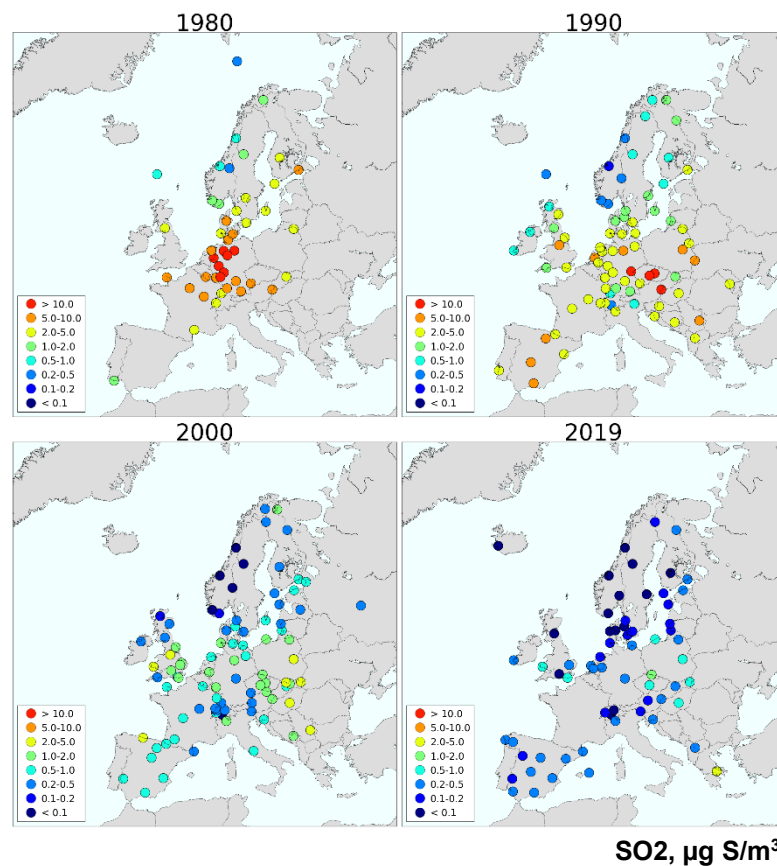


Data Report 2019

Particulate matter, carbonaceous and inorganic compounds

Anne-Gunn Hjellbrekke



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

Data Report 2019
**Particulate matter, carbonaceous and
inorganic compounds**

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Data Report 2019

Particulate matter, carbonaceous and inorganic compounds

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 include 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 2019 for particulate matter, organic and elemental carbon, 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. All data are available online at <http://ebas.nilu.no>.

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 are given in Table 1 and Figure 3.1. In addition to the network presented here, there are additional EMEP sites with other types of measurements.

In total, precipitation data from 85 stations and air data from 124 stations are presented in this report. The total number of measurement sites in this report is 136.

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 2019.

Country	Station codes	Station name	Location		Height above sea (m)
			Lat.	Long.	
Armenia	AM0001R	Amberd	40°23'04"N	44°15'38"E	2080
Austria	AT0002R	Illmitz	47°46'00"N	16°46'00"E	117
	AT0005R	Vorhegg	46°40'40"N	12°58'20"E	1020
	AT0034G	Sonnblick	47°03'15"N	12°57'29"E	3106
	AT0048R	Zoebelboden	47°50'19"N	14°26'29"E	899
	BY0004R	Vysokoe	52°20'00"N	23°26'00"E	163
Belgium	BE0001R	Offagne	49°52'40"N	05°12'13"E	430
	BE0011R	Moerkerke	51°15'16"N	03°21'45"E	3
	BE0013R	Houtem	51°00'59"N	02°34'56"E	2
	BE0014R	Koksijde	51°07'15"N	02°39'31"E	4
	BE0032R	Eupen	50°37'46"N	06°00'04"E	295
	BE0035R	Vezin	50°30'12"N	04°59'22"E	160
Croatia	HR0002R	Puntijarka	45°54'00"N	15°58'00"E	988
	HR0004R	Zavizan	44°49'00"N	14°59'00"E	1594
Cyprus	CY0002R	Agia Marina Xyliatou	35°02'21"N	33°03'29"E	532
Czech Rep.	CZ0003R	Košetice (NOAK)	49°35'00"N	15°05'00"E	534
	CZ0005R	Churanov	49°04'00"N	13°36'00"E	1118
Denmark	DK0003R	Tange	56°21'00"N	09°36'00"E	13
	DK0005R	Keldsnor	54°44'00"N	10°44'00"E	10
	DK0008R	Anholt	56°43'00"N	11°31'00"E	40
	DK0010G	Villum Research Station, Station Nord	81°36'00"N	16°40'12"W	20
	DK0012R	Risoe	55°41'37"N	12°05'09"E	3
	DK0022R	Sepstrup Sande	55°05'00"N	09°36'00"E	60
	DK0031R	Ulborg	56°17'26"N	08°25'39"E	10
Estonia	EE0009R	Lahemaa	59°30'00"N	25°54'00"E	32
	EE0011R	Vilsandi	58°23'00"N	21°49'00"E	6
Finland	FI0009R	Utö	59°46'45"N	21°22'38"E	7
	FI0018R	Virolahti III	60°31'48"N	27°40'03"E	4
	FI0022R	Oulanka	66°19'13"N	29°24'06"E	310
	FI0036R	Pallas (Matorova)	68°00'00"N	24°14'23"E	340
	FI0050R	Hyytiälä	61°51'00"N	24°17'00"E	181
	FI0096G	Pallas (Sammaltunturi)	67°58'24"N	24°06'58"E	565
France	FR0008R	Donon	48°30'00"N	07°08'00"E	775
	FR0009R	Revin	49°54'00"N	04°38'00"E	390
	FR0010R	Morvan	47°16'00"N	04°05'00"E	620
	FR0013R	Peyrusse Vieille	43°37'00"N	00°11'00"E	200
	FR0014R	Montandon	47°18'00"N	06°50'00"E	836
	FR0015R	La Tardière	46°39'00"N	00°45'00"W	133
	FR0016R	Le Casset	45°00'00"N	06°28'00"E	1750
	FR0017R	Montfranc	45°48'00"N	02°04'00"E	810
	FR0018R	La Coulonche	48°38'00"N	00°27'00"W	309
	FR0019R	Pic du Midi	42°56'12"N	00°08'31"E	2877
	FR0020R	SIRTA Atmospheric Research Observatory	48°42'31"N	02°09'32"E	162
	FR0022R	Observatoire Perenne de l'Environnement	48°33'44"N	05°30'20"E	392
	FR0023R	Saint-Nazaire-le-Desert	44°34'18"N	05°16'44"E	605
	FR0024R	Guipry	47°49'55"N	01°58'11"W	29
	FR0025R	Verneuil	46°48'53"N	02°36'36"E	182
FR0030R	Puy de Dôme	45°46'00"N	02°57'00"E	1465	
Georgia	GE0001R	Abastumani	41°45'18"N	42°49'31"E	1650
Germany	DE0001R	Westerland	54°55'32"N	08°18'35"E	12
	DE0002R	Waldhof	52°48'08"N	10°45'34"E	74
	DE0003R	Schauinsland	47°54'53"N	07°54'31"E	1205
	DE0007R	Neuglobsow	53°10'00"N	13°02'00"E	62
	DE0008R	Schmücke	50°39'00"N	010°46'00"E	937
	DE0009R	Zingst	54°26'00"N	012°44'00"E	1
	DE0044R	Melpitz	51°31'48"N	012°55'48"E	86
	GR0001R	Aliartos	38°22'00"N	023°05'00"E	110
Hungary	HU0002R	K-puszt	46°58'00"N	019°35'00"E	125
	HU0003R	Farkasfa	46°54'36"N	016°19'12"E	312
Iceland	IS0002R	Irafoss	64°05'00"N	21°01'00"W	66
	IS0091R	Storhofdi	63°24'00"N	20°17'00"W	118
Ireland	IE0001R	Valentia Observatory	51°56'23"N	10°14'40"W	11
	IE0005R	Oak Park	52°52'07"N	06°55'29"W	59
	IE0006R	Malin Head	55°22'30"N	07°20'34"W	20
	IE0008R	Carnsore Point	52°11'06"N	06°22'06"W	9
	IE0009R	Johnstown Castle	52°17'56"N	06°30'39"W	62

Table 1, cont.

Country	Station codes	Station name	Location		Height above sea (m)
			Lat.	Long.	
Italy	IT0004R	Ispira	45°48'00"N	08°38'00"E	209
	IT0009R	Mt Cimone	44°11'00"N	10°42'00"E	2165
	IT0019R	Monte Martano	42°48'20"N	12°33'56"E	1090
Latvia	LV0010R	Rucava	56°09'43"N	21°10'23"E	18
Lithuania	LT0015R	Preila	55°21'00"N	21°04'00"E	5
Macedonia	MK0007R	Lazaropole	41°32'10"N	20°41'38"E	1332
Malta	MT0001R	Giordan Lighthouse	36°04'20"N	14°13'06"E	167
Moldova	MD0013R	Leova II	46°29'18"N	28°17'01"E	166
Montenegro	ME0008R	Zabljak	43°09'00"N	19°08'00"E	1450
The Netherlands	NL0007R	Eibergen	52°05'00"N	06°34'00"E	20
	NL0008R	Bilthoven	52°07'00"N	05°12'00"E	5
	NL0009R	Kollumerwaard	53°20'02"N	06°16'38"E	1
	NL0010R	Vredepeel	51°32'28"N	05°51'13"E	28
	NL0091R	De Zilk	52°18'00"N	04°30'00"E	4
	NL0644R	Cabauw Wielsekade	51°58'28"N	04°55'25"E	1
Norway	NO0001R	Birkenes	58°23'00"N	08°15'00"E	190
	NO0002R	Birkenes II	58°23'19"N	08°15'07"E	219
	NO0015R	Tustervatn	65°50'00"N	13°55'00"E	439
	NO0039R	Kárvatn	62°47'00"N	08°53'00"E	210
	NO0042G	Zeppelin mountain (Ny-Ålesund)	78°54'24"N	11°53'18"E	474
	NO0056R	Hurdal	60°22'21"N	11°04'41"E	300
Poland	PL0002R	Jarczew	51°49'00"N	21°59'00"E	180
	PL0003R	Sniezka	50°44'00"N	15°44'00"E	1603
	PL0004R	Leba	54°45'00"N	17°32'00"E	2
	PL0005R	Diabla Gora	54°09'00"N	22°04'00"E	157
	PL0009R	Zielonka	53°39'44"N	17°56'02"E	121
Russian Federation	RU0001R	Janiskoski	68°56'00"N	28°51'00"E	118
	RU0013R	Pinega	64°42'00"N	43°24'00"E	28
	RU0018R	Danki	54°54'00"N	37°48'00"E	150
	RU0020R	Lesnoy	56°31'48"N	32°56'24"E	340
Serbia	RS0005R	Kamenicki vis	43°24'00"N	21°57'00"E	813
Slovakia	SK0002R	Chopok	48°56'00"N	19°35'00"E	2008
	SK0004R	Stará Lesná	49°09'00"N	20°17'00"E	808
	SK0006R	Starina	49°03'00"N	22°16'00"E	345
	SK0007R	Topolníky	47°57'36"N	17°51'38"E	113
Slovenia	SI0008R	Iskrba	45°34'00"N	14°52'00"E	520
	SI0032R	Krvavec	46°17'58"N	14°32'19"E	1740
Spain	ES0001R	San Pablo de los Montes	39°32'52"N	04°20'55"W	917
	ES0005R	Noia	42°43'41"N	08°55'25"W	683
	ES0006R	Mahón	39°52'00"N	04°19'00"E	78
	ES0007R	Víznar	37°14'00"N	03°32'00"W	1265
	ES0008R	Niembro	43°26'32"N	04°51'01"W	134
	ES0009R	Campisábalos	41°16'52"N	03°08'34"W	1360
	ES0010R	Cabo de Creus	42°19'10"N	03°19'01"E	23
	ES0011R	Barcarrota	38°28'33"N	06°55'22"W	393
	ES0012R	Zarra	39°05'10"N	01°06'07"W	885
	ES0013R	Penausende	41°17'00"N	05°52'00"W	985
	ES0014R	Els Torms	41°24'00"N	00°43'00"E	470
	ES0016R	O Saviñao	43°13'52"N	07°41'59"W	506
	ES0017R	Doñana	37°01'50"N	06°19'55"W	5
	ES1778R	Montseny	41°46'00"N	02°21'00"E	700
Sweden	SE0005R	Bredkälen	63°51'00"N	15°20'00"E	404
	SE0014R	Råö	57°23'38"N	11°54'50"E	5
	SE0020R	Hallahus	56°02'34"N	13°08'53"E	190
	SE0022R	Norunda Stenen	60°05'09"N	17°30'19"E	45
Switzerland	CH0001G	Jungfrauoch	46°32'51"N	07°59'06"E	3578
	CH0002R	Payerne	46°48'47"N	06°56'41"E	489
	CH0003R	Tänikon	47°28'47"N	08°54'17"E	539
	CH0004R	Chaumont	47°02'59"N	06°58'46"E	1137
	CH0005R	Rigi	47°04'03"N	08°27'50"E	1031
	CH0053R	Beromünster	47°11'23"N	08°10'32"E	797
United Kingdom	GB0002R	Eskdalemuir	55°18'47"N	03°12'15"W	243
	GB0006R	Lough Navar	54°26'35"N	07°52'12"W	126
	GB0013R	Yarner Wood	50°35'47"N	03°42'47"W	119

Table 1, cont.

Country	Station codes	Station name	Location		Height above sea (m)
			Lat.	Long.	
United Kingdom (cont.)	GB0014R	High Muffles	54°20'04"N	000°48'27"W	267
	GB0015R	Strath Vaich Dam	57°44'04"N	004°46'28"W	270
	GB0031R	Aston Hill	52°30'14"N	003°01'59"W	370
	GB0033R	Bush	55°51'31"N	003°12'18"W	180
	GB0037R	Ladybower Res.	53°23'56"N	001°45'12"W	420
	GB0038R	Lullington Heath	50°47'34"N	000°10'46"E	120
	GB0043R	Narberth	51°14'00"N	004°42'00"W	160
	GB0045R	Wicken Fen	52°17'54"N	000°17'34"W	5
	GB0048R	Auchencorth Moss	55°47'32"N	003°14'34"W	260
	GB0050R	St. Osyth	51°46'41"N	001°04'56"E	8
	GB0051R	Market Harborough	52°33'16"N	000°46'20"W	145
	GB0053R	Charlton Mackrell	51°03'23"N	002°41'00"W	54
	GB1055R	Chilbolton Observatory	51°08'59"N	001°26'18"W	78

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.

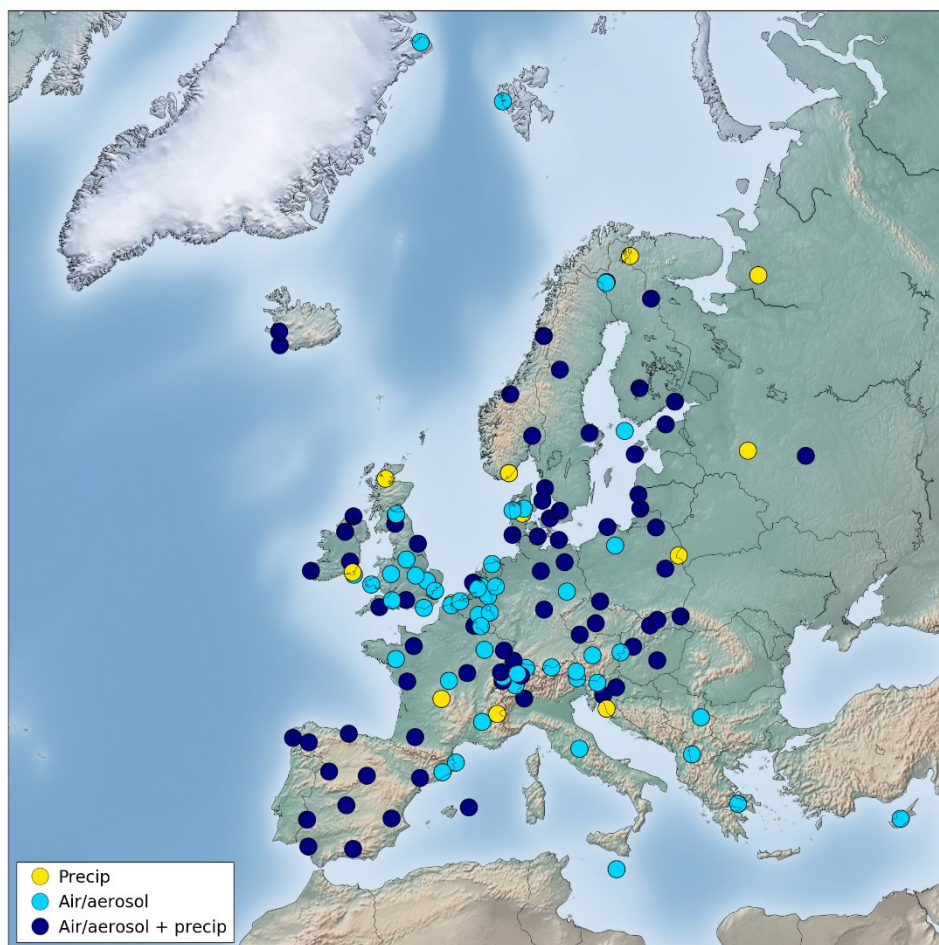


Figure 3-1: Location of the EMEP monitoring stations in operation in 2019. Sites with ozone/heavy metals/VOC measurements only are not included.

4. The measurement programme during 2019

The monitoring obligations in EMEP are presented in table 2 and described in more detail in the Monitoring Strategy for 2010-2019 (UNECE, 2009). The compliance with the monitoring strategy varies between Parties and further discussion of this is found in the Status Report (Fagerli et al., 2021). In this report, inorganic data in air and precipitation, aerosol mass, inorganic and carbonaceous matter in air are presented. Ozone (Hjellbrekke and Solberg, 2021), heavy metals and POPs (Aas and Nizzetto, 2021) and VOC (Solberg et al. 2021) are reported separately.

A list of data reports from EMEP/CCC can be found in Annex 5. All data reports are also available in pdf-format at <http://www.nilu.no/projects/ccc/reports.html>.

Table 2: EMEP's measurement programme 2019.

	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.

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, 2014) in addition to guidelines and standard operation procedures developed in co-operating networks and institutions. A list of these is found at the data submission web page: <https://ebas-submit.nilu.no/Standard-Operating-Procedures>. 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 37th laboratory intercomparison is representative for the 2019 data. Results are presented at <http://www.nilu.no/projects/ccc/intercomparison/>.

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^{2-} , OC, EC, PM_{10} and $\text{PM}_{2.5}$ in air and pH, NH_4^+ , NO_3^- , Ca and excess SO_4^{2-} 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. The units used for the results in this report are given in Table 3 and Table 4.

Table 3: 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 4: 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 in August 2021.

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

10. References

- Aas, W. and Nizzetto, P.B. (2021) Heavy metals and POP measurements 2019. Kjeller, NILU (EMEP/CCC-Report 3/2021).
- EMEP/CCC (2014) Manual for sampling and chemical analysis. Kjeller, NILU (EMEP/CCC-Report 1/2014). URL: <http://www.nilu.no/projects/ccc/manual/index.html>
- Fagerli, H. et al. (2021) Transboundary particulate matter, photo-oxidants, acidifying and eutrophying components. EMEP Status Report 2021. Oslo, Norwegian Meteorological Institute - MSC-W (EMEP report 1/2021). URL: https://emep.int/publ/reports/2021/EMEP_Status_Report_1_2021.pdf
- Hjellbrekke, A.-G., Solberg, S. (2021) Ozone measurements 2019. Kjeller, NILU (EMEP/CCC-Report 2/2021).
- Solberg, S., Claude, A. and Reimann S. (2021) VOC measurements 2019. Kjeller, NILU (EMEP/CCC-Report 4/2021).
- UNECE (2009) Progress in activities in 2009 and future work. Measurements and modelling (acidification, eutrophication, photooxidants, heavy metals, particulate matter and persistent organic pollutants). Draft revised monitoring strategy. Geneva, UNECE (ECE/EB.AIR/GE.1/2009/15). URL: <http://www.unece.org/fileadmin/DAM/env/documents/2009/EB/ge1/ece.eb.air.ge.1.2009.15.e.pdf>.

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 Berit Modalen. Rita Larsen Våler, Ann Mari Fjæraa and Mona Waagsbø have been very helpful with data flow and database maintenance.

12. List of participating institutions

Armenia	Environmental Monitoring and Information Center
Austria	Umweltbundesamt
Belarus	Institute Nature Management
Belgium	Belgian Interregional Environment Agency (IRCEL - CELINE) Flanders Environment Agency
Commission of the European Communities	Joint Research Center, EC-JRC
Croatia	Croatia Meteorological and Hydrological Service
Cyprus	Ministry of Labour, Welfare and Social Insurance
Czech Republic	Czech Hydrometeorological Institute
Denmark	Department of Environmental Science, Aarhus University
Estonia	Estonian Environmental Research Centre
Finland	Finnish Meteorological Institute (FMI)
France	Mines Douai
Georgia	National Environmental Agency
Germany	Umweltbundesamt Leibniz Institute for Tropospheric Research
Greece	Hellenic Ministry of the Environment and Energy University of Crete
Hungary	Hungarian Meteorological Service
Iceland	Vedurstofa Islands
Ireland	Met Eireann
Italy	CNR-ISAC Arpa Umbria
Latvia	Latvian Environment, Geology and Meteorology Agency
Lithuania	SRI Center for Physical Sciences and Technology
Macedonia	Ministry of Environment and Physical Planning
Malta	Department of Geoscience, University of Malta
Moldova	Environmental Agency
Montenegro	Institute of Hydrometeorology and Seismology
The Netherlands	National Institute for Public Health and the Environment (RIVM)
Norway	Norwegian Institute for Air Research (NILU)
Poland	Institute of Meteorology and Water Management Institute of Environmental Protection
Russian Federation	Institute of Global Climate and Ecology
Serbia	Environmental Protection Agency
Slovakia	Slovak Hydrometeorological Institute
Slovenia	Slovenian Environment Agency
Spain	Ministerio para la Transición Ecológica, Agencia Estatal de Meteorología
Sweden	Swedish Environmental Research Institute (IVL)
Switzerland	Swiss Federal Laboratories for Materials Science and Technology (EMPA)
United Kingdom	Ricardo-AEA

Annex 1

Maps over Europe

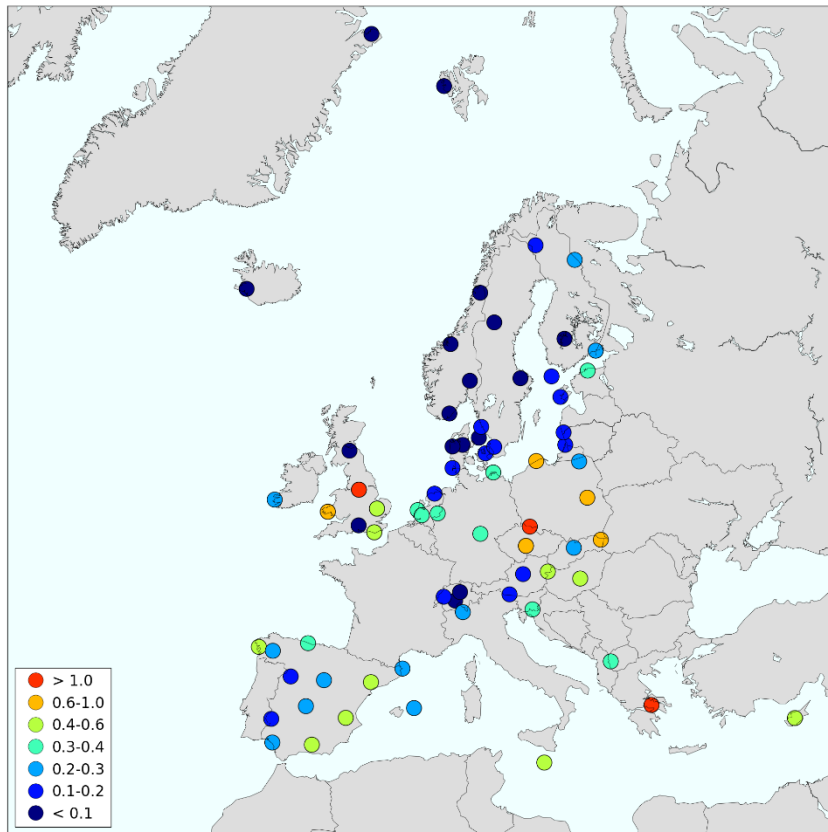


Figure 1.1: Geographical distribution of sulphur dioxide 2019. Unit: $\mu\text{g S}/\text{m}^3$.

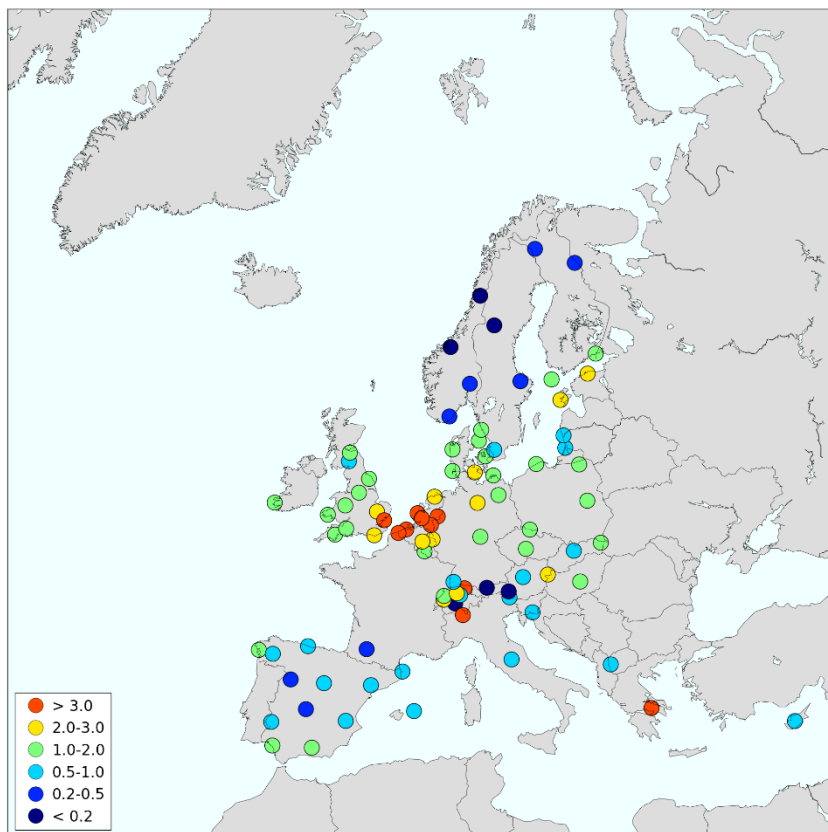


Figure 1.2: Geographical distribution of nitrogen dioxide 2019. Unit: $\mu\text{g N}/\text{m}^3$.

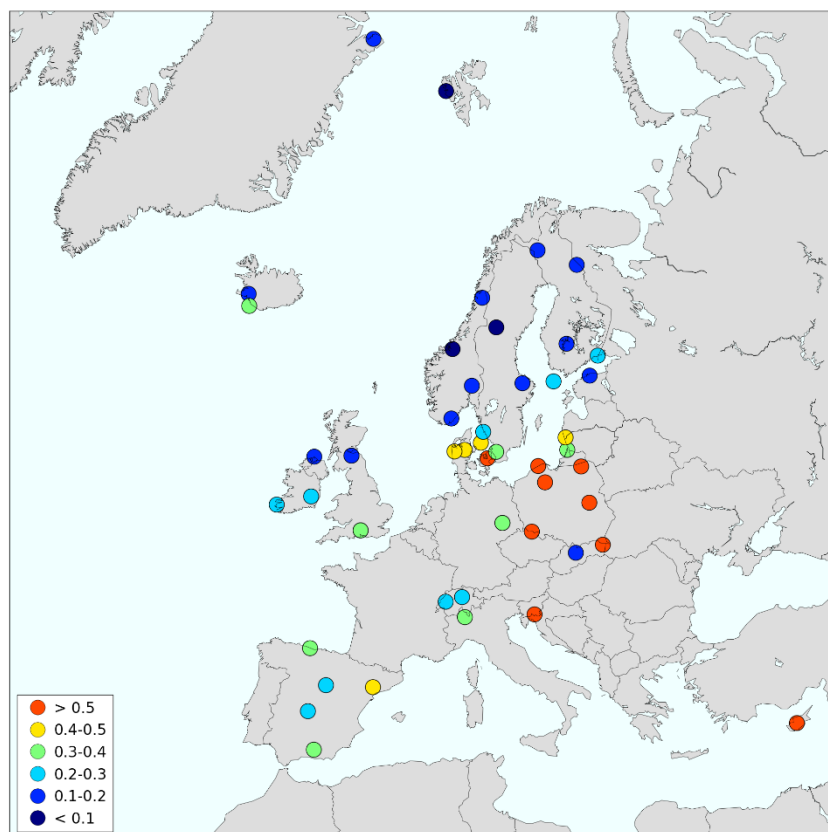


Figure 1.3: Geographical distribution of sulphate in aerosols 2019. Unit: $\mu\text{g S}/\text{m}^3$.

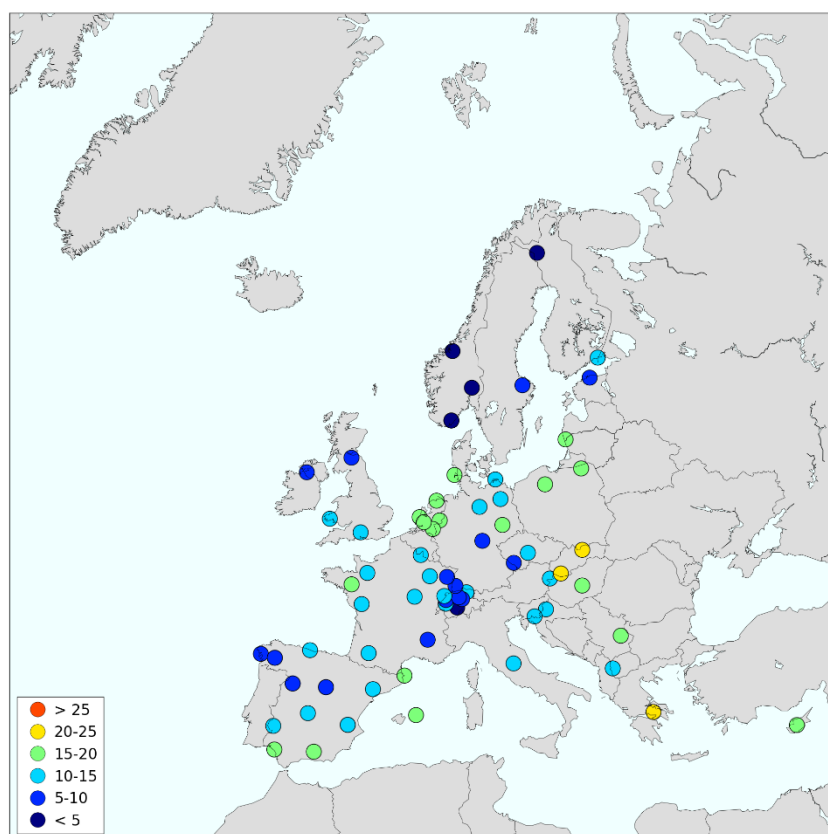


Figure 1.4: Geographical distribution of PM_{10} 2019. Unit: $\mu\text{g}/\text{m}^3$.

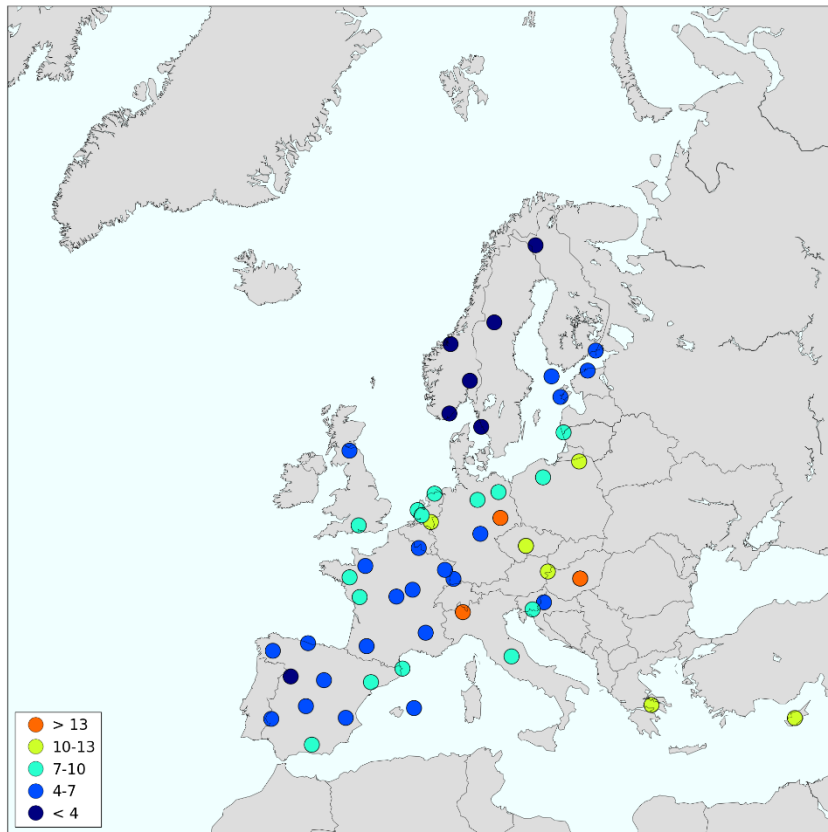


Figure 1.5: Geographical distribution of $PM_{2.5}$ 2019. Unit: $\mu\text{g}/\text{m}^3$.

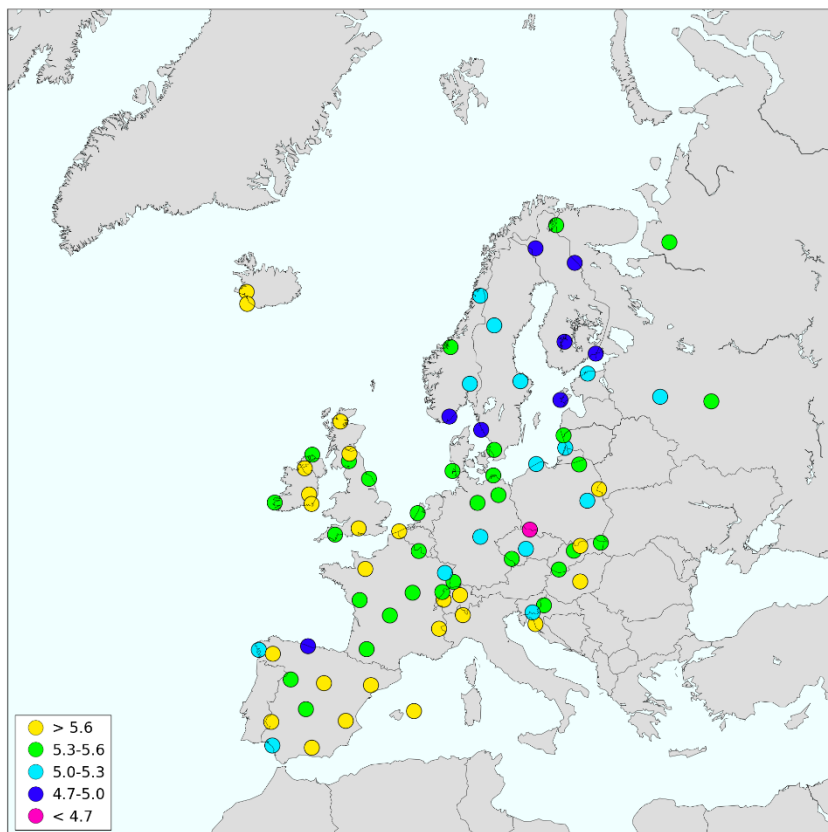


Figure 1.6: Geographical distribution of pH in precipitation 2019. Unit: pH units.

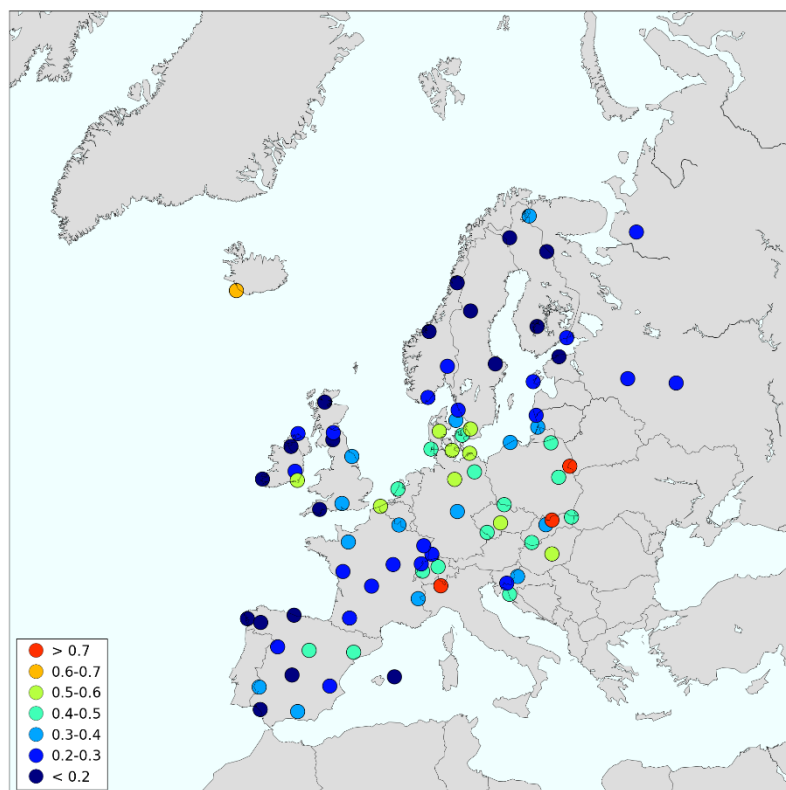


Figure 1.7: Geographical distribution of ammonium in precipitation 2019.
Unit: mg N/l.

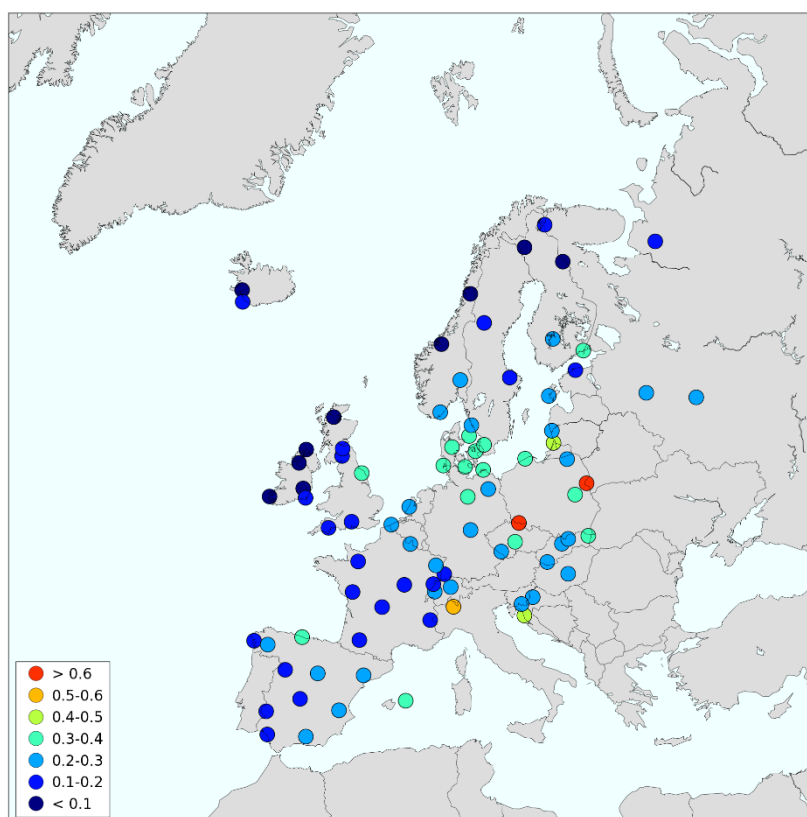


Figure 1.8: Geographical distribution of nitrate in precipitation 2019.
Unit: mg N/l.

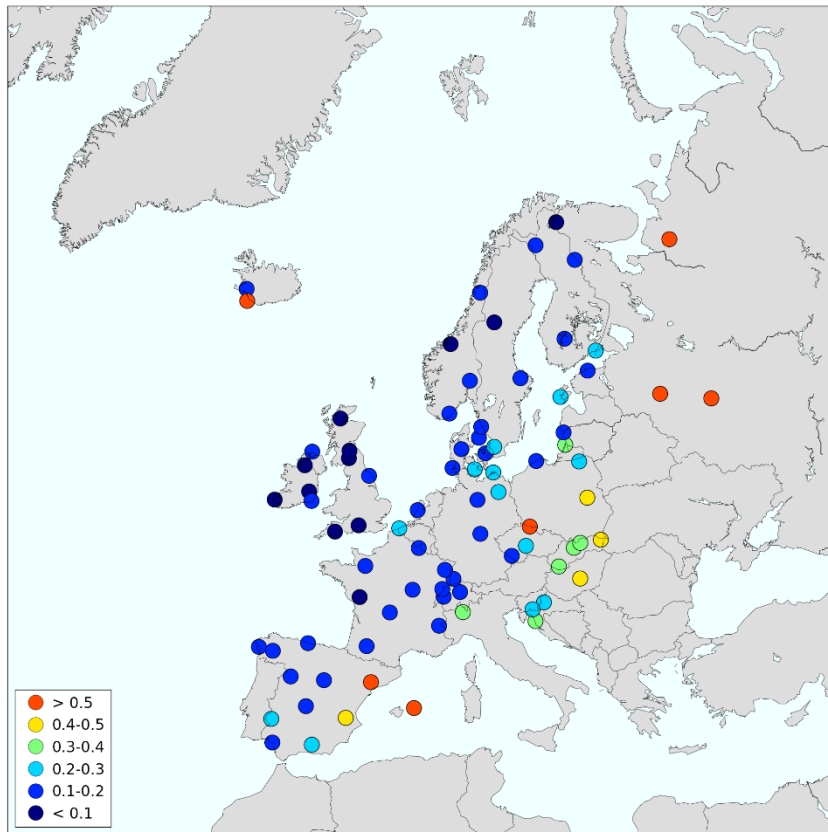


Figure 1.9: Geographical distribution of excess sulphate in precipitation 2019. Unit: mg S/l.

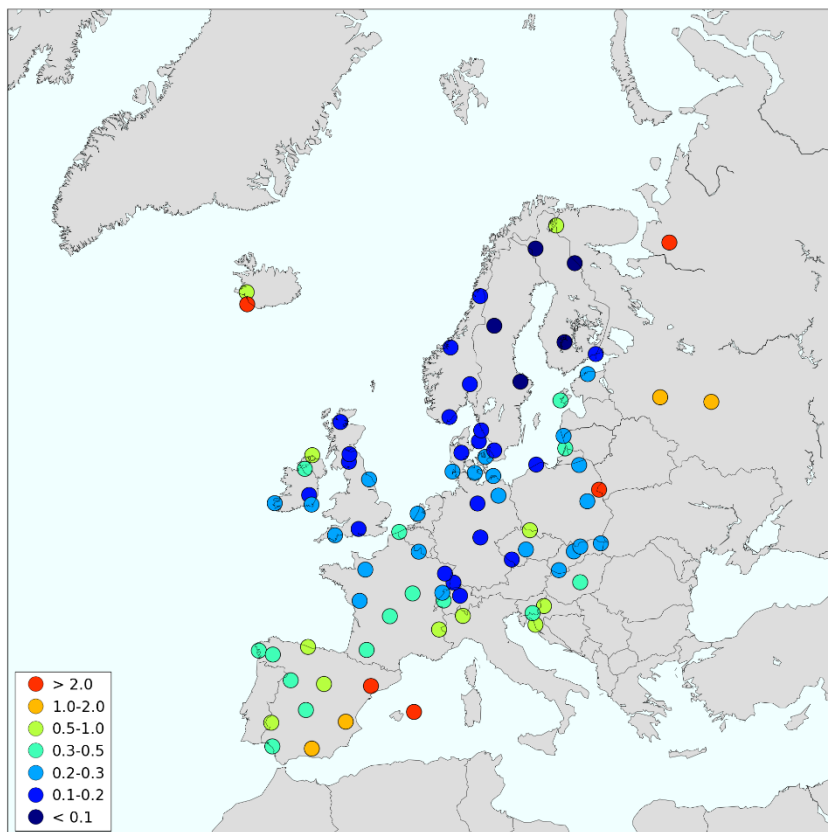


Figure 1.10: Geographical distribution of calcium in precipitation 2019. Unit: mg/l.

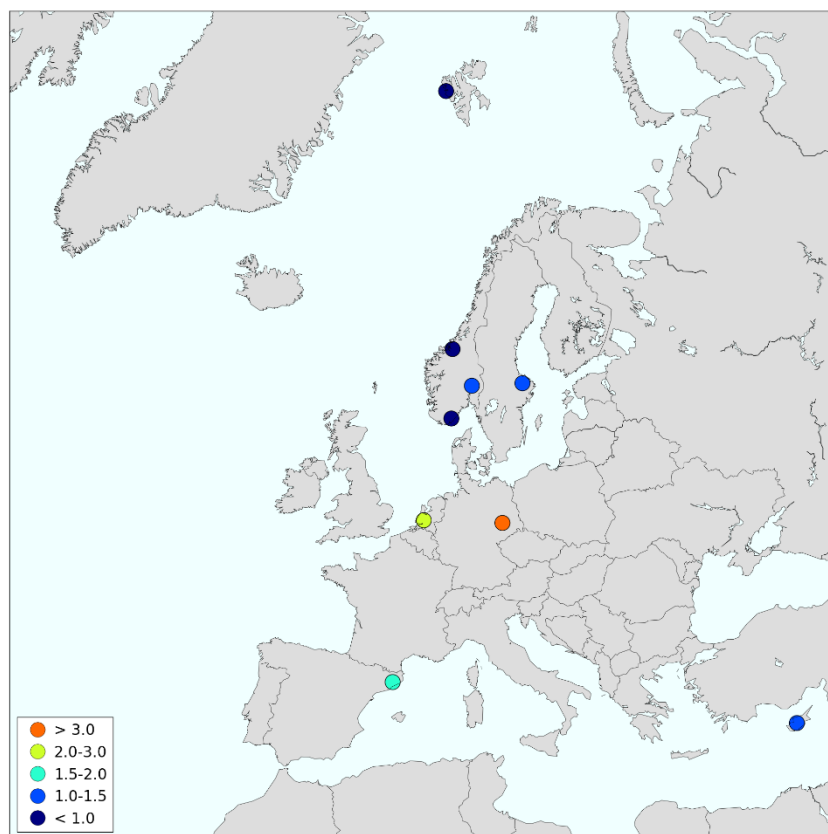


Figure 1.11: Geographical distribution of OC in PM₁₀ 2019. Unit: µg C/m³.

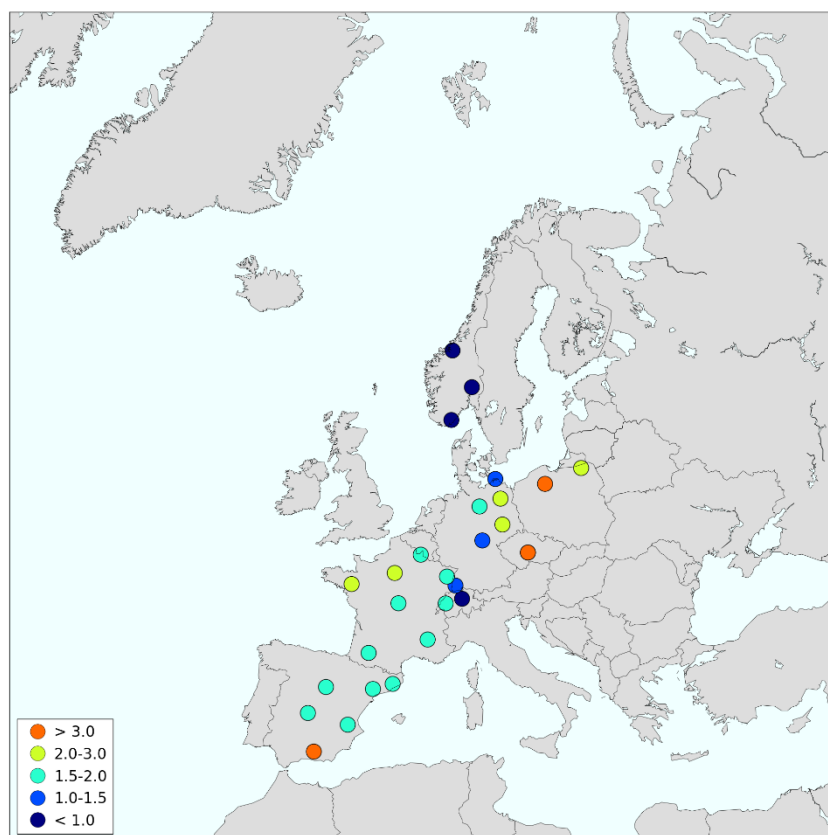


Figure 1.12: Geographical distribution of OC in PM_{2.5} 2019. Unit: µg C/m³.

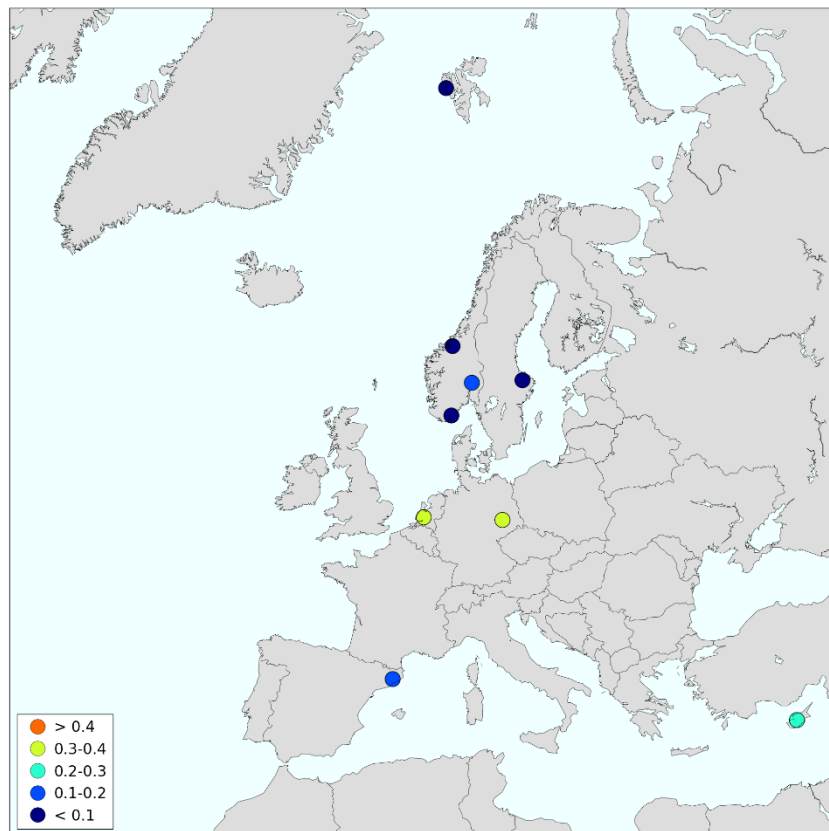


Figure 1.13: Geographical distribution of EC in PM₁₀ 2019. Unit: $\mu\text{g C}/\text{m}^3$.

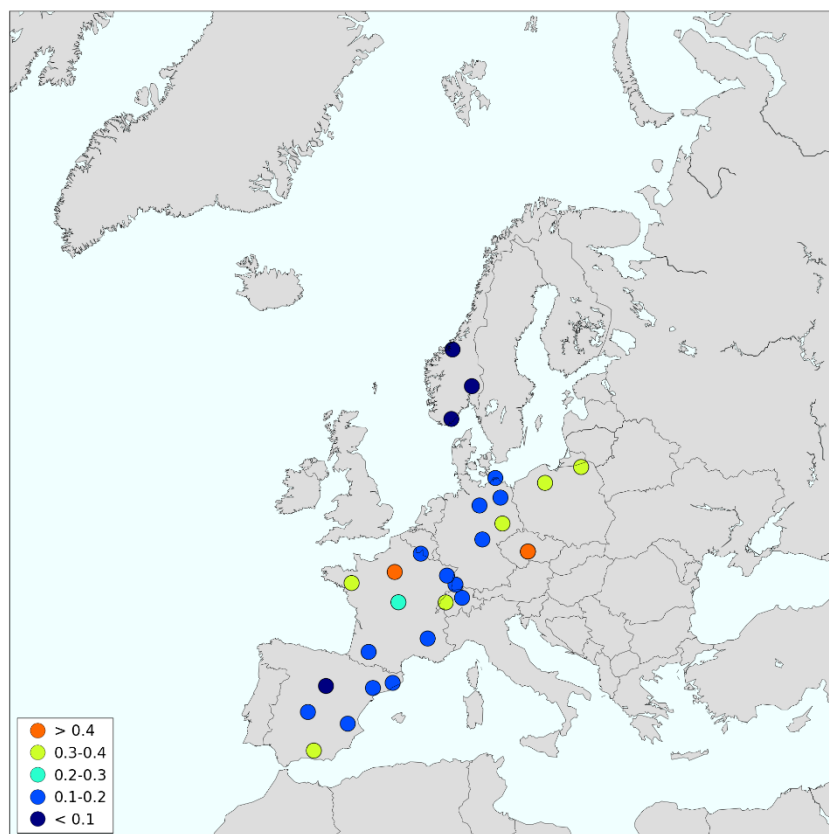


Figure 1.14: Geographical distribution of EC in PM_{2.5} 2019. Unit: $\mu\text{g C}/\text{m}^3$.

Annex 2

Annual statistics on precipitation data

AM0001R Amberd
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.10	0.42	8.37	396.8	99.0	0	38
Cl-	precip	0.84	0.13	4.38	159.3	100.0	0	39
K+	precip	0.67	0.09	3.45	126.1	98.5	0	37
Mg++	precip	0.18	0.05	0.70	34.5	100.0	0	39
NH4+	precip	1.12	0.23	2.59	211.6	81.0	0	32
NO3-	precip	0.71	0.12	4.46	133.9	100.0	0	39
Na+	precip	0.41	0.07	2.72	77.1	100.0	0	39
Precip off	precip	-	0.00	23.20	188.8	71.1	0	76
SO4--	precip	0.98	0.08	7.11	184.4	100.0	0	39
SO4-- corr	precip	0.94	0.05	7.04	178.0	100.0	0	39
cond	precip	24.91	5.90	112.00	4703.9	100.0	0	39
pH	precip	6.07	5.31	7.38	162.1	100.0	0	39

BE0014R Koksijde
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.35	0.15	1.63	237.0	100.0	0	26
Cl-	precip	3.66	0.47	17.89	2477.2	100.0	0	26
K+	precip	0.10	0.04	0.53	67.9	100.0	0	26
Mg++	precip	0.22	0.04	1.09	148.7	100.0	0	26
NH4+	precip	0.53	0.18	3.49	361.7	100.0	0	26
NO3-	precip	0.27	0.08	1.51	182.9	100.0	0	26
Na+	precip	1.70	0.24	9.17	1152.1	100.0	0	26
Precip	precip	-	0.00	71.52	676.8	99.9	0	27
Precip off	precip	-	0.00	72.36	711.9	99.9	0	27
SO4--	precip	0.35	0.06	1.17	236.7	100.0	0	26
SO4-- corr	precip	0.20	-0.06	1.10	138.2	100.0	0	26
cond	precip	30.40	13.00	79.00	20573.2	99.7	0	24
pH	precip	6.24	5.70	7.70	390.4	99.7	0	24

BY0004R Vysokoe
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.80	0.26	10.65	1178.6	63.6	0	42
Cl-	precip	1.16	0.48	2.55	488.5	1.8	0	14
K+	precip	1.27	0.36	3.39	534.8	63.6	0	42
Mg++	precip	0.68	0.10	1.55	284.6	63.6	0	42
NH4+	precip	1.21	0.23	3.83	509.5	62.0	0	36
NO3-	precip	3.14	0.24	19.40	1322.1	77.7	0	49
Na+	precip	2.07	0.98	5.18	872.0	74.5	0	47
Precip	precip	-	0.00	19.40	420.8	100.0	0	366
SO4--	precip	3.30	0.00	11.10	1389.9	38.6	0	25
SO4-- corr	precip	3.07	-0.31	10.95	1289.9	34.6	0	22
cond	precip	33.59	13.00	74.00	14133.2	67.8	0	47
pH	precip	6.59	6.10	6.90	108.4	68.0	0	48

CH0002R Payerne
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.34	0.02	2.17	311.5	99.8	0	42
Cl-	precip	0.20	0.03	1.45	186.6	99.8	0	42
K+	precip	0.04	0.01	0.45	35.3	99.8	0	42
Mg++	precip	0.03	0.00	0.14	29.7	99.8	0	42
NH4+	precip	0.42	0.11	2.18	387.3	99.8	0	42
NO3-	precip	0.22	0.04	0.94	198.7	99.8	0	42
Na+	precip	0.12	0.01	0.84	106.1	99.8	0	42
Precip	precip	-	0.00	76.50	920.7	100.0	0	53
SO4--	precip	0.14	0.03	0.60	132.4	99.8	0	42
SO4-- corr	precip	0.13	0.03	0.57	123.5	99.8	0	42
cond	precip	7.43	2.89	54.04	6839.6	100.0	0	44
pH	precip	5.91	5.16	7.23	1143.9	100.0	0	44

CH0005R Rigi
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.01	1.61	234.5	99.9	0	45
Cl-	precip	0.11	0.01	0.61	135.9	99.9	0	45
K+	precip	0.02	0.01	0.27	30.5	99.9	0	45
Mg++	precip	0.02	0.00	0.13	23.1	99.9	0	45
NH4+	precip	0.45	0.09	3.21	565.4	99.9	0	45
NO3-	precip	0.24	0.06	2.26	303.8	99.9	0	45
Na+	precip	0.07	0.01	0.47	82.8	99.9	0	45
Precip	precip	-	0.00	85.80	1267.1	98.1	0	52
SO4--	precip	0.14	0.01	0.80	174.6	99.9	0	45
SO4-- corr	precip	0.13	0.01	0.80	167.6	99.9	0	45
cond	precip	6.96	2.01	35.73	8814.5	100.0	0	47
pH	precip	5.61	4.86	7.05	3099.6	100.0	0	47

CZ0003R Kosetice (NOAK)
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.21	0.03	1.64	131.9	84.1	0	64
Cl-	precip	0.14	0.03	0.77	87.9	84.1	0	64
K+	precip	0.04	0.01	0.19	22.7	84.1	5	64
Mg++	precip	0.02	0.00	0.10	15.4	84.1	0	64
NH4+	precip	0.56	0.01	2.28	350.0	84.1	1	64
NO3-	precip	0.31	0.11	1.50	195.7	84.1	0	64
Na+	precip	0.08	0.01	0.43	50.5	84.1	2	64
Precip	precip	-	0.00	22.70	630.6	100.0	0	366
SO4--	precip	0.25	0.05	1.41	154.6	84.1	0	64
SO4-- corr	precip	0.24	0.04	1.38	150.3	84.1	0	64
cond	precip	46.32	3.92	2617.00	29206.3	84.1	0	64
pH	precip	5.04	3.37	6.36	5781.1	84.1	0	64

CZ0005R Churanov
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.03	1.74	114.4	93.2	0	45
Cl-	precip	0.18	0.03	1.08	164.8	93.2	0	45
K+	precip	0.06	0.01	0.43	55.9	93.2	0	45
Mg++	precip	0.02	0.00	0.12	22.3	93.2	0	45
NH4+	precip	0.42	0.11	1.77	391.0	93.2	0	45
NO3-	precip	0.27	0.10	0.97	247.5	93.2	0	45
Na+	precip	0.11	0.02	0.67	98.1	93.2	0	45
Precip	precip	-	0.00	79.20	933.7	100.0	0	54
SO4--	precip	0.17	0.04	0.58	160.4	93.2	0	45
SO4-- corr	precip	0.16	0.04	0.57	152.1	93.2	0	45
cond	precip	9.05	3.27	21.82	8453.8	93.2	0	45
pH	precip	5.36	4.78	6.51	4051.1	93.2	0	45

DE0001R Westerland
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.28	0.09	1.44	252.7	100.0	0	49
Cl-	precip	8.23	0.56	50.12	7442.8	100.0	0	49
K+	precip	0.20	0.05	1.02	180.0	100.0	0	49
Mg++	precip	0.56	0.07	3.31	502.5	100.0	0	49
NH4+	precip	0.43	0.09	4.07	393.2	100.0	0	49
NO3-	precip	0.31	0.14	1.71	282.7	100.0	0	49
Na+	precip	4.69	0.32	28.00	4240.8	100.0	0	49
Precip	precip	-	0.00	82.50	903.9	99.5	0	53
SO4--	precip	0.54	0.20	2.41	484.1	100.0	0	49
SO4-- corr	precip	0.14	-0.35	1.31	129.1	100.0	0	49
cond	precip	39.10	11.10	196.90	35343.8	100.0	0	49
pH	precip	5.36	4.73	6.89	3945.3	100.0	0	49

DE0002R Waldhof
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.14	0.05	3.23	78.3	94.8	0	121
Cl-	precip	0.54	0.01	9.25	296.3	94.8	0	121
K+	precip	0.07	0.02	1.26	36.9	93.7	0	119
Mg++	precip	0.05	0.01	0.99	28.3	93.1	0	119
NH4+	precip	0.56	0.04	6.14	305.0	94.8	0	121
NO3-	precip	0.33	0.06	3.50	182.3	94.8	0	121
Na+	precip	0.33	0.02	8.37	179.3	94.8	0	121
Precip	precip	-	0.00	23.50	545.9	100.0	0	366
SO4--	precip	0.22	0.04	1.20	120.5	94.8	0	121
SO4-- corr	precip	0.19	0.03	1.18	105.4	94.8	0	121
cond	precip	10.82	3.50	66.50	5905.4	94.8	0	121
pH	precip	5.34	4.26	7.03	2483.9	94.8	0	121

DE0003R Schauinsland
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.04	3.22	192.3	99.5	0	160
Cl-	precip	0.28	0.02	3.92	464.5	99.5	0	160
K+	precip	0.04	0.02	0.63	72.3	96.2	0	154
Mg++	precip	0.03	0.01	0.30	47.6	97.4	0	158
NH4+	precip	0.23	0.02	2.04	384.7	99.5	0	160
NO3-	precip	0.16	0.03	1.22	270.3	99.5	0	160
Na+	precip	0.17	0.02	2.87	283.1	97.4	0	158
Precip	precip	-	0.00	49.80	1648.7	100.0	0	366
SO4--	precip	0.11	0.02	0.77	188.1	99.5	0	160
SO4-- corr	precip	0.10	-0.04	0.77	164.8	99.5	0	160
cond	precip	5.97	2.30	40.80	9849.0	99.5	0	160
pH	precip	5.41	4.22	6.79	6443.6	99.5	0	160

DE0007R Neuglobsow
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.28	0.07	2.25	173.2	97.7	0	114
Cl-	precip	0.47	0.03	18.49	288.7	97.7	0	114
K+	precip	0.11	0.03	2.36	65.9	97.7	0	114
Mg++	precip	0.05	0.02	1.18	33.4	97.7	0	114
NH4+	precip	0.48	0.03	2.44	292.7	97.7	0	114
NO3-	precip	0.29	0.07	1.73	178.3	97.7	0	114
Na+	precip	0.27	0.02	10.19	167.1	97.7	0	114
Precip	precip	-	0.00	40.50	612.0	100.0	0	366
SO4--	precip	0.24	0.05	1.17	146.4	97.7	0	114
SO4-- corr	precip	0.22	0.04	0.93	132.4	97.7	0	114
cond	precip	10.37	3.40	74.90	6343.4	97.7	0	114
pH	precip	5.42	4.15	6.75	2342.4	97.7	0	114

DE0008R Schmücke
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.11	0.05	1.62	134.7	99.9	0	48
Cl-	precip	0.49	0.05	3.86	578.4	99.9	0	48
K+	precip	0.05	0.02	0.43	57.4	99.9	0	48
Mg++	precip	0.04	0.02	0.26	50.1	99.9	0	48
NH4+	precip	0.32	0.09	3.22	383.4	99.9	0	48
NO3-	precip	0.27	0.10	1.76	320.2	99.9	0	48
Na+	precip	0.29	0.02	2.23	341.1	99.9	0	48
Precip	precip	-	0.00	107.10	1188.8	99.5	0	53
SO4--	precip	0.18	0.06	1.49	218.8	99.9	0	48
SO4-- corr	precip	0.16	0.05	1.48	190.2	99.9	0	48
cond	precip	8.98	4.20	42.20	10680.7	99.9	0	48
pH	precip	5.23	4.41	6.76	7043.8	99.9	0	48

DE0009R Zingst
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.29	0.07	0.84	162.2	99.6	0	44
Cl-	precip	1.39	0.11	13.09	788.9	99.6	0	44
K+	precip	0.11	0.04	1.18	63.7	99.6	0	44
Mg++	precip	0.11	0.03	0.80	64.4	99.6	0	44
NH4+	precip	0.56	0.13	1.91	317.3	99.2	0	43
NO3-	precip	0.38	0.17	1.03	215.7	99.2	0	43
Na+	precip	0.80	0.03	7.35	450.8	99.6	0	44
Precip	precip	-	0.00	57.30	566.2	99.5	0	53
SO4--	precip	0.31	0.10	1.05	177.8	99.6	0	44
SO4-- corr	precip	0.25	0.04	0.93	140.1	99.6	0	44
cond	precip	14.82	5.90	58.00	8392.6	99.6	0	44
pH	precip	5.42	4.28	6.58	2159.6	99.6	0	44

DK0005R Keldsnor
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.07	1.70	107.6	100.0	0	24
Cl-	precip	2.54	0.68	8.40	1183.4	97.0	0	23
K+	precip	0.21	0.04	1.06	96.0	94.4	0	22
Mg++	precip	0.16	0.04	0.53	76.6	100.0	0	24
NH4+	precip	0.59	0.19	5.46	273.8	100.0	0	23
NO3-	precip	0.39	0.14	2.22	181.4	100.0	0	24
Na+	precip	1.42	0.36	4.75	661.5	100.0	0	23
Precip	precip	-	0.00	59.73	465.5	99.9	0	25
SO4--	precip	0.32	0.15	2.52	149.6	100.0	0	24
SO4-- corr	precip	0.20	0.05	2.12	94.1	100.0	0	24

DK0008R Anholt
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.07	1.04	83.7	100.0	0	21
Cl-	precip	2.87	0.58	8.36	1358.5	91.5	0	20
K+	precip	0.07	0.01	0.30	34.3	100.0	3	21
Mg++	precip	0.19	0.05	0.51	89.7	100.0	0	21
NH4+	precip	0.39	0.04	4.27	185.0	91.5	0	20
NO3-	precip	0.37	0.10	1.94	177.4	100.0	0	21
Na+	precip	1.57	0.36	4.61	745.9	100.0	0	21
Precip	precip	-	0.00	57.52	473.7	99.9	0	25
SO4--	precip	0.32	0.12	2.17	153.1	100.0	0	21
SO4-- corr	precip	0.19	0.03	2.06	90.6	100.0	0	21

DK0012R Riseo
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.06	1.14	133.7	96.1	1	24
Cl-	precip	2.17	0.16	12.45	1282.2	96.1	1	24
K+	precip	0.20	0.01	1.68	116.9	85.6	3	22
Mg++	precip	0.14	0.03	0.71	83.2	86.6	1	22
NH4+	precip	0.50	0.12	2.43	295.3	85.6	0	21
NO3-	precip	0.33	0.14	1.15	194.9	91.4	0	23
Na+	precip	1.28	0.21	6.72	755.1	90.4	0	21
Precip	precip	-	0.68	64.36	592.1	99.9	0	25
SO4--	precip	0.30	0.07	0.77	177.6	96.1	0	24
SO4-- corr	precip	0.20	0.04	0.73	117.2	96.1	0	24

DK0022R Sepstrup Sande
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.14	0.04	1.24	73.1	100.0	2	18
Cl-	precip	2.54	0.17	11.45	1304.1	100.0	1	18
K+	precip	0.07	0.03	0.20	33.7	100.0	3	18
Mg++	precip	0.18	0.04	0.69	92.7	86.9	0	17
NH4+	precip	0.55	0.20	1.81	281.3	100.0	0	17
NO3-	precip	0.33	0.11	0.71	167.8	100.0	0	18
Na+	precip	1.47	0.19	6.32	754.1	99.0	0	16
Precip	precip	-	0.00	67.24	512.8	99.9	0	25
SO4--	precip	0.31	0.15	0.83	159.8	100.0	0	18
SO4-- corr	precip	0.19	0.02	0.81	97.1	100.0	0	18

EE0009R Lahemaa
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.02	2.00	170.3	100.0	11	147
Cl-	precip	0.37	0.04	1.70	311.7	100.0	1	147
K+	precip	0.06	0.01	0.79	49.7	100.0	21	147
Mg++	precip	0.04	0.01	0.23	32.1	100.0	26	147
NH4+	precip	0.13	0.01	1.10	110.8	100.0	37	147
NO3-	precip	0.17	0.01	1.60	146.5	100.0	29	147
Na+	precip	0.24	0.01	2.50	205.9	100.0	2	147
Precip	precip	-	0.00	38.89	849.3	100.0	0	366
SO4--	precip	0.17	0.03	2.17	147.9	100.0	0	147
SO4-- corr	precip	0.16	0.02	2.04	131.7	100.0	0	147
cond	precip	7.66	2.30	57.00	6502.2	100.0	0	147
pH	precip	5.30	4.18	7.11	4285.5	100.0	0	147

EE0011R Vilsandi
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.36	0.15	3.10	239.8	100.0	0	12
Cl-	precip	1.35	0.69	4.20	906.2	100.0	0	12
K+	precip	0.13	0.03	0.69	90.0	100.0	0	12
Mg++	precip	0.15	0.08	0.73	98.2	100.0	0	12
NH4+	precip	0.22	0.01	0.71	148.2	100.0	1	12
NO3-	precip	0.29	0.02	0.72	192.0	100.0	0	12
Na+	precip	0.82	0.36	2.20	554.9	100.0	0	12
Precip	precip	-	5.40	136.70	673.4	99.9	0	12
SO4--	precip	0.28	0.17	1.10	191.6	100.0	0	12
SO4-- corr	precip	0.22	0.13	0.92	145.0	100.0	0	12
cond	precip	14.52	6.60	43.00	9776.9	100.0	0	12
pH	precip	4.94	4.16	6.81	7644.1	100.0	0	12

ES0001R San Pablo de los Montes
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.47	0.02	2.50	199.4	97.1	1	50
Cl-	precip	0.49	0.16	4.33	205.7	98.9	10	59
K+	precip	0.10	0.03	0.38	41.5	97.1	5	50
Mg++	precip	0.06	0.01	0.31	25.9	97.1	1	50
NH4+	precip	0.17	0.02	1.46	72.0	98.8	16	58
NO3-	precip	0.14	0.04	1.77	60.8	98.9	17	59
Na+	precip	0.30	0.06	2.20	125.9	97.1	4	50
Precip	precip	-	0.00	33.20	421.4	100.0	0	366
SO4--	precip	0.16	0.04	1.44	67.1	98.9	16	59
SO4-- corr	precip	0.13	0.02	1.37	56.1	98.9	16	59
cond	precip	7.78	2.20	372.80	3280.5	100.0	4	69
pH	precip	5.60	5.05	6.99	1060.3	100.0	0	69

ES0005R Noia
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.30	0.02	3.99	654.5	99.4	4	147
Cl-	precip	5.39	0.35	79.29	11590.1	99.8	0	155
K+	precip	0.21	0.03	1.70	452.1	99.4	9	147
Mg++	precip	0.39	0.03	5.50	837.6	99.4	0	147
NH4+	precip	0.16	0.02	3.42	337.7	99.8	56	155
NO3-	precip	0.12	0.04	3.37	260.9	99.8	43	155
Na+	precip	2.99	0.19	40.50	6436.1	99.4	0	147
Precip	precip	-	0.00	77.00	2150.6	100.0	0	366
SO4--	precip	0.43	0.04	4.27	920.0	99.8	2	155
SO4-- corr	precip	0.17	-1.38	4.07	372.6	99.8	2	155
cond	precip	28.21	4.90	408.00	60667.8	100.0	0	166
pH	precip	5.27	4.51	6.83	11430.8	100.0	0	166

ES0006R Mahón
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	4.95	2.17	45.00	2087.6	97.6	0	42
Cl-	precip	34.47	4.39	235.63	14542.8	99.4	0	48
K+	precip	0.91	0.35	6.20	383.7	97.6	0	42
Mg++	precip	2.60	0.90	18.00	1098.4	97.6	0	42
NH4+	precip	0.08	0.02	1.13	33.4	99.0	23	46
NO3-	precip	0.31	0.04	2.91	130.6	99.4	2	48
Na+	precip	18.19	4.20	131.00	7671.7	97.6	0	42
Precip	precip	-	0.00	44.40	421.9	100.0	0	366
SO4--	precip	2.18	0.04	26.26	918.7	99.4	1	48
SO4-- corr	precip	0.60	-0.69	17.56	251.6	99.4	1	48
cond	precip	154.51	62.00	890.00	65182.7	100.0	0	53
pH	precip	6.67	6.30	7.66	90.8	100.0	0	53

ES0007R Viznar
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.20	0.20	9.60	660.8	98.7	0	52
Cl-	precip	0.70	0.16	3.34	387.5	99.2	4	55
K+	precip	0.32	0.03	6.20	173.7	98.7	1	52
Mg++	precip	0.19	0.05	0.80	105.1	98.7	0	52
NH4+	precip	0.33	0.02	2.35	179.5	99.2	4	55
NO3-	precip	0.21	0.04	1.39	114.6	99.2	3	55
Na+	precip	0.38	0.06	1.62	211.6	98.7	1	52
Precip	precip	-	0.00	76.40	550.0	100.0	0	366
SO4--	precip	0.28	0.04	1.58	154.1	99.2	2	55
SO4-- corr	precip	0.25	0.02	1.51	135.0	99.2	2	55
cond	precip	14.27	3.50	175.60	7849.2	100.0	0	63
pH	precip	6.29	5.73	7.29	283.8	100.0	0	63

ES0008R Niembro
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.84	0.17	16.60	960.7	100.0	0	107
Cl-	precip	7.26	0.16	99.41	8307.8	100.0	1	107
K+	precip	0.22	0.03	3.10	251.0	100.0	4	107
Mg++	precip	0.50	0.05	2.90	576.2	99.5	0	106
NH4+	precip	0.16	0.02	1.50	180.2	100.0	8	107
NO3-	precip	0.31	0.04	5.10	354.6	100.0	12	107
Na+	precip	3.63	0.16	23.50	4158.0	99.1	0	105
Precip	precip	-	0.00	76.33	1144.4	100.0	0	366
SO4--	precip	0.50	0.04	4.72	574.2	100.0	2	107
SO4-- corr	precip	0.17	0.02	1.77	192.1	100.0	2	107
cond	precip	38.14	4.10	375.70	43648.8	100.0	0	108
pH	precip	4.95	3.50	7.39	12900.6	100.0	0	108

ES0009R Campisabalos
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.75	0.11	8.10	333.3	99.1	0	87
Cl-	precip	0.29	0.16	3.43	126.8	99.8	42	89
K+	precip	0.09	0.03	2.70	39.1	99.1	29	87
Mg++	precip	0.06	0.02	0.39	28.3	99.1	0	87
NH4+	precip	0.42	0.02	4.36	184.9	99.8	6	89
NO3-	precip	0.22	0.04	1.77	97.4	99.8	18	89
Na+	precip	0.16	0.06	2.60	72.9	99.1	19	87
Precip	precip	-	0.00	42.79	442.8	100.0	0	366
SO4--	precip	0.20	0.04	1.86	90.6	99.8	30	89
SO4-- corr	precip	0.19	-0.01	1.79	83.8	99.8	30	89
cond	precip	9.76	2.10	74.20	4321.3	100.0	0	92
pH	precip	5.99	4.96	7.32	448.9	100.0	0	92

ES0011R Barcarrota
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.52	0.14	3.58	188.0	99.9	0	49
Cl-	precip	1.32	0.16	11.02	476.4	100.0	3	50
K+	precip	0.24	0.03	3.20	88.0	99.9	3	49
Mg++	precip	0.13	0.04	0.70	48.0	99.9	0	49
NH4+	precip	0.31	0.02	3.70	113.5	99.9	12	49
NO3-	precip	0.13	0.04	1.23	48.1	100.0	13	50
Na+	precip	0.79	0.13	6.00	287.0	99.9	0	49
Precip	precip	-	0.00	27.91	361.1	99.7	0	365
SO4--	precip	0.28	0.04	4.20	100.4	100.0	3	50
SO4-- corr	precip	0.21	0.02	4.02	76.5	100.0	3	50
cond	precip	12.54	3.20	63.20	4529.3	100.0	0	50
pH	precip	5.70	5.10	7.05	721.9	100.0	0	50

ES0012R Zarra
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.80	0.31	17.80	831.3	98.7	0	47
Cl-	precip	0.86	0.16	7.38	395.3	99.3	9	54
K+	precip	0.08	0.03	0.66	38.0	98.7	9	47
Mg++	precip	0.14	0.03	1.00	64.1	98.7	0	47
NH4+	precip	0.23	0.02	1.49	105.8	99.0	5	50
NO3-	precip	0.25	0.04	2.66	117.3	99.3	2	54
Na+	precip	0.51	0.06	4.00	234.3	98.7	5	47
Precip	precip	-	0.00	93.61	460.6	100.0	0	366
SO4--	precip	0.45	0.04	2.82	207.6	99.3	7	54
SO4-- corr	precip	0.41	0.03	2.49	187.4	99.3	7	54
cond	precip	16.55	2.90	136.10	7621.2	100.0	0	68
pH	precip	6.25	5.76	7.56	259.7	100.0	0	68

ES0013R Penausende
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.41	0.10	1.68	252.7	99.3	0	83
Cl-	precip	0.55	0.16	7.51	344.1	99.9	19	92
K+	precip	0.07	0.03	0.38	41.7	99.3	21	83
Mg++	precip	0.07	0.02	0.38	42.1	99.3	0	83
NH4+	precip	0.21	0.02	2.28	132.4	99.9	9	92
NO3-	precip	0.13	0.04	1.25	79.0	99.9	44	92
Na+	precip	0.32	0.06	4.10	200.3	99.3	4	83
Precip	precip	-	0.00	63.26	620.3	100.0	0	366
SO4--	precip	0.16	0.04	1.09	97.8	99.9	31	92
SO4-- corr	precip	0.13	-0.03	0.94	80.3	99.9	31	92
cond	precip	7.63	2.60	67.20	4730.7	100.0	0	94
pH	precip	5.56	4.66	6.92	1697.3	100.0	0	94

ES0014R Els Torms
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.14	0.22	38.10	746.5	99.8	0	51
Cl-	precip	0.70	0.16	9.72	242.8	99.9	8	52
K+	precip	0.10	0.03	0.86	34.2	99.8	4	51
Mg++	precip	0.14	0.03	1.20	48.5	99.8	0	51
NH4+	precip	0.47	0.09	6.54	162.3	99.9	0	52
NO3-	precip	0.28	0.08	2.77	96.9	99.9	0	52
Na+	precip	0.43	0.06	6.50	148.7	99.8	1	51
Precip	precip	-	0.00	96.00	348.4	100.0	0	366
SO4--	precip	0.56	0.04	14.00	194.8	99.9	2	52
SO4-- corr	precip	0.52	0.03	13.46	182.1	99.9	2	52
cond	precip	18.19	3.70	195.80	6338.2	100.0	0	53
pH	precip	6.40	5.81	7.46	138.3	100.0	0	53

ES0016R O Saviñao
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.43	0.02	6.20	703.8	98.8	1	118
Cl-	precip	2.66	0.16	29.98	4333.1	99.6	3	131
K+	precip	0.37	0.03	10.50	602.3	98.8	10	118
Mg++	precip	0.28	0.03	6.50	453.3	98.8	0	118
NH4+	precip	0.20	0.02	7.23	321.3	99.3	23	126
NO3-	precip	0.23	0.04	7.34	378.6	99.6	32	131
Na+	precip	1.47	0.06	15.80	2384.7	98.8	1	118
Precip	precip	-	0.00	105.00	1627.6	100.0	0	366
SO4--	precip	0.26	0.04	2.13	420.7	99.6	11	131
SO4-- corr	precip	0.13	-0.05	1.79	219.1	99.6	11	131
cond	precip	16.72	3.50	175.40	27214.5	100.0	0	146
pH	precip	5.65	4.11	7.20	3648.3	100.0	0	146

ES0017R Doñana
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.38	0.20	1.20	95.7	98.3	0	34
Cl-	precip	4.94	0.41	17.59	1242.7	99.0	0	36
K+	precip	0.14	0.03	0.40	34.1	98.3	1	34
Mg++	precip	0.37	0.08	1.20	92.3	98.3	0	34
NH4+	precip	0.09	0.02	1.07	22.9	98.3	7	34
NO3-	precip	0.11	0.04	0.60	28.7	99.0	15	36
Na+	precip	2.86	0.22	9.50	719.1	98.3	0	34
Precip	precip	-	0.00	29.50	251.7	100.0	0	366
SO4--	precip	0.41	0.14	1.03	102.8	99.0	0	36
SO4-- corr	precip	0.17	0.08	0.69	43.1	99.0	0	36
cond	precip	25.09	5.10	74.80	6314.2	100.0	0	41
pH	precip	5.28	4.55	6.85	1326.5	100.0	0	41

FI0018R Virolahti III
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.13	0.02	3.39	88.9	99.9	0	46
Cl-	precip	0.39	0.07	3.57	270.2	99.9	0	46
K+	precip	0.05	0.01	1.48	37.8	99.8	0	45
Mg++	precip	0.04	0.01	0.61	27.8	99.9	0	46
NH4+	precip	0.27	0.03	1.61	187.7	99.9	0	46
NO3-	precip	0.31	0.06	2.00	211.8	99.9	0	46
Na+	precip	0.23	0.03	2.57	160.1	99.9	0	46
Precip	precip	-	0.00	49.60	694.0	99.5	0	52
SO4--	precip	0.28	0.09	1.24	193.9	99.9	0	46
SO4-- corr	precip	0.26	0.07	1.10	180.5	99.9	0	46
cond	precip	12.06	4.60	61.10	8368.5	99.9	0	46
pH	precip	4.79	4.11	6.43	11269.7	99.8	0	45

FI0022R Oulanka
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.03	0.00	0.49	21.7	100.0	1	46
Cl-	precip	0.10	0.03	3.35	72.6	100.0	0	46
K+	precip	0.03	0.00	0.26	19.2	100.0	2	46
Mg++	precip	0.01	0.00	0.25	7.4	100.0	3	46
NH4+	precip	0.04	0.00	0.24	31.1	100.0	1	46
NO3-	precip	0.09	0.03	0.40	66.3	100.0	0	46
Na+	precip	0.05	0.01	2.02	38.0	100.0	0	46
Precip	precip	-	0.00	63.50	730.9	99.5	0	51
SO4--	precip	0.11	0.03	0.69	80.9	100.0	0	46
SO4-- corr	precip	0.11	0.02	0.68	77.6	100.0	0	46
cond	precip	6.25	3.49	25.70	4568.8	100.0	0	46
pH	precip	4.90	4.35	5.42	9251.5	100.0	0	46

FI0036R Pallas (Matorova)
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.03	0.00	0.26	21.8	100.0	1	45
Cl-	precip	0.12	0.03	0.76	84.3	100.0	0	45
K+	precip	0.03	0.00	1.47	17.7	98.8	5	44
Mg++	precip	0.01	0.00	0.13	8.4	100.0	7	45
NH4+	precip	0.06	0.00	0.36	37.6	100.0	1	45
NO3-	precip	0.08	0.01	0.38	54.8	100.0	0	45
Na+	precip	0.07	0.01	0.41	45.2	100.0	0	45
Precip	precip	-	0.00	49.20	683.8	99.5	0	52
SO4--	precip	0.11	0.01	0.43	77.9	100.0	0	45
SO4-- corr	precip	0.11	-0.00	0.42	74.0	100.0	0	45
cond	precip	5.92	2.96	17.22	4049.9	100.0	0	45
pH	precip	4.96	4.60	5.42	7443.5	98.8	0	44

FI0050R Hyytiälä
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.07	0.01	0.98	47.0	98.9	0	43
Cl-	precip	0.17	0.05	2.63	106.3	98.9	0	43
K+	precip	0.04	0.01	0.45	27.6	93.4	0	41
Mg++	precip	0.02	0.00	0.18	14.5	98.9	2	43
NH4+	precip	0.14	0.01	2.56	89.1	93.0	0	41
NO3-	precip	0.21	0.06	1.70	136.5	98.9	0	43
Na+	precip	0.10	0.02	1.49	61.0	98.9	0	43
Precip	precip	-	0.00	43.70	635.9	97.6	0	51
SO4--	precip	0.17	0.03	3.56	110.0	98.9	0	43
SO4-- corr	precip	0.17	0.02	3.52	104.9	98.9	0	43
cond	precip	8.95	3.18	75.70	5694.0	100.0	0	44
pH	precip	4.87	4.07	6.13	8559.1	96.3	0	42

FR0008R Donon
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.01	4.36	262.7	92.0	8	170
Cl-	precip	0.49	0.03	22.64	729.9	92.0	17	170
K+	precip	0.04	0.01	0.62	53.1	90.8	34	169
Mg++	precip	0.04	0.01	1.80	60.9	92.0	59	170
NH4+	precip	0.29	0.01	3.92	430.2	92.0	5	170
NO3-	precip	0.21	0.02	3.37	316.2	92.0	0	170
Na+	precip	0.29	0.01	15.85	430.7	92.0	7	170
Precip	precip	-	0.00	50.20	1481.3	99.6	2	364
SO4--	precip	0.14	0.01	1.94	204.8	92.0	4	170
SO4-- corr	precip	0.11	0.01	1.75	168.3	92.0	4	170
pH	precip	5.24	3.80	6.76	8573.9	92.1	0	178

FR0009R Revin
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.21	0.01	4.57	255.0	94.1	3	161
Cl-	precip	0.96	0.03	28.73	1158.8	94.1	5	161
K+	precip	0.06	0.01	2.16	67.0	94.1	26	161
Mg++	precip	0.07	0.01	1.59	88.6	94.1	28	161
NH4+	precip	0.39	0.01	4.43	466.1	94.1	1	161
NO3-	precip	0.23	0.04	4.35	281.1	94.1	0	161
Na+	precip	0.56	0.01	13.87	681.5	94.1	2	161
Precip	precip	-	0.00	35.00	1209.0	99.9	0	365
SO4--	precip	0.18	0.02	3.17	211.7	94.1	0	161
SO4-- corr	precip	0.13	0.01	2.95	155.5	94.1	0	161
pH	precip	5.46	4.48	7.85	4164.7	95.1	0	166

FR0010R Morvan
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.40	0.02	11.62	362.9	73.4	0	144
Cl-	precip	0.80	0.03	5.19	733.5	73.4	4	144
K+	precip	0.11	0.01	1.91	102.4	73.4	13	144
Mg++	precip	0.07	0.01	0.62	61.6	73.4	22	144
NH4+	precip	0.29	0.01	2.84	261.8	73.4	5	144
NO3-	precip	0.18	0.01	1.69	160.3	73.4	1	144
Na+	precip	0.46	0.01	3.11	419.6	73.4	1	144
Precip	precip	-	0.00	28.40	913.7	98.5	0	360
SO4--	precip	0.24	0.01	7.52	216.0	73.4	4	144
SO4-- corr	precip	0.20	-0.06	7.26	180.6	73.4	4	144
pH	precip	5.34	4.46	6.96	4180.7	74.9	0	152

FR0013R Peyrusse Vieille
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.41	0.01	13.24	399.3	87.8	1	127
Cl-	precip	2.19	0.05	19.54	2107.9	87.8	0	126
K+	precip	0.15	0.01	1.78	144.1	87.8	5	126
Mg++	precip	0.17	0.01	1.28	164.3	87.8	6	126
NH4+	precip	0.28	0.01	3.02	270.2	87.8	6	126
NO3-	precip	0.17	0.01	2.22	163.9	87.8	2	126
Na+	precip	1.20	0.07	10.56	1157.5	87.8	0	126
Precip	precip	-	0.00	97.40	962.7	93.0	17	340
SO4--	precip	0.25	0.03	1.93	242.1	87.8	0	126
SO4-- corr	precip	0.15	0.01	1.68	144.6	87.8	0	126
pH	precip	5.36	4.79	6.87	4179.7	88.1	0	140

FR0014R Montandon
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.22	0.01	13.16	243.8	96.5	1	158
Cl-	precip	0.39	0.03	12.27	441.2	96.5	10	158
K+	precip	0.05	0.01	3.87	58.1	96.5	38	158
Mg++	precip	0.04	0.01	1.11	39.6	96.5	46	158
NH4+	precip	0.28	0.01	3.76	319.7	96.5	1	158
NO3-	precip	0.20	0.03	3.42	223.4	96.5	0	158
Na+	precip	0.23	0.01	12.96	263.7	96.5	2	158
Precip	precip	-	0.00	42.40	1128.6	99.9	7	365
SO4--	precip	0.13	0.01	8.25	150.8	96.5	2	158
SO4-- corr	precip	0.11	0.00	7.48	128.7	96.5	2	158
pH	precip	5.46	4.43	7.53	3935.7	98.4	0	179

FR0015R La Tardière
 January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.28	0.02	11.34	286.5	97.8	0	146
Cl-	precip	3.84	0.03	25.22	3909.1	97.8	1	146
K+	precip	0.12	0.01	3.48	120.4	97.8	6	146
Mg++	precip	0.29	0.01	1.74	291.2	97.8	6	146
NH4+	precip	0.26	0.04	4.70	259.7	97.8	0	146
NO3-	precip	0.12	0.01	3.66	119.9	97.8	8	146
Na+	precip	2.11	0.03	14.06	2146.5	97.8	0	146
Precip	precip	-	0.00	52.80	1018.2	99.9	12	365
SO4--	precip	0.27	0.03	2.78	276.6	97.8	0	146
SO4-- corr	precip	0.10	-0.41	2.68	96.9	97.8	0	146
pH	precip	5.57	4.87	6.88	2718.9	98.8	0	157

FR0016R Le Casset
 January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.92	0.01	79.19	944.6	84.8	1	104
Cl-	precip	0.25	0.03	152.69	259.6	84.8	16	104
K+	precip	0.17	0.01	163.29	178.3	84.8	8	104
Mg++	precip	0.05	0.01	3.05	52.8	84.8	25	104
NH4+	precip	0.30	0.01	63.82	310.9	84.8	20	104
NO3-	precip	0.19	0.01	5.02	193.8	84.8	2	104
Na+	precip	0.16	0.01	9.68	166.3	84.8	9	104
Precip	precip	-	0.00	74.40	1023.1	99.1	6	362
SO4--	precip	0.20	0.01	9.40	208.8	84.8	6	104
SO4-- corr	precip	0.19	-0.29	8.60	195.8	84.8	6	104
pH	precip	5.67	5.04	7.65	2198.5	85.0	0	117

FR0017R Montfranc
 January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.30	0.01	21.57	459.2	93.1	2	173
Cl-	precip	1.17	0.03	19.05	1785.1	93.1	4	172
K+	precip	0.06	0.01	1.05	93.2	93.1	20	172
Mg++	precip	0.10	0.01	1.15	153.5	94.3	26	173
NH4+	precip	0.22	0.01	3.48	337.7	93.1	20	172
NO3-	precip	0.14	0.01	2.84	205.6	93.1	3	172
Na+	precip	0.68	0.03	9.28	1036.4	93.1	0	172
Precip	precip	-	0.00	104.40	1521.9	98.8	0	361
SO4--	precip	0.16	0.01	7.11	240.8	93.1	3	172
SO4-- corr	precip	0.10	-0.09	6.83	154.2	93.1	3	172
pH	precip	5.46	4.62	6.79	5299.6	93.5	0	179

FR0018R La Coulonche
 January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.24	0.01	6.77	247.7	92.9	3	155
Cl-	precip	2.26	0.03	30.95	2328.0	92.9	3	155
K+	precip	0.08	0.01	1.69	78.9	92.9	22	155
Mg++	precip	0.17	0.01	2.16	173.9	92.9	11	155
NH4+	precip	0.35	0.01	3.44	362.6	92.9	1	155
NO3-	precip	0.16	0.01	2.37	162.3	92.9	1	155
Na+	precip	1.27	0.03	16.30	1307.5	92.9	0	155
Precip	precip	-	0.00	31.00	1031.9	99.9	1	365
SO4--	precip	0.21	0.01	1.92	219.1	92.9	2	155
SO4-- corr	precip	0.11	-0.02	1.84	109.5	92.9	2	155
pH	precip	5.73	4.30	7.67	1931.4	93.6	0	171

GB0002R Eskdalemuir
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.11	0.06	0.50	162.2	85.3	0	22
Cl-	precip	2.13	0.41	5.24	3014.8	85.3	0	22
K+	precip	0.07	0.04	0.22	96.0	85.3	0	22
Mg++	precip	0.12	0.07	0.26	175.7	85.3	0	22
NH4+	precip	0.16	0.03	0.86	229.9	85.3	0	22
NO3-	precip	0.14	0.04	0.49	194.1	85.3	0	22
Na+	precip	1.17	0.29	2.81	1648.4	85.3	0	22
Precip	precip	-	8.38	129.13	1413.1	100.0	0	27
SO4--	precip	0.17	0.08	0.32	239.5	85.3	0	22
SO4-- corr	precip	0.07	0.03	0.25	101.6	85.3	0	22
cond	precip	12.31	6.48	23.50	17393.0	85.3	0	22
pH	precip	5.59	4.81	7.11	3617.0	85.3	0	22

GB0006R Lough Navar
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.34	0.10	1.28	524.9	100.0	0	27
Cl-	precip	5.99	0.32	17.00	9276.4	100.0	0	27
K+	precip	0.18	0.05	0.48	286.5	100.0	0	27
Mg++	precip	0.36	0.05	1.01	563.9	100.0	0	27
NH4+	precip	0.12	0.00	0.90	193.6	100.0	1	27
NO3-	precip	0.08	0.00	0.47	127.0	100.0	1	27
Na+	precip	3.28	0.15	9.21	5083.8	100.0	0	27
Precip	precip	-	4.03	199.85	1549.7	100.0	0	27
SO4--	precip	0.34	0.07	0.85	524.4	100.0	0	27
SO4-- corr	precip	0.06	-0.01	0.26	98.7	100.0	0	27
cond	precip	27.88	3.35	73.20	43209.9	100.0	0	27
pH	precip	5.69	5.12	7.43	3167.8	100.0	0	27

GB0013R Yarner Wood
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.22	0.10	1.64	293.0	99.5	0	24
Cl-	precip	5.68	0.84	31.00	7679.9	99.5	0	24
K+	precip	0.17	0.06	1.27	224.0	99.5	0	24
Mg++	precip	0.33	0.09	1.82	451.8	99.5	0	24
NH4+	precip	0.14	0.01	2.03	191.1	99.5	0	24
NO3-	precip	0.16	0.06	1.16	222.2	99.5	0	24
Na+	precip	3.21	0.47	16.40	4346.1	99.5	0	24
Precip	precip	-	0.00	155.24	1352.7	100.0	0	27
SO4--	precip	0.35	0.15	1.30	473.0	99.5	0	24
SO4-- corr	precip	0.09	-0.07	0.46	117.7	99.5	0	24
cond	precip	26.87	7.55	114.40	36347.7	99.5	0	24
pH	precip	5.34	4.79	7.24	6189.1	99.5	0	24

GB0014R High Muffles
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.26	0.08	1.49	239.2	97.4	0	26
Cl-	precip	2.79	0.59	17.80	2569.0	97.4	0	26
K+	precip	0.11	0.04	0.67	102.3	97.4	0	26
Mg++	precip	0.18	0.06	1.24	164.1	97.4	0	26
NH4+	precip	0.33	0.07	1.40	304.0	97.4	0	26
NO3-	precip	0.33	0.07	0.84	308.1	97.4	0	26
Na+	precip	1.60	0.30	13.10	1475.7	97.4	0	26
Precip	precip	-	2.65	89.21	922.4	100.0	0	27
SO4--	precip	0.29	0.10	0.99	265.8	97.4	0	26
SO4-- corr	precip	0.15	-0.11	0.69	142.3	97.4	0	26
cond	precip	18.52	5.19	84.00	17084.3	97.4	0	25
pH	precip	5.49	4.75	7.25	3005.3	97.4	0	26

GB0015R Strath Vaich Dam
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.07	0.95	204.6	100.0	0	22
Cl-	precip	3.97	0.09	15.50	4930.6	100.0	0	22
K+	precip	0.15	0.03	3.29	190.7	100.0	0	22
Mg++	precip	0.24	0.04	0.95	293.1	100.0	0	22
NH4+	precip	0.02	0.00	0.78	23.1	100.0	14	22
NO3-	precip	0.06	0.00	0.96	70.6	100.0	1	22
Na+	precip	2.22	0.05	8.48	2758.3	100.0	0	22
Precip	precip	-	2.03	172.65	1243.4	100.0	0	22
SO4--	precip	0.22	0.07	0.75	272.3	100.0	0	22
SO4-- corr	precip	0.03	-0.02	0.34	41.6	100.0	0	22
cond	precip	17.46	3.42	59.20	21706.5	100.0	0	22
pH	precip	5.62	5.10	7.52	2986.0	100.0	0	22

GB0048R Auchencorth Moss
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.14	0.01	3.53	109.2	95.0	1	184
Cl-	precip	1.37	0.00	28.90	1071.6	95.0	1	184
K+	precip	0.07	0.01	1.70	51.9	95.0	5	184
Mg++	precip	0.10	0.00	1.81	78.3	95.0	1	184
NH4+	precip	0.28	0.00	6.92	221.9	95.0	2	184
NO3-	precip	0.17	0.00	4.61	133.9	95.0	1	184
Na+	precip	0.77	0.00	16.30	598.5	95.0	1	184
Precip	precip	-	0.00	28.10	780.1	98.4	0	359
SO4--	precip	0.16	0.00	2.53	126.2	95.0	1	184
SO4-- corr	precip	0.10	-0.00	2.02	76.2	95.0	1	184
cond	precip	10.14	1.67	143.00	7912.4	94.6	0	163
pH	precip	5.76	4.85	7.41	1368.4	94.9	0	177

GB1055R Chilbolton Observatory
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.17	0.01	12.30	119.2	99.9	1	170
Cl-	precip	2.21	0.00	52.20	1580.4	99.9	1	170
K+	precip	0.07	0.01	1.35	50.9	99.9	3	170
Mg++	precip	0.13	0.00	2.43	92.5	99.9	1	170
NH4+	precip	0.35	0.00	6.01	251.5	99.9	1	170
NO3-	precip	0.19	0.00	3.52	133.1	99.9	1	170
Na+	precip	1.23	0.00	29.40	878.7	99.9	1	170
Precip	precip	-	0.00	22.90	715.7	99.5	0	363
SO4--	precip	0.20	0.00	2.54	144.0	99.9	1	170
SO4-- corr	precip	0.10	0.00	1.30	70.4	99.9	1	170
cond	precip	13.93	2.21	248.00	9970.0	99.6	0	149
pH	precip	5.73	4.34	7.53	1341.8	99.8	0	164

HR0002R Puntijarka
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.73	0.07	7.22	1016.6	99.0	0	120
Cl-	precip	0.37	0.05	5.18	522.5	99.0	0	120
K+	precip	0.25	0.03	5.95	350.2	99.0	0	120
Mg++	precip	0.05	0.01	0.87	73.9	99.0	0	120
NH4+	precip	0.35	0.00	3.69	494.5	99.0	0	120
NO3-	precip	0.25	0.04	2.24	355.8	99.0	0	120
Na+	precip	0.29	0.01	3.02	409.6	99.0	0	120
Precip off	precip	-	0.00	74.60	1401.0	100.0	0	365
SO4--	precip	0.30	0.03	4.51	419.0	99.0	0	120
SO4-- corr	precip	0.28	-0.07	4.26	391.3	99.0	0	120
cond	precip	10.02	2.80	161.00	14038.9	99.3	0	127
pH	precip	5.50	4.25	7.39	4389.5	99.3	0	127

HR0004R Zavizan
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.83	0.12	16.47	1591.8	99.6	0	124
Cl-	precip	1.15	0.11	16.56	2210.2	99.6	0	124
K+	precip	0.43	0.11	2.29	828.2	99.6	0	124
Mg++	precip	0.43	0.11	1.22	818.9	99.6	0	124
NH4+	precip	0.41	0.10	2.36	785.8	99.6	0	124
NO3-	precip	0.44	0.11	2.69	841.4	99.6	0	124
Na+	precip	0.75	0.11	7.93	1434.9	99.6	0	124
Precip off	precip	-	0.00	95.20	1917.4	100.0	0	365
SO4--	precip	0.43	0.11	2.82	829.2	99.6	0	124
SO4-- corr	precip	0.37	-0.21	2.36	708.3	99.6	0	124
cond	precip	11.22	1.00	135.20	21512.0	99.6	0	124
pH	precip	5.63	4.65	7.72	4465.9	99.6	0	124

HU0002R K-pusztá
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.47	0.01	16.62	280.0	91.4	1	76
Cl-	precip	0.84	0.07	6.67	497.6	93.4	0	81
K+	precip	0.17	0.02	0.86	97.9	91.4	10	76
Mg++	precip	0.10	0.01	1.24	59.3	91.4	1	76
NH4+	precip	0.52	0.02	3.85	310.7	81.5	0	76
NO3-	precip	0.30	0.01	1.90	177.9	93.4	2	81
Na+	precip	1.20	0.03	6.95	712.6	91.4	1	76
Precip	precip	-	0.00	35.50	593.1	100.0	0	366
Precip off	precip	-	0.00	33.80	555.6	100.0	0	366
SO4--	precip	0.48	0.01	5.26	286.7	92.7	2	80
SO4-- corr	precip	0.42	-0.04	4.86	250.8	92.7	2	80
cond	precip	17.17	7.00	151.00	10182.4	93.4	0	85
pH	precip	5.62	4.70	7.60	1424.6	93.4	0	81

IE0001R Valentia Observatory
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.25	0.03	4.01	389.9	99.2	19	185
Cl-	precip	9.14	0.14	129.14	14348.5	99.2	0	185
K+	precip	0.23	0.03	3.91	359.1	99.2	37	185
Mg++	precip	0.65	0.03	11.59	1013.3	99.2	10	185
NH4+	precip	0.11	0.02	18.49	175.5	99.1	129	184
NO3-	precip	0.05	0.01	1.15	79.1	99.2	31	186
Na+	precip	5.29	0.06	95.38	8310.0	99.2	0	185
Precip	precip	-	0.00	36.00	1570.7	87.7	0	321
Precip off	precip	-	0.00	37.00	1701.4	100.0	0	366
SO4--	precip	0.50	0.01	8.68	792.3	99.2	1	185
SO4-- corr	precip	0.06	-0.12	1.84	97.0	99.2	1	185
cond	precip	40.14	2.30	620.00	63042.6	99.2	0	185
pH	precip	5.33	4.68	7.78	7397.9	99.2	0	185

IE0005R Oak Park
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.03	3.02	101.5	98.0	11	120
Cl-	precip	1.78	0.14	28.17	940.2	98.0	0	120
K+	precip	0.04	0.03	0.61	22.5	98.0	77	120
Mg++	precip	0.13	0.03	1.90	69.7	98.0	26	120
NH4+	precip	0.23	0.02	2.13	119.2	98.0	31	120
NO3-	precip	0.08	0.01	1.15	41.0	98.0	25	120
Na+	precip	0.98	0.07	15.80	518.6	98.0	0	120
Precip	precip	-	0.00	21.50	528.0	82.5	0	301
Precip off	precip	-	0.00	40.30	865.4	100.0	0	365
SO4--	precip	0.16	0.01	1.94	84.2	98.0	2	120
SO4-- corr	precip	0.08	-0.03	0.83	40.7	98.0	2	120
cond	precip	10.99	2.50	131.10	5801.9	98.0	0	120
pH	precip	5.88	4.84	6.97	699.9	98.0	0	120

IE0006R Malin Head
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.75	0.03	6.73	344.4	98.9	2	94
Cl-	precip	26.43	0.90	314.46	12211.1	98.9	0	94
K+	precip	0.59	0.03	6.51	271.7	98.9	2	94
Mg++	precip	1.85	0.06	20.66	852.9	98.9	0	94
NH4+	precip	0.25	0.02	4.24	115.6	98.9	41	94
NO3-	precip	0.10	0.01	1.60	44.0	98.9	38	94
Na+	precip	15.18	0.49	173.72	7012.7	98.9	0	94
Precip	precip	-	0.00	21.50	462.1	49.4	0	181
Precip off	precip	-	0.00	20.40	473.7	49.7	0	182
SO4--	precip	1.44	0.12	13.94	667.7	98.9	0	94
SO4-- corr	precip	0.17	-0.60	1.56	80.7	98.9	0	94
cond	precip	104.66	6.80	1067.00	48361.9	98.9	0	94
pH	precip	5.44	4.53	7.18	1673.2	98.9	0	94

IE0009R Johnstown Castle
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.21	0.03	3.10	80.6	98.8	6	77
Cl-	precip	3.87	0.39	33.24	1506.9	98.8	0	77
K+	precip	0.34	0.03	12.14	131.8	98.8	20	77
Mg++	precip	0.26	0.03	2.20	103.0	98.8	4	77
NH4+	precip	0.55	0.02	12.46	215.3	98.8	9	77
NO3-	precip	0.16	0.01	2.55	61.2	98.8	7	77
Na+	precip	2.18	0.22	18.15	847.1	98.8	0	77
Precip	precip	-	0.00	21.70	388.9	61.9	0	226
Precip off	precip	-	0.00	37.10	1060.3	100.0	0	365
SO4--	precip	0.34	0.08	1.95	130.7	98.8	0	77
SO4-- corr	precip	0.15	0.02	1.26	59.8	98.8	0	77
cond	precip	22.56	4.60	137.80	8771.8	98.8	0	77
pH	precip	5.76	5.06	7.51	679.8	98.8	0	77

IS0002R Irafoss
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.53	0.00	10.00	756.8	100.0	7	129
Cl-	precip	3.05	0.15	57.30	4377.9	100.0	35	129
K+	precip	0.28	0.00	20.70	395.6	100.0	5	129
Mg++	precip	0.36	0.00	4.10	520.6	100.0	2	129
NO3-	precip	0.07	0.00	0.61	98.1	100.0	6	129
Na+	precip	1.89	0.00	29.20	2718.1	100.0	2	129
Precip	precip	-	0.00	53.50	1435.9	100.0	0	366
SO4--	precip	0.28	0.00	8.30	396.2	100.0	12	129
SO4-- corr	precip	0.12	-0.07	7.47	169.1	100.0	12	129
cond	precip	20.33	2.60	199.00	29187.8	97.9	0	103
pH	precip	5.73	5.20	7.60	2661.6	98.0	0	104

IS0091R Storhofdi
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	3.58	0.63	6.52	5062.4	100.0	0	11
Cl-	precip	107.85	3.12	263.03	152404.8	100.0	0	11
K+	precip	3.27	0.60	6.08	4627.5	100.0	0	11
Mg++	precip	10.35	1.57	20.37	14632.5	100.0	0	11
NH4+	precip	0.62	0.01	1.67	877.2	100.0	3	11
NO3-	precip	0.16	0.01	0.74	222.2	100.0	1	11
Na+	precip	62.85	1.77	151.52	88815.0	100.0	0	11
Precip	precip	-	55.00	251.90	1413.1	82.2	0	11
Precip off	precip	-	32.30	359.20	2002.1	99.7	0	13
SO4--	precip	7.19	1.30	14.43	10167.1	100.0	0	11
SO4-- corr	precip	1.94	-1.32	14.28	2735.3	100.0	0	11
cond	precip	451.91	90.50	861.20	638608.3	85.4	0	10
pH	precip	5.75	5.26	6.15	2520.8	100.0	0	11

IT0004R Ispra
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.60	0.06	13.13	873.2	100.0	0	107
Cl-	precip	0.37	0.00	5.63	538.6	96.0	1	103
K+	precip	0.07	0.00	0.80	95.7	82.9	14	101
Mg++	precip	0.07	0.02	0.64	97.2	100.0	0	107
NH4+	precip	0.85	0.03	8.84	1239.5	96.6	0	103
NO3-	precip	0.54	0.06	7.25	785.5	100.0	0	107
Na+	precip	0.41	0.03	7.11	599.0	100.0	0	107
Precip off	precip	-	0.00	103.68	1461.7	100.0	0	366
SO4--	precip	0.35	0.06	3.05	507.1	100.0	0	107
SO4-- corr	precip	0.32	0.03	2.86	466.1	100.0	0	107
cond	precip	12.36	2.52	86.40	18066.2	99.0	0	88
pH	precip	5.76	4.21	7.42	2563.6	99.8	0	100

LT0015R Preila
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.39	0.02	4.89	219.3	99.7	0	108
Cl-	precip	5.43	0.12	84.36	3041.1	99.7	0	108
K+	precip	0.19	0.02	1.80	107.2	99.7	0	108
Mg++	precip	0.34	0.01	6.73	189.3	99.7	0	108
NH4+	precip	0.39	0.02	6.85	218.1	99.7	0	108
NO3-	precip	0.41	0.03	2.62	230.3	99.7	0	108
Na+	precip	2.79	0.02	43.00	1565.0	99.7	0	108
Precip	precip	-	0.00	41.70	560.3	100.0	0	366
SO4--	precip	0.54	0.03	6.61	302.6	99.7	0	108
SO4-- corr	precip	0.31	-0.54	3.29	172.0	99.7	0	108
cond	precip	31.79	2.30	330.00	17813.5	99.7	0	108
pH	precip	5.09	4.21	6.65	4585.3	99.7	0	108

LV0010R Rucava
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.22	0.02	2.00	152.3	82.5	19	85
Cl-	precip	0.85	0.05	3.56	589.6	78.8	12	74
K+	precip	0.09	0.02	0.29	59.2	79.2	5	81
Mg++	precip	0.09	0.02	0.50	62.6	82.5	52	85
NH4+	precip	0.28	0.02	1.88	195.2	88.0	29	117
NO3-	precip	0.29	0.01	1.24	199.1	78.8	2	74
Na+	precip	0.50	0.05	3.80	346.1	82.5	39	85
Precip off	precip	-	0.00	32.30	691.0	91.4	0	334
SO4--	precip	0.22	0.04	0.85	155.2	78.8	0	74
SO4-- corr	precip	0.18	0.03	0.78	127.7	78.8	0	74
cond	precip	11.51	3.66	61.90	7954.3	87.3	0	113
pH	precip	5.31	4.60	7.03	3380.3	88.0	0	117

NL0091R De Zilk
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.02	1.23	159.2	93.5	0	105
Cl-	precip	4.73	0.07	34.19	3757.3	95.6	0	125
H+	precip	-4.20	-127.30	81.80	-3336.2	96.4	0	141
K+	precip	0.11	0.02	0.69	90.9	93.5	0	105
Mg++	precip	0.31	0.01	2.32	249.7	93.5	0	105
NH4+	precip	0.42	0.00	2.38	332.5	95.0	0	118
NO3-	precip	0.26	0.07	1.92	204.8	95.4	0	124
Na+	precip	2.61	0.05	18.99	2071.9	93.5	0	105
Precip	precip	-	0.00	22.34	793.9	100.0	0	366
SO4--	precip	0.40	0.00	9.04	317.8	95.6	0	125
SO4-- corr	precip	0.18	-0.24	8.78	140.4	95.6	0	125
cond	precip	25.34	0.00	134.70	20116.2	91.2	0	93
pH	precip	5.40	4.18	7.05	3194.1	96.4	0	141

NO0001R Birkenes
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.02	2.75	241.4	99.4	0	178
Cl-	precip	1.25	0.03	19.77	2515.9	99.4	0	178
K+	precip	0.08	0.01	0.77	170.2	99.4	7	178
Mg++	precip	0.09	0.01	1.32	187.3	99.4	10	178
NH4+	precip	0.24	0.01	2.80	480.9	99.4	17	178
NO3-	precip	0.26	0.01	3.98	526.2	99.4	3	177
Na+	precip	0.74	0.01	11.51	1491.3	99.4	0	178
Precip	precip	-	0.00	62.10	2009.5	100.0	0	366
SO4--	precip	0.22	0.02	2.16	438.3	99.4	0	178
SO4-- corr	precip	0.16	-0.03	2.12	312.9	99.4	0	178
cond	precip	12.47	3.00	94.00	25054.1	99.2	0	170
pH	precip	4.99	4.20	6.38	20592.8	99.2	0	170

NO0015R Tustervatn
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.15	0.01	2.32	175.5	99.3	1	198
Cl-	precip	3.84	0.03	44.77	4355.5	99.3	0	198
K+	precip	0.13	0.01	3.03	146.3	99.2	4	197
Mg++	precip	0.26	0.01	2.97	291.5	99.3	16	198
NH4+	precip	0.13	0.01	1.86	144.3	99.2	4	197
NO3-	precip	0.07	0.01	1.52	79.3	99.3	12	198
Na+	precip	2.23	0.01	25.96	2524.6	99.3	1	198
Precip	precip	-	0.00	41.10	1133.2	100.0	0	366
SO4--	precip	0.31	0.01	5.19	349.8	99.3	2	198
SO4-- corr	precip	0.12	-0.08	3.76	138.3	99.3	2	198
cond	precip	18.66	2.00	182.00	21141.0	98.3	0	172
pH	precip	5.18	3.71	6.34	7442.7	98.2	0	171

NO0039R Kårvatn
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.13	0.01	0.99	190.9	100.0	1	119
Cl-	precip	2.66	0.03	37.20	4005.4	100.0	0	119
K+	precip	0.11	0.01	1.33	168.9	100.0	2	119
Mg++	precip	0.19	0.01	2.45	279.7	100.0	2	119
NH4+	precip	0.09	0.01	3.16	137.8	100.0	7	119
NO3-	precip	0.07	0.01	2.04	106.6	100.0	11	119
Na+	precip	1.53	0.01	20.48	2311.8	100.0	0	119
Precip	precip	-	0.00	113.10	1508.4	97.0	0	355
SO4--	precip	0.18	0.02	1.73	271.4	100.0	0	119
SO4-- corr	precip	0.05	-0.01	0.67	77.5	100.0	0	119
cond	precip	13.71	2.00	134.00	20684.6	99.8	0	115
pH	precip	5.30	4.12	6.38	7525.5	99.8	0	115

NO0056R Hurdal
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.13	0.01	2.79	165.7	99.6	0	134
Cl-	precip	0.26	0.01	2.54	328.5	99.6	2	134
K+	precip	0.10	0.01	1.50	125.8	98.4	7	131
Mg++	precip	0.03	0.01	0.32	34.3	99.6	23	134
NH4+	precip	0.20	0.01	3.97	258.2	98.4	8	131
NO3-	precip	0.20	0.01	3.04	254.0	99.6	2	134
Na+	precip	0.15	0.01	1.67	185.7	99.6	2	134
Precip	precip	-	0.00	58.90	1260.4	100.0	0	366
SO4--	precip	0.16	0.01	2.79	196.8	99.6	1	134
SO4-- corr	precip	0.14	0.01	2.71	181.2	99.6	1	134
cond	precip	7.78	2.00	67.00	9801.3	99.5	0	132
pH	precip	5.12	4.24	6.19	9642.4	98.3	0	129

PL0002R Jarczew
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.29	0.02	4.41	147.2	99.3	0	99
Cl-	precip	0.31	0.06	3.79	154.5	99.3	0	99
K+	precip	0.14	0.02	1.69	68.9	99.3	0	99
Mg++	precip	0.06	0.01	0.38	28.0	99.3	0	99
NH4+	precip	0.46	0.12	3.27	228.6	99.3	0	99
NO3-	precip	0.36	0.12	1.90	178.3	99.3	0	99
Na+	precip	0.15	0.02	2.11	76.1	99.3	0	99
Precip	precip	-	0.00	37.90	501.2	96.7	0	354
Precip off	precip	-	0.00	37.60	510.2	96.7	0	354
SO4--	precip	0.42	0.11	4.37	209.6	99.3	0	99
SO4-- corr	precip	0.41	0.10	4.25	203.0	99.3	0	99
cond	precip	11.36	4.00	67.00	5695.2	99.3	0	99
pH	precip	5.28	4.20	7.11	2619.3	99.3	0	99

PL0003R Sniezka
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.67	0.02	18.79	449.6	100.0	0	155
Cl-	precip	0.77	0.06	14.39	518.7	100.0	0	155
K+	precip	0.35	0.01	3.51	237.3	100.0	0	155
Mg++	precip	0.17	0.00	3.39	111.9	100.0	0	155
NH4+	precip	0.48	0.03	7.31	324.6	100.0	0	155
NO3-	precip	1.04	0.17	18.27	697.7	100.0	0	155
Na+	precip	0.89	0.01	17.00	596.8	100.0	0	155
Precip	precip	-	0.00	30.90	671.8	89.9	0	329
Precip off	precip	-	0.00	44.90	1072.8	89.9	0	329
SO4--	precip	1.03	0.15	9.92	693.5	100.0	0	155
SO4-- corr	precip	0.98	0.15	9.19	655.6	100.0	0	155
cond	precip	30.86	10.00	305.00	20730.5	100.0	0	155
pH	precip	4.50	4.18	4.72	21030.4	100.0	0	155

PL0004R Leba
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.15	0.02	3.53	111.0	99.0	0	150
Cl-	precip	1.51	0.08	24.47	1094.6	99.0	0	150
K+	precip	0.13	0.02	2.54	96.9	99.0	0	150
Mg++	precip	0.11	0.01	1.48	77.7	99.0	0	150
NH4+	precip	0.34	0.10	3.32	243.7	99.0	0	150
NO3-	precip	0.35	0.09	3.05	249.6	99.0	0	150
Na+	precip	0.89	0.03	12.16	641.0	99.0	0	150
Precip	precip	-	0.00	52.00	723.2	98.4	0	360
Precip off	precip	-	0.00	48.90	693.0	98.4	0	360
SO4--	precip	0.27	0.09	2.66	192.7	99.0	0	150
SO4-- corr	precip	0.19	0.02	1.99	138.7	99.0	0	150
cond	precip	14.32	5.00	125.00	10359.1	99.0	0	150
pH	precip	5.10	3.81	6.98	5740.9	99.0	0	150

PL0005R Diabla Gora
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.28	0.01	1.43	151.8	95.3	0	91
Cl-	precip	0.40	0.04	7.29	218.6	99.9	0	118
K+	precip	0.07	0.01	0.48	37.0	95.3	0	91
Mg++	precip	0.06	0.01	0.42	30.4	95.3	0	91
NH4+	precip	0.48	0.03	2.62	262.3	99.4	3	114
NO3-	precip	0.29	0.05	1.45	155.3	99.9	0	118
Na+	precip	0.17	0.01	3.74	94.8	95.3	0	91
Precip	precip	-	0.00	26.80	544.4	100.0	0	366
Precip off	precip	-	0.00	27.40	631.4	100.0	0	366
SO4--	precip	0.30	0.05	1.16	162.1	99.9	0	118
SO4-- corr	precip	0.28	0.04	1.13	152.8	99.9	0	118
cond	precip	10.00	2.60	42.90	5443.9	95.2	0	91
pH	precip	5.44	4.56	7.00	1965.2	100.0	0	119

RU0001R Janiskoski
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.92	0.17	12.70	665.8	86.0	0	135
Cl-	precip	1.73	0.01	18.80	1247.3	82.4	1	132
K+	precip	1.14	0.05	11.58	824.3	86.0	0	135
Mg++	precip	0.09	0.01	1.89	65.6	86.0	0	135
NH4+	precip	0.38	0.01	8.06	270.2	75.7	1	118
NO3-	precip	0.10	0.01	1.11	73.7	68.4	5	120
Na+	precip	1.30	0.09	22.52	933.7	86.0	0	135
Precip	precip	-	0.00	51.30	720.3	100.0	0	366
SO4--	precip	0.07	0.01	1.67	50.2	81.0	69	133
SO4-- corr	precip	-0.00	-1.07	1.60	-2.3	81.0	67	131
cond	precip	14.49	2.60	199.80	10433.7	82.7	0	94
pH	precip	5.58	4.23	7.80	1900.0	93.3	0	106

RU0013R Pinega
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	3.31	0.12	25.60	2451.0	82.6	0	127
Cl-	precip	0.64	0.01	9.60	471.0	78.5	3	130
K+	precip	0.41	0.06	3.85	305.5	82.6	0	127
Mg++	precip	0.44	0.02	3.68	324.0	82.1	0	124
NH4+	precip	0.22	0.01	4.03	159.5	64.0	8	102
NO3-	precip	0.13	0.00	0.96	93.7	55.0	7	114
Na+	precip	0.73	0.08	7.40	541.6	81.0	0	125
Precip	precip	-	0.00	30.00	740.1	100.0	0	366
SO4--	precip	1.17	0.00	9.98	862.6	80.2	3	136
SO4-- corr	precip	1.08	-0.17	9.92	795.6	77.9	3	130
cond	precip	11.36	2.30	49.70	8408.7	82.3	0	107
pH	precip	5.34	3.80	6.82	3395.6	82.4	0	108

RU0018R Danki
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.26	0.01	9.82	666.1	83.3	4	118
Cl-	precip	0.52	0.01	5.28	274.6	83.7	4	121
K+	precip	0.39	0.01	6.06	203.7	83.4	3	119
Mg++	precip	0.39	0.03	5.29	205.4	80.4	0	115
NH4+	precip	0.25	0.01	10.00	130.8	65.2	16	96
NO3-	precip	0.22	0.01	3.07	117.7	79.3	14	113
Na+	precip	0.63	0.01	6.10	333.5	83.4	1	119
Precip	precip	-	0.00	19.90	528.1	100.0	0	366
SO4--	precip	0.65	0.02	10.06	345.3	93.5	1	132
SO4-- corr	precip	0.61	0.00	10.06	324.3	90.6	1	129
cond	precip	9.67	2.00	63.10	5105.3	52.8	0	91
pH	precip	5.33	4.26	7.40	2447.6	55.3	0	92

RU0020R Lesnoy
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.85	0.02	12.72	1566.3	78.0	0	151
Cl-	precip	0.28	0.01	3.76	239.1	57.8	10	123
K+	precip	0.17	0.01	3.22	141.0	76.0	5	150
Mg++	precip	0.15	0.01	1.88	126.5	75.0	0	148
NH4+	precip	0.24	0.01	3.15	207.0	70.0	6	142
NO3-	precip	0.21	0.01	3.43	178.2	74.7	13	145
Na+	precip	0.42	0.01	3.18	351.9	78.2	2	152
Precip	precip	-	0.00	33.20	846.3	100.0	0	366
SO4--	precip	0.67	0.01	7.14	563.5	82.6	16	159
SO4-- corr	precip	0.64	-0.02	7.14	542.5	79.6	15	147
cond	precip	7.76	1.80	46.20	6564.8	93.7	0	134
pH	precip	5.10	4.18	7.51	6711.0	93.1	0	133

SE0005R Bredkålen
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.06	0.01	0.66	32.3	95.0	17	139
Cl-	precip	0.14	0.02	4.50	76.4	95.0	7	139
K+	precip	0.04	0.00	0.43	19.7	95.0	2	139
Mg++	precip	0.02	0.02	0.25	12.1	95.0	119	139
NH4+	precip	0.13	0.02	1.62	69.3	95.0	12	139
NO3-	precip	0.11	0.00	1.30	58.7	95.0	7	139
Na+	precip	0.08	0.01	2.26	39.9	95.0	12	139
Precip	precip	-	0.00	21.00	527.6	100.0	0	365
SO4--	precip	0.10	0.01	1.22	53.7	95.0	6	139
SO4-- corr	precip	0.10	0.00	1.20	50.7	95.0	6	139
cond	precip	5.32	1.00	58.00	2808.2	95.7	1	153
pH	precip	5.28	4.40	7.24	2798.2	95.7	0	153

SE0014R Råö
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.01	1.72	104.5	99.3	3	144
Cl-	precip	3.97	0.07	48.41	2363.8	98.8	0	143
K+	precip	0.11	0.01	1.53	63.2	99.3	0	144
Mg++	precip	0.27	0.02	4.33	160.4	99.3	7	144
NH4+	precip	0.25	0.02	2.81	146.9	99.3	8	144
NO3-	precip	0.28	0.02	2.00	165.0	98.8	0	143
Na+	precip	2.17	0.03	40.80	1290.1	99.3	0	144
Precip	precip	-	0.00	21.10	595.3	100.0	0	365
SO4--	precip	0.33	0.02	3.39	195.7	98.8	0	143
SO4-- corr	precip	0.15	-0.02	1.60	87.6	98.8	0	143
cond	precip	23.72	3.00	267.00	14122.8	99.7	0	154
pH	precip	5.00	4.00	6.76	5975.1	99.7	0	154

SE0020R Hallahus
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.08	0.62	159.6	92.7	0	12
Cl-	precip	1.22	0.35	2.22	1250.0	92.7	0	12
K+	precip	0.08	0.04	0.16	80.8	92.7	0	12
Mg++	precip	0.09	0.04	0.15	95.6	92.7	0	12
NH4+	precip	0.52	0.33	1.03	531.0	92.7	0	12
NO3-	precip	0.35	0.16	0.64	355.2	92.7	0	12
Na+	precip	0.68	0.19	1.17	695.1	92.7	0	12
Precip	precip	-	20.00	136.00	1027.1	100.0	0	13
SO4--	precip	0.27	0.16	0.58	276.2	92.7	0	12
SO4-- corr	precip	0.21	0.12	0.55	218.6	92.7	0	12
cond	precip	14.00	9.00	20.00	14382.0	92.7	0	12
pH	precip	5.37	4.80	6.44	4382.0	92.7	0	12

SE0022R Norunda Stenen
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.08	0.01	1.00	54.7	100.0	1	14
Cl-	precip	0.23	0.07	1.00	148.5	100.0	0	14
K+	precip	0.05	0.01	0.18	30.6	100.0	0	14
Mg++	precip	0.02	0.02	0.13	14.6	100.0	10	14
NH4+	precip	0.19	0.06	1.98	122.6	100.0	0	14
NO3-	precip	0.18	0.06	1.15	120.7	100.0	0	14
Na+	precip	0.13	0.05	0.65	84.4	100.0	0	14
Precip	precip	-	5.60	123.00	657.8	100.0	0	14
SO4--	precip	0.15	0.07	1.25	100.4	100.0	0	14
SO4-- corr	precip	0.14	0.06	1.20	93.0	100.0	0	14
cond	precip	7.30	3.00	32.00	4799.9	100.0	0	14
pH	precip	5.10	4.48	6.29	5244.6	100.0	0	14

SI0008R Iskrba
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.35	0.03	8.72	453.6	99.8	0	142
Cl-	precip	0.44	0.01	10.61	568.7	99.8	0	142
K+	precip	0.05	0.01	0.67	68.8	99.8	0	142
Mg++	precip	0.05	0.01	0.80	62.1	99.8	0	142
NH4+	precip	0.26	0.01	2.68	328.2	99.8	0	142
NO3-	precip	0.21	0.03	1.83	270.4	99.8	0	142
Na+	precip	0.27	0.01	6.64	340.4	99.8	0	142
Precip	precip	-	0.00	47.10	1284.3	99.7	0	365
SO4--	precip	0.25	0.02	1.79	324.0	99.8	0	142
SO4-- corr	precip	0.23	0.01	1.78	296.2	99.8	0	142
cond	precip	9.27	2.00	91.00	11904.0	97.0	0	106
pH	precip	5.19	4.39	7.25	8251.3	97.0	0	106

SK0002R Chopok
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.01	5.37	278.4	97.2	17	133
Cl-	precip	0.18	0.02	3.78	244.4	97.2	0	134
K+	precip	0.07	0.01	1.95	97.8	97.2	42	134
Mg++	precip	0.03	0.01	5.75	35.4	97.2	35	134
NH4+	precip	0.37	0.01	4.40	509.6	97.0	2	133
NO3-	precip	0.22	0.01	1.96	304.4	97.2	0	134
Na+	precip	0.28	0.02	4.31	392.9	97.2	10	134
Precip	precip	-	0.00	39.80	1391.4	100.0	0	366
SO4--	precip	0.38	0.04	6.56	533.1	97.2	0	134
SO4-- corr	precip	0.37	0.03	6.33	515.5	97.2	0	134
cond	precip	11.81	2.76	74.00	16437.0	87.2	0	99
pH	precip	5.44	4.18	6.62	5043.7	87.2	0	99

SK0004R Stará Lesná
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.28	0.04	1.95	199.8	88.4	0	29
Cl-	precip	0.17	0.06	1.28	122.5	88.4	0	29
K+	precip	0.13	0.02	0.86	95.6	88.4	0	29
Mg++	precip	0.04	0.01	0.16	26.9	88.4	0	29
NH4+	precip	0.76	0.03	4.35	553.9	88.4	0	29
NO3-	precip	0.22	0.09	0.81	162.0	88.4	0	29
Na+	precip	0.31	0.03	8.95	227.0	88.4	0	29
Precip	precip	-	0.00	95.50	724.7	86.1	0	45
SO4--	precip	0.41	0.12	3.75	297.0	88.4	0	29
SO4-- corr	precip	0.40	0.12	3.69	287.9	88.4	0	29
cond	precip	13.97	4.96	54.63	10122.9	81.8	0	21
pH	precip	6.12	5.13	6.94	544.7	81.8	0	21

SK0006R Starina
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.22	0.02	0.74	95.1	95.1	0	77
Cl-	precip	0.20	0.02	1.54	84.4	95.1	4	77
K+	precip	0.12	0.01	0.97	50.4	95.1	0	77
Mg++	precip	0.03	0.01	0.15	11.9	95.1	0	77
NH4+	precip	0.43	0.01	2.25	183.0	95.1	0	77
NO3-	precip	0.32	0.07	1.35	135.3	95.1	0	77
Na+	precip	0.35	0.02	5.65	148.5	95.1	4	77
Precip	precip	-	0.00	43.80	425.3	100.0	0	366
SO4--	precip	0.46	0.09	1.52	194.6	95.1	0	77
SO4-- corr	precip	0.44	0.08	1.52	188.7	95.1	0	77
cond	precip	13.44	5.71	43.97	5716.5	81.8	0	48
pH	precip	5.30	4.68	6.48	2114.3	81.8	0	48

SK0007R Topolniky
January 2019 - December 2019

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.27	0.02	4.09	132.8	98.8	0	33
Cl-	precip	0.18	0.07	0.89	88.2	98.8	0	33
K+	precip	0.05	0.00	0.27	23.0	99.3	0	34
Mg++	precip	0.03	0.00	0.35	15.9	98.8	0	33
NH4+	precip	0.48	0.06	1.78	234.1	98.8	0	33
NO3-	precip	0.29	0.11	0.83	139.3	98.8	0	33
Na+	precip	0.26	0.04	1.76	124.3	98.8	0	33
Precip	precip	-	0.00	38.50	483.0	99.3	0	53
SO4--	precip	0.39	0.10	1.61	187.0	98.8	0	33
SO4-- corr	precip	0.37	0.09	1.51	180.3	98.8	0	33
cond	precip	10.87	4.91	41.67	5249.9	90.1	0	25
pH	precip	5.42	4.46	6.52	1840.3	90.1	0	25

Annex 3

Annual statistics on particulate mass and inorganics in air and aerosols

AM0001R Amberd
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.54	0.54	0.29	3.57	0.00	0.04	0.35	1.75	2.55	64	0	237
Cl-	aerosol	0.11	0.60	0.04	3.32	-0.00	0.01	0.04	0.24	8.36	58	0	215
K+	aerosol	0.13	0.10	0.09	2.70	0.00	0.02	0.09	0.34	0.40	60	0	220
Mg++	aerosol	0.04	0.04	0.02	3.05	0.00	0.00	0.02	0.11	0.20	63	0	231
NH4+	aerosol	0.67	0.42	0.51	2.57	0.00	0.08	0.60	1.41	2.58	65	1	240
NO3-	aerosol	0.27	0.34	0.16	2.95	0.00	0.02	0.16	0.96	1.89	63	0	233
Na+	aerosol	0.07	0.08	0.04	3.62	0.00	0.00	0.04	0.25	0.38	60	0	219
SO4--	aerosol	0.58	0.38	0.42	2.66	0.00	0.06	0.52	1.33	1.77	65	0	240
SO4-- corr	aerosol	0.58	0.38	0.44	2.46	0.01	0.07	0.52	1.31	1.77	64	0	235

AT0002R Illmitz
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	2.32	1.23	2.08	1.58	0.91	1.06	1.95	5.02	7.90	96	0	352
PM1 mass	pm1	8.43	5.42	6.75	2.05	0.80	1.70	8.20	20.27	27.80	33	0	121
PM10 mass	pm10	14.77	9.81	12.00	1.96	1.20	3.31	12.90	31.75	77.60	99	0	362
PM25 mass	pm25	10.96	8.30	8.46	2.12	0.40	2.12	9.20	27.95	49.20	99	0	362
SO2	air	0.46	1.35	0.27	2.41	0.01	0.08	0.23	1.37	66.42	93	0	8206

AT0005R Vorhegg
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	0.69	0.32	0.64	1.46	0.27	0.36	0.61	1.34	2.31	98	0	358
PM10 mass	pm10	6.57	4.97	4.98	2.19	0.60	1.30	5.40	16.86	30.20	29	0	108
SO2	air	0.11	0.09	0.09	2.07	0.00	0.03	0.09	0.29	1.24	94	0	8275

AT0034G Sonnblick
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.05	0.03	0.04	1.59	0.01	0.02	0.04	0.10	0.71	79	0	6940
NO	air	0.08	0.14	0.05	2.03	0.02	0.03	0.04	0.24	1.78	15	0	1331
NO2	air	0.17	0.12	0.15	1.62	0.05	0.08	0.14	0.40	1.82	78	0	6876
NO2	air	0.33	0.36	0.23	2.25	0.06	0.09	0.18	0.96	3.07	15	0	1331
NOy	air	0.80	0.47	0.70	1.67	0.19	0.31	0.70	1.61	5.73	94	0	8275
SPM	aerosol	3.59	5.89	2.07	3.26	-3.27	-0.80	1.55	12.83	73.26	98	0	8598

AT0048R Zoebelboden
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	0.73	0.52	0.61	1.78	0.15	0.24	0.58	1.61	4.47	88	0	322
PM10 mass	pm10	6.48	5.92	4.17	2.90	0.10	0.48	4.70	17.44	36.00	32	0	117
SO2	air	0.17	0.14	0.13	2.05	0.00	0.04	0.12	0.46	1.45	94	0	8240

BE0001R Offagne
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	1.90	1.91	1.31	2.44	0.00	0.30	1.40	5.60	20.10	97	0	8527

BE0011R Moerkerke
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.80	2.40	0.86	3.01	-0.47	0.00	0.00	3.97	38.51	96	0	8492
NO2	air	4.24	3.36	3.13	2.24	-0.15	0.76	3.20	11.11	21.16	96	0	8492

BE0013R Houtem
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.47	1.42	0.72	2.59	-0.47	0.00	0.00	2.33	25.21	96	0	8437
NO2	air	3.10	2.85	2.13	2.46	0.00	0.46	2.13	8.83	26.18	96	0	8448

BE0032R Eupen
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	2.36	1.94	1.76	2.19	0.00	0.50	1.80	6.20	16.70	96	0	8429

BE0035R Vezin
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	2.73	2.31	1.99	2.31	0.00	0.50	2.10	7.50	25.70	96	0	8429

CH0001G Jungfrauoch
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
CO	air	106.77	17.39	105.43	1.17	67.20	80.75	105.97	135.96	295.88	84	0	7373
NO	air	0.02	0.08	0.01	3.35	-0.01	-0.00	0.01	0.05	3.36	72	0	6324
NO2	air	0.07	0.13	0.04	2.59	0.00	0.01	0.04	0.23	2.15	57	0	5078
PM10 mass	pm10	2.45	3.87	1.46	2.59	-0.10	0.40	1.30	7.87	39.40	98	0	360
SO2	air	0.02	0.09	0.02	1.96	-0.04	-0.01	0.01	0.05	3.27	95	0	8329
SO4--	aerosol	0.09	0.09	0.06	2.72	0.00	0.01	0.05	0.28	0.72	98	0	360

CH0002R Payerne
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.35	0.38	0.22	2.79	0.00	0.03	0.23	1.07	3.08	100	0	365
HNO3	air	0.21	0.10	0.19	1.57	0.09	0.09	0.18	0.43	0.46	100	0	27
HNO3+NO3-	air+aerosol	0.72	0.71	0.48	2.44	0.05	0.12	0.46	2.41	3.78	100	0	365
K+	aerosol	0.17	0.22	0.12	2.11	0.01	0.03	0.11	0.40	3.52	100	0	365
Mg++	aerosol	0.03	0.03	0.03	2.18	-0.00	0.00	0.03	0.09	0.22	100	0	365
NH3	air	2.83	2.16	2.32	1.77	0.88	0.94	2.55	9.25	12.00	100	0	27
NH3+NH4+	air+aerosol	3.63	2.35	2.97	1.95	0.24	0.83	3.19	7.32	17.08	100	0	365
NH4+	aerosol	0.71	0.40	0.63	1.73	0.21	0.21	0.61	1.59	1.68	100	0	27
NO	air	0.67	1.91	0.15	4.66	0.01	0.02	0.11	3.17	32.74	94	0	8319
NO2	air	2.97	2.33	2.24	2.16	0.21	0.60	2.30	7.80	16.80	94	0	8310
NO3-	aerosol	0.57	0.36	0.48	1.84	0.18	0.18	0.48	1.41	1.51	96	0	26
Na+	aerosol	0.17	0.20	0.10	3.01	0.00	0.02	0.09	0.58	1.21	100	0	365
PM10 mass	pm10	11.33	7.45	9.22	1.94	1.10	3.00	9.60	25.47	39.70	100	0	365
PM25 mass	pm25	7.87	6.32	5.80	2.27	0.50	1.50	6.30	20.44	35.30	24	0	91
SO2	air	0.14	0.13	0.10	2.40	-0.06	0.00	0.10	0.39	1.68	95	0	8327
SO4--	aerosol	0.31	0.20	0.25	1.98	0.04	0.07	0.29	0.65	1.62	99	0	363
SO4-- corr	aerosol	0.29	0.20	0.22	2.14	0.03	0.05	0.26	0.61	1.59	99	0	363

CH0003R Tänikon
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	3.38	2.48	2.70	1.93	0.35	0.99	2.57	8.63	17.27	95	0	8355
PM10 mass	pm10	10.94	7.17	8.90	1.94	1.10	2.80	9.50	25.64	43.40	100	0	365

CH0004R Chaumont
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	1.52	1.06	1.25	1.84	0.24	0.47	1.21	3.67	12.16	94	0	8274
PM10 mass	pm10	6.54	5.42	4.75	2.35	0.00	1.30	4.90	16.40	36.90	98	0	359

CH005R Rigi
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.22	0.33	0.10	3.82	-0.05	0.00	0.09	0.87	2.80	98	0	358
HNO3	air	0.13	0.07	0.12	1.69	0.04	0.04	0.13	0.28	0.31	100	0	27
HNO3+NO3-	air+aerosol	0.53	0.55	0.34	2.67	0.00	0.06	0.36	1.68	3.89	98	0	359
K+	aerosol	0.06	0.06	0.05	2.02	-0.01	0.01	0.05	0.15	0.68	98	0	358
Mg++	aerosol	0.03	0.03	0.02	2.16	0.00	0.00	0.02	0.07	0.23	98	0	358
NH3	air	1.04	0.70	0.74	2.43	0.17	0.17	0.92	2.41	2.62	100	0	27
NH3+NH4+	air+aerosol	1.79	1.35	1.29	2.39	0.11	0.28	1.35	4.40	6.56	98	0	358
NH4+	aerosol	0.54	0.31	0.43	2.04	0.07	0.09	0.51	1.15	1.18	100	0	27
NO	air	0.12	0.35	0.02	7.04	-0.01	-0.00	0.01	0.59	6.79	95	0	8344
NO2	air	0.93	1.05	0.64	2.26	0.02	0.19	0.61	2.81	15.76	95	0	8339
NO3-	aerosol	0.39	0.24	0.31	1.91	0.07	0.09	0.30	0.88	0.88	100	0	27
Na+	aerosol	0.11	0.17	0.06	3.05	-0.01	0.00	0.06	0.35	1.83	98	0	358
PM10 mass	pm10	6.90	5.91	4.85	2.46	0.10	1.20	5.30	18.62	34.80	100	0	365
PM25 mass	pm25	5.03	4.02	3.47	2.61	0.10	0.70	3.55	13.82	15.20	24	0	88
SO2	air	0.07	0.09	0.05	2.53	-0.05	0.00	0.04	0.22	3.52	95	0	8346
SO4--	aerosol	0.24	0.19	0.17	2.40	0.01	0.04	0.19	0.56	1.40	97	0	357
SO4-- corr	aerosol	0.22	0.18	0.15	2.53	0.01	0.03	0.17	0.52	1.36	97	0	357

CH0053R Beromünster
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
HNO3	air	0.21	0.10	0.18	1.65	0.07	0.08	0.18	0.43	0.46	100	0	27
NH3	air	4.39	1.61	4.07	1.42	2.33	2.34	4.27	8.22	8.28	100	0	27
NH4+	aerosol	0.77	0.38	0.69	1.67	0.28	0.29	0.70	1.52	1.52	96	0	26
NO	air	0.16	0.37	0.05	5.42	-0.01	0.00	0.04	0.67	6.09	57	0	5046
NO	air	0.32	0.64	0.16	4.07	-0.11	-0.03	0.14	1.24	8.25	37	0	3246
NO2	air	2.19	1.48	1.88	1.70	0.33	0.90	1.76	5.28	15.89	57	0	5045
NO2	air	2.74	2.02	2.23	1.89	0.17	0.79	2.19	6.65	17.02	37	0	3245
NO3-	aerosol	0.60	0.36	0.51	1.79	0.20	0.21	0.53	1.37	1.44	100	0	27
PM10 mass	pm10	9.76	7.20	7.51	2.15	0.40	1.91	8.05	25.89	38.90	98	0	360

CY002R Agia Marina Xyliatou / Cyprus Atmospheric Observatory
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.14	0.30	0.08	2.19	0.05	0.05	0.06	0.43	3.51	88	0	324
Cl-	pm10	0.05	0.10	0.03	2.27	0.02	0.02	0.02	0.20	0.74	88	0	324
K+	pm10	0.13	0.08	0.11	1.84	0.01	0.04	0.11	0.27	0.45	88	0	324
Mg++	pm10	0.03	0.02	0.02	1.99	0.01	0.01	0.02	0.06	0.23	88	0	324
NH4+	pm10	1.06	0.67	0.82	2.30	0.02	0.17	0.96	2.41	3.53	88	0	324
NO2	air	0.77	0.41	0.69	1.58	0.12	0.33	0.67	1.58	4.26	93	0	8169
NO3-	pm10	0.05	0.05	0.03	2.44	0.01	0.01	0.04	0.16	0.33	88	0	324
NOx	air	0.87	0.48	0.78	1.57	0.18	0.40	0.73	1.77	7.31	93	0	8169
Na+	pm10	0.15	0.10	0.12	1.95	0.01	0.04	0.13	0.33	0.88	88	0	324
PM10 mass	pm10	19.84	14.36	17.26	1.64	4.51	7.93	17.52	39.14	159.36	92	0	339
PM25 mass	pm25	10.72	5.26	9.40	1.73	1.03	3.55	10.21	19.89	38.61	92	0	336
SO2	air	0.58	0.78	0.42	2.74	-0.55	-0.05	0.40	1.95	10.46	93	0	8183
SO4--	pm10	1.30	0.83	1.02	2.17	0.07	0.23	1.14	2.96	4.79	88	0	324
SO4-- corr	pm10	1.28	0.83	1.00	2.21	0.04	0.21	1.13	2.95	4.76	88	0	324

CZ0003R Kosetice (NOAK)
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.05	0.02	0.04	1.59	0.02	0.02	0.04	0.10	0.12	100	0	54
HNO3+NO3-	air+aerosol	0.64	0.47	0.52	1.87	0.07	0.19	0.52	1.71	3.68	66	0	243
K+	pm25	0.09	0.12	0.06	2.49	0.01	0.01	0.07	0.28	0.65	100	4	54
Mg++	pm25	0.02	0.01	0.02	1.64	0.01	0.01	0.02	0.04	0.05	100	6	54
NH3+NH4+	air+aerosol	2.58	1.20	2.27	1.73	0.23	0.76	2.55	4.56	7.34	99	0	365
NO	air	0.13	0.26	0.08	3.69	-0.21	-0.03	0.05	0.57	3.98	88	4332	7713
NO2	air	1.37	0.91	1.12	1.93	0.04	0.34	1.18	3.10	10.97	88	2	7713
Na+	pm25	0.40	0.11	0.39	1.31	0.23	0.24	0.43	0.59	0.62	100	0	54
PM10 mass	pm10	13.39	9.31	10.14	2.28	1.00	3.00	11.00	31.00	67.00	99	353	8716
PM10 mass	pm10	14.82	7.29	12.97	1.74	1.00	5.02	13.70	27.98	40.80	49	1	181
PM25 mass	pm25	10.04	7.95	6.99	2.58	1.00	1.00	8.00	25.00	60.00	99	1025	8689
PM25 mass	pm25	10.97	5.69	9.64	1.69	2.30	3.70	10.20	21.74	34.20	50	0	183
SO2	air	0.55	0.52	0.37	2.68	0.04	0.04	0.44	1.41	6.57	94	831	8298
SO2	air	0.70	0.52	0.58	1.84	0.08	0.21	0.57	1.47	4.31	66	0	243
SO4--	aerosol	0.57	0.51	0.42	2.28	0.03	0.11	0.44	1.45	4.61	66	0	243

CZ0005R Churanov
January 2019 - December 2019

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	0.37	0.26	2.11	0.07	0.07	0.26	1.66	1.86	10	0	39
NH3+NH4+	air+aerosol	1.15	0.70	0.98	1.81	0.14	0.33	0.99	2.90	4.05	16	0	60
PM10 mass	pm10	7.39	5.70	5.38	2.34	0.80	1.00	6.00	19.00	40.00	99	33	365
SO2	air	0.50	0.20	0.46	1.56	0.15	0.17	0.48	0.95	0.96	10	0	39
SO4--	aerosol	1.07	4.66	0.25	3.28	0.02	0.04	0.27	1.59	29.36	10	0	39

DE0001R Westerland
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.02	0.02	0.01	3.51	0.00	0.00	0.01	0.07	0.15	16	0	61
Cl-	pm25	0.33	0.54	0.13	4.14	0.01	0.01	0.13	1.21	2.94	16	0	61
K+	pm25	0.06	0.05	0.05	2.18	0.01	0.01	0.05	0.17	0.28	16	0	61
Mg++	pm25	0.02	0.04	0.01	5.01	0.00	0.00	0.01	0.09	0.20	16	0	61
NH3	air	1.21	1.04	0.90	2.11	0.28	0.32	0.84	3.74	4.91	99	0	53
NH4+	pm25	0.68	0.93	0.33	3.54	0.02	0.04	0.36	3.09	4.78	16	0	61
NO2	air	1.55	2.20	0.61	4.82	-0.06	0.04	0.79	5.72	24.26	98	0	8619
NO3-	pm25	0.45	0.74	0.16	4.22	0.01	0.02	0.13	2.57	3.68	16	0	61
Na+	pm25	0.23	0.29	0.14	2.83	0.01	0.03	0.14	0.78	1.58	16	0	61
PM10 mass	pm10	16.78	9.77	14.72	1.65	3.72	6.95	14.63	35.13	64.99	98	0	361
SO2	air	0.12	0.08	0.10	1.71	0.03	0.04	0.09	0.23	1.90	99	0	8687
SO4--	pm25	0.34	0.30	0.24	2.42	0.01	0.04	0.27	1.10	1.46	16	0	61
SO4-- corr	pm25	0.32	0.31	0.21	2.73	0.01	0.03	0.24	1.09	1.45	16	0	61

DE0002R Waldhof
January 2019 - December 2019

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	3.67	0.00	0.00	0.01	0.05	0.12	16	0	61
Cl-	pm25	0.09	0.14	0.04	3.72	0.00	0.00	0.04	0.45	0.83	16	0	61
K+	pm25	0.05	0.05	0.04	2.46	0.01	0.01	0.04	0.15	0.29	16	0	61
Mg++	pm25	0.01	0.01	0.00	4.21	0.00	0.00	0.00	0.05	0.07	16	0	61
NH3	air	1.29	0.97	0.92	2.39	0.17	0.20	1.16	2.89	5.33	95	0	51
NH4+	pm25	0.77	1.04	0.49	2.38	0.07	0.14	0.41	3.29	5.90	16	0	61
NO2	air	2.02	1.59	1.53	2.15	0.08	0.40	1.60	5.24	13.58	93	0	8148
NO3-	pm25	0.44	0.81	0.19	3.31	0.03	0.04	0.18	2.32	5.22	16	0	61
Na+	pm25	0.09	0.11	0.05	2.94	0.01	0.01	0.06	0.41	0.54	16	0	61
PM1 mass	pm1	6.26	4.63	4.92	2.02	0.39	1.68	4.71	15.54	31.39	99	0	364
PM10 mass	pm10	13.38	8.53	11.57	1.67	3.56	5.53	10.74	31.08	59.38	99	0	365
PM25 mass	pm25	9.50	7.61	7.54	1.91	1.94	3.14	6.65	25.78	53.11	99	0	365
SO4--	pm25	0.41	0.36	0.32	1.92	0.08	0.13	0.31	1.30	1.98	16	0	61
SO4-- corr	pm25	0.41	0.36	0.32	1.95	0.08	0.13	0.29	1.30	1.97	16	0	61

DE0003R Schauinsland
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.02	0.05	0.00	5.63	0.00	0.00	0.01	0.09	0.36	16	0	61
Cl-	pm25	0.03	0.02	0.02	2.18	0.01	0.01	0.02	0.09	0.11	16	0	61
K+	pm25	0.04	0.02	0.03	1.96	0.00	0.01	0.03	0.10	0.12	16	0	61
Mg++	pm25	0.00	0.01	0.00	2.73	0.00	0.00	0.00	0.01	0.04	16	0	61
NH3	air	0.70	0.57	0.46	2.67	0.04	0.07	0.55	2.04	2.19	97	0	52
NH4+	pm25	0.41	0.64	0.22	3.00	0.02	0.04	0.26	1.52	4.03	16	0	61
NO2	air	0.53	0.61	0.38	2.26	0.01	0.11	0.37	1.47	10.45	94	0	8275
NO3-	pm25	0.24	0.53	0.09	3.50	0.01	0.01	0.08	1.12	3.53	16	0	61
Na+	pm25	0.03	0.03	0.02	2.33	0.01	0.01	0.01	0.08	0.18	16	0	61
PM10 mass	pm10	8.60	7.44	5.96	2.47	0.37	1.41	6.33	22.81	43.67	98	0	359
PM25 mass	pm25	6.15	5.04	4.61	2.16	0.58	1.44	4.52	15.27	35.15	99	0	362
SO4--	pm25	0.21	0.21	0.13	2.83	0.01	0.02	0.15	0.65	1.14	16	0	61
SO4-- corr	pm25	0.21	0.21	0.13	2.85	0.01	0.02	0.15	0.65	1.13	16	0	61

DE0007R Neuglobsow
January 2019 - December 2019

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	3.69	0.00	0.00	0.01	0.05	0.09	16	0	61
Cl-	pm25	0.08	0.14	0.03	4.39	0.00	0.00	0.02	0.48	0.66	16	0	61
K+	pm25	0.06	0.05	0.04	2.19	0.01	0.01	0.05	0.16	0.29	16	0	61
Mg++	pm25	0.01	0.01	0.00	4.20	0.00	0.00	0.00	0.03	0.06	16	0	61
NH3	air	0.58	0.42	0.42	2.43	0.04	0.09	0.56	1.42	1.91	99	0	53
NH4+	pm25	0.62	0.84	0.37	2.48	0.08	0.10	0.31	3.34	4.07	16	0	61
NO2	air	1.18	1.02	0.85	2.34	-0.08	0.19	0.90	3.35	9.66	94	0	8257
NO3-	pm25	0.29	0.55	0.12	3.55	0.01	0.02	0.10	1.14	3.83	16	0	61
Na+	pm25	0.10	0.11	0.07	2.58	0.01	0.01	0.07	0.36	0.54	16	0	61
PM10 mass	pm10	13.37	8.59	11.32	1.77	1.15	4.65	10.71	33.34	55.49	99	0	363
PM25 mass	pm25	9.54	7.76	7.44	1.98	0.77	2.78	6.76	25.78	52.43	99	0	362
SO4--	pm25	0.43	0.53	0.30	2.12	0.07	0.09	0.28	1.44	3.19	16	0	61
SO4-- corr	pm25	0.42	0.53	0.29	2.19	0.06	0.08	0.27	1.44	3.18	16	0	61

DE0008R Schmücke
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.02	0.04	0.00	4.91	0.00	0.00	0.01	0.04	0.29	16	0	61
Cl-	pm25	0.02	0.03	0.01	2.76	0.01	0.01	0.01	0.07	0.13	16	0	61
K+	pm25	0.04	0.03	0.03	2.37	0.00	0.00	0.04	0.10	0.12	16	0	61
Mg++	pm25	0.00	0.00	0.00	2.92	0.00	0.00	0.00	0.02	0.02	16	0	61
NH3	air	0.32	0.21	0.26	1.84	0.08	0.09	0.25	0.74	1.12	99	0	53
NH4+	pm25	0.44	0.44	0.25	3.45	0.01	0.02	0.31	1.32	2.47	16	0	61
NO2	air	1.05	1.03	0.76	2.19	0.01	0.23	0.74	2.92	10.34	94	0	8286
NO3-	pm25	0.21	0.34	0.10	3.64	0.00	0.01	0.11	0.86	2.26	16	0	61
Na+	pm25	0.04	0.05	0.02	2.94	0.01	0.01	0.02	0.18	0.20	16	0	61
PM10 mass	pm10	9.71	7.33	7.29	2.24	0.45	1.91	8.12	23.56	55.85	99	0	365
PM25 mass	pm25	6.76	5.75	4.96	2.25	0.39	1.18	5.06	17.56	49.31	99	0	365
SO2	air	0.37	0.36	0.29	1.97	0.05	0.11	0.28	0.97	6.78	98	0	8656
SO4--	pm25	0.28	0.26	0.17	3.25	0.00	0.02	0.23	0.80	1.28	16	0	61
SO4-- corr	pm25	0.28	0.26	0.17	3.28	0.00	0.02	0.23	0.80	1.28	16	0	61

DE0009R Zingst
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.01	0.03	0.01	3.97	0.00	0.00	0.01	0.05	0.19	16	0	61
Cl-	pm25	0.14	0.21	0.06	3.31	0.01	0.01	0.06	0.75	1.07	16	0	61
K+	pm25	0.06	0.05	0.05	1.89	0.01	0.02	0.05	0.18	0.26	16	0	61
Mg++	pm25	0.01	0.02	0.00	4.37	0.00	0.00	0.00	0.06	0.08	16	0	61
NH3	air	0.91	0.65	0.70	2.12	0.09	0.19	0.72	2.17	3.55	97	0	52
NH4+	pm25	0.68	0.92	0.37	2.92	0.03	0.07	0.33	3.40	4.16	16	0	61
NO2	air	1.45	1.33	1.05	2.27	0.04	0.26	1.08	3.94	14.25	94	0	8318
NO3-	pm25	0.39	0.71	0.14	4.00	0.02	0.02	0.11	1.70	4.01	16	0	61
Na+	pm25	0.12	0.14	0.07	2.67	0.02	0.02	0.08	0.52	0.72	16	0	61
PM10 mass	pm10	14.70	10.06	12.35	1.77	2.58	4.93	11.46	37.90	67.42	99	0	365
SO2	air	0.35	0.28	0.30	1.66	0.09	0.15	0.28	0.81	6.36	99	0	8692
SO4--	pm25	0.39	0.44	0.28	2.16	0.07	0.07	0.26	1.27	2.66	16	0	61
SO4-- corr	pm25	0.38	0.44	0.26	2.25	0.06	0.07	0.26	1.26	2.65	16	0	61

DE0044R Melpitz
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.07	0.10	0.15	1.71	0.00	0.00	0.00	0.30	0.49	100	0	365
Ca++	pm25	0.12	0.43	0.39	3.41	0.00	0.00	0.00	1.09	3.38	100	0	365
Cl-	pm10	0.24	0.48	0.08	4.52	0.00	0.00	0.05	1.00	3.70	100	0	365
Cl-	pm25	0.06	0.12	0.05	2.78	0.00	0.00	0.02	0.23	1.12	100	0	365
K+	pm10	0.08	0.10	0.06	1.91	0.00	0.02	0.06	0.20	1.69	100	0	365
K+	pm25	0.05	0.11	0.04	2.18	0.00	0.00	0.03	0.16	1.84	100	0	365
Mg++	pm10	0.03	0.04	0.02	2.55	0.00	0.00	0.02	0.10	0.37	100	0	365
Mg++	pm25	0.01	0.03	0.01	2.24	0.00	0.00	0.00	0.04	0.31	100	0	365
NH4+	pm10	0.88	0.95	0.59	2.32	0.04	0.18	0.54	3.01	7.01	100	0	365
NH4+	pm25	0.74	0.75	0.53	2.18	0.06	0.17	0.49	2.42	4.80	100	0	365
NO3-	pm10	0.54	0.63	0.34	2.55	0.05	0.09	0.29	1.92	4.11	100	0	365
NO3-	pm25	0.39	0.54	0.18	3.48	0.02	0.04	0.15	1.64	3.33	100	0	365
Na+	pm10	0.26	0.33	0.14	3.25	0.00	0.02	0.13	0.94	2.30	100	0	365
Na+	pm25	0.07	0.09	0.04	2.89	0.00	0.01	0.04	0.21	0.92	100	0	365
PM10 mass	pm10	18.37	8.24	16.71	1.55	2.92	8.27	16.69	33.61	63.55	100	0	365
PM25 mass	pm25	14.00	7.02	12.56	1.59	1.96	6.50	12.28	27.77	53.03	100	0	365
SO4--	pm10	0.49	0.40	0.39	1.92	0.05	0.13	0.39	1.16	3.68	100	0	365
SO4--	pm25	0.36	0.32	0.27	2.04	0.04	0.09	0.28	0.78	3.06	100	0	365
SO4-- corr	pm10	0.47	0.41	0.36	2.05	0.05	0.11	0.38	1.16	3.67	100	0	365
SO4-- corr	pm25	0.35	0.32	0.27	2.07	-0.02	0.08	0.28	0.78	3.06	100	0	365

DE0054R Zugspitze-Schneefernerhaus
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.02	0.04	0.01	5.61	-0.01	-0.00	0.00	0.10	0.60	88	0	7760
NO2	air	0.08	0.13	0.05	3.37	-0.01	-0.00	0.04	0.30	2.02	88	0	7712

DK0003R Tange
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.12	0.12	0.09	2.09	0.01	0.03	0.09	0.38	0.89	95	36	351
Cl-	aerosol	1.57	1.54	0.97	2.86	0.08	0.15	1.01	4.56	11.02	94	0	347
HNO3+NO3-	air+aerosol	0.63	0.69	0.41	2.58	0.03	0.08	0.40	2.02	5.12	94	0	346
K+	aerosol	0.12	0.08	0.10	1.65	0.02	0.05	0.10	0.24	1.06	95	0	351
NH3	air	1.04	1.06	0.65	3.04	-0.01	0.10	0.72	3.36	6.77	93	5	344
NH4+	aerosol	0.76	0.85	0.46	2.79	0.03	0.08	0.46	2.53	5.91	95	0	350
Na+	aerosol	1.01	0.92	0.66	2.76	0.01	0.11	0.72	2.82	6.62	95	1	351
SO2	air	0.08	0.11	0.04	2.93	0.01	0.01	0.04	0.28	0.88	95	27	350
SO4--	aerosol	0.53	0.40	0.43	1.88	0.06	0.16	0.42	1.48	2.38	94	1	346
SO4-- corr	aerosol	0.45	0.43	0.30	2.45	0.04	0.07	0.33	1.47	2.35	94	1	346

DK0005R Keldsnor
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.29	0.85	0.18	4.22	-0.34	-0.12	0.09	1.28	26.82	88	4419	7737
NO2	air	2.18	2.16	1.40	2.89	-0.29	0.19	1.53	6.36	21.70	92	320	8075

DK0008R Anholt
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.19	0.24	0.13	2.32	0.01	0.03	0.12	0.59	2.05	94	11	347
Cl-	aerosol	2.72	2.58	1.69	2.98	0.04	0.21	1.95	7.73	17.39	95	1	348
HNO3+NO3-	air+aerosol	0.58	0.61	0.40	2.47	-0.01	0.07	0.42	1.55	4.88	94	5	345
K+	aerosol	0.11	0.06	0.10	1.74	0.01	0.04	0.10	0.23	0.44	94	0	347
NH3	air	0.22	0.25	0.10	4.60	0.00	0.00	0.14	0.69	1.88	94	39	347
NH4+	aerosol	0.60	0.70	0.35	3.03	-0.00	0.04	0.35	1.83	5.45	95	3	350
NO	air	0.20	0.32	0.17	2.89	-0.50	-0.08	0.17	0.60	5.09	93	3700	8165
NO2	air	1.34	1.52	0.85	2.65	-0.10	0.18	0.86	4.02	20.18	93	209	8173
Na+	aerosol	1.75	1.40	1.28	2.34	0.07	0.28	1.43	4.45	10.23	95	0	348
SO2	air	0.09	0.10	0.06	2.46	0.01	0.02	0.06	0.32	0.66	95	3	348
SO4--	aerosol	0.59	0.34	0.51	1.75	0.05	0.18	0.53	1.32	2.18	94	2	346
SO4-- corr	aerosol	0.46	0.37	0.33	2.31	0.04	0.08	0.37	1.25	2.17	94	2	346

DK0010G Villum Research Station, Station Nord
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	aerosol	0.16	0.23	0.07	4.57	0.00	0.00	0.06	0.62	1.15	67	14	36
HNO3	air	0.01	0.01	0.00	2.12	0.00	0.00	0.00	0.03	0.03	69	33	38
NH3	air	0.03	0.08	0.03	2.40	0.01	0.01	0.03	0.17	0.50	69	16	38
NO3-	aerosol	0.01	0.01	0.01	1.73	0.00	0.00	0.01	0.03	0.03	67	18	36
Na+	aerosol	0.14	0.17	0.08	3.57	0.01	0.01	0.09	0.51	0.85	69	8	38
SO2	air	0.09	0.14	0.02	7.49	0.00	0.00	0.01	0.40	0.54	69	20	38
SO4--	aerosol	0.20	0.24	0.10	3.37	0.02	0.02	0.06	0.68	0.85	67	20	36
SO4-- corr	aerosol	0.19	0.23	0.09	3.54	0.02	0.02	0.05	0.66	0.78	67	20	36

DK0012R Risoe
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.15	0.16	0.10	2.33	0.00	0.03	0.10	0.50	1.01	95	8	351
Cl-	aerosol	1.23	1.41	0.72	2.92	0.06	0.12	0.77	3.84	10.82	95	0	351
HNO3+NO3-	air+aerosol	0.75	0.69	0.54	2.27	0.07	0.14	0.53	1.96	5.52	96	0	352
K+	aerosol	0.12	0.11	0.10	1.79	0.01	0.04	0.10	0.27	1.46	95	1	351
NH3	air	0.72	0.66	0.44	3.50	0.00	0.03	0.50	1.95	5.34	95	10	350
NH4+	aerosol	0.87	0.83	0.59	2.49	-0.01	0.13	0.61	2.56	6.02	96	2	352
NO	air	0.20	0.43	0.15	3.27	-0.37	-0.12	0.11	0.77	9.23	93	4821	8219
NO2	air	1.98	1.85	1.33	2.58	-0.20	0.28	1.39	5.72	15.93	93	109	8219
Na+	aerosol	0.80	0.81	0.51	2.77	0.01	0.10	0.54	2.32	6.05	95	3	351
SO2	air	0.13	0.15	0.08	2.74	0.01	0.01	0.08	0.45	0.90	96	9	354
SO4--	aerosol	0.59	0.44	0.48	1.89	0.09	0.18	0.47	1.55	2.67	96	3	353
SO4-- corr	aerosol	0.53	0.46	0.38	2.28	0.04	0.09	0.40	1.54	2.65	96	3	353

DK0031R Ulborg
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.10	0.09	0.08	2.08	0.00	0.02	0.09	0.28	0.77	94	17	345
Cl-	aerosol	2.30	2.11	1.35	3.14	0.09	0.18	1.78	6.30	11.27	94	0	347
HNO3+NO3-	air+aerosol	0.64	0.75	0.39	2.76	0.02	0.07	0.38	2.10	5.27	90	0	331
K+	aerosol	0.11	0.09	0.10	1.59	0.03	0.05	0.09	0.20	1.48	93	0	342
NH3	air	0.84	1.41	0.39	3.35	-0.01	0.05	0.31	4.46	9.99	91	6	336
NH4+	aerosol	0.76	0.91	0.43	3.05	-0.03	0.06	0.45	2.63	5.88	95	2	348
NO	air	0.11	0.26	0.12	2.76	-0.35	-0.14	0.09	0.37	5.54	92	5227	8121
NO2	air	1.28	1.45	0.90	2.26	-0.05	0.28	0.84	3.46	18.30	92	85	8120
Na+	aerosol	1.42	1.21	0.87	3.16	0.02	0.11	1.19	3.65	6.34	94	1	345
SO2	air	0.08	0.12	0.04	3.11	0.00	0.01	0.04	0.32	1.01	90	35	332
SO4--	aerosol	0.54	0.37	0.45	1.77	0.07	0.19	0.43	1.30	2.41	90	2	331
SO4-- corr	aerosol	0.42	0.40	0.28	2.50	0.03	0.05	0.31	1.26	2.38	90	2	331

EE0009R Lahemaa
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
CO	air	158.82	39.29	154.47	1.26	82.00	104.00	152.00	239.00	425.00	99	0	8746
Ca++	aerosol	0.11	0.65	0.06	2.01	0.04	0.04	0.04	0.23	12.50	100	248	366
Cl-	aerosol	0.16	0.18	0.12	2.10	0.07	0.07	0.07	0.48	1.50	100	235	366
K+	aerosol	0.06	0.12	0.03	2.46	0.02	0.02	0.02	0.32	0.85	100	281	366
Mg++	aerosol	0.02	0.01	0.02	1.15	0.02	0.02	0.02	0.02	0.10	100	349	366
NH4+	aerosol	0.03	0.04	0.03	1.75	0.02	0.02	0.02	0.10	0.59	100	302	366
NO2	air	2.10	1.64	1.62	2.09	0.12	0.47	1.65	5.04	12.59	100	0	365
NO3-	aerosol	0.27	0.27	0.19	2.18	0.10	0.10	0.10	0.84	1.63	100	201	366
Na+	aerosol	0.08	0.15	0.04	2.80	0.02	0.02	0.02	0.38	1.25	100	262	366
PM10 mass	pm10	5.50	2.70	4.90	1.62	1.16	2.26	4.86	10.38	16.37	98	0	52
PM25 mass	pm25	5.49	3.63	4.38	2.08	0.03	1.36	4.62	13.45	19.44	99	1	363
SO2	air	0.30	0.50	0.18	2.42	0.08	0.08	0.13	1.04	5.62	99	102	362
SO4--	aerosol	0.12	0.08	0.11	1.40	0.10	0.10	0.10	0.28	0.80	100	334	366
SO4-- corr	aerosol	0.12	0.08	0.11	1.41	0.05	0.09	0.10	0.27	0.80	100	334	366

EE0011R Vilsandi
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	2.01	1.53	1.53	2.14	0.12	0.41	1.58	4.94	10.52	100	0	365
PM25 mass	pm25	4.41	4.45	2.67	3.06	0.03	0.37	3.05	13.96	28.12	99	2	363
SO2	air	0.20	0.18	0.14	2.27	0.04	0.04	0.13	0.60	1.16	100	32	365

ES0001R San Pablo de los Montes
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.22	0.22	0.12	3.65	0.01	0.01	0.15	0.65	1.11	99	51	364
Ca++	pm25	0.07	0.06	0.05	2.58	0.01	0.01	0.05	0.18	0.29	16	8	60
Cl-	pm10	0.25	0.83	0.08	3.08	0.04	0.04	0.04	0.73	6.11	16	38	60
Cl-	pm25	0.08	0.11	0.06	1.95	0.04	0.04	0.04	0.24	0.78	16	42	60
HNO3+NO3-	air+aerosol	0.28	0.20	0.21	2.35	0.03	0.03	0.23	0.64	1.29	99	41	365
K+	pm10	0.09	0.07	0.07	2.13	0.01	0.02	0.07	0.21	0.50	99	3	364
K+	pm25	0.09	0.09	0.06	2.40	0.01	0.01	0.06	0.25	0.45	16	1	60
Mg++	pm10	0.04	0.03	0.02	3.50	0.00	0.00	0.03	0.09	0.30	99	40	364
Mg++	pm25	0.01	0.01	0.02	1.68	0.00	0.00	0.00	0.03	0.06	16	35	60
NH3+NH4+	air+aerosol	1.62	0.89	1.33	2.07	0.04	0.43	1.49	3.25	4.59	99	0	364
NH4+	pm10	0.29	0.21	0.23	2.08	0.04	0.05	0.25	0.76	1.07	16	0	60
NH4+	pm25	0.17	0.15	0.12	2.25	0.03	0.03	0.12	0.50	0.84	16	0	60
NO	air	0.05	0.08	0.03	2.42	0.00	0.01	0.03	0.16	2.36	96	0	8475
NO2	air	0.33	0.35	0.24	2.03	0.03	0.09	0.22	0.87	6.12	96	0	8475
NO3-	pm10	0.18	0.14	0.13	2.38	0.01	0.02	0.14	0.43	1.19	99	17	364
NO3-	pm25	0.08	0.07	0.06	2.08	0.01	0.02	0.06	0.25	0.40	16	2	60
NOx	air	0.38	0.40	0.29	1.98	0.05	0.11	0.26	1.00	6.70	96	0	8475
Na+	pm10	0.26	0.26	0.15	3.18	0.02	0.02	0.20	0.61	2.58	99	73	364
Na+	pm25	0.11	0.09	0.08	2.28	0.02	0.02	0.08	0.26	0.48	16	10	60
PM10 mass	pm10	10.50	7.37	8.37	2.00	1.00	3.00	9.00	25.00	46.00	94	0	347
PM25 mass	pm25	6.10	3.47	5.06	1.92	1.00	2.00	6.00	13.00	18.00	93	0	341
SO2	air	0.23	0.18	0.18	2.01	0.01	0.06	0.19	0.53	3.02	97	0	8500
SO4--	pm10	0.31	0.22	0.25	1.97	0.05	0.08	0.24	0.75	1.33	99	0	364
SO4--	pm25	0.32	0.22	0.26	1.88	0.09	0.10	0.23	0.82	1.06	16	0	60
SO4-- corr	pm10	0.28	0.21	0.22	2.04	0.03	0.07	0.22	0.70	1.26	99	0	364
SO4-- corr	pm25	0.31	0.22	0.25	1.93	0.05	0.10	0.23	0.81	1.05	16	0	60

ES0005R Noia
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.19	0.14	0.14	2.46	0.03	0.03	0.17	0.48	0.78	100	77	366
NH3+NH4+	air+aerosol	0.54	0.46	0.39	2.31	0.03	0.10	0.41	1.47	3.60	99	0	364
NO	air	0.08	0.14	0.07	1.62	0.02	0.04	0.06	0.17	8.04	98	0	8668
NO2	air	1.03	0.81	0.82	1.92	0.12	0.30	0.78	2.66	12.65	98	0	8668
NO3-	pm10	0.14	0.12	0.08	3.10	0.01	0.01	0.11	0.39	0.66	84	36	310
NOx	air	1.11	0.86	0.91	1.85	0.16	0.37	0.85	2.77	20.70	98	0	8668
PM10 mass	pm10	6.58	4.65	5.24	2.01	1.00	2.00	5.50	14.25	32.00	80	0	294
SO2	air	0.44	0.25	0.40	1.48	0.12	0.23	0.38	0.80	4.64	99	0	8704
SO4--	pm10	0.30	0.18	0.24	2.17	0.01	0.06	0.28	0.66	0.85	84	3	310

ES0006R Mahón
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.43	0.28	0.36	2.01	0.03	0.14	0.38	0.86	2.42	96	13	353
NH3+NH4+	air+aerosol	1.34	0.72	1.14	1.89	0.03	0.45	1.17	2.80	4.21	96	0	352
NO	air	0.13	0.47	0.06	2.28	0.01	0.03	0.05	0.37	17.70	96	0	8485
NO2	air	0.97	1.63	0.52	2.83	0.00	0.11	0.48	3.72	19.54	96	0	8485
NO3-	pm10	0.43	0.20	0.38	1.63	0.04	0.15	0.38	0.81	1.29	89	0	328
NOx	air	1.11	1.98	0.60	2.65	0.04	0.15	0.52	3.96	37.13	96	0	8485
PM10 mass	pm10	17.36	8.03	15.85	1.52	5.00	8.00	16.00	32.00	72.00	89	0	328
PM25 mass	pm25	5.36	2.68	4.78	1.62	1.00	2.00	5.00	10.00	22.00	94	0	345
SO2	air	0.24	0.14	0.21	1.55	0.00	0.10	0.22	0.39	5.12	96	0	8485
SO4--	pm10	0.83	0.49	0.72	1.63	0.28	0.38	0.65	1.99	3.24	89	0	328

ES0007R Viznar
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.35	0.29	0.20	3.75	0.01	0.01	0.30	0.89	1.76	94	37	345
Ca++	pm25	0.20	0.23	0.12	3.06	0.01	0.02	0.12	0.93	0.96	16	1	60
Cl-	pm10	0.16	0.27	0.08	2.77	0.04	0.04	0.04	0.57	1.82	16	38	60
Cl-	pm25	0.06	0.04	0.05	1.53	0.04	0.04	0.04	0.14	0.23	16	47	60
HNO3+NO3-	air+aerosol	0.41	0.23	0.32	2.22	0.03	0.03	0.38	0.87	1.36	94	20	347
K+	pm10	0.15	0.10	0.12	2.10	0.01	0.03	0.14	0.34	0.67	94	4	345
K+	pm25	0.18	0.12	0.14	2.17	0.01	0.03	0.15	0.45	0.57	16	1	60
Mg++	pm10	0.05	0.04	0.03	3.85	0.00	0.00	0.04	0.13	0.20	94	38	345
Mg++	pm25	0.02	0.02	0.02	1.89	0.00	0.00	0.01	0.06	0.07	16	21	60
NH3+NH4+	air+aerosol	1.57	1.02	1.22	2.16	0.07	0.31	1.40	3.43	5.06	96	0	352
NH4+	pm10	0.40	0.33	0.30	2.15	0.08	0.10	0.31	1.23	1.61	16	0	60
NH4+	pm25	0.18	0.17	0.13	2.06	0.03	0.05	0.12	0.47	1.12	16	0	60
NO	air	0.36	0.85	0.14	3.63	0.00	0.02	0.14	1.37	15.27	94	0	8287
NO2	air	1.20	1.65	0.64	3.04	0.04	0.11	0.61	4.27	21.51	94	0	8287
NO3-	pm10	0.26	0.17	0.19	2.50	0.01	0.03	0.24	0.56	1.08	94	12	345
NO3-	pm25	0.08	0.07	0.06	2.23	0.01	0.02	0.06	0.28	0.43	16	2	60
NOx	air	1.56	2.31	0.85	2.93	0.05	0.15	0.79	5.48	31.04	94	0	8287
Na+	pm10	0.29	0.24	0.18	3.30	0.02	0.02	0.25	0.77	1.34	94	66	345
Na+	pm25	0.14	0.10	0.10	2.33	0.02	0.02	0.10	0.35	0.39	16	7	60
PM10 mass	pm10	15.88	10.93	12.06	2.24	1.00	3.00	15.00	39.00	65.00	87	0	320
PM25 mass	pm25	9.70	6.84	7.57	2.10	1.00	2.00	8.00	23.00	42.00	85	0	313
SO2	air	0.48	0.39	0.37	2.16	0.00	0.08	0.40	1.16	5.22	94	0	8314
SO4--	pm10	0.42	0.31	0.32	2.14	0.01	0.08	0.32	1.09	1.74	94	1	345
SO4--	pm25	0.34	0.26	0.27	2.00	0.04	0.10	0.25	0.98	1.33	16	0	60
SO4-- corr	pm10	0.39	0.29	0.29	2.15	0.01	0.08	0.30	1.04	1.65	94	1	345
SO4-- corr	pm25	0.33	0.25	0.26	2.01	0.04	0.09	0.24	0.96	1.31	16	0	60

ES0008R Niembro
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.28	0.44	0.18	2.57	0.01	0.04	0.17	0.75	5.96	69	4	253
Ca++	pm25	0.10	0.14	0.06	2.78	0.01	0.01	0.06	0.40	0.86	13	2	50
Cl-	pm10	1.51	1.87	0.61	4.90	0.04	0.04	0.97	6.47	8.38	13	8	50
Cl-	pm25	0.15	0.20	0.08	2.76	0.04	0.04	0.04	0.70	0.80	13	30	50
HNO3+NO3-	air+aerosol	0.43	0.44	0.28	2.73	0.03	0.03	0.30	1.26	3.00	70	25	257
K+	pm10	0.16	0.20	0.12	1.93	0.01	0.04	0.13	0.36	2.40	69	0	253
K+	pm25	0.09	0.08	0.06	2.58	0.01	0.01	0.07	0.25	0.40	13	3	50
Mg++	pm10	0.19	0.17	0.15	2.04	0.01	0.04	0.15	0.44	1.83	69	0	253
Mg++	pm25	0.02	0.02	0.03	1.77	0.00	0.00	0.02	0.05	0.10	13	13	50
NH3+NH4+	air+aerosol	1.44	1.02	1.01	2.88	0.03	0.06	1.23	3.60	5.00	69	0	256
NH4+	pm10	0.36	0.42	0.23	2.53	0.04	0.06	0.22	1.55	2.11	13	0	50
NH4+	pm25	0.12	0.17	0.08	2.15	0.03	0.03	0.07	0.58	0.95	13	0	50
NO	air	0.23	0.28	0.16	2.25	0.00	0.04	0.17	0.61	9.20	66	0	5859
NO2	air	0.66	0.78	0.43	2.48	0.02	0.10	0.43	1.92	17.89	66	0	5859
NO3-	pm10	0.26	0.27	0.14	3.55	0.01	0.01	0.17	0.89	1.59	69	27	253
NO3-	pm25	0.08	0.13	0.04	3.48	0.01	0.01	0.03	0.38	0.75	13	18	50
NOx	air	0.89	0.98	0.64	2.16	0.07	0.20	0.61	2.47	27.09	66	0	5859
Na+	pm10	1.47	1.13	1.12	2.24	0.02	0.31	1.16	3.40	8.04	68	2	252
Na+	pm25	0.25	0.16	0.20	1.96	0.04	0.06	0.21	0.59	0.91	13	0	50
PM10 mass	pm10	14.76	11.29	12.30	1.81	3.00	4.00	12.00	30.00	104.00	67	0	247
PM25 mass	pm25	6.59	7.12	4.71	2.22	1.00	1.00	5.00	20.00	76.00	70	0	258
SO2	air	0.34	0.44	0.24	2.10	0.01	0.08	0.24	0.89	10.60	68	0	5990
SO4--	pm10	0.51	0.32	0.43	1.91	0.01	0.14	0.46	1.06	2.80	69	1	253
SO4--	pm25	0.46	0.37	0.35	2.12	0.09	0.09	0.41	1.11	2.29	13	0	50
SO4-- corr	pm10	0.38	0.32	0.30	2.13	-0.28	0.08	0.33	0.98	2.71	69	1	253
SO4-- corr	pm25	0.44	0.38	0.33	2.24	0.07	0.08	0.40	1.09	2.28	13	0	50

ES0009R Campisabalos
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm10	0.22	0.24	0.10	4.16	0.01	0.01	0.13	0.66	2.08	96	73	355
Ca++	pm25	0.07	0.10	0.04	2.80	0.01	0.01	0.04	0.21	0.67	16	7	60
Cl-	pm10	0.16	0.18	0.10	2.59	0.04	0.04	0.11	0.56	1.11	16	28	60
Cl-	pm25	0.05	0.04	0.05	1.52	0.04	0.04	0.04	0.14	0.25	16	52	60
HNO3+NO3-	air+aerosol	0.25	0.16	0.20	2.06	0.03	0.03	0.22	0.55	1.41	94	29	345
K+	pm10	0.04	0.03	0.03	2.20	0.01	0.01	0.03	0.11	0.19	96	41	355
K+	pm25	0.03	0.03	0.02	2.35	0.01	0.01	0.02	0.12	0.15	16	18	60
Mg++	pm10	0.03	0.02	0.01	4.36	0.00	0.00	0.02	0.06	0.11	96	78	355
Mg++	pm25	0.01	0.01	0.02	1.77	0.00	0.00	0.00	0.02	0.07	16	44	60
NH3+NH4+	air+aerosol	0.88	0.70	0.49	3.80	0.03	0.03	0.77	2.13	3.62	96	0	352
NH4+	pm10	0.25	0.18	0.20	2.04	0.05	0.05	0.23	0.69	0.72	16	0	60
NH4+	pm25	0.13	0.10	0.10	2.05	0.03	0.03	0.09	0.40	0.46	16	0	60
NO	air	0.07	0.12	0.06	2.00	0.00	0.01	0.06	0.14	9.04	95	0	8403
NO2	air	0.55	0.65	0.43	2.11	0.00	0.11	0.47	1.18	40.28	95	0	8403
NO3-	pm10	0.12	0.10	0.08	2.63	0.01	0.01	0.10	0.33	0.77	96	40	355
NO3-	pm25	0.06	0.06	0.04	2.39	0.01	0.01	0.04	0.21	0.35	16	9	60
NOx	air	0.63	0.73	0.52	1.83	0.04	0.18	0.55	1.28	49.30	95	0	8403
Na+	pm10	0.18	0.17	0.10	3.37	0.02	0.02	0.15	0.47	1.07	96	117	355
Na+	pm25	0.07	0.07	0.05	2.27	0.02	0.02	0.05	0.26	0.31	16	23	60
PM10 mass	pm10	7.88	6.07	6.03	2.10	1.00	2.00	6.00	19.00	37.00	93	0	342
PM10 mass	pm10	10.86	10.42	7.96	2.14	0.45	2.52	7.69	31.24	125.50	91	0	7993
PM25 mass	pm25	4.24	3.03	3.36	2.00	1.00	1.00	3.00	10.00	27.00	93	0	344
SO2	air	0.24	0.14	0.20	1.86	0.00	0.07	0.20	0.50	1.44	97	0	8520
SO4--	pm10	0.26	0.19	0.19	2.24	0.01	0.05	0.20	0.67	1.11	96	6	355
SO4--	pm25	0.22	0.16	0.17	2.22	0.01	0.04	0.17	0.58	0.72	16	1	60
SO4-- corr	pm10	0.24	0.18	0.18	2.21	-0.01	0.05	0.18	0.64	1.06	96	6	355
SO4-- corr	pm25	0.22	0.16	0.16	2.28	0.01	0.03	0.17	0.58	0.71	16	1	60

ES0010R Cabo de Creus
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
HNO3+NO3-	air+aerosol	0.54	0.46	0.40	2.30	0.03	0.12	0.44	1.27	4.69	93	14	344
NH3+NH4+	air+aerosol	1.33	0.64	1.15	1.87	0.03	0.48	1.25	2.57	3.37	89	0	327
NO	air	0.16	0.29	0.09	2.58	0.00	0.03	0.08	0.52	8.00	96	0	8480
NO2	air	0.95	0.60	0.79	1.81	0.03	0.30	0.80	2.12	5.79	96	0	8480
NO3-	pm10	0.39	0.27	0.31	2.04	0.03	0.09	0.32	1.02	1.47	95	0	349
NOx	air	1.11	0.76	0.93	1.80	0.11	0.37	0.91	2.50	10.96	96	0	8480
PM10 mass	pm10	15.86	8.55	14.50	1.49	5.00	8.00	14.00	28.00	93.00	94	0	347
PM25 mass	pm25	7.38	3.55	6.66	1.56	2.00	3.00	6.00	15.00	24.00	90	0	333
SO2	air	0.27	0.07	0.26	1.30	0.06	0.18	0.26	0.40	0.94	97	0	8574
SO4--	pm10	0.55	0.36	0.47	1.72	0.14	0.21	0.45	1.27	2.48	95	0	349

ES0011R Barcarrota
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
HNO3+NO3-	air+aerosol	0.23	0.14	0.18	2.28	0.03	0.03	0.21	0.48	0.86	94	49	347
NH3+NH4+	air+aerosol	1.24	0.76	0.80	3.48	0.03	0.04	1.27	2.50	3.48	93	0	342
NO	air	0.20	0.76	0.11	2.65	0.00	0.01	0.13	0.42	18.90	98	0	8645
NO2	air	0.78	0.82	0.60	2.05	0.03	0.17	0.62	1.69	11.90	98	0	8645
NO3-	pm10	0.23	0.13	0.19	1.92	0.01	0.07	0.20	0.50	0.89	91	3	336
NOx	air	0.98	1.46	0.73	2.02	0.05	0.24	0.73	2.04	30.74	98	0	8645
PM10 mass	pm10	13.78	7.99	11.83	1.74	2.00	5.00	12.00	28.25	53.00	91	0	334
PM25 mass	pm25	6.28	3.75	5.41	1.74	1.00	2.00	6.00	13.00	38.00	91	0	335
SO2	air	0.16	0.14	0.12	2.16	0.00	0.04	0.12	0.44	2.21	97	0	8509
SO4--	pm10	0.38	0.24	0.32	1.79	0.07	0.13	0.31	0.95	1.28	91	0	336

ES0012R Zarra
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
HNO3+NO3-	air+aerosol	0.38	0.21	0.32	1.86	0.03	0.12	0.34	0.78	1.16	100	7	366
NH3+NH4+	air+aerosol	1.47	0.66	1.28	1.84	0.04	0.46	1.44	2.65	3.28	99	0	363
NO	air	0.06	0.06	0.05	1.93	0.01	0.02	0.05	0.15	1.40	98	0	8613
NO2	air	0.72	0.41	0.63	1.71	0.04	0.26	0.63	1.47	4.47	98	0	8613
NO3-	pm10	0.32	0.18	0.26	1.99	0.01	0.07	0.29	0.68	1.14	98	1	360
NOx	air	0.78	0.42	0.69	1.65	0.09	0.30	0.70	1.55	5.17	98	0	8613
PM10 mass	pm10	10.27	6.32	8.55	1.86	2.00	3.00	9.50	21.00	45.00	98	0	360
PM10 mass	pm10	13.54	9.69	10.89	1.95	0.00	3.59	11.43	30.59	100.16	92	0	8072
PM25 mass	pm25	4.68	2.39	4.04	1.77	1.00	1.00	4.00	9.00	12.00	97	0	357
SO2	air	0.42	0.08	0.41	1.21	0.23	0.30	0.40	0.55	1.25	98	0	8655
SO4--	pm10	0.45	0.35	0.34	2.14	0.04	0.11	0.34	1.17	1.97	98	0	360

ES0013R Penausende
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.25	0.18	0.19	2.27	0.03	0.03	0.21	0.63	1.23	99	41	364
NH3+NH4+	air+aerosol	1.19	0.76	0.95	2.13	0.03	0.27	1.06	2.62	4.39	99	0	365
NO	air	0.05	0.08	0.03	2.59	0.00	0.01	0.03	0.16	1.83	98	0	8604
NO2	air	0.40	0.37	0.29	2.29	0.02	0.07	0.29	1.13	5.19	98	0	8604
NO3-	pm10	0.17	0.15	0.12	2.50	0.01	0.02	0.12	0.44	1.01	95	11	350
NOx	air	0.45	0.41	0.33	2.18	0.02	0.10	0.33	1.25	5.48	98	0	8604
PM10 mass	pm10	7.09	4.77	5.86	1.86	1.00	2.00	6.00	16.00	38.00	95	0	350
PM10 mass	pm10	11.77	7.86	9.70	1.89	0.61	3.16	10.16	26.18	104.35	97	0	8502
PM25 mass	pm25	3.83	2.55	3.06	1.98	1.00	1.00	3.00	9.00	12.00	60	0	222
SO2	air	0.13	0.07	0.12	1.56	0.02	0.06	0.12	0.26	0.70	98	0	8594
SO4--	pm10	0.22	0.14	0.19	1.88	0.02	0.07	0.19	0.50	0.85	95	0	350

ES0014R Els Torms
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.32	0.27	0.24	2.32	0.01	0.06	0.26	0.87	2.13	95	0	349
Ca++	pm25	0.15	0.13	0.12	1.94	0.03	0.05	0.11	0.44	0.88	16	0	60
Cl-	pm10	0.20	0.28	0.11	2.61	0.04	0.04	0.09	0.84	1.39	16	15	60
Cl-	pm25	0.07	0.06	0.05	1.74	0.04	0.04	0.04	0.18	0.41	16	46	60
HNO3+NO3-	air+aerosol	0.38	0.29	0.29	2.19	0.03	0.03	0.30	0.96	1.81	99	19	363
K+	pm10	0.11	0.09	0.09	1.80	0.02	0.04	0.09	0.27	0.72	95	0	349
K+	pm25	0.11	0.14	0.07	2.53	0.01	0.02	0.06	0.47	0.78	16	1	60
Mg++	pm10	0.05	0.04	0.03	3.23	0.00	0.00	0.05	0.12	0.26	95	25	349
Mg++	pm25	0.01	0.01	0.02	1.50	0.00	0.00	0.01	0.03	0.05	16	28	60
NH3+NH4+	air+aerosol	3.37	1.23	3.02	1.77	0.06	1.35	3.50	4.99	5.29	99	0	363
NH4+	pm10	0.50	0.43	0.34	2.54	0.04	0.07	0.32	1.48	1.78	16	0	60
NH4+	pm25	0.32	0.32	0.21	2.66	0.03	0.03	0.22	0.89	1.55	16	0	60
NO	air	0.08	0.10	0.07	1.90	0.00	0.02	0.06	0.19	3.08	98	0	8633
NO2	air	0.71	0.50	0.57	2.03	0.00	0.17	0.59	1.66	5.53	98	0	8633
NO3-	pm10	0.23	0.20	0.17	2.11	0.02	0.06	0.17	0.66	1.28	95	0	349
NO3-	pm25	0.13	0.15	0.08	2.64	0.01	0.02	0.07	0.42	0.80	16	2	60
NOx	air	0.79	0.53	0.66	1.86	0.05	0.24	0.67	1.80	7.00	98	0	8633
Na+	pm10	0.36	0.29	0.24	2.76	0.02	0.02	0.28	0.93	1.78	95	25	349
Na+	pm25	0.13	0.08	0.10	2.14	0.02	0.02	0.11	0.29	0.41	16	6	60
PM10 mass	pm10	12.53	9.23	10.55	1.78	2.00	4.00	11.00	27.00	106.00	95	0	348
PM25 mass	pm25	7.56	4.67	6.23	1.93	1.00	2.00	7.00	16.35	42.00	96	0	352
SO2	air	0.41	0.22	0.38	1.41	0.18	0.25	0.36	0.72	4.22	98	0	8664
SO4--	pm10	0.45	0.30	0.36	1.95	0.06	0.12	0.38	1.07	1.81	95	0	349
SO4--	pm25	0.43	0.28	0.35	1.95	0.08	0.12	0.42	1.08	1.41	16	0	60
SO4-- corr	pm10	0.41	0.29	0.33	2.02	0.05	0.10	0.34	1.01	1.70	95	0	349
SO4-- corr	pm25	0.42	0.28	0.34	1.99	0.08	0.10	0.41	1.07	1.41	16	0	60

ES0016R O Saviñao
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.18	0.12	0.14	2.32	0.03	0.03	0.17	0.41	0.87	99	72	364
NH3+NH4+	air+aerosol	1.31	0.86	1.02	2.18	0.04	0.27	1.12	2.97	4.88	99	0	364
NO	air	0.12	0.10	0.09	2.26	0.00	0.02	0.09	0.29	1.59	94	0	8312
NO2	air	0.69	0.42	0.56	2.02	0.00	0.16	0.61	1.45	3.31	94	0	8312
NO3-	pm10	0.17	0.14	0.11	2.83	0.01	0.01	0.15	0.45	1.04	88	27	324
NOx	air	0.81	0.43	0.69	1.80	0.03	0.23	0.73	1.61	3.65	94	0	8312
PM10 mass	pm10	8.43	4.76	7.41	1.66	0.94	3.20	7.47	16.50	68.17	92	0	8115
PM10 mass	pm10	9.18	5.44	8.00	1.69	1.00	3.15	8.00	17.00	49.00	87	0	322
PM25 mass	pm25	6.29	4.50	5.13	1.90	1.00	2.00	5.00	15.15	33.00	80	0	296
SO2	air	0.27	0.13	0.23	1.74	0.00	0.08	0.26	0.48	1.87	95	0	8339
SO4--	pm10	0.37	0.23	0.31	1.88	0.04	0.11	0.33	0.83	1.36	88	0	324

ES0017R Doñana
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.50	0.43	0.39	2.07	0.03	0.14	0.40	1.03	5.55	100	10	366
NH3+NH4+	air+aerosol	1.33	0.67	1.16	1.78	0.03	0.45	1.22	2.54	4.53	96	0	355
NO	air	0.17	0.27	0.10	2.74	0.00	0.02	0.09	0.60	7.09	97	0	8553
NO2	air	1.16	0.98	0.85	2.28	0.02	0.21	0.88	3.02	9.72	97	0	8553
NO3-	pm10	0.42	0.23	0.37	1.78	0.04	0.13	0.37	0.89	1.28	95	0	349
NOx	air	1.34	1.16	0.98	2.21	0.07	0.27	0.97	3.65	16.43	97	0	8553
PM10 mass	pm10	15.65	6.78	14.29	1.54	5.00	6.00	15.00	28.50	52.00	95	0	349
SO2	air	0.29	0.33	0.23	1.90	0.01	0.09	0.22	0.68	14.39	98	0	8592
SO4--	pm10	0.73	0.53	0.60	1.83	0.09	0.26	0.54	1.98	3.37	95	0	349

ES1778R Montseny
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm1	0.02	0.02	0.01	2.69	0.01	0.01	0.01	0.09	0.10	23	37	87
Ca++	pm10	0.29	0.29	0.19	2.66	0.01	0.03	0.21	0.90	1.75	24	1	90
Ca++	pm25	0.08	0.08	0.05	3.15	0.01	0.01	0.06	0.26	0.44	20	9	73
Cl-	pm1	0.01	0.00	0.01	1.31	0.01	0.01	0.01	0.01	0.03	23	82	87
Cl-	pm10	0.08	0.15	0.03	3.30	0.01	0.01	0.03	0.47	0.77	24	9	90
Cl-	pm25	0.01	0.01	0.01	1.65	0.01	0.01	0.01	0.02	0.03	20	55	73
K+	pm1	0.03	0.03	0.03	2.13	0.01	0.01	0.03	0.07	0.22	23	29	87
K+	pm10	0.10	0.08	0.08	1.87	0.01	0.03	0.08	0.31	0.40	24	1	90
K+	pm25	0.05	0.03	0.04	1.97	0.01	0.01	0.05	0.13	0.17	20	7	73
Mg++	pm1	0.01	0.01	0.01	2.10	0.01	0.01	0.01	0.04	0.09	23	65	87
Mg++	pm10	0.08	0.07	0.05	2.69	0.01	0.01	0.06	0.24	0.37	24	3	90
Mg++	pm25	0.03	0.03	0.02	2.40	0.01	0.01	0.02	0.09	0.12	20	12	73
NH4+	pm1	0.34	0.22	0.26	2.13	0.03	0.06	0.29	0.77	0.96	23	0	87
NH4+	pm10	0.19	0.14	0.15	2.03	0.03	0.03	0.16	0.41	0.91	24	0	90
NH4+	pm25	0.38	0.23	0.30	2.18	0.03	0.05	0.36	0.80	0.99	20	0	73
NO3-	pm1	0.03	0.04	0.02	2.90	0.00	0.01	0.02	0.12	0.26	23	24	87
NO3-	pm10	0.16	0.11	0.13	2.11	0.02	0.03	0.14	0.37	0.62	24	0	90
NO3-	pm25	0.07	0.08	0.04	2.58	0.01	0.01	0.04	0.23	0.52	20	3	73
Na+	pm1	0.02	0.01	0.01	2.20	0.01	0.01	0.01	0.04	0.04	23	37	87
Na+	pm10	0.28	0.25	0.18	2.91	0.01	0.03	0.20	0.78	1.18	24	1	90
Na+	pm25	0.07	0.05	0.05	2.52	0.01	0.01	0.06	0.16	0.18	20	5	73
PM1 mass	pm1	7.38	3.85	6.36	1.80	0.90	2.02	6.80	14.94	20.90	23	0	87
PM10 mass	pm10	11.45	7.32	9.59	1.83	2.60	3.00	10.00	27.05	47.00	24	0	89
PM25 mass	pm25	9.84	4.73	8.59	1.77	1.10	2.84	9.30	19.48	21.20	20	0	73
SO4--	pm1	0.36	0.25	0.26	2.43	0.03	0.05	0.29	0.83	1.01	23	0	87
SO4--	pm10	0.40	0.30	0.29	2.36	0.04	0.05	0.36	0.88	1.83	24	0	90
SO4--	pm25	0.44	0.30	0.32	2.54	0.01	0.06	0.43	0.99	1.25	20	0	73
SO4-- corr	pm1	0.36	0.25	0.26	2.43	0.03	0.05	0.29	0.83	1.01	23	0	87
SO4-- corr	pm10	0.38	0.30	0.27	2.41	0.04	0.05	0.29	0.86	1.80	24	0	90
SO4-- corr	pm25	0.43	0.30	0.31	2.54	0.01	0.06	0.43	0.98	1.24	20	0	73

FI0009R Utö
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	aerosol	0.08	0.12	0.05	2.92	0.00	0.01	0.04	0.39	0.88	98	3	363
Cl-	aerosol	0.58	0.68	0.23	5.43	0.00	0.01	0.32	1.96	5.05	98	14	363
HNO3	air	0.09	0.09	0.05	3.19	0.00	0.01	0.06	0.26	0.55	98	8	363
HNO3+NO3-	air+aerosol	0.27	0.23	0.18	2.61	0.01	0.03	0.20	0.73	1.54	98	1	363
K+	aerosol	0.05	0.03	0.04	2.02	0.00	0.01	0.04	0.11	0.25	98	0	363
Mg++	aerosol	0.07	0.06	0.05	2.39	0.00	0.01	0.06	0.19	0.35	98	0	363
NH3	air	0.09	0.10	0.05	3.34	0.00	0.00	0.06	0.29	0.75	98	33	363
NH3+NH4+	air+aerosol	0.31	0.29	0.20	2.61	0.02	0.04	0.23	0.84	2.08	98	0	363
NH4+	aerosol	0.22	0.24	0.13	2.96	0.01	0.02	0.14	0.67	1.76	98	0	363
NO	air	0.14	0.30	0.08	2.58	0.01	0.03	0.06	0.55	11.19	99	0	8678
NO2	air	1.09	1.00	0.85	1.97	0.11	0.32	0.79	2.86	17.27	99	0	8678
NO3-	aerosol	0.18	0.18	0.12	2.78	0.01	0.02	0.12	0.54	1.16	98	1	363
NOx	air	1.24	1.17	0.96	1.96	0.18	0.36	0.88	3.26	25.27	99	0	8678
Na+	aerosol	0.54	0.46	0.37	2.56	0.01	0.07	0.40	1.52	2.90	98	0	363
PM25 mass	pm25	5.31	4.48	4.21	2.12	-5.61	0.93	4.01	14.64	44.34	92	0	8092
SO2	air	0.10	0.09	0.06	2.79	0.01	0.01	0.07	0.31	0.51	98	22	363
SO4--	aerosol	0.29	0.21	0.23	2.05	0.04	0.07	0.23	0.70	1.51	98	0	363
SO4-- corr	aerosol	0.25	0.22	0.17	2.60	0.01	0.03	0.18	0.68	1.46	98	0	363

FI0018R Virolahti III
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	aerosol	0.10	0.15	0.04	3.43	0.00	0.01	0.04	0.40	1.07	97	2	359
Cl-	aerosol	0.11	0.18	0.03	5.58	0.00	0.00	0.03	0.53	1.21	97	49	359
HNO3	air	0.06	0.05	0.04	2.63	0.00	0.01	0.05	0.17	0.32	97	3	357
HNO3+NO3-	air+aerosol	0.17	0.15	0.12	2.49	0.01	0.02	0.12	0.46	1.06	97	5	357
K+	aerosol	0.05	0.04	0.04	2.01	0.00	0.01	0.04	0.12	0.31	97	1	359
Mg++	aerosol	0.03	0.03	0.02	2.66	0.00	0.00	0.02	0.08	0.17	97	2	359
NH3	air	0.10	0.12	0.05	3.86	0.00	0.00	0.05	0.37	0.71	97	40	358
NH3+NH4+	air+aerosol	0.30	0.27	0.21	2.48	0.01	0.04	0.23	0.82	1.69	97	0	358
NH4+	aerosol	0.20	0.22	0.12	2.76	0.00	0.02	0.13	0.68	1.59	97	0	359
NO	air	0.10	0.22	0.06	2.26	-0.05	0.02	0.05	0.33	5.81	99	0	8737
NO2	air	1.17	1.02	0.93	1.92	-0.06	0.34	0.90	2.81	16.02	99	0	8737
NO3-	aerosol	0.10	0.11	0.06	3.05	0.00	0.01	0.07	0.31	0.95	97	5	359
NOx	air	1.27	1.12	1.02	1.89	0.24	0.39	0.98	3.05	18.43	99	0	8737
Na+	aerosol	0.18	0.19	0.11	2.82	0.00	0.02	0.11	0.59	1.20	97	1	359
PM10 mass	pm10	12.12	11.85	8.38	2.45	-8.17	1.89	8.29	33.70	197.78	96	0	8474
PM25 mass	pm25	4.72	4.16	3.46	2.23	0.16	0.93	3.39	12.48	57.13	99	0	8741
SO2	air	0.20	0.25	0.11	3.16	0.01	0.02	0.12	0.63	2.05	97	14	357
SO2	air	0.24	0.41	0.12	2.93	-0.01	0.03	0.10	0.85	6.23	99	0	8736
SO4--	aerosol	0.28	0.23	0.22	2.13	0.02	0.06	0.22	0.71	1.55	97	0	359
SO4-- corr	aerosol	0.27	0.23	0.19	2.31	0.02	0.05	0.21	0.71	1.54	97	0	359

FI0022R Oulanka
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.02	0.02	0.01	2.35	0.00	0.00	0.01	0.08	0.08	81	0	43
Cl-	aerosol	0.05	0.11	0.01	6.94	0.00	0.00	0.01	0.37	0.59	81	12	43
HNO3	air	0.03	0.02	0.02	2.01	0.00	0.00	0.02	0.06	0.09	83	1	44
HNO3+NO3-	air+aerosol	0.04	0.02	0.03	1.90	0.01	0.01	0.04	0.10	0.11	81	3	43
K+	aerosol	0.02	0.01	0.02	1.97	0.00	0.01	0.02	0.06	0.06	81	0	43
Mg++	aerosol	0.02	0.01	0.01	1.89	0.00	0.00	0.01	0.04	0.05	81	0	43
NH3	air	0.03	0.04	0.01	4.00	0.00	0.00	0.01	0.12	0.18	83	6	44
NH3+NH4+	air+aerosol	0.09	0.08	0.07	2.21	0.02	0.02	0.06	0.28	0.33	81	0	43
NH4+	aerosol	0.07	0.06	0.05	2.13	0.01	0.02	0.04	0.23	0.28	81	0	43
NO	air	0.04	0.02	0.04	1.35	0.02	0.03	0.04	0.07	0.55	99	0	8702
NO2	air	0.37	0.21	0.33	1.64	0.10	0.15	0.32	0.78	2.19	99	0	8702
NO3-	aerosol	0.01	0.01	0.01	3.26	0.00	0.00	0.01	0.03	0.06	81	3	43
NOx	air	0.42	0.21	0.38	1.54	0.14	0.20	0.36	0.83	2.51	99	0	8702
Na+	aerosol	0.11	0.08	0.09	2.02	0.02	0.03	0.08	0.30	0.41	81	0	43
SO2	air	0.21	0.27	0.11	3.48	0.00	0.01	0.10	0.92	1.39	83	0	44
SO4--	aerosol	0.19	0.12	0.16	1.80	0.05	0.06	0.15	0.45	0.53	81	0	43
SO4-- corr	aerosol	0.18	0.12	0.15	1.91	0.04	0.04	0.14	0.43	0.53	81	0	43

FI0036R Pallas (Matorova)
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.01	0.03	0.01	3.11	0.00	0.00	0.01	0.04	0.44	96	47	358
Cl-	aerosol	0.15	0.25	0.03	7.66	0.00	0.00	0.04	0.60	1.87	96	89	358
HNO3	air	0.01	0.02	0.01	2.97	0.00	0.00	0.01	0.04	0.22	95	121	357
HNO3+NO3-	air+aerosol	0.03	0.04	0.02	2.38	0.00	0.00	0.02	0.10	0.42	95	84	357
K+	aerosol	0.01	0.01	0.01	2.62	0.00	0.00	0.01	0.04	0.10	96	29	358
Mg++	aerosol	0.02	0.02	0.01	3.31	0.00	0.00	0.01	0.05	0.13	96	34	358
NH3	air	0.03	0.05	0.01	3.22	0.00	0.00	0.01	0.13	0.42	95	196	357
NH3+NH4+	air+aerosol	0.09	0.12	0.05	2.69	0.01	0.01	0.04	0.33	0.92	95	0	357
NH4+	aerosol	0.06	0.08	0.03	2.91	0.00	0.01	0.03	0.22	0.54	96	2	358
NO3-	aerosol	0.02	0.02	0.01	2.90	0.00	0.00	0.01	0.06	0.20	96	84	358
Na+	aerosol	0.13	0.15	0.07	3.97	0.00	0.00	0.08	0.41	1.15	96	12	358
PM25 mass	pm25	1.78	2.38	0.74	6.26	0.00	0.00	0.90	6.72	23.42	94	0	8235
SO2	air	0.15	0.47	0.03	4.62	0.01	0.01	0.03	0.62	5.78	95	110	357
SO4--	aerosol	0.15	0.16	0.09	2.69	0.00	0.02	0.09	0.54	0.94	96	4	358
SO4-- corr	aerosol	0.14	0.16	0.08	3.08	0.00	0.01	0.08	0.52	0.93	96	4	358

FI0050R Hyytiälä
 January 2019 - December 2019

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	2.72	0.00	0.00	0.02	0.15	0.21	92	1	49
Cl-	aerosol	0.08	0.14	0.02	5.77	0.00	0.00	0.02	0.45	0.59	92	2	49
HNO3	air	0.05	0.04	0.04	2.16	0.01	0.01	0.04	0.15	0.17	92	0	49
HNO3+NO3-	air+aerosol	0.10	0.06	0.08	1.91	0.02	0.02	0.08	0.22	0.25	92	0	49
K+	aerosol	0.05	0.04	0.04	1.80	0.01	0.02	0.04	0.13	0.23	92	0	49
Mg++	aerosol	0.02	0.01	0.02	2.04	0.00	0.01	0.02	0.05	0.06	92	0	49
NH3	air	0.08	0.09	0.04	3.75	0.00	0.00	0.05	0.33	0.41	92	1	49
NH3+NH4+	air+aerosol	0.19	0.13	0.16	1.95	0.04	0.04	0.15	0.51	0.53	92	0	49
NH4+	aerosol	0.12	0.09	0.09	2.21	0.01	0.02	0.10	0.34	0.48	92	0	49
NO3-	aerosol	0.05	0.04	0.03	2.77	0.00	0.00	0.04	0.14	0.20	92	0	49
Na+	aerosol	0.13	0.11	0.10	2.23	0.02	0.03	0.09	0.39	0.53	92	0	49
SO2	air	0.08	0.10	0.05	2.40	0.01	0.01	0.05	0.34	0.52	92	0	49
SO4--	aerosol	0.21	0.12	0.18	1.80	0.03	0.07	0.20	0.43	0.64	92	0	49
SO4-- corr	aerosol	0.20	0.12	0.16	1.92	0.03	0.04	0.18	0.42	0.64	92	0	49

FI0096G Pallas (Sammaltunturi)
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.01	0.01	0.01	2.02	0.00	0.00	0.01	0.03	0.23	98	0	8659
NO2	air	0.31	0.15	0.29	1.48	0.13	0.16	0.27	0.62	2.78	98	0	8659
NOx	air	0.33	0.15	0.30	1.46	0.15	0.18	0.28	0.63	2.79	98	0	8659
PM10 mass	pm10	3.71	4.11	3.02	3.13	0.00	0.00	2.73	11.51	39.44	98	0	8624

FR0008R Donon
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.02	0.03	0.01	2.65	0.00	0.00	0.01	0.10	0.15	16	28	60
Cl-	pm25	0.02	0.03	0.01	2.21	0.00	0.01	0.01	0.06	0.21	16	52	60
K+	pm25	0.03	0.04	0.02	2.73	0.00	0.00	0.02	0.07	0.24	16	3	60
Mg++	pm25	0.01	0.01	0.00	2.83	0.00	0.00	0.00	0.02	0.04	16	9	60
NH4+	pm25	0.13	0.17	0.08	2.87	0.01	0.01	0.10	0.42	1.04	16	0	60
NO3-	pm25	0.18	0.45	0.05	4.84	0.00	0.01	0.03	0.79	2.68	16	2	60
Na+	pm25	0.04	0.05	0.03	2.61	0.00	0.01	0.03	0.15	0.25	16	2	60
PM10 mass	pm10	7.68	6.20	5.91	2.16	0.00	1.00	6.00	19.00	127.00	97	0	8524
PM25 mass	pm25	5.16	4.92	3.90	2.17	0.00	1.00	4.00	15.00	54.00	97	0	8545
SO4--	pm25	0.29	0.21	0.22	2.29	0.03	0.04	0.27	0.76	0.83	16	0	60

FR0009R Revin
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.03	0.04	0.02	2.28	0.01	0.01	0.02	0.13	0.16	13	15	51
Cl-	pm25	0.06	0.12	0.03	2.91	0.01	0.01	0.02	0.19	0.82	13	29	51
K+	pm25	0.04	0.04	0.03	2.15	0.01	0.01	0.03	0.17	0.21	13	0	51
Mg++	pm25	0.01	0.01	0.01	2.45	0.00	0.00	0.01	0.04	0.07	13	0	51
NH4+	pm25	0.19	0.21	0.11	2.93	0.01	0.02	0.12	0.62	1.14	13	0	51
NO3-	pm25	0.38	0.56	0.14	4.60	0.01	0.01	0.11	1.73	2.63	13	0	51
Na+	pm25	0.10	0.10	0.06	2.60	0.00	0.02	0.07	0.24	0.61	13	1	51
PM10 mass	pm10	10.32	7.42	8.43	2.03	-3.00	2.00	9.00	24.00	61.00	97	0	8582
PM25 mass	pm25	6.12	6.10	4.82	2.24	-3.00	0.00	4.00	19.00	53.00	95	0	8407
SO4--	pm25	0.33	0.20	0.26	1.99	0.04	0.07	0.30	0.79	1.01	13	0	51
SO4-- corr	pm25	0.32	0.21	0.25	2.05	0.04	0.07	0.29	0.78	1.00	13	0	51

FR0010R Morvan
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	11.09	6.77	9.44	1.80	-1.00	3.00	10.00	23.00	95.00	92	0	8081
PM25 mass	pm25	5.80	4.28	4.91	1.92	-3.00	1.00	5.00	13.00	57.00	93	0	8160

FR0013R Peyrusse Vieille
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.02	0.02	0.01	3.10	0.00	0.00	0.01	0.08	0.12	16	27	59
Cl-	pm25	0.03	0.06	0.02	2.64	0.01	0.01	0.02	0.19	0.28	16	45	59
K+	pm25	0.04	0.05	0.02	2.25	0.00	0.01	0.02	0.10	0.36	16	0	59
Mg++	pm25	0.01	0.01	0.01	2.33	0.00	0.00	0.01	0.02	0.02	16	2	59
NH4+	pm25	0.09	0.09	0.05	3.48	0.00	0.00	0.06	0.21	0.53	16	0	59
NO	air	0.05	0.06	0.06	1.79	-0.23	-0.03	0.06	0.12	2.03	95	0	8368
NO2	air	0.30	0.26	0.23	2.04	0.00	0.07	0.23	0.74	3.18	95	0	8366
NO3-	pm25	0.08	0.19	0.02	3.60	0.00	0.01	0.02	0.50	0.98	16	0	59
Na+	pm25	0.06	0.05	0.04	2.57	0.00	0.01	0.05	0.21	0.24	16	1	59
PM10 mass	pm10	10.59	7.14	8.67	1.92	1.00	3.00	9.00	23.00	61.00	98	0	8642
PM25 mass	pm25	6.55	4.84	5.16	2.04	0.00	1.00	5.00	16.00	44.00	98	0	8643
SO4--	pm25	0.28	0.19	0.21	2.26	0.03	0.05	0.24	0.66	0.72	16	0	59
SO4-- corr	pm25	0.27	0.19	0.20	2.31	0.03	0.05	0.23	0.65	0.71	16	0	59

FR0014R Montandon
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	11.29	7.34	9.27	1.94	-2.00	3.00	10.00	25.00	59.00	96	0	8465

FR0015R La Tardière
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	12.02	7.97	9.94	1.98	-3.00	2.00	10.00	28.00	61.00	95	0	8335
PM25 mass	pm25	7.69	6.20	6.07	2.04	-2.00	2.00	6.00	21.00	50.00	95	0	8339

FR0018R La Coulonche
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	11.62	7.74	9.27	2.07	0.00	2.00	10.00	27.00	63.00	98	0	8605
PM25 mass	pm25	6.62	6.10	4.78	2.31	-3.00	1.00	5.00	19.00	51.00	97	0	8573

FR0022R Observatoire Perenne de l'Environnement
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	10.98	7.38	8.92	1.96	0.36	3.22	9.12	24.21	53.17	91	0	334
PM10 mass	pm10	14.22	6.69	12.59	1.65	3.14	4.89	12.64	27.66	30.81	20	0	76
PM25 mass	pm25	9.22	5.75	7.67	1.85	1.65	2.61	8.19	21.68	34.04	42	0	156

FR0023R Saint-Nazaire-le-Désert
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.03	0.03	0.02	2.03	0.01	0.01	0.01	0.09	0.18	14	20	54
Cl-	pm25	0.02	0.04	0.01	2.35	0.00	0.00	0.01	0.13	0.24	14	48	54
K+	pm25	0.04	0.03	0.03	2.55	0.00	0.00	0.03	0.09	0.10	14	2	54
Mg++	pm25	0.01	0.01	0.00	2.72	0.00	0.00	0.00	0.02	0.03	14	5	54
NH4+	pm25	0.09	0.10	0.06	2.58	0.01	0.01	0.06	0.31	0.56	14	0	54
NO3-	pm25	0.09	0.16	0.03	4.79	0.00	0.00	0.03	0.49	0.81	14	3	54
Na+	pm25	0.05	0.05	0.03	3.14	0.00	0.00	0.03	0.15	0.23	14	7	54
PM10 mass	pm10	8.16	6.98	5.95	2.26	0.00	2.00	6.00	21.00	63.00	96	0	8439
PM25 mass	pm25	4.84	3.80	3.65	2.19	0.00	1.00	4.00	12.00	25.00	87	0	7654
SO4--	pm25	0.26	0.26	0.18	2.42	0.02	0.03	0.19	1.00	1.41	14	0	54
SO4-- corr	pm25	0.26	0.26	0.18	2.45	0.02	0.03	0.18	1.00	1.41	14	0	54

FR0024R Guipry
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.02	0.02	0.01	2.47	0.00	0.00	0.01	0.06	0.12	15	25	55
Cl-	pm25	0.18	0.23	0.08	3.88	0.01	0.01	0.09	0.76	1.11	15	12	55
K+	pm25	0.04	0.05	0.03	2.71	0.00	0.00	0.02	0.18	0.25	15	2	55
Mg++	pm25	0.02	0.02	0.01	2.57	0.00	0.00	0.01	0.07	0.09	15	1	55
NH4+	pm25	0.16	0.20	0.09	3.09	0.01	0.01	0.11	0.64	1.09	15	0	55
NO3-	pm25	0.28	0.47	0.13	3.38	0.02	0.02	0.10	1.51	2.53	15	0	55
Na+	pm25	0.14	0.16	0.08	2.90	0.00	0.01	0.08	0.50	0.82	15	0	55
PM10 mass	pm10	16.45	10.47	13.58	1.97	-3.00	4.00	14.00	37.00	118.00	88	0	7770
PM25 mass	pm25	7.20	7.03	5.60	2.32	-3.00	0.00	5.00	22.00	65.00	90	0	7885
SO4--	pm25	0.29	0.21	0.22	2.07	0.04	0.06	0.23	0.93	0.98	15	0	55
SO4-- corr	pm25	0.28	0.22	0.21	2.24	0.03	0.05	0.21	0.92	0.98	15	0	55

FR0025R Verneuil
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.02	0.02	0.01	2.62	0.00	0.00	0.01	0.07	0.08	15	26	55
Cl-	pm25	0.06	0.10	0.02	3.38	0.01	0.01	0.02	0.35	0.46	15	33	55
K+	pm25	0.04	0.05	0.03	2.28	0.01	0.01	0.03	0.18	0.22	15	0	55
Mg++	pm25	0.01	0.01	0.01	2.93	0.00	0.00	0.01	0.04	0.05	15	6	55
NH4+	pm25	0.13	0.22	0.06	3.28	0.01	0.01	0.07	0.52	1.43	15	0	55
NO3-	pm25	0.21	0.53	0.05	4.76	0.00	0.01	0.04	1.26	3.43	15	0	55
Na+	pm25	0.09	0.12	0.05	3.05	0.00	0.01	0.04	0.44	0.51	15	1	55
PM25 mass	pm25	6.88	5.88	5.44	2.12	-3.00	1.00	5.00	19.00	55.00	99	0	8702
SO4--	pm25	0.26	0.19	0.20	2.10	0.04	0.05	0.21	0.67	0.93	15	0	55
SO4-- corr	pm25	0.25	0.19	0.19	2.23	0.04	0.04	0.21	0.67	0.93	15	0	55

GB0002R Eskdalemuir
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.21	0.07	0.20	1.38	0.00	0.12	0.20	0.34	1.30	96	8445	8456
NO2	air	0.58	0.56	0.40	2.39	-0.08	0.09	0.39	1.79	4.70	96	6280	8456

GB0006R Lough Navar
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
PM10 mass	pm10	8.39	7.01	6.37	2.13	0.10	1.80	6.47	21.65	79.75	97	2112	8551

GB0013R Yarner Wood
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.18	0.30	0.13	1.94	-0.23	0.05	0.13	0.43	7.71	98	8435	8618
NO2	air	1.16	1.20	0.79	2.38	-0.20	0.22	0.73	3.43	14.69	98	4138	8618

GB0014R High Muffles
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.27	0.35	0.21	1.92	-0.04	0.08	0.20	0.61	11.03	99	8357	8681
NO2	air	1.48	1.71	0.93	2.67	0.00	0.19	0.95	4.49	17.63	99	3461	8680

GB0031R Aston Hill
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.17	0.15	0.14	1.82	-0.03	0.05	0.13	0.39	2.16	78	6779	6905
NO2	air	1.15	1.23	0.69	2.99	-0.08	0.10	0.69	3.75	11.51	78	3480	6905

GB0033R Bush
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.40	0.72	0.28	2.05	-0.02	0.11	0.25	0.99	19.49	94	7488	8280
NO2	air	1.63	1.66	1.08	2.53	0.02	0.24	1.10	4.71	17.76	94	2679	8280

GB0037R Ladybower Res.
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.36	0.31	0.30	1.79	-0.04	0.12	0.30	0.75	6.06	93	7719	8210
NO2	air	1.85	1.62	1.38	2.20	0.02	0.39	1.40	5.03	16.28	93	1503	8210
SO2	air	1.53	1.10	1.23	1.98	-0.48	0.37	1.27	3.28	13.67	58	3815	5113
SO2	air	1.53	1.16	1.23	2.05	-0.96	0.27	1.28	3.36	19.02	57	14731	20033

GB0038R Lullington Heath
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.29	0.40	0.21	2.00	-0.09	0.08	0.19	0.81	11.57	97	7998	8545
NO2	air	2.20	2.14	1.50	2.48	-0.04	0.34	1.54	6.44	19.29	97	1765	8545
SO2	air	0.56	0.45	0.43	2.14	0.00	0.10	0.44	1.36	5.61	81	6967	7100
SO2	air	0.56	0.47	0.45	2.02	-0.37	0.12	0.42	1.36	8.19	79	27483	28013

GB0043R Narberth
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.30	0.36	0.26	1.61	0.00	0.14	0.24	0.60	15.34	96	8174	8479
NO2	air	1.11	1.03	0.80	2.19	0.05	0.26	0.73	3.19	13.32	96	4022	8479
PM10 mass	pm10	11.06	8.75	8.69	2.01	0.00	2.77	8.62	30.50	82.80	75	742	6611
SO2	air	0.61	0.44	0.48	2.01	-0.69	0.13	0.49	1.46	4.55	79	6296	6996
SO2	air	0.61	0.45	0.50	1.97	-1.06	0.13	0.52	1.45	4.88	78	25129	27463

GB0045R Wicken Fen
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.46	1.08	0.23	2.60	-0.02	0.07	0.19	1.58	21.19	94	7277	8246
NO2	air	2.58	2.29	1.85	2.31	0.04	0.45	1.86	7.47	17.33	94	1047	8246
SO2	air	0.47	0.33	0.38	1.95	0.00	0.10	0.40	1.07	4.23	75	6614	6651
SO2	air	0.47	0.34	0.40	1.87	0.00	0.13	0.41	1.10	4.53	7425906	26059	

GB0048R Auchencorth Moss
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.05	0.07	0.03	2.78	0.00	0.00	0.04	0.14	2.84	79	392	6966
Ca++	pm25	0.03	0.04	0.02	2.88	0.00	0.00	0.02	0.07	1.09	81	920	7142
Cl-	pm10	0.83	1.02	0.44	3.27	0.00	0.06	0.44	2.84	7.77	81	1	7119
Cl-	pm25	0.47	0.55	0.27	3.01	0.00	0.04	0.27	1.57	4.46	83	4	7309
HNO3	air	0.02	0.03	0.02	2.55	0.00	0.00	0.02	0.07	0.34	85	74	7520
K+	pm10	0.04	0.17	0.03	2.39	0.00	0.00	0.03	0.10	13.54	79	379	6958
K+	pm25	0.02	0.03	0.02	2.77	0.00	0.00	0.02	0.07	1.41	83	1240	7298
Mg++	pm10	0.06	0.06	0.03	3.12	0.00	0.00	0.04	0.17	0.42	79	288	6966
Mg++	pm25	0.03	0.03	0.02	2.92	0.00	0.00	0.02	0.10	0.26	83	654	7307
NH3	air	1.07	1.08	0.74	2.37	0.01	0.19	0.72	3.25	14.45	85	0	7520
NH4+	pm10	0.43	0.55	0.23	3.09	0.00	0.04	0.23	1.60	4.04	79	2	6966
NH4+	pm25	0.38	0.51	0.21	3.00	0.00	0.04	0.20	1.44	3.98	83	0	7307
NO3-	pm10	0.27	0.44	0.11	3.82	0.00	0.02	0.10	1.13	3.57	81	13	7119
NO3-	pm25	0.22	0.39	0.09	3.64	0.00	0.01	0.08	0.95	3.23	83	11	7309
Na+	pm10	0.46	0.48	0.27	3.04	0.00	0.04	0.30	1.45	3.54	78	1	6846
Na+	pm25	0.27	0.29	0.16	2.91	0.00	0.03	0.17	0.85	2.15	82	2	7232
PM10 mass	pm10	6.71	6.39	4.78	2.33	0.15	1.07	4.90	19.45	76.83	99	3410	8752
PM25 mass	pm25	4.36	4.65	2.91	2.50	0.07	0.59	2.92	13.64	45.73	99	5473	8752
SO2	air	0.04	0.07	0.02	2.55	0.00	0.01	0.02	0.16	0.84	85	16	7520
SO4--	pm10	0.25	0.21	0.19	2.25	0.00	0.05	0.19	0.62	2.41	81	2	7119
SO4--	pm25	0.22	0.19	0.16	2.28	0.00	0.04	0.16	0.57	2.24	83	2	7309
SO4-- corr	pm10	0.21	0.20	0.14	2.60	-0.11	0.03	0.15	0.59	2.28	81	2	7119
SO4-- corr	pm25	0.20	0.19	0.13	2.62	-0.05	0.03	0.14	0.55	2.17	83	2	7309

GB0050R St. Osyth
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.67	1.88	0.26	3.53	-0.08	0.02	0.24	2.07	39.75	97	5572	8501
NO2	air	3.98	2.95	3.23	1.90	0.03	1.21	3.06	9.91	26.47	97	18	8501

GB0051R Market Harborough
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.67	2.48	0.22	3.44	0.00	0.04	0.18	2.54	69.67	23	1534	2024
NO2	air	3.40	3.46	2.22	2.57	0.07	0.46	2.32	11.24	22.55	23	71	2024

GB0053R Charlton Mackrell
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.41	0.63	0.29	2.03	-0.09	0.10	0.29	0.94	17.47	98	7858	8598
NO2	air	1.94	1.72	1.41	2.27	-0.38	0.38	1.40	5.46	14.56	98	1743	8595

GB1055R Chilbolton Observatory
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm10	0.32	0.36	0.15	4.59	0.00	0.01	0.21	1.08	4.35	70	1017	6165
Ca++	pm25	0.10	0.12	0.05	3.84	0.00	0.01	0.06	0.31	1.89	49	1398	4347
Cl-	pm10	1.53	1.81	0.64	5.49	0.01	0.01	0.91	5.29	12.98	71	540	6261
Cl-	pm25	0.81	0.96	0.34	5.09	0.01	0.01	0.49	2.84	6.71	50	573	4429
HNO3	air	0.03	0.03	0.01	4.06	0.00	0.00	0.02	0.09	0.48	78	1100	6918
K+	pm10	0.08	0.08	0.04	3.45	0.01	0.01	0.07	0.22	1.13	70	2674	6177
K+	pm25	0.06	0.07	0.03	3.20	0.00	0.01	0.01	0.20	0.61	49	2504	4356
Mg++	pm10	0.19	0.19	0.09	4.26	0.00	0.01	0.12	0.59	1.42	70	807	6157
Mg++	pm25	0.12	0.12	0.05	4.16	0.00	0.01	0.07	0.38	0.83	49	891	4336
NH3	air	3.95	4.49	2.54	2.88	0.01	0.75	2.56	11.97	66.02	77	94	6817
NH4+	pm10	1.07	1.29	0.60	3.17	0.01	0.10	0.64	3.53	13.80	72	94	6317
NH4+	pm25	0.99	1.37	0.47	3.78	0.01	0.06	0.50	3.63	12.11	49	102	4331
NO3-	pm10	0.80	1.13	0.40	3.41	0.00	0.06	0.39	3.02	12.33	73	7	6398
NO3-	pm25	0.69	1.14	0.29	3.94	0.00	0.04	0.24	2.94	11.74	51	34	4549
Na+	pm10	0.89	0.96	0.49	3.42	0.01	0.06	0.56	2.89	6.59	72	170	6325
Na+	pm25	0.46	0.52	0.23	4.00	0.01	0.01	0.27	1.55	3.52	51	326	4505
PM10 mass	pm10	11.91	10.06	9.23	2.04	0.50	2.75	9.00	31.02	272.00	99	910	8731
PM25 mass	pm25	8.06	7.91	5.78	2.22	0.28	1.65	5.45	23.71	127.10	99	2503	8731
SO2	air	0.04	0.05	0.03	2.44	0.00	0.00	0.03	0.11	1.12	78	467	6891
SO4--	pm10	0.48	0.30	0.40	1.83	0.00	0.14	0.41	0.99	2.81	73	1	6395
SO4--	pm25	0.39	0.30	0.31	2.09	0.00	0.10	0.30	0.93	2.61	51	21	4549
SO4-- corr	pm10	0.40	0.31	0.31	2.15	-0.09	0.08	0.32	0.96	2.79	73	1	6395
SO4-- corr	pm25	0.35	0.31	0.25	2.34	-0.04	0.07	0.26	0.91	2.61	51	21	4549

GR0001R Aliartos
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NO	air	1.18	2.27	0.70	2.19	0.47	0.47	0.47	4.67	28.01	70	0	6179
NO2	air	3.13	2.85	2.07	2.56	0.30	0.61	2.13	9.13	19.18	70	0	6179
NOx	air	4.31	4.45	2.95	2.31	0.77	1.08	2.62	13.30	44.86	70	0	6176
PM10 mass	pm10	22.50	14.45	18.85	1.87	1.00	7.00	20.00	47.00	278.00	57	0	5043
PM25 mass	pm25	12.87	10.18	10.32	1.98	0.00	3.00	10.00	30.00	119.00	56	0	4975
SO2	air	3.37	2.70	2.62	2.00	1.00	1.00	2.50	8.50	27.00	83	0	7339

HR0002R Puntijarka
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
PM10 mass	pm10	10.36	6.48	8.54	1.91	0.90	2.79	9.20	23.56	46.40	97	0	356
PM25 mass	pm25	5.52	3.47	4.54	1.91	0.50	1.40	4.80	12.18	26.00	97	0	355

HU0002R K-pusztá
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
HNO3	air	0.19	0.11	0.16	1.93	0.01	0.06	0.16	0.40	0.55	99	2	365
NH3	air	1.87	0.95	1.58	1.95	0.04	0.54	1.79	3.45	5.14	99	3	365
NH4+	aerosol	0.59	0.65	0.31	3.59	0.01	0.02	0.34	2.06	3.54	99	14	365
NO2	air	1.04	0.64	0.90	1.71	0.04	0.44	0.87	2.19	4.64	100	1	366
NO3-	aerosol	0.39	0.51	0.22	3.00	0.01	0.04	0.21	1.44	4.22	99	4	365
PM10 mass	pm10	15.54	8.31	13.71	1.65	4.30	6.12	13.64	30.91	55.90	78	0	285
PM25 mass	pm25	12.23	8.54	10.16	1.82	2.20	3.79	10.20	30.08	74.93	81	0	296
PM25 mass	pm25	16.36	9.71	14.05	1.73	2.59	5.95	13.97	34.85	74.93	88	0	324
SO2	air	0.59	0.88	0.28	3.51	0.02	0.02	0.28	2.03	7.59	99	22	365
SO4--	aerosol	0.69	0.56	0.50	2.33	0.02	0.13	0.53	1.96	2.97	99	0	365

IE0001R Valentia Observatory
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.21	0.39	0.14	2.40	0.03	0.03	0.15	0.49	4.85	82	33	301
Cl-	aerosol	7.76	14.40	5.07	2.31	0.28	1.36	5.42	15.39	184.00	82	0	301
HNO3+NO3-	air+aerosol	0.37	0.39	0.28	1.97	0.09	0.12	0.23	1.27	2.81	80	0	295
K+	aerosol	0.17	0.38	0.11	2.39	0.03	0.03	0.12	0.35	4.88	82	46	301
Mg++	aerosol	0.45	1.17	0.23	2.92	0.03	0.03	0.26	0.93	14.71	82	22	301
NH3+NH4+	air+aerosol	0.88	1.15	0.62	2.13	0.09	0.22	0.54	2.65	10.91	77	0	282
NO2	air	1.92	2.11	1.12	3.14	0.05	0.13	1.20	6.27	15.20	99	12	365
Na+	aerosol	4.31	9.53	2.53	2.67	0.03	0.49	2.76	8.21	121.16	82	1	301
SO2	air	0.20	0.14	0.17	1.91	0.01	0.05	0.16	0.43	1.01	82	1	301
SO4--	aerosol	0.58	0.82	0.45	1.98	0.01	0.19	0.45	0.99	10.73	82	3	301
SO4-- corr	aerosol	0.22	0.21	0.14	2.94	-0.03	0.01	0.15	0.69	1.16	82	3	301

IE0005R Oak Park
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.07	0.07	0.05	2.09	0.01	0.02	0.04	0.19	0.54	98	31	358
Cl-	aerosol	1.25	1.10	0.96	2.05	0.20	0.31	0.93	3.25	13.17	98	0	358
K+	aerosol	0.05	0.03	0.04	1.80	0.01	0.02	0.04	0.11	0.30	98	5	358
Mg++	aerosol	0.07	0.07	0.05	2.21	0.01	0.02	0.05	0.19	0.85	98	27	358
NH4+	aerosol	0.59	0.71	0.41	2.12	0.13	0.17	0.34	2.35	4.46	98	0	358
NO3-	aerosol	0.30	0.47	0.14	3.28	0.01	0.03	0.13	1.30	3.58	98	1	358
Na+	aerosol	0.66	0.62	0.48	2.30	0.04	0.10	0.48	1.83	7.32	98	0	358
SO4--	aerosol	0.29	0.22	0.23	1.85	0.06	0.10	0.22	0.71	1.58	98	0	358
SO4-- corr	aerosol	0.23	0.21	0.16	2.40	0.02	0.03	0.16	0.66	1.57	98	0	358

IE0006R Malin Head
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.10	0.07	0.08	2.02	0.01	0.02	0.08	0.25	0.42	100	4	365
Cl-	aerosol	3.32	2.49	2.53	2.15	0.38	0.66	2.55	9.08	13.09	100	0	365
K+	aerosol	0.09	0.05	0.07	1.83	0.02	0.03	0.07	0.20	0.43	100	0	365
Mg++	aerosol	0.20	0.17	0.15	2.38	0.01	0.03	0.15	0.56	0.86	100	2	365
NH4+	aerosol	0.46	0.66	0.30	2.18	0.09	0.12	0.25	1.84	5.18	100	0	365
NO3-	aerosol	0.23	0.49	0.08	4.12	0.00	0.01	0.06	1.00	3.99	100	4	365
Na+	aerosol	1.86	1.40	1.41	2.16	0.17	0.37	1.43	4.92	8.12	100	0	365
SO4--	aerosol	0.35	0.20	0.31	1.60	0.08	0.15	0.30	0.72	1.66	100	0	365
SO4-- corr	aerosol	0.19	0.21	0.12	2.82	0.00	0.02	0.12	0.63	1.45	100	0	365

IE0008R Carnsore Point
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.18	0.14	0.13	2.23	0.01	0.03	0.13	0.44	0.76	82	1	302
Cl-	aerosol	5.86	4.70	4.10	2.46	0.44	0.82	4.47	14.93	24.53	82	0	302
K+	aerosol	0.15	0.12	0.12	2.13	0.01	0.03	0.12	0.37	1.17	82	1	302
Mg++	aerosol	0.40	0.35	0.27	2.65	0.02	0.05	0.28	1.04	2.47	82	1	302
NH4+	aerosol	0.60	0.87	0.39	2.21	0.13	0.16	0.32	2.64	6.30	82	0	302
NO3-	aerosol	0.40	0.74	0.16	3.50	0.01	0.03	0.14	1.76	5.40	82	0	302
Na+	aerosol	3.41	2.85	2.40	2.42	0.27	0.54	2.52	8.63	20.40	82	0	302
SO4--	aerosol	0.52	0.31	0.44	1.74	0.10	0.18	0.45	1.06	2.89	82	0	302

IS0002R Irafoss
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.22	0.33	0.10	3.46	0.01	0.03	0.09	1.03	1.83	93	121	342
Cl-	aerosol	1.23	1.56	0.63	3.28	0.05	0.10	0.63	4.87	8.58	93	50	342
K+	aerosol	0.60	10.35	0.03	2.70	0.01	0.01	0.04	0.13	191.44	93	124	342
Mg++	aerosol	0.17	0.16	0.10	3.11	0.01	0.01	0.11	0.53	0.82	93	10	342
Na+	aerosol	0.74	0.84	0.43	3.10	0.00	0.06	0.43	2.63	4.44	93	15	342
SO2	air	0.09	0.12	0.05	2.95	0.01	0.01	0.04	0.36	1.11	93	100	342
SO4--	aerosol	0.18	0.19	0.11	2.80	0.00	0.02	0.12	0.52	1.64	93	5	342
SO4-- corr	aerosol	0.11	0.17	0.06	3.37	-0.15	0.01	0.05	0.42	1.54	93	5	342

IS0091R Storhofdi
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	aerosol	12.15	8.45	10.65	1.80	4.37	4.37	9.84	39.52	39.52	72	0	19
NO3-	aerosol	0.06	0.06	0.03	5.49	0.00	0.00	0.04	0.17	0.17	72	2	19
SO4--	aerosol	0.66	0.33	0.62	1.58	0.23	0.23	0.65	1.66	1.66	72	0	19
SO4-- corr	aerosol	0.39	0.31	0.37	2.33	-0.10	-0.10	0.36	1.11	1.11	72	0	19

IT0004R Ispra
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
CO	air	247.45	162.88	215.47	1.61	106.00	129.00	183.00	621.15	1830.00	99	0	8696
Ca++	pm25	0.02	0.03	0.01	2.68	-0.00	0.00	0.01	0.06	0.29	96	341	354
Cl-	pm25	0.05	0.09	0.02	4.67	-0.01	-0.01	0.01	0.23	0.62	96	306	354
K+	pm25	0.17	0.28	0.08	3.56	-0.00	0.01	0.06	0.70	2.78	96	154	354
Mg++	pm25	0.00	0.01	0.00	2.53	-0.00	0.00	0.00	0.02	0.18	96	346	354
NH4+	pm25	0.78	0.85	0.49	2.69	-0.01	0.08	0.49	2.66	5.61	96	19	354
NO2	air	4.98	3.94	3.89	1.99	0.20	1.41	3.61	13.14	29.08	99	2	8685
NO3-	pm25	0.48	0.83	0.13	5.70	0.00	0.01	0.12	2.44	5.42	96	216	354
Na+	pm25	0.05	0.05	0.04	2.74	-0.01	0.00	0.04	0.15	0.27	96	221	354
PM25 mass	pm25	13.10	10.89	9.91	2.17	0.30	2.90	9.50	35.55	69.40	96	23	352
SO2	air	0.30	0.29	0.20	2.38	-0.01	0.06	0.20	0.83	3.45	99	4010	8708
SO4--	pm25	0.35	0.30	0.24	2.50	0.01	0.05	0.25	0.93	1.74	96	86	354
SO4-- corr	pm25	0.35	0.30	0.24	2.51	0.01	0.05	0.25	0.93	1.74	96	86	354

IT0019R Monte Martano
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.26	0.05	0.25	1.12	0.25	0.25	0.25	0.25	0.68	43	0	158
Cl-	pm10	0.11	0.03	0.10	1.18	0.10	0.10	0.10	0.10	0.44	44	0	163
K+	pm10	0.02	0.03	0.02	1.77	0.01	0.01	0.01	0.07	0.25	43	0	158
Mg++	pm10	0.03	0.00	0.03	1.08	0.03	0.03	0.03	0.03	0.05	43	0	158
NH4+	pm10	0.18	0.20	0.11	2.71	0.04	0.04	0.10	0.55	1.09	43	0	158
NO	air	0.47	0.47	0.36	1.90	0.25	0.25	0.25	1.07	19.08	94	0	8293
NO2	air	0.70	0.62	0.49	2.42	0.16	0.16	0.57	1.83	8.55	95	0	8333
NO3-	pm10	0.08	0.11	0.05	2.11	0.03	0.03	0.03	0.24	0.87	44	0	163
NOx	air	1.01	0.89	0.70	2.41	0.25	0.25	0.81	2.55	23.16	94	0	8293
Na+	pm10	0.08	0.09	0.07	1.73	0.05	0.05	0.05	0.20	0.80	43	0	158
PM10 mass	pm10	11.43	7.88	9.25	1.95	1.30	3.03	9.70	26.57	53.30	83	0	305
PM25 mass	pm25	7.20	4.76	5.73	2.10	0.50	1.40	6.50	15.93	32.80	80	0	293
SO4--	pm10	0.19	0.23	0.11	2.68	0.05	0.05	0.05	0.64	1.34	44	0	163
SO4-- corr	pm10	0.18	0.22	0.11	2.73	0.03	0.04	0.05	0.64	1.34	44	0	163

LT0015R Preila
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.23	0.25	0.14	2.84	0.02	0.02	0.17	0.74	1.69	93	0	343
Cl-	aerosol	2.65	2.83	1.39	3.43	0.05	0.25	1.44	8.30	17.45	98	0	359
HNO3+NO3-	air+aerosol	0.51	0.46	0.36	2.37	0.02	0.08	0.37	1.42	3.82	98	0	359
K+	aerosol	0.20	0.16	0.16	1.89	0.02	0.06	0.17	0.46	1.57	85	0	312
NH3+NH4+	air+aerosol	0.87	0.75	0.59	2.63	0.04	0.11	0.66	2.23	5.60	90	0	330
NH4+	aerosol	0.62	0.62	0.36	3.23	0.02	0.03	0.42	1.78	4.87	98	0	359
NO2	air	0.82	0.54	0.65	2.15	0.02	0.18	0.72	1.79	3.53	100	0	366
NO3-	aerosol	0.48	0.46	0.32	2.62	0.01	0.06	0.35	1.40	3.70	98	0	359
Na+	aerosol	1.60	1.52	0.98	2.94	0.07	0.15	1.09	4.47	9.85	98	0	359
SO2	air	0.17	0.17	0.12	2.21	0.01	0.03	0.12	0.54	1.14	88	0	325
SO4--	aerosol	0.50	0.32	0.42	1.85	0.04	0.16	0.43	1.11	2.18	98	0	359
SO4-- corr	aerosol	0.38	0.36	0.27	2.76	-0.16	0.00	0.28	1.04	2.16	98	0	359

LV0010R Rucava
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.09	0.14	0.03	4.57	0.01	0.01	0.02	0.36	0.73	96	31	51
Cl-	pm25	0.04	0.06	0.01	4.53	0.00	0.00	0.01	0.20	0.29	96	23	51
HNO3	air	0.36	0.32	0.24	2.65	0.00	0.04	0.26	0.96	1.92	79	4	291
HNO3+NO3-	air+aerosol	0.43	0.34	0.34	2.02	0.07	0.11	0.33	1.14	2.18	73	0	269
K+	pm25	0.08	0.07	0.05	2.49	0.00	0.01	0.06	0.26	0.33	96	11	51
Mg++	pm25	0.01	0.01	0.01	2.49	0.00	0.00	0.01	0.03	0.03	96	37	51
NH3	air	0.38	0.42	0.20	3.54	0.02	0.02	0.21	1.38	1.89	79	74	292
NH3+NH4+	air+aerosol	0.94	0.66	0.73	2.11	0.12	0.19	0.75	2.33	3.08	79	0	291
NH4+	aerosol	0.56	0.42	0.41	2.66	0.00	0.08	0.49	1.39	2.62	80	17	293
NH4+	pm25	0.34	0.29	0.25	2.25	0.03	0.05	0.29	1.07	1.59	96	0	51
NO2	air	0.64	0.44	0.53	2.01	0.01	0.21	0.53	1.57	3.25	85	5	312
NO3-	aerosol	0.05	0.05	0.04	1.75	0.01	0.03	0.03	0.14	0.46	73	265	270
NO3-	pm25	0.07	0.10	0.04	2.95	0.01	0.01	0.03	0.34	0.47	96	0	51
Na+	pm25	0.08	0.07	0.05	2.68	0.00	0.01	0.06	0.28	0.32	96	10	51
PM10 mass	pm10	15.15	11.51	11.60	2.17	0.20	3.30	11.70	35.96	82.90	93	0	340
PM25 mass	pm25	8.83	7.90	5.93	2.61	0.20	1.10	5.70	26.75	39.60	84	0	308
SO2	air	0.18	0.20	0.11	2.71	0.01	0.03	0.11	0.60	1.34	76	85	279
SO4--	aerosol	0.34	0.29	0.25	2.39	0.01	0.05	0.28	0.89	2.01	80	9	294
SO4--	pm25	0.44	0.25	0.37	1.88	0.04	0.14	0.36	1.05	1.17	96	0	51
SO4-- corr	pm25	0.44	0.25	0.36	1.90	0.03	0.14	0.36	1.05	1.16	96	0	51

MK0007R Lazaropole
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	0.64	0.27	0.60	1.40	0.21	0.38	0.58	1.25	3.72	90	0	7904
PM10 mass	pm10	14.99	15.02	9.69	3.17	0.01	1.57	11.46	37.45	239.60	86	0	7586
SO2	air	0.34	0.86	0.17	2.61	0.01	0.05	0.15	1.26	28.00	87	0	7708

MT0001R Giordan Lighthouse
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
CO	air	108.35	17.49	107.06	1.17	71.40	85.40	106.30	141.80	275.30	85	0	7501
SO2	air	0.54	0.49	0.45	1.75	0.07	0.22	0.40	1.30	10.73	64	0	5611

NL0007R Eibergen
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.96	2.37	0.39	3.43	-0.20	0.03	0.33	3.76	33.51	99	0	8696
NO2	air	4.21	2.80	3.42	1.93	0.30	1.12	3.49	9.73	21.62	99	0	8695
PM10 mass	pm10	15.92	11.58	13.07	2.17	-19.89	1.87	14.67	36.43	132.43	99	0	8697
SO2	air	0.32	0.71	0.16	3.13	-0.10	0.01	0.14	1.12	16.90	98	0	8630

NL0008R Bilthoven
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.25	0.15	0.22	1.67	0.05	0.11	0.20	0.55	0.95	49	0	182
Mg++	pm10	0.13	0.10	0.10	1.97	0.02	0.03	0.10	0.33	0.55	49	1	182
Na+	pm10	0.88	0.87	0.56	2.72	0.06	0.10	0.61	2.69	4.57	49	0	182

NL0009R Kollumerwaard
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.45	1.25	0.21	3.63	-0.33	-0.06	0.15	1.61	20.27	98	0	8587
NO2	air	2.48	2.46	1.59	2.96	-1.52	0.15	1.79	7.23	18.15	97	0	8564
PM10 mass	pm10	17.42	15.28	13.99	2.36	-19.89	-0.69	14.67	44.11	292.43	96	0	8487
PM25 mass	pm25	8.38	9.33	5.56	2.82	-4.73	0.15	5.39	27.17	70.67	98	0	8602
SO2	air	0.19	0.29	0.12	2.96	-0.17	-0.02	0.11	0.75	4.11	97	0	8505

NL0010R Vredepeel
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	pm10	0.79	0.99	0.46	2.81	0.07	0.10	0.43	2.85	7.19	49	6	182
NH4+	pm10	1.05	1.15	0.58	3.31	0.04	0.06	0.68	3.23	7.28	49	0	182
NO	air	1.40	3.11	0.54	3.73	-0.58	0.05	0.46	6.42	56.61	99	0	8715
NO2	air	4.82	3.54	3.71	2.11	-0.25	1.13	3.67	11.81	28.84	99	0	8715
NO3-	pm10	1.09	0.93	0.82	2.12	0.18	0.26	0.78	3.12	6.30	49	0	182
PM10 mass	pm10	18.11	15.72	14.25	2.43	-23.73	-0.69	15.95	45.77	210.51	99	0	8713
PM25 mass	pm25	12.08	9.05	9.55	2.03	-2.13	3.14	9.27	28.90	92.41	99	0	8715
SO4--	pm10	0.62	0.36	0.54	1.71	0.17	0.24	0.54	1.26	2.34	49	0	182
SO4-- corr	pm10	0.61	0.36	0.52	1.78	0.08	0.23	0.53	1.26	2.34	49	0	182

NL0091R De Zilk
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	pm10	1.63	1.86	0.81	3.49	0.08	0.11	0.69	5.93	7.42	49	6	181
NH4+	pm10	0.74	1.10	0.30	4.08	0.02	0.03	0.31	2.77	8.15	49	5	181
NO	air	1.14	3.60	0.28	4.96	-0.18	-0.03	0.18	5.49	74.73	99	0	8718
NO2	air	4.38	3.97	2.85	2.69	0.02	0.51	3.10	12.78	23.29	99	0	8718
NO3-	pm10	0.89	0.89	0.63	2.22	0.11	0.18	0.60	2.49	7.21	49	0	181
PM10 mass	pm10	16.44	12.28	13.61	2.17	-25.01	0.59	14.67	36.43	254.03	99	0	8697
PM25 mass	pm25	8.88	8.94	6.48	2.60	-4.91	-0.05	6.54	25.37	174.22	98	0	8603
SO2	air	0.33	0.46	0.20	2.96	-0.15	0.00	0.19	1.12	10.82	98	0	8652
SO4--	pm10	0.56	0.31	0.50	1.58	0.15	0.25	0.47	1.15	2.39	49	0	181
SO4-- corr	pm10	0.54	0.31	0.48	1.66	0.12	0.20	0.46	1.15	2.39	49	0	181

NL0644R Cabauw Wielsekade
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
CO	air	182.75	69.93	171.86	1.41	49.95	100.55	166.25	313.33	881.03	96	0	8432
Ca++	pm25	0.11	0.08	0.09	1.90	0.01	0.03	0.09	0.28	0.44	24	10	90
Mg++	pm25	0.03	0.03	0.03	1.97	0.01	0.01	0.02	0.10	0.15	24	22	90
NO	air	1.41	3.53	0.49	3.93	-0.30	0.00	0.39	6.26	55.60	99	0	8697
NO2	air	4.82	3.55	3.74	2.07	-0.08	1.13	3.78	12.31	23.27	99	0	8697
Na+	pm25	0.23	0.23	0.16	2.30	0.03	0.05	0.14	0.75	1.28	24	1	90
PM10 mass	pm10	15.29	13.54	12.43	2.33	-19.89	-0.69	13.39	37.71	389.71	99	0	8718
PM25 mass	pm25	9.53	9.99	6.78	2.82	-4.99	-0.64	6.73	27.98	262.72	97	0	8542
SO2	air	0.36	0.48	0.23	2.82	-0.09	0.01	0.21	1.20	9.88	99	0	8683

NO0002R Birkenes II
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
CO	air	124.92	26.02	122.52	1.21	76.50	90.29	121.15	175.78	264.71	95	0	8334
Ca++	aerosol	0.05	0.09	0.02	3.24	0.01	0.01	0.02	0.21	1.16	99	88	365
Cl-	aerosol	0.50	0.92	0.16	5.19	0.01	0.01	0.16	2.08	9.01	100	47	366
HNO3	air	0.03	0.04	0.02	2.49	0.01	0.01	0.01	0.13	0.28	99	257	365
HNO3+NO3-	air+aerosol	0.15	0.20	0.08	3.07	0.01	0.02	0.08	0.57	1.50	99	0	365
K+	aerosol	0.06	0.08	0.04	2.78	0.01	0.01	0.04	0.21	0.74	96	31	355
Mg++	aerosol	0.06	0.07	0.03	3.11	0.01	0.01	0.03	0.19	0.62	99	58	365
NH3	air	0.16	0.20	0.10	2.59	0.02	0.02	0.10	0.59	1.70	99	56	365
NH3+NH4+	air+aerosol	0.32	0.38	0.18	2.93	0.02	0.03	0.18	1.19	2.41	99	0	365
NH4+	aerosol	0.16	0.25	0.05	5.59	0.01	0.01	0.06	0.59	1.97	99	98	365
NO2	air	0.32	0.18	0.27	1.79	0.01	0.09	0.30	0.60	2.07	99	2	365
NO3-	aerosol	0.12	0.18	0.05	4.21	0.01	0.01	0.06	0.45	1.49	100	62	366
Na+	aerosol	0.42	0.60	0.18	4.64	0.01	0.01	0.22	1.47	5.55	99	26	365
PM10 mass	pm10	4.50	5.12	3.44	2.87	-10.70	-1.30	3.20	14.20	35.10	88	0	7734
PM10 mass	pm10	4.61	3.21	3.61	2.16	0.13	1.11	3.97	11.40	17.83	100	0	53
PM10-PM25	pm10_pm25	2.08	1.19	1.76	1.78	0.58	0.69	1.84	4.91	5.93	94	0	50
PM25 mass	pm25	2.74	2.29	2.03	2.20	0.17	0.54	2.05	8.61	11.90	96	0	51
SO2	air	0.07	0.09	0.03	3.23	0.01	0.01	0.03	0.28	0.47	99	140	365
SO4--	aerosol	0.20	0.21	0.12	3.43	0.01	0.01	0.15	0.60	1.43	100	14	366
SO4-- corr	aerosol	0.17	0.20	0.08	3.82	0.00	0.01	0.11	0.54	1.39	100	14	366

NO0015R Tustervatn
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.03	0.05	0.01	2.98	0.00	0.01	0.01	0.10	0.54	98	146	359
Cl-	aerosol	0.38	0.79	0.09	6.22	0.01	0.01	0.08	2.02	6.48	98	112	359
HNO3	air	0.02	0.02	0.02	1.54	0.00	0.01	0.01	0.04	0.23	98	330	359
HNO3+NO3-	air+aerosol	0.06	0.12	0.04	2.28	0.00	0.02	0.03	0.24	0.99	98	0	359
K+	aerosol	0.03	0.04	0.02	2.80	0.00	0.01	0.02	0.10	0.38	97	117	356
Mg++	aerosol	0.03	0.05	0.02	3.11	0.00	0.01	0.02	0.13	0.40	98	122	359
NH3	air	0.29	0.27	0.18	2.86	0.02	0.03	0.21	0.82	2.02	96	43	355
NH3+NH4+	air+aerosol	0.37	0.35	0.24	2.74	0.03	0.03	0.25	1.15	2.03	96	0	355
NH4+	aerosol	0.08	0.18	0.02	5.04	0.00	0.01	0.01	0.48	1.47	98	197	359
NO2	air	0.14	0.07	0.12	1.73	0.01	0.05	0.13	0.25	0.69	99	7	365
NO3-	aerosol	0.05	0.11	0.02	3.48	0.00	0.01	0.01	0.20	0.97	98	145	359
Na+	aerosol	0.26	0.45	0.08	5.67	0.01	0.01	0.10	1.14	3.61	98	68	359
SO2	air	0.05	0.10	0.02	2.48	0.00	0.01	0.01	0.18	1.22	98	249	359
SO4--	aerosol	0.14	0.16	0.07	3.49	0.01	0.01	0.09	0.46	1.13	98	34	359
SO4-- corr	aerosol	0.12	0.16	0.06	3.77	-0.01	0.01	0.05	0.46	1.13	98	34	358

NO0039R Kärvatn
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.03	0.08	0.01	3.07	0.01	0.01	0.01	0.12	1.17	99	170	365
Cl-	aerosol	0.18	0.42	0.04	4.99	0.01	0.01	0.03	0.88	3.62	99	169	365
HNO3	air	0.02	0.03	0.01	1.70	0.01	0.01	0.01	0.04	0.30	99	337	365
HNO3+NO3-	air+aerosol	0.04	0.06	0.03	2.02	0.01	0.02	0.02	0.14	0.47	99	0	365
K+	aerosol	0.03	0.06	0.02	3.10	0.01	0.01	0.01	0.13	0.44	99	130	363
Mg++	aerosol	0.02	0.03	0.01	2.75	0.01	0.01	0.01	0.08	0.25	99	175	365
NH3	air	0.40	0.42	0.23	3.14	0.02	0.03	0.26	1.22	2.52	99	38	365
NH3+NH4+	air+aerosol	0.46	0.49	0.26	3.08	0.03	0.03	0.28	1.57	3.11	99	0	365
NH4+	aerosol	0.06	0.15	0.01	4.30	0.01	0.01	0.01	0.24	1.36	99	240	365
NO2	air	0.16	0.09	0.14	1.70	0.01	0.06	0.15	0.35	0.75	99	2	365
NO3-	aerosol	0.02	0.04	0.01	2.92	0.01	0.01	0.01	0.10	0.29	99	205	365
Na+	aerosol	0.14	0.25	0.04	5.81	0.01	0.01	0.04	0.57	2.10	99	131	365
PM10 mass	pm10	2.93	2.76	2.03	2.63	0.00	0.12	2.31	8.49	15.95	98	0	52
PM10-PM25	pm10_pm25	1.23	0.99	0.82	2.85	0.06	0.09	1.03	3.16	4.85	90	0	48
PM25 mass	pm25	1.91	1.97	1.31	2.33	0.29	0.41	1.08	5.72	11.10	100	0	53
SO2	air	0.03	0.05	0.02	2.22	0.01	0.01	0.01	0.09	0.43	99	272	365
SO4--	aerosol	0.10	0.18	0.04	4.27	0.01	0.01	0.04	0.40	1.71	99	78	365
SO4-- corr	aerosol	0.09	0.18	0.03	4.27	-0.01	0.01	0.03	0.38	1.70	99	78	365

NO0042G Zeppelin mountain (Ny-Ålesund)
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.03	0.05	0.02	2.62	0.01	0.01	0.02	0.08	0.53	97	95	356
Cl-	aerosol	0.32	0.49	0.14	4.07	0.01	0.01	0.17	1.17	5.78	97	43	356
HNO3	air	0.01	0.01	0.01	1.24	0.01	0.01	0.01	0.01	0.11	97	352	356
HNO3+NO3-	air+aerosol	0.03	0.02	0.02	1.41	0.01	0.02	0.02	0.05	0.22	97	0	356
K+	aerosol	0.05	0.06	0.03	2.78	0.01	0.01	0.03	0.13	0.46	94	60	344
Mg++	aerosol	0.04	0.04	0.02	2.66	0.01	0.01	0.03	0.12	0.45	97	60	356
NH3	air	0.10	0.07	0.08	2.14	0.02	0.03	0.09	0.22	0.68	97	96	357
NH3+NH4+	air+aerosol	0.12	0.07	0.11	1.87	0.03	0.03	0.12	0.24	0.44	97	0	356
NH4+	aerosol	0.03	0.04	0.01	3.21	0.01	0.01	0.01	0.11	0.20	97	208	356
NO3-	aerosol	0.01	0.01	0.01	2.08	0.01	0.01	0.01	0.03	0.10	97	211	356
Na+	aerosol	0.24	0.32	0.12	3.89	0.01	0.01	0.13	0.81	3.54	97	25	356
SO2	air	0.08	0.18	0.03	3.14	0.01	0.01	0.01	0.36	1.21	97	224	356
SO4--	aerosol	0.11	0.12	0.06	3.18	0.01	0.01	0.08	0.32	0.75	97	26	356
SO4-- corr	aerosol	0.09	0.11	0.05	3.30	0.00	0.01	0.06	0.29	0.72	97	26	356

NO0056R Hurdal
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.04	0.07	0.02	3.08	0.01	0.01	0.01	0.12	0.59	100	120	366
Cl-	aerosol	0.14	0.30	0.04	4.31	0.01	0.01	0.03	0.58	2.71	100	135	366
HNO3	air	0.02	0.03	0.01	1.98	0.01	0.01	0.01	0.06	0.20	100	291	366
HNO3+NO3-	air+aerosol	0.09	0.10	0.05	2.48	0.01	0.02	0.05	0.27	1.03	100	0	366
K+	aerosol	0.04	0.04	0.02	2.74	0.01	0.01	0.02	0.12	0.28	98	70	359
Mg++	aerosol	0.02	0.03	0.01	2.57	0.01	0.01	0.01	0.07	0.23	100	140	366
NH3	air	0.14	0.12	0.10	2.40	0.02	0.02	0.11	0.38	0.85	100	63	366
NH3+NH4+	air+aerosol	0.24	0.24	0.16	2.48	0.02	0.03	0.16	0.77	1.81	100	0	366
NH4+	aerosol	0.10	0.15	0.03	5.11	0.01	0.01	0.04	0.38	1.24	100	136	366
NO2	air	0.50	0.66	0.36	2.13	0.01	0.10	0.34	1.38	8.28	99	1	364
NO3-	aerosol	0.06	0.09	0.03	3.59	0.01	0.01	0.04	0.23	0.99	100	77	366
Na+	aerosol	0.14	0.21	0.05	4.60	0.01	0.01	0.06	0.51	1.71	100	71	366
PM10 mass	pm10	4.58	3.25	3.75	1.86	0.91	1.09	4.06	11.40	19.61	98	0	52
PM10-PM25	pm10_pm25	1.92	1.50	1.39	2.40	0.16	0.25	1.71	5.63	7.14	98	0	52
PM25 mass	pm25	2.65	2.09	2.11	1.93	0.62	0.74	1.94	6.48	12.48	98	0	52
SO2	air	0.04	0.07	0.02	2.58	0.01	0.01	0.01	0.14	0.76	100	231	366
SO4--	aerosol	0.14	0.16	0.08	3.33	0.01	0.01	0.08	0.45	1.21	100	16	366
SO4-- corr	aerosol	0.13	0.16	0.07	3.39	0.00	0.01	0.07	0.41	1.21	100	16	366

PL0002R Jarczew
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	aerosol	0.59	0.34	0.50	1.87	0.05	0.13	0.54	1.13	3.46	98	5	362
HNO3+NO3-	air+aerosol	0.54	0.42	0.42	2.03	0.03	0.14	0.40	1.33	2.67	98	0	362
NH3+NH4+	air+aerosol	2.68	1.86	2.19	1.89	0.38	0.70	2.25	5.51	15.07	98	0	362
NH4+	aerosol	0.89	0.54	0.76	1.77	0.11	0.26	0.79	1.91	4.78	98	0	362
NO2	air	1.11	0.42	1.04	1.45	0.40	0.60	1.10	1.80	3.20	100	0	366
NO3-	aerosol	0.45	0.41	0.33	2.18	0.02	0.11	0.31	1.25	2.61	98	0	362
SO2	air	0.73	0.53	0.56	2.14	0.10	0.20	0.60	1.70	3.60	98	15	362
SO4--	aerosol	0.99	0.45	0.87	1.76	0.10	0.29	0.95	1.80	2.98	98	6	362
SO4-- corr	aerosol	0.98	0.45	0.86	1.75	0.10	0.29	0.95	1.75	2.89	98	6	362

PL0003R Sniezka
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Cl-	aerosol	0.54	0.24	0.47	1.79	0.05	0.17	0.54	0.96	1.31	100	6	366
HNO3+NO3-	air+aerosol	0.67	0.26	0.62	1.50	0.15	0.28	0.66	1.07	2.28	100	0	366
NH3+NH4+	air+aerosol	0.85	0.33	0.78	1.58	0.13	0.34	0.86	1.45	1.88	100	0	366
NH4+	aerosol	0.62	0.25	0.56	1.66	0.06	0.22	0.62	1.04	1.35	100	0	366
NO2	air	1.12	0.42	1.04	1.45	0.40	0.60	1.10	1.80	3.20	100	0	366
NO3-	aerosol	0.60	0.24	0.55	1.52	0.09	0.26	0.59	0.96	2.08	100	0	366
SO2	air	1.20	0.39	1.14	1.38	0.30	0.70	1.10	2.00	3.00	100	0	366
SO4--	aerosol	0.96	0.35	0.88	1.58	0.10	0.39	0.94	1.59	2.17	100	5	366
SO4-- corr	aerosol	0.95	0.35	0.88	1.59	0.08	0.39	0.93	1.59	2.15	100	5	366

PL0004R Leba
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Cl-	aerosol	0.73	0.51	0.59	1.98	0.05	0.20	0.62	1.68	3.74	99	5	363
HNO3+NO3-	air+aerosol	0.53	0.51	0.37	2.34	0.05	0.09	0.34	1.59	4.11	99	0	364
NH3+NH4+	air+aerosol	1.23	0.86	0.97	2.03	0.15	0.29	1.02	3.00	5.37	99	0	364
NH4+	aerosol	0.67	0.52	0.51	2.15	0.03	0.14	0.51	1.66	3.99	99	1	363
NO2	air	1.48	1.02	1.20	1.91	0.20	0.40	1.20	3.58	7.00	99	0	363
NO3-	aerosol	0.40	0.44	0.25	2.58	0.02	0.05	0.23	1.26	4.02	99	0	363
SO2	air	0.61	0.39	0.49	1.99	0.10	0.20	0.50	1.38	2.50	99	16	363
SO4--	aerosol	0.89	0.46	0.78	1.71	0.10	0.32	0.80	1.74	2.63	99	2	363
SO4-- corr	aerosol	0.88	0.46	0.77	1.76	0.03	0.31	0.79	1.74	2.63	99	2	363

PL0005R Diabla Gora
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm25	0.06	0.03	0.05	1.69	0.02	0.02	0.06	0.11	0.15	85	0	53
Cl-	pm25	0.11	0.09	0.07	2.64	0.01	0.01	0.07	0.33	0.41	85	0	53
HNO3	air	0.16	0.09	0.14	1.82	0.01	0.05	0.15	0.36	0.51	98	0	361
HNO3+NO3-	air+aerosol	0.52	0.40	0.41	1.96	0.06	0.14	0.37	1.38	2.64	98	0	361
K+	pm25	0.07	0.05	0.06	1.98	0.01	0.02	0.06	0.17	0.20	85	0	53
Mg++	pm25	0.01	0.01	0.01	1.82	0.00	0.00	0.01	0.02	0.10	85	0	53
NH3	air	1.22	0.74	0.96	2.16	0.00	0.21	1.10	2.52	3.70	98	0	361
NH3+NH4+	air+aerosol	1.80	0.94	1.53	1.86	0.14	0.44	1.70	3.71	5.29	98	0	361
NH4+	aerosol	0.61	0.61	0.36	3.12	0.00	0.05	0.40	1.94	3.53	98	0	361
NH4+	pm25	0.73	0.63	0.52	2.33	0.06	0.11	0.48	2.55	2.60	82	0	51
NO	air	0.12	0.23	0.08	2.01	0.00	0.04	0.07	0.31	7.81	95	0	8347
NO2	air	1.39	1.08	1.01	2.46	0.00	0.24	1.12	3.59	8.92	95	0	8347
NO3-	aerosol	0.36	0.36	0.23	2.66	0.01	0.05	0.22	1.16	2.25	98	0	361
NO3-	pm25	1.41	1.25	0.92	2.67	0.20	0.24	0.87	4.24	4.98	85	0	53
NOx	air	1.48	1.14	1.13	2.19	0.04	0.31	1.19	3.77	13.20	95	0	8347
Na+	pm25	0.12	0.09	0.09	2.51	0.01	0.01	0.09	0.32	0.36	83	0	51
PM10 mass	pm10	16.06	9.92	13.66	1.76	2.86	6.00	13.57	37.74	61.90	96	0	352
PM25 mass	pm25	11.10	7.91	8.87	1.96	1.54	2.85	8.77	27.15	47.50	98	0	361
SO2	air	0.29	0.38	0.16	2.97	0.00	0.02	0.16	1.00	4.40	88	0	7732
SO4--	aerosol	0.47	0.37	0.36	2.09	0.03	0.11	0.37	1.20	2.39	98	0	361
SO4--	pm25	1.38	0.74	1.22	1.63	0.45	0.48	1.11	3.25	3.95	85	0	53
SO4-- corr	pm25	1.37	0.74	1.21	1.63	0.44	0.47	1.11	3.24	3.94	85	0	53

PL0009R Zielonka
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm25	0.09	0.10	0.05	2.68	0.00	0.01	0.05	0.35	0.41	84	0	52
Cl-	pm25	0.10	0.10	0.06	3.10	0.01	0.01	0.08	0.33	0.38	84	0	52
K+	pm25	0.06	0.04	0.05	1.85	0.01	0.02	0.05	0.14	0.19	84	0	52
Mg++	pm25	0.00	0.00	0.00	1.90	0.00	0.00	0.00	0.01	0.03	84	0	52
NH4+	pm25	0.82	0.50	0.63	2.29	0.08	0.10	0.79	1.84	2.59	84	0	52
NO3-	pm25	0.99	0.97	0.61	2.88	0.09	0.09	0.64	3.48	3.69	84	0	52
Na+	pm25	0.07	0.03	0.07	1.46	0.03	0.04	0.07	0.17	0.20	84	0	52
PM10 mass	pm10	15.40	9.07	13.28	1.73	1.26	5.72	13.24	33.38	72.13	96	0	352
PM25 mass	pm25	9.64	6.18	7.89	1.96	0.25	2.76	7.97	22.47	36.78	96	0	352
SO4--	pm25	1.22	0.61	1.08	1.68	0.15	0.51	1.07	2.66	3.17	84	0	52
SO4-- corr	pm25	1.22	0.61	1.07	1.69	0.14	0.51	1.06	2.65	3.16	84	0	52

RS0005R Kamenicki vis
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
PM10 mass	pm10	16.99	11.31	14.33	1.82	1.10	5.30	14.65	33.27	108.60	87	0	320

RU0018R Danki
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NH4+	aerosol	1.81	1.32	1.49	2.03	0.00	0.21	1.39	4.58	6.32	47	0	172
NO3-	aerosol	0.71	0.60	0.49	2.57	0.00	0.08	0.52	1.93	3.44	45	0	167
SO2	air	1.08	1.79	0.36	4.64	0.00	0.03	0.29	4.97	9.81	25	0	94
SO4--	aerosol	1.02	1.01	0.77	2.23	0.00	0.10	0.70	2.91	8.29	47	0	174

SE0005R Bredkålen
January 2019 - December 2019

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	0.01	3.38	0.00	0.00	0.02	0.10	0.28	96	314	353
Cl-	aerosol	0.18	0.38	0.05	5.10	0.00	0.01	0.03	0.79	3.50	96	169	353
HNO3	air	0.02	0.02	0.01	3.10	0.00	0.00	0.01	0.06	0.11	96	91	353
HNO3+NO3-	air+aerosol	0.04	0.03	0.03	2.13	0.00	0.01	0.02	0.11	0.23	96	41	353
K+	aerosol	0.02	0.02	0.01	2.67	0.00	0.00	0.02	0.05	0.10	96	332	353
Mg++	aerosol	0.02	0.03	0.01	3.22	0.00	0.00	0.01	0.06	0.22	96	156	353
NH3	air	0.08	0.22	0.03	3.67	0.00	0.00	0.03	0.23	3.60	96	128	353
NH3+NH4+	air+aerosol	0.14	0.25	0.08	2.79	0.01	0.02	0.07	0.39	3.71	96	5	353
NH4+	aerosol	0.06	0.08	0.03	3.00	0.00	0.01	0.03	0.22	0.58	96	106	353
NO2	air	0.12	0.06	0.11	1.50	0.06	0.07	0.09	0.24	0.37	96	175	352
NO3-	aerosol	0.02	0.02	0.01	2.79	0.00	0.00	0.01	0.06	0.14	96	34	353
Na+	aerosol	0.13	0.20	0.05	4.60	0.00	0.00	0.06	0.46	1.80	96	118	353
PM25 mass	pm25	1.76	1.76	1.27	2.22	0.20	0.40	1.20	4.84	15.70	90	0	331
SO2	air	0.05	0.08	0.02	3.68	0.00	0.00	0.02	0.17	0.84	96	46	353
SO4--	aerosol	0.10	0.11	0.06	2.66	0.00	0.01	0.06	0.32	0.71	96	6	353
SO4-- corr	aerosol	0.09	0.11	0.05	2.94	-0.01	0.00	0.05	0.32	0.71	96	6	353

SE0014R Råö
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.12	0.12	0.08	2.73	0.00	0.01	0.10	0.31	1.20	99	103	363
Cl-	aerosol	2.43	3.05	0.63	8.56	0.00	0.02	1.10	8.76	20.00	99	43	363
HNO3	air	0.12	0.10	0.09	2.34	0.00	0.02	0.09	0.33	0.76	98	2	360
HNO3+NO3-	air+aerosol	0.43	0.48	0.29	2.49	0.01	0.07	0.32	1.07	5.56	98	3	359
K+	aerosol	0.12	0.09	0.10	2.19	0.01	0.03	0.10	0.29	0.64	99	73	362
Mg++	aerosol	0.19	0.19	0.11	3.40	0.00	0.01	0.12	0.60	1.30	99	11	364
NH3	air	0.35	0.31	0.23	2.62	0.01	0.04	0.24	1.00	2.00	98	9	360
NH3+NH4+	air+aerosol	0.62	0.60	0.42	2.51	0.03	0.09	0.44	1.75	6.20	98	0	360
NH4+	aerosol	0.27	0.45	0.13	3.40	0.00	0.02	0.14	0.98	5.60	99	24	364
NO2	air	1.01	0.68	0.84	1.83	0.09	0.32	0.85	2.38	5.04	100	1	365
NO3-	aerosol	0.31	0.45	0.18	3.13	0.00	0.02	0.18	0.93	5.40	99	4	363
Na+	aerosol	1.67	1.77	0.76	4.63	0.00	0.04	1.05	5.10	12.00	99	14	364
PM25 mass	pm25	3.94	2.53	3.30	1.82	0.50	1.20	3.30	8.44	17.30	97	0	355
SO2	air	0.16	0.15	0.11	2.50	0.00	0.02	0.12	0.43	1.10	98	2	360
SO4--	aerosol	0.39	0.24	0.32	2.14	0.00	0.07	0.36	0.83	1.50	99	0	363
SO4-- corr	aerosol	0.25	0.24	0.17	2.79	-0.20	0.02	0.19	0.71	1.48	99	0	363

SE0020R Hallahus
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.11	0.15	0.06	2.94	0.00	0.01	0.07	0.38	1.00	99	126	363
Cl-	aerosol	0.59	0.96	0.16	5.93	0.00	0.01	0.17	2.70	6.40	99	74	364
HNO3	air	0.12	0.10	0.08	2.74	0.00	0.02	0.09	0.31	0.73	100	10	365
HNO3	air	0.13	0.06	0.11	1.96	0.02	0.02	0.14	0.21	0.21	99	0	12
HNO3+NO3-	air+aerosol	0.46	0.24	0.42	1.55	0.24	0.24	0.41	1.11	1.11	99	0	12
HNO3+NO3-	air+aerosol	0.81	2.22	0.33	3.00	0.01	0.07	0.31	2.16	20.05	100	1	365
K+	aerosol	0.09	0.06	0.07	2.01	0.00	0.02	0.08	0.23	0.39	99	92	364
Mg++	aerosol	0.07	0.06	0.05	2.47	0.00	0.01	0.05	0.20	0.41	99	15	364
NH3	air	0.44	0.42	0.27	3.11	0.00	0.04	0.30	1.40	2.10	100	6	365
NH3	air	0.51	0.41	0.37	2.35	0.11	0.11	0.47	1.40	1.40	99	0	12
NH3+NH4+	air+aerosol	0.76	0.69	0.52	2.57	0.02	0.10	0.61	2.18	5.10	99	0	363
NH3+NH4+	air+aerosol	0.78	0.26	0.75	1.36	0.52	0.52	0.69	1.32	1.32	99	0	12
NH4+	aerosol	0.32	0.48	0.14	4.02	0.00	0.01	0.15	1.10	4.20	99	29	362
NO2	air	0.95	0.56	0.83	1.69	0.12	0.36	0.81	2.06	4.35	99	0	362
NO3-	aerosol	0.34	0.22	0.29	1.76	0.14	0.14	0.32	0.92	0.92	99	0	12
NO3-	aerosol	0.69	2.22	0.19	3.80	0.00	0.03	0.17	2.04	20.00	100	2	365
Na+	aerosol	0.53	0.59	0.30	3.23	0.00	0.04	0.33	1.70	3.40	100	13	365
SO2	air	0.15	0.18	0.09	2.86	0.00	0.02	0.09	0.51	1.60	100	3	365
SO4--	aerosol	0.37	0.39	0.26	2.42	0.00	0.05	0.26	1.07	4.00	100	0	365
SO4-- corr	aerosol	0.33	0.40	0.20	2.85	-0.04	0.02	0.22	1.05	3.98	100	0	365

SE0022R Norunda Stenen
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.06	0.09	0.03	3.54	0.00	0.00	0.03	0.29	0.62	92	247	337
Cl-	aerosol	0.16	0.25	0.06	4.58	0.00	0.00	0.05	0.63	1.70	97	126	356
HNO3	air	0.06	0.06	0.04	2.54	0.00	0.01	0.04	0.21	0.34	98	5	361
HNO3+NO3-	air+aerosol	0.18	0.53	0.10	2.49	0.01	0.02	0.09	0.37	7.73	98	2	360
K+	aerosol	0.04	0.03	0.03	2.18	0.00	0.01	0.04	0.12	0.21	92	242	338
Mg++	aerosol	0.03	0.02	0.02	2.55	0.00	0.00	0.02	0.08	0.16	98	76	360
NH3	air	0.17	0.21	0.09	3.28	0.00	0.02	0.10	0.64	1.30	96	31	354
NH3+NH4+	air+aerosol	0.29	0.31	0.18	2.73	0.01	0.03	0.19	0.94	1.85	97	0	358
NH4+	aerosol	0.13	0.16	0.07	3.38	0.00	0.01	0.07	0.44	1.10	93	52	342
NO2	air	0.43	0.34	0.36	1.78	0.10	0.17	0.33	1.06	2.86	93	0	343
NO3-	aerosol	0.12	0.53	0.04	3.19	0.00	0.01	0.04	0.24	7.70	98	8	360
Na+	aerosol	0.19	0.19	0.11	3.10	0.00	0.02	0.13	0.55	1.30	97	39	358
PM10 mass	pm10	6.03	5.23	4.66	2.21	-1.30	0.80	4.70	16.10	67.80	99	0	8759
SO2	air	0.08	0.10	0.05	2.93	0.00	0.01	0.05	0.26	0.68	98	9	361
SO4--	aerosol	0.18	0.18	0.11	2.74	0.00	0.02	0.12	0.54	1.30	98	1	361
SO4-- corr	aerosol	0.16	0.18	0.10	2.98	-0.01	0.01	0.11	0.53	1.29	98	1	361

SI0008R Iskrba
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.03	0.06	0.02	2.24	0.01	0.01	0.01	0.12	0.58	89	264	326
Cl-	pm25	0.02	0.03	0.01	2.15	0.01	0.01	0.01	0.05	0.34	89	242	326
K+	pm25	0.10	0.06	0.08	1.88	0.00	0.03	0.08	0.21	0.32	89	2	326
Mg++	pm25	0.01	0.01	0.00	3.90	0.00	0.00	0.01	0.04	0.12	89	130	326
NH4+	pm25	0.47	0.39	0.34	2.39	0.02	0.07	0.37	1.22	2.86	89	0	326
NO2	air	0.77	0.43	0.69	1.57	0.00	0.38	0.64	1.59	4.01	98	0	8590
NO3-	pm25	0.05	0.11	0.01	4.52	0.00	0.00	0.00	0.21	0.92	89	168	326
Na+	pm25	0.04	0.07	0.03	3.03	0.00	0.00	0.03	0.14	0.69	89	36	326
PM10 mass	pm10	10.98	6.06	9.62	1.68	2.40	3.80	9.90	21.05	54.60	98	0	361
PM25 mass	pm25	7.87	4.07	6.88	1.70	1.80	2.67	7.20	16.16	23.70	89	0	326
SO2	air	0.38	0.49	0.27	2.35	-0.19	0.03	0.30	0.94	9.03	92	431	8141
SO4--	pm25	0.51	0.44	0.38	2.27	0.01	0.09	0.41	1.30	3.14	89	1	326
SO4-- corr	pm25	0.51	0.44	0.37	2.29	0.01	0.09	0.40	1.30	3.14	89	1	326

SI0032R Krvavec
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
CO	air	135.13	27.10	132.80	1.20	77.60	103.40	129.30	185.30	400.90	91	0	8044

SK0002R Chopok
January 2019 - December 2019

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	2.62	0.01	0.01	0.06	0.20	0.32	99	66	363
HNO3	air	0.04	0.03	0.03	2.42	0.00	0.01	0.03	0.10	0.26	97	0	358
NO2	air	0.69	0.38	0.56	2.17	0.01	0.14	0.64	1.42	1.93	97	4	355
NO3-	aerosol	0.11	0.10	0.06	3.20	0.00	0.01	0.07	0.29	0.65	99	20	363
SO2	air	0.26	0.32	0.17	2.52	0.00	0.05	0.17	0.75	2.52	97	2	357
SO4--	aerosol	0.19	0.25	0.08	4.49	0.00	0.00	0.09	0.74	1.51	99	18	363
SO4-- corr	aerosol	0.19	0.25	0.08	4.38	-0.13	0.00	0.09	0.74	1.51	99	18	363

SK0004R Stará Lesná
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	21.87	8.65	20.21	1.49	9.83	10.18	20.26	38.33	42.87	97	0	51

SK0006R Starina
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.28	0.23	0.21	2.20	0.01	0.07	0.23	0.70	1.94	98	7	360
Cl-	aerosol	0.59	0.57	0.44	2.14	0.04	0.12	0.46	1.45	6.16	99	0	365
HNO3	air	0.06	0.09	0.04	2.41	0.01	0.01	0.04	0.19	0.98	98	0	361
K+	aerosol	0.01	0.01	0.01	1.65	0.01	0.01	0.01	0.03	0.08	99	263	364
Mg++	aerosol	0.05	0.08	0.03	2.07	0.01	0.02	0.02	0.14	1.20	99	199	365
NH3	air	0.28	0.20	0.23	2.02	0.01	0.08	0.24	0.66	1.64	99	3	364
NH4+	aerosol	0.14	0.19	0.10	2.40	0.01	0.02	0.10	0.35	1.73	99	14	365
NO2	air	1.04	0.74	0.82	2.31	0.01	0.24	0.93	2.23	7.61	98	6	362
NO3-	aerosol	0.44	0.51	0.29	2.56	0.00	0.07	0.29	1.40	4.46	98	3	360
Na+	aerosol	0.05	0.05	0.03	2.41	0.01	0.01	0.04	0.12	0.43	99	103	365
SO2	air	0.61	0.94	0.36	2.67	0.01	0.07	0.36	2.01	11.40	98	0	360
SO4--	aerosol	0.83	0.67	0.60	2.44	0.00	0.14	0.63	2.22	4.08	98	1	360
SO4-- corr	aerosol	0.81	0.66	0.60	2.43	-0.01	0.13	0.62	2.21	4.07	98	1	360

SK0007R Topolniky
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	21.36	8.78	19.99	1.50	9.83	10.16	20.00	38.42	42.87	90	0	49

Annex 4

Annual statistics on carbonaceous compounds

CH0002R Payerne
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.32	0.18	0.28	1.72	0.09	0.11	0.26	0.72	0.90	15	0	55
OC	pm25	1.56	1.01	1.25	2.03	0.19	0.37	1.36	3.35	5.23	15	0	55
TC	pm25	1.88	1.17	1.54	1.94	0.30	0.50	1.62	3.95	6.10	15	0	55

CH0005R Rigi
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.19	0.08	0.17	1.59	0.05	0.07	0.17	0.34	0.36	7	0	29
OC	pm25	0.87	0.71	0.63	2.32	0.12	0.14	0.49	2.42	2.52	7	0	29
TC	pm25	1.06	0.75	0.83	2.05	0.20	0.22	0.67	2.63	2.69	7	0	29

CY0002R Agia Marina Xyliatou / Cyprus Atmospheric Observatory
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.21	0.16	0.17	1.93	0.01	0.07	0.16	0.60	0.97	87	0	318
OC	pm10	1.47	0.74	1.30	1.68	0.53	0.53	1.45	2.64	7.22	87	0	318
TC	pm10	1.67	0.86	1.47	1.71	0.53	0.53	1.65	3.00	7.76	87	0	318

CZ0003R Kosetice (NOAK) - Offline measurements
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.30	0.21	0.24	2.12	0.05	0.05	0.23	0.77	0.88	16	5	60
OC	pm25	2.12	1.43	1.79	1.76	0.55	0.74	1.63	5.03	8.92	16	0	60
OC,Artifact=pos	pm25	0.24	0.17	0.20	1.82	0.07	0.07	0.18	0.72	0.89	8	0	31
OC,Fraction=OC1	pm25	0.27	0.24	0.20	2.14	0.02	0.05	0.20	0.77	1.28	16	0	60
OC,Fraction=OC2	pm25	0.44	0.23	0.39	1.68	0.13	0.16	0.40	0.92	1.17	16	0	60
OC,Fraction=OC3	pm25	0.49	0.30	0.42	1.71	0.15	0.19	0.46	1.08	1.86	16	0	60
OC,Fraction=OC4	pm25	0.35	0.16	0.31	1.55	0.10	0.15	0.30	0.73	0.85	16	0	60
OC,Fraction=OCPyr	pm25	0.58	0.65	0.39	2.39	0.06	0.09	0.38	1.69	4.36	16	0	60
TC	pm25	2.55	1.61	2.20	1.68	0.86	0.93	2.00	5.95	9.80	15	0	55

CZ0003R Kosetice (NOAK) - Online measurements
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.41	0.44	0.23	3.98	0.00	0.01	0.27	1.20	3.91	50	142	1212
OC	pm25	3.34	2.00	2.84	1.81	0.37	0.99	2.93	7.37	14.14	50	0	1212
OC,Fraction=OC1	pm25	0.64	0.35	0.54	1.83	0.05	0.17	0.61	1.28	3.45	50	21	1212
OC,Fraction=OC2	pm25	0.85	0.47	0.73	1.77	0.04	0.29	0.72	1.71	4.33	50	3	1212
OC,Fraction=OC3	pm25	0.80	0.46	0.71	1.61	0.15	0.33	0.72	1.45	7.80	50	0	1212
OC,Fraction=OC4	pm25	1.32	0.91	1.10	1.84	0.14	0.39	1.15	2.81	13.08	50	0	1212
OC,Fraction=OCPyr	pm25	0.41	0.33	0.32	2.08	-0.25	0.09	0.34	0.98	4.92	50	73	1212
TC	pm25	3.92	2.26	3.36	1.77	0.37	1.29	3.44	8.28	16.68	66	0	1587

DE0002R Waldhof
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.18	0.14	0.14	2.00	0.03	0.05	0.13	0.47	0.75	16	0	61
OC	pm25	1.81	1.51	1.39	2.05	0.31	0.46	1.28	4.80	9.22	16	0	61
TC	pm25	1.99	1.61	1.56	2.00	0.38	0.55	1.47	5.21	9.97	16	0	61

DE0003R Schauinsland
 January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.11	0.07	0.09	1.89	0.01	0.03	0.10	0.25	0.30	16	0	62
OC	pm25	1.04	0.95	0.72	2.45	0.09	0.15	0.72	3.07	4.81	16	0	62
TC	pm25	1.15	1.00	0.82	2.35	0.11	0.18	0.83	3.27	5.11	16	0	62

DE0007R Neuglobsow
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.18	0.15	0.14	2.06	0.03	0.04	0.13	0.48	0.89	16	0	61
OC	pm25	2.02	1.61	1.51	2.21	0.19	0.40	1.54	5.77	8.78	16	0	61
TC	pm25	2.20	1.73	1.67	2.16	0.23	0.45	1.66	6.22	9.67	16	0	61

DE0008R Schmücke
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.17	0.10	0.15	1.79	0.03	0.05	0.14	0.41	0.49	16	0	61
OC	pm25	1.35	1.11	1.01	2.17	0.18	0.30	0.88	4.27	4.75	16	0	61
TC	pm25	1.52	1.17	1.18	2.07	0.26	0.33	1.05	4.66	5.12	16	0	61

DE0009R Zingst
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.13	0.11	0.10	1.99	0.03	0.04	0.09	0.33	0.64	17	0	64
OC	pm25	1.40	1.23	1.04	2.16	0.25	0.29	1.03	3.83	6.88	17	0	64
TC	pm25	1.52	1.33	1.15	2.12	0.28	0.34	1.14	4.12	7.52	17	0	64

DE0044R Melpitz
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm10	0.39	0.31	0.30	2.06	0.01	0.10	0.28	0.99	2.37	100	0	365
OC	pm10	3.46	2.27	2.85	1.89	0.45	0.96	2.98	7.45	20.81	100	0	365
OC,Fraction=OC1	pm10	0.49	0.33	0.41	1.83	0.11	0.16	0.41	1.15	2.49	100	0	365
OC,Fraction=OC2	pm10	0.59	0.38	0.49	1.83	0.09	0.17	0.52	1.24	3.62	100	0	365
OC,Fraction=OC3	pm10	0.61	0.36	0.52	1.80	0.09	0.19	0.53	1.28	2.65	100	0	365
OC,Fraction=OC4	pm10	0.36	0.15	0.33	1.52	0.08	0.16	0.33	0.60	1.14	100	0	365
OC,Fraction=OCPyr	pm10	1.41	1.28	1.01	2.37	0.08	0.21	1.08	3.47	13.14	100	0	365
TC	pm10	3.85	2.47	3.20	1.85	0.53	1.12	3.30	8.18	23.18	100	0	365
EC	pm25	0.33	0.26	0.26	2.00	0.05	0.09	0.24	0.89	1.63	100	0	365
OC	pm25	2.87	1.91	2.37	1.87	0.39	0.81	2.48	6.12	17.37	100	0	365
OC,Fraction=OC1	pm25	0.47	0.24	0.42	1.61	0.13	0.20	0.42	0.92	1.82	100	0	365
OC,Fraction=OC2	pm25	0.54	0.32	0.45	1.83	0.07	0.15	0.48	1.10	2.73	100	0	365
OC,Fraction=OC3	pm25	0.45	0.28	0.38	1.82	0.07	0.13	0.40	1.00	2.18	100	0	365
OC,Fraction=OC4	pm25	0.26	0.11	0.24	1.48	0.07	0.13	0.25	0.47	0.91	100	0	365
OC,Fraction=OCPyr	pm25	1.15	1.11	0.80	2.44	0.05	0.15	0.86	3.23	11.53	100	0	365
TC	pm25	3.20	2.08	2.68	1.83	0.46	0.97	2.78	6.99	19.00	100	0	365

ES0001R San Pablo de los Montes
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.11	0.10	0.10	2.11	0.00	0.00	0.10	0.31	0.53	16	0	61
OC	pm25	1.84	0.87	1.61	1.73	0.51	0.60	1.78	3.35	3.80	16	0	61

ES0007R Viznar
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.30	0.24	0.24	1.99	0.00	0.06	0.27	0.69	1.42	16	1	60
OC	pm25	3.32	2.60	2.73	1.84	0.80	0.90	2.77	8.99	17.21	16	0	60

ES0009R Campisabalos
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.09	0.07	0.08	2.01	0.00	0.00	0.09	0.23	0.36	16	0	60
OC	pm25	1.75	1.67	1.41	1.87	0.37	0.53	1.38	3.15	13.02	16	0	60

ES0012R Zarra
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.11	0.10	0.10	1.73	0.00	0.00	0.09	0.20	0.70	16	0	61
OC	pm25	1.73	0.67	1.59	1.54	0.59	0.64	1.72	2.79	3.35	16	0	61

ES0014R Els Torns
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.13	0.10	0.10	2.05	0.00	0.02	0.10	0.33	0.55	16	0	61
OC	pm25	1.94	0.78	1.79	1.47	0.75	0.92	1.81	3.52	4.64	16	0	61

ES1778R Montseny
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.12	0.07	0.11	1.89	0.00	0.02	0.11	0.26	0.33	24	0	90
OC	pm10	1.52	0.97	1.31	1.69	0.51	0.59	1.24	3.12	7.06	24	0	90
OC,Fraction=OC1	pm10	0.59	0.40	0.49	1.80	0.16	0.19	0.48	1.35	2.77	24	0	90
OC,Fraction=OC2	pm10	0.08	0.05	0.07	1.71	0.02	0.03	0.07	0.16	0.38	24	0	90
OC,Fraction=OC3	pm10	0.19	0.11	0.17	1.61	0.05	0.07	0.17	0.39	0.93	24	0	90
OC,Fraction=OC4	pm10	0.28	0.20	0.23	1.76	0.08	0.09	0.24	0.62	1.46	24	0	90
OC,Fraction=OCPyr	pm10	0.38	0.24	0.32	1.78	0.09	0.12	0.30	0.78	1.52	24	0	90
TC	pm10	1.64	1.01	1.43	1.66	0.56	0.64	1.43	3.23	7.39	24	0	90
EC	pm25	0.13	0.07	0.11	1.70	0.02	0.05	0.12	0.24	0.42	20	0	73
OC	pm25	1.66	0.99	1.40	1.81	0.23	0.53	1.38	3.75	4.43	20	0	73
OC,Fraction=OC1	pm25	0.62	0.35	0.51	1.95	0.04	0.16	0.54	1.30	1.49	20	0	73
OC,Fraction=OC2	pm25	0.09	0.05	0.08	1.75	0.02	0.03	0.08	0.20	0.23	20	0	73
OC,Fraction=OC3	pm25	0.28	0.16	0.24	1.77	0.09	0.10	0.23	0.64	0.65	20	0	73
OC,Fraction=OC4	pm25	0.33	0.23	0.26	1.94	0.05	0.10	0.24	0.85	0.94	20	0	73
OC,Fraction=OCPyr	pm25	0.34	0.24	0.28	1.94	0.04	0.09	0.28	0.84	1.37	20	0	73
TC	pm25	1.79	1.02	1.53	1.78	0.25	0.61	1.58	3.95	4.58	20	0	73
EC	pm1	0.11	0.06	0.09	1.94	0.00	0.03	0.10	0.24	0.31	24	0	90
OC	pm1	1.30	0.79	1.10	1.79	0.28	0.45	1.05	3.21	3.76	24	0	90
OC,Fraction=OC1	pm1	0.28	0.15	0.24	1.67	0.07	0.10	0.25	0.65	0.71	24	0	90
OC,Fraction=OC2	pm1	0.27	0.19	0.22	1.88	0.07	0.08	0.22	0.75	0.80	24	0	90
OC,Fraction=OC3	pm1	0.22	0.17	0.17	2.01	0.04	0.05	0.16	0.65	0.83	24	0	90
OC,Fraction=OC4	pm1	0.19	0.12	0.16	1.80	0.03	0.06	0.15	0.41	0.67	24	0	90
OC,Fraction=OCPyr	pm1	0.34	0.24	0.25	2.30	0.02	0.05	0.28	0.85	1.06	24	0	90
TC	pm1	1.41	0.83	1.21	1.76	0.32	0.46	1.17	3.37	4.03	24	0	90

FR0008R Donon
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.16	0.09	0.13	1.74	0.05	0.06	0.14	0.33	0.56	16	0	60
OC	pm25	1.68	0.77	1.51	1.61	0.56	0.64	1.58	3.09	4.09	16	0	60
OC,Fraction=OC1	pm25	0.46	0.20	0.42	1.60	0.16	0.17	0.45	0.79	0.98	16	0	59
OC,Fraction=OC2	pm25	0.31	0.14	0.28	1.56	0.13	0.15	0.29	0.60	0.71	16	0	59
OC,Fraction=OC3	pm25	0.30	0.14	0.27	1.59	0.12	0.12	0.29	0.55	0.67	16	0	59
OC,Fraction=OC4	pm25	0.42	0.25	0.36	1.75	0.11	0.14	0.37	0.80	1.59	16	0	59
OC,Fraction=OCPyr	pm25	0.20	0.19	0.12	2.94	0.02	0.02	0.13	0.55	0.91	16	14	59
TC	pm25	1.83	0.84	1.66	1.61	0.62	0.71	1.71	3.32	4.65	16	0	60

FR0009R Revin
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.20	0.13	0.17	1.77	0.02	0.07	0.17	0.37	0.92	13	1	51
OC	pm25	1.81	1.09	1.57	1.72	0.52	0.56	1.61	4.07	6.52	13	0	51
OC,Fraction=OC1	pm25	0.39	0.21	0.34	1.72	0.09	0.10	0.35	0.83	1.03	13	0	51
OC,Fraction=OC2	pm25	0.34	0.19	0.29	1.67	0.11	0.12	0.30	0.80	1.11	13	0	51
OC,Fraction=OC3	pm25	0.37	0.25	0.32	1.69	0.11	0.15	0.28	1.01	1.35	13	0	51
OC,Fraction=OC4	pm25	0.49	0.32	0.42	1.81	0.09	0.14	0.40	1.30	1.69	13	0	51
OC,Fraction=OCPyr	pm25	0.23	0.25	0.13	3.18	0.02	0.02	0.15	0.64	1.41	13	14	51
TC	pm25	2.01	1.19	1.76	1.69	0.56	0.65	1.83	4.33	7.43	14	0	52

FR0013R Peyrusse Vieille
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.15	0.11	0.12	2.16	0.02	0.02	0.13	0.40	0.57	16	5	59
OC	pm25	1.69	1.05	1.43	1.78	0.47	0.59	1.37	3.72	5.91	16	0	59
OC,Fraction=OC1	pm25	0.33	0.22	0.27	1.93	0.06	0.10	0.28	0.88	1.02	14	0	54
OC,Fraction=OC2	pm25	0.35	0.21	0.29	1.76	0.10	0.12	0.28	0.84	1.00	14	0	54
OC,Fraction=OC3	pm25	0.39	0.20	0.35	1.60	0.15	0.17	0.33	0.76	1.16	14	0	54
OC,Fraction=OC4	pm25	0.46	0.33	0.38	1.88	0.13	0.14	0.38	1.02	1.94	14	0	54
OC,Fraction=OCPyr	pm25	0.21	0.23	0.11	3.36	0.02	0.02	0.12	0.84	0.95	14	17	54
TC	pm25	1.84	1.14	1.57	1.78	0.56	0.64	1.52	4.03	6.48	16	0	59

FR0019R Pic du Midi
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	aerosol	0.05	0.03	0.05	1.62	0.00	0.01	0.05	0.12	0.17	94	2	50
OC	aerosol	0.84	0.46	0.73	1.66	0.21	0.37	0.61	1.87	2.29	94	0	50
OC,Fraction=OC1	aerosol	0.09	0.07	0.07	2.56	0.01	0.01	0.09	0.22	0.25	94	0	50
OC,Fraction=OC2	aerosol	0.38	0.22	0.33	1.65	0.08	0.13	0.33	0.81	1.46	94	0	50
OC,Fraction=OC3	aerosol	0.12	0.08	0.10	1.83	0.03	0.04	0.09	0.29	0.44	94	0	50
OC,Fraction=OC4	aerosol	0.13	0.09	0.11	1.78	0.03	0.05	0.09	0.28	0.59	94	0	50
OC,Fraction=OCPyr	aerosol	0.12	0.13	0.05	4.55	0.00	0.00	0.06	0.46	0.52	94	0	50
TC	aerosol	0.89	0.48	0.78	1.64	0.23	0.41	0.65	2.03	2.34	94	0	50

FR0020R SIRTA Atmospheric Research Observatory
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.44	0.38	0.32	2.60	0.00	0.02	0.37	1.28	2.37	40	0	148
OC	pm25	2.12	1.57	1.63	2.15	0.13	0.48	1.68	5.67	8.32	40	0	148
OC,Fraction=OC1	pm25	0.19	0.15	0.15	2.10	0.02	0.05	0.15	0.55	0.92	40	0	148
OC,Fraction=OC2	pm25	0.44	0.30	0.35	2.04	0.04	0.10	0.37	1.13	1.62	40	0	148
OC,Fraction=OC3	pm25	0.63	0.41	0.52	1.92	0.05	0.19	0.51	1.60	2.05	40	0	148
OC,Fraction=OC4	pm25	0.89	0.74	0.62	2.60	0.00	0.12	0.68	2.41	3.99	40	0	148
OC,Fraction=OCPyr	pm25	-0.03	0.18	0.09	3.34	-0.48	-0.37	-0.02	0.27	0.42	40	0	148
TC	pm25	2.56	1.90	1.94	2.23	0.13	0.52	2.05	6.54	10.61	40	0	148

FR0023R Saint-Nazaire-le-Désert
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.17	0.08	0.16	1.59	0.06	0.07	0.16	0.31	0.36	14	0	54
OC	pm25	1.84	0.70	1.73	1.46	0.77	0.85	1.63	3.40	3.48	14	0	54
OC,Fraction=OC1	pm25	0.42	0.16	0.39	1.47	0.17	0.20	0.39	0.76	0.90	14	0	54
OC,Fraction=OC2	pm25	0.35	0.14	0.33	1.49	0.14	0.16	0.31	0.63	0.77	14	0	54
OC,Fraction=OC3	pm25	0.38	0.12	0.36	1.39	0.16	0.18	0.37	0.60	0.69	14	0	54
OC,Fraction=OC4	pm25	0.45	0.17	0.42	1.49	0.18	0.19	0.44	0.74	0.94	14	0	54
OC,Fraction=OCPyr	pm25	0.25	0.22	0.16	2.80	0.02	0.02	0.20	0.72	0.91	14	6	54
TC	pm25	2.01	0.76	1.89	1.46	0.84	0.94	1.84	3.64	3.69	14	0	54

FR0024R Guipry
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.32	0.21	0.28	1.76	0.07	0.10	0.27	0.78	1.17	15	0	56
OC	pm25	2.09	1.70	1.64	1.96	0.47	0.62	1.61	5.84	9.50	15	0	56
OC,Fraction=OC1	pm25	0.40	0.29	0.32	2.00	0.09	0.11	0.31	1.09	1.42	15	0	56
OC,Fraction=OC2	pm25	0.42	0.35	0.33	1.93	0.12	0.14	0.29	1.17	1.94	15	0	56
OC,Fraction=OC3	pm25	0.42	0.31	0.34	1.83	0.11	0.14	0.31	1.19	1.69	15	0	56
OC,Fraction=OC4	pm25	0.59	0.44	0.47	1.92	0.10	0.18	0.45	1.70	1.85	15	0	56
OC,Fraction=OCPyr	pm25	0.28	0.42	0.13	3.61	0.02	0.02	0.13	1.10	2.60	15	18	56
TC	pm25	2.42	1.90	1.94	1.91	0.57	0.70	1.93	6.73	10.66	15	0	56

FR0025R Verneuil
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.20	0.14	0.16	1.96	0.02	0.05	0.16	0.48	0.69	15	1	55
OC	pm25	1.96	1.18	1.65	1.80	0.52	0.72	1.72	4.82	5.52	15	0	55
OC,Fraction=OC1	pm25	0.40	0.22	0.34	1.79	0.10	0.13	0.37	0.84	0.92	14	0	54
OC,Fraction=OC2	pm25	0.38	0.22	0.32	1.77	0.12	0.15	0.32	0.85	1.10	14	0	54
OC,Fraction=OC3	pm25	0.41	0.22	0.36	1.64	0.16	0.18	0.37	0.91	1.15	14	0	54
OC,Fraction=OC4	pm25	0.52	0.35	0.43	1.88	0.12	0.18	0.41	1.29	1.87	14	0	54
OC,Fraction=OCPyr	pm25	0.27	0.33	0.13	3.63	0.02	0.02	0.17	1.06	1.82	14	14	54
TC	pm25	2.16	1.31	1.82	1.80	0.58	0.81	1.94	5.26	6.19	15	0	55

NL0644R Cabauw Wielsekade
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.38	0.23	0.32	1.91	0.02	0.13	0.32	0.95	1.07	24	0	91
OC	pm10	2.23	1.50	1.86	1.83	0.30	0.80	1.92	5.26	8.98	24	0	91
OC,Fraction=OC1	pm10	0.50	0.25	0.46	1.49	0.20	0.27	0.43	0.97	1.71	24	0	91
OC,Fraction=OC2	pm10	0.46	0.30	0.39	1.78	0.09	0.18	0.36	1.06	1.72	24	0	91
OC,Fraction=OC3	pm10	0.38	0.30	0.30	1.96	0.02	0.14	0.29	1.02	1.90	24	0	91
OC,Fraction=OC4	pm10	0.45	0.40	0.34	2.13	0.01	0.15	0.32	1.35	2.44	24	0	91
OC,Fraction=OCPyr	pm10	0.44	0.45	0.32	2.86	-0.07	-0.01	0.32	1.46	2.32	24	0	91
TC	pm10	2.62	1.66	2.20	1.81	0.32	0.97	2.17	6.15	9.63	24	0	91

NO0002R Birkenes II
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.08	0.08	0.06	2.06	0.02	0.02	0.05	0.33	0.34	100	0	53
OC	pm10	0.93	0.88	0.67	2.18	0.16	0.19	0.71	3.17	4.44	100	0	53
TC	pm10	1.01	0.96	0.73	2.16	0.18	0.21	0.77	3.34	5.01	100	0	53
EC	pm25	0.08	0.09	0.05	2.20	0.01	0.02	0.05	0.34	0.49	100	0	53
OC	pm25	0.63	0.62	0.46	2.08	0.15	0.16	0.45	2.16	3.28	100	0	53
TC	pm25	0.71	0.70	0.52	2.06	0.17	0.19	0.51	2.61	3.63	100	0	53
OC	pm10_pm25	0.30	0.34	0.16	3.61	0.00	0.01	0.23	1.39	1.51	100	2	53
TC	pm10_pm25	0.31	0.37	0.17	3.69	0.00	0.00	0.23	1.40	1.75	100	4	53

NO0039R Kårvatn
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.04	0.05	0.03	2.30	0.00	0.00	0.03	0.18	0.31	100	1	53
OC	pm10	0.69	0.71	0.44	2.50	0.10	0.12	0.40	2.64	3.58	100	0	53
TC	pm10	0.74	0.76	0.48	2.47	0.10	0.12	0.45	2.85	3.72	100	0	53
EC	pm25	0.05	0.05	0.03	2.21	0.01	0.01	0.03	0.17	0.29	100	1	53
OC	pm25	0.53	0.50	0.37	2.23	0.10	0.12	0.29	1.57	2.64	100	0	53
TC	pm25	0.57	0.54	0.41	2.20	0.10	0.13	0.34	1.73	2.92	100	0	53
OC	pm10_pm25	0.18	0.32	0.10	4.14	0.00	0.00	0.05	0.88	1.71	100	11	53
TC	pm10_pm25	0.18	0.34	0.09	4.32	0.00	0.00	0.04	0.89	1.83	100	11	53

NO0042G Zeppelin mountain (Ny-Ålesund)
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.01	0.01	0.01	3.56	0.00	0.00	0.01	0.04	0.05	85	0	36
OC	pm10	0.10	0.07	0.08	2.01	0.02	0.02	0.08	0.26	0.41	85	0	36
OC,Artifact=pos	pm10	0.02	0.02	0.02	2.44	0.00	0.00	0.02	0.09	0.13	82	0	35
TC	pm10	0.11	0.08	0.09	2.07	0.02	0.02	0.09	0.28	0.42	85	0	36

NO0056R Hurdal
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.10	0.06	0.09	1.63	0.03	0.05	0.08	0.24	0.39	98	0	52
OC	pm10	1.23	0.92	0.94	2.07	0.28	0.30	0.91	3.35	4.30	98	0	52
TC	pm10	1.34	0.95	1.05	1.97	0.34	0.35	1.02	3.45	4.69	98	0	52
EC	pm25	0.09	0.07	0.08	1.73	0.03	0.04	0.08	0.25	0.40	98	0	52
OC	pm25	0.71	0.55	0.58	1.79	0.23	0.25	0.56	1.63	3.52	98	0	52
TC	pm25	0.81	0.60	0.67	1.75	0.27	0.30	0.65	1.88	3.92	98	0	52
OC	pm10_pm25	0.52	0.64	0.25	4.28	0.00	0.00	0.20	2.17	2.57	98	3	52
TC	pm10_pm25	0.53	0.65	0.26	4.21	0.00	0.00	0.21	2.22	2.58	98	3	52

PL0005R Diabla Gora
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.39	0.31	0.28	2.39	0.01	0.06	0.28	1.00	1.66	99	0	364
OC	pm25	2.73	1.89	2.18	1.99	0.21	0.68	2.25	6.77	10.99	99	0	364
TC	pm25	3.12	2.16	2.50	1.97	0.33	0.83	2.54	7.71	11.94	99	0	364

PL0009R Zielonka
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.34	0.25	0.27	2.08	0.04	0.07	0.28	0.91	1.43	48	0	176
OC	pm25	3.38	1.79	3.01	1.61	1.11	1.47	3.02	7.48	11.01	48	0	176
TC	pm25	3.72	1.99	3.31	1.61	1.19	1.66	3.21	8.03	11.95	48	0	176

SE0022R Norunda Stenen
January 2019 - December 2019

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.09	0.08	0.07	1.95	0.02	0.03	0.07	0.25	0.55	95	0	118
OC	pm10	1.16	0.85	0.89	2.08	0.18	0.26	1.00	2.85	4.68	95	1	118
OC,Artifact=neg	pm10	0.16	0.10	0.14	1.74	0.05	0.06	0.13	0.38	0.64	95	0	118
OC,Artifact=pos	pm10	0.04	0.03	0.03	1.98	0.01	0.01	0.03	0.09	0.15	95	0	118
OC,Fraction=OC1	pm10	0.07	0.06	0.06	1.92	0.01	0.02	0.05	0.20	0.40	95	0	118
OC,Fraction=OC2	pm10	0.17	0.14	0.13	2.10	0.02	0.04	0.13	0.46	0.80	95	0	118
OC,Fraction=OC3	pm10	0.41	0.30	0.30	2.25	0.07	0.08	0.36	1.01	1.53	95	0	118
OC,Fraction=OC4	pm10	0.22	0.11	0.19	1.76	0.05	0.07	0.22	0.45	0.56	95	0	118
OC,Fraction=OCPyr	pm10	0.29	0.33	0.16	3.16	-0.01	0.02	0.16	1.01	2.19	95	0	118
TC	pm10	1.41	0.98	1.13	1.94	0.26	0.41	1.18	3.52	5.32	95	0	118

Annex 5

Overview of sampling and analytical methods 2019

Country: Armenia		Main components- EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount					
Precipitation amount, official gauge	AM0001R	Meteorological station	every event	By volume	
Sulphate	AM0001R	Wet-only	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	
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	
Air					
Sulphur dioxide	AM0001R	KOH-impregnated Whatman 40 filter 20–25 m ³ /day (Filterpack)	Daily	Ion chromatography	
Nitrogen dioxide	AM0001R	Nal-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, Nessler method	
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, Nessler method	
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					
Sum of nitric acid and nitrate	AM0001R	KOH-impregnated Whatman 40 filter + Teflon filter, 20–25 m ³ /day	Daily	Ion chromatography	
Sum of ammonia and ammonium	AM0001R	Oxalic acid-impregnated Whatman 40 filter +Teflon filter, 20–25 m ³ /day	Daily	Spectrophotometric, Nessler method	

Country: Austria		Main components EMEP	Year: 2019	
	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	All	Instrumental: UV-fluorescence	Hourly	UV-fluorescence
Sulphur dioxide				
Nitrogen dioxide	All	Instrumental: Chemiluminescence	Hourly	Chemiluminescence
Nitric acid				
Ammonia				
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM ₁₀	AT02 AT05, AT48	High Volume Sampler, glass fibre filters with organic binder, 720 m ³ /day, EN 12341 High Volume Sampler, glass fibre filters with organic binder, 720 m ³ /day, EN 12341	Daily Every 3 rd day	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	Every 3 rd day	Micro balance
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				

Country: Belarus		Main components - EMEP		Year: 2019	
	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	
Air					
Sulphur dioxide					
Sulphur dioxide					
Nitrogen dioxide					
Nitric acid					
Ammonia					
Sulphate					
Nitrate					
Ammonium					
Sodium					
Calcium					
Magnesium					
Potassium					
Chloride					
PM ₁₀					
PM _{2.5}					
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Belgium		Main components - EMEP	Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method
Precipitation				
Precipitation amount	BE0014R	Wet-only sampler	2 weeks	
Precipitation amount, official gauge	BE0014R	precipitation gauge		
Sulphate	BE0014R	Wet-only sampler	2 weeks	ion chromatography
Nitrate	BE0014R	Wet-only sampler	2 weeks	ion chromatography
Ammonium	BE0014R	Wet-only sampler	2 weeks	ion chromatography
Magnesium	BE0014R	Wet-only sampler	2 weeks	ICP-AES
Sodium	BE0014R	Wet-only sampler	2 weeks	ICP-AES
Chloride	BE0014R	Wet-only sampler	2 weeks	ion chromatography
Calcium	BE0014R	Wet-only sampler	2 weeks	ICP-AES
Potassium	BE0014R	Wet-only sampler	2 weeks	ICP-AES
Conductivity	BE0014R	Wet-only sampler	2 weeks	Conductivity probe
pH	BE0014R	Wet-only sampler	2 weeks	Combined glass electrode
Acidity				
Air				
Sulphur dioxide		Instrumental: UV-fluorescence	Half hourly	UV-fluorescence
Nitrogen dioxide	BE0013R, BE0011R	Instrumental: Chemiluminescence	Half hourly	Chemiluminescence
Nitric acid				
Ammonia	BE0014R	Passive sampler	4 weeks	ion chromatography
Sulphate				
Nitrate				
Ammonium				
Sodium				
Calcium				
Magnesium				
Potassium				
Chloride				
PM ₁₀				
PM _{2.5}				
PM ₁				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				

Country: Croatia		Main components - EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount	All				
Precipitation amount, official gauge		Rain gauge	Daily		
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					
Sulphate					
Nitrate					
Ammonium					
Sodium					
Calcium					
Magnesium					
Potassium					
Chloride					
PM ₁₀					
PM _{2.5}					
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Cyprus		Main components - EMEP		Year: 2019	
	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					
Carbon Monoxide	CY02	Non – Dispersive Infrared Spectroscopy (NDIR)	Hourly	NDIR	
Sulphate PM _{2.5}	CY02	Low volume sampler	Daily	Ion Chromatography	
Nitrate PM _{2.5}	CY02	Low volume sampler	Daily	Ion Chromatography	
Ammonium PM _{2.5}	CY02	Low volume sampler	Daily	Ion Chromatography	
Sodium PM _{2.5}	CY02	Low volume sampler	Daily	Ion Chromatography	
Calcium PM _{2.5}	CY02	Low volume sampler	Daily	Ion Chromatography	
Magnesium PM _{2.5}	CY02	Low volume sampler	Daily	Ion Chromatography	
Potassium PM _{2.5}	CY02	Low volume sampler	Daily	Ion Chromatography	
Chloride PM _{2.5}	CY02	Low volume sampler	Daily	Ion Chromatography	
PM ₁₀	CY02	High volume sampler	Daily	Gravimetric	
PM _{2.5}	CY02	Low volume sampler	Daily	Gravimetric	
PM ₁					
OC/EC in PM _{2.5}	CY02	Low volume sampler	Daily	OC EC Lab Instrument, Model 5 Sunset Laboratory Inc. EUSAAR 2 temperature program	

THE LABORATORY PERFORMING THE ANALYSES ON PM_{2.5} IS: Facility for Chemical Analyses (FCA). Energy, Environment and Water Research Center (EEWRC). The Cyprus Institute.

Country: Czech Republic		Main components - EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount, official gauge	All	Meteorological Station	Daily	Automatically gauge	
Fluoride	All	Wet-only (daily) at CZ03, (weekly) at CZ05	Daily, weekly	Ion Chromatography	
Sulphate	All	Wet-only (daily) at CZ03, (weekly) at CZ05	Daily, weekly	Ion chromatography	
Nitrate	All	Wet-only (daily) at CZ03, (weekly) at CZ05	Daily, weekly	Ion chromatography	
Ammonium	All	Wet-only (daily) at CZ03, (weekly) at CZ05	Daily, weekly	Spectrophotometric, Indophenol method, FIA-Berth	
Magnesium	All	Wet-only (daily) at CZ03, (weekly) at CZ05	Daily, weekly	F-AAS	
Sodium	All	Wet-only (daily) at CZ03, (weekly) at CZ05	Daily, weekly	F-AAS	
Chloride	All	Wet-only (daily) at CZ03, (weekly) at CZ05	Daily, weekly	Ion chromatography	
Calcium	All	Wet-only (daily) at CZ03, (weekly) at CZ05	Daily, weekly	F-AAS	
Potassium	All	Wet-only (daily) at CZ03, (weekly) at CZ05	Daily, weekly	F-AAS	
Conductivity	All	Wet-only (daily) at CZ03, (weekly) at CZ05	Daily, weekly	Conductivity electrode	
pH	All	Wet-only (daily) at CZ03, (weekly) at CZ05	Daily, weekly	pH electrode	
Air					
Sulphur dioxide	CZ3,CZ5	KOH-impregnated Whatman 40 filter 47 mm, 20 m ³ /day	Daily, CZ5 indicative(6days)	Ion chromatography	
Sulphur dioxide	CZ3	UV-fluorescence - monitor	Hourly	UV-fluorescence	
Carbon monoxide	CZ3	IR corel. absorption spectrometry	Hourly	IRABS, corel. absorption spectrometry	
Nitrogen dioxide	CZ3	Chemiluminescence - monitor	Hourly	Chemiluminescence	
Nitrogen monoxide	CZ3	Chemiluminescence - monitor	Hourly	Chemiluminescence	
Sum of nitric acid and nitrate	CZ3,CZ5	Whatman filter + KOH-impregnated Whatman 40 filter 47 mm, 20 m ³ /day	Daily, CZ5 indicative(6days)	Ion Chromatography	
Sum of ammonia and ammonium	CZ3,CZ5	Whatman filter + Citric acid impregnated Whatman 40 filter 47 mm, 20 m ³ /day	Daily, CZ5 indicative(6days)	Spectrophotometric, Indophenol method, FIA-Berth	
Sulphate	CZ3,CZ5	Whatman 40, filter 47 mm, 20 m ³ /day	Daily, CZ5 indicative(6days)	Ion chromatography	
Sodium	CZ3	Filter 47 mm, 55 m ³ /day	Weekly	Ion chromatography	
Calcium	CZ3	Filter 47 mm, 55 m ³ /day	Weekly	Ion chromatography	
Magnesium	CZ3	Filter 47 mm, 55 m ³ /day	Weekly	Ion chromatography	
Potassium	CZ3	Filter 47 mm, 55 m ³ /day	Weekly	Ion chromatography	
PM ₁₀	CZ3,CZ5	Filter 47 mm, 55 m ³ /day	Every 2 nd day	Gravimetry	
PM ₁₀	CZ3	Beta absorption - monitor	Hourly	Radiometry – beta absorption	
PM _{2.5}	CZ3	Beta absorption - monitor	Hourly	Radiometry – beta absorption	
PM _{2.5}	CZ3	Filter 47 mm, 55 m ³ /day	Every 2 nd day	Gravimetry	
OC, EC in PM _{2.5}	CZ3	Filter 47 mm, 24 m ³ /day	Every 6 th day	HD-FID (Thermal-optical method)	

Country: Denmark		Main components and ozone - EMEP		Year: 2018 - delivery	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount	DK05, DK08, DK12, DK22	Wet-only	Two-weekly		
Precipitation amount, official gauge					
Sulphate	DK05, DK08, DK12, DK22	Wet-only	Two-weekly	Ion chromatography	
Nitrate	DK05, DK08, DK12, DK22	Wet-only	Two-weekly	Ion chromatography	
Ammonium	DK05, DK08, DK12, DK22	Wet-only	Two-weekly	ISO 11732 CFA (continuously flow analysis) and spectrophotometric detection	
Magnesium	DK05, DK08, DK12, DK22	Wet-only	Two-weekly	Ion chromatography	
Sodium	DK05, DK08, DK12, DK22	Wet-only	Two-weekly	Ion chromatography	
Chloride	DK05, DK08, DK12, DK22	Wet-only	Two-weekly	Ion chromatography	
Calcium	DK05, DK08, DK12, DK22	Wet-only	Two-weekly	Ion chromatography	
Potassium	DK05, DK08, DK12, DK22	Wet-only	Two-weekly	Ion chromatography	
Conductivity					
pH	DK05, DK08, DK12, DK22	Wet-only	Two-weekly	pH meter	
Air					
Sulphur dioxide	DK03, DK08, DK12, DK31	KOH-impregnated Whatman 41 filters, 58 m ³ /day	Daily	Ion chromatography	
Nitrogen dioxide	DK05, DK08, DK12, DK31	Monitor	Hourly	Chemiluminescence	
Nitrogen oxide	DK05, DK08, DK12, DK31	Monitor	Hourly	Chemiluminescence	
Nitric acid					
Ammonia	DK03, DK08, DK12, DK31	Oxalic acid impregnated Whatman 41, 58 m ³ /day	Daily	ISO 11732 CFA (continuously flow analysis) and spectrophotometric detection	
Ozone	DK05, DK12, DK31	UV-monitor	Hourly	UV-absorption	
Sulphate	DK03, DK05, DK08, DK31	Millipore RAWP 1.2 mm, 58 m ³ /day	Daily	Ion chromatography	
Nitrate					
Ammonium	DK03, DK08, DK12, DK31	Millipore RAWP 1.2 mm, 58 m ³ /day	Daily	ISO 11732 CFA (continuously flow analysis) and spectrophotometric detection	
Sodium	DK03, DK08, DK12, DK31	Millipore RAWP 1.2 mm, 58 m ³ /day	Daily	Ion chromatography	
Calcium	DK03, DK08, DK12, DK31	Millipore RAWP 1.2 mm, 58 m ³ /day	Daily	Ion chromatography	
Magnesium	DK03, DK08, DK12, DK31	Millipore RAWP 1.2 mm, 58 m ³ /day	Daily	Ion chromatography	
Potassium	DK03, DK08, DK12, DK31	Millipore RAWP 1.2 mm, 58 m ³ /day	Daily	Ion chromatography	
Chloride	DK03, DK08, DK12, DK31	Millipore RAWP 1.2 mm, 58 m ³ /day	Daily	Ion chromatography	
PM ₁₀	DK05, DK12	Low volume sampling	Daily	Gravimetric	
PM _{2.5}	DK12	Low volume sampling	Daily	Gravimetric	
Sum of nitric acid and nitrate	DK03, DK08, DK12, DK31	Aerosol filter as for sulphate + KOH-impregnated Whatman 41, 58 m ³ /day	Daily	Ion chromatography	
Sum of ammonia and ammonium	DK05, DK08, DK12, DK22			Replaced by separate measurements of ammonia and ammonium	

Country: Estonia		Main components - EMEP		Year: 2019	
	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	Ion chromatography	
Magnesium	All	Bulk	Weekly	Ion chromatography	
Sodium	All	Bulk	Weekly	Ion chromatography	
Chloride	All	Bulk	Weekly	Ion chromatography	
Calcium	All	Bulk	Weekly	Ion chromatography	
Potassium	All	Bulk	Weekly	Ion chromatography	
Conductivity	All	Bulk	Weekly	Conductivity meter	
pH	All	Bulk	Weekly	pH meter	
Air					
Sulphur dioxide	All	Instrumental: UV fluorescence	Daily/Hourly	UV fluorescence	
Nitrogen dioxide	All	Instrumental: Chemiluminescence	Daily/Hourly	Chemiluminescence	
Nitric acid					
Ammonia					
Sulphate	EE09	Filter pack	Daily		
Nitrate	EE09	Filter pack	Daily		
Ammonium	EE09	Filter pack	Daily		
Sodium	EE09	Filter pack	Daily		
Calcium	EE09	Filter pack	Daily		
Magnesium	EE09	Filter pack	Daily		
Potassium	EE09	Filter pack	Daily		
Chloride	EE09	Filter pack	Daily		
PM ₁₀	EE09	High Volume Sampler	Weekly	Gravimetric	
PM _{2.5}	All		Daily	β-ray absorption	
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Finland		Main components - EMEP		Year: 2019	
	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	
Sulphur dioxide	F118	UV-fluorescence - monitor	Hourly	UV-fluorescence	
Nitrogen dioxide	All	Instrumental: Chemiluminescence	Hourly	Chemiluminescence	
Nitric acid	All	NaOH-impregnated Whatman 40 filters, 24 m ³ /day	Daily/Weekly ¹⁾	Ion chromatography	
Ammonia	All	Oxalic acid-impregnated Whatman 40 filters, 24 m ³ /day	Daily/Weekly ¹⁾	Ion chromatography	
Sulphate	All	Teflon filter, Millipore Fluoropore 3 µm, 24 m ³ /day	Daily/Weekly ¹⁾	Ion chromatography	
Nitrate	All	Teflon filter, Millipore Fluoropore 3 µm, 24 m ³ /day	Daily/Weekly ¹⁾	Ion chromatography	
Ammonium	All	Teflon filter, Millipore Fluoropore 3 µm, 24 m ³ /day	Daily/Weekly ¹⁾	Ion chromatography	
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	All	Instrumental: beta-ray attenuation	Hourly	Beta-ray attenuation monitor	
PM _{2.5}	All	Instrumental: beta-ray attenuation	Hourly	Beta-ray attenuation monitor	
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: F109 and F117 and F136; Weekly: F122 and F137

Country: France		Main components - EMEP	Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method
Precipitation				
Precipitation amount	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Wet-only	Daily	
Precipitation amount, official gauge	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Tipping bucket rain gauge	Daily	
Sulphate	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Wet-only	Daily	Ion chromatography
Nitrate	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Wet-only	Daily	Ion chromatography
Ammonium	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Wet-only	Daily	Ion chromatography
Magnesium	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Wet-only	Daily	Ion chromatography
Sodium	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Wet-only	Daily	Ion chromatography
Chloride	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Wet-only	Daily	Ion chromatography
Calcium	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Wet-only	Daily	Ion chromatography
Potassium	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Wet-only	Daily	Ion chromatography
Conductivity	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Wet-only	Daily	Conductivity meter
pH	FR08, FR09, FR10, FR13, FR14, FR15, FR16, FR17, FR18	Wet-only	Daily	pH meter
Air				
Nitrogen dioxide NO ₂ /NO/NO _x	FR09, FR13, FR15, FR30	Instrumental: Chemiluminescence, trace level	Hourly	Chemiluminescence
Sulphate	FR09 FR13, FR23, FR24, FR25	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Nitrate	FR09 FR13, FR23, FR24, FR25	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Ammonium	FR09 FR13, FR23, FR24, FR25	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Sodium	FR09, FR13, FR23, FR24, FR25	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Calcium	FR09, FR13, FR23, FR24, FR25	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Magnesium	FR09, FR13, FR23, FR24, FR25	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Potassium	FR09, FR13, FR23, FR24, FR25	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Chloride	FR09, FR13, FR23, FR24, FR25	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
PM ₁₀	FR09, FR10, FR13, FR14, FR15, FR18, FR23, FR24	TEOM FDMS, MP101M	Hourly	TEOM FDMS, MP101M
PM _{2.5}	FR09, FR13, FR15, FR18, FR23, FR24, FR25	TEOM FDMS, MP101M	Hourly	TEOM FDMS, MP101M
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
EC/OC	FR09, FR13, FR23, FR24, FR25	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h every 6 days	Thermo optical, EUSAAR 2 protocol

Country: Georgia		Main components - EMEP		Year: 2019	
	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		
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					
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 - EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount	DE01, DE02, DE03, DE07, DE08, DE09	Daily wet only at DE02, DE03 and DE07, weekly wet-only at the other sites	Daily / weekly	Gravimetric by weight	
Precipitation amount, official gauge					
Sulphate	DE01, DE02, DE03, 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, 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, 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, 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, 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, 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, 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, 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, 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, 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	Monitor (trace level instrument)	Half hourly	UV fluorescence	
Nitrogen dioxide	DE01, DE02, DE03, DE07, DE08, DE09	Monitor	Daily	chemiluminescence_ photolytic	
Nitric acid	DE02, DE03, DE07	KOH-impregnated Whatman 40 filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Ammonia	DE02, DE03, DE07	Oxalic acid-impregnated Whatman 40 filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Ammonia	DE01, DE02, DE03, DE07, DE08, DE09	Low volume denuder	Weekly	Spectrophotometry/F IA	
Sulphate	DE02, DE03, DE07	Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Nitrate	DE02, DE03, DE07	Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Ammonium	DE02, DE03, DE07	Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Sodium	DE02, DE03, DE07	Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Calcium	DE02, DE03, DE07	Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Magnesium	DE02, DE03, DE07	Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Potassium	DE02, DE03, DE07	Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Chloride	DE02, DE03, DE07	Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
PM ₁₀	DE01, DE02, DE03, DE07, DE08, DE09	Digitel High Volume Sampler DHA 80, glass fibre 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, glass fibre filters ø15 cm, Machery Nagel MN 85/90	Daily	Gravimetric by weight	
PM ₁	DE02	Digitel High Volume Sampler DHA 80, glass fibre filters ø15 cm, Machery Nagel MN 85/90	Daily	Gravimetric by weight	

Country: Germany		Main components - EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Sum of nitric acid and nitrate	DE02, DE03, DE07	Filter pack method	Daily	Ion chromatography	
Sum of ammonia and ammonium	DE02, DE03, DE07	Filter pack method	Daily	Ion chromatography	
Sulphate in PM _{2.5}	DE01, DE02, DE03, DE07, DE08, DE09	Leckel Low Volume Sampler, 2.3 m ³ /day	Every 6 th day	Ion chromatography	
Nitrate in PM _{2.5}	DE01, DE02, DE03, DE07, DE08, DE09	Leckel Low Volume Sampler, 2.3 m ³ /day	Every 6 th day	Ion chromatography	
Ammonium in PM _{2.5}	DE01, DE02, DE03, DE07, DE08, DE09	Leckel Low Volume Sampler, 2.3 m ³ /day	Every 6 th day	Ion chromatography	
Sodium in PM _{2.5}	DE01, DE02, DE03, DE07, DE08, DE09	Leckel Low Volume Sampler, 2.3 m ³ /day	Every 6 th day	Ion chromatography	
Calcium in PM _{2.5}	DE01, DE02, DE03, DE07, DE08, DE09	Leckel Low Volume Sampler, 2.3 m ³ /day	Every 6 th day	Ion chromatography	
Magnesium in PM _{2.5}	DE01, DE02, DE03, DE07, DE08, DE09	Leckel Low Volume Sampler, 2.3 m ³ /day	Every 6 th day	Ion chromatography	
Potassium in PM _{2.5}	DE01, DE02, DE03, DE07, DE08, DE09	Leckel Low Volume Sampler, 2.3 m ³ /day	Every 6 th day	Ion chromatography	
Chloride in PM _{2.5}	DE01, DE02, DE03, DE07, DE08, DE09	Leckel Low Volume Sampler, 2.3 m ³ /day	Every 6 th day	Ion chromatography	

Country: Greece		Main components - EMEP		Year: 2019	
	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					
Sulphate					
Nitrate					
Ammonium					
Sodium					
Calcium					
Magnesium					
Potassium					
Chloride					
PM ₁₀	GR01	Instrumental: beta gauge	Hourly	Beta radiation attenuation	
PM _{2.5}	GR01	Instrumental: beta gauge	Hourly	Beta radiation attenuation	
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Hungary		Main components - EMEP		Year: 2019	
	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	
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	
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 mass	HU02	PM ₁₀ -monitor	Hourly	Beta-ray-absorption	
PM _{2.5} mass	HU02	DHA-80 high volume sampler	Daily	Gravimetry	
PM ₁					
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Iceland		Main components- EMEP		Year: 2019	
	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	ICP-OES	
Nitrate	IS02	NILU bulk sampler	Daily	Spectrophotometry by FIA	
Ammonium					
Magnesium	IS02	NILU bulk sampler	Daily	ICP-OES	
Sodium	IS02	NILU bulk sampler	Daily	ICP-OES	
Chloride	IS02	NILU bulk sampler	Daily	ICP-OES	
Calcium	IS02	NILU bulk sampler	Daily	ICP-OES	
Potassium	IS02	NILU bulk sampler	Daily	ICP-OES	
Conductivity	IS02	NILU bulk sampler	Daily	Conductivity meter	
pH	IS02	NILU bulk sampler	Daily	pH meter	
Air					
Sulphur dioxide	IS02	KOH impregnated Whatman 40 filter, 30 m ³ /day	Daily	ICP-OES	
Nitrogen dioxide					
Nitric acid					
Ammonia					
Sulphate	IS02	Whatman 40 filter, 30 m ³ /day, prefilter for aerosol	Daily	ICP-OES	
Nitrate					
Ammonium					
Sodium	IS02	Whatman 40 filter, 30 m ³ /day, prefilter for aerosol	Daily	ICP-OES	
Calcium	IS02	Whatman 40 filter, 30 m ³ /day, prefilter for aerosol	Daily	ICP-OES	
Magnesium	IS02	Whatman 40 filter, 30 m ³ /day, prefilter for aerosol	Daily	ICP-OES	
Potassium	IS02	Whatman 40 filter, 30 m ³ /day, prefilter for aerosol	Daily	ICP-OES	
Chloride	IS02	Whatman 40 filter, 30 m ³ /day, prefilter for aerosol	Daily	ICP-OES	
PM ₁₀					
PM _{2.5}					
PM ₁					
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Ireland: IE01 (lab.: Met Éireann)		Main components - EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount	IE01	Wet-only	Daily		
Precipitation amount, official gauge	IE01	Rain gauge	Daily		
Sulphate	IE01	Wet-only	Daily	Ion chromatography	
Nitrate	IE01	Wet-only	Daily	Ion chromatography	
Ammonium	IE01	Wet-only	Daily	Ion chromatography	
Magnesium	IE01	Wet-only	Daily	Ion chromatography	
Sodium	IE01	Wet-only	Daily	Ion chromatography	
Chloride	IE01	Wet-only	Daily	Ion chromatography	
Calcium	IE01	Wet-only	Daily	Ion chromatography	
Potassium	IE01	Wet-only	Daily	Ion chromatography	
Conductivity	IE01	Wet-only	Daily	Conductivity meter	
pH	IE01	Wet-only	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					
Sulphate	IE01	Whatman 40 filter, 47 mm diameter, 20-25 m ³ /day	Daily	Ion chromatography	
Nitrate					
Ammonium					
Sodium	IE01	Whatman 40 filter, 47 mm diameter, 20-25 m ³ /day	Daily	Ion chromatography	
Calcium	IE01	Whatman 40 filter, 47 mm diameter, 20-25 m ³ /day	Daily	Ion chromatography	
Magnesium	IE01	Whatman 40 filter, 47 mm diameter, 20-25 m ³ /day	Daily	Ion chromatography	
Potassium	IE01	Whatman 40 filter, 47 mm diameter, 20-25 m ³ /day	Daily	Ion chromatography	
Chloride					
PM ₁₀					
PM _{2.5}					
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: Italy, IT04 (lab.: JRC)		Main components - EMEP		Year: 2019	
	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					
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	
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: Italy, IT09/IT14 (lab: National Research Council of Italy, CNR, Institute for Atmospheric Science and Climate)			Main components - EMEP		Year: 2019	
	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	IT0009R	Instrumental: UV-fluorescence	Hourly	UV-fluorescence		
Nitrogen dioxide						
Nitric acid						
Ammonia						
Sulphate						
Nitrate						
Ammonium						
Sodium						
Calcium						
Magnesium						
Potassium						
Chloride						
PM ₁₀						
PM _{2.5}						
PM ₁						
Sum of nitric acid and nitrate						
Sum of ammonia and ammonium						

Country: Italy, IT19 (lab: Arpa Umbria)		Main components - EMEP		Year: 2019	
	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	IT0019R	Instrumental: Chemiluminescence	Hourly	Chemiluminescence	
Nitric acid					
Ammonia					
Sulphate	IT0019R	Low volume sampler Quartz Filter	Daily	Ion chromatography	
Nitrate	IT0019R	Low volume sampler Quartz Filter	Daily	Ion chromatography	
Ammonium	IT0019R	Low volume sampler Quartz Filter	Daily	Ion chromatography	
Sodium	IT0019R	Low volume sampler Quartz Filter	Daily	Ion chromatography	
Calcium	IT0019R	Low volume sampler Quartz Filter	Daily	Ion chromatography	
Magnesium	IT0019R	Low volume sampler Quartz Filter	Daily	Ion chromatography	
Potassium	IT0019R	Low volume sampler Quartz Filter	Daily	Ion chromatography	
Chloride	IT0019R	Low volume sampler Quartz Filter	Daily	Ion chromatography	
PM ₁₀	IT0019R	Low volume sampler Quartz Filter	Daily	Beta radiation attenuation	
PM _{2.5}	IT0019R	Low volume sampler Quartz Filter	Daily	Beta radiation attenuation	
PM ₁					
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					
EC/OC PM ₁₀	IT0019R	Low volume sampler Quartz Filter	Daily	Thermal-optical, EUSAAR 2 protocol	

Country: Kazakhstan		Main components - EMEP	Year: 2019	
	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				
Nitrogen dioxide				
Nitric acid				
Ammonia				
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				
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				

Country: Latvia		Main components - EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount	LV10	Wet-only	Daily	Gravimetric	
Precipitation amount, official gauge	LV10	Meteorological station	Daily	Automatic Rain gauge, OTT Pluvio ²	
Sulphate	LV10	Wet-only	Daily	Ion chromatography	
Nitrate	LV10	Wet-only	Daily	Ion chromatography	
Ammonium	LV10	Wet-only	Daily	Spectrophotometric, Indophenol method	
Magnesium	LV10	Wet-only	Daily	ICP-AES	
Sodium	LV10	Wet-only	Daily	ICP-AES	
Chloride	LV10	Wet-only	Daily	Ion chromatography	
Calcium	LV10	Wet-only	Daily	ICP-AES	
Potassium	LV10	Wet-only	Daily	ICP-AES	
Conductivity	LV10	Wet-only	Daily	Conductivity meter	
pH	LV10	Wet-only	Daily	pH meter	
Air					
Sulphur dioxide	LV10	KOH-impregnated Whatman 47 filter, 16-23 m ³ /day	Daily	Ion chromatography	
Nitrogen dioxide	LV10	Nal-impregnated glass sinters, 03-0.7 m ³ /day	Daily	Spectrophotometric, Griess method	
Nitric acid	LV10	KOH-impregnated Whatman 47 filter, 16-23 m ³ /day	Daily	Ion chromatography	
Ammonia	LV10	Oxalic acid impregnated filter, 16-23 m ³ /day	Daily	Spectrophotometric, Indophenol method	
Sulphate	LV10	Whatman 47 filter, 16-23 m ³ /day	Daily	Ion chromatography	
Nitrate	LV10	Whatman 47 filter, 16-23 m ³ /day	Daily	Ion chromatography	
Ammonium	LV10	Whatman 47 filter, 16-23 m ³ /day	Daily	Spectrophotometric, Indophenol method	
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					
Sum of nitric acid and nitrate	LV10	KOH-impregnated Whatman 47 filter + Whatman 47 filter, 16-23 m ³ /day	Daily	Ion chromatography	
Sum of ammonia and ammonium	LV10	Oxalic acid impregnated filter + Whatman 47 filter, 16-23 m ³ /day	Daily	Spectrophotometric, Indophenol method	

Country: Lithuania		Main components - EMEP		Year: 2019	
	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	LT15	Wet-only	Daily	Atomic absorption method	
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	
Air					
Sulphur dioxide	LT15	KOH-impregnated Whatman 40 filter, 20 m ³ /day	Daily	Ion chromatography	
Nitrogen dioxide	LT15	Nal-impregnated glass sinters, 0.7 m ³ /day	Daily	Spectrophotometric, Griess method	
Nitric acid					
Ammonia					
Sulphate	LT15	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20m ³ /day (Filterpack)	Daily	Ion chromatography	
Nitrate	LT15	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20m ³ /day (Filterpack)	Daily	Ion chromatography	
Ammonium	LT15	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20m ³ /day (Filterpack)	Daily	Spectrophotometric, Indophenol method	
Sodium	LT15	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20m ³ /day (Filterpack)	Daily	Atomic emission method	
Calcium	LT15	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20m ³ /day (Filterpack)	Daily	Atomic absorption method	
Magnesium					
Potassium	LT15	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20m ³ /day (Filterpack)	Daily	Atomic emission method	
Chloride	LT15	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 20m ³ /day (Filterpack)	Daily	Ion chromatography	
PM ₁₀					
PM _{2.5}					
PM ₁					
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	

Country: Macedonia		Main components - EMEP		Year: 2019	
	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					
Sulphate					
Nitrate					
Ammonium					
Sodium					
Calcium					
Magnesium					
Potassium					
Chloride					
PM ₁₀	MK07	Instrumental: beta absorption	Hourly	Beta absorption	
PM _{2.5}					
PM ₁					
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Malta		Main components - EMEP		Year: 2019	
	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	MT0001R	Instrumental: UV-fluorescence monitor	Hourly	UV-fluorescence	
Nitrogen dioxide	MT0001R	Instrumental: Chemiluminescence monitor	Hourly	Chemiluminescence (molybdenum converter)	
Nitrogen monoxide	MT0001R	Instrumental: Chemiluminescence monitor	Hourly	Chemiluminescence (molybdenum converter)	
Nitric acid					
Ammonia					
Sulphate					
Nitrate					
Ammonium					
Sodium					
Calcium					
Magnesium					
Potassium					
Chloride					
PM ₁₀					
PM _{2,5}					
PM ₁					
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Moldova		Main components - EMEP		Year: 2019	
	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					
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					
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 - EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount	ME08	Wet-only	daily		
Precipitation amount, official gauge	ME08	Meteorological station	daily		
Sulphate	ME08	Wet-only	daily	Spectrophotometry	
Nitrate	ME08	Wet-only	daily	Spectrophotometry	
Ammonium	ME08	Wet-only	daily	Spectrophotometry	
Magnesium	ME08	Wet-only	daily	By calculation	
Sodium	ME08	Wet-only	daily	Flame photometry	
Chloride	ME08	Wet-only	daily	Titrimetric method	
Calcium	ME08	Wet-only	daily	Titrimetric method	
Potassium	ME08	Wet-only	daily	Flame photometry	
Conductivity	ME08	Wet-only	daily	Conductivity meter	
pH	ME08	Wet-only	daily	pH meter, glass electrode	
Air					
Sulphur dioxide	ME08	Absorbing solution	Daily	Spectrophotometry	
Nitrogen dioxide	ME08	Absorbing solution	Daily	Spectrophotometry	
Nitric acid					
Ammonia					
Sulphate					
Nitrate					
Ammonium					
Sodium					
Calcium					
Magnesium					
Potassium					
Chloride					
PM ₁₀					
PM _{2,5}					
PM ₁					
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: The Netherlands		Main components - EMEP		Year: 2019
	Station	Sampling	Sampling frequency	Analysis method
Precipitation				
Precipitation amount	NL091	Wet-only	Daily/4-weekly	
Precipitation amount, official gauge				
Sulphate	NL091	Wet-only	Daily/4-weekly	Ion chromatography
Nitrate	NL091	Wet-only	Daily/4-weekly	Ion chromatography
Ammonium	NL091	Wet-only	Daily/4-weekly	CFA
Magnesium	NL091	Wet-only	Daily/4-weekly	HR-ICP/MS
Sodium	NL091	Wet-only	Daily/4-weekly	HR-ICP/MS
Chloride	NL091	Wet-only	Daily/4-weekly	Ion chromatography
Calcium	NL091	Wet-only	Daily/4-weekly	HR-ICP/MS
Potassium	NL091	Wet-only	Daily/4-weekly	HR-ICP/MS
Conductivity	NL091	Wet-only	Daily/4-weekly	Conductivity meter
pH	NL091	Wet-only	Daily/4-weekly	pH meter
Air				
Sulphur dioxide	NL07,NL09,,NL91,NL644R	Instrumental: UV-fluorescence	Hourly	UV-fluorescence
Nitrogen dioxide	NL07,NL09,NL10,NL91,NL644R	Instrumental: Chemiluminescence	Hourly	Chemiluminescence
Nitric acid				
Ammonia	NL91	miniDOAS: open path UV differential absorption, fingerprint 205-230 nm	Hourly	DOAS
Sulphate	NL10,NL91	Whatman QMA filter 47 mm, 55.2 m ³ /day	Daily	Ion chromatography
Nitrate	NL10,NL91	Whatman QMA filter 47 mm, 55.2 m ³ /day	Daily	Ion chromatography
Ammonium	NL10,NL91	Whatman QMA filter 47 mm, 55.2 m ³ /day	Daily	CFA ²
Chloride	NL10,NL91	Whatman QMA filter 47 mm, 55.2 m ³ /day	Daily	Ion chromatography
Sodium	NL08, NL644R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 55.2 m ³ /day	NL08L(Every other day), NL644R(every 4 day)	HR-ICP/MS
Calcium	NL08, NL644R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 55.2 m ³ /day	NL08L(Every other day), NL644R(every 4th day)	HR-ICP/MS
Magnesium	NL08, NL644R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 55.2 m ³ /day	NL08L(Every other day), NL644R(every 4th day)	HR-ICP/MS
Potassium	NL091	Wet-only	Daily/4-weekly	HR-ICP/MS
PM ₁₀	NL07,NL09,NL10,NL91,NL644R	Instrumental: beta absorption	Hourly	Beta absorption
PM _{2.5}	NL09,NL10,,NL91.NL644R	Instrumental: beta absorption	Hourly	Beta absorption
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				

Country: Norway		Main components - EMEP		Year: 2019	
	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					
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%	
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-NRI)		Main components- EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount	All	Bulk	Daily	By weight	
Precipitation amount, official gauge	All	Total	Daily	PL02,PL03 Hellman, standard gauge PL04 SEBA Hydrometrie, automatic 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	Spectrophotometric, Thorin	
Nitrogen dioxide	All	Absorbing solution TGS, 0.7 m ³ /day	Daily	Spectrophotometric, Griess method	
Nitric acid					
Ammonia					
Sulphate	All	Whatman 40 filter, 3.5-4.2 m ³ /day	Daily	Spectrophotometric, 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}					
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-NRI)		Main components - EMEP		Year: 2019	
	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	Ion chromatography	
Nitrate	PL05	Wet-only	Daily	Ion chromatography	
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	Ion chromatography	
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	Instrumental: UV-fluorescence	Hourly	UV-fluorescence	
Nitrogen dioxide	PL05	Instrumental: Chemiluminescence	Hourly	Chemiluminescence	
Nitric acid					
Ammonia					
Sulphate	PL05	Teflon filter Millipore Fluoropore 3 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	
Sum of nitric acid and nitrate	PL05	Aerosol Teflon filter Millipore Fluoropore 3 µm+ KOH impregnated Whatman 40 filter, 16 m ³ /day	Daily	Capillary Electrophoresis	
Sum of ammonia and ammonium	PL05	Aerosol Teflon filter Millipore Fluoropore 3 µm + Oxalic acid impregnated Whatman 40 filter, 16 m ³ /day	Daily	Spectrophotometric, Indophenol method	

Country: Russian Federation		Main components - EMEP		Year: 2019	
	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	RU18	NaOH-impregnated Whatman 40 filter, 20-25 m ³ /day	Daily	Ion chromatography	
Sulphur dioxide	RU20	NaOH-impregnated Whatman 40 filter, 20-25 m ³ /day	Weekly	Ion chromatography	
Nitrogen dioxide					
Nitric acid					
Ammonia					
Sulphate	RU18	Whatman 40 filter, 20-25 m ³ /day	Daily	Ion chromatography	
Sulphate	RU20	Whatman 40 filter, 20-25 m ³ /day	Weekly	Ion chromatography	
Nitrate	RU18	Whatman 40 filter, 20-25 m ³ /day	Daily	Ion chromatography	
Nitrate	RU20	Whatman 40 filter, 20-25 m ³ /day	Weekly	Ion chromatography	
Ammonium	RU18	Whatman 40 filter, 20-25 m ³ /day	Daily	Ion chromatography	
Ammonium	RU20	Whatman 40 filter, 20-25 m ³ /day	Weekly	Ion chromatography	
Sodium					
Calcium					
Magnesium					
Potassium					
Chloride					
PM ₁₀					
PM _{2.5}					
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Serbia		Main components - EMEP		Year: 2019	
	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 ₂ O 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					
Sulphate					
Nitrate					
Ammonium					
Sodium					
Calcium					
Magnesium					
Potassium					
Chloride					
PM ₁₀	RS05	Low Volume Sampler, 2.3 m ³ /day	Daily		Gravimetric method
PM _{2.5}					
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Slovakia		Main components EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount	All	Bulk: SK02; Wet-only: SK04, SK06, SK07	Daily SK02, SK06 Weekly SK04, SK 07	By weight	
Precipitation amount, official gauge	All	Reported from professional meteorological rain-gauges	Daily		
Sulphate	All	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK06 Weekly: SK04, SK07	Ion chromatography – Dionex	
Nitrate	All	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK06 Weekly: SK04, SK07	Ion chromatography – Dionex	
Ammonium	All	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK06 Weekly: SK04, SK07	Ion chromatography – Dionex	
Magnesium	All	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK06 Weekly: SK4, SK07	Ion chromatography – Dionex	
Sodium	All	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK06 Weekly: SK04, SK07	Ion chromatography – Dionex	
Chloride	All	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK06 Weekly: SK04, SK07	Ion chromatography – Dionex	
Calcium	All	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK06 Weekly SK04, SK07	Ion chromatography – Dionex	
Potassium	All	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK06 Weekly: SK04, SK07	Ion chromatography – Dionex	
Conductivity	All	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK06 Weekly: SK04, SK07	Conductivity meter	
pH	All	Bulk: SK02 Wet-only: SK04, SK06, SK07	Daily: SK02, SK06 Weekly: SK04, SK07	pH meter	
Heavy metals (As, Cd, Cr, Cu, Ni, Pb, Zn)	All	Bulk: SK02 Wet-only: SK04, SK06, SK07	Weekly: SK 06 Monthly: SK02, SK04, SK07	ICP-MS	
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	
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 I	
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	Low volume sampler (MicroPNS), Sartorius nitrocellulose filter, 24 m ³ /day	Weekly	Gravimetric method	

Country: Slovenia		Main components - EMEP		Year: 2019	
	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					
Nitrogen dioxide	SI08	Continuous measurements: Teledyne API Model T500U CAPS Analyser	Hourly	Cavity-Attenuated Phase-Shift spectroscopy	
PM10	SI08	Low volume sampler, 2.3 m ³ /h, Quartz filter, 47 mm	Daily	Gravimetric method	
PM2.5	SI08	Low volume sampler, 2.3 m ³ /h, Quartz filter, 47 mm	Daily	Gravimetric method	
Ammonium PM _{2.5}	SI08	Leckel - Low volume sampler	Daily	Ion chromatography	
Nitrate PM _{2.5}	SI08	Leckel - Low volume sampler	Daily	Ion chromatography	
Sulphate PM _{2.5}	SI08	Leckel - Low volume sampler	Daily	Ion chromatography	
Calcium PM _{2.5}	SI08	Leckel - Low volume sampler	Daily	Ion chromatography	
Chloride PM _{2.5}	SI08	Leckel - Low volume sampler	Daily	Ion chromatography	
Magnesium PM _{2.5}	SI08	Leckel - Low volume sampler	Daily	Ion chromatography	
Sodium PM _{2.5}	SI08	Leckel - Low volume sampler	Daily	Ion chromatography	
Potassium PM _{2.5}	SI08	Leckel - Low volume sampler	Daily	Ion chromatography	
EC/OC PM _{2.5}	SI08	Leckel - Low volume sampler	Daily	Thermal optical analysis	

Country: Spain		Main components - EMEP	Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method
Precipitation				
Precipitation amount	All (except ES10)	Wet-only	Daily	
Sulphate	All (except ES10)	Wet-only	Daily	Ion chromatography
Nitrate	All (except ES10)	Wet-only	Daily	Ion chromatography
Ammonium	All (except ES10)	Wet-only	Daily	Visible spectrophotometry, Indophenol method
Magnesium	All (except ES10)	Wet-only	Daily	ICP-AES
Sodium	All (except ES10)	Wet-only	Daily	ICP-AES
Chloride	All (except ES10)	Wet-only	Daily	Ion chromatography
Calcium	All (except ES10)	Wet-only	Daily	ICP-AES
Potassium	All (except ES10)	Wet-only	Daily	ICP-AES
Conductivity	All (except ES10)	Wet-only	Daily	Conductivity meter
pH	All (except ES10)	Wet-only	Daily	pH meter
Air				
Sulphur dioxide	All	Instrumental: UV-fluorescence	Hourly	Pulsed UV-Fluorescence
Nitrogen dioxide/NO/NOx	All	Instrumental: Chemiluminescence	Hourly	Chemiluminescence
PM ₁₀	ES09, ES12, ES13, ES16	Monitor de partículas en suspensión TEOM	Hourly	Tapered Element Oscillating Microbalance
Ammonia	ES01, ES07, ES08, ES09, ES14	Passive sampler	Weekly ES07 (Biweekly)	Visible spectrophotometry, Indophenol method
PM ₁₀	All	High volume sampler	Daily	Gravimetric method
PM _{2.5}	ES01, ES06 (started in 2012), 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	ES01, ES07, ES08, ES09, ES14	High volume sampler	24 hour, once a week	Visible spectrophotometry, Indophenol method
Sodium PM ₁₀	ES01, ES07, ES08, ES09, ES14	High volume sampler	Daily	ICP-AES
Calcium PM ₁₀	ES01, ES07, ES08, ES09, ES14	High volume sampler	Daily	ICP-AES
Magnesium PM ₁₀	ES01, ES07, ES08, ES09, ES14	High volume sampler	Daily	ICP-AES
Potassium PM ₁₀	ES01, ES07, ES08, ES09, ES14	High volume sampler	Daily	ICP-AES
Chloride PM ₁₀	ES01, ES07, ES08, ES09, ES14	High volume sampler	24 hour, once a week	Ion chromatography
Sulphate PM _{2.5}	ES01, ES07, ES08, ES09, ES14	High volume sampler	24 hour, once a week	Ion chromatography
Nitrate PM _{2.5}	ES01, ES07, ES08, ES09, ES14	High volume sampler	24 hour, once a week	Ion chromatography
Sodium PM _{2.5}	ES01, ES07, ES08, ES09, ES14	High volume sampler	24 hour, once a week	ICP-AES
Calcium PM _{2.5}	ES01, ES07, ES08, ES09, ES14	High volume sampler	24 hour, once a week	ICP-AES

Country: Spain		Main components - EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Magnesium PM _{2.5}	ES01, ES07, ES08, ES09, ES14	High volume sampler	24 hour, once a week	ICP-AES	
Potassium PM _{2.5}	ES01, ES07, ES08, ES09, ES14	High volume sampler	24 hour, once a week	ICP-AES	
Ammonium PM _{2.5}	ES01, ES07, ES08, ES09, ES14	High volume sampler	24 hour, once a week	Visible spectrophotometry, Indophenol method	
Chloride PM _{2.5}	ES01, ES07, ES08, ES09, ES14	High volume sampler	24 hour, once a week	Ion chromatography	
EC/OC PM _{2.5}	ES01, ES07, ES09, ES12, ES14	PM2.5 low volume sampler (55 m ³ /day)	24 hour, once every 6 days (60 samples per year)	Thermal optical	

Country: Sweden		Main components - EMEP		Year: 2019	
	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					
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 PModel S10	Daily	Gravimetric	
PM _{2.5}	SE05, SE14	IVL Sampler PModel 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 - EMEP		Year: 2019	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount	CH02, CH04, CH05	Wet-only	Weekly		
Precipitation amount, official gauge					
Sulphate	CH02, CH04, CH05	Wet-only	Weekly	Ion chromatography	
Nitrate	CH02, CH04, CH05	Wet-only	Weekly	Ion chromatography	
Ammonium	CH02, CH04, CH05	Wet-only	Weekly	Ion chromatography	
Magnesium	CH02, CH04, CH05	Wet-only	Weekly	Ion chromatography	
Sodium	CH02, CH04, CH05	Wet-only	Weekly	Ion chromatography	
Chloride	CH02, CH04, CH05	Wet-only	Weekly	Ion chromatography	
Calcium	CH02, CH04, CH05	Wet-only	Weekly	Ion chromatography	
Potassium	CH02, CH04, CH05	Wet-only	Weekly	Ion chromatography	
Conductivity	CH02, CH04, CH05	Wet-only	Weekly	Conductivity meter	
pH	CH02, CH04, CH05	Wet-only	Weekly	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	
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	
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: United Kingdom		Main components - EMEP		Year: 2019	
	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	
Precipitation amount					
Precipitation amount	GB048, GB1055	Wet only collector	Daily	Mass of water collected	
Sulphate	GB048, GB1055	Wet only collector	Daily	Ion chromatography	
Nitrate	GB048, GB1055	Wet only collector	Daily	Ion chromatography	
Ammonium	GB048, GB1055	Wet only collector	Daily	Ion chromatography	
Magnesium	GB048, GB1055	Wet only collector	Daily	Ion chromatography	
Sodium	GB048, GB1055	Wet only collector	Daily	Ion chromatography	
Chloride	GB048, GB1055	Wet only collector	Daily	Ion chromatography	
Calcium	GB048, GB1055	Wet only collector	Daily	Ion chromatography	
Potassium	GB048, GB1055	Wet only collector	Daily	Ion chromatography	
Conductivity	GB048, GB1055	Wet only collector	Daily	Conductivity meter	
pH	GB048, GB1055	Wet only collector	Daily	pH meter	
Air					
Sulphur dioxide	GB37, GB38, GB43, GB45	Instrumental	Hourly, 15 minute	UV fluorescence	
Sulphur dioxide	GB48, GB1055	Instrumental	Hourly	Online IC	
Nitrogen dioxide	12 sites	Instrumental	Hourly	Chemiluminescence	
Nitrogen monoxide	12 sites	Instrumental	Hourly	Chemiluminescence	
Nitric Acid	GB48	Instrumental	Hourly	Online IC	
Ammonia	GB48	Instrumental	Hourly	Online IC	
PM ₁₀	GB06, GB43, GB48, GB1055	FDMS	Hourly		
PM _{2.5}	GB48, GB1055	FDMS	Hourly		
Ammonium PM ₁₀ , PM _{2.5}	GB48, GB1055	Instrumental	Hourly	Online IC	
Calcium PM ₁₀ , PM _{2.5}	GB48, GB1055	Instrumental	Hourly	Online IC	
Chloride PM ₁₀ , PM _{2.5}	GB48, GB1055	Instrumental	Hourly	Online IC	
Magnesium PM ₁₀ , PM _{2.5}	GB48, GB1055	Instrumental	Hourly	Online IC	
Nitrate PM ₁₀ , PM _{2.5}	GB48, GB1055	Instrumental	Hourly	Online IC	
Potassium PM ₁₀ , PM _{2.5}	GB48, GB1055	Instrumental	Hourly	Online IC	
Sodium PM ₁₀ , PM _{2.5}	GB48, GB1055	Instrumental	Hourly	Online IC	
Sulphate PM ₁₀ , PM _{2.5}	GB48, GB1055	Instrumental	Hourly	Online IC	

Annex 6

List of data reports

Data Report October 1977-September 1978.

EMEP/CCC-Report 3/80 by J. Schaug, H. Dovland, J.E. Skjelmoen.
Lillestrøm, Norwegian Institute for Air Research, 1980.

Data Report October 1978-September 1979.

EMEP/CCC-Report 4/81 by J.E. Skjelmoen, H. Dovland, J. Schaug.
Lillestrøm, Norwegian Institute for Air Research, 1981.

Data Report October 1979-September 1980.

EMEP/CCC-Report 5/84 by J.E. Skjelmoen, J. Schaug.
Lillestrøm, Norwegian Institute for Air Research, 1984.

Data Report October 1980-September 1981.

EMEP/CCC-Report 6/84 by J.E. Skjelmoen, J. Schaug.
Lillestrøm, Norwegian Institute for Air Research, 1984.

Data Report October 1981-September 1982.

EMEP/CCC-Report 2/85 by K. Nodop, J.E. Skjelmoen, J. Schaug.
Lillestrøm, Norwegian Institute for Air Research, 1985.

Data Report October 1982-December 1982.

EMEP/CCC-Report 4/86 by J. Schaug, A. Harstad, T. Krognnes, J.E. Skjelmoen.
Lillestrøm, Norwegian Institute for Air Research, 1986.

Data Report January 1983-December 1983.

EMEP/CCC-Report 5/86 by J. Schaug, A. Harstad, T. Krognnes, J.E. Skjelmoen.
Lillestrøm, Norwegian Institute for Air Research, 1986.

Data Report January 1984-June 1984.

EMEP/CCC-Report 1/87 by J. Schaug, J. Pacyna, A. Harstad, T. Krognnes, J.E. Skjelmoen.
Lillestrøm, Norwegian Institute for Air Research, 1987.

Data Report July 1984-December 1984.

EMEP/CCC-Report 2/87 by J. Schaug, J. Pacyna, A. Harstad, T. Krognnes, J.E. Skjelmoen.
Lillestrøm, Norwegian Institute for Air Research, 1987.

Data Report January 1985-June 1985.

EMEP/CCC-Report 5/87 by J. Pacyna, J. Schaug, A. Harstad, T. Krognnes, J.E. Skjelmoen.
Lillestrøm, Norwegian Institute for Air Research, 1987.

Data Report July 1985-December 1985.

EMEP/CCC-Report 6/87 by J. Pacyna, J. Schaug, A. Harstad, T. Krognnes, J.E. Skjelmoen
Lillestrøm, Norwegian Institute for Air Research, 1987.

European Precipitation Chemistry Atlas.

An Atlas of monthly and seasonal maps of precipitation amount, non-marine sulphate, nitrate, ammonium and hydrogen ion concentrations and depositions based on the EMEP precipitation network: October 1977 to September 1982.

EMEP/CCC-Report 5/88 by R.J. Barthelmie, T.D. Davies, G. Farmer, J. Schaug.
Norwich/Lillestrøm, Climatic Research Unit, University of East Anglia/ Norwegian Institute for Air Research, 1988.

Data Report 1986. Part 1: Annual summaries.

EMEP/CCC-Report 6/88 by J. Schaug, J.E. Skjelmoen, S.E. Walker, A. Harstad, K. Nodop, J. Pacyna
Lillestrøm, Norwegian Institute for Air Research, 1988.

Data Report 1986. Part 2: Monthly and seasonal summaries.

EMEP/CCC-Report 7/88 by J. Schaug, J.E. Skjelmoen, S.E. Walker, A. Harstad, K. Nodop, J. Pacyna
Lillestrøm, Norwegian Institute for Air Research, 1988.

Data Report 1987. Part 1: Annual summaries.

EMEP/CCC-report 1/89 by J. Schaug, J.E. Skjelmoen, S.-E. Walker, U. Pedersen, A. Harstad
Lillestrøm, Norwegian Institute for Air Research, 1989.

Data Report 1987. Part 2: Monthly and seasonal summaries.

EMEP/CCC-Report 2/89 by J. Schaug, J.E. Skjelmoen, S.E. Walker, U. Pedersen, A. Harstad.
Lillestrøm, Norwegian Institute for Air Research, 1989.

Ozone measurements January-December 1985.

EMEP/CCC-Report 3/89 by U. Feister, U. Pedersen.
Potsdam/Lillestrøm, Meteorological Service of the GDR/Norwegian Institute for Air Research, 1989.

Data Report 1988. Part 1: Annual summaries.

EMEP/CCC-Report 4/90 by U. Pedersen, J. Schaug, J.E. Skjelmoen, J.E. Hanssen.
Lillestrøm, Norwegian Institute for Air Research, 1990.

Data Report 1988. Part 2: Monthly and seasonal summaries.

EMEP/CCC-Report 5/90 by J. Schaug, U. Pedersen, J.E. Skjelmoen, J.E. Hanssen.
Lillestrøm, Norwegian Institute for Air Research, 1990.

European Precipitation Chemistry Atlas (Volume 2).

An Atlas of monthly and seasonal maps of precipitation amount, non-marine sulphate, nitrate, ammonium and hydrogen ion concentrations and depositions based on the EMEP precipitation network: October 1982 to December 1985.

EMEP/CCC-Report 6/90 by T.D. Davies, R.J. Barthelmie, M. Varley, S. Dorling, G. Farmer, J. Schaug.

Norwich/Lillestrøm, Climatic Research Unit, University of East Anglia/Norwegian Institute for Air Research, 1990.

Ozone measurements January-December 1986.

EMEP/CCC-Report 8/90 by U. Feister, U. Pedersen, E. Schulz, S. Hechler.
Potsdam/Lillestrøm, Meteorological Service of the GDR/Norwegian Institute for Air Research, 1990.

Data Report 1989. Part 1: Annual summaries.

EMEP/CCC-Report 2/91 by J. Schaug, U. Pedersen, J.E. Skjelmoen.
Lillestrøm, Norwegian Institute for Air Research, 1991.

Data Report 1989. Part 2: Monthly and seasonal summaries.
EMEP/CCC-Report 3/91 by J. Schaug, U. Pedersen, J.E. Skjelmoen.
Lillestrøm, Norwegian Institute for Air Research, 1991.

Ozone Data Report 1988.
EMEP/CCC-Report 1/92 by U. Pedersen.
Lillestrøm, Norwegian Institute for Air Research, 1992.

Data Report 1990. Part 1: Annual summaries.
EMEP/CCC-Report 2/92 by U. Pedersen, J. Schaug, J.E. Skjelmoen.
Lillestrøm, Norwegian Institute for Air Research, 1992.

Data Report 1990. Part 2: Monthly and Seasonal Summaries.
EMEP/CCC-Report 3/92 by J. Schaug, U. Pedersen, J.E. Skjelmoen and I. Kvalvågnes.
Lillestrøm, Norwegian Institute for Air Research, 1992.

European Precipitation Chemistry Atlas (Volume 3). An Atlas of monthly and seasonal maps of precipitation amount, non-sea-salt sulphate, nitrate, ammonium and hydrogen ion concentrations and depositions based on the EMEP precipitation chemistry network: January 1986 to December 1989.
EMEP/CCC-Report 6/92 by T.D. Davies, S. Glynn, R.J. Barthelmie.
Norwich/Lillestrøm, Climate Research Unit, University of East Anglia, Norwegian Institute for Air Research, 1992.

Ozone Data Report 1989.
EMEP/CCC-Report 2/93 by U. Pedersen and I. Kvalvågnes.
Lillestrøm, Norwegian Institute for Air Research, 1993.

Data Report 1991. Part 1: Annual summaries.
EMEP/CCC-Report 4/93 by J. Schaug, U. Pedersen, J.E. Skjelmoen and I. Kvalvågnes.
Lillestrøm, Norwegian Institute for Air Research, 1993.

Data Report 1991. Part 2: Monthly and seasonal summaries.
EMEP/CCC-Report 5/93 by J. Schaug, U. Pedersen, J.E. Skjelmoen and I. Kvalvågnes.
Lillestrøm, Norwegian Institute for Air Research, 1993.

VOC measurements August 1992-June 1993.
EMEP/CCC-Report 6/93 by S. Solberg, N. Schmidbauer, C. Dye, U. Pedersen and J. Schaug.
Lillestrøm, Norwegian Institute for Air Research, 1993.

VOC measurements 1993.
EMEP/CCC-Report 3/94 by S. Solberg, C. Dye and N. Schmidbauer.
Lillestrøm, Norwegian Institute for Air Research, 1994.

Data Report 1992. Part 1: Annual summaries.
EMEP/CCC-Report 4/94 by J. Schaug, U. Pedersen, J.E. Skjelmoen, K. Arnesen, A. Bartonova.
Lillestrøm, Norwegian Institute for Air Research, 1992.

Data Report 1992. Part 2: Monthly and seasonal summaries.
EMEP/CCC-Report 5/94 by J. Schaug, U. Pedersen, J.E. Skjelmoen and K. Arnesen.
Lillestrøm, Norwegian Institute for Air Research, 1993.

Ozone Measurements 1990-1992.
EMEP/CCC-Report 4/95 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 1995.

Data Report 1993. Part 1: Annual summaries.
EMEP/CCC-Report 7/95 by A.-G. Hjellbrekke, G. Lövblad, K. Sjöberg, J. Schaug, J.E. Skjelmoen.
Kjeller, Norwegian Institute for Air Research, 1995.

Data Report 1993. Part 2: Monthly and seasonal summaries.
EMEP/CCC-Report 8/95 by G. Lövblad, A.-G. Hjellbrekke, K. Sjöberg, J. Schaug, J.E. Skjelmoen.
Kjeller, Norwegian Institute for Air Research, 1995.

Ozone Measurements 1993-1994.
EMEP/CCC-Report 1/96 by A.G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 1996.

Data Report 1994. Part 1: Annual summaries.
EMEP/CCC-Report 4/96 by A.-G. Hjellbrekke, J. Schaug, J.E. Skjelmoen.
Kjeller, Norwegian Institute for Air Research, 1996.

Data Report 1994. Part 2: Monthly and seasonal summaries.
EMEP/CCC-Report 5/96 by A.-G. Hjellbrekke, J. Schaug, J.E. Skjelmoen.
Kjeller, Norwegian Institute for Air Research, 1996.

VOC measurements 1994–1995.
EMEP/CCC-Report 6/96 by S. Solberg, C. Dye and N. Schmidbauer.
Kjeller, Norwegian Institute for Air Research, 1996.

Heavy metals and POPs within the ECE region.
EMEP/CCC-Report 8/96 by T. Berg, A.-G. Hjellbrekke, J.E. Skjelmoen.
Kjeller, Norwegian Institute for Air Research, 1996.

Ozone Measurements 1995.
EMEP/CCC-Report 3/97 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 1997.

Data Report 1995. Part 1: Annual summaries.
EMEP/CCC-Report 4/97 by A.-G. Hjellbrekke, J. Schaug, J.E. Hanssen, J.E. Skjelmoen.
Kjeller, Norwegian Institute for Air Research, 1997.

Data Report 1995. Part 2: Monthly and seasonal summaries.
EMEP/CCC-Report 5/97 by A.-G. Hjellbrekke, J. Schaug, J.E. Hanssen, J.E. Skjelmoen.
Kjeller, Norwegian Institute for Air Research, 1997.

VOC measurements 1996.

EMEP/CCC-Report 7/97 by S. Solberg, C. Dye and N. Schmidbauer.
Kjeller, Norwegian Institute for Air Research, 1997.

Data Report 1996. Part 1: Annual summaries.

EMEP/CCC-Report 1/98 by A.-G. Hjellbrekke and J.E. Hanssen.
Kjeller, Norwegian Institute for Air Research, 1998.

Data Report 1996. Part 2: Monthly and seasonal summaries.

EMEP/CCC-Report 2/98 by A.-G. Hjellbrekke and J.E. Hanssen.
Kjeller, Norwegian Institute for Air Research, 1998.

Ozone Measurements 1996.

EMEP/CCC-Report 3/98 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 1998.

VOC measurements 1997.

EMEP/CCC-Report 4/98 by S. Solberg, P. Coddeville, C. Dye, J. Honzak and
N. Schmidbauer.
Kjeller, Norwegian Institute for Air Research, 1998.

Ozone Measurements 1997.

EMEP/CCC-Report 2/99 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 1999.

Data Report 1997. Part 1: Annual summaries.

EMEP/CCC-Report 3/99 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 1999.

Data Report 1997. Part 2: Monthly and seasonal summaries.

EMEP/CCC-Report 4/99 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 1999.

VOC measurements 1998.

EMEP/CCC-Report 5/99 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 1999.

Heavy metals and POPs within the ECE region 1997.

EMEP/CCC-Report 7/99 by T. Berg and A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 1999.

Heavy metals and POPs in Europe 1998.

EMEP/CCC-Report 2/2000 by T. Berg, A.-G. Hjellbrekke and R. Larsen.
Kjeller, Norwegian Institute for Air Research, 2000.

Data Report 1998. Part 1: Annual summaries.

EMEP/CCC-Report 3/2000 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2000.

Data Report 1998. Part 2: Monthly and seasonal summaries.

EMEP/CCC-Report 4/2000 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2000.

Ozone Measurements 1998.

EMEP/CCC-Report 5/2000 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2000.

Ozone Measurements 1999.

EMEP/CCC-Report 1/2001 by A.-G. Hjellbrekke and S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2001.

Data Report 1999. Acidifying and eutrophying compounds. Part 1: Annual summaries.

EMEP/CCC-Report 2/2001 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2001.

Data Report 1999. Acidifying and eutrophying compounds. Part 2: Monthly and seasonal summaries.

EMEP/CCC-Report 3/2001 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2001.

VOC measurements 1999.

EMEP/CCC-Report 7/2001 by S. Solberg, C. Dye, M. Roemer and N. Schmidbauer.
Kjeller, Norwegian Institute for Air Research, 2001.

Heavy metals and POPs within the ECE region in 1999.

EMEP/CCC-Report 9/2001 by T. Berg, A.-G. Hjellbrekke and R. Larsen.
Kjeller, Norwegian Institute for Air Research, 2001.

Ozone measurements 2000.

EMEP/CCC-Report 5/2002 by A.-G. Hjellbrekke and S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2002.

Data Report 2000. Acidifying and eutrophying compounds. Part 1: Annual summaries.

EMEP/CCC-Report 6/2002 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2002.

Data Report 2000. Acidifying and eutrophying compounds. Part 2: Monthly and seasonal summaries.

EMEP/CCC-Report 7/2002 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2002.

VOC measurements 2000.

EMEP/CCC-Report 8/2002 by S. Solberg, C. Dye, N. Schmidbauer, M. Wallasch and R. Junek.

Kjeller, Norwegian Institute for Air Research, 2002.

Heavy metals and POPs within the EMEP region 2000.

EMEP/CCC-Report 9/2002 by T. Berg, A.-G. Hjellbrekke and R. Larsen.
Kjeller, Norwegian Institute for Air Research, 2002.

Heavy metals and POP measurements, 2001.

EMEP/CCC-Report 1/2003 by W. Aas and A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2003.

VOC measurements 2001.

EMEP/CCC-Report 2/2003 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2003.

Data Report 2001. Acidifying and eutrophying compounds.

EMEP/CCC-Report 3/2003 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2003.

Ozone measurements 2001.

EMEP/CCC-Report 4/2003 by A.-G. Hjellbrekke and S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2003.

Data Report 2002. Acidifying and eutrophying compounds.

EMEP/CCC-Report 1/2004 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2004.

Ozone measurements 2002.

EMEP/CCC-Report 2/2004 by A.-G. Hjellbrekke and S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2004.

Heavy metals and POP measurements, 2002.

EMEP/CCC-Report 7/2004 by W. Aas and K. Breivik.
Kjeller, Norwegian Institute for Air Research, 2004.

VOC measurements 2002.

EMEP/CCC-Report 8/2004 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2004.

Data Report 2003. Acidifying and eutrophying compounds.

EMEP/CCC-Report 3/2005 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2005.

Ozone measurements 2003.

EMEP/CCC-Report 4/2005 by A.-G. Hjellbrekke and S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2005.

Heavy metals and POP measurements, 2003.

EMEP/CCC-Report 9/2005 by W. Aas and K. Breivik.
Kjeller, Norwegian Institute for Air Research, 2005.

VOC measurements 2003.

EMEP/CCC-Report 10/2005 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2005.

Data Report 2004. Acidifying and eutrophying compounds.

EMEP/CCC-Report 1/2006 by A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2006.

Ozone measurements 2004.

EMEP/CCC-Report 2/2006 by A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2006.

Heavy metals and POP measurements, 2004.
EMEP/CCC-Report 7/2006 by W. Aas and K. Breivik.
Kjeller, Norwegian Institute for Air Research, 2006.

VOC measurements 2004.
EMEP/CCC-Report 8/2006 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2006.

Data Report 2005. Acidifying and eutrophying compounds.
EMEP/CCC-Report 1/2007 by A.-G. Hjellbrekke and A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2007.

Ozone measurements 2005.
EMEP/CCC-Report 2/2007 by A.M. Fjæraa and A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2007.

Heavy metals and POP measurements, 2005.
EMEP/CCC-Report 6/2007 by W. Aas and K. Breivik.
Kjeller, Norwegian Institute for Air Research, 2007.

VOC measurements 2005.
EMEP/CCC-Report 7/2007 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2007.

Data Report 2006. Acidifying and eutrophying compounds.
EMEP/CCC-Report 1/2008 by A.-G. Hjellbrekke and A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2008.

Ozone measurements 2006.
EMEP/CCC-Report 2/2008 by A.M. Fjæraa and A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2008.

Heavy metals and POP measurements, 2006.
EMEP/CCC-Report 4/2008 by W. Aas and K. Breivik.
Kjeller, Norwegian Institute for Air Research, 2008.

VOC measurements 2006.
EMEP/CCC-Report 5/2008 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2008.

Data Report 2007. Acidifying and eutrophying compounds.
EMEP/CCC-Report 1/2009 by A.-G. Hjellbrekke and A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2009.

Ozone measurements 2007.
EMEP/CCC-Report 2/2009 by A.M. Fjæraa and A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2009.

Heavy metals and POP measurements, 2007.
EMEP/CCC-Report 3/2009 by W. Aas and K. Breivik.
Kjeller, Norwegian Institute for Air Research, 2009.

VOC measurements 2007.

EMEP/CCC-Report 4/2009 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2009.

Data Report 2008. Acidifying and eutrophying compounds.

EMEP/CCC-Report 1/2010 by A.-G. Hjellbrekke and A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2010.

Ozone measurements 2008.

EMEP/CCC-Report 2/2010 by A.M. Fjæraa and A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2010.

Heavy metals and POP measurements, 2008.

EMEP/CCC-Report 3/2010 by W. Aas and K. Breivik.
Kjeller, Norwegian Institute for Air Research, 2010.

VOC measurements 2008.

EMEP/CCC-Report 4/2010 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2010.

Data Report 2009. Acidifying and eutrophying compounds.

EMEP/CCC-Report 1/2011 by A.-G. Hjellbrekke and A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2011.

Ozone measurements 2009.

EMEP/CCC-Report 2/2011 by A.-G. Hjellbrekke, S. Solberg and A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2011.

Heavy metals and POP measurements, 2009.

EMEP/CCC-Report 3/2011 by W. Aas and K. Breivik.
Kjeller, Norwegian Institute for Air Research, 2011.

VOC measurements 2009.

EMEP/CCC-Report 6/2011 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2011.

Data Report 2010. Acidifying and eutrophying compounds.

EMEP/CCC-Report 1/2012 by A.-G. Hjellbrekke and A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2012.

Ozone measurements 2010.

EMEP/CCC-Report 2/2012 by A.-G. Hjellbrekke, S. Solberg and A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2012.

Heavy metals and POP measurements, 2010.

EMEP/CCC-Report 3/2012 by W. Aas and K. Breivik.
Kjeller, Norwegian Institute for Air Research, 2012.

VOC measurements 2010.

EMEP/CCC-Report 4/2012 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2012.

Data Report 2011. Acidifying and eutrophying compounds.
EMEP/CCC-Report 2/2013 by A.-G. Hjellbrekke and A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2013.

Ozone measurements 2011.
EMEP/CCC-Report 3/2013 by A.-G. Hjellbrekke, S. Solberg and A.M. Fjæraa.
Kjeller, Norwegian Institute for Air Research, 2013.

Heavy metals and POP measurements, 2011.
EMEP/CCC-Report 4/2013 by W. Aas and K. Breivik.
Kjeller, Norwegian Institute for Air Research, 2013.

VOC measurements 2011.
EMEP/CCC-Report 5/2013 by S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2013.

Ozone measurements 2012.
EMEP/CCC-Report 2/2014 by A.-G. Hjellbrekke and S. Solberg.
Kjeller, Norwegian Institute for Air Research, 2014.

Data Report 2012. Acidifying and eutrophying compounds and particulate matter.
EMEP/CCC-Report 3/2014 by A.-G. Hjellbrekke.
Kjeller, Norwegian Institute for Air Research, 2014.

Heavy metals and POP measurements, 2012.
EMEP/CCC-Report 4/2014 by W. Aas and P.B. Nizzetto.
Kjeller, Norwegian Institute for Air Research, 2014.

Data Report 2013 Acidifying and eutrophying compounds and particulate matter
EMEP/CCC-Report 1/2015 by A.-G. Hjellbrekke
Kjeller, Norwegian Institute for Air Research, 2015.

Ozone measurements 2013
EMEP/CCC-Report 2/2015 by A.-G. Hjellbrekke and S. Solberg
Kjeller, Norwegian Institute for Air Research, 2015.

Heavy metals and POP measurements, 2013
EMEP/CCC-Report 3/2015 by W. Aas and P. Bohlin Nizzetto
Kjeller, Norwegian Institute for Air Research, 2015.

VOC measurements 2012 and 2013
EMEP/CCC-Report 4/2015 by S. Solberg
Kjeller, Norwegian Institute for Air Research, 2015.

Data Report 2014 Particulate matter, carbonaceous and inorganic compounds
EMEP/CCC-Report 2/2016 by Anne-Gunn Hjellbrekke
Kjeller, Norwegian Institute for Air Research, 2016.

Ozone measurements 2014

EMEP/CCC-Report 3/2016 by Anne-Gunn Hjellbrekke and Sverre Solberg
Kjeller, Norwegian Institute for Air Research, 2016.

Heavy metals and POP measurements, 2014

EMEP/CCC-Report 4/2016 by Wenche Aas, Pernilla Bohlin Nizzetto and Katrine Aspmo
Phaffhuber
Kjeller, Norwegian Institute for Air Research, 2016.

Data Report 2015 Particulate matter, carbonaceous and inorganic compounds

EMEP/CCC-Report 1/2017 by Anne-Gunn Hjellbrekke
Kjeller, Norwegian Institute for Air Research, 2017.

Ozone measurements 2015

EMEP/CCC-Report 2/2017 by Anne-Gunn Hjellbrekke and Sverre Solberg
Kjeller, Norwegian Institute for Air Research, 2017.

Heavy metals and POP measurements, 2015

EMEP/CCC-Report 3/2017 by Wenche Aas, Pernilla Bohlin Nizzetto and Katrine Aspmo
Phaffhuber
Kjeller, Norwegian Institute for Air Research, 2017.

VOC measurements 2014 and 2015

EMEP/CCC-Report 4/2017 by Sverre Solberg et al.
Kjeller, Norwegian Institute for Air Research, 2017.

Data Report 2016 Particulate matter, carbonaceous and inorganic compounds

EMEP/CCC-Report 1/2018 by Anne-Gunn Hjellbrekke
Kjeller, Norwegian Institute for Air Research, 2018.

Ozone measurements 2016

EMEP/CCC-Report 2/2018 by Anne-Gunn Hjellbrekke and Sverre Solberg
Kjeller, Norwegian Institute for Air Research, 2018.

Heavy metals and POP measurements 2016

EMEP/CCC-Report 3/2018 by Wenche Aas and Pernilla Bohlin Nizzetto
Kjeller, Norwegian Institute for Air Research, 2018.

VOC measurements 2016

EMEP/CCC-Report 4/2018 by Sverre Solberg et al.
Kjeller, Norwegian Institute for Air Research, 2018.

Data Report 2017 Particulate matter, carbonaceous and inorganic compounds

EMEP/CCC-Report 1/2019 by Anne-Gunn Hjellbrekke
Kjeller, Norwegian Institute for Air Research, 2019.

Ozone measurements 2017

EMEP/CCC-Report 2/2019 by Anne-Gunn Hjellbrekke and Sverre Solberg
Kjeller, Norwegian Institute for Air Research, 2019.

Heavy metals and POP measurements 2017
EMEP/CCC-Report 3/2019 by Wenche Aas and Pernilla Bohlin Nizzetto
Kjeller, Norwegian Institute for Air Research, 2019.

VOC measurements 2017
EMEP/CCC-Report 4/2019 by Sverre Solberg et al.
Kjeller, Norwegian Institute for Air Research, 2019.

Data Report 2018 Particulate matter, carbonaceous and inorganic compounds
EMEP/CCC-Report 1/2020 by Anne-Gunn Hjellbrekke
Kjeller, Norwegian Institute for Air Research, 2020.

Ozone measurements 2018
EMEP/CCC-Report 2/2020 by Anne-Gunn Hjellbrekke and Sverre Solberg
Kjeller, Norwegian Institute for Air Research, 2020.

Heavy metals and POP measurements 2018
EMEP/CCC-Report 3/2020 by Wenche Aas and Pernilla Bohlin Nizzetto
Kjeller, Norwegian Institute for Air Research, 2020.

VOC measurements 2018
EMEP/CCC-Report 4/2020 by Sverre Solberg et al.
Kjeller, Norwegian Institute for Air Research, 2020.

Data Report 2019 Particulate matter, carbonaceous and inorganic compounds
EMEP/CCC-Report 1/2021 by Anne-Gunn Hjellbrekke
Kjeller, Norwegian Institute for Air Research, 2021.

Ozone measurements 2019
EMEP/CCC-Report 2/2021 by Anne-Gunn Hjellbrekke and Sverre Solberg
Kjeller, Norwegian Institute for Air Research, 2021.

Heavy metals and POP measurements 2019
EMEP/CCC-Report 3/2021 by Wenche Aas and Pernilla Bohlin Nizzetto
Kjeller, Norwegian Institute for Air Research, 2021.

VOC measurements 2019
EMEP/CCC-Report 4/2021 by Sverre Solberg et al.
Kjeller, Norwegian Institute for Air Research, 2021.

Annex 7

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

$$\bar{c}_a - 2sd_a \text{ and } \bar{c}_a + 2sd_a$$

and between

$$\frac{\bar{c}_g}{sd_g^2} \text{ and } \bar{c}_g \cdot sd_g^2$$

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:

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

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

Arit mean \bar{c}_a is the arithmetic mean value used for air components only, and N is number of days with data:

$$\bar{c}_a = \frac{I}{N} \sum_i c_i$$

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

$$sd_a = \left(\frac{\sum_i (c_i - \bar{c}_a)^2}{N - 1} \right)^{\frac{1}{2}}$$

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

$$\overline{\ln c} = \frac{1}{N} \cdot \sum_i \ln c_i$$

$$\bar{c}_g = \exp(\overline{\ln c})$$

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 $\ln c$:

$$sdlnc = \left(\frac{\sum_i (\ln c_i - \overline{\ln c})^2}{N - 1} \right)^{\frac{1}{2}}$$

$$sd_g = \exp(sdlnc)$$

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 8

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 SO₂ the limit above for sulphate is valid for the medium volume method with impregnated filter. For NO₂ determined as NO₂⁻ in solution the accuracy for the lowest concentrations is 0.01 mg N/l.