.51	125.8	89.6	5	83
SO4-- corr	precip	0.13	-0.10	1.38	118.5	89.6	5	83
cond	precip	5.63	1.70	68.80	5080.8	90.7	0	89
pH	precip	5.45	4.72	7.20	3193.6	90.7	0	89

FR0017R Montfranc

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.01	5.01	147.7	96.4	4	113
Cl-	precip	0.90	0.03	8.57	817.3	96.4	4	113
K+	precip	0.04	0.01	0.53	41.4	96.4	15	113
Mg++	precip	0.067	0.010	0.550	60.5	96.4	33	113
NH4+	precip	0.23	0.01	1.84	214.1	96.4	7	113
NO3-	precip	0.14	0.02	2.36	129.9	96.4	1	113
Na+	precip	0.51	0.01	5.13	461.9	96.3	6	112
Precip	precip	-	0.0	58.2	909.9	99.9	217	365
SO4--	precip	0.17	0.01	2.05	152.5	96.4	1	113
SO4-- corr	precip	0.12	0.00	2.03	113.8	96.4	1	113
cond	precip	8.53	2.00	55.50	7758.2	97.0	0	124
pH	precip	5.42	4.73	7.11	3423.4	97.0	0	124

FR0018R La Coulonche

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.03	4.37	139.7	94.1	0	115
Cl-	precip	1.55	0.03	24.64	1081.7	94.2	1	116
K+	precip	0.06	0.01	1.22	44.1	94.1	10	115
Mg++	precip	0.118	0.010	1.510	82.1	94.1	8	115
NH4+	precip	0.49	0.09	5.77	341.2	94.1	0	115
NO3-	precip	0.23	0.01	4.29	160.2	94.2	1	116
Na+	precip	0.92	0.04	13.72	638.5	94.1	0	115
Precip	precip	-	0.0	45.0	696.2	99.9	165	365
SO4--	precip	0.25	0.04	4.87	173.4	94.2	0	116
SO4-- corr	precip	0.17	-0.48	4.68	119.5	94.2	0	116
cond	precip	13.53	2.80	110.70	9419.1	95.7	0	130
pH	precip	5.52	4.09	7.03	2109.8	96.2	0	131

GB0002R Eskdalemuir

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.17	0.03	0.30	260.1	100.0	0	20
Cl-	precip	3.86	0.20	7.90	5803.7	100.0	0	20
K+	precip	0.10	0.01	0.24	150.6	100.0	1	20
Mg++	precip	0.245	0.016	0.508	368.3	100.0	0	20
NH4+	precip	0.25	0.06	1.51	382.3	100.0	0	20
NO3-	precip	0.18	0.05	0.85	270.2	100.0	0	20
Na+	precip	2.21	0.13	4.50	3323.8	100.0	0	20
Precip	precip	-	0.0	163.9	1504.9	77.0	1	21
SO4--	precip	0.33	0.11	0.52	501.3	100.0	0	20
SO4-- corr	precip	0.15	0.05	0.45	222.9	100.0	0	20
cond	precip	19.32	5.00	32.00	29069.3	100.0	0	20
pH	precip	5.31	4.62	6.59	7319.4	100.0	0	20

GB0006R Lough Navar

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.28	0.06	0.78	444.4	100.0	0	24
Cl-	precip	6.25	0.90	20.60	10119.1	100.0	0	24
K+	precip	0.15	0.03	0.42	244.9	100.0	0	24
Mg++	precip	0.378	0.050	1.310	612.4	100.0	0	24
NH4+	precip	0.10	0.02	0.48	168.7	100.0	0	24
NO3-	precip	0.06	0.01	0.28	94.1	100.0	1	24
Na+	precip	3.51	0.49	11.60	5683.5	100.0	0	24
Precip	precip	-	8.0	159.9	1618.1	96.2	0	24
SO4--	precip	0.38	0.13	1.00	610.6	100.0	0	24
SO4-- corr	precip	0.08	0.02	0.25	134.1	100.0	0	24
cond	precip	25.91	7.00	77.00	41915.0	100.0	0	24
pH	precip	5.53	5.07	6.25	4780.7	100.0	0	24

GB0013R Yarner Wood

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.26	0.07	2.09	169.8	100.0	0	22
Cl-	precip	4.80	0.60	26.20	3136.4	100.0	0	22
K+	precip	0.14	0.04	0.96	92.5	100.0	0	22
Mg++	precip	0.297	0.060	1.570	194.2	100.0	0	22
NH4+	precip	0.31	0.03	1.62	205.2	100.0	0	22
NO3-	precip	0.27	0.04	1.37	174.4	100.0	0	22
Na+	precip	2.72	0.49	15.30	1780.7	100.0	0	22
Precip	precip	-	0.0	139.7	654.0	95.9	3	25
SO4--	precip	0.44	0.19	2.05	289.7	100.0	0	22
SO4-- corr	precip	0.22	0.06	0.84	142.0	100.0	0	22
cond	precip	24.21	9.00	44.00	15836.0	99.1	0	19
pH	precip	5.12	4.76	7.00	5014.6	100.0	0	22

GB0014R High Muffles

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.34	0.12	2.18	158.9	99.1	0	21
Cl-	precip	2.05	0.40	10.30	958.4	99.1	0	21
K+	precip	0.08	0.03	0.46	39.5	99.1	0	21
Mg++	precip	0.144	0.040	0.640	67.5	99.1	0	21
NH4+	precip	0.64	0.21	3.81	298.8	99.1	0	21
NO3-	precip	0.45	0.15	3.00	211.6	99.1	0	21
Na+	precip	1.18	0.20	5.73	553.8	99.1	0	21
Precip	precip	-	0.0	88.2	468.2	92.3	1	24
SO4--	precip	0.57	0.17	2.43	266.1	99.1	0	21
SO4-- corr	precip	0.47	0.14	1.95	219.4	99.1	0	21
cond	precip	20.24	6.00	80.00	9478.8	99.1	0	21
pH	precip	4.99	4.41	7.03	4760.8	99.1	0	21

GB0015R Strath Vaich Dam

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.21	0.04	0.85	301.1	100.0	0	22
Cl-	precip	7.16	0.40	22.10	10280.1	100.0	0	22
K+	precip	0.14	0.00	0.50	204.0	100.0	1	22
Mg++	precip	0.437	0.050	1.370	627.1	100.0	0	22
NH4+	precip	0.05	0.01	0.16	73.9	100.0	2	22
NO3-	precip	0.06	0.02	0.30	84.9	100.0	0	22
Na+	precip	3.99	0.30	12.40	5732.0	100.0	0	22
Precip	precip	-	0.0	150.9	1436.4	96.2	1	23
SO4--	precip	0.40	0.11	1.10	573.0	100.0	0	22
SO4-- corr	precip	0.07	0.00	0.28	92.9	100.0	0	22
cond	precip	28.91	7.00	84.00	41525.7	100.0	0	22
pH	precip	5.31	4.72	5.85	7108.1	100.0	0	22

GB0036R Harwell

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	-0.02	2.72	88.3	99.8	1	125
Cl-	precip	1.32	0.06	17.30	622.5	99.8	0	125
H+	precip	4.38	0.02	120.23	2059.2	99.8	0	125
K+	precip	0.05	-0.02	1.16	25.3	99.8	11	125
Mg++	precip	0.083	-0.010	0.856	39.0	99.8	2	125
NH4+	precip	0.43	-0.01	14.50	202.7	99.8	2	125
NO3-	precip	0.27	-0.01	7.36	125.6	99.8	1	125
Na+	precip	0.78	0.06	10.20	365.9	99.8	0	125
Precip	precip	-	0.0	28.1	470.0	94.8	216	346
SO4--	precip	0.28	0.05	11.10	132.5	99.8	0	125
SO4-- corr	precip	0.22	0.01	10.84	102.6	99.8	0	125
cond	precip	11.84	3.22	74.10	5565.2	98.6	0	110
pH	precip	5.36	3.92	7.73	2059.4	99.8	0	125

GB0048R Auchencorth Moss

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	-0.02	15.30	128.4	99.9	15	220
Cl-	precip	2.50	0.04	55.60	2633.9	99.9	0	220
H+	precip	4.94	0.03	57.54	5201.8	99.9	0	220
K+	precip	0.06	-0.02	5.64	65.8	99.9	31	220
Mg++	precip	0.150	-0.010	3.340	158.2	99.9	15	220
NH4+	precip	0.20	-0.01	3.72	215.3	99.9	2	220
NO3-	precip	0.13	-0.01	2.82	139.9	99.9	2	220
Na+	precip	1.40	-0.02	31.40	1475.7	99.9	4	220
Precip	precip	-	0.0	40.4	1052.6	95.6	139	349
SO4--	precip	0.25	0.03	9.20	263.5	99.9	0	220
SO4-- corr	precip	0.13	-0.12	7.84	140.0	99.9	0	220
cond	precip	13.77	1.77	203.00	14490.0	99.0	0	189
pH	precip	5.31	4.24	7.50	5201.2	99.9	0	220

HR0002R Puntijarka

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.75	0.07	4.63	574.2	91.6	0	67
Cl-	precip	0.35	0.05	1.45	269.7	89.1	0	62
K+	precip	0.64	0.23	3.14	491.2	90.8	0	65
Mg++	precip	0.093	0.003	0.822	71.2	91.6	0	68
NH4+	precip	0.45	0.02	3.80	344.2	91.2	0	66
NO3-	precip	0.35	0.05	3.21	266.6	91.6	0	68
Na+	precip	0.24	0.02	1.23	182.9	91.1	0	64
Precip off	precip	-	0.10	42.20	763.5	31.8	0	116
SO4--	precip	0.51	0.05	4.75	386.0	91.6	0	68
SO4-- corr	precip	0.49	0.01	4.68	370.8	91.6	0	68
cond	precip	14.60	4.00	100.00	11146.4	89.2	0	73
pH	precip	5.17	4.01	7.39	5102.3	89.7	0	73

HR0004R Zavizan

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.89	0.13	5.00	1232.7	97.7	0	100
Cl-	precip	0.69	0.05	3.75	960.9	96.9	0	97
K+	precip	0.46	0.22	1.61	634.5	97.5	0	99
Mg++	precip	0.068	0.003	0.656	95.4	97.8	0	101
NH4+	precip	0.33	0.02	1.93	452.6	97.4	0	99
NO3-	precip	0.33	0.05	1.53	452.3	97.8	0	101
Na+	precip	0.43	0.02	2.25	596.8	96.9	0	97
Precip off	precip	-	0.10	82.80	1393.0	33.2	0	121
SO4--	precip	0.42	0.05	4.61	589.1	97.8	0	101
SO4-- corr	precip	0.39	0.05	4.59	537.2	97.8	0	101
cond	precip	13.51	2.00	58.00	18819.2	98.2	0	107
pH	precip	5.47	4.70	6.98	4740.0	91.9	0	101

HU0002R K-puszta

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.63	0.18	4.53	267.5	98.8	0	63
Cl-	precip	0.84	0.23	6.87	357.7	99.6	0	71
K+	precip	0.12	0.01	0.66	49.4	98.8	1	63
Mg++	precip	0.124	0.030	0.640	52.5	98.8	0	63
NH4+	precip	0.53	0.03	3.36	223.5	99.4	2	69
NO3-	precip	0.39	0.10	3.26	165.6	99.6	0	71
Na+	precip	1.14	0.28	4.17	483.0	98.8	0	63
Precip off	precip	-	0.00	55.30	423.8	99.6	288	364
SO4--	precip	0.75	0.18	7.55	317.7	99.6	0	71
SO4-- corr	precip	0.68	0.14	7.23	286.6	99.6	0	71
cond	precip	18.13	8.20	68.10	7684.4	99.0	0	66
pH	precip	5.82	4.41	6.83	643.3	98.8	0	65

IE0001R Valentia Observatory

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.22	0.03	2.77	489.4	99.0	33	219
Cl-	precip	9.69	0.20	121.19	21469.9	99.0	0	219
K+	precip	0.20	0.03	2.65	450.2	99.0	35	219
Mg++	precip	0.701	0.025	9.246	1552.4	99.0	6	219
NH4+	precip	0.05	0.02	0.81	113.3	99.0	101	219
NO3-	precip	0.05	0.01	0.73	110.2	99.0	14	219
Na+	precip	5.55	0.11	68.22	12299.0	99.0	0	219
Precip	precip	-	0.0	76.4	2215.4	100.0	107	365
Precip off	precip	-	0.00	56.10	1722.8	79.2	15	289
SO4--	precip	0.52	0.01	5.65	1160.3	99.0	2	219
SO4-- corr	precip	0.06	-0.41	0.75	130.1	99.0	2	219
cond	precip	38.99	2.70	492.00	86386.2	99.0	0	219
pH	precip	5.36	4.63	6.36	9660.8	99.0	0	219

IE0005R Oak Park

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.15	0.03	1.83	17.6	69.0	8	18
Cl-	precip	2.41	0.62	7.55	286.0	50.5	0	17
K+	precip	0.03	0.03	0.17	4.1	76.5	18	19
Mg++	precip	0.174	0.025	0.447	20.6	50.5	2	17
NH4+	precip	0.25	0.07	0.92	29.9	50.5	2	17
NO3-	precip	0.13	0.02	0.41	15.2	50.5	0	17
Na+	precip	1.34	0.33	4.03	158.9	50.5	0	17
Precip	precip	-	0.0	21.9	118.6	16.7	29	61
Precip off	precip	-	0.00	33.00	641.8	82.2	108	300
SO4--	precip	0.24	0.10	0.59	28.8	50.5	0	17
SO4-- corr	precip	0.13	0.05	0.47	15.3	50.5	0	17
cond	precip	14.07	5.20	34.30	1668.2	50.5	0	17
pH	precip	5.84	5.34	6.97	169.4	57.5	0	19

IE0007R Glenveagh

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.03	3.99	298.4	88.5	37	127
Cl-	precip	8.76	0.13	191.30	13463.4	88.5	0	127
K+	precip	0.19	0.03	4.30	285.2	88.5	49	127
Mg++	precip	0.658	0.025	13.122	1011.4	88.5	29	127
NH4+	precip	0.07	0.02	1.64	113.8	88.4	56	126
NO3-	precip	0.10	0.01	0.96	159.6	88.5	20	127
Na+	precip	5.05	0.07	108.78	7770.1	88.5	0	127
Precip	precip	-	0.0	327.5	1537.1	53.7	36	196
SO4--	precip	0.51	0.01	8.98	790.1	88.5	8	127
SO4-- corr	precip	0.09	-0.43	0.69	141.4	88.5	8	127
cond	precip	37.46	2.90	702.00	57573.5	88.5	0	127
pH	precip	5.15	4.30	6.05	10978.9	88.5	0	127

IE0009R Johnstown Castle

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.14	0.03	2.64	79.0	54.8	22	71
Cl-	precip	5.38	0.22	119.24	3055.1	54.8	0	71
K+	precip	0.11	0.03	2.45	60.4	54.8	36	72
Mg++	precip	0.380	0.025	8.894	215.5	54.8	11	71
NH4+	precip	0.14	0.02	1.16	81.2	54.8	24	73
NO3-	precip	0.16	0.01	1.28	88.3	54.8	9	71
Na+	precip	3.07	0.06	67.98	1739.9	54.8	0	71
Precip	precip	-	0.0	23.1	567.3	80.8	141	295
Precip off	precip	-	0.00	27.00	831.6	100.0	130	365
SO4--	precip	0.39	0.06	5.71	218.4	54.8	2	71
SO4-- corr	precip	0.13	0.00	0.99	73.0	54.8	2	71
cond	precip	25.89	6.30	455.00	14687.8	54.8	0	71
pH	precip	5.15	4.29	6.70	4025.9	54.8	0	71

IS0002R Irafoss

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.25	0.00	2.83	435.6	98.3	0	179
Cl-	precip	6.94	0.10	54.26	12288.2	98.6	9	181
K+	precip	0.31	0.04	3.54	543.5	98.4	43	180
Mg++	precip	0.409	0.000	3.360	723.4	98.4	1	180
NO3-	precip	0.05	0.00	0.89	90.9	96.3	5	161
Na+	precip	3.90	0.01	32.73	6898.0	98.4	3	180
Precip	precip	-	0.0	62.0	1769.5	99.6	171	364
SO4--	precip	0.40	0.01	2.55	702.8	98.4	1	180
SO4-- corr	precip	0.06	-0.38	2.06	98.3	98.4	1	180
cond	precip	28.15	0.00	185.00	49805.5	98.4	0	171
pH	precip	5.33	4.60	7.47	8233.0	98.5	0	176

IT0001R Montelibretti

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	4.94	2.20	12.00	1863.3	100.0	0	33
Cl-	precip	3.92	0.23	48.00	1477.7	100.0	0	33
K+	precip	0.36	0.09	1.00	136.4	100.0	0	33
Mg++	precip	0.404	0.110	2.000	152.2	100.0	0	33
NH4+	precip	0.06	0.00	0.58	21.9	100.0	0	33
NO3-	precip	0.62	0.00	4.54	234.7	100.0	0	33
Na+	precip	2.01	0.18	20.80	757.6	100.0	0	33
Precip	precip	-	0.0	22.0	377.0	100.0	331	364
SO4--	precip	0.70	0.08	2.20	263.9	100.0	0	33
SO4-- corr	precip	0.53	0.06	1.71	200.1	100.0	0	33

IT0004R Ispra

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.50	0.00	4.56	392.3	99.3	0	75
Cl-	precip	0.21	0.02	2.90	165.6	99.3	0	75
K+	precip	0.04	0.00	1.04	27.6	97.1	0	74
Mg++	precip	0.047	0.002	0.352	36.9	99.3	0	75
NH4+	precip	0.74	0.04	5.89	583.2	99.3	0	75
NO3-	precip	0.52	0.07	3.42	404.3	99.3	0	75
Na+	precip	0.21	0.01	6.26	165.9	99.3	0	75
Precip	precip	-	0.0	136.7	783.9	99.9	285	365
SO4--	precip	0.39	0.03	1.78	304.9	99.3	0	75
SO4-- corr	precip	0.37	0.03	1.73	292.4	99.3	0	75
cond	precip	12.25	2.89	62.00	9604.1	97.4	0	55
pH	precip	5.43	4.39	7.45	2937.2	97.9	0	59

LT0015R Preila

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.60	0.05	3.40	339.1	99.4	0	96
Cl-	precip	4.87	0.49	35.36	2751.2	99.4	0	96
K+	precip	0.17	0.02	1.87	96.4	99.4	0	96
NH4+	precip	0.41	0.03	6.33	234.3	99.4	0	96
NO3-	precip	0.51	0.02	5.71	287.1	99.4	0	96
Na+	precip	3.02	0.31	20.00	1704.2	99.4	0	96
Precip	precip	-	0.0	42.3	564.5	99.9	261	365
SO4--	precip	0.66	0.19	4.22	374.8	99.4	0	96
SO4-- corr	precip	0.41	-0.04	3.93	233.3	99.4	0	96
cond	precip	30.14	8.70	176.00	17018.1	99.4	0	96
pH	precip	5.01	4.00	6.58	5524.8	99.4	0	96

LV0010R Rucava

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.41	0.03	2.31	353.9	79.2	8	31
Cl-	precip	2.07	0.10	18.92	1797.0	83.0	0	33
K+	precip	0.07	0.01	0.35	58.3	81.6	18	32
Mg++	precip	0.197	0.010	1.060	170.3	80.1	5	31
NH4+	precip	0.46	0.07	2.19	396.7	81.6	0	32
NO3-	precip	0.48	0.11	1.63	418.4	81.6	0	32
Na+	precip	0.99	0.09	7.93	860.7	81.6	1	32
Precip	precip	-	0.0	64.0	866.5	100.0	8	53
SO4--	precip	0.54	0.16	1.85	471.1	81.6	0	32
SO4-- corr	precip	0.46	0.11	1.68	398.8	81.6	0	32
cond	precip	19.93	8.10	82.50	17268.0	94.7	0	37
pH	precip	5.27	4.39	7.25	4638.9	85.2	0	34

MD0013R Leova II

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.19	0.34	5.86	396.6	98.5	0	64
Cl-	precip	0.93	0.23	3.17	310.5	94.4	0	61
K+	precip	0.52	0.06	6.75	174.2	98.3	0	63
Mg++	precip	0.179	0.036	0.908	59.5	98.5	0	64
NO3-	precip	0.44	0.13	1.48	146.6	98.5	0	64
Na+	precip	0.27	0.02	2.08	91.0	98.5	1	64
Precip	precip	-	0.2	31.6	333.2	92.8	256	339
SO4--	precip	0.62	0.21	2.40	208.4	98.5	0	64
SO4-- corr	precip	0.59	0.17	2.22	196.3	98.5	0	64
cond	precip	17.89	6.30	87.00	5959.8	98.5	0	64
pH	precip	6.24	5.68	7.05	192.4	98.5	0	64

ME0008R Zabljak

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.31	0.27	5.37	1351.3	80.3	0	51
Cl-	precip	2.45	0.82	7.34	2525.1	95.4	0	86
K+	precip	1.98	0.00	61.17	2043.7	81.3	0	92
Mg++	precip	0.436	0.020	2.620	450.0	76.3	0	48
NH4+	precip	1.81	0.19	7.37	1863.6	99.8	0	108
NO3-	precip	0.39	0.01	6.89	401.0	99.8	0	108
Na+	precip	0.78	0.00	20.61	802.0	81.3	0	92
Precip	precip	-	0.0	61.0	1031.9	99.7	255	364
SO4--	precip	1.85	0.00	65.41	1907.6	100.0	0	109
SO4-- corr	precip	1.74	0.00	65.09	1798.9	99.7	0	107
cond	precip	32.83	1.30	1047.00	33874.1	100.0	0	109
pH	precip	6.55	5.83	8.45	292.4	100.0	0	109

NL0009R Kollumerwaard

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.36	0.05	2.13	245.7	88.1	3	95
Cl-	precip	6.11	0.13	36.70	4145.6	91.7	4	128
H+	precip	2.06	-456.40	108.10	1401.2	92.7	0	146
K+	precip	0.22	0.04	0.80	147.5	88.1	1	95
Mg++	precip	0.433	0.010	2.490	293.8	88.1	2	95
NH4+	precip	0.62	0.08	3.52	420.0	89.9	0	108
NO3-	precip	0.35	0.00	2.66	240.3	91.7	5	128
Na+	precip	3.50	0.10	20.01	2378.5	88.1	0	95
Precip	precip	-	0.0	20.5	679.0	52.9	12	193
SO4--	precip	0.54	0.06	2.43	368.4	91.7	1	128
SO4-- corr	precip	0.25	0.04	1.94	170.5	91.7	1	128
cond	precip	34.21	8.00	143.00	23226.4	85.7	0	84

NO0001R Birkenes

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.01	1.74	221.7	98.6	1	174
Cl-	precip	2.65	0.01	45.27	4711.2	98.7	1	176
K+	precip	0.10	0.01	1.53	179.2	98.6	13	174
Mg++	precip	0.186	0.005	2.490	330.1	98.6	11	174
NH4+	precip	0.42	0.01	6.53	750.4	98.6	4	174
NO3-	precip	0.39	0.01	4.13	683.7	98.7	5	176
Na+	precip	1.50	0.02	22.72	2657.5	98.6	0	174
Precip	precip	-	0.0	90.4	1777.5	99.6	145	364
SO4--	precip	0.38	0.01	4.40	680.6	98.7	1	176
SO4-- corr	precip	0.26	-0.09	3.54	459.2	98.7	1	176
SO4-- corr	precip	0.26	-0.09	3.54	459.2	98.7	1	176
cond	precip	21.99	3.00	162.00	39093.2	98.7	0	175
pH	precip	4.86	3.83	6.24	24630.7	98.5	0	169

NO0015R Tustervatn

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.02	0.90	171.1	86.7	0	43
Cl-	precip	3.02	0.03	23.13	4313.2	91.2	0	44
K+	precip	0.09	0.01	0.49	123.0	86.7	2	43
Mg++	precip	0.205	0.005	1.410	293.2	86.7	3	43
NH4+	precip	0.15	0.01	1.75	208.7	86.7	8	43
NO3-	precip	0.06	0.01	1.44	90.5	93.1	2	45
Na+	precip	1.66	0.01	13.62	2372.0	91.2	1	44
Precip	precip	-	0.0	91.1	1430.4	93.1	1	49
SO4--	precip	0.24	0.03	2.50	349.9	91.2	0	44
SO4-- corr	precip	0.11	-0.10	1.85	152.6	91.2	0	44
cond	precip	20.43	3.00	109.00	29226.4	91.2	0	43
pH	precip	5.35	4.55	6.24	6437.6	86.6	0	40

NO0039R Kårvatn

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.10	0.01	0.80	145.8	100.0	3	55
Cl-	precip	3.03	0.03	24.83	4539.1	100.0	0	55
K+	precip	0.09	0.01	0.63	133.1	100.0	8	55
Mg++	precip	0.196	0.005	1.490	293.8	100.0	9	55
NH4+	precip	0.17	0.01	1.38	258.5	100.0	7	55
NO3-	precip	0.05	0.01	1.12	69.8	100.0	17	55
Na+	precip	1.60	0.01	13.26	2398.5	100.0	1	55
Precip	precip	-	0.0	97.1	1500.1	99.9	4	59
SO4--	precip	0.19	0.04	1.00	280.2	100.0	0	55
SO4-- corr	precip	0.05	-0.11	0.67	80.4	100.0	0	55
cond	precip	14.79	3.00	91.00	22187.2	100.0	0	55
pH	precip	5.48	4.82	6.37	5014.0	100.0	0	55

NO0056R Hurdal

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.13	0.03	1.31	163.9	100.0	0	44
Cl-	precip	0.49	0.05	3.02	635.1	100.0	0	44
K+	precip	0.07	0.01	0.52	86.4	100.0	4	44
Mg++	precip	0.042	0.005	0.220	54.6	100.0	6	44
NH4+	precip	0.47	0.02	2.12	603.7	100.0	0	44
NO3-	precip	0.32	0.01	1.27	414.9	100.0	1	44
Na+	precip	0.27	0.03	1.66	356.6	100.0	0	44
Precip	precip	-	0.0	221.5	1299.4	99.1	14	58
SO4--	precip	0.25	0.01	0.94	327.2	100.0	1	44
SO4-- corr	precip	0.23	0.00	0.93	298.3	100.0	1	44
cond	precip	10.99	3.00	33.00	14275.1	100.0	0	43
pH	precip	5.04	4.34	6.28	11763.0	100.0	0	43

PL0002R Jarczew

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.25	0.00	2.60	143.0	100.0	0	109
Cl-	precip	0.30	0.00	4.90	170.3	100.0	0	109
K+	precip	0.10	0.02	3.13	54.7	100.0	0	109
Mg++	precip	0.039	0.006	0.342	22.1	100.0	0	109
NH4+	precip	0.51	0.09	3.14	286.9	100.0	0	109
NO3-	precip	0.36	0.09	2.07	201.8	100.0	0	109
Na+	precip	0.11	0.01	2.66	62.6	100.0	0	109
Precip	precip	-	0.1	40.8	564.7	92.5	229	338
SO4--	precip	0.53	0.13	3.79	297.9	100.0	0	109
SO4-- corr	precip	0.52	0.12	3.76	291.7	100.0	0	109
cond	precip	14.91	3.90	86.40	8419.0	100.0	0	109
pH	precip	4.90	3.77	7.22	7127.2	100.0	0	109

PL0003R Sniezka

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.27	0.10	0.70	244.3	99.5	0	162
Cl-	precip	0.58	0.20	1.50	532.7	99.5	0	162
K+	precip	0.18	0.01	0.40	164.8	99.5	0	162
Mg++	precip	0.111	0.039	0.302	101.7	99.5	0	162
NH4+	precip	0.38	0.16	0.88	350.4	99.5	0	162
NO3-	precip	0.50	0.12	1.44	463.0	99.5	0	162
Na+	precip	0.42	0.04	1.08	381.7	99.5	0	162
Precip	precip	-	0.4	36.3	918.4	81.3	134	297
SO4--	precip	0.79	0.21	2.17	726.0	99.5	0	162
SO4-- corr	precip	0.76	0.20	2.10	693.7	99.5	0	162
cond	precip	22.25	9.70	65.80	20432.8	99.5	0	162
pH	precip	4.54	3.96	4.89	26488.9	99.5	0	162

PL0004R Leba

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.17	0.00	1.60	97.3	100.0	0	109
Cl-	precip	1.44	0.10	20.70	805.7	100.0	0	109
K+	precip	0.12	0.01	2.20	66.8	100.0	0	109
Mg++	precip	0.104	0.006	1.202	58.0	100.0	0	109
NH4+	precip	0.44	0.05	3.89	248.2	100.0	0	109
NO3-	precip	0.39	0.10	2.43	220.1	100.0	0	109
Na+	precip	0.77	0.02	10.36	429.7	100.0	0	109
Precip	precip	-	0.2	26.8	559.7	69.0	143	252
SO4--	precip	0.34	0.06	2.47	192.1	100.0	0	109
SO4-- corr	precip	0.28	0.05	2.43	155.6	100.0	0	109
cond	precip	15.80	4.30	94.50	8845.3	100.0	0	109
pH	precip	5.11	3.91	6.85	4344.9	100.0	0	109

PL0005R Diabla Gora

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.00	1.10	93.8	81.3	0	90
Cl-	precip	0.50	0.10	8.40	238.7	84.7	0	117
K+	precip	0.07	0.00	0.31	35.1	81.3	0	90
Mg++	precip	0.052	0.000	0.520	24.8	81.3	0	90
NH4+	precip	0.54	0.01	3.18	258.2	84.7	1	117
NO3-	precip	0.44	0.08	2.46	210.0	84.7	0	117
Na+	precip	0.22	0.00	4.58	105.6	81.5	0	91
Precip	precip	-	0.0	31.3	480.5	99.7	234	364
Precip off	precip	-	0.00	60.00	629.0	99.9	180	365
SO4--	precip	0.47	0.09	1.95	223.6	84.7	0	117
SO4-- corr	precip	0.45	0.09	1.91	213.8	84.7	0	117
cond	precip	12.59	3.00	51.00	6050.0	72.8	0	58
pH	precip	4.94	3.85	6.84	5578.9	84.7	0	117

RS0005R Kamenicki vis

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.24	0.02	13.01	628.6	95.7	0	76
Cl-	precip	0.57	0.06	5.85	288.2	98.0	0	89
K+	precip	0.30	0.04	4.45	150.7	95.7	0	76
Mg++	precip	0.129	0.010	2.680	65.3	95.7	0	76
NH4+	precip	0.75	0.02	8.99	381.5	95.7	0	76
NO3-	precip	0.42	0.01	4.65	215.5	97.8	1	88
Na+	precip	0.37	0.09	2.72	187.5	95.7	0	76
Precip off	precip	-	0.10	40.00	507.6	96.2	251	351
SO4--	precip	1.19	0.01	12.62	603.9	98.0	1	89
SO4-- corr	precip	1.16	-0.04	12.57	587.4	98.0	1	89
cond	precip	27.04	7.35	326.40	13723.0	100.0	0	100
pH	precip	4.94	3.41	8.05	5826.7	100.0	0	100

RU0001R Janiskoski

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.44	0.05	2.75	228.7	100.0	0	152
Cl-	precip	0.85	0.06	15.15	442.1	100.0	0	152
K+	precip	0.47	0.03	14.40	243.7	100.0	0	152
Mg++	precip	0.053	0.005	0.586	27.6	100.0	0	152
NH4+	precip	0.18	0.01	1.39	95.3	100.0	0	152
NO3-	precip	0.22	0.01	7.80	114.1	100.0	0	152
Na+	precip	0.37	0.03	4.19	192.8	100.0	0	152
Precip	precip	-	0.0	37.7	520.5	99.9	213	365
SO4--	precip	0.46	0.02	6.91	238.9	100.0	0	152
SO4-- corr	precip	0.43	0.01	6.89	222.4	100.0	0	152
cond	precip	12.12	3.10	79.00	6307.2	95.3	0	123
pH	precip	5.21	4.45	6.44	3225.7	97.1	0	134

RU0013R Pinega

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.68	0.04	11.13	366.3	100.0	0	165
Cl-	precip	1.11	0.09	26.00	596.2	100.0	0	165
H+	precip	2.21	0.00	16.00	1190.2	98.2	0	145
K+	precip	0.45	0.03	4.79	240.1	100.0	0	165
Mg++	precip	0.159	0.013	2.170	85.7	100.0	0	165
NH4+	precip	0.45	0.01	7.62	239.6	100.0	0	165
NO3-	precip	0.17	0.01	2.13	91.4	100.0	0	165
Na+	precip	0.71	0.08	11.79	382.8	100.0	0	165
Precip	precip	-	0.0	29.8	538.8	99.9	200	365
SO4--	precip	0.48	0.07	3.34	257.8	100.0	0	165
SO4-- corr	precip	0.42	-0.21	2.93	228.1	100.0	0	165
cond	precip	16.81	4.30	225.00	9055.3	95.1	0	126
pH	precip	5.66	4.79	7.55	1175.0	98.2	0	145

RU0018R Danki

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.48	0.09	3.09	286.4	100.0	0	144
Cl-	precip	0.33	0.02	5.51	195.9	100.0	0	144
K+	precip	0.18	0.02	2.36	107.2	100.0	0	144
Mg++	precip	0.057	0.008	0.577	33.6	100.0	0	144
NH4+	precip	0.41	0.01	3.30	244.6	100.0	0	144
NO3-	precip	0.30	0.01	2.39	177.8	100.0	0	144
Na+	precip	0.16	0.01	1.70	93.6	100.0	0	144
Precip	precip	-	0.0	38.9	590.8	99.9	221	365
SO4--	precip	0.51	0.01	3.42	303.1	100.0	0	144
SO4-- corr	precip	0.50	0.01	3.41	294.9	100.0	0	144
cond	precip	12.38	3.70	76.70	7315.8	98.1	0	119
pH	precip	4.98	4.13	6.59	6210.1	99.3	0	133

RU0020R Lesnoy

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.34	0.07	2.75	206.2	100.0	0	136
Cl-	precip	0.26	0.03	5.75	158.3	100.0	0	136
H+	precip	8.46	1.00	69.00	5180.5	99.6	0	130
K+	precip	0.13	0.02	2.02	77.0	100.0	0	136
Mg++	precip	0.038	0.007	0.440	23.2	100.0	0	136
NH4+	precip	0.37	0.01	3.20	225.6	100.0	0	136
NO3-	precip	0.26	0.02	3.07	157.5	100.0	0	136
Na+	precip	0.13	0.01	2.25	81.8	100.0	0	136
Precip	precip	-	0.0	29.5	612.4	78.3	150	286
SO4--	precip	0.41	0.05	3.75	251.6	100.0	0	136
SO4-- corr	precip	0.40	0.04	3.69	244.3	100.0	0	136
cond	precip	9.82	3.10	41.50	6012.0	93.3	0	113
pH	precip	5.07	4.16	6.11	5160.0	99.6	0	130

SE0011R Vavihill

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.10	0.87	126.7	84.8	0	11
Cl-	precip	2.17	0.36	34.12	1752.2	84.8	0	11
K+	precip	0.12	0.07	0.82	99.5	84.8	0	11
Mg++	precip	0.152	0.040	2.210	123.4	84.8	0	11
NH4+	precip	0.56	0.25	1.16	449.1	84.8	0	11
NO3-	precip	0.44	0.30	1.15	352.6	84.8	0	11
Na+	precip	1.21	0.19	18.98	978.3	84.8	0	11
Precip	precip	-	11.8	129.0	809.4	99.8	0	12
SO4--	precip	0.39	0.28	2.25	316.6	84.8	0	11
SO4-- corr	precip	0.29	0.18	0.66	234.4	84.8	0	11
cond	precip	19.04	9.00	156.00	15407.7	84.8	0	11
pH	precip	5.16	4.57	5.96	5659.1	84.8	0	11

SE0012R Aspvreten

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.05	0.23	58.6	100.0	0	12
Cl-	precip	0.52	0.12	1.34	247.4	100.0	0	12
K+	precip	0.08	0.03	0.20	40.1	100.0	0	12
Mg++	precip	0.048	0.020	0.100	23.1	100.0	0	12
NH4+	precip	0.53	0.12	1.43	255.4	100.0	0	12
NO3-	precip	0.38	0.20	0.95	182.6	100.0	0	12
Na+	precip	0.30	0.06	0.78	141.7	100.0	0	12
Precip	precip	-	7.9	54.5	478.1	99.1	0	12
SO4--	precip	0.36	0.17	0.70	171.0	100.0	0	12
SO4-- corr	precip	0.33	0.11	0.67	158.7	100.0	0	12
cond	precip	13.88	7.00	19.00	6638.4	100.0	0	12
pH	precip	4.97	4.47	6.02	5107.7	100.0	0	12

SE0014R Råö

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.34	0.03	7.25	250.3	99.5	0	142
Cl-	precip	10.34	0.11	342.65	7606.9	99.5	0	142
K+	precip	0.25	0.03	7.02	185.7	99.5	0	142
Mg++	precip	0.688	0.010	21.770	506.0	99.5	0	142
NH4+	precip	0.43	0.04	3.99	317.9	99.5	0	142
NO3-	precip	0.40	0.04	4.59	291.1	99.5	0	142
Na+	precip	5.75	0.04	188.24	4234.2	99.5	0	142
Precip	precip	-	0.0	27.0	735.7	99.9	198	365
SO4--	precip	0.71	0.08	16.25	524.9	99.5	0	142
SO4-- corr	precip	0.23	-0.04	1.67	169.9	99.5	0	142
cond	precip	33.35	5.00	225.00	24536.4	91.9	0	91
pH	precip	4.98	3.74	7.85	7651.9	99.9	0	161

SI0008R Iskrba

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.25	0.02	5.41	268.8	99.5	7	97
Cl-	precip	0.34	0.02	9.78	358.7	99.5	6	97
K+	precip	0.06	0.01	1.04	64.7	99.5	39	97
Mg++	precip	0.051	0.003	0.667	53.8	99.5	40	97
NH4+	precip	0.28	0.01	4.50	292.3	99.5	2	97
NO3-	precip	0.28	0.04	3.52	296.3	99.5	0	97
Na+	precip	0.20	0.01	5.42	213.3	99.5	26	97
Precip	precip	-	0.0	62.9	1059.8	99.9	242	365
SO4--	precip	0.37	0.02	3.60	394.8	99.5	1	97
SO4-- corr	precip	0.35	0.02	3.59	376.6	99.5	1	97
cond	precip	11.29	2.00	65.00	11969.6	96.7	0	71
pH	precip	4.91	4.02	6.43	13175.5	96.7	0	71

SK0002R Chopok

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.01	1.56	177.7	90.5	0	103
Cl-	precip	0.13	0.02	1.48	119.1	93.3	0	107
K+	precip	0.06	0.00	1.31	52.9	93.7	0	109
Mg++	precip	0.020	0.000	0.180	18.4	91.8	0	107
NH4+	precip	0.45	0.01	2.68	413.6	89.9	0	107
NO3-	precip	0.27	0.09	1.85	247.7	89.9	0	107
Na+	precip	0.16	0.01	1.82	143.2	92.4	0	102
Precip	precip	-	0.1	60.3	910.4	48.2	0	176
SO4--	precip	0.56	0.09	3.64	506.7	93.5	0	108
SO4-- corr	precip	0.55	0.08	3.56	498.1	93.5	0	108
cond	precip	10.46	4.23	35.83	9521.6	73.8	0	49
pH	precip	5.04	4.17	5.80	8270.1	73.8	0	49

SK0004R Stará Lesná

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.28	0.01	2.12	185.0	92.5	0	68
Cl-	precip	0.13	0.03	0.93	89.1	92.4	0	68
K+	precip	0.05	0.00	0.48	36.6	91.3	0	67
Mg++	precip	0.031	0.001	0.210	21.0	92.7	0	69
NH4+	precip	0.34	0.00	1.69	226.5	89.7	0	63
NO3-	precip	0.35	0.08	1.86	234.4	92.4	0	68
Na+	precip	0.10	0.01	0.72	66.1	92.7	0	69
Precip	precip	-	0.1	52.5	673.9	37.4	0	137
SO4--	precip	0.60	0.09	3.48	404.7	92.4	0	68
SO4-- corr	precip	0.59	0.08	3.45	399.5	92.4	0	68
cond	precip	15.13	6.50	56.70	10194.6	76.0	0	42
pH	precip	4.75	4.27	6.00	12105.4	76.0	0	42

SK0006R Starina

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.02	1.18	146.8	82.4	0	70
Cl-	precip	0.17	0.03	0.86	112.7	81.4	0	68
K+	precip	0.08	0.00	0.38	49.7	81.8	0	69
Mg++	precip	0.027	0.000	0.130	17.6	82.4	0	70
NH4+	precip	0.43	0.00	2.73	280.6	74.8	0	64
NO3-	precip	0.43	0.03	2.37	280.4	82.4	0	70
Na+	precip	0.14	0.02	1.06	87.5	82.4	0	70
Precip	precip	-	0.1	33.0	646.2	36.1	0	132
SO4--	precip	0.59	0.06	2.61	384.7	82.4	0	70
SO4-- corr	precip	0.58	0.06	2.60	377.7	82.4	0	70
cond	precip	16.38	6.14	81.70	10587.9	70.3	0	39
pH	precip	4.22	3.22	5.63	39251.1	70.3	0	39

SK0007R Topolniky

January 2011 - December 2011

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.42	0.06	1.75	155.6	97.4	0	33
Cl-	precip	0.14	0.03	0.36	53.1	97.4	0	33
K+	precip	0.05	0.02	0.23	18.8	98.0	0	34
Mg++	precip	0.058	0.010	0.260	21.1	95.5	0	33
NH4+	precip	0.62	0.19	1.77	226.9	98.0	0	34
NO3-	precip	0.52	0.21	1.83	188.7	98.0	0	34
Na+	precip	0.09	0.02	0.42	32.1	97.4	0	33
Precip	precip	-	0.2	62.9	366.6	99.1	0	39
SO4--	precip	0.52	0.11	2.08	191.7	98.0	0	34
SO4-- corr	precip	0.52	0.10	2.07	189.2	98.0	0	34
cond	precip	14.67	8.19	48.90	5376.3	88.0	0	23
pH	precip	5.10	4.42	6.12	2939.4	88.0	0	23

Annex 3

Annual statistics on gases and aerosol data

AM0001R Amberd

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.53	0.71	0.25	4.45	0.00	0.01	0.33	1.47	6.39	66.3	0	242
Cl-	aerosol	0.06	0.09	0.03	3.88	0.00	0.00	0.03	0.23	0.59	65.4	0	239
HNO3	air	0.08	0.09	0.06	2.57	0.00	0.01	0.06	0.22	0.73	66.5	0	243
HNO3+NO3-	air+aerosol	0.36	0.34	0.25	2.54	0.01	0.05	0.27	1.11	1.86	66.5	0	243
K+	aerosol	0.12	0.09	0.08	2.83	0.00	0.01	0.09	0.30	0.59	66.8	0	244
Mg++	aerosol	0.041	0.069	0.016	4.324	0.000	0.001	0.015	0.183	0.452	65.7	0	240
NH3	air	0.83	0.57	0.58	3.08	0.00	0.06	0.73	2.08	3.33	67.4	0	246
NH3+NH4+	air+aerosol	1.26	0.65	1.08	1.83	0.05	0.33	1.17	2.59	3.86	67.4	0	246
NH4+	aerosol	0.43	0.34	0.31	2.51	0.01	0.05	0.37	1.12	1.82	66.5	0	243
NO2	air	1.76	1.27	1.26	2.57	0.04	0.20	1.74	3.48	7.92	89.3	0	326
NO3-	aerosol	0.28	0.32	0.16	3.43	0.00	0.03	0.19	0.99	1.79	66.8	0	244
Na+	aerosol	0.07	0.08	0.04	3.22	0.00	0.00	0.05	0.19	0.58	67.1	0	245
SO2	air	0.27	0.31	0.16	3.03	0.00	0.02	0.19	0.84	2.07	65.7	0	240
SO4--	aerosol	0.71	0.58	0.49	2.72	0.00	0.09	0.58	1.74	3.50	66.8	0	244
SO4-- corr	aerosol	0.71	0.57	0.49	2.75	0.00	0.09	0.57	1.73	3.46	66.8	0	244

AT0002R Illmitz

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	3.09	1.69	2.72	1.65	0.96	1.27	2.65	6.48	11.35	99.2	0	362
PM1 mass	pm1	13.73	9.79	10.93	2.00	0.80	3.40	10.85	37.34	54.90	94.8	0	346
PM10 mass	pm10	24.37	17.42	19.41	1.98	2.10	6.53	18.50	59.68	102.60	100.0	0	365
PM25 mass	pm25	19.27	14.82	14.79	2.09	1.20	4.55	13.60	50.45	77.20	95.6	0	349
SO2	air	0.83	1.43	0.45	2.73	0.00	0.12	0.40	2.91	23.53	95.1	0	8335

AT0005R Vorhegg

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	1.01	0.76	0.84	1.77	0.19	0.37	0.77	2.39	5.84	92.6	0	338
PM10 mass	pm10	9.24	5.80	7.76	1.82	1.50	2.77	7.90	20.45	38.40	96.7	0	353
SO2	air	0.17	0.19	0.13	2.10	0.00	0.04	0.12	0.49	3.02	94.6	0	8286

AT0048R Zoebelboden

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	1.39	0.98	1.16	1.78	0.38	0.51	1.05	3.54	7.19	93.7	0	342
PM10 mass	pm10	11.24	8.09	8.47	2.31	0.40	1.60	9.75	25.71	58.30	91.0	0	332
SO2	air	0.27	0.36	0.16	2.83	0.00	0.02	0.16	0.86	4.32	74.4	0	6515

BE0001R Offagne

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	2.69	2.66	1.84	2.55	0.00	0.31	1.83	8.24	19.22	97.1	0	8502

BE0032R Eupen

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	3.65	3.18	2.64	2.32	0.00	0.61	2.75	10.37	26.54	95.7	0	8385

BE0035R Vezin

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	4.40	3.23	3.37	2.17	0.00	0.92	3.36	10.98	23.49	97.3	0	8520

CH0001G Jungfraujoch

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	74.70	16.78	72.88	1.25	36.20	50.80	71.30	103.80	157.00	93.2	0	8168
Ca++	aerosol	0.02	0.13	0.61	1.68	0.00	0.00	0.00	0.04	0.89	16.1	0	57
Ca++	pm1	0.07	0.18	0.53	1.33	0.00	0.00	0.00	0.60	0.78	16.1	0	57
Cl-	aerosol	0.00	0.00	0.01	2.36	0.00	0.00	0.00	0.00	0.02	16.1	0	57
Cl-	pm1	0.00	0.00	-	-	0.00	0.00	0.00	0.00	0.00	16.1	0	57
K+	aerosol	0.01	0.02	0.02	1.90	0.00	0.00	0.00	0.05	0.09	16.1	0	57
K+	pm1	0.01	0.01	0.02	1.42	0.00	0.00	0.00	0.04	0.06	16.1	0	57
Mg++	aerosol	0.000	0.002	0.018	-	0.000	0.000	0.000	0.000	0.018	16.1	0	57
Mg++	pm1	0.002	0.005	0.025	1.085	0.000	0.000	0.000	0.002	0.027	16.1	0	57
NH4+	aerosol	0.07	0.13	0.11	1.98	0.00	0.00	0.00	0.45	0.65	16.1	0	57
NH4+	pm1	0.08	0.14	0.14	1.88	0.00	0.00	0.00	0.53	0.65	16.1	0	57
NO	air	0.02	0.03	0.01	2.46	-0.01	0.00	0.01	0.07	0.66	57.8	0	5060
NO2	air	0.06	0.04	0.04	2.04	0.01	0.01	0.05	0.12	0.21	46.0	0	168
NO2	air	0.06	0.06	0.04	2.58	0.00	0.01	0.04	0.17	0.51	54.2	0	4750
NO3-	aerosol	0.00	0.01	0.00	5.47	0.00	0.00	0.00	0.03	0.04	16.1	0	57
NO3-	aerosol	0.05	0.05	0.03	2.65	0.01	0.01	0.04	0.16	0.24	16.1	0	57
NO3-	aerosol	0.05	0.05	0.03	2.80	0.00	0.01	0.03	0.16	0.23	16.1	0	57
NO3-	pm1	0.02	0.03	0.01	4.14	0.00	0.00	0.01	0.09	0.15	16.1	0	57
NO3-	pm1	0.05	0.05	0.03	2.80	0.00	0.01	0.03	0.16	0.23	16.1	0	57
NO3-	pm1	0.07	0.07	0.04	2.90	0.01	0.01	0.04	0.24	0.29	16.1	0	57
Na+	aerosol	0.00	0.01	0.05	1.84	0.00	0.00	0.00	0.03	0.10	16.1	0	57
Na+	pm1	0.01	0.02	0.04	1.40	0.00	0.00	0.00	0.06	0.08	16.1	0	57
PM10 mass	pm10	2.98	3.58	1.96	2.46	0.50	0.50	2.00	7.73	30.40	96.7	68	353
SO2	air	0.03	0.02	0.03	2.07	0.01	0.01	0.03	0.07	0.20	97.3	113	355
SO4--	aerosol	0.09	0.13	0.13	1.86	0.00	0.00	0.06	0.38	0.67	16.1	0	57
SO4--	aerosol	0.12	0.12	0.08	2.71	0.00	0.01	0.07	0.39	0.85	98.4	1	359
SO4--	pm1	0.11	0.14	0.15	1.78	0.00	0.00	0.09	0.40	0.72	16.1	0	57

CH0002R Payerne

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.39	0.31	0.27	2.51	0.05	0.05	0.30	1.04	1.99	100.0	52	365
HNO3	air	0.26	0.08	0.25	1.37	0.13	0.13	0.25	0.39	0.39	100.0	0	27
HNO3+NO3-	air+aerosol	1.18	1.15	0.77	2.59	0.04	0.17	0.73	3.70	5.94	100.0	0	365
K+	aerosol	0.20	0.17	0.15	2.30	0.01	0.04	0.14	0.54	1.37	99.7	7	364
Mg++	aerosol	0.035	0.034	0.026	2.118	0.007	0.007	0.030	0.080	0.460	100.0	65	365
NH3	air	2.81	1.18	2.50	1.58	0.94	0.94	2.66	5.38	6.02	100.0	0	27
NH3+NH4+	air+aerosol	4.41	2.55	3.69	1.91	0.34	1.05	4.22	9.65	15.91	100.0	0	365
NH4+	aerosol	1.48	1.16	1.06	2.29	0.31	0.31	1.09	4.16	4.18	96.2	0	26
NO2	air	3.60	2.18	3.01	1.84	0.41	1.18	2.98	7.99	11.73	99.2	0	362
NO3-	aerosol	0.96	0.76	0.70	2.26	0.16	0.18	0.72	2.72	2.81	100.0	0	27
Na+	aerosol	0.16	0.16	0.11	2.29	0.05	0.05	0.11	0.54	0.97	100.0	171	365
PM1 mass	pm1	9.02	6.90	7.05	2.03	1.20	1.85	7.40	26.40	35.20	24.4	0	89
PM10 mass	pm10	17.28	11.89	13.85	1.98	1.10	4.70	13.70	42.40	64.10	98.4	0	359
PM25 mass	pm25	12.18	10.12	9.06	2.16	1.90	2.73	9.00	38.27	48.40	23.3	0	85
SO2	air	0.27	0.15	0.23	1.74	0.04	0.09	0.23	0.58	0.92	99.7	0	364
SO4--	aerosol	0.57	0.41	0.46	2.01	0.05	0.12	0.50	1.37	3.00	98.9	0	361
SO4-- corr	aerosol	0.55	0.41	0.43	2.08	0.04	0.11	0.47	1.35	2.98	98.9	0	361

CH0003R Tänikon

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	3.91	2.38	3.28	1.82	0.67	1.24	3.21	8.74	12.46	99.5	0	363
PM10 mass	pm10	15.56	10.63	12.42	2.01	1.50	3.62	13.00	37.97	65.60	98.6	0	360

CH0004R Chaumont

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	1.92	1.31	1.58	1.86	0.38	0.56	1.52	4.73	8.74	100.0	0	365
PM10 mass	pm10	9.18	7.34	6.69	2.38	0.50	1.50	7.50	23.93	51.00	99.7	11	364

CH0005R Rigi

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.31	0.40	0.18	2.87	0.05	0.05	0.19	1.02	4.38	98.4	112	359
HNO3	air	0.18	0.06	0.17	1.51	0.06	0.06	0.17	0.29	0.31	100.0	0	27
HNO3+NO3-	air+aerosol	0.78	0.80	0.36	5.32	0.01	0.01	0.54	2.45	4.89	98.6	52	360
K+	aerosol	0.07	0.07	0.06	2.13	0.02	0.02	0.06	0.21	0.65	98.4	90	359
Mg++	aerosol	0.024	0.022	0.017	2.240	0.007	0.007	0.020	0.060	0.200	98.4	151	359
NH3	air	1.03	0.57	0.78	2.27	0.12	0.13	1.17	1.93	1.99	100.0	0	27
NH3+NH4+	air+aerosol	1.94	1.32	1.34	3.19	0.01	0.31	1.75	4.61	6.70	98.6	14	360
NH4+	aerosol	1.01	0.74	0.75	2.21	0.15	0.15	0.73	2.84	3.08	92.3	0	25
NO2	air	1.07	1.27	0.74	2.21	0.06	0.25	0.65	3.27	10.30	97.8	0	357
NO3-	aerosol	0.61	0.45	0.45	2.16	0.10	0.10	0.42	1.68	1.83	100.0	0	27
Na+	aerosol	0.10	0.11	0.08	2.00	0.05	0.05	0.05	0.38	0.83	98.4	250	359
PM10 mass	pm10	8.33	6.80	5.79	2.58	0.50	1.00	6.55	21.98	43.40	97.0	15	354
PM25 mass	pm25	6.92	5.95	4.84	2.50	0.50	1.00	5.20	16.66	39.30	22.5	3	82
SO2	air	0.19	0.10	0.16	1.71	0.02	0.07	0.16	0.40	0.53	99.7	0	364
SO4--	aerosol	0.40	0.32	0.30	2.33	0.02	0.06	0.32	0.98	2.02	98.9	0	361
SO4-- corr	aerosol	0.39	0.31	0.28	2.47	0.01	0.05	0.30	0.96	1.99	98.9	0	361

CY0002R Ayia Marina

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm25	0.24	0.52	0.10	3.08	0.01	0.05	0.06	1.28	3.46	29.0	0	106
Cl-	pm25	0.06	0.12	0.05	1.59	0.04	0.04	0.04	0.12	1.20	29.0	0	106
EC	pm25	0.22	0.09	0.21	1.48	0.08	0.11	0.20	0.41	0.59	29.0	0	106
K+	pm25	0.12	0.07	0.09	2.44	0.00	0.01	0.11	0.26	0.36	29.0	0	106
Mg++	pm25	0.015	0.031	0.007	2.797	0.000	0.004	0.004	0.090	0.238	29.0	0	106
NH4+	pm25	0.69	0.42	0.56	2.16	0.03	0.13	0.62	1.57	2.56	29.0	0	106
NO2	air	0.87	0.41	0.80	1.48	0.21	0.46	0.76	1.66	4.60	94.8	0	8306
NO3-	pm25	0.03	0.06	0.02	2.97	0.00	0.00	0.01	0.12	0.58	29.0	0	106
Na+	pm25	0.12	0.16	0.07	3.08	0.01	0.01	0.07	0.39	1.14	29.0	0	106
OC	pm25	1.68	0.81	1.50	1.64	0.34	0.61	1.61	3.06	4.91	29.0	0	106
PM10 mass	pm10	23.32	18.11	20.25	1.62	6.80	9.80	20.10	47.30	235.20	92.9	0	339
PM25 mass	pm25	16.55	7.41	15.24	1.49	5.80	7.83	14.95	30.36	58.40	94.8	0	346
SO2	air	1.00	0.81	0.80	1.90	0.20	0.30	1.00	2.35	12.31	95.7	0	8383
SO4--	pm25	1.08	0.65	0.88	2.30	0.00	0.31	0.96	2.32	3.89	29.0	0	106
SO4-- corr	pm25	1.08	0.65	0.92	1.80	-0.00	0.30	0.95	2.30	3.87	29.0	0	106

CZ0001R Svratouch

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.96	0.62	0.78	1.95	0.02	0.29	0.79	2.27	3.70	99.4	0	363
NH3+NH4+	air+aerosol	2.02	1.26	1.69	1.87	0.12	0.60	1.82	4.24	12.65	99.9	0	365
NO2	air	1.91	0.99	1.66	1.75	0.76	0.76	1.86	3.75	5.36	99.9	108	365
PM10 mass	pm10	16.08	9.83	13.52	1.82	2.50	5.00	13.00	36.60	60.00	42.4	4	155
SO2	air	1.23	1.43	0.77	2.61	0.05	0.15	0.75	3.90	11.36	99.1	0	362
SO4--	aerosol	0.99	0.81	0.75	2.15	0.03	0.23	0.77	2.79	5.71	99.7	0	364

CZ0003R Kosetice

January 2011 - December 2011

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	0.09	2.20	0.03	0.03	0.08	0.37	0.41	49.2	3	26
EC	pm25	0.46	0.35	0.36	1.98	0.06	0.12	0.34	1.09	2.10	16.4	0	60
HNO3+NO3-	air+aerosol	1.01	0.67	0.84	1.86	0.11	0.32	0.85	2.21	4.58	99.1	0	362
K+	aerosol	0.10	0.06	0.08	1.74	0.03	0.03	0.08	0.28	0.30	49.2	0	26
Mg++	aerosol	0.045	0.036	0.031	2.550	0.008	0.008	0.037	0.119	0.123	49.2	6	26
NH3+NH4+	air+aerosol	2.31	2.06	1.82	2.03	0.13	0.48	2.01	4.56	26.93	99.7	0	364
NO	air	0.42	0.52	0.23	3.14	0.05	0.05	0.23	1.34	7.33	93.8	1981	8216
NO2	air	2.50	1.63	2.12	1.78	0.76	0.76	2.25	5.10	15.74	99.1	62	362
NO2	air	2.96	1.51	2.66	1.57	0.76	1.28	2.62	5.82	15.42	93.8	0	8216
Na+	aerosol	0.10	0.09	0.07	2.56	0.03	0.03	0.09	0.30	0.34	49.2	11	26
OC	pm25	2.98	2.46	2.19	2.58	0.01	0.78	2.16	7.38	14.64	16.7	1	61
PM10 mass	pm10	17.52	11.94	14.01	2.00	2.50	3.75	15.00	45.00	58.00	40.8	7	149
PM10 mass	pm10	19.80	14.60	15.62	2.03	1.00	5.00	16.00	50.00	116.00	90.6	47	7936
PM10 mass	pm10	20.87	14.68	16.69	1.98	2.00	5.00	16.00	46.00	92.00	8.5	0	744
PM25 mass	pm25	15.00	11.97	11.19	2.25	1.00	3.00	12.00	39.00	104.00	70.8	175	6198
PM25 mass	pm25	16.07	10.04	13.40	1.85	2.50	5.75	14.00	37.50	51.00	42.1	5	154
SO2	air	0.89	1.20	0.54	2.60	0.05	0.10	0.50	3.00	9.01	99.1	0	362
SO2	air	1.05	1.40	0.61	2.77	0.12	0.12	0.67	3.60	15.99	88.5	1297	7754
SO4--	aerosol	1.04	0.96	0.77	2.13	0.10	0.27	0.73	3.06	8.18	99.4	0	363
TC	pm25	3.49	2.77	2.77	1.93	0.82	1.11	2.57	8.81	16.75	16.4	0	60

DE0001R Westerland

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm25	0.04	0.02	0.03	1.90	0.01	0.01	0.03	0.07	0.10	15.1	0	55
Cl-	pm25	0.54	0.65	0.23	4.40	0.01	0.01	0.25	2.06	2.53	15.1	0	55
K+	pm25	0.07	0.10	0.04	2.95	0.01	0.01	0.04	0.30	0.49	15.1	0	55
Mg++	pm25	0.052	0.051	0.031	2.938	0.003	0.006	0.030	0.165	0.182	15.1	0	55
NH3	air	1.12	0.87	0.90	1.95	0.13	0.29	0.93	2.88	5.34	82.2	0	50
NH4+	aerosol	1.10	1.30	0.52	4.25	0.01	0.02	0.61	4.11	7.17	51.5	0	188
NH4+	pm25	1.23	1.61	0.41	5.67	0.00	0.02	0.41	5.17	5.87	15.1	0	55
NO2	air	2.50	2.15	1.82	2.23	0.40	0.49	1.83	6.65	12.39	96.4	0	352
NO3-	aerosol	0.93	0.84	0.63	2.59	0.01	0.17	0.64	2.74	4.54	50.4	0	184
NO3-	pm25	0.68	0.96	0.22	5.13	0.02	0.02	0.16	3.09	4.04	15.1	0	55
Na+	pm25	0.42	0.43	0.22	3.43	0.02	0.03	0.24	1.39	1.54	15.1	0	55
PM10 mass	pm10	22.07	13.16	18.87	1.75	5.10	7.94	18.30	49.08	79.20	95.1	0	347
SO2	air	0.46	0.40	0.34	2.30	0.03	0.10	0.40	1.05	3.10	97.8	13	357
SO4--	pm25	0.69	0.82	0.41	2.77	0.07	0.09	0.34	3.11	3.63	15.1	0	55
SO4-- corr	pm25	0.66	0.83	0.32	3.99	-0.01	0.01	0.33	3.10	3.62	15.1	0	55

DE0002R Waldhof

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.13	0.14	0.09	2.61	0.00	0.01	0.09	0.44	0.92	98.4	0	359
Ca++	pm25	0.02	0.01	0.01	1.88	0.01	0.01	0.01	0.04	0.06	17.0	38	62
Cl-	aerosol	0.43	0.78	0.17	3.71	0.00	0.03	0.15	1.96	8.54	98.4	0	359
Cl-	pm25	0.14	0.23	0.05	4.64	0.01	0.01	0.05	0.83	1.06	17.0	23	62
EC	pm25	0.39	0.41	0.27	2.20	0.05	0.09	0.23	1.51	1.91	18.4	0	67
HNO3	air	0.26	0.22	0.19	2.14	0.03	0.06	0.17	0.65	1.56	94.5	0	345
K+	aerosol	0.20	0.24	0.15	2.02	0.02	0.05	0.15	0.53	2.81	98.4	0	359
K+	pm25	0.09	0.11	0.05	2.73	0.01	0.01	0.04	0.28	0.57	17.0	2	62
Mg++	aerosol	0.055	0.059	0.044	2.117	0.000	0.000	0.040	0.170	0.640	98.4	0	359
Mg++	pm25	0.017	0.020	0.012	2.428	0.001	0.003	0.012	0.070	0.100	17.0	2	62
NH3	air	1.78	1.37	1.33	2.38	0.00	0.33	1.50	4.40	8.02	94.8	0	346
NH4+	aerosol	1.02	1.20	0.58	3.33	0.00	0.03	0.61	3.37	7.78	98.4	0	359
NH4+	pm25	1.45	1.80	0.89	2.61	0.11	0.20	0.80	5.45	10.45	17.0	0	62
NO2	air	2.66	1.59	2.32	1.66	0.76	1.13	2.16	5.83	11.23	96.2	0	351
NO3-	aerosol	0.70	0.71	0.43	2.95	0.00	0.06	0.45	2.20	3.96	98.4	0	359
NO3-	pm25	0.64	0.89	0.24	4.70	0.01	0.02	0.26	2.59	4.35	17.0	0	62
Na+	aerosol	0.46	0.59	0.24	3.22	0.00	0.03	0.22	1.64	5.53	98.4	0	359
Na+	pm25	0.17	0.18	0.11	2.82	0.00	0.01	0.11	0.67	0.86	17.0	1	62
OC	pm25	3.14	3.30	2.27	2.09	0.72	0.93	1.86	11.80	17.51	18.4	0	67
PM1 mass	pm1	8.51	6.66	6.68	2.02	0.10	2.43	6.50	22.92	44.50	100.0	1	365
PM10 mass	pm10	18.72	14.06	15.04	1.96	0.10	6.20	14.50	49.10	91.00	100.0	1	365
PM25 mass	pm25	14.24	13.02	10.59	2.10	1.40	3.80	9.30	42.04	85.50	100.0	0	365
SO2	air	0.63	0.64	0.48	2.02	0.03	0.20	0.45	1.75	4.70	98.6	2	360
SO4--	aerosol	0.85	0.73	0.67	2.00	0.03	0.24	0.64	2.22	5.93	98.4	0	359
SO4--	pm25	0.92	1.13	0.60	2.36	0.12	0.17	0.56	3.56	7.11	17.0	0	62
SO4-- corr	aerosol	0.82	0.74	0.61	2.15	0.03	0.18	0.59	2.18	5.90	98.4	0	359
SO4-- corr	pm25	0.91	1.13	0.58	2.45	0.09	0.12	0.55	3.56	7.07	17.0	0	62
TC	pm25	3.53	3.66	2.57	2.06	0.78	1.10	2.07	13.28	19.04	18.4	0	67

DE0003R Schauinsland

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	136.03	40.34	131.13	1.30	55.50	91.70	126.70	211.91	405.20	97.9	0	8576
Ca++	pm25	0.01	0.01	0.01	1.71	0.01	0.01	0.01	0.03	0.12	33.7	93	123
Cl-	pm25	0.05	0.14	0.02	3.17	0.01	0.01	0.01	0.23	1.24	33.7	75	123
EC	pm25	0.15	0.11	0.12	2.02	0.02	0.03	0.12	0.41	0.53	16.4	0	60
K+	pm25	0.05	0.10	0.02	2.95	0.01	0.01	0.02	0.12	1.02	33.7	43	123
Mg++	pm25	0.005	0.005	0.003	2.543	0.001	0.001	0.004	0.015	0.029	33.7	38	123
NH4+	pm25	0.52	0.54	0.29	3.72	0.00	0.01	0.39	1.83	2.75	33.7	2	123
NO2	air	0.74	0.55	0.61	1.85	0.09	0.24	0.58	1.73	4.08	99.5	0	363
NO3-	pm25	0.12	0.18	0.05	3.93	0.00	0.01	0.04	0.47	1.26	33.7	4	123
Na+	pm25	0.03	0.10	0.01	3.25	0.00	0.00	0.01	0.10	1.13	33.7	44	123
OC	pm25	1.48	0.90	1.24	1.83	0.46	0.47	1.25	3.52	4.07	16.4	0	60
PM10 mass	pm10	9.27	7.14	6.89	2.28	0.30	1.62	7.70	23.92	47.80	99.5	0	363
PM25 mass	pm25	7.16	5.76	5.28	2.27	0.50	1.30	5.60	19.10	44.80	99.5	0	363
SO2	air	0.24	0.18	0.18	2.36	0.03	0.03	0.20	0.60	1.00	99.2	37	362
SO4--	pm25	0.28	0.25	0.15	4.14	0.00	0.00	0.22	0.81	0.99	33.7	8	123
SO4-- corr	pm25	0.27	0.25	0.15	4.20	-0.05	0.00	0.21	0.81	0.99	33.7	8	123
TC	pm25	1.63	1.00	1.36	1.83	0.50	0.51	1.38	3.91	4.60	16.4	0	60

DE0007R Neuglobsow

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.09	0.10	0.06	2.51	0.00	0.01	0.06	0.31	0.65	99.2	0	362
Ca++	pm25	0.02	0.01	0.01	1.84	0.01	0.01	0.01	0.05	0.06	17.0	39	62
Cl-	aerosol	0.41	0.67	0.17	3.97	0.00	0.02	0.15	1.71	4.91	98.9	0	361
Cl-	pm25	0.08	0.16	0.03	3.79	0.01	0.01	0.03	0.33	1.11	17.0	29	62
EC	pm25	0.37	0.48	0.23	2.34	0.06	0.07	0.21	1.87	2.33	17.3	0	63
HNO3	air	0.20	0.20	0.15	2.06	0.02	0.05	0.14	0.50	1.63	99.2	0	362
K+	aerosol	0.14	0.11	0.11	2.06	0.01	0.03	0.11	0.38	0.83	99.2	0	362
K+	pm25	0.09	0.12	0.05	2.82	0.01	0.01	0.04	0.31	0.64	17.0	4	62
Mg++	aerosol	0.047	0.049	0.035	2.363	0.000	0.000	0.030	0.140	0.300	99.2	0	362
Mg++	pm25	0.014	0.017	0.009	2.524	0.001	0.001	0.008	0.047	0.108	17.0	3	62
NH3	air	0.90	0.84	0.59	2.73	0.01	0.10	0.65	2.60	5.05	99.2	0	362
NH4+	aerosol	1.00	1.11	0.55	3.54	0.00	0.02	0.57	3.78	5.76	99.2	0	362
NH4+	pm25	0.94	1.06	0.56	3.12	0.00	0.11	0.60	3.82	5.21	17.0	1	62
NO2	air	1.81	1.38	1.54	1.69	0.52	0.79	1.34	3.99	10.71	99.5	0	363
NO3-	aerosol	0.60	0.62	0.37	2.86	0.00	0.06	0.36	1.92	3.18	98.9	0	361
NO3-	pm25	0.42	0.65	0.13	5.30	0.01	0.01	0.12	1.91	3.09	17.0	0	62
Na+	aerosol	0.39	0.49	0.19	3.50	0.01	0.02	0.19	1.34	3.05	99.2	0	362
Na+	pm25	0.13	0.13	0.08	2.93	0.00	0.01	0.08	0.42	0.76	17.0	3	62
OC	pm25	3.01	3.58	2.02	2.26	0.65	0.73	1.54	12.32	18.19	17.3	0	63
PM10 mass	pm10	16.55	12.56	13.37	1.87	3.20	5.40	12.25	48.50	68.60	99.2	0	362
PM25 mass	pm25	13.14	12.75	9.44	2.16	2.00	3.13	8.00	44.63	69.30	100.0	0	365
SO2	air	0.71	0.95	0.51	1.98	0.10	0.21	0.45	2.05	8.10	100.0	0	365
SO4--	aerosol	0.82	0.74	0.62	2.04	0.08	0.21	0.60	2.82	4.67	98.9	0	361
SO4--	pm25	0.75	0.78	0.51	2.36	0.10	0.12	0.45	3.00	3.52	17.0	0	62
SO4-- corr	aerosol	0.79	0.75	0.57	2.19	0.06	0.15	0.56	2.80	4.65	98.9	0	361
SO4-- corr	pm25	0.74	0.78	0.50	2.41	0.09	0.12	0.45	2.99	3.51	17.0	0	62
TC	pm25	3.38	4.00	2.28	2.24	0.76	0.87	1.84	13.62	20.52	17.3	0	63

DE0008R Schmücke

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm25	0.01	0.02	0.01	1.79	0.01	0.01	0.01	0.04	0.16	33.7	97	123
Cl-	pm25	0.06	0.10	0.03	3.43	0.01	0.01	0.02	0.33	0.59	33.7	61	123
EC	pm25	0.23	0.14	0.19	1.73	0.07	0.08	0.18	0.51	0.74	16.4	0	60
K+	pm25	0.05	0.08	0.03	2.72	0.01	0.01	0.03	0.14	0.77	33.7	27	123
Mg++	pm25	0.008	0.013	0.004	3.060	0.001	0.001	0.005	0.029	0.119	33.7	36	123
NH4+	pm25	0.69	0.76	0.34	4.52	0.00	0.02	0.47	2.30	4.09	33.7	4	123
NO2	air	1.75	1.13	1.52	1.65	0.33	0.82	1.37	4.00	7.12	97.8	0	357
NO3-	pm25	0.35	0.63	0.11	4.82	0.01	0.01	0.10	1.85	3.66	33.7	0	123
Na+	pm25	0.05	0.11	0.02	3.83	0.00	0.00	0.02	0.23	0.98	33.7	35	123
OC	pm25	1.59	1.02	1.32	1.87	0.40	0.45	1.30	4.16	4.34	16.4	0	60
PM10 mass	pm10	11.13	8.44	8.55	2.14	0.90	2.03	9.20	26.51	59.40	100.0	0	365
PM25 mass	pm25	8.48	7.70	6.00	2.37	0.50	1.20	6.40	23.37	56.00	100.0	0	365
SO2	air	0.64	0.79	0.41	2.58	0.03	0.10	0.40	2.13	6.35	83.8	8	306
SO4--	pm25	0.52	0.53	0.30	3.67	0.00	0.02	0.36	1.96	2.51	33.7	3	123
SO4-- corr	pm25	0.52	0.53	0.29	3.86	0.00	0.02	0.36	1.96	2.50	33.7	3	123
TC	pm25	1.82	1.14	1.53	1.82	0.49	0.54	1.49	4.68	5.08	16.4	0	60

DE0009R Zingst

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm25	0.02	0.01	0.02	1.81	0.01	0.01	0.01	0.04	0.04	15.3	0	56
Cl-	pm25	0.15	0.18	0.07	4.46	0.01	0.01	0.10	0.64	0.83	15.3	0	56
K+	pm25	0.10	0.12	0.06	2.98	0.01	0.01	0.06	0.52	0.58	15.3	0	56
Mg++	pm25	0.013	0.013	0.008	2.835	0.001	0.001	0.009	0.044	0.057	15.3	0	56
NH3	air	0.96	1.61	0.55	2.67	0.05	0.09	0.55	3.21	10.92	83.8	0	51
NH4+	aerosol	1.04	1.18	0.53	3.93	0.01	0.03	0.60	3.60	6.23	56.7	0	207
NH4+	pm25	1.11	1.51	0.39	6.54	0.00	0.00	0.53	4.73	7.53	15.3	0	56
NO2	air	2.35	1.46	2.02	1.70	0.49	0.97	1.92	5.50	9.71	98.9	0	361
NO3-	aerosol	0.81	0.81	0.51	2.88	0.01	0.10	0.54	2.50	5.35	56.7	0	207
NO3-	pm25	0.51	0.80	0.15	5.79	0.00	0.01	0.11	2.83	3.35	15.3	0	56
PM10 mass	pm10	18.65	14.16	14.97	1.90	4.10	5.83	14.10	49.00	79.80	100.0	0	365
SO2	air	0.68	0.67	0.53	1.90	0.15	0.25	0.45	1.88	5.95	99.7	0	364
SO4--	pm25	0.68	0.91	0.30	5.04	0.00	0.00	0.41	3.32	4.85	15.3	0	56
SO4-- corr	pm25	0.67	0.91	0.28	5.63	0.00	0.00	0.41	3.32	4.83	15.3	0	56

DE0044R Melpitz

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm10	0.94	0.71	0.73	2.07	0.00	0.22	0.77	2.25	10.87	38.5	0	3371
Ca++	pm25	0.07	0.09	0.06	1.69	0.01	0.03	0.06	0.12	1.58	99.7	0	364
Cl-	pm10	0.38	0.54	0.20	3.01	0.01	0.04	0.19	1.32	6.70	23.3	0	2038
Cl-	pm25	0.11	0.20	0.05	4.25	0.00	0.00	0.04	0.49	1.60	99.7	0	364
EC	pm25	1.08	1.40	0.67	2.61	0.04	0.14	0.62	4.07	11.03	99.7	0	364
K+	pm10	0.13	0.26	0.09	2.00	0.00	0.04	0.09	0.28	6.89	13.3	0	1165
K+	pm25	0.07	0.12	0.03	4.38	-0.00	0.00	0.03	0.31	1.40	99.7	0	364
Mg++	pm10	0.286	0.329	0.193	2.388	0.008	0.046	0.191	0.876	4.327	39.0	0	3412
Mg++	pm25	0.008	0.012	0.006	2.465	-0.001	0.000	0.005	0.025	0.142	99.7	0	364
NH4+	pm10	1.50	1.44	1.01	2.52	0.02	0.22	1.05	4.58	10.59	39.1	0	3429
NH4+	pm25	2.42	3.14	1.04	3.96	0.08	0.14	0.92	9.54	17.68	99.7	0	364
NO	air	0.99	1.85	0.66	2.07	0.12	0.28	0.56	2.96	40.18	99.6	0	8729
NO2	air	3.48	2.02	2.99	1.74	0.41	1.21	2.98	7.46	15.58	99.6	0	8729
NO3-	pm10	1.23	0.97	0.92	2.19	0.08	0.26	0.92	3.14	6.53	39.2	0	3438
NO3-	pm25	0.71	0.91	0.30	3.96	0.02	0.04	0.27	2.78	5.15	99.7	0	364
Na+	pm10	0.28	0.41	0.16	2.72	0.02	0.04	0.14	0.97	3.64	6.9	0	604
Na+	pm25	0.07	0.09	0.04	3.15	-0.01	0.00	0.04	0.22	1.07	99.7	0	364
OC	pm25	2.15	2.21	1.44	2.41	0.13	0.36	1.33	7.61	11.13	99.7	0	364
PM10 mass	pm10	24.12	13.78	21.41	1.58	8.78	11.52	19.49	60.15	86.60	100.0	0	365
PM25 mass	pm25	20.08	12.97	17.30	1.67	6.55	8.83	15.70	51.71	87.32	99.7	0	364
SO4--	pm10	0.79	0.71	0.61	2.04	0.04	0.21	0.57	2.22	13.78	39.2	0	3438
SO4--	pm10	0.95	0.87	0.71	2.08	0.08	0.24	0.66	2.76	6.35	100.0	0	365
SO4--	pm25	0.86	0.78	0.64	2.17	0.05	0.19	0.61	2.51	6.03	99.7	0	364
SO4-- corr	pm10	0.76	0.71	0.56	2.35	-1.52	0.11	0.55	2.14	13.48	39.2	0	3433
SO4-- corr	pm25	0.86	0.78	0.63	2.18	0.05	0.18	0.60	2.50	6.02	99.7	0	364

DK0003R Tange

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.14	0.12	0.11	2.07	-0.00	0.04	0.11	0.39	1.19	98.3	7	359
Cl-	aerosol	2.05	2.18	1.17	3.15	0.01	0.19	1.19	6.76	14.76	79.9	1	292
HNO3+NO3-	air+aerosol	0.92	1.07	0.58	2.70	0.01	0.09	0.60	2.89	10.62	97.5	1	356
K+	aerosol	0.13	0.13	0.10	2.25	0.00	0.02	0.10	0.36	1.37	97.7	67	357
NH3	air	1.30	1.30	0.82	2.79	-0.00	0.16	0.85	4.22	7.13	80.2	3	293
NH4+	aerosol	1.21	1.22	0.81	2.50	0.07	0.17	0.81	3.97	6.65	79.1	0	289
Na+	aerosol	1.20	1.21	0.71	3.06	0.00	0.10	0.78	3.78	7.71	97.7	2	357
SO2	air	0.19	0.33	0.09	3.12	0.00	0.01	0.10	0.62	2.71	80.2	26	293
SO4--	aerosol	0.67	0.49	0.55	1.86	0.11	0.19	0.55	1.49	4.39	79.6	0	291
SO4-- corr	aerosol	0.57	0.51	0.41	2.31	0.04	0.09	0.44	1.45	4.39	79.6	0	291

DK0005R Keldsnor

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.53	1.62	0.17	3.66	-0.12	0.03	0.12	2.13	34.91	89.7	4375	7854
NO2	air	3.07	2.93	2.00	2.68	-0.17	0.36	2.17	8.90	27.89	89.7	187	7854

DK0008R Anholt

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.13	0.09	0.10	1.92	0.01	0.04	0.11	0.26	0.85	67.0	3	245
Cl-	aerosol	2.63	2.65	1.52	3.31	0.00	0.15	1.73	7.63	18.43	97.7	3	357
HNO3+NO3-	air+aerosol	0.94	0.95	0.62	2.52	0.05	0.12	0.62	2.80	6.72	97.7	0	357
K+	aerosol	0.11	0.09	0.08	2.35	0.01	0.01	0.09	0.24	0.61	93.6	82	342
NH3	air	0.24	0.40	0.10	4.64	-0.01	0.00	0.13	0.85	4.29	96.6	84	353
NH4+	aerosol	1.18	1.31	0.72	2.80	0.05	0.13	0.71	3.85	8.44	95.3	0	348
NO	air	0.21	0.44	0.11	2.69	0.01	0.03	0.10	0.76	8.28	40.4	2409	3542
NO2	air	2.40	2.01	1.83	2.05	0.36	0.63	1.75	6.32	20.22	40.4	0	3542
Na+	aerosol	1.68	1.43	1.13	2.66	0.07	0.17	1.25	4.44	9.72	96.4	0	352
SO2	air	0.33	0.36	0.20	2.72	0.01	0.04	0.21	1.08	2.41	97.5	3	356
SO4--	aerosol	0.79	0.61	0.64	1.85	0.12	0.24	0.63	1.94	5.13	97.7	0	357
SO4-- corr	aerosol	0.66	0.65	0.44	2.62	-0.01	0.07	0.50	1.92	5.08	97.7	0	357

DK0010G Nord, Greenland

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.03	0.02	0.02	2.65	0.00	0.00	0.03	0.06	0.07	68.8	14	36
Cl-	aerosol	0.25	0.39	0.08	6.67	-0.00	-0.00	0.04	1.27	1.71	95.6	26	50
K+	aerosol	0.01	0.01	0.01	3.21	0.00	0.00	0.01	0.04	0.04	76.4	40	40
NH3	air	0.00	0.00	0.00	2.51	-0.00	-0.00	0.00	0.01	0.02	97.5	51	51
NH4+	aerosol	0.04	0.03	0.03	2.49	-0.00	0.00	0.03	0.09	0.18	97.5	36	51
NO3-	aerosol	0.01	0.01	0.01	1.78	0.00	0.01	0.01	0.03	0.04	97.5	48	51
Na+	aerosol	0.18	0.23	0.07	5.35	0.00	0.00	0.07	0.75	0.96	97.5	16	51
SO2	air	0.07	0.17	0.02	4.78	0.00	0.00	0.01	0.33	1.16	97.5	30	51
SO4--	aerosol	0.12	0.10	0.08	2.62	0.00	0.01	0.07	0.32	0.38	97.5	4	51
SO4-- corr	aerosol	0.09	0.11	0.07	2.64	-0.22	-0.07	0.07	0.30	0.36	97.5	4	51

DK0012R Risoe

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.17	0.13	0.13	2.14	0.00	0.04	0.13	0.41	0.94	93.3	7	341
Cl-	aerosol	1.51	1.84	0.79	3.48	-0.05	0.08	0.80	5.67	10.01	93.1	10	340
HNO3+NO3-	air+aerosol	1.13	0.98	0.79	2.40	0.07	0.17	0.83	3.29	6.13	92.5	0	338
K+	aerosol	0.13	0.14	0.09	2.21	0.00	0.02	0.10	0.31	1.35	92.5	70	338
NH3	air	0.77	0.98	0.37	4.43	-0.00	0.01	0.50	2.75	8.27	92.8	35	339
NH4+	aerosol	1.51	1.38	1.00	2.63	-0.01	0.19	1.04	4.62	6.79	92.5	1	338
NO	air	0.49	1.46	0.18	3.55	-0.26	0.02	0.15	1.67	40.19	85.3	3615	7470
NO2	air	2.81	2.46	2.01	2.32	-0.15	0.50	2.08	7.74	19.45	85.3	32	7470
Na+	aerosol	0.99	1.00	0.60	2.85	0.04	0.10	0.68	3.17	5.44	92.5	0	338
PM10 mass	pm10	27.28	15.77	23.79	1.67	5.70	10.53	22.60	63.51	100.00	83.6	0	305
SO2	air	0.33	0.42	0.19	2.79	0.01	0.04	0.19	1.08	3.40	92.5	6	338
SO4--	aerosol	0.77	0.68	0.59	2.08	0.01	0.20	0.57	2.21	4.60	93.3	1	341
SO4-- corr	aerosol	0.70	0.70	0.48	2.46	-0.01	0.09	0.48	2.19	4.60	93.3	1	341

DK0031R Ulborg

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.13	0.09	0.10	1.91	0.01	0.04	0.10	0.28	0.65	86.2	4	315
Cl-	aerosol	2.63	2.38	1.58	3.07	0.10	0.21	1.91	7.47	10.14	75.5	0	276
HNO3+NO3-	air+aerosol	0.87	0.90	0.52	2.94	0.01	0.08	0.50	2.91	4.53	93.3	3	341
K+	aerosol	0.10	0.06	0.08	1.83	0.01	0.03	0.09	0.21	0.48	93.6	58	342
NH3	air	0.33	0.36	0.21	2.71	0.01	0.04	0.21	1.05	2.85	74.2	17	271
NH4+	aerosol	1.06	1.25	0.56	3.32	0.04	0.07	0.57	4.04	5.88	75.8	7	277
Na+	aerosol	1.56	1.30	0.96	3.17	0.02	0.12	1.31	4.21	5.63	93.6	1	342
SO2	air	0.14	0.20	0.07	3.44	0.00	0.01	0.08	0.53	1.92	73.6	41	269
SO4--	aerosol	0.71	0.59	0.56	1.91	0.11	0.20	0.54	1.74	4.06	75.8	0	277
SO4-- corr	aerosol	0.57	0.63	0.36	2.80	0.03	0.05	0.39	1.71	4.04	75.8	0	277

EE0009R Lahemaa

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	2.77	2.74	1.86	2.87	0.03	0.48	2.08	7.02	28.58	100.0	11	365
SO2	air	1.15	1.51	0.67	2.99	0.03	0.12	0.65	3.51	16.27	100.0	14	365

ES0007R Víznar

January 2011 - December 2011

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	0.17	0.42	1.50	0.03	0.22	0.42	0.75	1.08	96.1	1	351
NH3+NH4+	air+aerosol	1.40	0.67	1.25	1.64	0.27	0.49	1.31	2.73	4.58	96.4	0	352
NO	air	0.30	1.01	0.06	5.39	0.00	0.00	0.04	1.29	24.31	97.3	0	8520
NO2	air	1.88	2.12	1.28	2.31	0.05	0.39	1.17	5.80	26.41	97.3	0	8520
NO3-	pm10	0.39	0.31	0.30	2.23	0.01	0.07	0.33	0.82	3.74	93.3	6	341
PM10 mass	pm10	17.29	11.53	14.03	1.96	1.00	4.00	15.00	39.10	78.00	92.5	0	338
PM25 mass	pm25	8.98	4.58	7.82	1.73	2.00	3.00	8.00	17.00	31.00	84.9	0	310
SO2	air	0.44	0.51	0.29	2.46	0.00	0.06	0.30	1.25	8.48	97.6	0	8547
SO4--	pm10	0.58	0.34	0.50	1.76	0.10	0.18	0.50	1.16	2.36	93.3	0	341

ES0008R Niembro

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.66	0.48	0.54	1.95	0.04	0.25	0.53	1.66	3.39	99.9	7	365
NH3	air	0.83	0.91	0.18	11.71	0.01	0.01	0.77	2.86	4.21	97.8	19	51
NH3+NH4+	air+aerosol	2.04	1.15	1.77	1.71	0.35	0.74	1.82	4.34	9.05	99.4	0	363
NO	air	0.14	0.27	0.07	3.00	0.00	0.01	0.06	0.57	6.76	98.4	0	8619
NO2	air	1.30	1.04	0.98	2.22	0.02	0.25	1.05	3.26	18.93	98.4	0	8619
NO3-	pm10	0.40	0.39	0.27	2.55	0.01	0.06	0.30	1.20	3.03	96.6	6	353
PM10 mass	pm10	18.42	9.38	16.41	1.63	2.00	8.00	17.00	40.65	61.00	94.7	0	346
PM25 mass	pm25	7.75	4.92	6.44	1.87	1.00	2.00	7.00	18.25	30.00	96.9	0	354
SO2	air	0.41	0.43	0.29	2.28	0.01	0.08	0.28	1.18	5.24	98.7	0	8650
SO4--	pm10	0.81	0.54	0.67	1.90	0.05	0.28	0.67	1.87	3.45	96.6	0	353

ES0009R Campisabalos

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm25	0.09	0.06	0.07	2.08	0.01	0.01	0.07	0.23	0.26	13.2	1	48
Cl-	pm25	0.04	0.01	0.03	1.21	0.03	0.03	0.03	0.04	0.08	13.2	47	48
EC	pm25	0.13	0.06	0.12	1.68	0.03	0.04	0.13	0.26	0.30	10.1	0	37
HNO3+NO3-	air+aerosol	0.29	0.14	0.26	1.75	0.03	0.17	0.27	0.56	1.04	94.4	14	345
K+	pm25	0.04	0.03	0.03	2.03	0.01	0.01	0.03	0.10	0.13	13.2	0	48
Mg++	pm25	0.013	0.006	0.012	1.401	0.010	0.010	0.010	0.030	0.030	13.2	16	48
NH3	air	0.73	0.64	0.18	10.41	0.01	0.01	0.90	1.89	1.97	94.0	19	49
NH3+NH4+	air+aerosol	0.88	0.52	0.75	1.77	0.24	0.30	0.73	1.92	3.07	91.4	0	334
NH4+	pm25	0.26	0.17	0.21	1.81	0.05	0.09	0.19	0.64	0.82	13.2	0	48
NO	air	0.03	0.05	0.03	2.08	0.00	0.00	0.02	0.10	1.21	98.5	0	8632
NO2	air	0.48	0.45	0.38	1.91	0.02	0.14	0.37	1.10	8.68	98.5	0	8632
NO3-	pm25	0.07	0.07	0.04	2.74	0.01	0.01	0.04	0.24	0.30	13.2	8	48
Na+	pm25	0.26	0.38	0.12	3.39	0.02	0.02	0.10	1.20	1.64	13.2	6	48
OC	pm25	1.81	0.67	1.70	1.43	0.86	0.96	1.62	3.18	3.35	10.1	0	37
PM25 mass	pm25	4.88	2.69	4.06	1.93	1.00	1.00	5.00	10.00	15.00	82.7	2	302
SO2	air	0.19	0.15	0.15	1.89	0.01	0.06	0.15	0.46	1.98	98.9	0	8660
SO4--	pm25	0.27	0.15	0.22	2.07	0.01	0.07	0.24	0.58	0.76	13.2	1	48
SO4-- corr	pm25	0.27	0.15	0.23	1.79	0.00	0.07	0.23	0.57	0.75	13.2	1	48

ES0010R Cabo de Creus

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.51	0.41	0.32	3.09	0.04	0.04	0.43	1.17	2.91	95.3	68	348
NH3+NH4+	air+aerosol	1.53	0.85	1.34	1.67	0.34	0.58	1.39	2.92	7.00	96.6	0	353
NO	air	0.07	0.15	0.03	3.27	0.00	0.01	0.02	0.30	3.89	98.9	0	8661
NO2	air	0.77	0.79	0.50	2.79	0.01	0.08	0.55	2.29	12.58	98.9	0	8661
NO3-	pm10	0.46	0.37	0.35	2.12	0.01	0.11	0.34	1.05	2.87	91.2	1	333
PM10 mass	pm10	17.04	6.94	15.90	1.43	6.00	9.00	15.00	32.30	51.00	91.2	0	333
PM25 mass	pm25	8.07	5.31	7.06	1.62	2.00	4.00	7.00	16.00	45.00	88.7	0	324
SO2	air	0.17	0.15	0.15	1.57	0.00	0.08	0.14	0.31	4.19	97.8	0	8571
SO4--	pm10	0.78	0.52	0.65	1.83	0.17	0.27	0.64	1.88	3.17	91.2	0	333

ES0011R Barcarrota

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.36	0.18	0.31	1.84	0.03	0.19	0.32	0.73	1.07	98.0	14	358
NH3+NH4+	air+aerosol	1.31	0.60	1.16	1.70	0.20	0.44	1.28	2.39	3.33	98.0	0	358
NO	air	0.08	0.15	0.05	2.62	0.00	0.01	0.05	0.26	3.85	98.7	0	8648
NO2	air	0.74	0.55	0.58	2.02	0.03	0.18	0.60	1.79	6.84	98.7	0	8648
PM25 mass	pm25	8.36	7.05	6.58	1.97	1.00	2.00	6.00	18.95	57.00	76.6	1	280
SO2	air	0.18	0.21	0.13	2.13	0.00	0.06	0.11	0.58	3.70	98.9	0	8665

ES0012R Zarra

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.48	0.26	0.42	1.79	0.03	0.20	0.46	0.83	2.27	79.8	6	292
NH3+NH4+	air+aerosol	1.62	0.65	1.49	1.52	0.26	0.72	1.56	2.73	5.16	80.9	0	296
NO	air	0.06	0.05	0.05	1.82	0.00	0.02	0.05	0.14	0.87	98.9	0	8665
NO2	air	0.89	0.58	0.69	2.26	0.02	0.15	0.81	1.98	5.21	98.9	0	8665
PM25 mass	pm25	5.63	3.08	4.90	1.72	1.00	2.00	5.00	11.00	24.00	95.0	0	347
SO2	air	0.23	0.15	0.19	1.95	0.00	0.06	0.20	0.50	2.38	99.1	0	8681

ES0013R Penausende

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.39	0.24	0.33	1.88	0.03	0.17	0.32	0.82	2.05	99.1	12	362
NH3+NH4+	air+aerosol	0.88	0.54	0.73	1.89	0.10	0.27	0.78	2.03	3.05	98.5	0	360
NO	air	0.07	0.11	0.05	2.38	0.00	0.01	0.04	0.22	1.74	99.3	0	8699
NO2	air	1.11	0.86	0.85	2.15	0.02	0.25	0.87	2.77	9.54	99.3	0	8699
PM25 mass	pm25	5.23	3.32	4.35	1.86	1.00	1.35	4.00	11.00	24.00	94.7	0	346
SO2	air	0.25	0.18	0.21	1.79	0.00	0.08	0.20	0.57	2.72	99.4	0	8704

ES0014R Els Torms

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.59	0.42	0.47	2.15	0.03	0.04	0.51	1.43	3.37	98.0	20	358
NH3+NH4+	air+aerosol	3.88	2.21	3.42	1.64	0.74	1.57	3.45	8.58	15.25	98.5	0	360
NO	air	0.13	0.28	0.08	2.53	0.00	0.01	0.07	0.42	6.08	99.2	0	8693
NO2	air	1.30	0.99	1.05	1.90	0.04	0.41	0.99	3.26	9.55	99.2	0	8693
PM25 mass	pm25	7.62	6.16	6.12	1.92	1.00	2.00	6.00	18.60	65.00	89.5	0	327
SO2	air	0.39	0.68	0.23	2.52	0.00	0.07	0.20	1.34	20.97	99.4	0	8708

ES0016R O Saviñao

January 2011 - December 2011

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	0.22	0.29	2.41	0.03	0.04	0.35	0.76	1.65	97.7	47	357
NH3+NH4+	air+aerosol	1.66	0.96	1.40	1.82	0.23	0.45	1.44	3.48	6.42	94.4	0	345
NO	air	0.23	0.24	0.18	2.28	0.00	0.03	0.21	0.49	6.55	98.8	0	8658
NO2	air	1.29	0.85	1.09	1.79	0.15	0.42	1.09	2.81	13.83	98.8	0	8658
PM25 mass	pm25	8.50	6.83	6.91	1.87	1.00	3.00	7.00	21.00	74.00	75.3	0	275
SO2	air	0.20	0.26	0.12	2.38	0.00	0.04	0.10	0.70	2.80	99.0	0	8672

ES0017R Doñana

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.56	0.28	0.49	1.80	0.04	0.25	0.50	1.07	1.66	98.8	9	361
NH3+NH4+	air+aerosol	1.67	0.78	1.49	1.62	0.39	0.62	1.57	3.02	4.96	98.8	0	361
NO	air	0.22	0.42	0.12	2.65	0.02	0.04	0.09	0.91	7.18	98.4	0	8621
NO2	air	1.78	1.40	1.36	2.17	0.02	0.39	1.38	4.61	12.38	98.4	0	8621
SO2	air	0.27	0.47	0.17	2.33	0.00	0.05	0.16	0.79	8.78	98.4	0	8619

ES1778R Montseny

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm1	0.01	0.01	0.01	1.79	0.00	0.00	0.01	0.03	0.04	17.0	30	62
Ca++	pm10	0.29	0.20	0.21	2.52	0.01	0.04	0.27	0.78	0.83	20.0	1	73
Ca++	pm25	0.03	0.04	0.02	2.61	0.00	0.00	0.02	0.13	0.15	23.3	6	85
Cl-	pm1	0.11	0.11	0.05	4.38	0.00	0.01	0.08	0.34	0.47	17.0	13	62
Cl-	pm10	0.27	0.27	0.13	4.90	0.01	0.01	0.21	0.83	1.27	20.0	11	73
Cl-	pm25	0.12	0.14	0.05	5.06	0.01	0.01	0.07	0.42	0.68	23.3	24	85
EC	pm10	0.34	0.17	0.29	1.80	0.05	0.09	0.33	0.65	0.75	31.2	0	114
EC	pm25	0.29	0.15	0.25	1.81	0.04	0.09	0.26	0.56	0.82	22.7	0	83
K+	pm1	0.05	0.03	0.04	2.18	0.00	0.01	0.04	0.13	0.16	17.0	2	62
K+	pm10	0.15	0.09	0.13	1.71	0.03	0.05	0.13	0.33	0.47	20.0	0	73
K+	pm25	0.07	0.04	0.06	1.89	0.01	0.02	0.05	0.17	0.22	23.3	1	85
Mg++	pm1	0.004	0.006	0.008	1.515	0.000	0.000	0.000	0.010	0.030	17.0	11	62
Mg++	pm10	0.115	0.077	0.091	2.066	0.005	0.030	0.100	0.293	0.390	20.0	1	73
Mg++	pm25	0.020	0.025	0.018	1.998	0.000	0.000	0.010	0.060	0.170	23.3	0	85
NH4+	pm1	0.43	0.27	0.36	1.95	0.04	0.11	0.39	0.96	1.46	17.0	0	62
NH4+	pm10	0.48	0.43	0.34	2.39	0.03	0.08	0.35	1.49	2.41	20.0	0	73
NH4+	pm25	0.20	0.15	0.15	2.19	0.02	0.03	0.15	0.50	0.82	23.3	0	85
NO3-	pm1	0.07	0.16	0.03	3.02	0.00	0.00	0.02	0.46	1.01	17.0	12	62
NO3-	pm10	0.31	0.32	0.22	2.22	0.04	0.06	0.21	1.10	1.93	20.0	0	73
NO3-	pm25	0.11	0.23	0.05	2.94	0.00	0.00	0.04	0.69	1.23	23.3	8	85
Na+	pm1	0.03	0.03	0.02	2.21	0.00	0.00	0.02	0.09	0.19	17.0	5	62
Na+	pm10	0.43	0.39	0.30	2.50	0.03	0.05	0.28	1.21	2.01	20.0	0	73
Na+	pm25	0.10	0.08	0.07	2.46	0.01	0.01	0.07	0.25	0.49	23.3	2	85
OC	pm10	2.40	0.82	2.25	1.45	0.66	1.20	2.29	3.77	4.27	31.2	0	114
OC	pm25	1.91	0.73	1.77	1.52	0.41	0.84	1.92	3.44	3.83	22.7	0	83
PM1 mass	pm1	10.60	3.37	10.05	1.40	3.10	5.53	9.95	17.18	20.20	17.0	0	62
PM10 mass	pm10	18.52	6.86	16.98	1.59	2.80	5.74	19.10	29.72	38.70	20.0	0	73
PM25 mass	pm25	11.79	4.61	10.71	1.62	2.40	3.48	11.80	20.95	23.50	23.3	0	85
SO4--	pm1	0.66	0.41	0.53	2.07	0.04	0.14	0.58	1.43	2.26	17.0	0	62
SO4--	pm10	0.82	0.59	0.63	2.21	0.06	0.13	0.71	1.93	3.53	20.0	0	73
SO4--	pm25	0.67	0.45	0.52	2.20	0.05	0.10	0.60	1.57	2.51	23.3	0	85
TC	pm10	2.73	0.93	2.56	1.46	0.74	1.35	2.63	4.15	4.97	31.2	0	114
TC	pm25	2.20	0.84	2.03	1.53	0.46	0.96	2.15	3.79	4.65	22.7	0	83

FI0009R Utö

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.08	0.11	0.05	2.61	0.00	0.01	0.05	0.27	0.90	97.8	6	358
Cl-	aerosol	0.60	0.79	0.14	9.86	0.00	0.00	0.28	2.48	3.99	97.8	46	358
HNO3+NO3-	air+aerosol	0.35	0.27	0.26	2.38	0.01	0.06	0.29	0.88	2.03	97.0	3	355
K+	aerosol	0.06	0.05	0.04	2.32	0.00	0.01	0.04	0.14	0.47	97.8	7	358
Mg++	aerosol	0.078	0.062	0.052	2.803	0.001	0.009	0.059	0.222	0.317	97.8	4	358
NH3+NH4+	air+aerosol	0.39	0.38	0.26	2.54	0.01	0.06	0.28	1.12	2.62	97.5	0	357
NH4+	aerosol	0.30	0.35	0.18	2.81	0.00	0.03	0.20	0.92	2.27	97.0	1	355
Na+	aerosol	0.60	0.52	0.36	3.69	0.00	0.04	0.46	1.79	2.52	97.8	4	358
PM25 mass	pm25	6.36	6.65	4.21	2.77	-0.70	0.40	4.40	19.20	87.70	94.9	0	8314
SO2	air	0.32	0.53	0.19	2.70	0.01	0.04	0.19	0.88	5.90	97.5	4	356
SO4--	aerosol	0.42	0.37	0.30	2.43	0.00	0.09	0.31	1.18	2.40	97.8	3	358
SO4-- corr	aerosol	0.37	0.37	0.23	2.99	0.00	0.03	0.26	1.17	2.38	97.8	3	358

FI0017R Virolahti II

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.08	0.10	0.04	2.99	0.00	0.01	0.04	0.29	0.60	99.7	3	365
Cl-	aerosol	0.12	0.23	0.03	7.30	0.00	0.00	0.02	0.56	1.51	99.7	99	365
HNO3+NO3-	air+aerosol	0.25	0.19	0.18	2.32	0.01	0.04	0.20	0.61	1.04	99.7	8	365
K+	aerosol	0.06	0.05	0.04	2.08	0.00	0.01	0.04	0.15	0.39	99.7	1	365
Mg++	aerosol	0.032	0.026	0.023	2.480	0.001	0.005	0.024	0.085	0.197	99.7	2	365
NH3+NH4+	air+aerosol	0.41	0.32	0.30	2.32	0.04	0.06	0.33	1.11	1.89	99.7	0	365
NH4+	aerosol	0.28	0.27	0.19	2.59	0.00	0.04	0.21	0.82	1.84	98.9	0	362
NO2	air	1.40	1.64	0.90	2.53	-0.18	0.21	0.85	4.48	17.78	97.3	0	8520
Na+	aerosol	0.21	0.22	0.12	3.29	-0.01	0.02	0.13	0.64	1.55	99.7	5	365
PM10 mass	pm10	11.01	13.67	7.71	2.48	-0.10	1.39	8.40	27.00	546.70	98.4	0	8617
PM25 mass	pm25	7.20	7.33	4.87	2.73	-0.50	0.40	5.10	21.10	129.30	98.1	0	8597
SO2	air	0.47	0.68	0.23	3.52	0.01	0.03	0.23	1.98	4.56	100.0	5	366
SO2	air	0.60	1.01	0.28	3.33	-0.05	0.05	0.25	2.55	13.26	95.9	0	8399
SO4--	aerosol	0.40	0.32	0.30	2.33	0.00	0.07	0.32	1.09	1.85	99.7	2	365
SO4-- corr	aerosol	0.39	0.32	0.27	2.53	0.00	0.05	0.30	1.08	1.84	99.7	2	365

FI0022R Oulanka

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.02	0.03	0.01	2.30	0.00	0.00	0.01	0.04	0.20	99.7	0	53
Cl-	aerosol	0.07	0.14	0.03	6.08	0.00	0.00	0.02	0.42	0.78	99.7	15	53
HNO3+NO3-	air+aerosol	0.07	0.07	0.05	1.98	0.01	0.02	0.06	0.22	0.41	99.7	2	53
K+	aerosol	0.02	0.02	0.02	2.09	0.00	0.01	0.02	0.06	0.08	99.7	0	53
Mg++	aerosol	0.018	0.013	0.014	2.183	0.001	0.004	0.015	0.055	0.062	99.7	0	53
NH3+NH4+	air+aerosol	0.15	0.12	0.11	2.12	0.02	0.03	0.11	0.40	0.57	99.7	0	53
NH4+	aerosol	0.12	0.11	0.09	2.30	0.01	0.02	0.09	0.38	0.56	99.7	0	53
Na+	aerosol	0.13	0.11	0.09	2.57	0.00	0.02	0.10	0.44	0.55	99.7	0	53
SO2	air	0.26	0.38	0.12	3.43	0.01	0.02	0.11	1.41	1.76	99.7	0	53
SO4--	aerosol	0.27	0.18	0.22	1.99	0.03	0.07	0.25	0.66	0.92	99.7	0	53
SO4-- corr	aerosol	0.26	0.18	0.20	2.06	0.03	0.07	0.23	0.65	0.91	99.7	0	53

FI0036R Pallas (Matorova)

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.02	0.04	0.01	3.26	0.00	0.00	0.01	0.05	0.53	97.5	53	357
Cl-	aerosol	0.16	0.34	0.03	8.22	0.00	0.00	0.03	0.65	3.28	97.5	107	357
HNO3+NO3-	air+aerosol	0.05	0.09	0.03	2.63	0.00	0.01	0.03	0.16	1.25	96.7	65	354
K+	aerosol	0.02	0.03	0.01	2.76	0.00	0.00	0.01	0.06	0.41	97.5	23	357
Mg++	aerosol	0.019	0.025	0.010	3.264	0.001	0.001	0.011	0.060	0.229	97.5	30	357
NH3+NH4+	air+aerosol	0.11	0.14	0.07	2.63	0.00	0.01	0.06	0.36	1.57	97.5	0	356
NH4+	aerosol	0.09	0.13	0.05	2.92	0.00	0.01	0.05	0.31	1.42	96.7	3	354
Na+	aerosol	0.15	0.22	0.06	5.44	0.00	0.00	0.08	0.50	2.02	97.5	17	357
SO2	air	0.26	0.75	0.04	6.29	0.01	0.01	0.03	1.22	9.54	96.4	94	353
SO4--	aerosol	0.23	0.25	0.13	3.25	0.00	0.02	0.15	0.77	1.61	97.5	8	357
SO4-- corr	aerosol	0.21	0.25	0.11	3.70	0.00	0.01	0.13	0.77	1.60	97.5	8	357

FI0037R Ähtäri II

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.03	0.04	0.02	2.08	0.01	0.01	0.02	0.12	0.23	100.0	0	53
Cl-	aerosol	0.07	0.12	0.02	5.83	0.00	0.00	0.02	0.46	0.50	100.0	7	53
HNO3+NO3-	air+aerosol	0.14	0.10	0.12	1.81	0.04	0.04	0.12	0.36	0.55	100.0	0	53
K+	aerosol	0.04	0.02	0.04	1.61	0.01	0.02	0.04	0.09	0.14	100.0	0	53
Mg++	aerosol	0.020	0.012	0.018	1.664	0.007	0.008	0.017	0.047	0.054	100.0	0	53
NH3+NH4+	air+aerosol	0.28	0.16	0.25	1.70	0.09	0.10	0.24	0.61	0.84	100.0	0	53
NH4+	aerosol	0.19	0.15	0.15	2.09	0.02	0.04	0.14	0.52	0.84	100.0	0	53
Na+	aerosol	0.14	0.10	0.11	2.09	0.02	0.02	0.12	0.39	0.43	100.0	0	53
SO2	air	0.24	0.46	0.12	3.01	0.02	0.03	0.09	1.29	2.58	100.0	0	53
SO4--	aerosol	0.31	0.20	0.27	1.79	0.07	0.11	0.27	0.72	1.13	100.0	0	53
SO4-- corr	aerosol	0.30	0.20	0.26	1.86	0.06	0.10	0.26	0.72	1.12	100.0	0	53

FI0050R Hyytiälä

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM1 mass	pm1	3.87	2.92	3.00	2.03	0.00	0.96	2.76	9.73	14.41	96.6	0	149
PM10 mass	pm10	6.40	4.64	5.22	1.83	1.56	2.12	4.94	15.33	30.28	96.6	0	149
PM25 mass	pm25	4.95	3.32	4.03	1.86	0.79	1.54	3.65	12.45	17.27	96.6	0	149

FR0009R Revin

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	27.64	13.33	25.32	1.50	3.00	14.00	25.00	52.00	150.00	95.0	0	8325
PM25 mass	pm25	15.71	11.50	13.10	1.78	0.00	6.00	12.00	38.00	125.00	94.0	0	8237

FR0013R Peyrusse Vieille

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.13	0.08	0.12	1.56	0.01	0.06	0.11	0.27	1.15	49.9	0	4371
NO2	air	1.08	0.64	0.94	1.68	0.16	0.41	0.91	2.35	7.16	49.9	0	4373
PM10 mass	pm10	21.33	9.59	19.71	1.47	3.00	11.00	19.00	37.00	92.00	92.1	0	8066
PM25 mass	pm25	14.85	9.16	13.04	1.62	1.00	6.00	13.00	31.00	81.00	91.8	0	8043

FR0014R Montandon

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	18.92	9.86	16.50	1.83	0.00	4.00	18.00	35.00	219.00	75.6	0	6624

FR0015R La Tardière

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.07	0.16	0.02	6.47	0.00	0.00	0.01	0.32	3.49	22.6	908	1980
NO2	air	1.84	0.77	1.69	1.52	0.00	0.73	1.74	3.19	6.17	22.5	0	1970
PM10 mass	pm10	20.80	11.90	18.29	1.65	2.00	8.00	18.00	42.00	98.00	94.5	0	8274
PM25 mass	pm25	13.22	11.76	10.01	2.08	1.00	3.00	10.00	36.00	98.00	91.5	0	8017

FR0018R La Coulonche

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	11.10	5.29	9.78	1.71	2.00	3.00	11.00	19.00	30.00	29.4	0	2572

FR0019R Pic du Midi

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	108.91	19.46	107.24	1.19	38.17	81.57	106.25	141.50	310.08	71.0	0	6216

FR0030R Puy de Dôme

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	117.50	31.60	113.88	1.28	59.00	79.66	111.92	169.13	303.84	90.9	0	7966
NO2	air	0.85	0.99	0.55	2.69	0.01	0.09	0.57	2.43	16.62	93.8	1514	8221
SO2	air	0.17	0.22	0.11	2.51	0.00	0.04	0.10	0.53	6.15	95.2	0	8339

GB0002R Eskdalemuir

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.25	0.30	0.48	1.55	0.00	0.00	0.00	0.70	4.20	92.1	0	8067
NO2	air	0.98	1.01	0.86	2.00	0.00	0.00	0.60	2.90	11.60	92.1	0	8067

GB0006R Lough Navar

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	9.59	9.26	7.28	2.20	-4.00	1.00	7.00	26.00	95.00	60.0	0	5256

GB0013R Yarner Wood

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.16	0.34	0.51	1.68	0.00	0.00	0.00	0.70	4.60	85.5	0	7486
NO2	air	1.26	1.52	1.10	2.31	0.00	0.00	0.80	4.10	18.60	85.5	0	7486

GB0014R High Muffles

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.38	0.52	0.43	1.95	0.00	0.00	0.30	1.10	9.20	95.1	0	8328
NO2	air	2.25	2.02	1.62	2.39	0.00	0.30	1.70	6.10	17.10	95.1	0	8328

GB0031R Aston Hill

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.45	0.49	0.56	1.79	0.00	0.00	0.40	1.20	5.80	98.6	0	8639
NO2	air	1.58	1.92	1.09	2.34	0.00	0.20	0.80	5.20	17.10	98.6	0	8639

GB0033R Bush

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.74	1.07	0.65	1.77	0.00	0.00	0.60	1.40	50.80	98.6	0	8641
NO2	air	1.89	2.19	1.33	2.49	0.00	0.00	1.20	5.60	26.40	98.6	0	8641

GB0036R Harwell

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm10	0.07	0.13	0.03	2.77	0.00	0.02	0.02	0.41	3.74	70.7	0	6194
Ca++	pm25	0.08	0.15	0.02	3.95	0.00	0.01	0.01	0.43	1.22	39.9	2599	3498
EC	pm10	0.36	0.55	0.34	3.75	0.00	0.00	0.11	1.67	3.02	85.8	0	313
HNO3	air	0.04	0.05	0.01	3.99	0.00	0.00	0.01	0.17	0.28	25.1	699	2197
K+	pm10	0.04	0.09	0.03	1.92	0.00	0.02	0.02	0.13	1.88	70.7	0	6194
K+	pm25	0.02	0.06	0.01	1.94	0.01	0.01	0.01	0.06	0.96	39.9	3318	3498
Mg++	pm10	0.134	0.198	0.072	2.678	0.000	0.040	0.040	0.520	1.960	70.7	0	6194
Mg++	pm25	0.089	0.140	0.040	3.101	0.000	0.020	0.020	0.370	1.370	40.6	2400	3560
NH3	air	1.47	3.29	0.26	8.33	0.01	0.03	0.33	6.55	164.12	77.7	2662	6806
NH4+	pm10	1.03	2.35	0.14	7.88	0.00	0.02	0.06	5.39	62.10	70.7	0	6194
NH4+	pm25	0.14	1.04	0.02	3.84	0.00	0.01	0.01	0.64	52.12	39.9	2727	3498
NO	air	0.59	1.48	0.69	2.32	0.00	0.00	0.20	2.30	24.20	97.4	0	8528
NO	air	1.12	2.69	0.37	3.99	0.01	0.05	0.34	5.20	32.64	43.6	0	3818
NO2	air	3.09	3.71	1.88	2.79	-0.21	0.35	1.94	9.66	26.57	40.1	0	3515
NO2	air	3.12	3.31	2.08	2.53	0.00	0.50	2.00	10.50	24.20	97.4	0	8528
NO3-	pm10	0.52	0.63	0.27	3.27	0.01	0.04	0.24	1.88	3.82	22.7	0	1988
NO3-	pm25	0.37	0.52	0.15	4.42	0.00	0.01	0.14	1.52	3.43	24.1	111	2108
Na+	pm10	1.74	2.64	1.12	2.77	0.00	0.17	1.28	4.32	68.06	43.8	0	3838
Na+	pm25	1.48	2.54	0.64	3.84	0.00	0.06	0.66	6.40	40.13	31.2	0	2737
OC	pm10	2.27	1.44	1.87	1.90	0.28	0.66	1.87	5.13	8.14	85.8	0	313
PM10 mass	pm10	13.97	10.20	11.49	1.83	3.00	4.00	11.00	36.80	71.00	91.8	0	335
PM10 mass	pm10	18.12	12.71	15.14	1.80	-2.00	6.00	15.00	41.00	187.00	80.4	0	7045
PM10 mass	pm10	18.12	12.71	15.14	1.80	-2.00	6.00	15.00	41.00	187.00	80.4	0	7045
PM25 mass	pm25	10.14	9.28	7.59	2.09	0.00	3.00	7.00	30.20	63.00	84.1	0	307
PM25 mass	pm25	11.86	10.95	8.89	2.10	-3.00	3.00	8.00	34.00	99.00	94.0	0	8237
PM25 mass	pm25	11.86	10.95	8.89	2.10	-3.00	3.00	8.00	34.00	99.00	94.0	0	8237
SO2	air	0.24	0.74	0.17	1.91	0.01	0.07	0.15	0.58	31.07	76.6	0	6714
SO2	air	0.92	1.03	1.29	1.66	0.00	0.00	1.10	2.60	26.30	98.2	0	8599
SO4--	pm10	0.81	1.82	0.58	1.99	0.00	0.21	0.55	1.84	68.62	74.5	0	6523
SO4--	pm25	0.52	1.01	0.38	1.95	0.00	0.14	0.36	1.14	30.73	47.3	0	4140
SO4-- corr	pm10	0.72	0.99	0.51	2.25	-0.64	0.14	0.51	1.87	30.53	70.0	0	6136
SO4-- corr	pm25	0.43	0.85	0.35	2.11	-2.60	0.06	0.34	1.07	30.82	40.1	0	3512
TC	pm10	2.63	1.92	2.06	2.04	0.28	0.68	2.04	6.73	11.16	85.8	0	313

GB0037R Ladybower Res.

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.81	1.18	0.90	2.34	0.00	0.00	0.50	3.00	17.90	93.5	0	8191
NO2	air	2.74	2.44	2.04	2.25	0.00	0.50	2.00	7.70	27.40	93.5	0	8191
SO2	air	1.86	2.40	1.70	2.08	0.00	0.00	1.40	5.60	42.20	85.5	0	7493

GB0038R Lullington Heath

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.45	0.94	0.53	2.05	0.00	0.00	0.20	1.30	19.30	98.9	0	8667
NO2	air	2.29	2.10	1.66	2.29	0.00	0.30	1.60	6.60	18.40	98.9	0	8667
SO2	air	0.82	0.90	1.21	1.74	0.00	0.00	0.70	2.40	8.90	98.1	0	8595

GB0043R Narberth

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.33	2.01	0.67	2.26	0.00	0.00	0.00	1.00	109.30	97.7	0	8555
NO2	air	1.36	1.97	1.01	2.35	0.00	0.00	0.70	4.60	55.90	97.7	0	8555
PM10 mass	pm10	11.74	11.61	8.68	2.36	-4.00	1.00	9.00	34.00	99.00	48.3	0	4235
SO2	air	0.88	1.20	1.52	1.90	0.00	0.00	0.00	3.40	9.20	97.1	0	8506

GB0045R Wicken Fen

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	2.32	3.31	1.40	2.92	0.00	0.00	1.20	8.90	32.30	96.0	0	8407
NO2	air	3.50	2.39	2.80	2.02	0.00	0.90	2.90	8.20	18.60	96.0	0	8407
SO2	air	1.08	0.97	1.22	1.82	0.00	0.00	1.00	2.80	14.00	97.4	0	8532

GB0048R Auchencorth Moss

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm10	0.06	0.08	0.03	3.28	0.00	0.01	0.02	0.20	0.80	33.9	1742	2972
Ca++	pm25	0.05	0.05	0.03	2.97	0.00	0.01	0.03	0.14	0.49	25.9	1524	2270
Cl-	pm10	1.04	1.31	0.52	3.45	0.01	0.08	0.51	3.96	10.26	35.9	0	3147
Cl-	pm25	0.72	0.92	0.40	3.05	0.00	0.08	0.38	2.54	10.23	26.8	0	2352
HNO3	air	0.03	0.06	0.02	2.23	0.00	0.01	0.02	0.07	2.37	33.7	184	2954
K+	pm10	0.04	0.06	0.02	2.79	0.01	0.01	0.02	0.12	2.17	34.1	2692	2986
K+	pm25	0.05	0.09	0.02	3.17	0.00	0.01	0.02	0.34	0.45	25.8	2549	2262
Mg++	pm10	0.051	0.068	0.021	4.173	0.001	0.003	0.021	0.197	0.537	34.1	1213	2986
Mg++	pm25	0.038	0.045	0.019	3.325	0.001	0.003	0.019	0.136	0.409	25.9	1230	2270
NH3	air	1.05	1.14	0.67	2.60	0.02	0.18	0.61	3.31	9.80	32.0	0	2800
NH4+	pm10	0.50	0.70	0.21	4.65	0.00	0.01	0.26	1.80	6.54	34.0	328	2979
NH4+	pm25	0.50	0.74	0.19	4.85	0.00	0.01	0.22	2.03	5.30	25.6	305	2241
NO	air	0.02	0.08	0.03	3.02	-0.13	-0.05	0.01	0.10	1.87	29.3	3494	5130
NO	air	0.10	0.30	0.06	2.27	-0.01	0.03	0.04	0.33	13.50	86.6	14276	15177
NO2	air	1.08	1.29	0.75	2.23	0.03	0.23	0.70	3.15	22.47	86.6	1543	15177
NO2	air	1.13	0.49	1.03	1.57	0.07	0.46	1.09	1.90	5.59	29.3	28	5129
NO3-	pm10	0.24	0.38	0.11	3.55	0.00	0.01	0.11	0.97	3.60	37.4	211	3278
NO3-	pm25	0.20	0.36	0.09	3.54	0.00	0.01	0.09	0.91	3.40	28.5	303	2498
Na+	pm10	0.57	0.62	0.34	3.05	0.01	0.04	0.37	1.85	4.94	32.6	316	2857
Na+	pm25	0.44	0.43	0.29	2.56	0.01	0.07	0.28	1.25	4.02	24.1	0	2112
PM10 mass	pm10	7.06	7.62	5.61	2.43	-4.00	-1.00	5.00	23.00	51.00	80.2	0	7026
PM10 mass	pm10	7.80	5.61	6.41	1.84	1.00	2.00	6.00	20.00	38.00	90.7	0	331
PM25 mass	pm25	4.00	6.22	3.72	2.50	-4.00	-2.00	2.00	17.00	45.00	98.8	0	8653
PM25 mass	pm25	4.62	4.36	3.49	2.13	-1.00	1.00	3.00	14.00	30.00	97.8	0	357
SO2	air	0.10	0.29	0.05	2.52	0.00	0.02	0.04	0.28	8.76	33.7	73	2948
SO2	air	0.21	1.23	0.12	2.97	-4.93	-0.11	0.09	0.58	78.33	86.6	9959	15177
SO4--	pm10	0.34	0.29	0.24	2.48	0.01	0.05	0.26	0.92	2.69	37.4	0	3277
SO4--	pm25	0.37	0.35	0.25	2.54	0.00	0.06	0.25	1.07	2.58	28.5	0	2499
SO4-- corr	pm10	-0.27	1.35	0.19	2.84	-4.18	-3.63	0.15	0.82	2.31	37.3	0	3266
SO4-- corr	pm25	-0.14	1.24	0.21	2.95	-3.47	-3.23	0.17	1.01	2.58	28.2	0	2474

GB0050R St. Osyth

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	2.56	3.72	1.72	2.77	0.00	0.00	1.20	8.80	99.30	94.6	0	8286
NO2	air	4.61	3.80	3.43	2.20	0.00	1.00	3.40	12.50	34.60	94.6	0	8286

GB0051R Market Harborough

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.94	1.53	0.85	2.17	0.00	0.00	0.60	3.00	29.50	78.6	0	6882
NO2	air	2.82	2.86	1.95	2.49	0.00	0.30	1.90	8.50	22.90	78.6	0	6882

GB0053R Charlton Mackrell

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	0.38	0.94	0.53	2.25	0.00	0.00	0.00	1.40	18.20	91.4	0	8004
NO2	air	2.32	2.08	1.79	2.07	0.00	0.60	1.70	6.30	17.70	91.4	0	8004

GE0001R Abastumani

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Cl-	aerosol	1.66	3.85	0.83	2.98	0.04	0.12	0.80	5.12	37.79	30.6	0	109
HNO3+NO3-	air+aerosol	0.69	1.67	0.33	3.78	0.00	0.02	0.38	1.34	14.13	28.7	0	102
NH3	air	-0.01	0.11	0.05	6.59	-0.06	-0.05	-0.03	0.10	0.99	30.4	0	108
NH3+NH4+	air+aerosol	0.02	0.13	0.03	4.70	-0.06	-0.05	-0.00	0.24	1.01	30.4	0	108
NH4+	aerosol	0.15	0.13	0.10	2.25	0.02	0.02	0.07	0.46	0.54	15.6	0	54
NO3-	aerosol	0.96	3.44	0.23	5.38	0.00	0.01	0.28	2.11	33.62	31.4	0	112
SO2	air	0.23	0.26	0.18	2.26	-0.01	0.02	0.18	0.67	1.79	28.7	0	102
SO4--	aerosol	1.10	1.58	0.53	3.89	0.01	0.03	0.59	3.75	12.69	31.4	0	112

GR0001R Aliartos

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	2.07	3.04	1.39	2.12	0.50	0.50	1.40	7.00	38.40	59.1	0	5175
NO2	air	3.21	3.35	1.76	3.27	0.30	0.30	2.10	10.10	22.30	59.0	0	5169
PM10 mass	pm10	29.12	15.75	25.25	1.80	1.00	9.00	27.00	54.00	346.00	46.4	0	4067
SO2	air	1.66	1.96	1.39	1.62	1.00	1.00	1.00	3.50	45.10	57.1	0	5001

HU0002R K-puszta

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.31	0.22	0.25	2.01	0.01	0.08	0.25	0.78	1.54	98.0	1	358
NH3	air	1.52	1.04	1.12	2.57	0.00	0.16	1.32	3.48	4.74	98.0	4	358
NH4+	aerosol	1.34	1.22	0.80	3.25	0.01	0.08	0.99	4.34	5.31	98.0	2	358
NO2	air	2.17	1.16	1.91	1.66	0.41	0.86	1.89	4.48	7.18	98.0	0	358
NO3-	aerosol	0.56	0.60	0.33	2.93	0.01	0.07	0.28	1.84	2.85	97.2	0	355
SO2	air	1.34	1.87	0.70	3.17	0.01	0.14	0.66	4.83	13.04	98.0	1	358
SO4--	aerosol	1.35	1.13	1.00	2.18	0.12	0.27	0.95	3.86	6.79	97.2	0	355

IE0001R Valentia Observatory

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.10	0.17	0.07	2.38	0.03	0.03	0.07	0.28	2.72	96.7	122	354
HNO3+NO3-	air+aerosol	0.42	0.66	0.24	2.65	0.04	0.06	0.20	1.81	5.07	90.4	0	331
K+	aerosol	0.12	0.42	0.07	2.29	0.03	0.03	0.08	0.23	7.48	95.3	94	349
Mg++	aerosol	0.292	0.454	0.188	2.712	0.025	0.025	0.210	0.660	7.670	93.4	42	342
NH3+NH4+	air+aerosol	0.95	0.97	0.72	2.00	0.04	0.33	0.64	3.40	6.89	90.7	2	332
NO2	air	1.26	1.69	0.78	2.50	0.05	0.20	0.70	4.77	12.80	99.1	1	362
Na+	aerosol	2.47	4.54	1.50	3.11	0.03	0.17	1.84	5.49	78.85	91.2	7	334
SO2	air	0.25	0.36	0.15	2.58	0.01	0.04	0.13	0.79	2.99	90.4	7	331
SO4--	aerosol	0.37	0.37	0.26	2.65	0.01	0.05	0.30	0.97	4.95	93.2	15	341
SO4-- corr	aerosol	0.16	0.30	0.11	3.25	-1.65	-0.06	0.08	0.79	2.14	93.2	15	341

IE0005R Oak Park

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.08	0.06	0.06	2.16	0.01	0.02	0.06	0.22	0.41	77.5	52	283
K+	aerosol	0.07	0.06	0.06	2.00	0.01	0.02	0.06	0.19	0.45	85.5	37	312
Mg++	aerosol	0.178	0.424	0.082	2.952	0.010	0.025	0.070	0.440	4.190	86.0	68	314
NH4+	aerosol	0.55	0.78	0.29	3.39	0.02	0.02	0.29	2.13	5.41	85.5	31	312
NO3-	aerosol	0.26	0.41	0.10	4.37	0.01	0.01	0.11	1.21	2.50	85.5	32	312
Na+	aerosol	0.86	1.04	0.42	3.96	0.02	0.03	0.54	2.83	8.50	85.5	30	312
SO4--	aerosol	0.32	0.27	0.21	3.16	0.01	0.01	0.26	0.86	1.93	85.2	31	311
SO4-- corr	aerosol	0.19	0.38	0.20	2.19	-2.39	-0.01	0.16	0.73	1.80	85.2	31	311

IE0006R Malin Head

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.10	0.08	0.07	2.11	0.01	0.03	0.08	0.22	0.89	88.8	35	324
K+	aerosol	0.10	0.07	0.08	2.06	0.02	0.03	0.08	0.24	0.56	88.2	31	322
Mg++	aerosol	0.310	0.489	0.180	2.857	0.025	0.025	0.210	0.723	4.460	96.7	36	353
NH4+	aerosol	0.53	0.78	0.28	3.19	0.02	0.02	0.25	2.04	6.13	96.4	30	352
NO3-	aerosol	0.22	0.40	0.07	4.78	0.01	0.01	0.07	1.06	3.45	96.4	30	352
Na+	aerosol	2.04	1.89	1.12	4.20	0.03	0.03	1.58	5.33	18.77	96.4	30	352
SO4--	aerosol	0.40	0.26	0.28	3.10	0.01	0.01	0.36	0.95	1.53	96.4	30	352
SO4-- corr	aerosol	0.18	0.39	0.18	2.53	-2.74	-0.01	0.15	0.71	1.44	96.4	30	352

IE0008R Carnsore Point

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.15	0.11	0.11	2.36	0.01	0.03	0.13	0.36	0.55	80.8	36	295
K+	aerosol	0.23	0.28	0.13	2.78	0.02	0.03	0.14	0.88	1.85	97.8	33	357
Mg++	aerosol	0.383	0.437	0.222	3.114	0.010	0.025	0.250	1.121	3.470	89.3	34	326
NH4+	aerosol	0.97	1.69	0.37	4.03	0.02	0.02	0.33	5.19	11.07	97.8	29	357
NO3-	aerosol	0.37	0.54	0.15	4.54	0.01	0.01	0.13	1.51	3.44	97.8	29	357
Na+	aerosol	2.72	2.44	1.37	4.75	0.03	0.03	2.05	7.21	12.63	97.8	29	357
SO4--	aerosol	0.63	0.49	0.40	3.52	0.01	0.01	0.55	1.65	2.97	97.8	28	357
SO4-- corr	aerosol	0.22	0.66	0.25	2.90	-1.74	-1.28	0.18	1.36	2.73	97.8	28	357

IS0002R Irafoss

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.24	0.14	0.21	1.52	0.03	0.13	0.20	0.47	1.18	92.8	0	339
Cl-	aerosol	2.41	2.89	1.49	2.54	0.20	0.46	1.14	8.58	17.78	92.8	0	339
K+	aerosol	0.06	0.04	0.05	1.83	0.02	0.02	0.04	0.14	0.28	92.8	0	339
Mg++	aerosol	0.158	0.134	0.118	2.160	0.010	0.030	0.110	0.420	0.910	92.8	0	339
Na+	aerosol	1.03	1.30	0.62	2.65	0.09	0.15	0.55	3.61	8.60	92.8	0	339
SO2	air	0.09	0.13	0.05	2.98	0.01	0.01	0.04	0.34	0.86	89.8	124	328
SO4--	aerosol	0.18	0.13	0.14	2.09	0.02	0.04	0.14	0.44	0.75	92.2	0	337
SO4-- corr	aerosol	0.08	0.13	0.07	2.91	-0.37	-0.09	0.05	0.36	0.58	92.2	0	337

IT0001R Montelibretti

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.24	0.15	0.20	1.84	0.07	0.08	0.18	0.60	0.63	99.5	0	52
NH3	air	1.83	0.63	1.72	1.44	0.78	0.89	1.81	2.86	3.20	99.5	0	52
NH4+	aerosol	1.22	0.51	1.10	1.66	0.24	0.37	1.14	2.12	2.37	99.5	0	52
NO2	air	4.91	2.99	4.21	1.74	0.66	1.73	4.15	11.74	19.57	99.2	0	362
NO3-	aerosol	0.51	0.30	0.41	2.06	0.06	0.09	0.48	1.07	1.55	99.5	0	52
NO3-	pm10_pm25	0.21	0.18	0.15	2.39	0.02	0.03	0.17	0.61	0.71	99.5	0	52
NO3-	pm25	0.30	0.28	0.20	2.48	0.03	0.05	0.20	0.88	1.39	99.5	0	52
PM10 mass	pm10	29.23	14.98	26.79	1.62	0.00	9.90	27.00	58.30	90.00	97.8	0	357
SO2	air	0.52	0.29	0.43	1.86	0.11	0.12	0.46	1.07	1.54	99.5	0	52
SO4--	aerosol	0.86	0.47	0.73	1.89	0.13	0.19	0.85	1.88	2.16	99.5	0	52
SO4--	pm10_pm25	0.09	0.06	0.07	1.84	0.03	0.03	0.07	0.22	0.25	99.5	0	52
SO4--	pm25	0.77	0.46	0.63	1.98	0.10	0.15	0.75	1.74	2.10	99.5	0	52

IT0004R Ispra

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
EC	pm25	1.71	1.61	1.18	2.37	0.00	0.32	0.99	5.22	8.20	91.8	0	335
NH4+	pm25	1.61	1.59	1.00	3.02	-0.07	0.10	1.08	5.59	8.13	87.7	0	320
NO2	air	4.21	3.05	3.52	1.75	0.94	1.65	3.10	10.91	20.50	70.6	0	258
NO3-	pm25	1.30	1.94	0.44	5.82	-0.04	-0.01	0.33	6.08	8.96	87.7	0	320
OC	pm25	7.51	7.16	4.76	2.78	0.05	1.04	4.51	22.85	37.03	91.0	0	332
PM25 mass	pm25	22.15	18.69	15.59	2.42	0.33	3.56	15.11	60.76	96.11	86.8	0	317
SO2	air	0.37	0.57	0.21	3.41	-0.12	-0.03	0.19	1.45	5.09	85.1	0	311
SO4--	pm25	0.55	0.36	0.41	2.32	0.02	0.09	0.49	1.22	2.80	87.7	0	320
TC	pm25	9.19	8.66	5.87	2.81	0.01	1.34	5.75	27.09	43.85	91.5	0	334

LT0015R Preila

January 2011 - December 2011

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	0.55	0.56	2.01	0.07	0.17	0.55	1.78	5.04	99.4	0	363
NH3+NH4+	air+aerosol	0.98	0.87	0.70	2.38	0.04	0.16	0.71	2.73	5.61	99.4	0	363
NO2	air	1.04	0.71	0.88	1.76	0.12	0.35	0.81	2.33	4.97	98.5	0	360
SO2	air	0.36	0.55	0.23	2.41	0.02	0.07	0.20	1.10	7.60	99.1	0	362
SO4--	aerosol	0.90	0.48	0.80	1.62	0.12	0.38	0.80	1.98	2.77	99.4	0	363

LV0010R Rucava

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm25	0.17	0.25	0.07	4.01	0.00	0.00	0.05	0.79	1.22	97.5	8	51
Cl-	pm25	0.08	0.12	0.03	4.74	0.00	0.00	0.02	0.38	0.56	97.5	19	51
K+	pm25	0.10	0.09	0.07	2.12	0.01	0.02	0.07	0.32	0.43	97.5	1	51
Mg++	pm25	0.018	0.016	0.008	5.818	0.000	0.000	0.015	0.049	0.085	97.5	8	51
NH4+	pm25	0.52	0.34	0.41	2.19	0.01	0.14	0.48	0.94	2.19	97.5	0	51
NO2	air	0.88	0.64	0.71	2.00	0.04	0.20	0.72	1.87	5.34	86.3	3	315
NO3-	pm25	0.03	0.04	0.03	2.25	0.00	0.00	0.02	0.14	0.19	97.5	0	51
Na+	pm25	0.15	0.14	0.11	2.23	0.02	0.03	0.10	0.50	0.67	97.5	0	51
PM10 mass	pm10	14.38	9.39	11.88	1.87	2.80	3.73	12.50	34.60	66.30	72.9	0	266
PM25 mass	pm25	11.39	7.80	9.25	1.92	2.00	3.10	9.10	28.97	53.60	87.9	0	321
SO2	air	0.33	0.33	0.22	2.48	0.00	0.05	0.21	1.06	2.17	89.9	1	328
SO4--	pm25	0.20	0.12	0.16	2.13	0.01	0.03	0.20	0.39	0.73	97.5	0	51
SO4-- corr	pm25	0.19	0.12	0.15	2.27	0.01	0.02	0.19	0.38	0.72	97.5	0	51

MD0013R Leova II

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.38	0.34	0.27	2.27	0.02	0.08	0.22	1.07	1.84	59.9	0	219
Cl-	aerosol	0.35	0.37	0.22	2.59	0.01	0.06	0.20	1.18	2.79	59.9	0	219
HNO3	air	0.20	0.23	0.15	2.07	0.04	0.05	0.12	0.50	2.69	60.2	0	220
HNO3+NO3-	air+aerosol	0.56	0.65	0.32	2.81	0.07	0.09	0.23	1.84	3.65	59.9	0	219
K+	aerosol	0.28	0.39	0.11	4.26	0.02	0.02	0.08	0.99	2.30	59.9	0	219
Mg++	aerosol	0.054	0.044	0.041	2.058	0.010	0.020	0.030	0.149	0.210	60.2	4	220
NH3	air	0.41	0.48	0.22	3.14	0.06	0.06	0.20	1.53	2.36	59.6	0	218
NH3+NH4+	air+aerosol	0.80	0.92	0.39	3.59	0.06	0.07	0.39	2.88	4.15	58.0	0	212
NH4+	aerosol	0.41	0.62	0.08	8.11	0.01	0.01	0.07	1.85	2.54	58.5	12	214
NO2	air	0.17	0.13	0.13	2.37	0.00	0.03	0.15	0.38	1.33	99.9	0	365
NO3-	aerosol	0.37	0.52	0.14	4.21	0.01	0.03	0.10	1.44	2.91	59.9	2	219
Na+	aerosol	0.12	0.14	0.08	2.28	0.03	0.03	0.07	0.44	0.88	60.2	0	220
PM10 mass	pm10	15.87	23.47	4.13	6.18	0.25	0.50	4.15	64.45	127.70	60.2	1	220
SO2	air	0.37	0.54	0.13	4.74	0.01	0.01	0.10	1.68	2.92	58.5	0	214
SO4--	aerosol	0.44	0.61	0.16	4.86	0.01	0.01	0.15	1.85	2.96	59.1	0	216
SO4-- corr	aerosol	0.42	0.60	0.15	4.97	0.00	0.01	0.14	1.84	2.93	59.1	0	216

ME0008R Zabljak

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	1.32	0.96	1.11	1.73	0.76	0.76	0.76	2.75	8.85	96.2	0	351
SO2	air	2.15	2.00	1.71	1.80	1.25	1.25	1.25	6.01	19.54	96.2	0	351

MK0007R Lazaropole

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	1.51	3.93	0.55	3.13	0.04	0.25	0.37	6.32	71.17	39.8	0	3486
PM10 mass	pm10	15.68	11.66	11.22	2.71	0.01	2.20	13.48	35.64	238.50	42.0	0	3680
SO2	air	2.08	4.44	1.10	2.64	0.11	0.44	0.69	7.03	58.33	2.4	0	212

NL0007R Eibergen

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NH3	air	9.22	5.80	7.84	1.76	1.03	3.25	7.70	19.78	82.67	91.5	0	8013
NO	air	1.59	5.18	0.46	4.22	-0.61	-0.01	0.36	7.01	74.69	99.3	0	8698
NO2	air	4.59	3.04	3.70	1.98	0.24	1.14	3.82	10.80	21.38	99.1	0	8681
PM10 mass	pm10	26.72	20.52	20.60	2.28	-4.17	3.69	21.92	66.15	241.38	89.3	0	7819
SO2	air	0.51	1.02	0.44	2.83	-0.87	-0.35	0.33	2.11	17.58	98.9	0	8664

NL0008R Bilthoven

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.21	0.12	0.18	1.77	0.02	0.07	0.18	0.48	0.75	45.8	1	167
Cl-	aerosol	1.01	1.23	0.47	3.87	0.05	0.05	0.53	3.86	8.28	99.4	48	363
Mg++	aerosol	0.129	0.091	0.103	2.000	0.009	0.038	0.098	0.332	0.524	45.8	1	167
NH4+	aerosol	1.56	1.94	0.82	3.35	0.01	0.10	0.91	5.15	13.26	99.2	1	362
NO3-	aerosol	1.16	1.01	0.83	2.35	0.01	0.21	0.85	3.40	5.44	99.4	1	363
Na+	aerosol	0.86	0.79	0.56	2.70	0.06	0.11	0.59	2.64	4.15	45.8	0	167
SO2	air	0.60	0.63	0.56	2.55	-0.55	-0.24	0.50	1.66	4.17	8.3	0	726
SO4--	aerosol	0.94	0.94	0.72	1.99	0.02	0.27	0.66	2.38	8.24	99.4	1	363
SO4-- corr	aerosol	0.88	0.94	0.63	2.22	-0.05	0.16	0.63	2.35	8.16	99.4	1	363

NL0009R Kollumerwaard

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	173.29	83.57	157.63	1.54	10.00	89.00	152.00	339.00	904.00	97.1	0	8506
Ca++	aerosol	0.17	0.19	0.12	2.13	0.02	0.02	0.13	0.47	1.76	49.9	11	182
Cl-	aerosol	1.18	1.38	0.64	3.19	0.05	0.11	0.61	4.07	10.77	96.2	14	351
Mg++	aerosol	0.138	0.105	0.101	2.412	0.009	0.022	0.113	0.367	0.483	49.9	7	182
NH4+	aerosol	1.55	1.74	0.78	3.86	0.01	0.06	0.95	5.38	10.55	96.2	4	351
NO	air	0.97	3.16	0.39	3.98	-0.56	-0.16	0.27	3.71	62.64	96.4	0	8447
NO2	air	3.33	2.84	2.36	2.40	-0.60	0.51	2.44	9.06	20.70	95.0	0	8324
NO3-	aerosol	1.19	1.05	0.79	2.61	0.05	0.14	0.86	3.32	5.48	96.2	0	351
Na+	aerosol	0.97	0.87	0.61	2.89	0.06	0.08	0.76	2.64	3.94	49.9	0	182
PM10 mass	pm10	23.08	17.49	18.20	2.15	-9.42	4.13	18.96	55.58	219.59	92.0	0	8061
PM25 mass	pm25	12.84	12.07	8.85	2.41	0.57	2.25	8.70	35.62	77.91	96.2	0	351
SO2	air	0.28	0.51	0.33	2.69	-1.27	-0.47	0.25	1.09	6.30	93.4	0	8182
SO4--	aerosol	0.82	0.85	0.63	1.97	0.10	0.22	0.58	2.29	6.64	96.2	0	351
SO4-- corr	aerosol	0.76	0.87	0.50	2.53	-0.00	0.10	0.54	2.28	6.60	96.2	0	351

NL0010R Vredepeel

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.29	0.20	0.23	2.00	0.02	0.07	0.24	0.67	1.17	49.6	1	181
Cl-	aerosol	0.68	0.78	0.37	3.20	0.05	0.05	0.38	2.49	4.37	99.7	42	364
Mg++	aerosol	0.118	0.068	0.100	1.786	0.022	0.036	0.107	0.248	0.399	49.6	0	181
NH4+	aerosol	1.82	1.84	1.17	2.70	0.06	0.18	1.26	5.56	11.89	99.7	0	364
NO	air	2.60	7.23	0.75	4.69	-2.32	-0.14	0.52	12.75	85.12	95.3	0	8345
NO2	air	5.54	3.74	4.35	2.08	-0.02	1.19	4.52	12.86	23.96	97.1	0	8507
NO3-	aerosol	1.33	1.05	1.00	2.16	0.15	0.28	1.03	3.62	5.74	99.7	0	364
Na+	aerosol	0.64	0.57	0.44	2.39	0.07	0.12	0.47	1.87	3.04	49.6	0	181
PM10 mass	pm10	28.55	19.63	22.91	2.17	-5.37	4.81	24.90	67.82	272.03	93.3	0	8177
PM25 mass	pm25	15.97	13.15	12.12	2.10	1.75	3.46	11.70	43.44	82.13	97.3	0	355
SO2	air	0.64	0.94	0.83	2.11	-2.36	-0.94	0.73	2.12	3.98	10.5	0	922
SO4--	aerosol	0.97	0.85	0.77	1.89	0.16	0.32	0.72	2.97	5.74	99.7	0	364
SO4-- corr	aerosol	0.93	0.86	0.71	2.03	0.10	0.23	0.69	2.94	5.70	99.7	0	364

NL0011R Cabauw Zijdeweg

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
EC	pm25	0.54	0.46	0.43	2.06	0.00	0.12	0.42	1.48	3.18	24.9	0	91
NO	air	2.61	7.66	0.72	5.18	-0.88	-0.17	0.42	13.59	111.13	90.8	0	7953
NO2	air	6.22	4.36	4.80	2.14	0.18	1.24	5.10	14.68	31.01	90.8	0	7953
OC	pm25	2.25	2.21	1.66	2.16	0.00	0.51	1.46	8.02	11.14	24.9	0	91
PM25 mass	pm25	15.25	13.64	11.18	2.18	2.27	3.42	9.95	41.77	87.42	49.6	0	181
SO2	air	0.95	1.39	0.87	2.80	-2.12	-0.75	0.73	3.32	21.32	93.5	0	8187
TC	pm25	2.79	2.56	2.13	2.09	0.00	0.63	1.88	8.91	14.33	24.9	0	91

NL0091R De Zilk

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Cl-	aerosol	1.75	2.02	0.84	3.76	0.05	0.10	0.80	6.07	10.85	95.3	13	348
NH3	air	1.73	2.09	0.99	2.95	0.00	0.16	0.92	6.12	20.34	85.1	0	7458
NH4+	aerosol	1.38	1.85	0.59	4.14	0.01	0.06	0.65	5.02	12.56	95.3	4	348
NO	air	2.28	7.03	0.46	5.84	-0.78	-0.04	0.28	11.98	92.98	98.2	0	8605
NO2	air	5.33	4.43	3.53	2.73	0.08	0.56	4.08	14.21	27.14	98.0	0	8589
NO3-	aerosol	1.11	1.02	0.76	2.42	0.08	0.17	0.70	3.62	5.17	95.3	0	348
PM10 mass	pm10	23.67	18.73	17.92	2.46	-5.77	1.73	19.67	61.46	137.54	90.3	0	7908
PM25 mass	pm25	12.67	12.80	8.73	2.31	1.32	2.65	7.56	38.93	81.55	98.1	0	358
SO2	air	0.85	0.97	0.65	2.75	-1.22	-0.19	0.65	2.53	15.30	99.0	0	8671
SO4--	aerosol	0.96	0.87	0.77	1.83	0.24	0.32	0.71	2.66	6.84	95.3	0	348
SO4-- corr	aerosol	0.94	0.88	0.74	1.89	0.12	0.30	0.69	2.61	6.84	95.3	0	348

NO0002R Birkenes II

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.04	0.04	0.03	2.85	0.00	0.01	0.03	0.11	0.42	99.1	71	332
Cl-	aerosol	0.53	0.87	0.14	6.99	0.01	0.01	0.17	2.48	5.97	99.4	82	333
EC	pm10	0.11	0.09	0.09	2.00	0.02	0.03	0.08	0.39	0.44	98.1	0	52
EC	pm25	0.11	0.10	0.08	2.09	0.02	0.03	0.08	0.36	0.44	100.0	0	53
HNO3	air	0.11	0.14	0.05	3.47	0.01	0.01	0.06	0.36	1.13	99.6	105	364
HNO3+NO3-	air+aerosol	0.37	0.57	0.18	3.33	0.02	0.02	0.18	1.46	5.92	99.6	0	364
K+	aerosol	0.08	0.24	0.05	2.56	0.01	0.01	0.05	0.17	4.29	99.1	20	332
Mg++	aerosol	0.078	0.185	0.036	3.658	0.003	0.005	0.040	0.224	2.160	99.1	57	332
NH3	air	0.31	0.27	0.25	1.91	0.03	0.09	0.24	0.73	2.31	99.6	1	364
NH3+NH4+	air+aerosol	0.63	0.69	0.42	2.32	0.05	0.13	0.36	2.06	4.50	99.4	0	363
NH4+	aerosol	0.32	0.61	0.08	6.43	0.01	0.01	0.10	1.64	4.24	99.1	68	332
NO2	air	0.43	0.51	0.29	2.43	0.01	0.07	0.28	1.21	4.67	99.9	2	365
NO3-	aerosol	0.27	0.52	0.12	3.79	0.01	0.01	0.12	1.31	5.59	99.4	10	333
Na+	aerosol	0.53	0.60	0.28	4.08	0.01	0.02	0.33	1.84	3.63	99.1	12	332
OC	pm10	0.92	0.67	0.72	2.00	0.16	0.22	0.77	2.66	3.14	100.0	0	53
OC	pm25	0.68	0.50	0.54	1.95	0.14	0.18	0.57	1.92	2.46	100.0	0	53
PM10 mass	pm10	7.04	4.08	6.05	1.73	1.05	2.96	5.83	17.09	18.53	96.9	0	51
PM25 mass	pm25	4.15	3.02	3.38	1.95	0.00	0.89	3.54	12.20	13.62	98.8	0	52
SO2	air	0.11	0.14	0.05	3.49	0.01	0.01	0.07	0.38	0.85	99.6	99	364
SO4--	aerosol	0.33	0.39	0.20	3.18	0.01	0.02	0.23	0.90	3.20	99.4	5	333
SO4-- corr	aerosol	0.29	0.39	0.14	4.02	-0.04	0.01	0.19	0.89	3.17	99.5	6	334
TC	pm10	0.98	0.67	0.79	1.93	0.20	0.26	0.87	2.42	3.44	98.1	0	52
TC	pm25	0.80	0.59	0.63	1.94	0.19	0.21	0.64	2.32	2.90	100.0	0	53

NO0015R Tustervatn

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.03	0.04	0.02	2.73	0.01	0.01	0.02	0.09	0.35	98.8	107	361
Cl-	aerosol	0.32	0.63	0.06	6.57	0.01	0.01	0.04	1.58	5.43	98.8	153	361
HNO3	air	0.05	0.07	0.03	2.96	0.01	0.01	0.01	0.21	0.47	97.5	218	356
HNO3+NO3-	air+aerosol	0.25	0.61	0.08	3.46	0.02	0.02	0.06	1.65	5.38	97.5	0	356
K+	aerosol	0.05	0.05	0.03	2.55	0.01	0.01	0.04	0.14	0.30	98.8	36	361
Mg++	aerosol	0.034	0.049	0.016	3.334	0.005	0.005	0.020	0.140	0.390	98.8	165	361
NH3	air	0.71	0.53	0.56	2.08	0.07	0.14	0.58	1.63	4.15	98.8	0	361
NH3+NH4+	air+aerosol	0.94	0.80	0.70	2.15	0.08	0.21	0.70	2.59	5.70	98.8	0	361
NH4+	aerosol	0.23	0.53	0.04	6.32	0.01	0.01	0.04	1.46	4.37	98.8	110	361
NO2	air	0.14	0.09	0.11	2.11	0.01	0.01	0.12	0.29	0.67	99.6	21	364
NO3-	aerosol	0.19	0.55	0.04	4.54	0.01	0.01	0.04	1.39	5.17	98.8	55	361
Na+	aerosol	0.25	0.39	0.09	4.70	0.01	0.01	0.10	1.08	3.08	98.8	34	361
SO2	air	0.08	0.11	0.03	3.56	0.01	0.01	0.03	0.29	0.74	97.7	176	357
SO4--	aerosol	0.13	0.13	0.07	3.27	0.01	0.01	0.09	0.43	0.75	98.8	25	361
SO4-- corr	aerosol	0.11	0.13	0.06	3.35	-0.01	0.00	0.06	0.42	0.70	98.9	25	362

NO0039R Kårvatn

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.03	0.06	0.01	2.76	0.01	0.01	0.02	0.08	0.94	98.0	132	358
Cl-	aerosol	0.24	0.55	0.04	5.64	0.01	0.01	0.02	1.44	4.02	98.0	165	358
EC	pm10	0.07	0.05	0.06	1.91	0.01	0.02	0.05	0.21	0.24	95.5	0	50
EC	pm25	0.07	0.04	0.06	1.78	0.02	0.02	0.06	0.17	0.20	95.5	0	50
HNO3	air	0.04	0.07	0.02	2.97	0.01	0.01	0.01	0.20	0.51	98.0	236	358
HNO3+NO3-	air+aerosol	0.17	0.44	0.06	3.06	0.01	0.02	0.05	0.79	4.04	98.0	0	358
K+	aerosol	0.05	0.04	0.03	2.48	0.01	0.01	0.04	0.12	0.47	98.0	38	358
Mg++	aerosol	0.027	0.043	0.013	3.002	0.005	0.005	0.010	0.130	0.290	98.0	161	358
NH3	air	0.72	0.66	0.57	1.97	0.07	0.20	0.58	1.70	7.21	98.0	0	358
NH3+NH4+	air+aerosol	0.88	0.81	0.66	2.04	0.11	0.22	0.66	2.47	7.40	98.0	0	358
NH4+	aerosol	0.15	0.44	0.03	5.99	0.01	0.01	0.01	0.69	3.32	98.0	164	358
NO2	air	0.26	0.35	0.19	2.24	0.01	0.05	0.19	0.71	4.53	99.9	7	365
NO3-	aerosol	0.12	0.39	0.03	3.91	0.01	0.01	0.03	0.57	3.62	98.0	65	358
Na+	aerosol	0.21	0.34	0.09	3.96	0.01	0.01	0.09	1.01	2.50	98.0	28	358
OC	pm10	0.91	0.58	0.74	1.95	0.26	0.27	0.76	2.02	2.62	95.5	0	50
OC	pm25	0.68	0.43	0.57	1.77	0.25	0.26	0.64	1.72	2.36	95.5	0	50
PM10 mass	pm10	3.58	1.77	3.02	2.00	0.22	0.80	3.51	6.91	7.47	99.4	0	52
PM25 mass	pm25	2.60	1.47	2.22	1.76	0.76	0.91	2.34	5.95	6.20	97.5	0	51
SO2	air	0.07	0.11	0.03	3.46	0.01	0.01	0.01	0.31	0.82	98.0	187	358
SO4--	aerosol	0.13	0.14	0.08	3.12	0.01	0.01	0.09	0.41	0.95	98.0	16	358
SO4-- corr	aerosol	0.12	0.14	0.07	3.11	-0.02	0.00	0.07	0.40	0.94	98.1	16	359
TC	pm10	0.98	0.60	0.81	1.91	0.28	0.30	0.87	2.17	2.73	95.5	0	50
TC	pm25	0.74	0.46	0.64	1.75	0.27	0.28	0.70	1.80	2.48	95.5	0	50

NO0042G Zeppelin mountain (Ny-Ålesund)

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	108.07	27.34	104.73	1.28	71.86	74.28	102.65	149.42	187.07	80.3	0	293
Ca++	aerosol	0.04	0.07	0.02	2.98	0.00	0.01	0.02	0.11	0.78	93.9	102	343
Cl-	aerosol	0.35	0.66	0.10	5.64	0.01	0.01	0.14	1.29	6.72	93.3	87	341
HNO3	air	0.03	0.07	0.02	2.48	0.01	0.01	0.01	0.16	0.61	94.2	274	344
HNO3+NO3-	air+aerosol	0.11	0.26	0.05	2.72	0.01	0.02	0.04	0.47	2.60	93.3	0	341
K+	aerosol	0.04	0.04	0.03	2.65	0.00	0.01	0.03	0.11	0.33	93.9	58	343
Mg++	aerosol	0.042	0.059	0.022	3.194	0.000	0.005	0.030	0.138	0.540	93.9	99	343
NH3	air	0.32	0.30	0.23	2.26	0.02	0.06	0.20	0.96	2.14	94.2	2	344
NH3+NH4+	air+aerosol	0.39	0.40	0.27	2.25	0.03	0.09	0.23	1.15	3.06	93.9	0	343
NH4+	aerosol	0.07	0.25	0.02	4.39	0.00	0.01	0.01	0.33	2.80	93.9	189	343
NO3-	aerosol	0.07	0.24	0.02	3.56	0.00	0.01	0.02	0.25	2.55	93.3	78	341
Na+	aerosol	0.26	0.37	0.12	4.06	0.01	0.01	0.14	0.85	3.22	93.9	23	343
SO2	air	0.10	0.21	0.04	3.81	0.01	0.01	0.03	0.40	2.04	94.2	154	344
SO4--	aerosol	0.12	0.12	0.06	3.53	0.00	0.01	0.07	0.34	0.77	93.3	37	341
SO4-- corr	aerosol	0.09	0.11	0.06	3.20	-0.07	0.00	0.06	0.29	0.71	93.4	37	342

NO0056R Hurdal

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.04	0.04	0.02	2.63	0.01	0.01	0.03	0.10	0.36	96.7	68	354
Cl-	aerosol	0.10	0.19	0.03	4.18	0.01	0.01	0.01	0.48	1.48	97.0	181	355
EC	pm10	0.17	0.10	0.15	1.62	0.06	0.07	0.14	0.39	0.59	99.4	0	52
EC	pm25	0.17	0.09	0.15	1.61	0.07	0.07	0.14	0.36	0.48	99.4	0	52
HNO3	air	0.10	0.10	0.05	3.26	0.01	0.01	0.06	0.32	0.54	97.2	90	355
HNO3+NO3-	air+aerosol	0.34	0.51	0.17	3.16	0.02	0.03	0.16	1.48	3.12	96.9	0	354
K+	aerosol	0.08	0.07	0.06	2.21	0.01	0.02	0.06	0.21	0.55	96.7	8	354
Mg++	aerosol	0.025	0.027	0.015	2.734	0.005	0.005	0.020	0.080	0.180	96.7	132	354
NH3	air	0.30	0.16	0.27	1.62	0.06	0.13	0.27	0.63	1.20	97.2	0	355
NH3+NH4+	air+aerosol	0.71	0.80	0.48	2.28	0.07	0.16	0.40	2.55	5.11	96.6	0	353
NH4+	aerosol	0.41	0.74	0.09	6.77	0.01	0.01	0.09	2.07	4.79	96.7	60	354
NO2	air	0.79	0.99	0.51	2.39	0.07	0.15	0.50	2.60	10.31	98.1	0	359
NO3-	aerosol	0.25	0.45	0.10	3.92	0.01	0.01	0.09	1.26	2.90	96.9	16	354
Na+	aerosol	0.19	0.20	0.10	3.69	0.01	0.01	0.12	0.59	1.31	96.7	25	354
OC	pm10	1.28	0.65	1.12	1.73	0.33	0.37	1.23	2.55	2.97	99.4	0	52
OC	pm25	0.89	0.45	0.79	1.58	0.34	0.38	0.77	2.08	2.50	99.4	0	52
PM10 mass	pm10	5.88	2.74	5.27	1.62	1.46	1.92	5.32	11.83	15.23	97.5	0	51
PM25 mass	pm25	4.35	2.44	3.79	1.69	1.41	1.44	3.67	9.25	14.07	99.4	0	52
SO2	air	0.10	0.11	0.05	3.54	0.01	0.01	0.05	0.33	0.70	88.8	103	325
SO4--	aerosol	0.26	0.28	0.15	3.04	0.01	0.02	0.17	0.80	2.06	97.0	2	355
SO4-- corr	aerosol	0.25	0.27	0.13	3.41	0.00	0.01	0.15	0.77	2.05	97.0	2	355
TC	pm10	1.46	0.68	1.29	1.64	0.44	0.48	1.34	2.93	3.12	99.4	0	52
TC	pm25	1.05	0.52	0.95	1.54	0.45	0.48	0.93	2.44	2.98	99.4	0	52

PL0002R Jarczew

January 2011 - December 2011

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	0.67	0.64	2.10	0.11	0.19	0.60	2.46	3.39	97.2	0	355
NH3+NH4+	air+aerosol	2.94	1.59	2.56	1.72	0.40	1.03	2.56	5.98	13.33	96.4	0	352
NH4+	aerosol	1.53	0.96	1.30	1.76	0.24	0.51	1.27	3.58	6.42	96.4	0	352
NO2	air	3.10	1.65	2.76	1.61	0.70	1.27	2.70	6.30	13.10	96.6	0	353
NO3-	aerosol	0.70	0.63	0.49	2.36	0.04	0.13	0.47	2.30	3.10	97.2	0	355
SO2	air	1.47	1.35	1.07	2.26	0.10	0.20	1.10	3.72	10.40	97.2	5	355
SO4--	aerosol	1.35	0.66	1.17	1.79	0.10	0.41	1.27	2.54	4.20	97.2	5	355

PL0003R Sniezka

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.40	0.19	0.35	1.68	0.08	0.14	0.37	0.79	1.14	99.9	0	365
NH3+NH4+	air+aerosol	0.67	0.35	0.57	1.88	0.03	0.16	0.64	1.35	2.04	99.9	1	365
NH4+	aerosol	0.52	0.28	0.42	2.10	0.03	0.08	0.49	1.03	1.73	99.9	8	365
NO2	air	1.03	0.49	0.91	1.67	0.20	0.40	0.90	1.90	2.50	99.9	0	365
NO3-	aerosol	0.30	0.15	0.27	1.68	0.05	0.10	0.28	0.61	0.84	99.9	0	365
SO2	air	1.07	0.53	0.93	1.72	0.20	0.30	1.00	2.10	2.80	99.9	0	365
SO4--	aerosol	0.84	0.44	0.70	1.96	0.10	0.21	0.79	1.60	2.03	99.9	17	365

PL0004R Leba

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.72	0.64	0.51	2.34	0.03	0.13	0.51	2.07	3.86	98.8	0	361
NH3+NH4+	air+aerosol	1.43	1.00	1.14	2.00	0.10	0.35	1.13	3.53	6.51	98.8	0	361
NH4+	aerosol	1.04	0.86	0.76	2.33	0.03	0.16	0.78	2.85	5.67	98.8	3	361
NO2	air	1.49	1.21	1.17	1.96	0.20	0.40	1.15	4.00	8.50	98.6	0	360
NO3-	aerosol	0.58	0.59	0.37	2.65	0.01	0.07	0.37	1.74	3.25	98.8	1	361
SO2	air	0.84	0.79	0.60	2.29	0.10	0.10	0.60	2.59	5.60	98.8	22	361
SO4--	aerosol	1.24	0.64	1.07	1.78	0.10	0.37	1.12	2.55	3.80	98.8	3	361

PL0005R Diabla Gora

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm25	0.08	0.05	0.07	1.79	0.01	0.02	0.07	0.16	0.29	76.7	0	47
Cl-	pm25	0.06	0.10	0.03	2.36	0.02	0.02	0.02	0.36	0.49	76.7	33	47
EC	pm25	0.58	0.51	0.43	2.14	0.08	0.14	0.40	1.73	3.22	93.2	0	341
HNO3	air	0.47	0.27	0.40	1.82	0.00	0.13	0.39	0.98	1.67	99.1	0	362
HNO3+NO3-	air+aerosol	0.92	0.66	0.73	1.95	0.17	0.26	0.70	2.32	3.71	97.7	0	357
K+	pm25	0.11	0.17	0.07	2.40	0.01	0.02	0.06	0.36	1.09	76.7	0	47
Mg++	pm25	0.018	0.010	0.015	1.829	0.003	0.004	0.015	0.043	0.054	76.7	0	47
NH3	air	0.85	0.81	0.54	2.90	0.00	0.06	0.54	2.70	4.26	96.4	1	352
NH3+NH4+	air+aerosol	2.47	0.91	2.31	1.47	0.74	1.06	2.35	4.32	6.22	95.8	0	350
NH4+	aerosol	1.61	0.70	1.43	1.70	0.20	0.51	1.69	2.71	4.12	96.1	0	351
NH4+	pm25	0.47	0.53	0.31	2.59	0.02	0.03	0.29	2.04	2.86	76.7	0	47
NO2	air	1.15	1.07	0.84	2.12	0.11	0.31	0.71	3.78	6.14	98.6	0	360
NO3-	aerosol	0.45	0.43	0.29	2.61	0.03	0.07	0.28	1.44	2.31	98.0	0	358
NO3-	pm25	0.07	0.11	0.05	3.58	0.00	0.00	0.02	0.36	0.60	76.7	0	47
Na+	pm25	0.30	0.65	0.14	2.47	0.05	0.06	0.11	1.96	3.79	76.7	0	47
OC	pm25	3.44	2.75	2.68	2.01	0.39	0.86	2.48	9.67	16.76	93.2	0	341
PM10 mass	pm10	17.04	10.85	14.36	1.79	2.61	5.59	13.91	40.24	73.43	92.3	0	338
PM25 mass	pm25	12.79	9.22	10.34	1.91	1.81	3.67	9.77	32.49	58.25	93.4	0	342
SO2	air	0.52	0.38	0.43	1.80	0.05	0.18	0.42	1.15	3.77	98.8	0	361
SO4--	aerosol	0.60	0.43	0.48	1.93	0.05	0.16	0.48	1.50	2.35	99.7	0	364
SO4--	pm25	0.23	0.20	0.20	1.70	0.06	0.09	0.18	0.78	1.26	76.7	0	47
SO4-- corr	pm25	0.22	0.20	0.18	1.73	0.05	0.08	0.17	0.75	1.22	76.7	0	47

RO0008R Poiana Stampei

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	2.97	2.00	2.43	1.99	-0.19	0.83	2.50	7.07	19.95	73.3	0	6424
PM10 mass	pm10	17.85	9.29	15.27	1.82	1.64	5.01	16.99	36.04	45.42	90.4	0	330
SO2	air	2.41	0.93	2.25	1.45	0.54	1.27	2.31	3.73	14.09	66.2	0	5797

RS0005R Kamenicki vis

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO2	air	0.80	0.45	0.67	1.85	0.30	0.30	0.76	1.70	2.07	87.4	104	319
SO2	air	8.48	8.78	5.23	2.94	0.75	0.75	6.45	22.75	72.85	91.5	52	334

RU0018R Danki

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NH4+	aerosol	0.41	0.31	0.29	2.78	0.01	0.03	0.34	0.95	1.91	90.3	0	330
NO3-	aerosol	0.34	0.33	0.23	2.43	0.01	0.06	0.22	0.97	2.18	90.3	0	330
SO2	air	0.44	0.99	0.15	4.07	0.01	0.02	0.14	1.95	9.01	90.3	0	330
SO4--	aerosol	0.61	0.51	0.43	2.51	0.01	0.09	0.45	1.66	4.20	90.3	0	330

RU0020R Lesnoy

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NH4+	aerosol	0.17	0.08	0.16	1.55	0.04	0.08	0.14	0.37	0.38	99.1	0	52
NO3-	aerosol	0.21	0.21	0.15	2.24	0.04	0.04	0.14	0.74	0.95	99.1	0	52
SO2	air	0.08	0.07	0.06	2.56	0.01	0.01	0.06	0.23	0.26	94.0	0	49
SO4--	aerosol	0.51	0.30	0.44	1.73	0.09	0.17	0.45	1.21	1.58	99.1	0	52

SE0005R Bredkälen

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.03	0.03	0.03	1.32	0.03	0.03	0.03	0.03	0.31	99.9	357	365
Cl-	aerosol	0.19	0.36	0.06	3.93	0.03	0.03	0.03	0.97	2.87	99.9	245	365
HNO3+NO3-	air+aerosol	0.04	0.05	0.03	2.36	0.01	0.01	0.03	0.13	0.51	99.9	21	365
K+	aerosol	0.02	0.02	0.02	1.50	0.01	0.01	0.01	0.06	0.17	99.9	340	365
Mg++	aerosol	0.021	0.022	0.017	1.588	0.015	0.015	0.015	0.070	0.200	99.9	337	365
NH3+NH4+	air+aerosol	0.16	0.21	0.07	4.06	0.01	0.01	0.09	0.53	1.51	99.9	95	365
NO2	air	0.14	0.18	0.09	2.41	0.05	0.05	0.05	0.45	1.47	99.4	246	363
Na+	aerosol	0.15	0.23	0.07	3.41	0.03	0.03	0.03	0.65	1.75	99.9	213	365
PM10 mass	pm10	3.94	2.89	3.17	1.94	0.40	1.10	3.20	9.10	17.90	96.1	0	351
PM25 mass	pm25	1.94	1.66	1.45	2.16	0.10	0.50	1.40	5.20	12.00	95.8	0	350
SO2	air	0.07	0.12	0.03	3.75	0.01	0.01	0.04	0.23	1.13	99.9	97	365
SO4--	aerosol	0.15	0.18	0.08	3.42	0.01	0.01	0.08	0.53	1.68	99.9	29	365
SO4-- corr	aerosol	0.14	0.19	0.07	3.75	-0.01	0.01	0.07	0.52	1.68	99.9	29	365

SE0011R Vavihill

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.07	0.09	0.04	2.41	0.03	0.03	0.03	0.24	0.63	80.5	207	294
Cl-	aerosol	0.56	1.05	0.14	5.56	0.03	0.03	0.14	2.66	7.70	80.5	129	294
HNO3+NO3-	air+aerosol	0.63	0.57	0.42	2.59	0.01	0.09	0.42	1.75	3.33	80.5	1	294
K+	aerosol	0.08	0.08	0.05	2.57	0.01	0.01	0.06	0.18	0.65	80.5	99	294
Mg++	aerosol	0.060	0.077	0.033	2.802	0.015	0.015	0.015	0.210	0.490	80.5	180	294
NH3+NH4+	air+aerosol	1.26	1.14	0.80	2.95	0.01	0.15	0.91	3.39	7.66	80.5	3	294
NO2	air	1.38	1.33	1.08	1.91	0.05	0.47	0.92	3.48	16.43	99.1	1	362
Na+	aerosol	0.54	0.65	0.26	4.01	0.03	0.03	0.33	1.77	4.22	80.5	58	294
PM10 mass	pm10	16.16	11.70	13.14	1.92	-2.80	4.70	12.70	39.50	92.60	98.1	0	8596
PM25 mass	pm25	9.47	9.67	6.26	2.66	-3.80	1.00	6.10	28.94	70.90	97.4	0	8531
SO2	air	0.34	0.39	0.22	2.70	0.01	0.05	0.22	1.08	3.14	80.5	5	294
SO4--	aerosol	0.53	0.57	0.36	2.61	0.01	0.09	0.37	1.64	4.37	80.5	4	294
SO4-- corr	aerosol	0.49	0.58	0.30	2.97	-0.08	0.05	0.32	1.63	4.36	80.5	4	294

SE0012R Aspvreten

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.06	0.11	0.04	2.20	0.03	0.03	0.03	0.23	0.82	99.9	307	365
Cl-	aerosol	0.24	0.45	0.07	4.42	0.03	0.03	0.03	1.31	3.08	99.9	241	365
EC	pm10	0.23	0.19	0.18	2.06	0.04	0.05	0.17	0.68	1.16	31.0	0	113
HNO3+NO3-	air+aerosol	0.24	0.22	0.18	2.20	0.02	0.04	0.20	0.59	2.08	99.9	0	365
K+	aerosol	0.04	0.05	0.03	2.35	0.01	0.01	0.01	0.13	0.56	99.9	220	365
Mg++	aerosol	0.038	0.041	0.025	2.276	0.015	0.015	0.015	0.120	0.210	99.9	257	365
NH3+NH4+	air+aerosol	0.40	0.45	0.25	2.93	0.01	0.04	0.27	1.10	3.11	99.9	12	365
NO2	air	0.59	0.47	0.49	1.84	0.05	0.24	0.47	1.30	5.64	99.7	8	364
Na+	aerosol	0.34	0.34	0.19	3.42	0.03	0.03	0.24	1.07	1.84	99.9	77	365
OC	pm10	1.76	1.46	1.34	2.10	0.18	0.38	1.47	5.26	9.02	31.0	0	113
PM10 mass	pm10	8.07	5.54	6.52	2.00	-0.10	1.69	6.70	19.21	31.70	76.1	0	278
PM25 mass	pm25	6.41	6.33	4.59	2.52	-3.90	0.50	4.80	17.30	48.80	89.0	0	7800
SO2	air	0.20	0.22	0.12	3.15	0.01	0.01	0.14	0.64	1.99	99.9	19	365
SO4--	aerosol	0.39	0.38	0.27	2.54	0.01	0.06	0.29	0.99	2.97	99.9	3	365
SO4-- corr	aerosol	0.36	0.39	0.23	2.90	0.01	0.03	0.27	0.99	2.97	99.9	3	365

SE0014R Råö

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.12	0.10	0.07	2.68	0.03	0.03	0.11	0.31	0.59	93.1	145	340
Cl-	aerosol	2.81	3.48	0.78	8.00	0.03	0.03	1.40	10.25	16.90	94.5	70	345
HNO3+NO3-	air+aerosol	0.66	0.67	0.44	2.59	0.02	0.10	0.47	2.04	4.65	96.6	0	353
K+	aerosol	0.28	1.48	0.10	2.74	0.01	0.01	0.11	0.29	18.99	95.5	45	349
Mg++	aerosol	0.234	0.239	0.114	3.987	0.015	0.015	0.160	0.731	1.210	94.5	90	345
NH3+NH4+	air+aerosol	0.94	1.01	0.59	2.70	0.01	0.13	0.57	2.99	6.16	96.9	2	354
NO2	air	1.35	1.12	1.06	2.00	0.05	0.39	1.03	3.43	10.78	90.9	2	332
Na+	aerosol	1.91	1.96	0.88	4.67	0.03	0.03	1.27	6.25	9.68	96.4	30	352
PM10 mass	pm10	16.97	9.13	14.76	1.71	3.10	5.55	15.20	36.85	58.70	90.1	0	329
PM25 mass	pm25	7.90	5.54	6.51	1.84	1.40	2.40	6.10	18.44	37.90	96.4	0	352
SO2	air	0.31	0.27	0.23	2.25	0.01	0.06	0.24	0.88	2.11	96.6	1	353
SO4--	aerosol	0.62	0.46	0.50	2.03	0.01	0.14	0.54	1.42	4.27	96.9	1	354
SO4-- corr	aerosol	0.47	0.49	0.30	2.73	0.01	0.05	0.34	1.40	4.26	96.9	1	354

SI0008R Iskrba

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.16	0.12	0.12	2.24	0.00	0.04	0.12	0.39	0.94	99.9	94	365
Ca++	pm25	0.07	0.03	0.06	1.64	0.03	0.03	0.07	0.11	0.14	50.0	49	183
Cl-	aerosol	0.05	0.09	0.02	3.38	0.00	0.00	0.02	0.22	0.95	99.9	296	365
Cl-	pm25	0.04	0.09	0.03	2.07	0.02	0.02	0.02	0.10	0.99	50.0	116	183
EC	pm25	0.35	0.23	0.29	1.84	0.07	0.11	0.29	0.78	1.45	50.0	0	183
HNO3+NO3-	air+aerosol	0.25	0.26	0.18	2.27	0.00	0.04	0.19	0.64	2.81	99.9	1	365
K+	aerosol	0.17	0.12	0.13	1.95	0.00	0.05	0.13	0.43	0.82	99.9	13	365
K+	pm25	0.18	0.15	0.13	2.14	0.02	0.04	0.13	0.55	0.94	50.0	0	183
Mg++	aerosol	0.044	0.033	0.032	2.675	0.001	0.010	0.035	0.104	0.204	99.9	117	365
Mg++	pm25	0.018	0.011	0.012	2.787	0.002	0.002	0.019	0.035	0.048	50.0	41	183
NH3+NH4+	air+aerosol	0.99	0.72	0.78	2.06	0.07	0.22	0.81	2.51	5.00	99.9	1	365
NO2	air	0.57	0.34	0.51	1.53	0.21	0.29	0.49	1.19	3.35	67.6	0	247
NO2	air	0.65	0.43	0.56	1.72	0.18	0.23	0.55	1.46	3.90	76.3	0	279
NO3-	pm25	0.09	0.18	0.02	4.71	0.01	0.01	0.02	0.38	1.16	50.0	70	183
Na+	aerosol	0.09	0.13	0.05	3.52	0.00	0.00	0.05	0.36	1.07	99.9	141	365
Na+	pm25	0.04	0.04	0.03	2.75	0.01	0.01	0.03	0.13	0.28	50.0	35	183
OC	pm25	3.80	2.34	3.35	1.59	1.54	1.71	3.12	8.66	16.82	50.0	0	183
PM10 mass	pm10	16.33	10.22	14.00	1.73	3.30	5.50	13.90	39.22	73.40	93.9	0	343
PM25 mass	pm25	14.32	10.32	11.82	1.83	2.50	4.20	11.60	39.84	71.50	90.6	0	331
SO2	air	0.51	1.01	0.19	3.92	0.00	0.02	0.17	2.26	7.59	99.9	35	365
SO4--	aerosol	0.95	1.14	0.58	2.73	0.00	0.10	0.59	3.73	8.23	99.9	1	365
SO4--	pm25	2.66	3.09	1.70	2.54	0.10	0.41	1.73	10.44	22.95	50.0	0	183
SO4-- corr	aerosol	0.94	1.14	0.57	2.76	-0.00	0.10	0.59	3.73	8.22	99.9	1	365
SO4-- corr	pm25	2.66	3.09	1.69	2.54	0.10	0.41	1.73	10.44	22.95	50.0	0	183

SI0032R Krvavec

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
CO	air	144.33	34.87	140.79	1.24	77.31	103.08	137.44	206.16	386.55	91.6	0	8020

SK0002R Chopok

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Cl-	aerosol	0.07	0.06	0.05	2.29	0.00	0.01	0.06	0.16	0.63	98.5	0	360
HNO3	air	0.02	0.02	0.01	2.01	0.00	0.01	0.01	0.04	0.27	98.0	0	358
NO2	air	0.90	0.55	0.68	2.59	0.01	0.08	0.87	1.73	3.60	98.8	5	361
NO3-	aerosol	0.14	0.16	0.08	2.93	0.00	0.01	0.09	0.38	1.46	98.5	0	360
SO2	air	0.20	0.29	0.11	2.72	0.02	0.03	0.10	0.71	3.08	97.4	0	356
SO4--	aerosol	0.36	0.38	0.20	3.17	0.01	0.03	0.22	1.15	2.20	98.5	0	360
SO4-- corr	aerosol	0.35	0.38	0.20	3.31	-0.15	0.01	0.22	1.15	2.20	98.5	0	360

SK0006R Starina

January 2011 - December 2011

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.11	0.17	0.07	2.70	0.00	0.01	0.07	0.29	2.70	95.5	0	349
Cl-	aerosol	0.12	0.10	0.09	2.60	0.00	0.01	0.10	0.31	0.82	91.4	1	334
HNO3	air	0.03	0.04	0.02	2.04	0.00	0.01	0.02	0.09	0.34	95.3	0	348
K+	aerosol	0.20	0.48	0.12	2.46	0.01	0.03	0.12	0.59	8.44	95.5	0	349
Mg++	aerosol	0.020	0.024	0.015	2.264	0.000	0.003	0.014	0.046	0.383	95.5	0	349
NH3	air	0.39	0.46	0.21	3.16	0.01	0.04	0.26	1.28	3.46	94.7	3	346
NH4+	aerosol	1.08	0.88	0.80	2.26	0.02	0.21	0.83	2.99	6.15	95.3	35	348
NO2	air	1.26	0.81	1.09	1.78	0.01	0.48	1.06	2.68	10.44	95.8	1	350
NO3-	aerosol	0.36	0.34	0.24	2.79	0.01	0.03	0.27	1.05	2.50	96.1	0	351
Na+	aerosol	0.11	0.11	0.07	2.66	0.00	0.01	0.08	0.37	0.72	95.3	3	348
SO2	air	0.68	0.97	0.33	3.53	0.00	0.04	0.34	2.66	9.16	95.3	0	348
SO4--	aerosol	1.02	0.76	0.80	2.07	0.02	0.23	0.82	2.72	4.90	96.1	0	351
SO4-- corr	aerosol	1.01	0.75	0.79	2.14	0.01	0.22	0.81	2.71	4.87	96.1	0	351

Annex 4

Overview of sampling and analytical methods 2011

Country: **Armenia**		Main components and ozone - EMEP	Year: 2011	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	AM0001R			
Precipitation amount, official gauge	AM0001R	Meteorological station	every event	By volume
Sulphate	AM0001R	Wet-only[1]	every event	Ion chromatography
Nitrate	AM0001R	Wet-only	every event	Ion chromatography
Ammonium	AM0001R	Wet-only	every event	Spectrophotometric, by Nessler reagent
Magnesium	AM0001R	Wet-only	every event	ICP-MS[2]
Sodium	AM0001R	Wet-only	every event	ICP-MS
Chloride	AM0001R	Wet-only	every event	Ion chromatography
Calcium	AM0001R	Wet-only	every event	ICP-MS
Potassium	AM0001R	Wet-only	every event	ICP-MS
Conductivity	AM0001R	Wet-only	every event	Conductivity meter
pH	AM0001R	Wet-only	every event	pH meter
Acidity				
Air				
Sulphur dioxide	AM0001R	KOH-impregnated Whatman 40 filter 20÷25 m^3/day (Filterpack)	Daily	Ion chromatography
Nitrogen dioxide	AM0001R	NaI-impregnated glass sinters, 0.6 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid	AM0001R	KOH-impregnated Whatman 40 filter 20÷25 m^3/day (Filterpack)	Daily	Ion chromatography
Ammonia	AM0001R	Oxalic acid-impregnated Whatman 40 filter, 20÷25 m^3/day (Filterpack)	Daily	Spectrophotometric, by Nessler reagent
Ozone	AM0001R	UV-monitor	Hourly	UV-absorption
Sulphate	AM0001R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20÷25 m^3/day (Filterpack)	Daily	Ion chromatography
Nitrate	AM0001R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20÷25 m^3/day (Filterpack)	Daily	Ion chromatography
Ammonium	AM0001R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20÷25 m^3/day (Filterpack)	Daily	Spectrophotometric, with Nessler's reagent
Sodium	AM0001R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20÷25 m^3/day (Filterpack)	Daily	ICP-MS
Calcium	AM0001R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20÷25 m^3/day (Filterpack)	Daily	ICP-MS
Magnesium	AM0001R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20÷25 m^3/day (Filterpack)	Daily	ICP-MS
Potassium	AM0001R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20÷25 m^3/day (Filterpack)	Daily	ICP-MS
Chloride	AM0001R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20÷25 m^3/day (Filterpack)	Daily	Ion chromatography
PM_{10}				
$PM_{2.5}$				
PM_1				
Suspended particulate matter				
Sum of nitric acid and nitrate		KOH-impregnated Whatman 40 filter + Teflon filter, 20÷25 m^3/day		
Sum of ammonia and ammonium		Oxalic acid-impregnated Whatman 40 filter +Teflon filter, 20÷25 m^3/day		
Acidity				

1. Snow sampler was used in case of snow events.
2. Inductively Coupled Plasma Mass Spectrometry

Country: **Austria**		Main components and ozone - EMEP	Year: **2011**	
	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
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

Country: **Belarus**		Main components and ozone - EMEP	Year: **2011**	
	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: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount				
Precipitation amount, official gauge				
Sulphate				
Nitrate				
Ammonium				
Magnesium				
Sodium				
Chloride				
Calcium				
Potassium				
Conductivity				
pH				
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				

Country: **Croatia**		Main components and ozone - EMEP	Year: **2011**	
	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
Air				
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				

Country: **Cyprus**		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount				
Precipitation amount, official gauge				
Sulphate				
Nitrate				
Ammonium				
Magnesium				
Sodium				
Chloride				
Calcium				
Potassium				
Conductivity				
pH				
Air				
Sulphur dioxide	CY02	Instrumental: UV-fluorescence	Hourly	UV-fluorescence
Nitrogen dioxide	CY02	Instrumental: Chemiluminescence	Hourly	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	CY02	UV-monitor	Hourly	UV absorption
Sulphate $PM_{2.5}$	CY02	Low volume sampler	Daily	ICP-OES
Nitrate $PM_{2.5}$	CY02	Low volume sampler	Daily	ICP-OES
Ammonium $PM_{2.5}$	CY02	Low volume sampler	Daily	ICP-OES
Sodium $PM_{2.5}$	CY02	Low volume sampler	Daily	ICP-OES
Calcium $PM_{2.5}$	CY02	Low volume sampler	Daily	ICP-OES
Magnesium $PM_{2.5}$	CY02	Low volume sampler	Daily	ICP-OES
Potassium $PM_{2.5}$	CY02	Low volume sampler	Daily	ICP-OES
Chloride $PM_{2.5}$	CY02	Low volume sampler	Daily	ICP-OES
PM_{10}	CY02	High volume sampler	Daily	
$PM_{2.5}$	CY	Low volume sampler	Daily	
PM_1				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				

Country: **Czech Republic**		Main components and ozone - EMEP	Year: **2011**	
	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
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
Ozone	All	UV-monitor	Hourly	UV-absorption
Sulphate	All	Whatman 40, filter 47 mm, 20 m^3/day	Daily	Ion chromatography
Sodium	CZ3	Filter 47 mm, 20 m^3/day	Every 6nd day, weekly	Ion chromatography
Calcium	CZ3	Filter 47 mm, 20 m^3/day	Every 6nd day, weekly	Ion chromatography
Magnesium	CZ3	Filter 47 mm, 20 m^3/day	Every 6nd day, weekly	Ion chromatography
Potassium	CZ3	Filter 47 mm, 20 m^3/day	Every 6nd day, weekly	Ion chromatography
PM_{10}	All	Filter 47 mm, 55 m^3/day	Every 2nd day	Gravimetric
PM_{10}	CZ3	Beta absorption - monitor	Hourly	Beta absorption
$PM_{2.5}$	CZ3	Filter 47 mm, 55 m^3/day	Every 2nd day	Gravimetric
Suspended particulate matter				

Country: **Denmark**		Main components and ozone - EMEP	Year: **2011**	
	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
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

Country: **Estonia**		Main components and ozone - EMEP	Year: **2011**	
	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
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				

Country: **Finland**		Main components and ozone - EMEP	Year: **2011**	
	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
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

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

Country: **France**		Main components and ozone - EMEP	Year: **2011**	
	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
Air				
Sulphur dioxide	FR09,FR13, FR15	KOH-impregnated Whatman 40 filter, 14.4 m^3/day (Filterpack)	Daily, twice a week	Ion chromatography
Nitrogen dioxide NO_2/NO/NO_x	FR08,FR13, FR15, FR19, FR30	Instrumental: Chemiluminescence, trace level	Hourly	Chemiluminescence
Nitric acid	FR09, FR13, FR15	KOH-impregnated Whatman 40 filter, 14.4 m^3/day (Filterpack)	Daily, twice a week	Ion chromatography
Ammonia	FR09, FR13, FR15	Citric acid-impregnated Whatman 40 filter, 14.4 m^3/day (Filterpack)	Daily, twice a week	Ion chromatography
Ozone	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18, 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 a week	Ion chromatography
Nitrate	FR09 FR13, FR15	Teflon filter Pall Gelman Zefluor, 2 μm, 14.4 m^3/j	Daily, twice a week	Ion chromatography
Ammonium	FR09 FR13, FR15	Teflon filter Pall Gelman Zefluor, 2 μm, 14.4 m^3/j	Daily, twice a week	Ion chromatography
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	FR09, FR13, FR15, FR30, FR18	TEOM FDMS	Hourly	TEOM FDMS
$PM_{2.5}$	FR09, FR13, FR15, FR18	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 a 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 a week	Ion chromatography

Country: **Georgia**		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount				
Precipitation amount, official gauge				
Sulphate				
Nitrate				
Ammonium				
Magnesium				
Sodium				
Chloride				
Calcium				
Potassium				
Conductivity				
pH				
Air				
Sulphur dioxide	GE01		24h every 3 days	
Nitrogen dioxide				
Nitric acid				
Ammonia	GE01		24h every 3 days	
Ozone				
Sulphate	GE01		24h every 3 days	IC
Nitrate	GE01		24h every 3 days	IC
Ammonium	GE01		24h every 3 days	Spectrophotometry
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride	GE01		24h every 3 days	IC
PM_{10}				
$PM_{2.5}$				
PM_{1}				
Suspended particulate matter				
Sum of nitric acid and nitrate	GE01		24h every 3 days	
Sum of ammonia and ammonium	GE01		24h every 3 days	

Country: **Germany**		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	By volume
Precipitation amount, official gauge				
Sulphate	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	Ion chromatography
Nitrate	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	Ion chromatography
Ammonium	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	Ion chromatography
Magnesium	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	Ion chromatography
Sodium	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	Ion chromatography
Chloride	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	Ion chromatography
Calcium	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	Ion chromatography
Potassium	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	Ion chromatography
Conductivity	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	Conductivity meter
pH	DE01, DE02, DE03, DE04, DE05, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	pH meter
Air				
Sulphur dioxide	DE01, DE02, DE03, DE07, DE08, DE09	SO_2 monitor TE 43i-TLE	Half hourly	UV fluorescence
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, DE07, DE08	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				
Sum of ammonia and ammonium				

Country: **Greece**		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount				
Precipitation amount, official gauge				
Sulphate				
Nitrate				
Ammonium				
Magnesium				
Sodium				
Chloride				
Calcium				
Potassium				
Conductivity				
pH				
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				

Country: **Hungary**		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	HU02	Wet-only	Daily	
Precipitation amount, official gauge	HU02	Wet-only	Daily	
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 (flame)
Sodium	HU02	Wet-only	Daily	Atomic absorption method (flame)
Chloride	HU02	Wet-only	Daily	Ion chromatography
Calcium	HU02	Wet-only	Daily	Atomic absorption method (flame)
Potassium	HU02	Wet-only	Daily	Atomic absorption method (flame)
Conductivity	HU02	Wet-only	Daily	Conductivity meter
pH	HU02	Wet-only	Daily	pH meter
Acidity				
Lead	HU02	Wet-only	weekly	Atomic absorption method (furnace)
Cadmium	HU02	Wet-only	weekly	Atomic absorption method (furnace)
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	Citric-acid 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	Daily	Atomic absorption method (flame)
Calcium	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Atomic absorption method (flame)
Magnesium	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Atomic absorption method (flame)
Potassium	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	Daily	Atomic absorption method (flame)
Chloride				
PM_{10}				
$PM_{2.5}$				
PM_1				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				
Lead	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	3 days	Atomic absorption method (furnace)
Cadmium	HU02	Teflon filter, Millipore Fluoropore, 1 μm, ~21 m^3/day	3 days	Atomic absorption method (furnace)

Country: **Iceland**		Main components and ozone - EMEP	Year: 2011 and 2012	
	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	Spectrophotometry by FIA
Nitrate	IS02	NILU bulk sampler	Daily	Spectrophotometry by FIA
Ammonium				
Magnesium	IS02	NILU bulk sampler	Daily	ICP-AES
Sodium	IS02	NILU bulk sampler	Daily	ICP-AES
Chloride	IS02	NILU bulk sampler	Daily	ICP-AES
Calcium	IS02	NILU bulk sampler	Daily	ICP-AES
Potassium	IS02	NILU bulk sampler	Daily	ICP-AES
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-AES
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	IS02	Whatman 40 filter, 30 m^3/day, prefilter for aerosol	Daily	ICP-AES
Chloride	IS02	Whatman 40 filter, 30 m^3/day, prefilter for aerosol	Daily	ICP-AES
PM_{10}				
$PM_{2.5}$				
PM_1				
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: **2011**	
	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
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

Country: **Ireland: (lab.: Met Éireann)**	Main components and ozone - EMEP		Year: **2011**	
	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
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				

Country: **Italy: IT01 (lab.: CNR)**		Main components and ozone - EMEP	Year: **2011**	
	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
Air				
Sulphur dioxide	IT01	Diffusion tubes NaCl and Na2CO3 + glycerine, 17 m^3/day	Once a week	Ion chromatography
Nitrogen dioxide	IT01	Instrumental: Chemiluminescence	Daily	Chemiluminescence
Nitric acid	IT01	Diffusion tubes NaCl, 17 m^3/day	Once a week	Ion chromatography
Ammonia	IT01	Diffusion tubes H3PO3, 17 m^3/day	Once a week	Ion chromatography
Ozone	IT01	UV-monitor	Hourly	UV-absorption
Sulphate	IT01	Nylasorb filter, 17 m^3/day	Once a week	Ion chromatography
Nitrate	IT01	Nylasorb filter, 17 m^3/day	Once a week	Ion chromatography
Ammonium	IT01	Phosphorous acid impregnated filter, 17 m^3/day	Once a week	Ion chromatography
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	IT01	Beta gauge monitor 24 m^3/day	Daily	Beta gauge monitor
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				

Country: **Italy, IT04 (lab.: JRC)**		Main components and ozone - EMEP	Year: **2011**	
	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
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	IT04	PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Ion chromatography
Calcium	IT04	PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Ion chromatography
Magnesium	IT04	PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Ion chromatography
Potassium	IT04	PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Ion chromatography
Chloride	IT04	PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Ion chromatography
PM_{10}				
$PM_{2.5}$	IT04	PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Weighing at 20% RH
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
EC/OC	IT04	AirMonitors Denuder, PALL Life Sciences QFF (type TISSUEQUARTZ 2500QAT-UP), 24 m^3/day	Daily	Thermo optical, EUSAAR 2 protocol

Country: **Kazakhstan**		Main components and ozone - EMEP	Year: **2011**	
	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				
Nitrogen dioxide				
Nitric acid				
Ammonia				
Ozone				
Sulphate PM_{10}	KZ01		Daily	IC
Nitrate PM_{10}	KZ01		Daily	IC
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride PM_{10}	KZ01		Daily	IC
PM_{10}				
$PM_{2.5}$				
PM_{1}				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Latvia**		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	LV10	Wet-only	Weekly	Gravimetric
Precipitation amount, official gauge	LV10	Meteorological station	Daily	Gauge, Tretjakov type
Sulphate	LV10	Wet-only	Weekly	Ion chromatography
Nitrate	LV10	Wet-only	Weekly	Ion chromatography
Ammonium	LV10	Wet-only	Weekly	Spectrophotometric, Indophenol method
Magnesium	LV10	Wet-only	Weekly	ICP-MS
Sodium	LV10	Wet-only	Weekly	ICP-MS
Chloride	LV10	Wet-only	Weekly	Ion chromatography
Calcium	LV10	Wet-only	Weekly	ICP-MS
Potassium	LV10	Wet-only	Weekly	ICP-MS
Conductivity	LV10	Wet-only	Weekly	Conductivity meter
pH	LV10	Wet-only	Weekly	pH meter
Acidity				
Air				
Sulphur dioxide	LV10	KOH-impregnated Whatman 41 filter, 23 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	LV10	NaI-impregnated glass sinters, 0.7 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
O_3	LV10, LV16	UV-monitor	Hourly	UV-absorption
Sulphate $PM_{2.5}$	LV10	Teflon filter, 386.4 m^3/weekly	Weekly	Ion chromatography
Nitrate $PM_{2.5}$	LV10	Teflon filter, 386.4 m^3/weekly	Weekly	Ion chromatography
Ammonium $PM_{2.5}$	LV10	Teflon filter, 386.4 m^3/weekly	Weekly	Ion chromatography
Sodium $PM_{2.5}$	LV10	Teflon filter, 386.4 m^3/weekly	Weekly	Ion chromatography
Calcium $PM_{2.5}$	LV10	Teflon filter, 386.4 m^3/weekly	Weekly	Ion chromatography
Magnesium $PM_{2.5}$	LV10	Teflon filter, 386.4 m^3/weekly	Weekly	Ion chromatography
Potassium $PM_{2.5}$	LV10	Teflon filter, 386.4 m^3/weekly	Weekly	Ion chromatography
Chloride $PM_{2.5}$	LV10	Teflon filter, 386.4 m^3/weekly	Weekly	Ion chromatography
PM_{10}	LV10	Low volume sampler, 2.3 m^3/h, Teflon filter, 47 mm	Daily	Beta absorption
$PM_{2.5}$	LV10	Low volume sampler, 2.3 m^3/h, Teflon filter, 47 mm	Daily	Beta absorption
PM_1				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Lithuania**		Main components and ozone - EMEP	Year: 2011	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	LT15	Wet-only	Daily	By weight
Precipitation amount, official gauge				
Sulphate	LT15	Wet-only	Daily	Ion chromatography
Nitrate	LT15	Wet-only	Daily	Ion chromatography
Ammonium	LT15	Wet-only	Daily	Spectrophotometric, Indophenol method
Magnesium				
Sodium	LT15	Wet-only	Daily	Atomic emission method
Chloride	LT15	Wet-only	Daily	Ion chromatography
Calcium	LT15	Wet-only	Daily	Atomic absorption method
Potassium	LT15	Wet-only	Daily	Atomic emission method
Conductivity	LT15	Wet-only	Daily	Conductivity meter
pH	LT15	Wet-only	Daily	pH meter
Acidity				
Air				
Sulphur dioxide	LT15	KOH-impregnated Whatman 40 filter, 20 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	LT15	NaI-impregnated glass sinters, 0.7 m^3/day	Daily	Spectrophotometric, Griess method
Nitric acid				
Ammonia				
Ozone	LT15	UV-monitor	Hourly	UV-absorption
Sulphate	LT15	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20m^3/day (Filterpack)	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
PM_1				
Suspended particulate matter				
Sum of nitric acid and nitrate	LT15	Aerosol filter as for sulphate + KOH impregnated Whatman 40 filter as for SO_2, 20 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	LT15	Aerosol filter as for sulphate + oxalic acid impregnated Whatman 40 filter, 20 m^3/day	Daily	Spectrophotometric, Indophenol method
Acidity				

Country: **Macedonia**		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount				
Precipitation amount, official gauge				
Sulphate				
Nitrate				
Ammonium				
Magnesium				
Sodium				
Chloride				
Calcium				
Potassium				
Conductivity				
pH				
Air				
Sulphur dioxide	MK07	Instrumental: UV-fluorescence	Hourly	UV-fluorescence
Nitrogen dioxide	MK07	Instrumental: Chemiluminescence	Hourly	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	MK07	Instrumental: UV-Monitor	Hourly	UV-absorption
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	MK07	Instrumental: beta absorption	Hourly	Beta absorption
$PM_{2.5}$				
PM_1				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				

Country: **Moldova**		Main components and ozone - EMEP	Year: **2011**	
	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
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
EC/OC				

Country: **Montenegro**		Main components and ozone - EMEP	Year: 2011	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	Zabljak	Wet-only	daily	
Precipitation amount, official gauge	Zabljak	Meteorological station	daily	
Sulphate	Zabljak	Wet-only	daily	Spectrophotometry
Nitrate	Zabljak	Wet-only	daily	Spectrophotometry
Ammonium	Zabljak	Wet-only	daily	Spectrophotometry
Magnesium	Zabljak	Wet-only	daily	By calculation
Sodium	Zabljak	Wet-only	daily	Flame photometry
Chloride	Zabljak	Wet-only	daily	Titrimetric method
Calcium	Zabljak	Wet-only	daily	Titrimetric method
Potassium	Zabljak	Wet-only	daily	Flame photometry
Conductivity	Zabljak	Wet-only	daily	Conductivity meter
pH	Zabljak	Wet-only	daily	pH meter, glass electrode
Acidity	Zabljak	Wet-only	daily	Titrimetric method
Air				
Sulphur dioxide	Zabljak	Absorbing solution	daily	Spectrophotometry
Nitrogen dioxide	Zabljak	Absorbing solution	daily	Spectrophotometry
Nitric acid				
Ammonia				
Ozone				
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
PM_{1}				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **The Netherlands**		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	NL09	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]	HR-ICP/MS[3]
Sodium	NL09	Wet-only	Daily [1]	HR-ICP/MS
Chloride	NL09	Wet-only	Daily [1]	Ion chromatography
Calcium	NL09	Wet-only	Daily [1]	HR-ICP/MS
Potassium	NL09	Wet-only	Daily [1]	HR-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	NL07, NL09, NL91	Instrumental: UV-fluorescence	Hourly	UV-fluorescence
Nitrogen dioxide	NL07,NL09,NL10,NL11,NL91	Instrumental: Chemiluminescence	Hourly	Chemiluminescence
Nitric acid				
Ammonia	NL07,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 QMA filter 47 mm, 55.2 m^3/day	Daily	Ion chromatography
Nitrate	NL08,NL09,NL10,NL91	Whatman QMA filter 47 mm, 55.2 m^3/day	Daily	Ion chromatography
Ammonium	NL08,NL09,NL10,NL91	Whatman QMA filter 47 mm, 55.2 m^3/day	Daily	CFA[2]
Sodium	NL08, NL09, NL10	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 27.6 m^3/day	Every other day	HR-ICP/MS
Calcium	NL08, NL09, NL10	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 27.6 m^3/day	Every other day	HR-ICP/MS
Magnesium	NL08, NL09, NL10	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 27.6 m^3/day	Every other day	HR-ICP/MS
Potassium				
Chloride	NL08,NL09,NL10,NL91	Whatman QMA filter 47 mm, 55.2 m^3/day	Daily	Ion chromatography
PM_{10}	NL07,NL09,NL10,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				

[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

Country: **Norway**		Main components and ozone - EMEP	Year: **2011**	
	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
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
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: **2011**	
	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
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 PL02: I-II 2011, 0.9-1.0 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

Country: **Poland: PL05 (lab. IEP)**		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	PL05	Wet-only	Daily	By weight
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
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
Sulphate	PL05	QMA Whatman filter, 750 m^3/day (PM2,5)	Daily/Weekly (anal.)	Ion chromatography
Nitrate	PL05	QMA Whatman filter, 750 m^3/day (PM2,5)	Daily/Weekly (anal.)	Ion chromatography
Ammonium	PL05	QMA Whatman filter, 750 m^3/day (PM2,5)	Daily/Weekly (anal.)	Ion chromatography
Sodium	PL05	QMA Whatman filter, 750 m^3/day (PM2,5)	Daily/Weekly (anal.)	Plasma emission spectrometry
Calcium	PL05	QMA Whatman filter, 750 m^3/day (PM2,5)	Daily/Weekly (anal.)	Plasma emission spectrometry
Magnesium	PL05	QMA Whatman filter, 750 m^3/day (PM2,5)	Daily/Weekly (anal.)	Plasma emission spectrometry
Potassium	PL05	QMA Whatman filter, 750 m^3/day (PM2,5)	Daily/Weekly (anal.)	Plasma emission spectrometry
Chloride	PL05	QMA Whatman filter, 750 m^3/day (PM2,5)	Daily/Weekly (anal.)	Ion chromatography
EC/OC	PL05	QMA Whatman filter, 750 m^3/day (PM2,5)	Daily	Thermo optical
PM_{10}	PL05	High Volume Sampler (750 m^3/day)	Daily	By weight
$PM_{2.5}$	PL05	High Volume Sampler (750 m^3/day)	Daily	By weight
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

Country: **Portugal**		Main components and ozone - EMEP	Year: **2011**	
	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
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				

Country: Romania		Main components and ozone - EMEP	Year: 2011	
	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	EM-3 RO0008R	Instrumental: UV-fluorescence monitor	Hourly	UV-fluorescence
Nitrogen dioxide	EM-3 RO0008R	Instrumental: Chemiluminescence monitor	Hourly	Chemiluminescence
Nitric acid				
Ammonia				
Ozone	EM-3 RO0008R	Instrumental:UV-monitor	Hourly	UV-absorption
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}	EM-3 RO0008R	Low volume sampler 2,3m^3/hour	Daily	Gravimetric
$PM_{2.5}$				
PM_1				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
Acidity				

Country: **Russian Federation**		Main components and ozone - EMEP	Year: **2011**	
	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
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				

Country: **Serbia**		Main components and ozone - EMEP	Year: **2011**	
	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
Air				
Sulphur dioxide	RS05	Absorbing solution H_2O_2, 1.5-2.5 m^3/day	Daily	Thorin Spectrophotometric method
Nitrogen dioxide	RS05	Absorbing solution NaOH, 1.5-2.5 m^3/day	Daily	Modified Griess Saltzman method
Nitric acid				
Ammonia				
Ozone				
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM_{10}				
$PM_{2.5}$				
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				

Country: **Slovakia**		Main components and ozone - EMEP	Year: **2011**	
	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 – Dionex
Nitrate	SK02,SK04, SK06, SK07l	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography – Dionex
Ammonium	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography – Dionex
Magnesium	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography – Dionex
Sodium	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography – Dionex
Chloride	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography – Dionex
Calcium	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography – Dionex
Potassium	SK02,SK04, SK06, SK07	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK04, SK06 Weekly:SK07	Ion chromatography - Dionex
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
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	SK02,SK06	Whatman 40 filter, 26-30 m^3/day	Daily	Ion chromatography - Dionex
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				

Country: **Slovenia**		Main components and ozone - EMEP	Year: **2011**	
	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
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	SI08	KOH-impregnated Whatman 40 filter, 17-23 m^3/day	Daily	Ion chromatography
Ammonia	SI08	Oxalic acid impregnated Whatman 40 filter, 17-23 m^3/day	Daily	Ion chromatography
Carbon monoxide	SI32	Trace level analyzer	Hourly	ndir
Sulphate	SI08	Teflon filter, Pall Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
Nitrate	SI08	KOH-impregnated Whatman 40 filter, 17-23 m^3/day	Daily	Ion chromatography
Ammonium	SI08	Teflon filter, Pall Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
Sodium	SI08	Teflon filter, Pall Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
Calcium	SI08	Teflon filter, Pall Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
Magnesium	SI08	Teflon filter, Pall Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
Potassium	SI08	Teflon filter, Pall Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
Chloride	SI08	Teflon filter, Pall Zefluor 2 μm, 17-23 m^3/day	Daily	Ion chromatography
PM_{10}	SI08	Low volume sampler, 2.3 m^3/h, Quartz filter, 47 mm	Daily	Gravimetric method
$PM_{2.5}$	SI08	Low volume sampler, 2.3 m^3/h, Glass filter, 47 mm	Daily	Gravimetric method
Sum of nitric acid and nitrate	SI08	Teflon filter, Pall Zefluor 2 μm + KOH impregnated Whatman 40 filter, 17-23 m^3/day	Daily	Ion chromatography
Sum of ammonia and ammonium	SI08	Teflon filter, Pall Zefluor 2 μm + oxalic acid impregnated Whatman 40 filter, 17-23 m^3/day	Daily	Ion chromatography

Country: **Spain**		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation	**All (except ES10)**			
Precipitation amount	All	Wet-only	Daily	
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
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
Ozone	All	UV-monitor	Hourly	UV-absorption
Ammonia	ES08, ES09	Passive sampler	Weekly	Visible spectrophotometry, Indophenol method
PM_{10}	All	High volume sampler	Daily	Gravimetric method
$PM_{2.5}$	ES01, ES07, ES08, ES09, ES10, ES11, ES12, ES13, ES14, ES16	High volume sampler	Daily	Gravimetric method
Sulphate PM_{10}	All	Whatman GF/A filter, 720 m^3/day (ES07, ES08, ES10, ES11, ES12, S13, ES14, ES16) / 1632 m^3/day (ES01, ES05, ES06, ES09, ES17)	Daily	Ion chromatography
Nitrate PM_{10}	All	Whatman GF/A filter, 720 m^3/day (ES07, ES08, ES10, ES11, ES12, S13, ES14, ES16) / 1632 m^3/day (ES01, ES05, ES06, ES09, ES17)	Daily	Ion chromatography
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
Ammonium PM_{10}	ES09	High volume sampler	24 hour, once a week	Visible spectrophotometry, Indophenol method
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
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

Country: **Spain**, cont.		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Air				
VOCs	ES09	Canister	Twice a week	Gas chromatography with FID
Carbonyls	ES09	Cartridges of silica-DNPH	Twice a week	HPLC with UV-Vis detector
EC/OC PM_{10}	ES09	PM_{10} low volume sampler (55 m^3/day)	24 hour, once a week	Thermal optical
EC/OC $PM_{2.5}$	ES09	$PM_{2.5}$ low volume sampler (55 m^3/day)	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 (52 days) *				
Air				
Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn)	ES01; ES06; ES07; ES8; ES14	PM10 high volume sampler	24 hour, once a week	ICP mass
PAHs	ES01; ES06; ES07; ES8; ES14	PM10 high volume sampler	24 hour, once a week	Gas chromatography – mass spectrometry
Hg	ES01; ES06; ES07; ES8; ES14	PM10 high volume sampler	24 hour, once a week	Atomic absorption spectroscopy
Total deposition				
Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn)	ES01; ES06; ES07; ES8; ES14	Bulk sampler	52 days (campaign)	ICP-mass
PAHs	ES01; ES06; ES07; ES8; ES14	Bulk sampler	52 days (campaign)	Gas chromatography – mass spectrometry
Hg	ES01; ES06; ES07; ES8; ES14	Bulk sampler	52 days (campaign)	Atomic absorption spectroscopy

***: According to Directive 2008/50/EC**

Country: **Sweden**		Main components and ozone - EMEP	Year: **2011**	
	Station	**Sampling**	**Sampling frequency**	**Analysis method**
Precipitation				
Precipitation amount	SE05, SE11, SE12, SE14	Wet-only	Daily: SE05, SE14; monthly: SE11, SE12	
Precipitation amount, official gauge				
Sulphate	SE05, SE11, SE12, SE14	Wet-only	Daily: SE05, SE14; monthly: SE11, SE12	Ion chromatography
Nitrate	SE05, SE11, SE12, SE14	Wet-only	Daily: SE05, SE14; monthly: SE11, SE12	Ion chromatography
Ammonium	SE05, SE11, SE12, SE14	Wet-only	Daily: SE05, SE14; monthly: SE11, SE12	Spectrophotometric, Flow injection analysis
Magnesium	SE05, SE11, SE12, SE14	Wet-only	Daily: SE05, SE14; monthly: SE11, SE12	Ion chromatography
Sodium	SE05, SE11, SE12, SE14	Wet-only	Daily: SE05, SE14; monthly: SE11, SE12	Ion chromatography
Chloride	SE05, SE11, SE12, SE14	Wet-only	Daily: SE05, SE14; monthly: SE11, SE12	Ion chromatography
Calcium	SE05, SE11, SE12, SE14	Wet-only	Daily: SE05, SE14; monthly: SE11, SE12	Ion chromatography
Potassium	SE05, SE11, SE12, SE14	Wet-only	Daily: SE05, SE14; monthly: SE11, SE12	Ion chromatography
Conductivity	SE05, SE11, SE12, SE14	Wet-only	Daily: SE05, SE14; monthly: SE11, SE12	Conductivity meter
pH	SE05, SE11, SE12, SE14	Wet-only	Daily: SE05, SE14; monthly: SE11, SE12	pH meter
Air				
Sulphur dioxide	SE05, SE11, SE12, SE14	KOH-impregnated Whatman 40 filter, 20 m^3/day	Daily	Ion chromatography
Nitrogen dioxide	SE05, SE11, SE12, 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, SE11, SE12, SE14	Teflon filter, Mitex membrane, 20 m^3/day	Daily	Ion chromatography
Nitrate				
Ammonium				
Sodium	SE05, SE11, SE12, SE14	Teflon filter, Mitex membrane, 20 m^3/day	Daily	Ion chromatography
Calcium	SE05, SE11, SE12, SE14	Teflon filter, Mitex membrane, 20 m^3/day	Daily	Ion chromatography
Magnesium	SE05, SE11, SE12, SE14	Teflon filter, Mitex membrane, 20 m^3/day	Daily	Ion chromatography
Potassium	SE05, SE11, SE12, SE14	Teflon filter, Mitex membrane, 20 m^3/day	Daily	Ion chromatography
Chloride	SE05, SE11, SE12, SE14	Teflon filter, Mitex membrane, 20 m^3/day	Daily	Ion chromatography
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}	SE05, SE14	IVL Sampler PModell S10	Daily	Gravimetric
$PM_{2.5}$	SE05, SE14	IVL Sampler PModell S10	Daily	Gravimetric
Sum of nitric acid and nitrate	SE05, SE11, SE12, 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, SE12, SE14	Aerosol filter as for sulphate + Oxalic acid impregnated Whatman 40 filter, 20 m^3/day	Daily	Spectrophotometric, Flow injection analysis

Country: **Switzerland**		Main components and ozone - EMEP	Year: **2011**	
	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
Air				
Sulphur dioxide	CH01, CH02, 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 / modified CEH DELTA-System, 0.5 m^3/day	Biweekly	Ion chromatography
Ammonia	CH02, CH05	Citric acid impregnated Mini-Denuder / modified CEH DELTA-System, 0.5 m^3/day	Biweekly	Ion chromatography
Ozone	All	Instrumental: UV-monitor	Hourly	UV-absorption
Sulphate	CH02, CH05	High Volume Samplers, Pallflex XP56 Tissuequartz 2500 QAT-UP, 720 m^3/day	Daily	Ion chromatography
Sulphate	CH01	High Volume Samplers, Pallflex XP56 Tissuequartz 2500 QAT-UP, 1075 m^3/day	Daily	Ion chromatography
Nitrate	CH02, CH05	KOH impregnated Whatman 1 filter, Delrin filterholder / modified CEH DELTA-System, 0.5 m^3/day	Biweekly	Ion chromatography
Ammonium	CH02, CH05	Citric acid impregnated Sartorius 11306 filter, Delrin filterholder / modified CEH DELTA-System, 0.5 m^3/day	Biweekly	Ion chromatography
Sodium	CH02, CH05	Citric acid impregnated Whatman 40 filter / NILU filterholder, 18 m^3/day		
Calcium	CH02, CH05	Citric acid impregnated Whatman 40 filter / NILU filterholder, 18 m^3/day		
Magnesium	CH02, CH05	Citric acid impregnated Whatman 40 filter / NILU filterholder, 18 m^3/day		
Potassium	CH02, CH05	Citric acid impregnated Whatman 40 filter / NILU filterholder, 18 m^3/day		
Chloride				
PM_{10}	CH01	High Volume Samplers, Pallflex XP56 Tissuequartz 2500 QAT-UP, 1075 m^3/day	Daily	Gravimetry
PM_{10}	CH02, CH03, CH04, CH05	High Volume Samplers, Pallflex XP56 Tissuequartz 2500 QAT-UP, 720 m^3/day	Daily	Gravimetry
$PM_{2.5}$	CH02, CH05	High Volume Samplers, Pallflex XP56 Tissuequartz 2500 QAT-UP, 720 m^3/day	Daily	Gravimetry
PM_1	CH02	High Volume Samplers, Pallflex XP56 Tissuequartz 2500 QAT-UP, 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

Country: **Turkey**		Main components and ozone - EMEP	Year: **2011**	
	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
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

Country: **United Kingdom**		Main components and ozone - EMEP	Year: **2011**	
	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
Air				
Sulphur dioxide	GB36, GB37, GB38, GB43, GB45	Instrumental	Hourly	UV fluorescence
Sulphur dioxide	GB48	Instrumental	Hourly	Online IC
Nitrogen dioxide	14 sites	Instrumental	Hourly	Chemiluminescence
Nitrogen monoxide	14 sites	Instrumental	Hourly	Chemiluminescence
Nitric acid	GB06, GB13, GB14, GB54	Delta sampler (low volume denuder and filter pack)	Monthly	Ion chromatography
Nitric Acid	GB48	Instrumental	Hourly	Online IC
Ammonia	GB06, GB13, GB14, GB54	Delta sampler (low volume denuder and filter pack)	Monthly	Florria
Ammonia	GB48	Instrumental	Hourly	Online IC
Ozone	20 sites	UV-monitor	Hourly	UV-absorption
Sulphate	GB06, GB13, GB14, GB54	Delta sampler (low volume denuder and filter pack)	Monthly	Ion chromatography
Nitrate	GB06, GB13, GB14, GB54	Delta sampler (low volume denuder and filter pack)	Monthly	Ion chromatography
Ammonium	GB06, GB13, GB14, GB54	Delta sampler (low volume denuder and filter pack)	Monthly	
Sodium	GB06, GB13, GB14, GB54	Delta sampler (low volume denuder and filter pack)	Monthly	
Calcium	GB06, GB13, GB14, GB54	Delta sampler (low volume denuder and filter pack)	Monthly	
Magnesium	GB06, GB13, GB14, GB54	Delta sampler (low volume denuder and filter pack)	Monthly	
Potassium	GB06, GB13, GB14, GB54	Delta sampler (low volume denuder and filter pack)	Monthly	
Chloride	GB06, GB13, GB14, GB54	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/hourly	
$PM_{2.5}$	GB36, GB48	FDMS and Partisol	Daily/hourly	
Ammonium PM_{10}, $PM_{2.5}$	GB36, GB48	Instrumental	Hourly	Online IC
Calcium PM_{10}, $PM_{2.5}$	GB36, GB48	Instrumental	Hourly	Online IC
Chloride PM_{10}, $PM_{2.5}$	GB36, GB48	Instrumental	Hourly	Online IC
Magnesium PM_{10}, $PM_{2.5}$	GB36, GB48	Instrumental	Hourly	Online IC
Nitratae PM_{10}, $PM_{2.5}$	GB36, GB48	Instrumental	Hourly	Online IC
Potassium PM_{10}, $PM_{2.5}$	GB36, GB48	Instrumental	Hourly	Online IC
Sodium PM_{10}, $PM_{2.5}$	GB36, GB48	Instrumental	Hourly	Online IC
Sulphate PM_{10}, $PM_{2.5}$	GB36, GB48	Instrumental	Hourly	Online IC
Suspended particulate matter				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				

Annex 5

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Annex 6

Description of statistical calculation procedures

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

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

and between

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

if the data come from a lognormal distribution.

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

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

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

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

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

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

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

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

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

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

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

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

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

$$sd_g = exp(sdlnc)$$

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

5%, 50%, 95% — is the 5, 50 and 95 percentile, computed for air data only using the method of nearest rank:

$$n = \frac{P}{100} \cdot N + \frac{1}{2}$$

is the P-th percentile $0 \leq P \leq 100$ of N ordered values, rounding n to the nearest integer and then taking the value corresponding to that rank.

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.