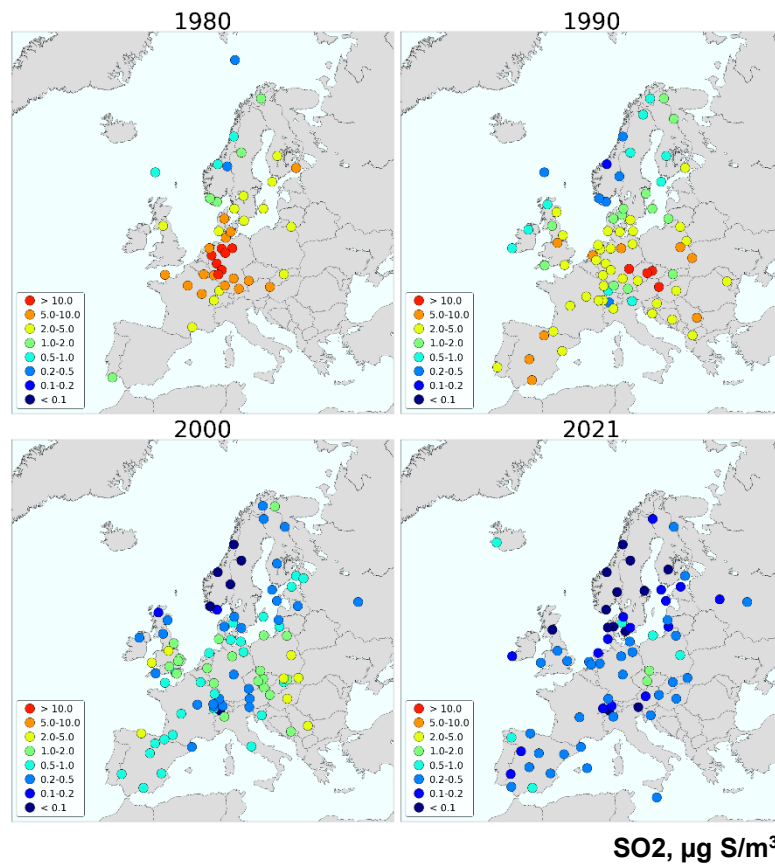


Data Report 2021

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 2021
Particulate matter, carbonaceous and
inorganic compounds**

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Data Report 2021

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 2021 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/data-access/>.

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 climate and environmental research institute NILU (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 86 stations and air data from 127 stations are presented in this report. The total number of measurement sites in this report is 139.

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 2021.

Code	Station name	Latitude	Longitude	Altitude
AM0001R	Amberd	40°23'04"N	44°15'38"E	2080
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
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	Vezein	50°30'12"N	04°59'22"E	160
HR0002R	Puntijarka	45°54'00"N	15°58'00"E	988
HR0004R	Zavizan	44°49'00"N	14°59'00"E	1594
CY0002R	Agia Marina Xyliatou	35°02'21"N	33°03'29"E	532
CZ0003R	Košetice (NOAK)	49°35'00"N	15°05'00"E	534
CZ0005R	Churanov	49°04'00"N	13°36'00"E	1118
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
EE0009R	Lahemaa	59°30'00"N	25°54'00"E	32
EE0011R	Vilsandi	58°23'00"N	21°49'00"E	6
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
FI0092R	Hietajärvi	63°10'00"N	30°43'00"E	173
FI0093R	Kotinen	61°14'00"N	25°04'00"E	158
FI0096G	Pallas (Sammaltunturi)	67°58'24"N	24°06'58"E	565
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 Coulouche	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
FR0025R	Verneuil	46°48'53"N	02°36'36"E	182
FR0028R	Kergoff	48°15'43"N	02°56'38"W	307
FR0030R	Puy de Dôme	45°46'00"N	02°57'00"E	1465
GE0001R	Abastumani	41°45'18"N	42°49'31"E	1650
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	12°55'48"E	86
DE0054R	Zugspitze-Schneefernerhaus	47°24'59"N	10°58'47"E	2671
GR0001R	Aliartos	38°22'00"N	23°05'00"E	110
HU0002R	K-pusztá	46°58'00"N	19°35'00"E	125
HU0017R	Nyirjes	47°53'49"N	19°56'48"E	670
IS0002R	Irafoss	64°05'00"N	21°01'00"W	66
IS0091R	Storhofdi	63°24'00"N	20°17'00"W	118
IE0001R	Valentia Observatory	51°56'23"N	10°14'40"W	11
IE0005R	Oak Park	52°52'07"N	06°55'29"W	59

Code	Station name	Latitude	Longitude	Altitude
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
IT0004R	Ispra	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
LV0010R	Rucava	56°09'43"N	21°10'23"E	18
LT0015R	Preila	55°21'00"N	21°04'00"E	5
MK0007R	Lazaropole	41°32'10"N	20°41'38"E	1332
MT0001R	Giordan Lighthouse	36°04'20"N	14°13'06"E	167
MD0013R	Leova II	46°29'18"N	28°17'01"E	166
ME0008R	Zabljak	43°09'00"N	19°08'00"E	1450
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
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	Kårvatn	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
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
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
RS0005R	Kamenicki vis	43°24'00"N	21°57'00"E	813
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	Topolniky	47°57'36"N	17°51'38"E	113
SI0008R	Iskrba	45°34'00"N	14°52'00"E	520
SI0032R	Krvavec	46°17'58"N	14°32'19"E	1740
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
SE0005R	Bredkålen	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
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
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
GB0014R	High Muffles	54°20'04"N	000°48'27"W	267

Code	Station name	Latitude	Longitude	Altitude
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
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).

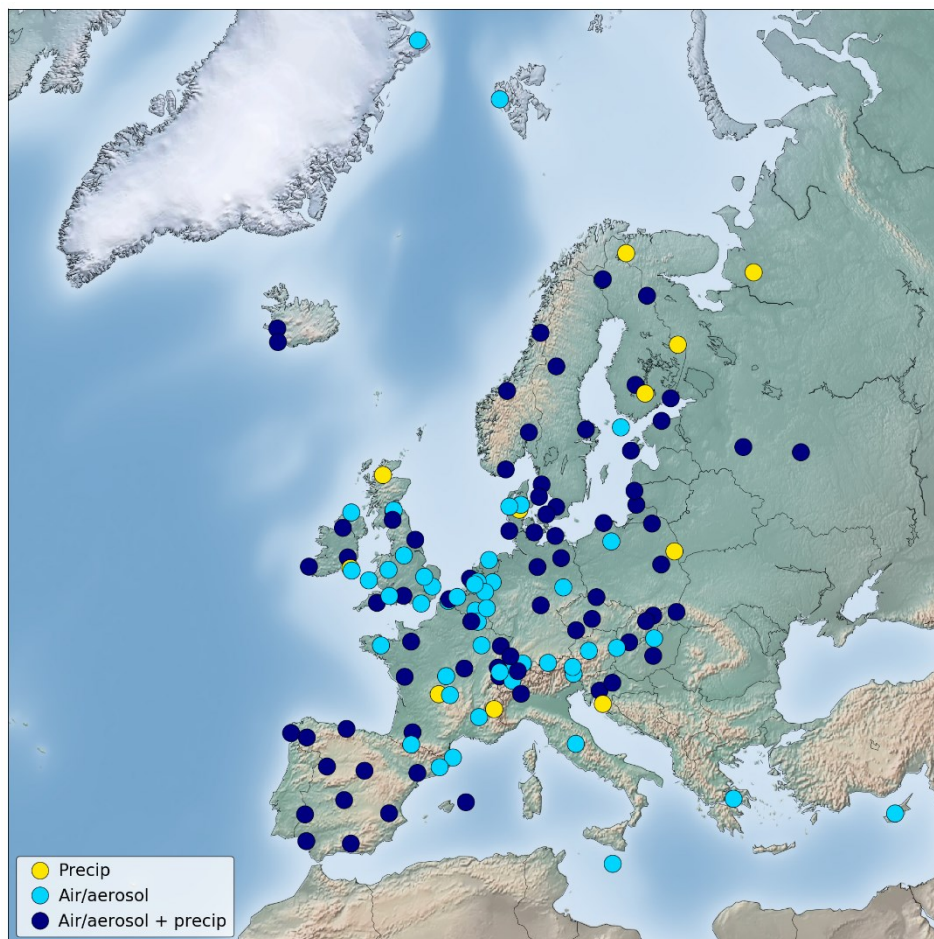


Figure 3.1: Location of the EMEP monitoring stations in operation in 2021. Sites with ozone/heavy metals/VOC measurements only are not included.

4. The measurement programme during 2021

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., 2023).

In this report, inorganic data in air and precipitation, aerosol mass and carbonaceous matter in air are presented. Ozone (Hjellbrekke and Solberg, 2023), heavy metals and POPs (Aas et al., 2022) and VOC (Solberg et al. 2023) 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 measurement programme 2021.

	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 39th laboratory intercomparison is representative for the 2021 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 SO₂, NO₂, SO₄²⁻, OC, EC, PM₁₀ and PM_{2.5} in air and pH, NH₄⁺, NO₃⁻, Ca and excess SO₄²⁻ 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 2023.

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 <https://ebas.nilu.no/data-access/>. Information about the EMEP network and measurement data can also be found at <http://www.emep.int>.

10. References

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11. Acknowledgements

A large number of 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. 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	The climate and environmental research institute 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

|

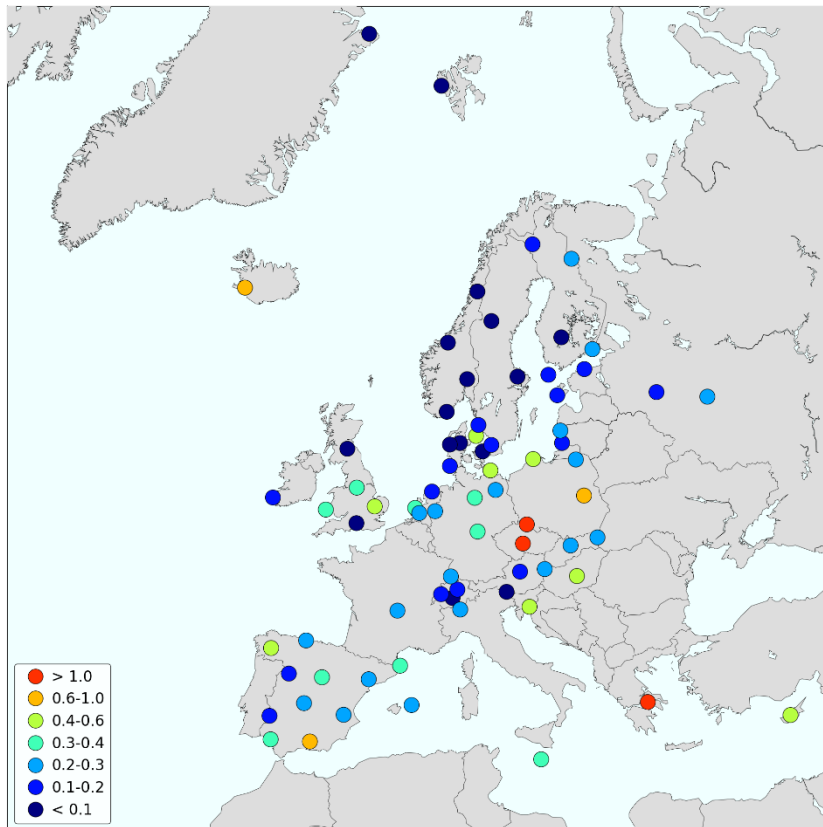


Figure 1.1: Geographical distribution of sulphur dioxide 2021. Unit: $\mu\text{g S}/\text{m}^3$.

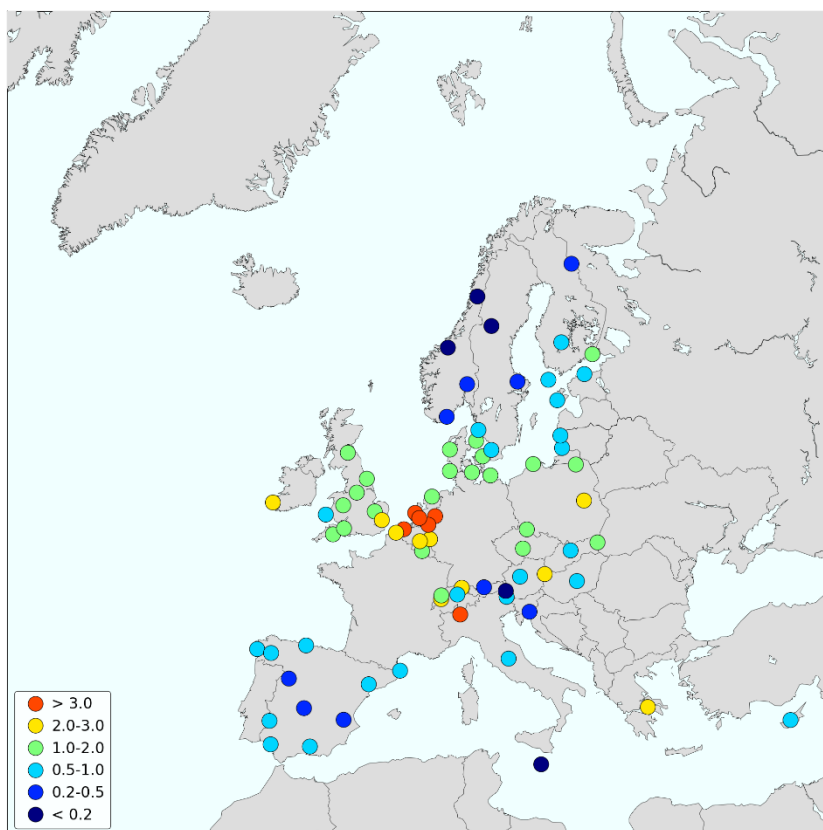


Figure 1.2: Geographical distribution of nitrogen dioxide 2021. Unit: $\mu\text{g N}/\text{m}^3$.

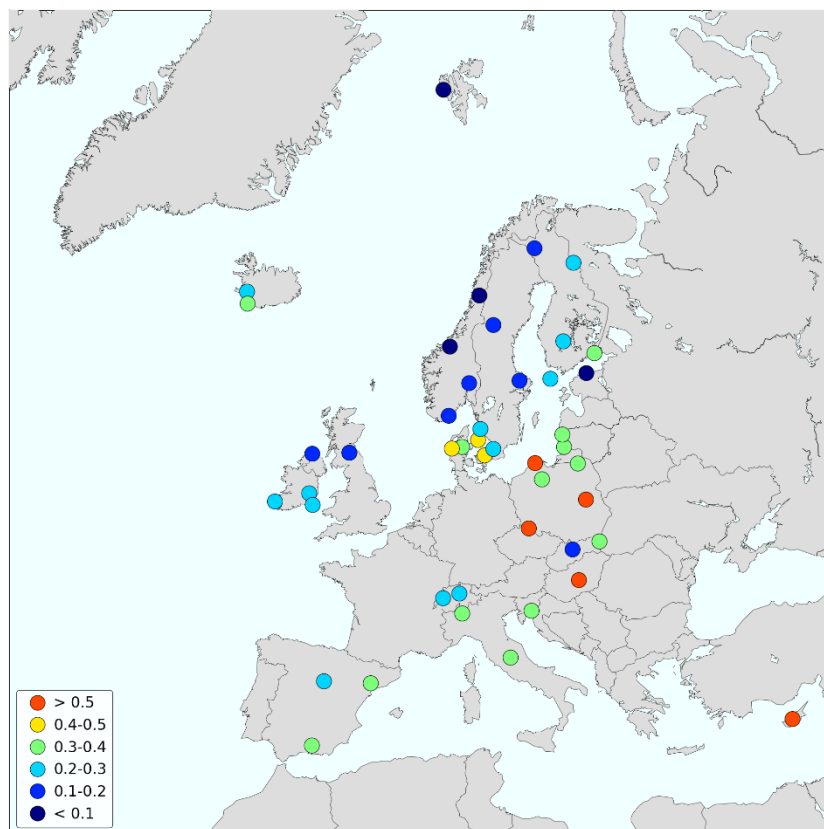


Figure 1.3: Geographical distribution of non sea salt sulphate in aerosols 2021. Unit: $\mu\text{g S}/\text{m}^3$.

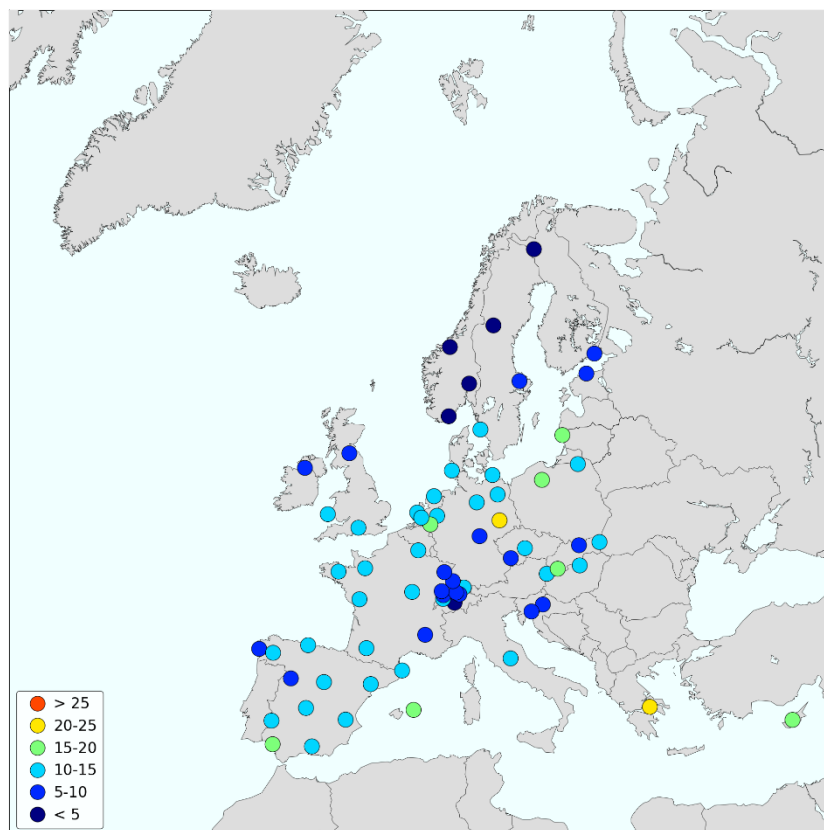


Figure 1.4: Geographical distribution of PM_{10} 2021. Unit: $\mu\text{g}/\text{m}^3$.

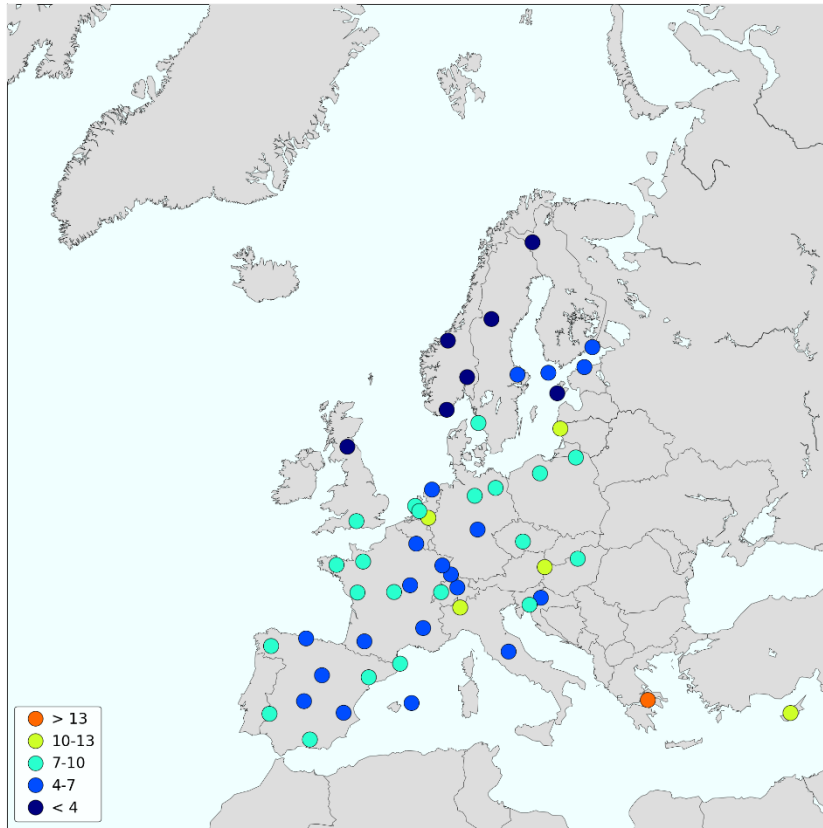


Figure 1.5: Geographical distribution of $PM_{2.5}$ 2021. Unit: $\mu\text{g}/\text{m}^3$.

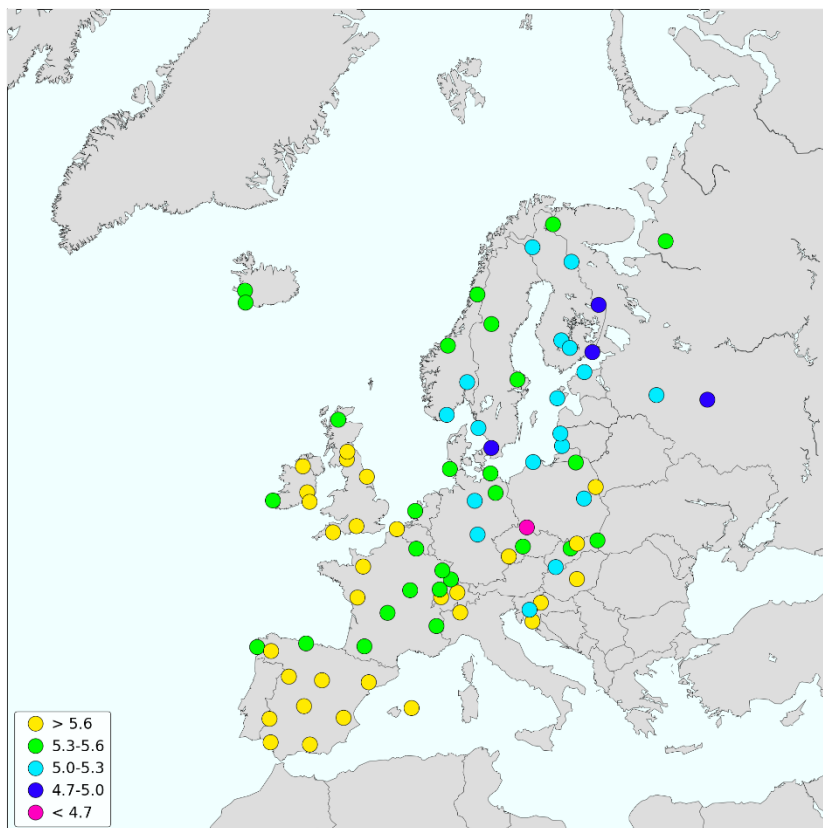


Figure 1.6: Geographical distribution of pH in precipitation 2021. Unit: pH units.

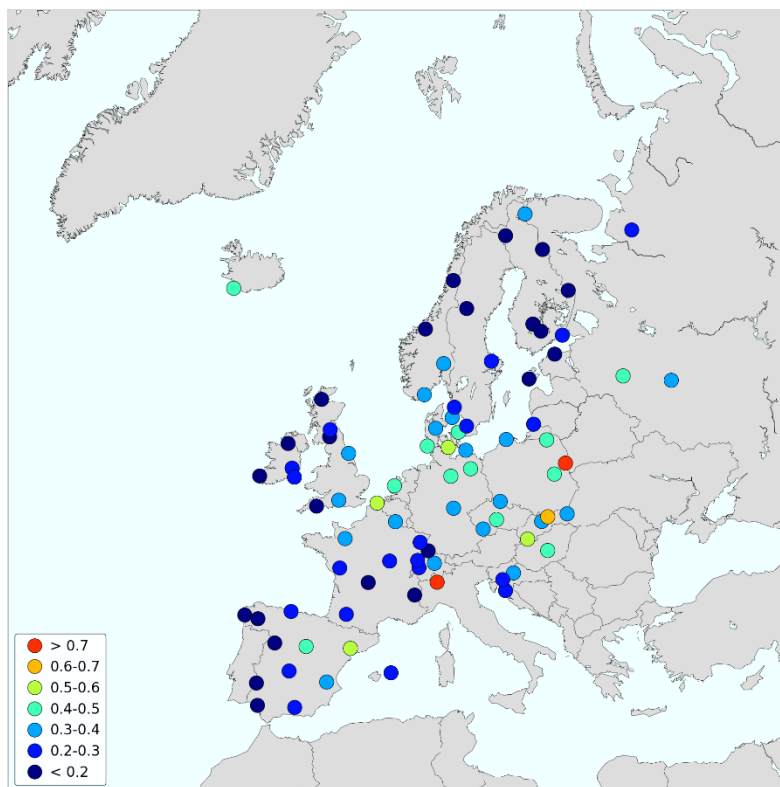


Figure 1.7: Geographical distribution of ammonium in precipitation 2021.
Unit: mg N/l.

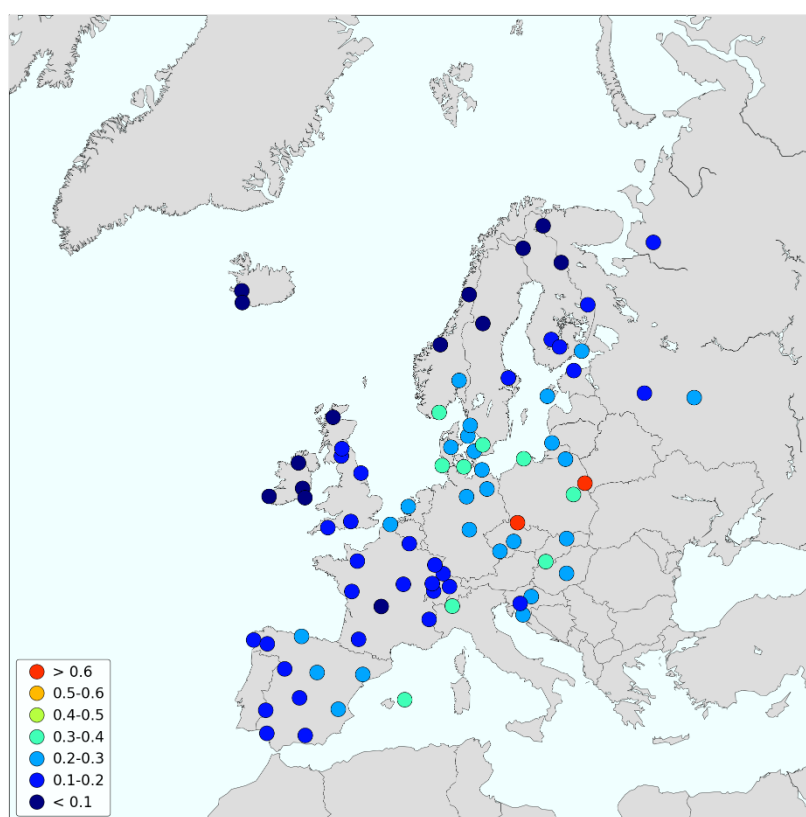


Figure 1.8: Geographical distribution of nitrate in precipitation 2021.
Unit: mg N/l.

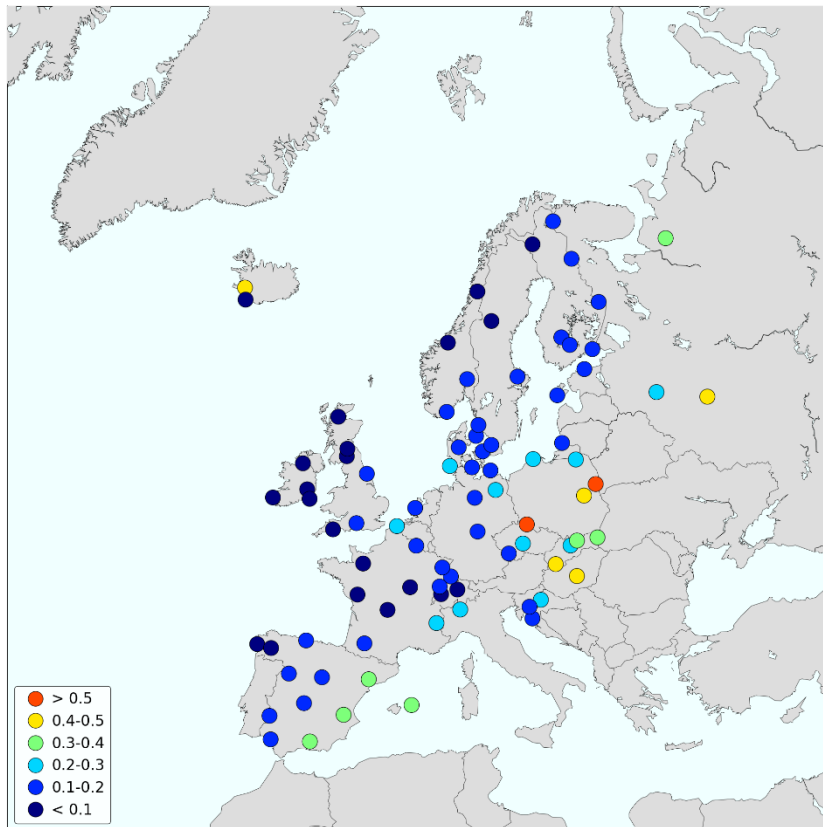


Figure 1.9: Geographical distribution of non sea salt sulphate in precipitation 2021.
Unit: mg S/l.

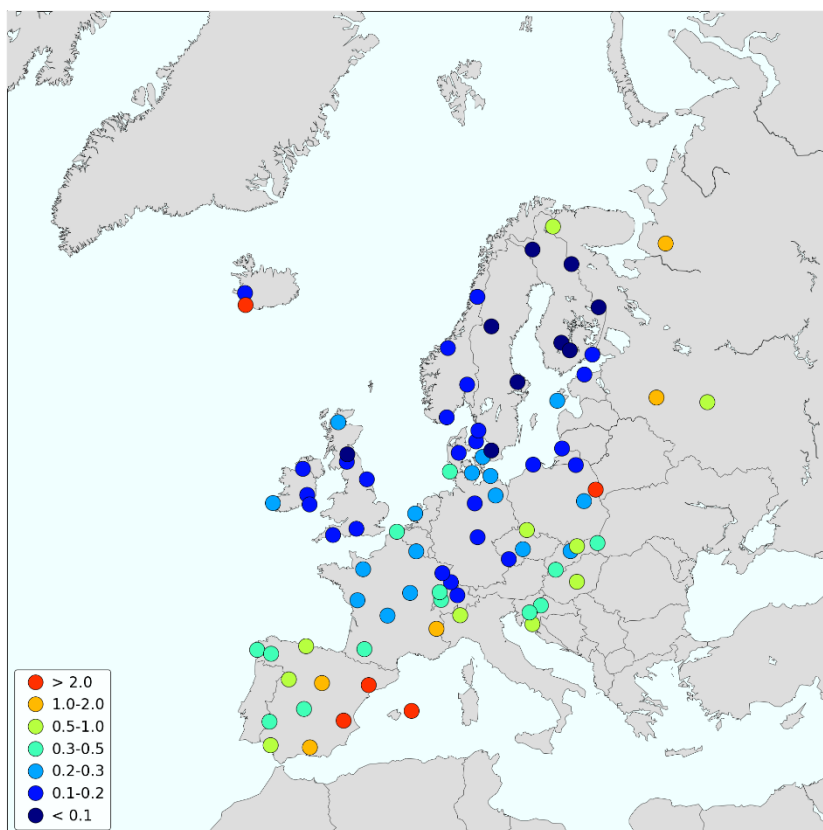


Figure 1.10: Geographical distribution of calcium in precipitation 2021.
Unit: mg/l.

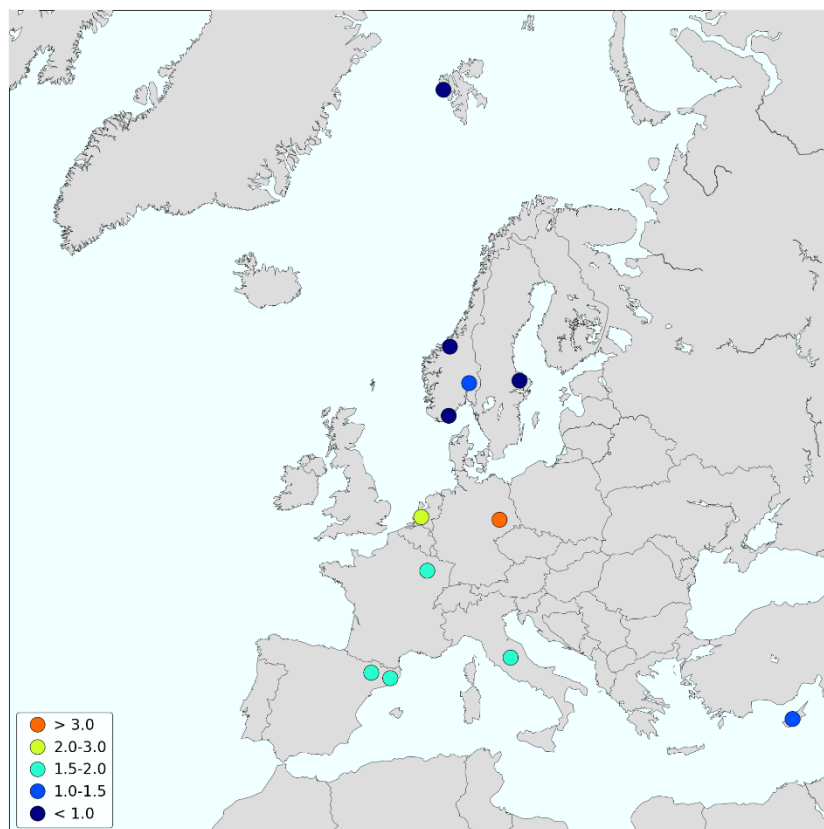


Figure 1.11: Geographical distribution of OC in PM₁₀ 2021. Unit: $\mu\text{g C}/\text{m}^3$.

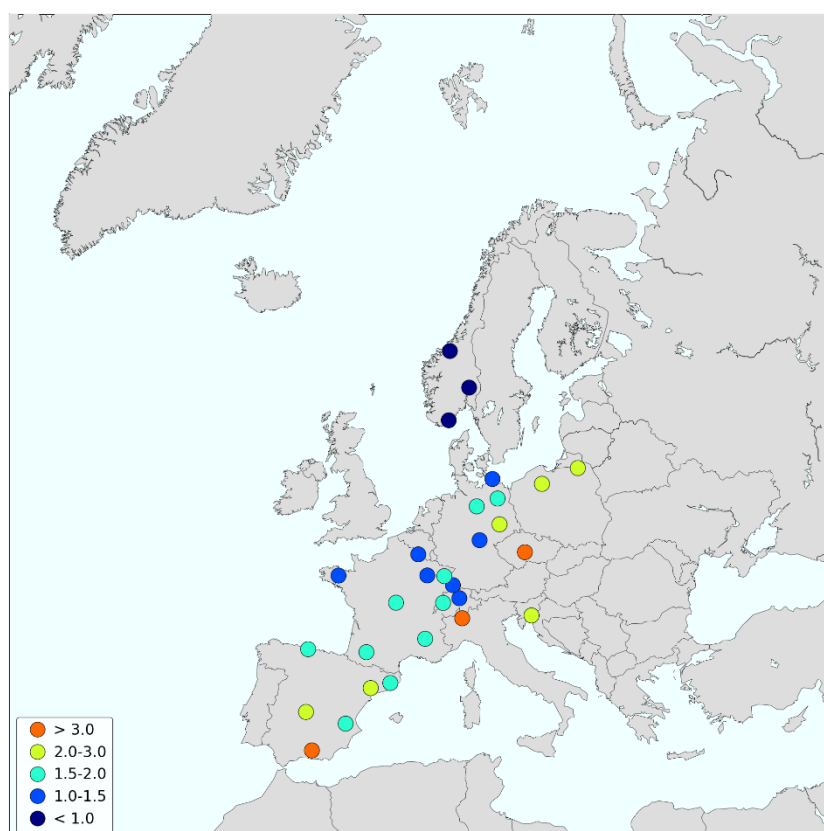


Figure 1.12: Geographical distribution of OC in PM_{2.5} 2021. Unit: $\mu\text{g C}/\text{m}^3$.

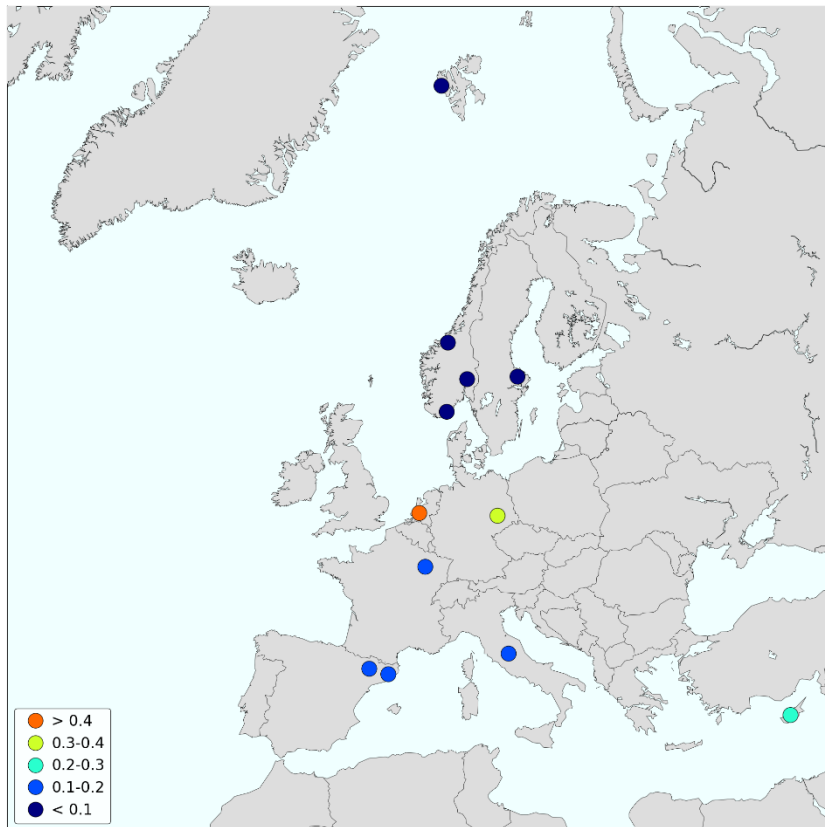


Figure 1.13: Geographical distribution of EC in PM_{10} 2021. Unit: $\mu\text{g C}/\text{m}^3$.

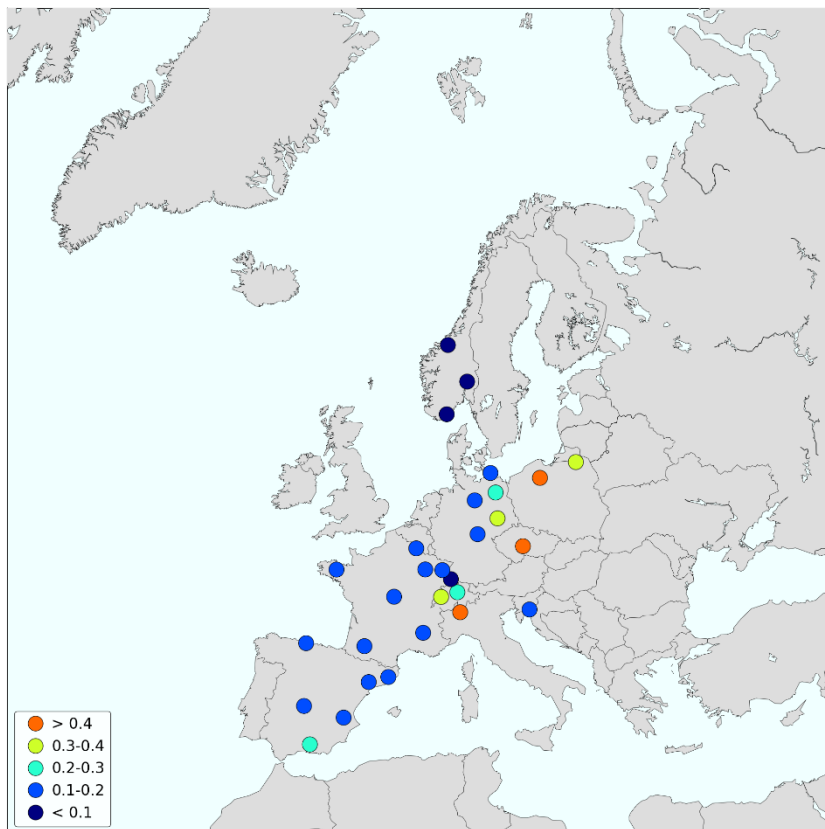


Figure 1.14: Geographical distribution of EC in $PM_{2.5}$ 2021. Unit: $\mu\text{g C}/\text{m}^3$.

Annex 2

Annual statistics on precipitation data

AM0001R Amberd
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	4.09	0.32	22.34	986.2	100.0	0	38
Cl-	precip	0.80	0.12	2.73	193.2	100.0	0	38
K+	precip	0.96	0.07	6.23	232.4	100.0	0	38
Mg++	precip	0.38	0.03	2.47	92.6	100.0	0	38
NH4+	precip	1.12	0.15	3.12	270.1	100.0	0	38
NO3-	precip	0.77	0.01	4.06	186.1	100.0	0	38
Na+	precip	0.78	0.04	3.30	188.1	100.0	0	38
Precip off	precip	-	0.00	16.30	241.0	83.5	0	75
SO4--	precip	0.97	0.11	2.51	233.4	100.0	0	38
SO4-- corr	precip	0.91	0.01	2.44	218.8	100.0	0	38
cond	precip	39.80	13.20	138.10	9591.7	100.0	0	38
pH	precip	6.06	5.10	7.66	209.4	100.0	0	38

BE0014R Koksijde
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.32	0.03	1.70	282.2	100.0	0	27
Cl-	precip	3.23	0.30	9.01	2824.3	87.7	0	26
K+	precip	0.08	0.01	0.43	70.6	100.0	0	27
Mg++	precip	0.18	0.03	0.58	158.2	100.0	0	27
NH4+	precip	0.51	0.15	1.52	443.1	100.0	0	27
NO3-	precip	0.24	0.08	0.72	205.9	100.0	0	27
Na+	precip	1.67	0.21	4.72	1456.4	80.2	0	24
Precip	precip	-	1.05	107.37	874.7	100.0	0	27
Precip off	precip	-	1.27	105.43	868.8	100.0	0	27
SO4--	precip	0.38	0.14	1.11	329.2	100.0	0	27
SO4-- corr	precip	0.27	0.05	0.98	239.2	100.0	0	27
cond	precip	22.82	8.00	48.00	19959.6	100.0	0	27
pH	precip	6.30	5.90	7.30	434.5	100.0	0	27

BY0004R Vysokoe
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.90	1.08	8.27	1684.9	100.0	0	66
K+	precip	0.79	0.00	3.20	461.2	100.0	0	66
Mg++	precip	0.79	0.34	1.66	460.7	90.7	0	63
NH4+	precip	0.89	0.07	4.35	519.1	94.8	0	57
NO3-	precip	1.83	0.31	5.43	1062.1	97.8	0	62
Na+	precip	2.48	0.41	4.50	1437.6	100.0	0	66
Precip	precip	-	2.20	29.20	580.6	18.0	0	66
SO4--	precip	1.84	0.00	6.77	1067.6	82.8	0	46
SO4-- corr	precip	1.36	-0.41	5.69	790.7	82.8	0	46
cond	precip	34.92	14.00	81.00	20273.0	99.2	0	70
pH	precip	6.32	5.70	6.90	275.0	64.7	0	40

CH0002R Payerne
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.33	0.02	11.57	337.6	99.2	0	114
Cl-	precip	0.13	0.02	3.52	135.4	99.2	0	114
K+	precip	0.03	0.00	0.78	25.3	99.2	0	114
Mg++	precip	0.03	0.00	0.72	25.5	99.2	0	114
NH4+	precip	0.30	0.05	3.02	301.1	99.2	0	114
NO3-	precip	0.14	0.02	0.90	143.7	99.2	0	114
Na+	precip	0.08	0.00	2.01	78.9	99.2	0	114
Precip	precip	-	0.00	35.10	1010.0	98.9	0	361
SO4--	precip	0.11	0.01	1.50	106.4	99.2	0	114
SO4-- corr	precip	0.10	0.00	1.35	99.7	99.2	0	114
cond	precip	5.84	1.71	70.23	5901.0	99.5	0	120
pH	precip	5.81	4.50	7.74	1571.5	99.5	0	120

CH0005R Rigi
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.02	2.75	276.0	100.0	0	46
Cl-	precip	0.09	0.02	0.41	121.8	100.0	0	46
K+	precip	0.02	0.00	0.27	33.0	100.0	0	46
Mg++	precip	0.02	0.00	0.12	23.8	100.0	0	46
NH4+	precip	0.33	0.04	1.45	464.4	100.0	0	46
NO3-	precip	0.16	0.03	0.82	233.0	100.0	0	46
Na+	precip	0.05	0.01	0.28	72.3	100.0	0	46
Precip	precip	-	0.00	127.10	1423.3	99.2	0	52
SO4--	precip	0.10	0.01	0.52	142.6	100.0	0	46
SO4-- corr	precip	0.10	0.01	0.52	136.5	100.0	0	46
cond	precip	5.26	2.09	21.73	7488.8	100.0	0	46
pH	precip	5.80	5.05	7.21	2240.1	100.0	0	46

CZ0003R Kosetice (NAOK)
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.28	0.02	1.39	165.4	79.7	13	60
Cl-	precip	0.10	0.03	0.37	59.2	79.7	0	60
K+	precip	0.04	0.01	0.16	22.9	79.7	1	60
Mg++	precip	0.03	0.01	0.11	15.3	79.7	0	60
NH4+	precip	0.42	0.01	1.58	249.4	79.7	1	60
NO3-	precip	0.28	0.09	1.23	165.3	79.7	0	60
Na+	precip	0.06	0.00	0.26	34.2	79.7	2	60
Precip	precip	-	0.00	35.00	599.7	99.9	0	365
SO4--	precip	0.21	0.04	0.62	127.5	79.7	0	60
SO4-- corr	precip	0.21	0.04	0.60	124.6	79.7	0	60
cond	precip	0.01	0.00	0.02	6.3	79.7	0	60
pH	precip	5.48	5.00	7.00	2004.2	79.7	0	60

CZ0005R Churanov
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.11	0.02	0.73	12.7	100.0	11	45
Cl-	precip	0.18	0.03	0.85	21.1	100.0	0	45
K+	precip	0.04	0.01	0.21	4.6	100.0	0	45
Mg++	precip	0.02	0.01	0.07	2.5	100.0	0	45
NH4+	precip	0.37	0.02	1.97	44.4	100.0	0	45
NO3-	precip	0.27	0.10	1.09	32.4	100.0	0	45
Na+	precip	0.10	0.02	0.49	12.4	100.0	0	45
Precip	precip	-	0.00	12.00	119.1	85.4	0	45
SO4--	precip	0.17	0.04	0.92	19.9	100.0	0	45
SO4-- corr	precip	0.16	0.04	0.91	18.8	100.0	0	45
cond	precip	8.77	3.42	24.52	1043.5	100.0	0	45
pH	precip	5.75	5.07	6.58	210.1	100.0	0	45

DE0001R Westerland
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.38	0.09	1.51	307.9	99.9	0	44
Cl-	precip	7.37	0.36	53.59	5976.1	99.9	0	44
K+	precip	0.20	0.05	0.98	161.7	99.9	0	44
Mg++	precip	0.46	0.03	3.44	374.6	99.9	0	44
NH4+	precip	0.42	0.08	1.52	342.0	99.9	0	44
NO3-	precip	0.33	0.13	1.66	264.8	99.9	0	44
Na+	precip	4.12	0.17	30.31	3339.4	99.9	0	44
Precip	precip	-	0.00	80.88	810.5	100.0	0	53
SO4--	precip	0.55	0.13	2.74	447.5	99.9	0	44
SO4-- corr	precip	0.21	0.01	0.69	167.2	99.9	0	44
cond	precip	35.80	9.65	209.95	29017.6	99.9	0	44
pH	precip	5.43	4.51	6.70	3008.2	99.9	0	44

DE0002R Waldhof
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.04	2.71	92.2	97.2	0	123
Cl-	precip	0.51	0.07	6.21	299.2	98.0	0	126
K+	precip	0.06	0.00	0.78	32.6	97.2	4	123
Mg++	precip	0.04	0.00	0.41	26.0	97.2	11	123
NH4+	precip	0.47	0.00	1.84	275.2	97.2	9	123
NO3-	precip	0.28	0.07	1.72	164.3	98.0	0	126
Na+	precip	0.27	0.02	3.49	158.3	97.2	0	123
Precip	precip	-	0.00	23.77	581.1	100.0	0	366
SO4--	precip	0.21	0.07	1.61	122.0	98.0	0	126
SO4-- corr	precip	0.19	0.06	1.61	108.5	98.0	0	126
cond	precip	10.42	3.10	55.30	6055.9	98.0	0	126
pH	precip	5.30	4.19	6.99	2921.3	98.0	0	126

DE0003R Schauinsland
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.01	9.39	227.5	99.5	1	153
Cl-	precip	0.20	0.03	3.31	374.0	96.0	0	151
K+	precip	0.03	0.00	0.70	57.1	99.5	23	153
Mg++	precip	0.02	0.00	0.30	44.0	99.5	21	153
NH4+	precip	0.19	0.00	1.39	345.1	99.5	1	153
NO3-	precip	0.13	0.05	0.88	247.6	99.5	0	153
Na+	precip	0.11	0.02	2.06	206.6	94.2	0	148
Precip	precip	-	0.00	62.83	1859.4	100.0	0	366
SO4--	precip	0.12	0.03	1.38	229.4	96.0	0	151
SO4-- corr	precip	0.11	0.02	1.37	212.3	96.0	0	151
cond	precip	4.88	1.60	56.80	9078.4	99.5	0	153
pH	precip	5.46	4.30	7.47	6449.1	99.5	0	153

DE0007R Neuglobsow
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.25	0.05	1.92	153.5	98.3	0	118
Cl-	precip	0.39	0.08	5.64	243.8	98.3	0	118
K+	precip	0.14	0.00	1.52	85.9	98.3	2	118
Mg++	precip	0.09	0.00	0.55	55.8	98.3	2	118
NH4+	precip	0.45	0.00	2.30	280.1	98.3	6	118
NO3-	precip	0.28	0.08	2.17	175.9	98.3	0	118
Na+	precip	0.26	0.03	3.37	158.9	98.3	0	118
Precip	precip	-	0.00	57.05	622.6	100.0	0	366
SO4--	precip	0.23	0.09	1.04	144.2	98.3	0	118
SO4-- corr	precip	0.21	0.09	0.93	130.7	98.3	0	118
cond	precip	9.77	3.00	37.25	6082.7	98.3	0	118
pH	precip	5.34	4.33	6.72	2825.3	98.3	0	118

DE0008R Schmücke
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.05	1.57	215.2	100.0	0	51
Cl-	precip	0.27	0.10	1.52	311.9	99.5	0	50
K+	precip	0.05	0.00	0.26	57.1	100.0	2	51
Mg++	precip	0.03	0.00	0.24	38.7	100.0	3	51
NH4+	precip	0.38	0.00	2.37	446.5	100.0	1	51
NO3-	precip	0.27	0.11	1.45	311.2	99.5	0	50
Na+	precip	0.15	0.03	1.31	178.2	100.0	0	51
Precip	precip	-	0.10	73.18	1165.5	100.0	0	53
SO4--	precip	0.20	0.08	1.75	227.4	99.5	0	50
SO4-- corr	precip	0.18	0.07	1.64	212.7	99.5	0	50
cond	precip	8.63	3.70	44.20	10059.7	100.0	0	51
pH	precip	5.25	4.26	6.99	6523.6	100.0	0	51

DE0009R Zingst
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.28	0.08	1.31	173.2	99.9	0	45
Cl-	precip	1.65	0.23	5.50	1027.6	99.9	0	45
K+	precip	0.09	0.03	0.31	58.1	99.9	0	45
Mg++	precip	0.12	0.04	0.37	77.8	99.9	0	45
NH4+	precip	0.38	0.07	1.76	237.5	99.9	0	45
NO3-	precip	0.28	0.09	0.91	175.2	99.9	0	45
Na+	precip	0.95	0.09	3.21	592.5	99.9	0	45
Precip	precip	-	0.00	71.55	623.5	100.0	0	53
SO4--	precip	0.24	0.11	0.62	150.8	99.9	0	45
SO4-- corr	precip	0.16	0.05	0.53	101.3	99.9	0	45
cond	precip	13.82	5.87	32.20	8616.7	99.9	0	45
pH	precip	5.53	4.83	6.77	1845.7	99.9	0	45

DK0005R Keldsnor
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.09	0.86	114.0	91.4	0	20
Cl-	precip	2.72	0.55	9.04	1340.8	97.1	0	21
K+	precip	0.14	0.05	0.50	67.4	91.8	0	21
Mg++	precip	0.19	0.06	0.57	91.4	97.1	0	21
NH4+	precip	0.53	0.23	1.56	259.6	96.4	0	21
NO3-	precip	0.35	0.17	0.91	172.2	97.1	2	21
Na+	precip	1.58	0.32	5.06	778.4	97.1	0	21
Precip	precip	-	0.13	52.87	493.0	96.4	0	23
SO4--	precip	0.30	0.14	0.66	150.4	97.1	0	21
SO4-- corr	precip	0.17	0.05	0.61	85.2	97.1	0	21

DK0008R Anholt
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.17	0.07	1.58	89.7	100.0	0	21
Cl-	precip	2.67	0.38	6.75	1419.5	99.9	0	21
K+	precip	0.08	0.03	0.16	41.2	100.0	0	21
Mg++	precip	0.18	0.03	0.44	94.3	99.0	0	20
NH4+	precip	0.30	0.09	0.96	160.7	100.0	0	21
NO3-	precip	0.26	0.07	0.83	138.5	100.0	1	21
Na+	precip	1.56	0.21	3.96	828.6	99.9	0	21
Precip	precip	-	0.00	62.71	531.6	92.2	0	22
SO4--	precip	0.26	0.08	0.53	135.9	100.0	0	21
SO4-- corr	precip	0.13	0.05	0.52	66.7	100.0	0	21

DK0012R Risoe
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.24	0.07	1.48	132.7	98.1	0	21
Cl-	precip	1.19	0.21	4.27	653.2	100.0	0	22
K+	precip	0.18	0.04	0.75	96.2	88.0	0	19
Mg++	precip	0.09	0.04	0.28	49.5	92.1	0	20
NH4+	precip	0.43	0.07	1.16	236.0	100.0	0	22
NO3-	precip	0.26	0.08	0.83	139.9	100.0	1	22
Na+	precip	0.66	0.12	2.26	360.6	100.0	0	22
Precip	precip	-	0.00	60.77	547.6	99.9	0	24
SO4--	precip	0.19	0.06	0.38	103.8	100.0	0	22
SO4-- corr	precip	0.13	0.04	0.37	73.7	100.0	0	22

DK0022R Sepstrup Sande
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.06	1.13	55.9	68.8	0	9
Cl-	precip	2.43	0.18	5.59	1140.4	68.8	0	9
K+	precip	0.07	0.02	0.29	30.8	68.8	0	9
Mg++	precip	0.16	0.03	0.41	76.1	68.8	0	9
NH4+	precip	0.36	0.11	2.10	170.2	68.8	0	9
NO3-	precip	0.26	0.10	0.99	120.5	68.8	0	9
Na+	precip	1.53	0.13	3.31	720.9	64.1	0	8
Precip	precip	-	0.00	86.78	469.9	54.2	0	13
SO4--	precip	0.25	0.11	1.11	115.7	68.8	0	9
SO4-- corr	precip	0.12	0.03	0.84	58.7	68.8	0	9

EE0009R Lahemaa
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.17	0.02	1.80	136.1	100.0	17	139
Cl-	precip	0.28	0.04	3.00	222.8	100.0	18	139
K+	precip	0.06	0.01	1.70	46.4	100.0	15	139
Mg++	precip	0.04	0.01	0.27	33.0	100.0	20	139
NH4+	precip	0.12	0.01	3.00	95.3	100.0	32	139
NO3-	precip	0.15	0.01	2.20	121.0	100.0	21	139
Na+	precip	0.16	0.01	1.70	122.8	100.0	14	139
Precip	precip	-	0.00	35.35	782.4	100.0	0	366
SO4--	precip	0.14	0.01	1.30	111.8	100.0	1	139
SO4-- corr	precip	0.13	0.01	1.16	101.6	100.0	1	139
cond	precip	7.07	1.60	79.00	5533.6	99.9	0	137
pH	precip	5.16	4.10	6.90	5360.4	100.0	0	138

EE0011R Vilsandi
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.26	0.06	1.10	187.8	100.0	0	13
Cl-	precip	0.97	0.27	4.10	685.1	100.0	0	13
K+	precip	0.10	0.03	0.32	69.8	100.0	0	13
Mg++	precip	0.11	0.06	0.41	80.8	100.0	0	13
NH4+	precip	0.16	0.04	0.45	112.1	100.0	0	13
NO3-	precip	0.21	0.08	0.53	149.7	100.0	0	13
Na+	precip	0.54	0.15	2.30	386.1	100.0	0	13
Precip	precip	-	13.07	112.39	709.3	100.0	0	13
SO4--	precip	0.21	0.08	0.47	150.7	100.0	0	13
SO4-- corr	precip	0.17	0.05	0.39	118.6	100.0	0	13
cond	precip	11.10	5.10	29.00	7873.1	100.0	0	13
pH	precip	5.15	4.80	6.20	4990.8	100.0	0	13

ES0001R San Pablo de los Montes
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.40	0.05	2.66	243.2	95.1	5	64
Cl-	precip	0.32	0.15	1.72	195.0	99.5	31	70
K+	precip	0.06	0.03	0.27	36.0	95.1	15	64
Mg++	precip	0.05	0.01	0.22	29.8	95.1	6	64
NH4+	precip	0.21	0.02	1.47	130.2	99.5	6	70
NO3-	precip	0.14	0.04	1.20	82.1	99.5	18	70
Na+	precip	0.20	0.05	1.41	123.1	95.1	15	64
Precip	precip	-	0.00	40.56	607.4	100.0	0	366
SO4--	precip	0.13	0.05	0.92	81.4	99.5	26	70
SO4-- corr	precip	0.12	-0.07	0.89	70.5	99.5	26	70
cond	precip	6.82	1.70	53.00	4143.8	100.0	0	77
pH	precip	5.70	5.02	6.88	1207.7	100.0	0	77

ES0005R Noia
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.31	0.05	4.00	614.6	99.4	4	138
Cl-	precip	4.24	0.15	30.06	8448.4	99.9	3	150
K+	precip	0.16	0.03	0.92	319.7	99.4	17	138
Mg++	precip	0.34	0.03	2.40	684.8	99.4	0	138
NH4+	precip	0.09	0.02	1.43	170.0	99.7	53	145
NO3-	precip	0.12	0.04	2.99	232.4	99.9	38	150
Na+	precip	2.66	0.13	19.30	5311.1	99.4	0	138
Precip	precip	-	0.00	50.60	1994.5	100.0	0	366
SO4--	precip	0.31	0.05	5.30	626.2	99.9	11	150
SO4-- corr	precip	0.09	-0.20	4.72	180.4	99.9	11	150
cond	precip	22.66	2.70	166.40	45199.1	100.0	0	156
pH	precip	5.37	4.38	6.66	8430.7	100.0	0	156

ES0006R Mahón
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	3.54	0.62	45.00	1612.2	98.7	0	63
Cl-	precip	20.86	1.69	98.14	9492.5	99.7	0	69
K+	precip	0.64	0.08	3.20	289.1	98.7	0	63
Mg++	precip	1.59	0.21	6.50	721.6	98.7	0	63
NH4+	precip	0.24	0.02	7.36	108.2	99.3	24	66
NO3-	precip	0.37	0.04	9.74	168.2	99.7	5	69
Na+	precip	11.49	0.90	53.50	5229.5	98.7	0	63
Precip	precip	-	0.00	36.20	455.1	100.0	0	366
SO4--	precip	1.35	0.24	12.66	612.8	99.7	0	69
SO4-- corr	precip	0.36	-0.47	8.87	165.8	99.7	0	69
cond	precip	98.39	13.50	539.80	44778.6	100.0	0	72
pH	precip	6.33	4.02	7.79	211.3	100.0	0	72

ES0007R Viznar
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.33	0.15	13.00	662.3	98.7	0	60
Cl-	precip	0.62	0.15	4.76	309.4	99.7	17	66
K+	precip	0.16	0.03	1.40	80.5	98.7	1	60
Mg++	precip	0.18	0.04	0.90	90.2	98.7	0	60
NH4+	precip	0.28	0.02	1.27	139.5	99.1	4	62
NO3-	precip	0.19	0.04	5.55	92.7	99.7	8	66
Na+	precip	0.35	0.05	3.10	175.2	98.7	2	60
Precip	precip	-	0.00	36.40	498.4	100.0	0	366
SO4--	precip	0.34	0.05	4.98	171.3	99.7	5	66
SO4-- corr	precip	0.31	0.03	4.76	155.8	99.7	5	66
cond	precip	16.10	3.70	108.30	8023.4	100.0	0	70
pH	precip	6.32	5.82	7.55	240.7	100.0	0	70

ES0008R Niembro
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.77	0.13	12.10	382.5	98.9	0	115
Cl-	precip	5.32	0.15	57.70	2639.1	100.0	1	129
K+	precip	0.17	0.03	1.30	86.6	98.9	4	115
Mg++	precip	0.41	0.04	4.40	205.0	98.9	0	115
NH4+	precip	0.23	0.02	4.78	112.9	99.5	7	121
NO3-	precip	0.22	0.04	2.92	109.7	100.0	16	129
Na+	precip	3.22	0.13	37.50	1594.8	98.9	0	115
Precip	precip	-	0.00	37.64	495.8	100.0	0	366
SO4--	precip	0.42	0.05	3.39	209.2	100.0	1	129
SO4-- corr	precip	0.15	-0.32	1.36	75.3	100.0	1	129
cond	precip	30.26	5.30	250.50	14999.3	100.0	0	129
pH	precip	5.56	4.71	7.69	1364.1	100.0	0	129

ES0009R Campisabalos
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.36	0.05	31.90	703.7	99.5	1	99
Cl-	precip	0.41	0.15	5.08	210.3	99.9	38	104
K+	precip	0.11	0.03	3.80	58.9	99.5	25	99
Mg++	precip	0.10	0.02	0.90	51.5	99.5	0	99
NH4+	precip	0.41	0.02	5.01	211.8	99.8	2	103
NO3-	precip	0.27	0.04	5.98	140.6	99.9	13	104
Na+	precip	0.25	0.05	3.00	130.1	99.5	14	99
Precip	precip	-	0.00	28.09	516.5	100.0	0	366
SO4--	precip	0.21	0.05	3.94	110.6	99.9	32	104
SO4-- corr	precip	0.19	0.00	3.78	99.7	99.9	32	104
cond	precip	15.77	2.10	181.80	8142.5	100.0	0	106
pH	precip	6.18	5.55	7.37	341.4	100.0	0	106

ES0011R Barcarrota
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.46	0.11	4.90	300.4	99.9	0	51
Cl-	precip	0.65	0.15	5.74	422.9	100.0	9	52
K+	precip	0.08	0.03	0.83	51.6	99.9	9	51
Mg++	precip	0.08	0.03	0.60	52.9	99.9	0	51
NH4+	precip	0.17	0.02	2.50	112.1	100.0	7	52
NO3-	precip	0.13	0.04	3.72	87.5	100.0	12	52
Na+	precip	0.37	0.05	3.26	239.4	99.9	3	51
Precip	precip	-	0.00	93.02	651.2	100.0	0	366
SO4--	precip	0.14	0.05	1.14	89.5	100.0	14	52
SO4-- corr	precip	0.11	-0.02	1.03	69.3	100.0	14	52
cond	precip	7.32	2.80	55.80	4768.5	100.0	0	52
pH	precip	5.83	5.50	7.20	964.6	100.0	0	52

ES0012R Zarra
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.36	0.26	24.40	897.4	98.7	0	59
Cl-	precip	0.52	0.04	10.66	198.7	99.6	14	68
K+	precip	0.12	0.03	0.90	43.9	98.7	4	59
Mg++	precip	0.13	0.03	0.80	49.3	98.7	0	59
NH4+	precip	0.39	0.10	1.21	149.2	99.2	0	63
NO3-	precip	0.27	0.04	3.08	104.3	99.6	6	68
Na+	precip	0.34	0.05	2.00	130.8	98.7	3	59
Precip	precip	-	0.00	50.85	380.7	99.9	0	365
SO4--	precip	0.38	0.05	4.30	143.3	99.6	6	68
SO4-- corr	precip	0.35	-0.01	3.80	131.9	99.6	6	68
cond	precip	25.50	3.50	320.30	9708.0	100.0	0	74
pH	precip	6.47	5.98	7.90	128.5	100.0	0	74

ES0013R Penausende
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.50	0.10	3.59	275.6	98.7	0	79
Cl-	precip	0.39	0.15	4.91	215.2	100.0	28	93
K+	precip	0.10	0.03	0.92	52.7	98.7	25	79
Mg++	precip	0.07	0.01	0.70	40.8	98.7	1	79
NH4+	precip	0.18	0.02	3.32	98.7	99.6	11	88
NO3-	precip	0.18	0.04	1.94	96.0	100.0	39	93
Na+	precip	0.24	0.05	2.40	130.0	98.7	6	79
Precip	precip	-	0.00	41.67	548.5	100.0	0	366
SO4--	precip	0.12	0.05	1.55	66.8	100.0	39	93
SO4-- corr	precip	0.10	-0.15	1.46	55.9	100.0	39	93
cond	precip	7.51	1.80	42.60	4121.4	100.0	0	94
pH	precip	5.89	5.04	7.15	713.8	100.0	0	94

ES0014R Els Torns
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	3.01	0.25	28.90	977.7	99.7	0	44
Cl-	precip	0.54	0.15	18.78	175.9	99.9	10	45
K+	precip	0.18	0.03	4.70	57.6	99.7	6	44
Mg++	precip	0.18	0.05	1.90	57.1	99.7	0	44
NH4+	precip	0.54	0.02	3.22	176.3	99.9	1	45
NO3-	precip	0.28	0.04	1.65	90.8	99.9	1	45
Na+	precip	0.38	0.11	12.50	124.8	99.7	0	44
Precip	precip	-	0.00	36.28	325.2	100.0	0	366
SO4--	precip	0.38	0.05	9.84	125.0	99.9	5	45
SO4-- corr	precip	0.35	0.02	8.79	114.8	99.9	5	45
cond	precip	24.43	6.30	247.30	7945.0	100.0	0	46
pH	precip	6.56	5.65	7.63	89.6	100.0	0	46

ES0016R O Saviňao
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.47	0.05	7.00	437.2	99.2	1	116
Cl-	precip	0.86	0.15	23.84	804.7	99.7	23	127
K+	precip	0.21	0.03	5.80	195.4	99.2	19	116
Mg++	precip	0.12	0.02	1.30	108.8	99.2	0	116
NH4+	precip	0.19	0.02	2.78	180.5	99.6	5	124
NO3-	precip	0.12	0.04	1.97	114.9	99.7	42	127
Na+	precip	0.51	0.05	13.00	471.6	99.2	7	116
Precip	precip	-	0.00	78.61	931.1	100.0	0	366
SO4--	precip	0.13	0.05	1.76	120.3	99.7	40	127
SO4-- corr	precip	0.09	-0.07	1.58	81.0	99.7	40	127
cond	precip	9.48	2.70	126.20	8822.4	100.0	0	140
pH	precip	5.91	5.53	7.36	1145.2	100.0	0	140

ES0017R Doňana
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.00	0.05	9.60	333.1	97.3	1	43
Cl-	precip	2.63	0.15	15.12	878.8	99.8	2	54
K+	precip	0.09	0.03	0.38	30.5	97.3	6	43
Mg++	precip	0.23	0.02	0.90	77.0	97.3	0	43
NH4+	precip	0.11	0.02	0.84	36.6	98.8	19	48
NO3-	precip	0.12	0.04	3.21	41.7	99.8	25	54
Na+	precip	1.45	0.05	5.60	484.8	97.3	2	43
Precip	precip	-	0.00	36.80	333.9	100.0	0	366
SO4--	precip	0.32	0.05	2.39	107.7	99.8	4	54
SO4-- corr	precip	0.20	-0.18	2.06	65.6	99.8	4	54
cond	precip	18.08	1.90	87.10	6035.8	100.0	0	56
pH	precip	5.85	4.60	7.35	475.6	100.0	0	56

FI0018R Virolahti III
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.13	0.01	2.12	84.3	92.2	0	46
Cl-	precip	0.44	0.06	4.45	280.2	99.9	0	47
K+	precip	0.08	0.02	1.01	52.8	92.2	0	46
Mg++	precip	0.05	0.00	0.53	31.2	99.9	1	47
NH4+	precip	0.25	0.01	9.86	157.1	99.9	0	47
NO3-	precip	0.25	0.05	7.87	158.4	99.9	0	47
Na+	precip	0.26	0.03	3.50	163.7	99.9	0	47
Precip	precip	-	0.00	60.70	638.0	100.0	0	53
SO4--	precip	0.22	0.05	3.11	140.2	99.9	0	47
SO4-- corr	precip	0.20	0.04	2.82	126.4	99.9	0	47
cond	precip	10.67	3.58	141.50	6809.0	99.9	0	47
pH	precip	4.94	4.31	6.74	7329.9	99.9	0	47

FI0022R Oulanka
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.05	0.00	0.77	33.5	100.0	1	47
Cl-	precip	0.12	0.01	1.00	79.0	100.0	0	47
K+	precip	0.03	0.01	0.71	21.4	100.0	0	47
Mg++	precip	0.01	0.00	0.15	8.5	100.0	5	47
NH4+	precip	0.08	0.01	0.74	50.2	100.0	0	47
NO3-	precip	0.09	0.01	0.63	58.3	100.0	0	47
Na+	precip	0.07	0.01	0.55	44.3	100.0	0	47
Precip	precip	-	0.00	60.60	633.8	100.0	0	53
SO4--	precip	0.11	0.04	1.02	71.6	100.0	0	47
SO4-- corr	precip	0.11	0.03	1.01	67.9	100.0	0	47
cond	precip	5.74	0.00	28.70	3640.4	100.0	0	49
pH	precip	5.01	4.44	5.65	6218.7	100.0	0	47

FI0036R Pallas (Matorova)
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.03	0.01	0.34	21.8	100.0	0	49
Cl-	precip	0.19	0.03	2.52	124.8	100.0	0	49
K+	precip	0.03	0.01	0.19	17.1	100.0	0	49
Mg++	precip	0.01	0.00	0.16	9.7	100.0	5	49
NH4+	precip	0.05	0.00	0.47	29.3	100.0	2	49
NO3-	precip	0.08	0.02	0.50	48.8	100.0	0	49
Na+	precip	0.10	0.01	1.41	67.3	100.0	0	49
Precip	precip	-	0.00	61.80	648.5	100.0	0	53
SO4--	precip	0.09	0.01	0.55	59.8	100.0	1	49
SO4-- corr	precip	0.08	0.01	0.53	54.2	100.0	1	49
cond	precip	5.42	0.00	17.62	3511.8	100.0	0	50
pH	precip	5.03	4.54	5.44	6021.7	100.0	0	49

FI0050R Hyttiälä
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.09	0.01	1.74	56.2	86.6	0	45
Cl-	precip	0.16	0.03	0.66	100.1	98.0	0	47
K+	precip	0.06	0.01	0.89	40.2	89.8	0	46
Mg++	precip	0.03	0.00	0.15	16.4	98.0	1	47
NH4+	precip	0.13	0.01	1.77	84.8	98.0	0	47
NO3-	precip	0.17	0.02	1.05	107.8	98.0	0	47
Na+	precip	0.09	0.01	0.43	59.5	98.0	0	47
Precip	precip	-	0.00	53.90	631.4	100.0	0	53
SO4--	precip	0.15	0.03	1.19	93.2	98.0	0	47
SO4-- corr	precip	0.14	0.02	1.17	88.2	98.0	0	47
cond	precip	6.73	0.00	28.10	4250.8	98.0	0	50
pH	precip	5.11	4.50	6.66	4939.0	98.0	0	47

FI0092R Hietajärvi
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.09	0.01	0.52	57.2	100.0	0	13
Cl-	precip	0.13	0.04	0.42	76.9	100.0	0	13
K+	precip	0.04	0.01	0.15	26.7	100.0	0	13
Mg++	precip	0.02	0.00	0.07	12.3	100.0	0	13
NH4+	precip	0.11	0.04	0.34	65.5	100.0	0	13
NO3-	precip	0.15	0.07	0.32	89.6	100.0	0	13
Na+	precip	0.08	0.03	0.28	47.5	100.0	0	13
Precip	precip	-	21.10	92.00	612.3	100.0	0	13
SO4--	precip	0.15	0.09	0.28	90.1	100.0	0	13
SO4-- corr	precip	0.14	0.09	0.28	86.2	100.0	0	13
cond	precip	6.62	4.13	12.12	4054.7	100.0	0	13
pH	precip	4.98	4.61	5.55	6418.3	100.0	0	13

FI0093R Kotinen
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.06	0.02	0.25	45.2	76.5	0	10
Cl-	precip	0.18	0.10	0.64	125.2	100.0	0	12
K+	precip	0.05	0.02	0.30	32.0	76.5	0	10
Mg++	precip	0.03	0.01	0.08	19.4	100.0	0	12
NH4+	precip	0.13	0.08	0.30	91.6	100.0	0	12
NO3-	precip	0.17	0.09	0.29	116.1	100.0	0	12
Na+	precip	0.11	0.05	0.39	74.9	100.0	0	12
Precip	precip	-	28.40	122.50	699.1	100.0	0	12
SO4--	precip	0.15	0.10	0.28	103.9	100.0	0	12
SO4-- corr	precip	0.14	0.09	0.27	97.7	100.0	0	12
cond	precip	6.68	4.34	9.70	4673.3	100.0	0	12
pH	precip	5.10	4.73	5.80	5551.0	100.0	0	12

FR0008R Donon
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.01	10.89	291.4	97.5	14	189
Cl-	precip	0.34	0.01	5.63	550.1	97.5	12	189
K+	precip	0.03	0.01	0.62	47.6	97.5	56	189
Mg++	precip	0.03	0.01	0.39	46.9	97.5	90	189
NH4+	precip	0.24	0.01	3.76	398.9	97.5	3	189
NO3-	precip	0.16	0.02	2.35	270.6	97.5	0	189
Na+	precip	0.21	0.01	3.11	342.5	97.5	9	189
Precip	precip	-	0.00	42.80	1641.9	99.3	2	363
SO4--	precip	0.12	0.01	1.56	200.6	97.5	4	189
SO4-- corr	precip	0.11	0.01	1.44	172.8	97.5	4	189
pH	precip	5.31	4.40	7.13	8035.9	99.0	0	196

FR0009R Revin
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.30	0.01	6.30	354.7	86.6	2	160
Cl-	precip	0.73	0.01	11.99	871.3	86.6	1	160
K+	precip	0.06	0.01	1.31	78.0	86.6	22	160
Mg++	precip	0.06	0.01	0.72	66.6	86.6	36	160
NH4+	precip	0.38	0.05	3.21	450.8	86.6	0	160
NO3-	precip	0.19	0.03	1.73	233.5	86.6	0	160
Na+	precip	0.43	0.01	6.73	518.3	86.6	3	160
Precip	precip	-	0.00	52.20	1201.0	95.6	2	349
SO4--	precip	0.15	0.03	1.46	177.0	86.6	0	160
SO4-- corr	precip	0.11	0.02	1.30	133.3	86.6	0	160
pH	precip	5.56	4.31	7.28	3334.6	86.7	0	167

FR0010R Morvan
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.24	0.01	6.83	288.2	88.2	6	145
Cl-	precip	0.44	0.02	3.01	536.9	88.2	2	145
K+	precip	0.05	0.01	1.57	60.2	88.2	39	145
Mg++	precip	0.04	0.01	0.21	47.4	88.2	36	145
NH4+	precip	0.20	0.01	4.09	247.3	88.2	6	145
NO3-	precip	0.12	0.01	2.33	140.6	88.2	8	145
Na+	precip	0.26	0.01	1.73	313.0	88.2	4	145
Precip	precip	-	0.00	42.00	1219.7	98.5	0	360
SO4--	precip	0.12	0.01	3.27	141.6	88.2	2	145
SO4-- corr	precip	0.10	0.01	3.19	115.9	88.2	2	145
pH	precip	5.44	4.50	7.23	4446.9	88.9	0	151

FR0013R Peyrusse Vieille
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.32	0.01	3.85	231.3	89.0	1	139
Cl-	precip	1.36	0.05	12.00	974.0	89.0	0	139
K+	precip	0.14	0.01	2.11	100.1	89.0	7	139
Mg++	precip	0.09	0.01	0.75	67.3	89.0	16	139
NH4+	precip	0.29	0.02	2.58	207.1	89.0	0	139
NO3-	precip	0.14	0.01	1.28	102.3	89.0	2	139
Na+	precip	0.77	0.02	6.75	549.8	89.0	0	139
Precip	precip	-	0.00	23.00	715.6	99.1	2	362
SO4--	precip	0.18	0.01	1.04	125.5	89.0	1	139
SO4-- corr	precip	0.11	-0.15	0.99	79.3	89.0	1	139
pH	precip	5.53	4.67	7.61	2123.0	90.8	0	150

FR0014R Montandon
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.37	0.01	80.57	502.5	98.9	9	160
Cl-	precip	0.29	0.01	28.04	386.6	98.9	13	160
K+	precip	0.03	0.01	3.76	38.5	98.9	52	160
Mg++	precip	0.03	0.01	2.76	43.8	98.9	61	160
NH4+	precip	0.24	0.01	3.23	330.9	98.9	3	160
NO3-	precip	0.15	0.01	2.33	197.9	98.9	1	160
Na+	precip	0.18	0.01	31.02	248.2	98.9	15	160
Precip	precip	-	0.00	71.00	1352.7	99.6	2	364
SO4--	precip	0.13	0.01	28.78	175.4	98.9	9	160
SO4-- corr	precip	0.11	0.00	26.86	155.0	98.9	9	160
pH	precip	5.47	4.47	8.30	4573.6	99.9	0	166

FR0015R La Tardière
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.24	0.03	11.20	191.7	96.5	0	132
Cl-	precip	2.46	0.07	32.90	1970.0	96.5	0	132
K+	precip	0.09	0.01	4.27	68.7	96.5	3	132
Mg++	precip	0.17	0.01	2.19	138.8	96.5	5	132
NH4+	precip	0.30	0.04	3.82	239.9	96.5	0	132
NO3-	precip	0.10	0.01	1.74	81.3	96.5	4	132
Na+	precip	1.37	0.04	18.23	1102.4	96.5	0	132
Precip	precip	-	0.00	45.40	801.9	99.6	2	364
SO4--	precip	0.20	0.01	1.55	157.6	96.5	1	132
SO4-- corr	precip	0.08	-0.05	1.36	64.9	96.5	1	132
pH	precip	5.68	4.91	7.47	1673.4	99.4	0	140

FR0016R Le Casset
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.02	0.02	58.15	948.9	96.2	0	128
Cl-	precip	0.20	0.01	9.86	182.1	96.2	17	128
K+	precip	0.10	0.01	2.51	92.2	96.2	14	128
Mg++	precip	0.04	0.01	1.19	40.1	96.2	41	128
NH4+	precip	0.17	0.01	3.45	158.4	96.2	14	128
NO3-	precip	0.13	0.01	1.94	117.1	96.2	3	128
Na+	precip	0.17	0.01	11.58	162.2	96.2	20	128
Precip	precip	-	0.00	50.60	933.3	99.6	1	364
SO4--	precip	0.22	0.01	9.99	208.1	96.2	14	128
SO4-- corr	precip	0.21	0.01	9.02	194.7	96.2	14	128
pH	precip	5.44	4.47	8.42	3413.0	96.2	0	132

FR0017R Montfranc
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.24	0.01	5.98	341.7	95.9	2	156
Cl-	precip	0.69	0.01	9.66	984.3	95.9	5	156
K+	precip	0.06	0.01	7.65	83.0	95.9	26	156
Mg++	precip	0.05	0.01	0.61	75.7	95.9	43	156
NH4+	precip	0.18	0.01	2.37	261.7	95.9	7	156
NO3-	precip	0.10	0.01	1.39	135.3	95.9	9	156
Na+	precip	0.41	0.01	5.45	581.1	95.9	3	156
Precip	precip	-	0.00	62.00	1418.7	99.9	1	365
SO4--	precip	0.11	0.01	1.21	154.3	95.9	7	156
SO4-- corr	precip	0.07	-0.38	1.19	105.8	95.9	7	156
pH	precip	5.58	4.80	7.14	3761.3	96.0	0	163

FR0018R La Coulonche
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.21	0.01	6.18	188.5	96.7	2	153
Cl-	precip	1.93	0.01	26.36	1717.6	96.7	2	153
K+	precip	0.07	0.01	1.06	58.0	96.7	18	153
Mg++	precip	0.14	0.01	1.69	121.9	96.7	21	153
NH4+	precip	0.36	0.05	3.40	321.4	96.7	0	153
NO3-	precip	0.15	0.02	2.92	130.3	96.7	0	153
Na+	precip	1.11	0.01	14.36	988.0	96.7	2	153
Precip	precip	-	0.00	54.00	889.5	99.6	0	364
SO4--	precip	0.18	0.02	1.86	163.3	96.7	0	153
SO4-- corr	precip	0.09	-0.17	0.87	80.5	96.7	0	153
pH	precip	5.73	4.57	7.01	1658.1	97.3	0	162

GB0002R Eskdalemuir
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.10	0.04	2.32	150.6	94.3	0	22
Cl-	precip	2.03	0.16	4.45	3017.2	94.3	0	22
K+	precip	0.09	-0.03	0.83	135.0	94.3	1	22
Mg++	precip	0.11	0.02	0.31	163.7	94.3	0	22
NH4+	precip	0.17	0.00	1.33	251.1	94.3	1	22
NO3-	precip	0.10	0.05	0.95	153.1	94.3	0	22
Na+	precip	1.10	0.11	2.53	1629.6	94.3	0	22
Precip	precip	-	0.00	179.98	1486.2	100.0	0	27
SO4--	precip	0.16	0.04	0.77	234.4	94.3	0	22
SO4-- corr	precip	0.07	0.02	0.58	97.8	94.3	0	22
cond	precip	9.59	1.78	22.10	14247.9	94.3	0	21
pH	precip	5.75	5.22	7.00	2654.4	94.3	0	22

GB0006R Lough Navar
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.05	0.78	248.4	100.0	0	24
Cl-	precip	4.19	0.17	22.00	5675.6	100.0	0	24
K+	precip	0.18	0.01	1.20	244.1	100.0	1	24
Mg++	precip	0.27	0.04	1.41	359.7	100.0	0	24
NH4+	precip	0.07	0.00	0.40	101.5	100.0	2	24
NO3-	precip	0.07	0.01	0.27	89.4	100.0	0	24
Na+	precip	2.42	0.08	12.60	3279.2	100.0	0	24
Precip	precip	-	13.07	150.23	1354.8	100.0	0	24
SO4--	precip	0.25	0.09	1.01	338.0	100.0	0	24
SO4-- corr	precip	0.05	-0.04	0.18	64.1	100.0	0	24
cond	precip	25.40	3.29	196.80	34418.5	100.0	0	24
pH	precip	5.68	5.20	6.63	2859.0	100.0	0	24

GB0013R Yarner Wood
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.04	0.83	208.5	100.0	0	25
Cl-	precip	3.86	0.33	18.10	4945.1	100.0	0	25
K+	precip	0.18	0.01	3.49	231.1	100.0	1	25
Mg++	precip	0.24	0.03	1.06	307.3	100.0	0	25
NH4+	precip	0.14	0.00	1.13	181.4	100.0	2	25
NO3-	precip	0.13	0.04	1.00	171.0	100.0	0	25
Na+	precip	2.23	0.01	9.52	2851.5	100.0	0	25
Precip	precip	-	0.00	212.60	1281.0	100.0	0	27
SO4--	precip	0.28	0.12	1.31	353.9	100.0	0	25
SO4-- corr	precip	0.09	-0.00	1.29	115.2	100.0	0	25
cond	precip	19.30	6.92	154.20	24722.6	100.0	0	25
pH	precip	5.61	5.19	7.06	3150.3	100.0	0	25

GB0014R High Muffles
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.05	2.39	189.2	97.8	0	23
Cl-	precip	4.01	0.00	25.60	3906.5	97.8	1	23
K+	precip	0.29	0.01	2.03	287.2	97.8	1	23
Mg++	precip	0.26	0.03	1.77	255.0	97.8	0	23
NH4+	precip	0.31	0.00	1.19	303.2	97.8	1	23
NO3-	precip	0.20	0.00	0.56	191.5	97.8	1	23
Na+	precip	2.20	0.02	14.40	2148.0	97.8	0	23
Precip	precip	-	0.00	99.39	975.3	100.0	0	27
SO4--	precip	0.31	0.00	1.53	303.5	97.8	1	23
SO4-- corr	precip	0.13	0.00	0.76	123.0	97.8	1	23
cond	precip	18.04	0.78	75.20	17594.4	97.8	0	23
pH	precip	5.64	5.02	6.91	2223.9	97.8	0	23

GB0015R Strath Vaich Dam
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.23	0.04	3.80	218.7	100.0	0	23
Cl-	precip	3.77	0.08	8.39	3522.8	100.0	0	23
K+	precip	0.19	0.01	2.34	174.2	100.0	1	23
Mg++	precip	0.24	0.04	0.54	222.5	100.0	0	23
NH4+	precip	0.06	-0.01	1.63	55.3	100.0	11	23
NO3-	precip	0.08	0.01	1.03	70.8	100.0	0	23
Na+	precip	2.26	0.09	4.93	2110.9	100.0	0	23
Precip	precip	-	7.50	139.75	933.7	100.0	0	23
SO4--	precip	0.23	0.08	0.61	214.6	100.0	0	23
SO4-- corr	precip	0.04	-0.02	0.41	38.0	100.0	0	23
cond	precip	16.22	3.94	66.00	15145.5	100.0	0	23
pH	precip	5.52	4.68	7.38	2800.5	100.0	0	23

GB0048R Auchencorth Moss
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.10	0.01	2.92	80.6	100.0	5	217
Cl-	precip	0.98	0.00	134.00	796.4	100.0	5	217
K+	precip	0.13	-0.03	3.62	103.6	100.0	45	217
Mg++	precip	0.07	0.00	8.56	59.7	100.0	6	217
NH4+	precip	0.22	-0.01	2.56	176.5	100.0	10	217
NO3-	precip	0.12	-0.01	2.72	98.8	100.0	5	217
Na+	precip	0.55	0.00	76.30	444.1	100.0	11	217
Precip	precip	-	0.00	37.55	808.8	100.0	0	365
SO4--	precip	0.12	0.00	6.47	98.0	100.0	8	217
SO4-- corr	precip	0.08	-0.00	1.35	61.1	100.0	8	217
cond	precip	5.58	0.07	91.00	4510.1	97.4	0	174
pH	precip	5.63	4.77	7.00	1897.2	99.1	0	204

GB1055R Chilbolton Observatory
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.17	0.01	4.00	99.0	98.2	2	141
Cl-	precip	2.05	0.00	30.20	1228.0	98.2	3	141
K+	precip	0.10	0.01	3.56	57.4	98.2	10	141
Mg++	precip	0.13	0.00	1.92	80.2	98.2	2	141
NH4+	precip	0.33	0.00	3.30	194.5	98.2	2	141
NO3-	precip	0.18	0.00	2.24	109.8	98.2	3	141
Na+	precip	1.19	0.00	15.10	708.3	98.2	2	141
Precip	precip	-	0.00	26.59	597.6	100.0	0	365
SO4--	precip	0.21	0.00	3.98	127.6	98.2	2	141
SO4-- corr	precip	0.11	-0.06	2.72	68.6	98.2	2	141
cond	precip	11.28	1.09	102.00	6739.6	97.7	0	115
pH	precip	5.66	4.62	7.21	1319.0	98.2	0	139

HR0002R Puntijarka
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.40	0.03	6.44	432.6	99.1	2	118
Cl-	precip	0.56	0.05	3.68	601.5	99.1	0	118
K+	precip	0.22	0.04	1.83	237.6	99.1	0	118
Mg++	precip	0.07	0.01	0.51	81.0	99.1	0	118
NH4+	precip	0.34	0.01	3.95	363.7	99.1	2	118
NO3-	precip	0.24	0.03	1.84	258.6	99.1	0	118
Na+	precip	0.37	0.03	3.06	399.5	99.1	0	118
Precip off	precip	-	0.10	51.10	1080.7	42.5	0	155
SO4--	precip	0.24	0.02	1.54	255.5	99.1	2	118
SO4-- corr	precip	0.21	-0.04	1.51	223.4	99.1	2	118
cond	precip	10.09	2.60	125.70	10905.3	99.4	0	124
pH	precip	5.67	4.56	7.62	2330.9	99.4	0	124

HR0004R Zavizan
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.61	0.04	8.05	1080.2	98.8	1	112
Cl-	precip	0.96	0.04	6.01	1705.2	98.8	1	112
K+	precip	0.17	0.03	3.40	299.4	98.8	2	112
Mg++	precip	0.09	0.02	0.57	165.8	98.8	0	112
NH4+	precip	0.21	0.01	2.91	373.8	98.8	5	112
NO3-	precip	0.21	0.01	3.15	374.3	98.8	2	112
Na+	precip	0.64	0.03	3.70	1131.8	98.8	1	112
Precip off	precip	-	0.10	75.90	1776.1	37.8	0	138
SO4--	precip	0.16	0.01	2.12	281.2	98.8	12	112
SO4-- corr	precip	0.11	-0.26	1.99	191.4	98.8	12	112
cond	precip	11.60	1.60	84.80	20599.9	98.8	0	112
pH	precip	5.78	4.33	7.24	2959.5	98.8	0	112

HU0002R K-pusztá
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.54	0.07	7.08	284.3	98.0	0	69
Cl-	precip	0.90	0.46	3.52	468.1	96.7	0	68
K+	precip	0.17	0.03	1.01	87.6	98.0	5	69
Mg++	precip	0.10	0.02	0.54	53.8	98.0	1	69
NH4+	precip	0.49	0.13	1.89	257.5	93.7	0	65
NO3-	precip	0.28	0.07	1.71	147.9	96.7	0	68
Na+	precip	1.08	0.69	3.88	565.7	98.0	0	69
Precip	precip	-	0.00	35.10	522.0	100.0	0	366
Precip off	precip	-	0.00	30.50	475.2	99.7	0	365
SO4--	precip	0.51	0.11	2.53	264.1	96.7	0	68
SO4-- corr	precip	0.44	0.05	2.41	232.2	96.7	0	68
cond	precip	16.38	9.00	64.00	8550.2	98.0	0	69
pH	precip	5.82	4.77	7.07	795.7	98.0	0	69

IE0001R Valentia Observatory
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.03	2.48	230.2	98.1	22	189
Cl-	precip	8.55	0.11	95.81	9724.4	98.1	0	189
K+	precip	0.18	0.03	2.23	207.3	98.1	40	189
Mg++	precip	0.61	0.03	8.09	698.2	98.1	10	189
NH4+	precip	0.07	0.02	1.94	80.2	98.1	116	189
NO3-	precip	0.05	0.01	0.58	54.2	98.1	31	189
Na+	precip	5.04	0.06	64.89	5736.3	98.1	0	189
Precip	precip	-	0.00	33.30	1137.6	97.5	0	357
Precip off	precip	-	0.00	59.70	1548.4	100.0	0	366
SO4--	precip	0.47	0.01	5.47	536.4	98.1	1	189
SO4-- corr	precip	0.05	-0.32	1.77	56.0	98.1	1	189
cond	precip	37.33	2.60	444.00	42469.7	98.1	0	189
pH	precip	5.43	4.13	6.72	4245.7	98.1	0	189

IE0005R Oak Park
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.03	2.68	50.2	98.8	13	75
Cl-	precip	1.58	0.03	12.74	635.7	98.8	1	76
K+	precip	0.10	0.03	4.13	38.7	98.8	40	76
Mg++	precip	0.12	0.03	0.90	47.0	98.8	21	75
NH4+	precip	0.28	0.02	4.42	111.3	98.8	12	75
NO3-	precip	0.07	0.01	0.74	27.0	98.8	4	75
Na+	precip	0.90	0.03	7.87	360.4	98.8	6	76
Precip	precip	-	0.00	34.30	402.5	98.4	0	213
Precip off	precip	-	0.00	36.60	784.8	100.0	0	365
SO4--	precip	0.14	0.01	1.28	56.4	98.8	3	75
SO4-- corr	precip	0.07	-0.04	0.71	26.2	98.8	3	75
cond	precip	10.68	1.80	87.60	4298.2	98.8	0	75
pH	precip	5.92	5.50	7.13	481.7	98.8	0	75

IE0009R Johnstown Castle
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.03	1.93	109.8	98.7	8	103
Cl-	precip	4.47	0.31	43.79	2641.6	98.7	0	103
K+	precip	0.14	0.03	5.80	79.8	98.7	30	103
Mg++	precip	0.31	0.03	3.27	185.9	98.7	6	103
NH4+	precip	0.28	0.02	10.92	166.4	98.7	24	103
NO3-	precip	0.10	0.01	0.99	58.1	98.7	6	103
Na+	precip	2.61	0.18	24.48	1541.6	98.7	0	103
Precip	precip	-	0.00	22.40	590.9	79.5	0	290
Precip off	precip	-	0.00	58.90	1067.7	100.0	0	365
SO4--	precip	0.31	0.00	2.16	182.0	98.7	0	103
SO4-- corr	precip	0.09	-0.06	1.26	53.0	98.7	0	103
cond	precip	22.82	3.20	175.90	13481.4	98.7	0	103
pH	precip	5.73	5.07	7.71	1112.5	98.7	0	103

IS0002R Irafoss
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.00	6.53	283.1	99.4	6	146
Cl-	precip	4.28	0.10	44.10	6867.2	99.4	3	146
K+	precip	0.19	0.01	8.39	309.2	99.4	4	146
Mg++	precip	0.28	0.00	5.52	449.1	99.4	1	146
NO3-	precip	0.04	0.00	0.54	58.2	99.4	4	146
Na+	precip	2.32	0.00	26.01	3714.6	99.4	1	146
Precip	precip	-	0.30	64.30	1604.2	40.5	0	148
SO4--	precip	0.68	0.12	5.38	1090.9	99.4	34	146
SO4-- corr	precip	0.49	-0.60	4.68	779.9	99.4	34	146
cond	precip	22.77	2.85	238.00	36534.1	97.7	0	120
pH	precip	5.43	4.23	7.01	5943.8	97.7	0	120

IS0091R Storhofdi
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	2.56	0.39	6.24	2777.3	100.0	0	12
Cl-	precip	106.14	8.74	260.86	114941.8	100.0	0	12
K+	precip	2.34	0.49	6.18	2534.8	100.0	0	12
Mg++	precip	7.26	0.70	17.94	7866.9	100.0	0	12
NH4+	precip	0.49	0.01	1.95	535.6	100.0	2	12
NO3-	precip	0.08	0.01	0.28	83.8	100.0	2	12
Na+	precip	59.25	5.10	151.24	64163.4	100.0	0	12
Precip	precip	-	22.10	246.50	1082.9	98.9	0	12
Precip off	precip	-	10.30	128.80	1333.0	100.0	0	24
Precip off	precip	-	53.80	237.80	1342.7	90.1	0	12
SO4--	precip	4.83	0.97	11.08	5233.9	100.0	0	12
SO4-- corr	precip	-0.13	-1.68	1.29	-135.9	100.0	0	12
cond	precip	381.47	59.70	876.50	413104.1	100.0	0	12
pH	precip	5.58	5.11	6.29	2859.2	100.0	0	12

IT0004R Ispra
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.51	0.05	15.55	616.6	98.4	0	96
Cl-	precip	0.32	0.03	9.63	388.2	98.4	0	96
K+	precip	0.05	0.01	2.56	59.0	98.4	0	96
Mg++	precip	0.05	0.01	0.91	60.1	98.4	0	96
NH4+	precip	0.86	0.09	6.19	1031.4	98.4	0	96
NO3-	precip	0.39	0.08	10.89	472.8	98.4	0	96
Na+	precip	0.42	0.01	6.18	503.5	96.6	0	92
Precip	precip	-	0.00	161.78	1199.5	100.0	0	366
Precip off	precip	-	0.00	159.49	1204.1	98.6	0	361
SO4--	precip	0.25	0.04	3.23	300.5	98.4	0	96
SO4-- corr	precip	0.23	0.02	3.20	274.6	98.4	0	96
cond	precip	10.06	2.10	66.20	12067.7	97.2	0	75
pH	precip	6.26	5.64	7.22	659.9	97.8	0	82

LT0015R Preila
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.19	0.02	1.01	101.1	100.0	0	99
Cl-	precip	2.08	0.04	16.71	1116.7	100.0	0	99
K+	precip	0.08	0.01	0.58	43.0	100.0	0	99
Mg++	precip	0.20	0.01	2.00	106.1	100.0	0	99
NH4+	precip	0.27	0.01	2.28	145.8	100.0	0	99
NO3-	precip	0.24	0.03	2.11	130.3	100.0	0	99
Na+	precip	1.11	0.02	8.64	595.6	100.0	0	99
Precip	precip	-	0.00	23.53	537.1	100.0	0	366
SO4--	precip	0.28	0.01	2.80	153.0	100.0	0	99
SO4-- corr	precip	0.19	0.01	2.53	102.9	100.0	0	99
cond	precip	14.85	2.50	72.10	7974.4	100.0	0	99
pH	precip	5.20	4.42	6.69	3415.7	100.0	0	99

LV0010R Rucava
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.13	0.02	1.98	141.5	36.0	28	91
Cl-	precip	1.07	0.02	3.69	1134.4	33.7	11	77
K+	precip	0.06	0.01	0.27	59.8	40.2	21	94
Mg++	precip	0.11	0.02	0.29	114.5	36.8	52	85
NH4+	precip	0.30	0.02	3.40	321.0	45.4	17	120
NO3-	precip	0.31	0.00	1.28	331.3	35.4	1	83
Na+	precip	0.81	0.04	2.30	858.6	42.7	41	90
Precip off	precip	-	0.00	83.20	1059.3	50.4	0	185
Precip off	precip	-	0.10	87.20	1079.0	92.3	0	49
Precip off	precip	-	0.10	87.20	1079.0	92.3	0	49
SO4--	precip	0.24	0.02	1.13	250.8	35.8	1	84
SO4-- corr	precip	0.18	0.01	1.11	193.3	35.8	1	84
cond	precip	13.63	2.10	51.00	14436.6	47.5	0	125
pH	precip	5.11	4.20	7.10	8307.5	50.3	0	126

NL0091R De Zilk
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.25	0.03	1.77	186.9	95.9	0	123
Cl-	precip	4.51	0.19	47.56	3381.3	98.8	0	150
H+	precip	-9.83	-124.40	44.30	-7363.2	99.2	0	158
K+	precip	0.14	0.02	1.51	103.5	95.9	0	123
Mg++	precip	0.30	0.01	2.50	226.1	95.9	0	123
NH4+	precip	0.47	0.03	2.62	353.9	97.8	0	138
NO3-	precip	0.27	0.04	1.55	204.9	98.8	0	150
Na+	precip	2.49	0.09	21.10	1864.2	95.9	0	123
Precip	precip	-	0.00	22.32	749.4	100.0	0	366
SO4--	precip	0.38	0.06	2.35	283.5	98.8	0	150
SO4-- corr	precip	0.16	0.00	1.53	123.5	98.8	0	150
cond	precip	24.71	4.00	152.10	18515.9	92.4	0	105
pH	precip	5.38	4.46	7.03	3132.7	99.2	0	158

NO0001R Birkenes
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.00	1.71	289.3	98.6	1	131
Cl-	precip	2.21	0.01	28.10	3270.3	99.3	1	133
K+	precip	0.10	0.01	0.76	140.9	99.2	17	133
Mg++	precip	0.15	0.01	1.81	228.8	99.2	13	133
NH4+	precip	0.30	0.01	1.37	450.0	98.6	14	131
NO3-	precip	0.33	0.01	1.98	484.5	99.1	1	131
Na+	precip	1.29	0.02	16.15	1904.1	99.2	7	133
Precip	precip	-	0.00	61.10	1477.8	100.0	0	366
SO4--	precip	0.27	0.01	1.42	405.7	99.3	1	133
SO4-- corr	precip	0.17	-0.02	0.74	246.2	99.3	1	133
cond	precip	17.75	2.70	108.40	26235.3	99.0	0	129
pH	precip	5.02	4.04	6.20	14180.9	98.3	0	127

NO0015R Tustervatn
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.12	0.02	0.61	139.8	97.6	0	163
Cl-	precip	1.68	0.02	18.76	1879.9	98.1	0	166
K+	precip	0.09	0.01	0.87	95.3	97.6	37	163
Mg++	precip	0.12	0.01	1.20	129.4	97.6	29	163
NH4+	precip	0.09	0.01	0.87	95.4	97.6	18	163
NO3-	precip	0.08	0.01	0.79	87.9	96.5	1	164
Na+	precip	0.94	0.02	10.70	1057.1	98.1	10	166
Precip	precip	-	0.00	29.30	1119.1	100.0	0	366
SO4--	precip	0.14	0.01	1.53	153.5	94.9	0	163
SO4-- corr	precip	0.06	-0.12	1.06	61.6	94.9	0	163
cond	precip	10.15	2.20	69.70	11354.8	97.5	0	156
pH	precip	5.34	4.47	6.11	5139.3	96.9	0	153

NO0039R Kärvatn
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.14	0.02	0.70	262.8	99.8	0	120
Cl-	precip	2.62	0.10	20.51	4968.4	99.8	0	121
K+	precip	0.10	0.01	1.06	197.4	99.8	8	120
Mg++	precip	0.18	0.01	1.35	334.6	99.8	12	120
NH4+	precip	0.07	0.00	0.72	138.4	99.8	27	120
NO3-	precip	0.06	0.01	0.49	117.7	77.4	1	95
Na+	precip	1.46	0.05	10.30	2757.8	99.8	0	120
Precip	precip	-	0.00	121.00	1893.1	100.0	0	360
SO4--	precip	0.19	0.02	4.11	351.3	99.8	0	121
SO4-- corr	precip	0.06	-0.03	4.04	120.3	99.8	0	121
cond	precip	13.62	3.00	94.40	25780.4	99.8	0	120
pH	precip	5.34	3.74	6.17	8739.4	99.8	0	120

NO0056R Hurdal
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.16	0.01	0.97	146.8	99.4	0	91
Cl-	precip	0.52	0.07	5.02	477.5	98.9	0	91
K+	precip	0.09	0.01	0.70	80.8	98.4	8	89
Mg++	precip	0.05	0.01	0.34	43.0	99.3	17	91
NH4+	precip	0.31	0.01	2.16	286.7	98.4	1	89
NO3-	precip	0.28	0.01	2.08	260.4	99.8	0	92
Na+	precip	0.33	0.02	2.98	302.4	99.8	5	92
Precip	precip	-	0.00	48.10	919.9	99.7	0	365
SO4--	precip	0.19	0.02	0.59	171.1	99.8	0	92
SO4-- corr	precip	0.16	-0.02	0.54	145.7	99.8	0	92
cond	precip	10.41	2.70	45.30	9580.2	99.7	0	93
pH	precip	5.18	4.48	6.23	6141.7	98.0	0	88

PL0002R Jarczew
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.26	0.02	2.40	161.0	95.0	0	126
Cl-	precip	0.27	0.02	7.72	166.7	95.0	0	126
K+	precip	0.10	0.01	1.68	59.4	95.0	0	126
Mg++	precip	0.04	0.00	0.42	24.0	95.0	0	126
NH4+	precip	0.49	0.08	9.14	307.5	95.0	0	126
NO3-	precip	0.38	0.08	4.78	239.6	95.0	0	126
Na+	precip	0.13	0.01	3.29	81.0	95.0	0	126
Precip	precip	-	0.00	51.70	623.5	100.0	0	366
Precip off	precip	-	0.00	52.70	641.4	100.0	0	366
SO4--	precip	0.41	0.08	5.17	256.2	95.0	0	126
SO4-- corr	precip	0.40	0.07	5.08	249.4	95.0	0	126
cond	precip	11.46	3.00	116.00	7146.9	95.0	0	126
pH	precip	5.19	4.08	7.26	4049.6	95.0	0	126

PL0003R Snieszka
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.75	0.08	8.14	552.6	99.3	0	179
Cl-	precip	0.47	0.06	1.44	346.4	99.3	0	179
K+	precip	0.24	0.02	1.62	178.1	99.3	0	179
Mg++	precip	0.14	0.01	1.80	102.8	99.3	0	179
NH4+	precip	0.35	0.06	1.16	260.6	99.3	0	179
NO3-	precip	0.97	0.24	8.31	713.6	99.3	0	179
Na+	precip	0.52	0.04	1.71	385.2	99.3	0	179
Precip	precip	-	0.00	60.30	735.6	100.0	0	366
Precip off	precip	-	0.00	104.40	1231.9	100.0	0	366
SO4--	precip	0.84	0.28	2.06	621.4	99.3	0	179
SO4-- corr	precip	0.80	0.26	1.97	589.5	99.3	0	179
cond	precip	27.66	14.00	110.00	20348.7	99.3	0	179
pH	precip	4.49	4.28	4.80	23684.6	99.3	0	179

PL0004R Leba
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.18	0.04	1.37	113.0	98.3	0	152
Cl-	precip	1.98	0.18	16.57	1256.5	98.3	0	152
K+	precip	0.15	0.02	1.40	97.2	98.3	0	152
Mg++	precip	0.12	0.01	1.07	79.1	98.3	0	152
NH4+	precip	0.36	0.06	2.76	231.4	98.3	0	152
NO3-	precip	0.34	0.04	2.13	213.8	98.3	0	152
Na+	precip	1.09	0.07	10.47	691.8	98.3	0	152
Precip	precip	-	0.00	58.80	635.1	100.0	0	366
Precip off	precip	-	0.00	52.70	572.2	100.0	0	366
SO4--	precip	0.30	0.07	1.45	187.9	98.3	0	152
SO4-- corr	precip	0.20	-0.20	1.09	129.9	98.3	0	152
cond	precip	15.44	4.00	80.00	9808.0	98.3	0	152
pH	precip	5.18	4.16	6.59	4242.0	98.3	0	152

PL0005R Diabla Gora
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.17	0.01	2.82	96.8	94.9	0	93
Cl-	precip	0.34	0.01	3.54	190.8	99.8	1	120
K+	precip	0.06	0.00	0.45	31.5	94.9	3	93
Mg++	precip	0.04	0.00	0.28	20.9	94.9	0	93
NH4+	precip	0.49	0.03	2.50	268.5	99.8	1	120
NO3-	precip	0.27	0.03	1.60	149.0	99.8	0	120
Na+	precip	0.12	0.01	1.92	67.6	94.9	0	93
Precip	precip	-	0.00	36.20	553.3	100.0	0	366
Precip off	precip	-	0.00	44.70	648.0	100.0	0	366
SO4--	precip	0.22	0.05	0.99	120.4	99.8	0	120
SO4-- corr	precip	0.20	0.04	0.97	113.0	99.8	0	120
cond	precip	6.86	3.10	23.80	3796.8	81.7	0	56
pH	precip	5.46	4.23	7.07	1940.8	99.9	0	121

RU0001R Janiskoski
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.71	0.03	4.21	724.7	99.2	1	171
Cl-	precip	1.69	0.01	30.89	1733.9	97.6	10	169
K+	precip	0.90	0.05	10.42	919.6	99.2	0	170
Mg++	precip	0.11	0.01	2.82	112.8	99.2	0	171
NH4+	precip	0.39	0.01	10.16	396.1	98.3	19	173
NO3-	precip	0.05	0.01	1.80	55.1	97.7	48	170
Na+	precip	1.11	0.20	12.59	1140.1	99.2	0	172
Precip	precip	-	0.00	53.10	1023.0	100.0	0	366
SO4--	precip	0.26	0.03	6.76	265.3	97.7	33	170
SO4-- corr	precip	0.18	-0.44	6.02	179.5	97.7	33	170
cond	precip	13.72	4.00	120.00	14033.9	94.1	0	111
pH	precip	5.39	4.53	6.84	4166.1	94.1	0	111

RU0013R Pinega
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.12	0.03	10.11	443.4	97.5	1	155
Cl-	precip	1.23	0.01	30.50	490.9	89.5	6	145
K+	precip	0.49	0.06	3.06	195.1	98.5	0	156
Mg++	precip	0.18	0.01	2.65	71.2	98.5	0	156
NH4+	precip	0.29	0.00	23.48	117.1	98.3	39	155
NO3-	precip	0.13	0.01	2.02	53.4	89.7	31	146
Na+	precip	1.38	0.01	25.29	547.5	98.5	0	156
Precip	precip	-	0.00	19.10	397.6	100.0	0	366
SO4--	precip	0.40	0.03	4.03	158.0	89.7	14	146
SO4-- corr	precip	0.32	-0.06	3.73	128.5	89.7	14	146
cond	precip	16.06	3.90	179.70	6385.4	88.7	0	91
pH	precip	5.42	4.63	7.69	1509.5	88.7	0	91

RU0018R Danki
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.68	0.01	3.93	462.5	100.0	0	167
Cl-	precip	0.50	0.01	7.56	337.4	100.0	6	167
K+	precip	0.36	0.01	11.10	247.7	100.0	1	167
Mg++	precip	0.10	0.01	1.62	67.7	100.0	0	167
NH4+	precip	0.33	0.01	4.16	221.3	100.0	16	167
NO3-	precip	0.23	0.01	1.82	157.9	100.0	22	167
Na+	precip	0.41	0.07	3.32	282.2	100.0	0	167
Precip	precip	-	0.00	41.10	680.0	100.0	0	366
SO4--	precip	0.43	0.01	6.26	294.4	100.0	14	167
SO4-- corr	precip	0.40	-0.11	6.25	273.1	100.0	14	167
cond	precip	13.47	3.10	287.00	9156.4	93.8	0	111
pH	precip	4.91	3.95	7.94	8314.5	93.8	0	111

RU0020R Lesnoy
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	1.03	0.01	4.67	777.1	99.6	2	205
Cl-	precip	0.27	0.01	12.95	206.1	99.3	12	203
K+	precip	0.22	0.01	2.02	163.8	99.6	6	205
Mg++	precip	0.12	0.01	2.19	92.6	99.6	0	205
NH4+	precip	0.45	0.01	12.67	339.5	99.6	29	205
NO3-	precip	0.16	0.01	3.54	118.9	99.3	40	203
Na+	precip	0.41	0.04	3.38	309.1	99.6	0	205
Precip	precip	-	0.00	34.30	750.9	100.0	0	366
SO4--	precip	0.27	0.02	3.84	201.8	97.2	38	201
SO4-- corr	precip	0.24	-0.05	3.81	181.0	97.2	38	201
cond	precip	9.82	3.20	109.40	7373.7	93.3	0	137
pH	precip	5.00	4.19	7.01	7429.7	93.3	0	137

SE0005R Bredkålen
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.07	0.02	0.48	39.2	99.9	6	45
Cl-	precip	0.10	0.02	2.50	53.9	99.9	1	45
K+	precip	0.05	0.02	2.90	26.8	99.9	14	45
Mg++	precip	0.02	0.01	0.06	8.7	99.9	18	45
NH4+	precip	0.18	0.03	1.10	103.8	99.9	5	45
NO3-	precip	0.09	0.01	0.59	50.4	99.9	2	45
Na+	precip	0.05	0.02	1.80	31.0	99.9	9	45
Precip	precip	-	0.20	42.30	563.9	87.4	0	47
SO4--	precip	0.09	0.01	0.39	52.3	99.9	0	45
SO4-- corr	precip	0.09	0.01	0.38	49.9	99.9	0	45
cond	precip	4.67	2.00	21.00	2633.9	100.0	0	47
pH	precip	5.40	4.50	6.70	2229.0	100.0	0	47

SE0014R Råö
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.15	0.03	0.88	78.8	100.0	0	44
Cl-	precip	2.61	0.19	14.00	1362.2	100.0	0	44
K+	precip	0.08	0.02	0.42	39.2	100.0	1	44
Mg++	precip	0.18	0.02	0.93	91.5	100.0	0	44
NH4+	precip	0.26	0.03	2.30	136.6	100.0	3	44
NO3-	precip	0.23	0.01	1.40	119.0	100.0	0	44
Na+	precip	1.35	0.11	6.60	702.8	100.0	0	44
Precip	precip	-	0.70	68.30	521.5	80.5	0	44
SO4--	precip	0.25	0.08	0.89	129.9	100.0	0	44
SO4-- corr	precip	0.14	0.00	0.79	70.7	100.0	0	44
cond	precip	17.10	5.00	65.00	8919.1	100.0	0	44
pH	precip	5.14	4.20	6.20	3738.5	100.0	0	44

SE0020R Hallahus
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.09	0.02	0.55	77.6	100.0	0	45
Cl-	precip	1.18	0.06	5.90	1061.9	99.5	0	44
K+	precip	0.05	0.02	0.83	48.0	100.0	0	45
Mg++	precip	0.09	0.01	0.41	78.1	100.0	1	45
NH4+	precip	0.25	0.04	1.80	223.6	100.0	0	45
NO3-	precip	0.33	0.04	1.50	299.8	99.5	0	44
Na+	precip	0.63	0.03	2.90	564.4	100.0	0	45
Precip	precip	-	0.00	90.00	897.9	95.1	0	46
SO4--	precip	0.21	0.08	0.72	191.4	99.5	0	44
SO4-- corr	precip	0.16	0.06	0.67	144.3	99.5	0	44
cond	precip	14.18	4.00	54.00	12731.5	100.0	0	45
pH	precip	4.88	4.20	5.60	11747.4	100.0	0	45

SE0022R Norunda Stenen
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.09	0.02	0.42	49.1	99.9	2	43
Cl-	precip	0.24	0.03	1.70	125.8	99.9	0	43
K+	precip	0.06	0.02	0.72	31.6	99.9	2	43
Mg++	precip	0.03	0.01	0.07	13.6	99.9	9	43
NH4+	precip	0.21	0.03	1.10	110.5	99.9	0	43
NO3-	precip	0.16	0.04	0.56	81.0	99.9	0	43
Na+	precip	0.15	0.02	1.20	76.2	99.9	1	43
Precip	precip	-	0.00	36.80	518.9	91.2	0	46
SO4--	precip	0.15	0.02	0.57	76.5	99.9	0	43
SO4-- corr	precip	0.14	0.02	0.55	70.2	99.9	0	43
cond	precip	6.37	2.00	16.00	3304.9	100.0	0	45
pH	precip	5.33	4.70	6.40	2423.7	100.0	0	45

SI0008R Iskrba
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.31	0.01	3.84	391.5	99.9	0	122
Cl-	precip	0.49	0.01	9.89	626.9	99.9	0	122
K+	precip	0.04	0.01	0.37	52.5	99.9	0	122
Mg++	precip	0.05	0.01	0.77	68.6	99.9	0	122
NH4+	precip	0.23	0.01	2.64	293.6	99.9	0	122
NO3-	precip	0.19	0.03	2.07	240.2	99.9	0	122
Na+	precip	0.29	0.01	7.04	372.3	99.9	0	122
Precip	precip	-	0.00	45.20	1277.7	99.4	0	363
Precip off	precip	-	0.00	41.80	1237.0	99.9	0	365
SO4--	precip	0.18	0.02	2.14	235.8	99.9	0	122
SO4-- corr	precip	0.16	0.01	2.10	204.5	99.9	0	122
cond	precip	8.10	2.00	33.00	10353.2	97.0	0	87
pH	precip	5.30	4.56	6.90	6449.7	97.0	0	87

SK0002R Chopok
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.20	0.01	2.68	278.7	93.6	48	139
Cl-	precip	0.16	0.02	2.51	217.2	93.6	25	139
K+	precip	0.10	0.01	5.93	136.0	93.6	67	139
Mg++	precip	0.03	0.00	0.25	43.4	93.6	7	139
NH4+	precip	0.36	0.01	2.33	496.0	93.6	0	139
NO3-	precip	0.36	0.08	1.27	492.3	5.3	0	36
Na+	precip	0.20	0.02	2.14	266.9	93.6	30	139
Precip	precip	-	0.00	61.20	1362.7	99.9	0	365
SO4--	precip	0.29	0.02	1.35	391.1	93.6	0	139
SO4-- corr	precip	0.27	0.02	1.31	371.9	93.6	0	139
cond	precip	9.43	1.73	36.47	12851.1	88.0	0	115
pH	precip	5.48	4.50	6.83	4533.0	88.0	0	115

SK0004R Stará Lesná
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.51	0.01	2.12	235.9	93.2	1	38
Cl-	precip	0.23	0.04	1.95	103.8	93.2	0	38
K+	precip	0.26	0.01	4.25	119.2	93.2	4	38
Mg++	precip	0.07	0.01	0.45	32.6	93.2	0	38
NH4+	precip	0.67	0.01	7.96	305.7	93.2	1	38
NO3-	precip	0.26	0.05	1.13	117.6	93.2	0	38
Na+	precip	0.42	0.04	2.83	192.5	93.2	0	38
Precip	precip	-	0.00	60.00	458.3	92.3	0	49
SO4--	precip	0.33	0.05	1.33	150.4	93.2	0	38
SO4-- corr	precip	0.30	0.05	1.32	137.6	93.2	0	38
cond	precip	13.94	3.20	76.20	6389.0	90.5	0	31
pH	precip	5.74	4.64	7.33	830.5	90.5	0	31

SK0006R Starina
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.42	0.03	4.76	172.7	83.7	0	67
Cl-	precip	0.22	0.02	1.82	89.1	83.7	6	67
K+	precip	0.23	0.03	1.30	93.4	83.7	0	67
Mg++	precip	0.06	0.00	0.41	24.3	83.7	0	67
NH4+	precip	0.39	0.01	2.34	161.6	83.7	0	67
NO3-	precip	0.67	0.29	1.22	274.2	3.0	0	9
Na+	precip	0.25	0.02	2.42	103.1	83.7	14	67
Precip	precip	-	0.40	24.90	410.3	27.3	0	100
SO4--	precip	0.38	0.06	2.19	154.7	83.7	0	67
SO4-- corr	precip	0.36	0.06	2.12	147.3	83.7	0	67
cond	precip	12.47	4.40	45.40	5114.6	79.8	0	48
pH	precip	5.45	4.64	6.48	1451.1	79.8	0	48

SK0007R Topolniky
January 2021 - December 2021

Component	matrix	W. mean	Min	Max	Dep	% anal	Num bel	Num sampl
Ca++	precip	0.40	0.02	1.42	232.4	87.7	0	30
Cl-	precip	0.20	0.06	1.65	116.2	87.7	0	30
K+	precip	0.12	0.01	0.74	67.3	87.7	3	30
Mg++	precip	0.05	0.00	0.15	26.4	87.7	0	30
NH4+	precip	0.57	0.04	1.49	328.1	87.7	0	30
NO3-	precip	0.31	0.11	0.92	178.1	87.7	0	30
Na+	precip	0.15	0.02	1.66	85.2	87.7	0	30
Precip	precip	-	0.80	70.30	577.3	74.8	0	40
SO4--	precip	0.42	0.06	1.16	245.2	87.7	0	30
SO4-- corr	precip	0.41	0.05	1.15	238.5	87.7	0	30
cond	precip	11.82	4.64	31.00	6824.8	93.5	0	29
pH	precip	5.23	4.26	6.88	3374.4	93.5	0	29

Annex 3

Annual statistics on particulate mass and inorganics in air and aerosols

AM0001R Amberd
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.50	0.50	0.27	3.63	0.00	0.03	0.33	1.53	2.54	79	0	291
Cl-	aerosol	0.07	0.08	0.04	3.15	0.00	0.00	0.04	0.18	0.81	81	0	298
HNO3	air	0.06	0.05	0.05	2.34	0.00	0.01	0.05	0.17	0.28	82	0	302
K+	aerosol	0.12	0.11	0.08	2.44	0.01	0.02	0.09	0.31	0.91	58	3	212
Mg++	aerosol	0.11	0.20	0.05	3.13	0.00	0.01	0.04	0.56	1.40	48	1	178
NH3	air	0.87	0.47	0.73	1.92	0.05	0.22	0.82	1.71	2.34	87	0	320
NH4+	aerosol	0.65	0.65	0.33	4.52	0.00	0.01	0.50	2.06	4.24	82	0	301
NO2	air	0.34	0.18	0.28	2.04	0.03	0.06	0.34	0.65	0.70	33	2	121
NO3-	aerosol	0.19	0.22	0.10	4.16	0.00	0.01	0.14	0.56	1.92	87	0	320
Na+	aerosol	0.08	0.07	0.05	2.52	0.00	0.01	0.05	0.22	0.36	58	0	215
SO2	air	0.24	0.23	0.15	3.09	0.00	0.01	0.17	0.77	0.99	80	0	295
SO4--	aerosol	0.48	0.49	0.25	4.45	0.00	0.01	0.37	1.17	4.29	86	0	317
SO4-- corr	aerosol	0.47	0.51	0.27	4.41	-0.96	0.00	0.38	1.16	4.28	83	0	305

AT0002R Illmitz
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	2.02	1.12	1.78	1.65	0.58	0.85	1.73	4.38	6.72	97	0	356
PM1 mass	pml	8.56	5.49	7.03	1.92	1.40	2.18	7.20	18.96	33.00	32	0	117
PM10 mass	pm10	14.10	9.14	11.59	1.92	0.30	4.00	12.00	31.70	54.60	98	0	359
PM25 mass	pm25	10.36	7.47	8.15	2.06	0.20	2.60	8.00	27.12	46.30	99	0	362
SO2	air	0.26	0.51	0.15	2.65	0.00	0.03	0.14	0.78	18.25	93	0	8172

AT0005R Vorhegg
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	0.79	0.43	0.70	1.61	0.12	0.33	0.71	1.66	4.35	95	0	348
PM10 mass	pm10	6.02	5.43	4.40	2.25	0.40	1.11	4.80	16.09	40.60	27	0	100
SO2	air	0.09	0.11	0.07	2.29	0.00	0.01	0.07	0.23	2.08	90	0	7965

AT0034G Sonnblick
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.05	0.06	0.04	1.76	0.01	0.02	0.03	0.12	1.73	94	0	8282
NO2	air	0.15	0.18	0.11	1.93	0.02	0.05	0.10	0.41	4.65	94	0	8304
NOy	air	0.76	0.49	0.64	1.77	0.15	0.26	0.65	1.60	7.62	94	0	8283
SPM	aerosol	4.23	8.76	2.58	3.26	-4.17	-0.90	1.97	13.48	203.79	98	0	8628

AT0048R Zoebelboden
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	0.76	0.52	0.65	1.70	0.12	0.30	0.61	1.68	4.92	96	0	354
PM10 mass	pm10	6.02	4.30	4.47	2.46	0.10	1.07	4.45	14.37	22.30	15	0	58
SO2	air	0.10	0.10	0.08	2.04	0.00	0.03	0.08	0.26	1.74	94	0	8255

BE0001R Offagne
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	1.49	1.19	1.14	2.09	0.00	0.30	1.20	3.80	15.20	97	0	8525

BE0011R Moerkerke
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.62	1.94	0.93	2.41	-0.47	0.00	0.00	2.33	30.81	96	6868	8465
NO2	air	3.44	2.65	2.64	2.12	0.00	0.61	2.74	8.74	20.70	96	76	8465

BE0013R Houtem
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.43	1.47	0.78	2.15	-0.47	0.00	0.00	1.87	25.67	94	7103	8300
NO2	air	2.79	2.35	2.04	2.28	0.00	0.61	2.13	7.61	18.88	94	298	8300

BE0014R Koksijde
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NH3	air	2.08	1.04	1.78	1.72	0.50	0.50	1.81	4.52	4.52	99	0	14

BE0032R Eupen
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	2.23	1.87	1.65	2.21	0.00	0.50	1.70	5.90	29.80	97	0	8540

BE0035R Vezin
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	2.33	2.06	1.68	2.42	0.00	0.30	1.70	6.40	30.40	96	0	8493

CH0001G Jungfrauoch
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
CO	air	111.59	18.06	110.16	1.17	58.31	84.03	111.00	145.10	243.24	81	0	7148
PM10 mass	pm10	4.12	10.98	1.92	2.79	0.20	0.50	1.60	13.34	147.10	81	0	297
SO2	air	0.05	0.50	0.03	2.23	-0.05	-0.01	0.02	0.08	19.41	89	0	7802
SO4--	aerosol	0.08	0.05	0.06	2.43	0.01	0.01	0.10	0.14	0.14	91	0	11

CH0002R Payerne
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.32	0.35	0.19	3.11	0.00	0.02	0.18	1.08	1.96	99	0	362
HNO3	air	0.17	0.07	0.15	1.45	0.09	0.09	0.15	0.36	0.40	100	0	27
HNO3+NO3-	air+aerosol	0.62	0.56	0.42	2.45	0.05	0.10	0.42	1.77	2.97	99	0	363
K+	aerosol	0.13	0.11	0.11	1.90	0.02	0.04	0.09	0.35	1.05	99	0	362
Mg++	aerosol	0.03	0.03	0.02	2.41	-0.00	0.01	0.02	0.08	0.21	99	0	362
NH3	air	2.26	1.31	1.92	1.64	0.72	0.81	1.73	5.92	7.22	100	0	27
NH3+NH4+	air+aerosol	2.99	2.04	2.46	1.90	0.34	0.74	2.60	6.50	14.99	99	0	363
NH4+	aerosol	0.64	0.38	0.54	1.80	0.17	0.18	0.50	1.55	1.77	100	0	27
NO	air	0.52	1.40	0.14	4.69	-0.06	-0.01	0.10	2.48	17.77	94	0	8312
NO2	air	2.51	2.00	1.85	2.24	0.15	0.46	1.95	6.59	16.29	94	0	8316
NO3-	aerosol	0.48	0.32	0.39	1.95	0.13	0.13	0.36	1.28	1.42	100	0	27
Na+	aerosol	0.13	0.14	0.08	2.89	0.00	0.01	0.08	0.41	1.24	99	0	362
PM10 mass	pm10	11.02	7.49	9.11	1.86	2.10	2.93	9.50	24.51	62.80	100	0	365
PM25 mass	pm25	7.37	4.75	6.05	1.91	1.50	1.96	6.70	17.63	23.10	24	0	90
PM25 mass	pm25	7.66	5.16	6.08	2.04	0.60	1.70	6.60	18.08	28.90	99	0	363
SO2	air	0.13	0.09	0.11	1.84	-0.02	0.04	0.12	0.29	0.95	95	0	8322
SO4--	aerosol	0.28	0.17	0.23	1.99	0.03	0.06	0.26	0.56	1.61	100	0	365
SO4-- corr	aerosol	0.26	0.17	0.20	2.10	0.02	0.05	0.25	0.53	1.58	100	0	365

CH0003R Tänikon
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	2.79	2.01	2.24	1.95	0.28	0.77	2.18	6.97	18.48	95	0	8382
PM10 mass	pm10	10.78	7.15	9.01	1.83	1.90	3.13	9.90	22.10	59.90	100	0	365

CH0004R Chaumont
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO2	air	1.21	0.82	0.99	1.89	0.08	0.36	0.97	2.86	6.95	93	0	8173
PM10 mass	pm10	7.06	7.75	5.00	2.32	0.20	1.50	5.20	18.13	69.40	97	0	356

CH0005R Rigi
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.24	0.47	0.10	4.02	-0.01	0.01	0.08	1.11	5.84	98	0	360
HNO3	air	0.10	0.04	0.09	1.49	0.05	0.05	0.10	0.17	0.18	100	0	28
HNO3+NO3-	air+aerosol	0.42	0.39	0.29	2.58	0.02	0.05	0.31	1.26	2.55	99	0	363
K+	aerosol	0.05	0.04	0.04	1.94	0.00	0.01	0.04	0.15	0.29	98	0	360
Mg++	aerosol	0.03	0.04	0.02	2.23	0.00	0.00	0.01	0.07	0.37	98	0	360
NH3	air	0.95	0.66	0.66	2.38	0.11	0.12	0.68	2.29	2.30	100	0	28
NH3+NH4+	air+aerosol	1.43	1.05	1.03	2.45	0.07	0.17	1.19	3.50	5.50	98	0	360
NH4+	aerosol	0.46	0.26	0.37	1.92	0.09	0.10	0.44	1.02	1.11	100	0	28
NO	air	0.11	0.29	0.04	3.97	-0.02	0.00	0.02	0.50	7.49	94	0	8288
NO2	air	0.89	0.97	0.62	2.29	0.03	0.17	0.60	2.67	11.53	94	0	8297
NO3-	aerosol	0.34	0.21	0.27	1.89	0.07	0.09	0.27	0.88	0.97	100	0	28
Na+	aerosol	0.09	0.11	0.05	2.92	-0.01	0.01	0.05	0.28	1.31	98	0	360
PM10 mass	pm10	7.68	8.54	5.33	2.34	0.30	1.33	5.60	18.40	84.90	100	0	365
PM25 mass	pm25	4.87	3.87	3.47	2.47	0.00	0.60	3.90	11.98	26.90	99	0	362
PM25 mass	pm25	4.98	3.44	3.93	2.05	0.80	1.00	3.90	13.23	15.60	22	0	81
SO2	air	0.11	0.11	0.08	1.94	-0.08	0.03	0.08	0.25	2.44	94	0	8307
SO4--	aerosol	0.22	0.17	0.16	2.43	0.00	0.03	0.20	0.49	1.58	94	0	345
SO4-- corr	aerosol	0.21	0.16	0.15	2.51	0.00	0.02	0.18	0.45	1.55	94	0	344

CH0053R Beromünster
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
HNO3	air	0.17	0.06	0.15	1.46	0.08	0.08	0.15	0.28	0.29	99	0	27
NH3	air	4.47	2.34	4.08	1.52	1.98	2.12	3.92	11.59	12.76	99	0	27
NH4+	aerosol	0.73	0.40	0.62	1.75	0.21	0.22	0.64	1.74	1.80	84	0	23
NO3-	aerosol	0.54	0.32	0.45	1.79	0.16	0.17	0.46	1.33	1.44	99	0	27
PM10 mass	pm10	9.81	7.55	7.90	1.93	1.30	2.62	8.40	21.60	71.60	99	0	363

CY0002R Agia Marina Xyliatou / Cyprus Atmospheric Observatory
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.16	0.13	0.13	1.68	0.10	0.10	0.10	0.41	0.92	85	0	312
Cl-	pm10	0.03	0.06	0.02	1.98	0.02	0.02	0.02	0.14	0.53	85	0	312
K+	pm10	0.10	0.07	0.08	1.87	0.01	0.03	0.08	0.27	0.46	85	0	312
Mg++	pm10	0.03	0.02	0.02	1.81	0.01	0.01	0.02	0.06	0.09	85	0	312
NH4+	pm10	0.79	0.50	0.64	2.01	0.05	0.18	0.67	1.81	2.82	85	0	312
NO2	air	0.96	0.48	0.86	1.57	-0.62	0.44	0.84	1.81	8.63	94	0	8293
NO3-	pm10	0.04	0.04	0.03	2.36	0.00	0.01	0.03	0.14	0.24	85	0	312
NOx	air	1.05	0.60	0.95	1.55	0.19	0.50	0.92	1.99	17.32	94	0	8288
Na+	pm10	0.16	0.11	0.12	2.08	0.01	0.04	0.13	0.37	0.64	85	0	312
PM10 mass	pm10	19.92	11.42	17.31	1.70	3.71	7.29	17.24	43.12	79.62	93	0	342
PM25 mass	pm25	10.23	4.88	9.13	1.63	2.33	4.05	9.66	19.39	33.19	92	0	336
SO2	air	0.57	0.68	0.37	2.69	-0.22	0.05	0.34	1.91	9.45	92	0	8140
SO4--	pm10	1.06	0.63	0.89	1.85	0.13	0.30	0.92	2.34	3.55	85	0	312
SO4-- corr	pm10	1.04	0.63	0.87	1.87	0.12	0.29	0.91	2.33	3.54	85	0	312

CZ0003R Kosetice (NAOK)
January 2021 - December 2021

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	2.51	0.00	0.00	0.02	0.12	0.16	98	3	52
K+	pm25	0.07	0.05	0.06	1.99	0.01	0.02	0.06	0.19	0.25	98	0	52
Mg++	pm25	0.02	0.02	0.02	2.09	0.00	0.00	0.02	0.08	0.11	98	18	52
NH4+	aerosol	1.92	0.97	1.69	1.71	0.05	0.70	1.70	3.80	7.03	99	0	364
NO	air	0.15	0.39	0.09	3.71	-0.17	-0.04	0.05	0.66	7.86	82	2306	7203
NO2	air	1.29	0.94	0.99	2.19	-0.04	0.24	1.09	3.07	9.14	82	6	7202
NO3-	aerosol	0.60	0.37	0.51	1.79	0.07	0.21	0.49	1.33	2.19	99	1	364
Na+	pm25	0.19	0.05	0.18	1.34	0.06	0.11	0.18	0.27	0.35	74	0	39
PM10 mass	pm10	13.08	10.33	9.57	2.35	1.00	2.00	11.00	32.00	79.00	96	446	8489
PM10 mass	pm10	14.61	8.24	12.84	1.66	3.00	5.80	12.45	29.34	63.20	49	0	180
PM25 mass	pm25	9.69	8.38	6.58	2.59	1.00	1.00	8.00	26.00	72.00	96	1099	8452
PM25 mass	pm25	11.29	5.95	9.98	1.65	2.10	4.13	9.95	21.45	38.00	49	0	182
SO2	air	0.81	0.42	0.73	1.57	0.04	0.41	0.71	1.49	3.92	99	2	364
SO2	air	1.36	0.97	1.00	2.46	0.08	0.13	1.25	2.96	11.24	90	1164	7957
SO4--	aerosol	0.43	0.35	0.34	1.96	0.06	0.12	0.33	1.24	2.08	99	1	364

CZ0005R Churanov
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NH4+	aerosol	0.77	0.50	0.61	2.00	0.10	0.20	0.58	1.89	2.06	16	0	61
NO3-	aerosol	0.28	0.18	0.24	1.69	0.12	0.12	0.21	0.66	1.00	16	0	61
PM10 mass	pm10	7.18	6.68	4.90	2.58	0.80	0.80	6.00	17.00	64.00	99	47	364
SO2	air	0.69	0.28	0.64	1.47	0.26	0.33	0.64	1.25	1.59	16	0	61
SO4--	aerosol	0.20	0.14	0.16	1.84	0.06	0.07	0.15	0.42	0.92	16	0	61

DE0001R Westerland
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm25	0.01	0.01	0.01	2.47	0.00	0.00	0.01	0.04	0.04	16	5	61
Cl-	pm25	0.30	0.46	0.11	4.12	0.01	0.02	0.11	1.47	2.17	16	1	61
K+	pm25	0.04	0.04	0.03	2.40	0.00	0.01	0.03	0.13	0.25	16	16	61
Mg++	pm25	0.02	0.03	0.01	3.42	0.00	0.00	0.01	0.10	0.13	16	7	61
NH3	air	1.03	0.59	0.97	1.86	0.25	0.26	1.00	2.13	2.31	97	0	42
NH4+	pm25	0.46	0.62	0.26	3.13	0.01	0.04	0.29	1.73	3.47	16	2	61
NO	air	0.18	0.57	0.07	6.39	0.00	0.00	0.01	0.89	14.70	79	4987	7001
NO2	air	1.26	1.67	0.60	3.55	0.02	0.09	0.66	4.50	21.14	98	519	8626
NO3-	pm25	0.22	0.31	0.10	4.09	0.00	0.01	0.10	1.06	1.58	16	2	61
Na+	pm25	0.22	0.24	0.13	2.76	0.01	0.02	0.13	0.86	1.07	16	5	61
PM10 mass	pm10	13.96	7.38	12.28	1.67	2.13	5.34	12.80	28.04	52.16	95	0	350
SO2	air	0.15	0.06	0.14	1.42	0.05	0.08	0.15	0.25	1.17	98	4101	8623
SO4--	pm25	0.34	0.25	0.25	2.33	0.01	0.06	0.27	0.85	1.36	16	1	61
SO4-- corr	pm25	0.32	0.26	0.23	2.56	0.01	0.04	0.24	0.85	1.36	16	1	61

DE0002R Waldhof
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm25	0.01	0.01	0.01	2.66	0.00	0.00	0.01	0.03	0.09	16	10	61
Cl-	pm25	0.10	0.13	0.05	2.87	0.01	0.02	0.04	0.48	0.51	16	5	61
K+	pm25	0.05	0.03	0.04	1.89	0.00	0.02	0.04	0.13	0.18	16	3	61
Mg++	pm25	0.01	0.01	0.01	3.04	0.00	0.00	0.01	0.05	0.06	16	13	61
NH3	air	1.08	0.88	0.94	2.35	0.17	0.17	1.19	3.20	3.75	97	0	36
NH4+	pm25	0.64	0.66	0.42	2.67	0.01	0.09	0.42	2.45	3.08	16	1	61
NO3-	pm25	0.34	0.47	0.15	4.02	0.00	0.02	0.15	1.61	1.98	16	1	61
Na+	pm25	0.12	0.12	0.09	2.27	0.01	0.03	0.08	0.46	0.51	16	7	61
PM1 mass	pm1	6.09	3.71	5.13	1.81	0.95	1.98	5.04	13.40	24.01	99	0	365
PM10 mass	pm10	12.53	6.92	11.00	1.66	2.89	4.90	11.16	26.23	44.64	99	0	365
PM25 mass	pm25	9.42	6.14	7.84	1.83	1.80	3.04	7.55	21.63	37.22	99	0	365
SO2	air	0.38	0.27	0.33	1.57	0.16	0.20	0.29	0.85	8.16	94	0	8253
SO4--	pm25	0.41	0.25	0.32	2.24	0.01	0.08	0.38	0.88	1.41	16	1	61
SO4-- corr	pm25	0.40	0.25	0.31	2.32	0.01	0.08	0.37	0.88	1.40	16	1	61

DE0003R Schauinsland
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm25	0.02	0.06	0.01	4.79	0.00	0.00	0.00	0.15	0.34	16	34	60
Cl-	pm25	0.03	0.04	0.02	1.89	0.01	0.01	0.02	0.10	0.28	16	18	60
K+	pm25	0.03	0.02	0.02	2.25	0.00	0.00	0.02	0.09	0.10	16	23	60
Mg++	pm25	0.01	0.01	0.00	2.71	0.00	0.00	0.00	0.03	0.04	16	34	60
NH3	air	0.69	0.89	0.44	3.58	0.03	0.03	0.66	2.83	4.83	81	0	32
NH4+	pm25	0.34	0.32	0.22	2.78	0.01	0.05	0.27	1.03	1.69	16	2	60
NO3-	pm25	0.15	0.26	0.06	3.80	0.00	0.01	0.05	0.74	1.48	16	1	60
Na+	pm25	0.04	0.04	0.03	2.23	0.01	0.01	0.03	0.14	0.22	16	37	60
PM10 mass	pm10	8.35	10.06	5.39	2.60	0.37	0.91	5.74	21.84	98.20	95	3	350
PM25 mass	pm25	4.90	4.29	3.55	2.34	0.20	0.65	3.83	11.56	30.63	97	11	356
SO2	air	0.23	0.10	0.21	1.51	0.07	0.11	0.23	0.37	1.31	95	2142	8390
SO4--	pm25	0.26	0.18	0.18	2.79	0.01	0.02	0.22	0.62	0.79	16	6	60
SO4-- corr	pm25	0.26	0.18	0.18	2.83	0.01	0.02	0.22	0.62	0.79	16	6	60

DE0007R Neuglobsow
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm25	0.01	0.02	0.01	2.90	0.00	0.00	0.01	0.04	0.13	16	15	62
Cl-	pm25	0.07	0.10	0.04	2.72	0.01	0.01	0.03	0.21	0.72	16	19	62
K+	pm25	0.05	0.04	0.03	2.29	0.00	0.01	0.03	0.15	0.20	16	8	62
Mg++	pm25	0.01	0.01	0.01	2.79	0.00	0.00	0.01	0.03	0.09	16	16	62
NH3	air	0.64	0.54	0.54	2.50	0.09	0.10	0.71	1.78	1.85	97	0	36
NH4+	pm25	0.55	0.55	0.38	2.71	0.00	0.07	0.41	1.80	3.45	16	1	62
NO3-	pm25	0.23	0.32	0.09	4.29	0.00	0.01	0.07	1.11	1.30	16	1	62
Na+	pm25	0.08	0.10	0.06	2.50	0.00	0.01	0.05	0.25	0.71	16	17	62
PM10 mass	pm10	12.71	7.48	10.85	1.77	1.92	4.33	11.05	27.43	43.27	99	0	365
PM25 mass	pm25	7.98	5.70	6.50	1.88	1.08	2.37	6.39	18.92	40.94	99	0	365
SO2	air	0.29	0.33	0.23	1.94	0.00	0.09	0.20	0.73	8.19	93	2140	8214
SO4--	pm25	0.41	0.34	0.31	2.25	0.02	0.06	0.36	1.04	2.17	16	1	62
SO4-- corr	pm25	0.41	0.34	0.30	2.31	0.02	0.05	0.35	1.03	2.17	16	1	62

DE0008R Schmücke
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NH3	air	0.31	0.30	0.31	2.32	0.03	0.06	0.39	0.93	1.38	97	0	36
PM10 mass	pm10	8.38	6.97	6.31	2.19	0.44	1.63	6.64	20.32	68.69	99	1	363
PM25 mass	pm25	6.02	4.43	4.69	2.11	0.10	1.35	4.79	13.98	30.26	98	2	361
SO2	air	0.38	0.33	0.33	1.53	0.15	0.20	0.30	0.77	14.05	99	1	8709

DE0009R Zingst
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.01	0.01	0.01	2.73	0.00	0.00	0.01	0.03	0.04	16	12	61
Cl-	pm25	0.11	0.15	0.07	2.54	0.02	0.02	0.05	0.43	0.94	16	0	61
K+	pm25	0.05	0.03	0.04	1.89	0.01	0.01	0.04	0.13	0.14	16	5	61
Mg++	pm25	0.01	0.01	0.01	2.65	0.00	0.00	0.01	0.04	0.07	16	9	61
NH3	air	0.65	0.47	0.55	2.09	0.11	0.12	0.59	2.03	2.13	97	0	34
NH4+	pm25	0.54	0.58	0.34	2.89	0.01	0.04	0.33	2.39	2.69	16	2	61
NO	air	0.13	0.31	0.04	5.27	0.00	0.00	0.04	0.54	6.05	89	5435	7871
NO2	air	1.28	1.13	0.94	2.23	0.07	0.24	0.96	3.41	13.76	94	14	8306
NO3-	pm25	0.25	0.37	0.10	4.30	0.00	0.01	0.07	1.13	1.80	16	1	61
Na+	pm25	0.12	0.10	0.09	2.07	0.01	0.02	0.09	0.41	0.57	16	3	61
PM10 mass	pm10	11.69	6.93	10.07	1.72	2.40	4.03	10.22	25.85	52.64	99	0	365
SO2	air	0.42	0.29	0.38	1.47	0.16	0.24	0.35	0.80	5.33	99	0	8724
SO4--	pm25	0.39	0.35	0.28	2.42	0.01	0.06	0.28	1.26	1.91	16	1	61
SO4-- corr	pm25	0.38	0.35	0.27	2.51	0.01	0.05	0.28	1.25	1.91	16	1	61

DE0044R Melpitz
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	21.11	7.77	19.91	1.40	9.19	12.01	19.42	34.78	62.78	100	0	365

DE0054R Zugspitze-Schneefernerhaus
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.01	0.04	0.02	3.59	-0.03	-0.01	-0.00	0.07	0.63	95	6957	8375
NO2	air	0.19	0.24	0.11	3.13	-0.01	0.01	0.12	0.60	3.14	39	959	3453
NO2	air	0.21	0.16	0.18	1.88	-0.00	0.05	0.19	0.42	3.59	53	36	4678

DK0003R Tange
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.12	0.11	0.08	2.39	0.01	0.02	0.08	0.34	0.62	90	1	330
Cl-	aerosol	1.39	1.39	0.85	2.84	0.05	0.14	0.86	4.58	7.79	90	3	330
HNO3+NO3-	air+aerosol	0.46	0.40	0.34	2.25	0.03	0.09	0.36	1.26	2.23	89	0	329
K+	aerosol	0.11	0.12	0.10	1.67	0.03	0.05	0.09	0.24	1.61	90	0	330
NH3	air	1.05	0.92	0.73	2.56	0.01	0.17	0.72	2.83	6.96	90	0	331
NH3+NH4+	air+aerosol	1.60	1.08	1.31	1.91	0.20	0.47	1.33	3.70	7.19	89	0	328
NH4+	aerosol	0.56	0.48	0.39	2.40	0.03	0.08	0.41	1.65	2.83	89	0	329
Na+	aerosol	0.90	0.82	0.58	2.75	0.03	0.09	0.60	2.69	4.46	90	0	330
SO2	air	0.05	0.06	0.03	2.73	0.00	0.01	0.03	0.17	0.63	90	51	330
SO4--	aerosol	0.44	0.27	0.37	1.80	0.07	0.14	0.37	0.94	1.83	89	4	329
SO4-- corr	aerosol	0.37	0.28	0.27	2.27	0.03	0.07	0.29	0.89	1.81	89	4	329

DK0005R Keldsnor
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.22	0.60	0.09	4.86	-0.18	-0.04	0.04	1.04	12.59	90	5755	7960
NO2	air	1.81	2.11	1.03	3.25	-0.18	0.12	1.08	5.85	23.08	90	475	7968

DK0008R Anholt
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.14	0.14	0.10	2.31	0.01	0.02	0.10	0.38	1.16	97	0	357
Cl-	aerosol	2.40	2.29	1.44	3.10	0.03	0.15	1.64	7.71	11.86	98	4	361
HNO3+NO3-	air+aerosol	0.46	0.45	0.32	2.37	0.04	0.08	0.32	1.19	3.32	98	0	361
K+	aerosol	0.10	0.06	0.09	1.72	0.02	0.03	0.09	0.19	0.66	97	0	356
NH3	air	0.20	0.22	0.10	4.48	-0.01	0.00	0.14	0.58	1.66	98	143	360
NH3+NH4+	air+aerosol	0.67	0.65	0.46	2.43	0.04	0.11	0.48	1.85	5.17	97	164	356
NH4+	aerosol	0.47	0.51	0.28	2.88	0.01	0.04	0.32	1.42	3.63	97	48	358
NO	air	0.10	0.51	0.11	3.02	-2.96	-0.17	0.07	0.39	39.10	93	5790	8195
NO2	air	1.14	1.25	0.76	2.42	-0.11	0.20	0.71	3.40	19.03	92	181	8085
Na+	aerosol	1.57	1.26	1.13	2.36	0.07	0.24	1.18	4.34	6.95	98	0	359
SO2	air	0.52	0.29	0.45	1.73	0.06	0.18	0.45	1.14	1.98	98	2	361
SO4--	aerosol	0.53	0.29	0.47	1.62	0.08	0.21	0.48	1.07	1.86	93	3	341
SO4-- corr	aerosol	0.41	0.30	0.34	2.21	-0.26	0.03	0.37	0.96	1.79	93	3	341

DK0010G Villum Research Station, Station Nord
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Cl-	aerosol	0.27	0.36	0.11	5.27	0.00	0.01	0.15	1.26	1.40	96	23	51
HNO3	air	0.01	0.01	0.01	2.69	0.00	0.00	0.00	0.03	0.06	96	42	51
NH3	air	0.02	0.01	0.01	1.55	0.01	0.01	0.01	0.04	0.04	47	0	25
NH3	air	0.03	0.02	0.02	2.05	0.01	0.01	0.02	0.08	0.10	96	4	51
NO3-	aerosol	0.01	0.01	0.01	1.89	0.00	0.00	0.01	0.03	0.04	96	23	51
Na+	aerosol	0.17	0.20	0.09	4.36	0.00	0.01	0.14	0.64	0.85	96	0	51
SO2	air	0.02	0.03	0.01	3.98	0.00	0.00	0.00	0.11	0.12	96	51	51
SO4--	aerosol	0.11	0.10	0.07	2.31	0.02	0.03	0.06	0.31	0.38	96	32	51
SO4-- corr	aerosol	0.12	0.09	0.09	2.22	-0.01	-0.00	0.10	0.33	0.35	48	12	26

DK0012R Risoe
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	aerosol	0.13	0.14	0.09	2.48	0.01	0.02	0.09	0.44	0.91	99	0	365
Cl-	aerosol	1.03	1.18	0.59	3.02	0.03	0.09	0.60	3.40	7.29	99	9	365
HNO3+NO3-	air+aerosol	0.60	0.48	0.45	2.19	0.05	0.11	0.46	1.56	3.19	98	0	359
K+	aerosol	0.10	0.07	0.09	1.74	0.01	0.04	0.08	0.24	0.67	99	0	365
NH3	air	0.67	0.59	0.48	2.30	0.04	0.11	0.48	1.83	3.82	99	9	364
NH3+NH4+	air+aerosol	1.38	1.06	1.09	2.01	0.15	0.31	1.13	3.23	7.48	99	45	363
NH4+	aerosol	0.71	0.71	0.44	3.17	-0.01	0.05	0.53	2.00	4.99	99	36	364
NO	air	0.16	0.58	0.13	3.21	-0.60	-0.18	0.09	0.65	14.27	93	5437	8187
NO2	air	1.62	1.64	1.03	2.78	-0.15	0.18	1.07	4.80	14.23	93	311	8186
Na+	aerosol	0.72	0.69	0.47	2.56	0.04	0.09	0.47	2.11	4.29	99	0	365
SO2	air	0.09	0.10	0.06	2.59	0.00	0.01	0.06	0.25	0.99	99	361	364
SO4--	aerosol	0.48	0.34	0.41	1.78	0.08	0.17	0.39	1.28	2.40	97	3	357
SO4-- corr	aerosol	0.43	0.35	0.34	2.08	-0.21	0.11	0.35	1.23	2.40	97	3	357

DK0031R Ulborg
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	aerosol	0.09	0.07	0.06	2.32	-0.00	0.01	0.07	0.24	0.55	96	5	353
Cl-	aerosol	1.82	1.71	1.10	2.96	0.07	0.18	1.18	5.55	7.81	96	1	352
HNO3+NO3-	air+aerosol	0.50	0.49	0.34	2.50	0.03	0.07	0.35	1.57	3.07	96	0	352
K+	aerosol	0.10	0.11	0.09	1.68	0.02	0.04	0.09	0.19	1.69	96	0	352
NH3	air	0.58	0.60	0.37	2.79	0.01	0.06	0.38	1.91	3.22	96	41	353
NH3+NH4+	air+aerosol	1.25	1.18	0.86	2.42	0.08	0.20	0.87	3.47	10.25	95	71	350
NH4+	aerosol	0.66	0.92	0.36	3.05	0.00	0.07	0.36	2.42	9.72	95	40	351
NO	air	0.16	0.26	0.20	2.98	-0.78	-0.20	0.13	0.56	2.51	92	4182	8079
NO2	air	1.01	0.87	0.77	2.10	-0.16	0.24	0.75	2.77	7.99	92	123	8081
Na+	aerosol	1.18	1.00	0.75	2.91	0.02	0.11	0.86	3.27	4.44	96	0	353
SO2	air	0.06	0.07	0.03	3.16	0.00	0.00	0.03	0.19	0.45	95	350	351
SO4--	aerosol	0.47	0.29	0.40	1.85	0.06	0.15	0.41	1.04	1.68	95	8	351
SO4-- corr	aerosol	0.41	0.31	0.29	2.44	0.02	0.05	0.34	1.02	1.66	95	8	351

EE0009R Lahemaa
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	aerosol	0.08	0.17	0.06	1.69	0.05	0.05	0.05	0.20	3.00	99	288	364
Cl-	aerosol	0.21	0.25	0.15	2.03	0.09	0.09	0.09	0.57	2.75	99	214	364
K+	aerosol	0.08	0.20	0.04	2.43	0.03	0.03	0.03	0.32	1.98	99	276	364
Mg++	aerosol	0.03	0.01	0.03	1.13	0.03	0.03	0.03	0.03	0.13	99	359	364
NH4+	aerosol	0.90	0.29	0.86	1.37	0.19	0.54	0.85	1.45	2.37	99	0	364
NO2	air	0.57	0.45	0.45	2.00	0.08	0.15	0.44	1.52	2.98	100	0	365
NO3-	aerosol	0.08	0.04	0.07	1.51	0.06	0.06	0.06	0.17	0.41	99	284	364
Na+	aerosol	0.12	0.21	0.06	2.92	0.03	0.03	0.03	0.48	2.18	99	199	364
PM10 mass	pm10	5.88	3.04	4.71	2.69	0.01	2.06	5.03	11.89	14.44	85	0	53
PM25 mass	pm25	5.27	4.06	3.98	2.24	0.04	0.90	3.97	11.75	34.63	99	0	364
SO2	air	0.19	0.35	0.11	2.55	0.04	0.04	0.09	0.65	4.13	100	70	365
SO4--	aerosol	0.05	0.05	0.04	1.40	0.04	0.04	0.04	0.09	0.83	99	336	364
SO4-- corr	aerosol	0.04	0.05	0.03	1.54	-0.03	0.02	0.04	0.08	0.81	99	336	364

EE0011R Vilsandi
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO2	air	0.50	0.44	0.37	2.20	0.07	0.11	0.35	1.54	2.58	100	0	365
PM25 mass	pm25	3.96	4.07	2.21	3.66	0.02	0.23	2.54	12.43	23.09	98	0	358
SO2	air	0.14	0.13	0.10	2.09	0.04	0.04	0.09	0.39	1.05	99	56	364

ES0001R San Pablo de los Montes
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.27	0.30	0.16	2.95	0.02	0.02	0.17	0.80	2.08	99	34	363
Ca++	pm25	0.15	0.14	0.10	2.83	0.01	0.01	0.12	0.58	0.64	16	3	60
Cl-	pm10	0.16	0.24	0.11	2.14	0.06	0.06	0.06	0.44	1.59	16	33	60
Cl-	pm25	0.08	0.07	0.07	1.74	0.05	0.05	0.05	0.21	0.40	16	42	60
HNO3+NO3-	air+aerosol	0.27	0.15	0.24	1.72	0.04	0.12	0.23	0.57	1.01	100	11	366
Mg++	pm10	0.04	0.03	0.03	1.90	0.01	0.01	0.03	0.09	0.16	99	24	363
Mg++	pm25	0.02	0.01	0.01	1.58	0.01	0.01	0.01	0.04	0.04	16	29	60
NH3	air	2.18	0.84	1.96	1.61	0.49	0.62	2.18	3.37	4.17	84	0	53
NH3+NH4+	air+aerosol	1.31	0.72	1.09	1.95	0.04	0.36	1.21	2.67	4.14	99	0	364
NH4+	pm10	0.28	0.19	0.22	1.94	0.05	0.07	0.23	0.68	1.10	16	0	60
NO	air	0.11	0.11	0.08	2.21	0.00	0.01	0.08	0.28	1.29	95	0	8381
NO2	air	0.28	0.25	0.21	2.08	0.00	0.06	0.21	0.69	3.92	95	0	8381
NO3-	pm10	0.14	0.13	0.09	2.57	0.01	0.01	0.10	0.44	0.83	99	27	363
NO3-	pm25	0.07	0.07	0.05	2.07	0.01	0.02	0.05	0.26	0.37	16	2	60
NOx	air	0.39	0.32	0.31	1.94	0.02	0.10	0.30	0.97	4.44	95	0	8381
Na+	pm10	0.27	0.19	0.21	2.04	0.05	0.05	0.23	0.64	1.44	99	38	363
Na+	pm25	0.10	0.06	0.07	2.32	0.02	0.02	0.10	0.19	0.24	16	15	60
PM10 mass	pm10	13.03	13.54	9.28	2.23	1.00	3.00	9.00	39.00	134.00	95	0	350
PM25 mass	pm25	6.99	4.73	5.56	2.01	1.00	2.00	6.00	15.35	30.00	96	0	352
SO2	air	0.29	0.19	0.25	1.71	0.02	0.10	0.26	0.54	5.90	97	0	8535

ES0005R Noia
January 2021 - December 2021

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	0.16	0.14	2.27	0.04	0.04	0.16	0.50	1.28	96	82	355
NH3+NH4+	air+aerosol	0.62	0.56	0.43	2.48	0.04	0.08	0.44	1.61	4.17	99	0	363
NO	air	0.09	0.30	0.07	1.68	0.00	0.03	0.07	0.15	21.10	98	0	8632
NO2	air	0.71	0.58	0.60	1.74	0.09	0.25	0.60	1.46	15.00	98	0	8632
NO3-	pm10	0.17	0.15	0.11	2.78	0.01	0.01	0.14	0.45	0.89	81	16	298
NOx	air	0.80	0.79	0.69	1.66	0.15	0.32	0.68	1.57	36.22	98	0	8632
PM10 mass	pm10	9.09	9.26	6.95	2.01	1.00	2.00	7.00	19.60	88.00	80	0	293
SO4--	pm10	0.32	0.21	0.25	2.13	0.01	0.07	0.28	0.74	1.03	81	3	298

ES0006R Mahón
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.35	0.20	0.29	1.90	0.04	0.10	0.31	0.74	1.27	95	16	349
NH3+NH4+	air+aerosol	1.12	0.59	0.99	1.70	0.18	0.35	1.02	2.13	5.25	96	0	355
NO	air	0.14	0.43	0.08	2.28	0.00	0.02	0.07	0.33	12.06	96	0	8445
NO3-	pm10	0.38	0.19	0.34	1.73	0.03	0.12	0.37	0.72	1.38	86	0	318
NOx	air	0.96	1.70	0.57	2.46	0.04	0.15	0.52	3.33	27.05	96	0	8445
PM10 mass	pm10	16.79	10.29	14.95	1.57	4.00	8.00	14.00	32.10	112.00	86	0	317
PM25 mass	pm25	4.37	2.01	3.96	1.56	1.00	2.00	4.00	8.65	15.00	89	0	326
SO2	air	0.23	0.12	0.21	1.47	0.02	0.12	0.21	0.36	2.17	94	0	8236
SO4--	pm10	0.63	0.29	0.58	1.49	0.17	0.30	0.55	1.15	2.17	86	0	318

ES0007R Viznar
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.35	0.28	0.24	2.77	0.02	0.02	0.29	0.90	1.53	91	18	336
Ca++	pm25	0.17	0.12	0.13	2.38	0.01	0.02	0.15	0.50	0.62	16	1	60
Cl-	pm25	0.06	0.04	0.05	1.57	0.04	0.04	0.04	0.13	0.24	16	43	60
HNO3+NO3-	air+aerosol	0.46	0.23	0.40	1.70	0.04	0.17	0.42	0.89	1.72	95	2	351
K+	pm10	0.11	0.07	0.09	2.00	0.01	0.03	0.10	0.25	0.40	91	5	335
K+	pm25	0.12	0.06	0.10	1.88	0.02	0.03	0.10	0.24	0.26	16	0	60
Mg++	pm10	0.04	0.03	0.04	1.98	0.01	0.01	0.04	0.10	0.19	91	24	336
Mg++	pm25	0.02	0.01	0.02	1.62	0.01	0.01	0.02	0.04	0.05	16	16	60
NH3	air	1.39	0.91	1.04	2.20	0.23	0.27	1.29	3.55	3.72	88	0	26
NH3+NH4+	air+aerosol	1.32	0.76	1.12	1.82	0.17	0.35	1.20	2.72	5.04	94	0	346
NH4+	pm25	0.20	0.40	0.13	2.02	0.04	0.04	0.12	0.60	3.07	16	0	60
NO	air	0.35	0.83	0.20	2.49	0.01	0.05	0.20	1.09	24.89	98	0	8596
NO2	air	0.76	1.13	0.45	2.60	0.02	0.12	0.39	2.63	16.98	98	0	8596
NO3-	pm10	0.19	0.14	0.15	2.24	0.01	0.04	0.15	0.47	0.91	91	9	335
NO3-	pm25	0.05	0.03	0.04	1.84	0.01	0.01	0.04	0.12	0.13	16	4	60
NOx	air	1.11	1.76	0.71	2.29	0.06	0.24	0.61	3.50	36.88	98	0	8596
Na+	pm10	0.29	0.22	0.22	2.21	0.05	0.05	0.23	0.65	1.54	91	44	336
Na+	pm25	0.11	0.07	0.09	2.27	0.02	0.02	0.11	0.26	0.29	16	11	60
PM10 mass	pm10	14.54	13.61	10.57	2.19	1.00	3.00	11.00	42.25	91.00	91	0	334
PM25 mass	pm25	7.52	4.62	6.28	1.86	1.00	2.00	7.00	17.00	26.00	90	0	333
SO2	air	0.74	1.14	0.62	1.51	0.02	0.40	0.60	0.96	21.46	98	0	8588
SO4--	pm10	0.36	0.55	0.24	2.24	0.01	0.07	0.24	0.73	5.61	91	2	335
SO4--	pm25	0.27	0.40	0.19	2.16	0.03	0.05	0.18	0.49	3.02	16	0	60
SO4-- corr	pm10	0.33	0.54	0.21	2.32	-0.05	0.06	0.22	0.67	5.56	91	2	335
SO4-- corr	pm25	0.26	0.40	0.18	2.24	0.02	0.04	0.17	0.48	3.02	16	0	60

ES0008R Niembro
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm10	0.37	0.47	0.21	2.85	0.02	0.04	0.19	1.53	2.82	92	8	338
Ca++	pm25	0.21	0.40	0.10	3.13	0.01	0.02	0.09	0.90	2.68	16	1	60
Cl-	pm10	1.51	1.15	0.93	3.36	0.06	0.06	1.41	3.85	4.19	16	5	60
Cl-	pm25	0.14	0.17	0.09	2.24	0.05	0.05	0.05	0.64	0.85	16	32	60
HNO3+NO3-	air+aerosol	0.40	0.30	0.32	1.95	0.04	0.14	0.32	1.03	1.88	90	7	330
K+	pm25	0.07	0.07	0.05	2.51	0.01	0.01	0.04	0.18	0.46	16	4	60
Mg++	pm25	0.03	0.02	0.02	1.88	0.01	0.01	0.02	0.06	0.14	16	13	60
NH3	air	0.84	0.54	0.67	2.56	0.00	0.02	0.83	1.99	2.89	83	1	52
NH3+NH4+	air+aerosol	1.29	0.75	1.04	2.10	0.04	0.28	1.18	2.71	4.80	90	0	330
NH4+	pm10	0.28	0.35	0.18	2.36	0.06	0.07	0.12	1.25	1.76	16	0	60
NH4+	pm25	0.14	0.24	0.09	2.22	0.03	0.04	0.07	0.93	1.24	16	0	60
NO	air	0.24	0.22	0.20	1.75	0.01	0.09	0.19	0.50	6.24	96	0	8461
NO2	air	0.66	0.69	0.49	2.07	0.03	0.16	0.47	1.71	13.51	96	0	8461
NO3-	pm10	0.22	0.20	0.15	2.68	0.01	0.01	0.17	0.61	1.60	98	18	362
NO3-	pm25	0.07	0.13	0.04	2.80	0.01	0.01	0.04	0.34	0.93	16	15	60
NOx	air	0.90	0.81	0.72	1.83	0.14	0.31	0.68	2.13	14.90	96	0	8461
Na+	pm25	0.22	0.13	0.19	1.84	0.04	0.05	0.19	0.49	0.61	16	0	60
PM10 mass	pm10	14.80	10.08	12.35	1.82	2.00	5.00	13.00	33.00	76.00	98	0	361
PM25 mass	pm25	6.86	6.95	5.24	1.97	0.00	2.00	5.00	19.30	59.00	94	0	346
SO2	air	0.22	0.38	0.17	1.95	0.00	0.06	0.16	0.50	13.76	97	0	8551
SO4--	pm10	0.48	0.26	0.40	1.86	0.02	0.13	0.44	0.90	2.14	98	1	362
SO4--	pm25	0.36	0.24	0.30	1.89	0.08	0.11	0.29	0.89	1.39	16	0	60
SO4-- corr	pm25	0.34	0.24	0.28	1.96	0.08	0.09	0.28	0.88	1.37	16	0	60

ES0009R Campisabalos
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm10	0.29	0.31	0.16	3.18	0.02	0.02	0.17	1.04	1.69	93	36	342
Cl-	pm10	0.12	0.15	0.09	2.00	0.06	0.06	0.06	0.61	0.78	16	44	60
HNO3+NO3-	air+aerosol	0.25	0.19	0.21	1.86	0.04	0.04	0.21	0.56	2.28	86	21	315
K+	pm10	0.04	0.03	0.03	2.18	0.01	0.01	0.03	0.12	0.19	93	40	342
Mg++	pm10	0.03	0.02	0.02	1.84	0.01	0.01	0.03	0.07	0.14	93	54	342
NH3	air	0.68	0.47	0.39	4.54	0.00	0.01	0.59	1.41	1.84	85	6	53
NH3+NH4+	air+aerosol	0.74	0.61	0.43	3.48	0.03	0.04	0.68	1.76	2.88	92	0	337
NH4+	pm10	0.13	0.09	0.11	1.88	0.03	0.04	0.10	0.31	0.45	16	0	60
NO3-	pm10	0.10	0.10	0.07	2.53	0.01	0.01	0.06	0.36	0.52	93	36	342
NOx	air	0.63	0.68	0.54	1.68	0.07	0.21	0.56	1.15	24.64	97	0	8542
Na+	pm10	0.19	0.13	0.16	1.94	0.05	0.05	0.16	0.41	1.04	93	59	342
PM10 mass	pm10	10.45	12.87	6.84	2.41	1.00	2.00	7.00	37.00	97.00	92	0	339
PM10 mass	pm10	13.12	16.97	8.58	2.37	0.01	2.43	8.06	41.11	169.09	94	0	8261
PM25 mass	pm25	4.91	4.50	3.61	2.17	0.00	1.00	3.00	14.00	42.00	87	0	319
SO2	air	0.33	0.21	0.28	1.80	0.00	0.10	0.30	0.74	1.78	93	0	8148
SO4--	pm10	0.24	0.16	0.19	2.07	0.02	0.06	0.22	0.56	0.89	93	6	342
SO4-- corr	pm10	0.22	0.15	0.17	2.25	0.01	0.04	0.20	0.53	0.83	93	6	342

ES0010R Cabo de Creus
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
HNO3+NO3-	air+aerosol	0.47	0.29	0.39	1.87	0.04	0.16	0.38	1.09	1.71	92	5	339
NH3+NH4+	air+aerosol	1.15	0.55	1.01	1.72	0.09	0.38	1.09	2.17	3.25	95	0	348
NO	air	0.17	0.28	0.11	2.37	0.02	0.03	0.09	0.46	13.04	98	0	8653
NO2	air	0.85	0.53	0.73	1.69	0.10	0.33	0.72	1.80	7.88	98	0	8653
NOx	air	1.02	0.68	0.88	1.67	0.15	0.40	0.85	2.15	19.63	98	0	8653
PM10 mass	pm10	14.76	7.36	13.56	1.47	6.00	8.00	13.00	29.00	77.00	91	0	336
PM25 mass	pm25	7.29	3.41	6.63	1.53	2.00	3.00	6.50	14.00	27.00	86	0	318
SO2	air	0.32	0.13	0.30	1.45	0.02	0.17	0.28	0.60	0.98	98	0	8636
SO4--	pm10	0.43	0.24	0.38	1.69	0.03	0.16	0.40	0.82	2.20	91	0	336

ES0011R Barcarrota
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
HNO3+NO3-	air+aerosol	0.24	0.15	0.19	2.09	0.04	0.04	0.21	0.49	0.90	97	48	357
NH3+NH4+	air+aerosol	1.03	0.64	0.70	3.10	0.04	0.05	1.01	2.09	2.63	95	0	351
NO	air	0.12	0.31	0.08	2.41	0.00	0.01	0.08	0.28	11.95	98	0	8591
NO2	air	0.60	0.57	0.47	1.92	0.06	0.19	0.44	1.61	9.49	98	0	8591
NO3-	pm10	0.21	0.14	0.16	2.13	0.01	0.04	0.18	0.50	0.81	91	6	335
NOx	air	0.72	0.77	0.56	1.88	0.12	0.23	0.52	1.85	20.53	98	0	8591
PM10 mass	pm10	14.47	10.68	11.71	1.91	1.00	4.00	11.00	35.25	90.00	91	0	334
PM25 mass	pm25	9.69	7.80	7.02	2.35	1.00	1.00	8.00	23.00	55.00	96	0	355
SO2	air	0.11	0.06	0.09	1.75	0.00	0.04	0.10	0.21	0.46	98	0	8622
SO4--	pm10	0.31	0.20	0.26	1.90	0.03	0.09	0.27	0.74	1.35	91	0	335

ES0012R Zarra
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	pm25	0.06	0.05	0.05	1.63	0.04	0.04	0.04	0.14	0.31	16	43	60
HNO3+NO3-	air+aerosol	0.32	0.14	0.29	1.65	0.04	0.13	0.32	0.56	0.84	98	7	360
K+	pm25	0.08	0.06	0.06	1.97	0.01	0.02	0.06	0.22	0.26	16	0	60
Mg++	pm25	0.01	0.01	0.01	1.52	0.01	0.01	0.01	0.03	0.04	16	26	60
NH3+NH4+	air+aerosol	1.25	0.53	1.11	1.75	0.05	0.48	1.21	2.20	3.33	98	0	362
NH4+	pm25	0.47	0.51	0.34	2.18	0.06	0.09	0.35	1.39	3.46	16	0	60
NO	air	0.09	0.40	0.07	1.87	0.00	0.02	0.07	0.17	28.89	94	0	8293
NO2	air	0.38	0.30	0.30	1.97	0.01	0.10	0.30	0.92	5.37	94	0	8293
NO3-	pm10	0.26	0.13	0.22	1.87	0.03	0.07	0.25	0.51	0.83	97	0	357
NO3-	pm25	0.06	0.07	0.04	2.66	0.01	0.01	0.04	0.23	0.31	16	13	60
NOx	air	0.47	0.57	0.39	1.80	0.02	0.16	0.38	1.05	34.35	94	0	8293
Na+	pm25	0.12	0.06	0.10	1.80	0.02	0.02	0.11	0.25	0.31	16	3	60
PM10 mass	pm10	12.92	12.90	9.89	2.03	0.79	3.10	10.04	30.17	354.24	93	0	8225
PM25 mass	pm25	6.05	3.43	5.26	1.69	1.00	2.00	5.00	12.45	24.00	95	0	350
SO2	air	0.20	0.20	0.18	1.58	0.01	0.08	0.18	0.34	6.75	98	0	8600
SO4--	pm10	0.39	0.35	0.30	2.01	0.06	0.09	0.33	0.85	3.24	97	0	357
SO4--	pm25	0.39	0.37	0.31	1.89	0.07	0.11	0.33	1.10	2.65	16	0	60
SO4-- corr	pm25	0.38	0.37	0.30	1.93	0.07	0.09	0.32	1.09	2.64	16	0	60

ES0013R Penausende
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.26	0.15	0.21	1.97	0.04	0.04	0.22	0.56	1.11	98	33	359
NH3+NH4+	air+aerosol	1.10	0.63	0.91	1.93	0.10	0.29	0.99	2.28	3.08	98	0	361
NO	air	0.08	0.10	0.06	2.39	0.00	0.01	0.06	0.20	1.98	97	0	8575
NO2	air	0.37	0.41	0.24	2.64	0.01	0.05	0.24	1.10	7.92	97	0	8575
NO3-	pm10	0.13	0.12	0.09	2.56	0.01	0.02	0.09	0.39	0.64	95	15	349
PM10 mass	pm10	8.89	10.74	6.33	2.15	1.00	2.00	6.00	23.60	99.00	94	0	347
PM10 mass	pm10	11.94	14.21	8.54	2.18	0.50	2.54	8.36	30.99	200.83	95	0	8326
SO2	air	0.14	0.10	0.11	1.79	0.01	0.06	0.10	0.36	0.88	97	0	8503
SO4--	pm10	0.20	0.12	0.16	2.08	0.01	0.04	0.17	0.43	0.67	95	3	349

ES0014R Els Torms
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.34	0.27	0.24	2.49	0.01	0.04	0.29	0.82	1.77	93	0	341
Ca++	pm25	0.14	0.13	0.10	2.41	0.01	0.01	0.11	0.35	0.84	16	2	60
Cl-	pm10	0.13	0.17	0.09	2.20	0.04	0.04	0.09	0.48	1.09	16	23	60
Cl-	pm25	0.08	0.06	0.07	1.68	0.05	0.05	0.05	0.22	0.39	16	40	60
K+	pm10	0.11	0.10	0.09	2.04	0.01	0.03	0.08	0.33	0.72	93	2	341
K+	pm25	0.09	0.10	0.07	2.25	0.02	0.02	0.07	0.33	0.53	16	0	60
Mg++	pm10	0.05	0.04	0.04	2.11	0.01	0.01	0.04	0.12	0.30	93	26	341
Mg++	pm25	0.02	0.01	0.02	1.60	0.01	0.01	0.02	0.04	0.04	16	20	60
NH3	air	3.15	1.12	2.96	1.46	1.20	1.35	3.02	5.29	5.54	85	0	52
NH3+NH4+	air+aerosol	3.14	1.18	2.80	1.81	0.07	1.38	3.10	5.00	5.20	95	0	348
NH4+	pm10	0.42	0.40	0.31	2.14	0.06	0.09	0.31	1.51	2.12	16	0	60
NH4+	pm25	0.30	0.38	0.20	2.40	0.04	0.05	0.17	1.33	2.10	16	0	60
NO	air	0.08	0.18	0.05	2.29	0.00	0.01	0.05	0.19	3.12	98	0	8651
NO2	air	0.82	0.70	0.68	1.80	0.08	0.28	0.65	1.80	8.54	98	0	8651
NO3-	pm10	0.19	0.17	0.14	2.12	0.01	0.04	0.15	0.52	1.43	93	2	341
NO3-	pm25	0.10	0.15	0.06	2.46	0.01	0.02	0.05	0.51	0.87	16	2	60
NOx	air	0.90	0.79	0.74	1.78	0.12	0.33	0.71	2.01	9.38	98	0	8651
Na+	pm10	0.37	0.28	0.28	2.22	0.02	0.07	0.28	0.88	2.33	93	7	341
Na+	pm25	0.14	0.07	0.11	2.08	0.02	0.02	0.13	0.27	0.30	16	7	60
PM10 mass	pm10	14.11	11.03	11.33	1.92	1.00	4.00	12.00	36.00	88.00	93	0	341
PM25 mass	pm25	7.10	4.67	5.84	1.90	1.00	2.00	6.00	18.00	28.00	89	0	328
SO2	air	0.25	0.13	0.24	1.41	0.04	0.14	0.23	0.45	4.96	97	0	8548
SO4--	pm10	0.41	0.29	0.33	1.98	0.05	0.09	0.38	0.87	2.15	93	0	341
SO4-- corr	pm10	0.38	0.28	0.30	2.06	0.04	0.07	0.35	0.81	2.09	93	0	341

ES0016R O Saviñao
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
HNO3+NO3-	air+aerosol	0.20	0.12	0.15	2.16	0.04	0.04	0.18	0.43	0.88	98	72	358
NO	air	0.10	0.08	0.08	1.78	0.00	0.03	0.08	0.23	2.27	96	0	8459
NO2	air	0.62	0.31	0.55	1.61	0.11	0.25	0.56	1.19	3.29	96	0	8459
NO3-	pm10	0.15	0.12	0.11	2.44	0.01	0.02	0.12	0.39	0.64	94	11	346
NOx	air	0.72	0.33	0.65	1.53	0.16	0.33	0.65	1.34	4.40	96	0	8459
PM10 mass	pm10	10.09	8.91	8.20	1.84	0.50	3.02	8.14	21.66	148.04	63	0	5543
PM10 mass	pm10	10.14	9.39	8.27	1.80	1.00	4.00	8.00	24.00	119.00	94	0	345
PM25 mass	pm25	7.74	8.17	5.42	2.36	1.00	1.00	6.00	19.00	100.00	98	0	359
SO2	air	0.58	0.26	0.52	1.62	0.04	0.23	0.54	1.06	1.77	96	0	8428
SO4--	pm10	0.33	0.20	0.27	1.96	0.05	0.09	0.28	0.71	0.94	94	0	346

ES0017R Doñana
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
NH3+NH4+	air+aerosol	1.11	0.59	0.92	2.08	0.04	0.32	1.07	2.03	5.22	98	0	359
NO	air	0.14	0.24	0.09	2.57	0.00	0.02	0.08	0.50	4.85	98	0	8642
NO2	air	0.84	0.67	0.64	2.06	0.04	0.21	0.61	2.21	7.41	98	0	8642
NO3-	pm10	0.36	0.22	0.30	1.94	0.04	0.09	0.34	0.76	1.24	96	0	354
NOx	air	0.98	0.81	0.76	2.00	0.10	0.27	0.71	2.58	11.09	98	0	8642
PM10 mass	pm10	16.17	9.75	13.90	1.72	3.00	6.00	14.00	38.00	65.00	96	0	354
SO2	air	0.33	0.25	0.28	1.66	0.02	0.12	0.28	0.63	6.44	97	0	8542
SO4--	pm10	0.50	0.30	0.43	1.75	0.07	0.17	0.45	0.99	2.83	96	0	354

ES1778R Montseny
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	pm1	0.04	0.03	0.03	2.45	0.01	0.01	0.04	0.10	0.17	19	8	72
Ca++	pm10	0.28	0.25	0.20	2.50	0.01	0.03	0.22	0.68	1.63	29	0	106
Ca++	pm25	0.07	0.05	0.05	2.31	0.01	0.01	0.06	0.17	0.26	26	5	97
Cl-	pm1	0.01	0.00	0.01	1.50	0.01	0.01	0.01	0.02	0.02	19	51	72
Cl-	pm10	0.05	0.10	0.02	3.23	0.01	0.01	0.02	0.20	0.85	29	27	106
Cl-	pm25	0.01	0.01	0.01	1.81	0.01	0.01	0.01	0.02	0.03	26	69	97
K+	pm1	0.04	0.04	0.03	2.14	0.01	0.01	0.03	0.10	0.27	19	15	72
K+	pm10	0.12	0.10	0.10	1.81	0.03	0.04	0.10	0.36	0.59	29	0	106
K+	pm25	0.06	0.05	0.05	1.83	0.01	0.02	0.05	0.16	0.34	26	3	97
Mg++	pm1	0.01	0.01	0.01	1.68	0.01	0.01	0.01	0.02	0.02	19	47	72
Mg++	pm10	0.08	0.07	0.06	2.45	0.01	0.01	0.07	0.22	0.47	29	4	106
Mg++	pm25	0.02	0.02	0.02	2.19	0.01	0.01	0.02	0.06	0.10	26	20	97
NH4+	pm1	0.27	0.16	0.23	1.71	0.07	0.10	0.23	0.57	0.96	19	0	72
NH4+	pm10	0.18	0.13	0.14	2.01	0.02	0.04	0.15	0.45	0.85	29	0	106
NH4+	pm25	0.26	0.17	0.22	1.90	0.04	0.07	0.22	0.54	1.09	26	0	97
NO3-	pm1	0.03	0.04	0.02	2.77	0.01	0.01	0.02	0.13	0.18	19	14	72
NO3-	pm10	0.15	0.10	0.12	1.92	0.02	0.04	0.12	0.35	0.55	29	0	106
NO3-	pm25	0.06	0.07	0.04	2.61	0.01	0.01	0.03	0.21	0.33	26	3	97
Na+	pm1	0.02	0.01	0.01	2.08	0.01	0.01	0.02	0.04	0.06	19	19	72
Na+	pm10	0.28	0.20	0.19	2.74	0.01	0.02	0.24	0.64	0.97	29	1	106
Na+	pm25	0.07	0.05	0.05	2.61	0.01	0.01	0.06	0.16	0.27	26	7	97
PM1 mass	pm1	2.90	0.79	2.82	1.32	2.10	2.10	2.85	3.80	3.80	1	0	4
PM10 mass	pm10	3.88	1.70	3.61	1.54	2.40	2.40	3.50	6.10	6.10	1	0	4
PM25 mass	pm25	3.30	1.55	3.05	1.58	1.90	1.90	2.95	5.40	5.40	1	0	4
SO4--	pm1	0.38	0.22	0.31	2.00	0.05	0.08	0.40	0.73	1.10	19	0	72
SO4--	pm10	0.40	0.23	0.32	2.03	0.04	0.08	0.40	0.78	1.42	29	0	106
SO4--	pm25	0.41	0.24	0.33	2.00	0.04	0.09	0.39	0.77	1.49	26	0	97
SO4-- corr	pm1	0.38	0.22	0.31	2.00	0.05	0.08	0.40	0.73	1.10	19	0	72
SO4-- corr	pm10	0.37	0.22	0.30	2.05	0.04	0.07	0.38	0.73	1.38	29	0	106
SO4-- corr	pm25	0.40	0.24	0.33	1.99	0.04	0.09	0.38	0.76	1.48	26	0	97

FI0009R Utö
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max	% anal	Num bel	Num sampl
Ca++	aerosol	0.09	0.14	0.05	2.65	0.00	0.01	0.04	0.36	0.94	98	0	364
Cl-	aerosol	0.57	0.62	0.24	5.14	0.00	0.01	0.33	1.91	3.53	98	8	364
HNO3	air	0.08	0.10	0.05	3.27	0.00	0.01	0.05	0.28	0.53	99	9	366
HNO3+NO3-	air+aerosol	0.25	0.26	0.16	2.61	0.01	0.03	0.16	0.71	2.08	98	1	364
K+	aerosol	0.05	0.05	0.04	2.01	0.01	0.01	0.04	0.12	0.38	98	0	364
Mg++	aerosol	0.07	0.05	0.05	2.30	0.00	0.01	0.05	0.16	0.28	98	1	364
NH3	air	0.09	0.10	0.05	3.45	0.00	0.00	0.05	0.31	0.51	99	43	366
NH3+NH4+	air+aerosol	0.31	0.35	0.20	2.58	0.03	0.05	0.19	0.99	2.59	98	0	364
NH4+	aerosol	0.22	0.30	0.12	3.14	0.00	0.02	0.13	0.69	2.44	98	0	364
NO	air	0.10	0.20	0.07	2.09	-0.01	0.04	0.05	0.33	5.33	97	0	8581
NO2	air	0.90	0.77	0.71	1.90	0.01	0.30	0.65	2.31	18.70	97	0	8581
NO3-	aerosol	0.16	0.22	0.09	2.77	0.00	0.02	0.08	0.56	1.78	98	1	364
NOx	air	1.00	0.88	0.80	1.87	0.21	0.35	0.72	2.58	21.10	97	0	8581
Na+	aerosol	0.50	0.41	0.36	2.38	0.01	0.08	0.37	1.34	2.30	98	0	364
PM25 mass	pm25	4.22	4.33	2.87	2.41	0.22	0.70	2.97	12.24	38.32	61	0	5406
SO2	air	0.10	0.11	0.06	2.85	0.01	0.01	0.07	0.33	0.79	99	20	366
SO4--	aerosol	0.30	0.22	0.23	2.09	0.04	0.07	0.24	0.76	1.58	98	0	364
SO4-- corr	aerosol	0.26	0.22	0.17	2.77	0.01	0.03	0.20	0.70	1.52	98	0	364

FI0018R Virolahti III
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.11	0.25	0.04	3.57	0.00	0.01	0.04	0.41	3.23	99	4	365
Cl-	aerosol	0.13	0.19	0.05	4.52	0.00	0.00	0.04	0.50	1.63	99	26	365
HNO3	air	0.06	0.06	0.04	2.77	0.00	0.01	0.04	0.18	0.35	99	4	365
HNO3+NO3-	air+aerosol	0.17	0.18	0.11	2.61	0.01	0.02	0.11	0.55	1.30	99	6	365
K+	aerosol	0.06	0.05	0.04	2.09	0.00	0.01	0.04	0.15	0.39	99	0	365
Mg++	aerosol	0.03	0.03	0.02	2.83	0.00	0.00	0.02	0.09	0.28	99	9	365
NH3	air	0.12	0.17	0.05	4.63	0.00	0.00	0.06	0.52	0.98	98	61	364
NH3+NH4+	air+aerosol	0.36	0.32	0.24	2.53	0.03	0.05	0.26	1.00	1.86	98	0	364
NH4+	aerosol	0.24	0.25	0.14	2.88	0.01	0.02	0.16	0.70	1.75	99	0	365
NO	air	0.10	0.14	0.07	1.84	-0.05	0.04	0.06	0.29	3.72	99	0	8722
NO2	air	1.08	1.10	0.81	2.01	0.15	0.30	0.76	2.69	13.74	99	0	8722
NO3-	aerosol	0.11	0.15	0.06	3.20	0.00	0.01	0.06	0.43	1.07	99	6	365
NOx	air	1.18	1.16	0.91	1.95	0.20	0.35	0.84	2.93	15.44	99	0	8722
Na+	aerosol	0.18	0.17	0.12	2.64	0.00	0.02	0.12	0.51	1.25	99	1	365
PM10 mass	pm10	9.67	13.91	5.90	2.59	0.28	1.32	5.65	30.81	268.75	99	0	8714
PM25 mass	pm25	5.26	5.35	3.51	2.50	0.21	0.78	3.52	15.84	62.70	99	0	8714
SO2	air	0.19	0.25	0.11	3.01	0.01	0.02	0.10	0.70	1.75	99	8	365
SO2	air	0.22	0.33	0.13	2.61	-0.01	0.04	0.10	0.84	3.88	99	0	8685
SO4--	aerosol	0.32	0.24	0.24	2.27	0.03	0.06	0.26	0.80	1.21	99	0	365
SO4-- corr	aerosol	0.30	0.24	0.22	2.44	0.02	0.04	0.25	0.79	1.19	99	0	365

FI0022R Oulanka
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.02	0.02	0.02	2.16	0.00	0.01	0.02	0.07	0.10	97	0	52
Cl-	aerosol	0.08	0.12	0.03	5.83	0.00	0.00	0.02	0.38	0.46	97	6	52
HNO3	air	0.03	0.02	0.02	2.15	0.01	0.01	0.03	0.08	0.14	99	0	53
HNO3+NO3-	air+aerosol	0.05	0.04	0.04	1.87	0.01	0.01	0.04	0.13	0.22	97	5	52
K+	aerosol	0.03	0.02	0.02	1.97	0.00	0.01	0.02	0.06	0.10	97	0	52
Mg++	aerosol	0.02	0.01	0.01	2.09	0.00	0.00	0.02	0.04	0.06	97	0	52
NH3	air	0.03	0.04	0.01	4.63	0.00	0.00	0.01	0.11	0.18	97	7	52
NH3+NH4+	air+aerosol	0.12	0.09	0.09	2.12	0.02	0.03	0.09	0.32	0.45	95	0	51
NH4+	aerosol	0.09	0.08	0.07	2.18	0.01	0.02	0.07	0.27	0.45	97	0	52
NO	air	0.04	0.02	0.04	1.25	0.03	0.03	0.04	0.06	0.65	99	0	8690
NO2	air	0.33	0.19	0.29	1.59	0.13	0.16	0.28	0.69	2.77	99	0	8690
NO3-	aerosol	0.02	0.03	0.01	2.97	0.00	0.00	0.01	0.05	0.20	97	2	52
NOx	air	0.37	0.20	0.34	1.52	0.16	0.19	0.32	0.73	3.41	99	0	8690
Na+	aerosol	0.13	0.11	0.10	2.29	0.02	0.02	0.10	0.36	0.47	97	0	52
SO2	air	0.22	0.29	0.10	4.13	0.00	0.02	0.08	0.96	1.10	99	1	53
SO4--	aerosol	0.22	0.12	0.19	1.88	0.04	0.06	0.23	0.45	0.64	97	0	52
SO4-- corr	aerosol	0.21	0.12	0.18	1.95	0.04	0.05	0.22	0.44	0.63	97	0	52

FI0036R Pallas (Matorova)
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.01	0.02	0.01	3.23	0.00	0.00	0.01	0.05	0.11	96	56	363
Cl-	aerosol	0.18	0.28	0.05	6.71	0.00	0.00	0.05	0.77	1.60	96	51	363
HNO3	air	0.01	0.02	0.01	3.00	0.00	0.00	0.01	0.05	0.12	96	108	363
HNO3+NO3-	air+aerosol	0.03	0.04	0.02	2.42	0.00	0.00	0.02	0.09	0.42	96	94	363
K+	aerosol	0.01	0.01	0.01	2.86	0.00	0.00	0.01	0.04	0.12	96	49	363
Mg++	aerosol	0.02	0.02	0.01	3.63	0.00	0.00	0.01	0.06	0.12	96	48	363
NH3	air	0.01	0.02	0.01	2.56	0.00	0.00	0.01	0.06	0.16	96	206	363
NH3+NH4+	air+aerosol	0.08	0.10	0.05	2.71	0.01	0.01	0.05	0.28	0.74	96	0	363
NH4+	aerosol	0.06	0.09	0.03	3.21	0.00	0.00	0.04	0.24	0.74	96	1	363
NO3-	aerosol	0.02	0.03	0.01	3.04	0.00	0.00	0.01	0.05	0.31	96	94	363
Na+	aerosol	0.14	0.17	0.07	4.12	0.00	0.00	0.08	0.47	1.03	96	4	363
PM25 mass	pm25	1.63	1.76	0.96	3.15	0.01	0.12	1.12	5.22	16.78	56	0	4907
PM25 mass	pm25	2.60	2.09	1.89	2.55	0.00	0.39	2.10	6.54	20.21	43	0	3806
SO2	air	0.10	0.27	0.02	4.49	0.01	0.01	0.02	0.60	2.64	96	142	363
SO4--	aerosol	0.15	0.14	0.10	2.82	0.00	0.02	0.10	0.45	1.18	96	6	363
SO4-- corr	aerosol	0.14	0.14	0.08	3.14	0.00	0.01	0.09	0.43	1.13	96	6	363

FI0050R Hyytiälä
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.05	0.07	0.03	2.44	0.01	0.01	0.02	0.21	0.36	95	0	51
Cl-	aerosol	0.07	0.09	0.03	4.60	0.00	0.00	0.03	0.29	0.42	95	2	51
HNO3	air	0.05	0.04	0.04	2.25	0.00	0.01	0.04	0.13	0.18	97	0	52
HNO3+NO3-	air+aerosol	0.11	0.10	0.08	2.09	0.02	0.03	0.07	0.34	0.49	94	1	50
K+	aerosol	0.06	0.04	0.05	1.88	0.01	0.02	0.04	0.14	0.27	95	0	51
Mg++	aerosol	0.02	0.01	0.02	1.96	0.00	0.00	0.02	0.04	0.07	95	0	51
NH3	air	0.09	0.11	0.04	3.80	0.00	0.00	0.04	0.42	0.48	95	0	51
NH3+NH4+	air+aerosol	0.24	0.17	0.19	2.00	0.04	0.06	0.18	0.63	0.79	95	0	51
NH4+	aerosol	0.15	0.13	0.11	2.30	0.02	0.03	0.11	0.40	0.67	95	0	51
NO	air	0.03	0.08	0.03	3.34	-0.12	-0.03	0.01	0.13	1.88	91	0	8036
NO2	air	0.60	0.72	0.37	2.88	-0.10	0.06	0.37	1.93	7.54	91	0	8036
NO3-	aerosol	0.06	0.08	0.03	2.96	0.00	0.01	0.03	0.24	0.39	95	0	51
NOx	air	0.63	0.74	0.40	2.70	-0.05	0.08	0.40	1.99	7.60	91	0	8036
Na+	aerosol	0.12	0.08	0.09	2.24	0.01	0.02	0.11	0.30	0.36	95	0	51
SO2	air	0.08	0.07	0.05	2.46	0.01	0.01	0.06	0.28	0.31	97	0	52
SO4--	aerosol	0.25	0.14	0.21	1.90	0.05	0.06	0.24	0.54	0.61	95	0	51
SO4-- corr	aerosol	0.24	0.14	0.19	2.02	0.04	0.05	0.23	0.53	0.60	93	0	50

FI0096G Pallas (Sammaltunturi)
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	2.50	2.79	1.39	3.62	0.00	0.12	1.71	8.03	35.22	76	0	6699

FR0008R Donon
January 2021 - December 2021

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	0.01	3.34	0.00	0.00	0.01	0.13	0.25	16	27	60
Cl-	pm25	0.01	0.02	0.01	2.07	0.00	0.00	0.01	0.06	0.11	16	46	60
K+	pm25	0.03	0.03	0.02	2.62	0.00	0.00	0.02	0.10	0.15	16	5	60
Mg++	pm25	0.01	0.01	0.00	3.26	0.00	0.00	0.00	0.02	0.03	16	11	60
NH4+	pm25	0.35	0.35	0.19	3.83	0.00	0.02	0.22	1.13	1.63	16	1	60
NO3-	pm25	0.12	0.23	0.03	5.59	0.00	0.00	0.02	0.72	1.19	16	2	60
Na+	pm25	0.04	0.04	0.02	3.91	0.00	0.00	0.02	0.10	0.23	16	15	60
PM10 mass	pm10	8.00	10.20	5.80	2.26	0.00	1.00	6.00	18.00	138.00	98	0	8619
PM25 mass	pm25	5.09	4.51	4.00	2.17	0.00	1.00	4.00	13.00	48.00	98	0	8619
SO4--	pm25	0.24	0.19	0.17	2.57	0.01	0.03	0.18	0.65	0.68	16	0	60
SO4-- corr	pm25	0.24	0.19	0.16	2.60	0.01	0.02	0.18	0.65	0.68	16	0	59

FR0009R Revin
January 2021 - December 2021

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	0.01	3.16	0.00	0.00	0.01	0.10	0.29	15	12	56
Cl-	pm25	0.05	0.08	0.02	3.80	0.00	0.00	0.02	0.25	0.40	15	25	56
K+	pm25	0.04	0.02	0.03	1.97	0.01	0.01	0.03	0.11	0.11	15	0	56
Mg++	pm25	0.01	0.01	0.01	3.33	0.00	0.00	0.01	0.04	0.05	15	3	56
NH4+	pm25	0.57	0.60	0.36	2.59	0.04	0.09	0.32	2.14	2.57	15	0	56
NO3-	pm25	0.30	0.42	0.12	5.09	0.00	0.00	0.17	1.51	1.82	15	1	56
Na+	pm25	0.08	0.09	0.04	3.47	0.00	0.00	0.05	0.32	0.35	15	0	56
PM10 mass	pm10	10.39	8.03	8.30	2.09	-3.00	2.00	9.00	25.00	73.00	97	0	8505
PM25 mass	pm25	5.94	5.36	4.88	2.17	-3.00	0.00	5.00	17.00	46.00	96	0	8422
SO4--	pm25	0.31	0.26	0.24	2.15	0.04	0.07	0.24	0.85	1.49	15	0	56
SO4-- corr	pm25	0.31	0.26	0.23	2.20	0.04	0.06	0.24	0.85	1.48	15	0	56

FR0010R Morvan
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	10.22	7.67	8.43	1.92	-3.00	2.00	9.00	22.00	98.00	98	0	8585
PM25 mass	pm25	6.75	4.60	5.64	1.94	-3.00	1.00	6.00	15.70	42.00	92	0	8145

FR0013R Peyrusse Vieille
January 2021 - December 2021

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	2.81	0.00	0.00	0.01	0.07	0.10	15	14	59
Cl-	pm25	0.04	0.11	0.01	3.51	0.00	0.00	0.01	0.34	0.64	15	42	59
K+	pm25	0.04	0.05	0.03	2.27	0.01	0.01	0.02	0.12	0.36	15	0	59
Mg++	pm25	0.01	0.01	0.01	2.79	0.00	0.00	0.01	0.03	0.06	15	2	59
NH4+	pm25	0.27	0.22	0.15	4.10	0.00	0.01	0.21	0.78	1.00	15	2	59
NO3-	pm25	0.07	0.11	0.03	4.05	0.00	0.00	0.03	0.27	0.55	15	3	59
Na+	pm25	0.08	0.09	0.05	2.89	0.01	0.01	0.05	0.25	0.56	15	0	59
PM10 mass	pm10	10.14	7.45	8.33	1.89	1.00	3.00	9.00	23.00	104.00	97	0	8552
PM25 mass	pm25	6.45	4.55	5.18	1.98	0.00	2.00	5.00	16.00	39.00	97	0	8551
SO4--	pm25	0.26	0.17	0.19	2.40	0.02	0.03	0.23	0.62	0.84	15	0	59
SO4-- corr	pm25	0.25	0.17	0.18	2.48	0.02	0.03	0.23	0.62	0.83	15	0	58

FR0014R Montandon
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	9.71	10.47	7.24	2.29	-2.00	1.00	8.00	22.00	174.00	94	0	8277

FR0015R La Tardière
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	12.85	7.87	10.80	1.88	-2.00	3.00	11.00	26.00	95.00	95	0	8365
PM25 mass	pm25	8.24	6.04	6.55	2.08	-2.00	2.00	7.00	19.00	71.00	93	0	8219

FR0018R La Coulonche
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	10.86	7.03	8.82	1.97	0.00	3.00	9.00	24.00	70.00	99	0	8707
PM25 mass	pm25	7.90	5.91	6.17	2.07	0.00	2.00	6.00	20.00	53.00	99	0	8707

FR0023R Saint-Nazaire-le-Désert
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.04	0.05	0.02	2.99	0.00	0.00	0.02	0.20	0.24	16	3	60
Cl-	pm25	0.01	0.02	0.01	2.25	0.00	0.00	0.01	0.07	0.12	16	48	60
K+	pm25	0.04	0.03	0.03	2.23	0.00	0.01	0.03	0.11	0.14	16	1	60
Mg++	pm25	0.01	0.01	0.00	3.37	0.00	0.00	0.01	0.02	0.03	16	10	60
NH4+	pm25	0.25	0.22	0.16	2.87	0.01	0.02	0.20	0.73	0.91	16	0	60
NO3-	pm25	0.07	0.14	0.02	5.11	0.00	0.00	0.02	0.36	0.71	16	8	60
Na+	pm25	0.04	0.04	0.02	3.15	0.00	0.00	0.03	0.13	0.17	16	6	60
PM10 mass	pm10	8.75	14.25	6.00	2.23	0.00	1.00	6.00	20.00	412.00	95	0	8396
PM25 mass	pm25	5.37	5.18	4.03	2.17	0.00	1.00	4.00	14.15	101.00	95	0	8396
SO4--	pm25	0.24	0.17	0.17	2.40	0.03	0.03	0.21	0.64	0.74	16	0	60
SO4-- corr	pm25	0.24	0.17	0.17	2.39	0.03	0.03	0.20	0.64	0.74	16	0	59

FR0025R Verneuil
 January 2021 - December 2021

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	2.60	0.00	0.00	0.01	0.04	0.11	15	21	58
Cl-	pm25	0.03	0.07	0.01	3.02	0.00	0.00	0.01	0.17	0.46	15	37	58
K+	pm25	0.05	0.04	0.03	2.54	0.00	0.01	0.03	0.15	0.16	15	2	58
Mg++	pm25	0.01	0.01	0.00	3.05	0.00	0.00	0.00	0.02	0.03	15	6	58
NH4+	pm25	0.35	0.41	0.19	3.25	0.00	0.02	0.20	1.68	1.78	15	0	58
NO3-	pm25	0.15	0.28	0.03	6.65	0.00	0.00	0.04	0.84	1.31	15	8	58
Na+	pm25	0.06	0.07	0.03	3.64	0.00	0.00	0.03	0.20	0.30	15	2	58
PM25 mass	pm25	7.20	5.64	5.86	2.02	-3.00	1.00	6.00	19.00	81.00	98	0	8648
SO4--	pm25	0.23	0.19	0.17	2.33	0.03	0.04	0.18	0.73	0.79	15	0	58
SO4-- corr	pm25	0.23	0.19	0.16	2.51	0.01	0.03	0.17	0.73	0.79	15	0	58

FR0028R Kergoff
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.01	0.01	0.01	2.16	0.00	0.00	0.01	0.02	0.09	16	19	60
Cl-	pm25	0.14	0.14	0.08	3.44	0.01	0.01	0.09	0.42	0.66	16	8	60
K+	pm25	0.02	0.02	0.01	2.53	0.00	0.00	0.01	0.10	0.13	16	8	60
Mg++	pm25	0.01	0.01	0.01	3.09	0.00	0.00	0.01	0.03	0.04	16	3	60
NH4+	pm25	0.52	0.68	0.23	4.01	0.02	0.02	0.28	1.95	3.79	16	0	60
NO3-	pm25	0.28	0.46	0.10	4.27	0.01	0.01	0.07	1.38	2.36	16	0	60
Na+	pm25	0.10	0.09	0.06	3.19	0.00	0.01	0.07	0.30	0.39	16	2	60
PM10 mass	pm10	5.21	4.52	4.61	2.23	0.00	0.00	4.00	14.15	17.00	1	0	96
PM10 mass	pm10	11.09	8.21	8.64	2.13	0.00	2.00	9.00	26.00	93.00	95	0	8364
PM25 mass	pm25	6.51	4.14	5.32	1.93	1.00	2.00	5.00	15.00	18.00	1	0	96
PM25 mass	pm25	7.42	6.09	5.65	2.17	0.00	1.00	5.00	20.00	55.00	95	0	8364
SO4--	pm25	0.25	0.22	0.15	2.97	0.01	0.02	0.19	0.80	0.93	16	0	60
SO4-- corr	pm25	0.24	0.22	0.14	3.36	0.01	0.01	0.18	0.78	0.93	16	0	60

FR0030R Puy de Dôme
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.09	0.07	0.07	2.39	0.00	0.02	0.07	0.26	0.32	27	0	49
Cl-	aerosol	0.05	0.06	0.02	3.83	0.00	0.00	0.02	0.24	0.29	27	0	49
K+	aerosol	0.03	0.03	0.03	2.25	0.00	0.01	0.03	0.11	0.18	27	0	49
Mg++	aerosol	0.01	0.01	0.01	2.48	0.00	0.00	0.01	0.02	0.04	27	0	49
NH4+	aerosol	0.01	0.01	0.00	2.83	0.00	0.00	0.00	0.03	0.04	27	0	49
NO3-	aerosol	0.15	0.15	0.09	2.90	0.01	0.01	0.09	0.48	0.72	27	0	49
Na+	aerosol	0.10	0.13	0.05	3.47	0.00	0.01	0.04	0.39	0.70	27	0	49
SO2	air	0.21	0.10	0.20	1.40	0.08	0.12	0.19	0.38	2.96	98	0	8664
SO4--	aerosol	0.07	0.07	0.04	3.14	0.00	0.00	0.04	0.23	0.32	27	0	49
SO4-- corr	aerosol	0.06	0.07	0.03	3.40	-0.01	0.00	0.04	0.22	0.29	27	0	49

GB0002R Eskdalemuir
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.18	0.08	0.16	1.55	0.00	0.08	0.17	0.30	1.37	41	3598	3601
NO2	air	0.54	0.39	0.45	1.79	0.08	0.18	0.43	1.25	5.20	41	2817	3601

GB0006R Lough Navar
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
PM10 mass	pm10	7.07	5.14	5.58	2.05	0.30	1.57	5.92	17.00	67.67	96	2500	8477

GB0013R Yarner Wood
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.23	0.23	0.19	1.89	-0.05	0.06	0.19	0.48	4.88	89	7707	7869
NO2	air	1.09	1.05	0.82	2.08	0.01	0.26	0.78	2.89	12.43	89	3447	7869

GB0014R High Muffles
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.19	0.14	0.16	1.66	-0.02	0.08	0.16	0.38	2.42	99	8578	8675
NO2	air	1.01	1.09	0.66	2.51	-0.00	0.15	0.65	2.90	11.67	99	4548	8675

GB0031R Aston Hill
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.14	0.12	0.12	1.85	-0.23	0.03	0.12	0.30	2.47	88	7665	7719
NO2	air	1.07	0.93	0.80	2.13	0.01	0.24	0.77	2.78	9.66	88	3526	7719

GB0033R Bush
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.34	0.54	0.25	1.91	0.01	0.10	0.24	0.75	17.67	98	8105	8612
NO2	air	1.31	1.29	0.91	2.41	-0.08	0.22	0.92	3.68	13.26	98	3326	8612

GB0037R Ladybower Res.
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.30	0.25	0.26	1.66	0.02	0.13	0.25	0.63	5.79	98	8296	8641
NO2	air	1.42	1.22	1.05	2.23	-0.01	0.25	1.12	3.54	14.81	98	2409	8641
SO2	air	0.35	0.33	0.30	1.87	-0.26	0.09	0.29	0.80	14.79	781	3418	27508

GB0038R Lullington Heath
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.56	0.40	0.44	2.12	-0.17	0.11	0.46	1.30	3.20	18	1198	1637
NO2	air	2.22	1.44	1.83	1.93	0.06	0.63	1.88	4.92	14.56	18	104	1637
SO2	air	0.48	0.30	0.43	1.81	-0.13	0.13	0.40	1.05	3.86	491	7357	17380

GB0043R Narberth
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.30	0.33	0.27	1.45	0.05	0.17	0.26	0.52	21.83	98	8412	8610
NO2	air	0.94	0.79	0.73	1.97	0.06	0.25	0.70	2.45	11.19	98	4285	8610
PM10 mass	pm10	10.13	7.13	8.10	2.01	0.28	2.44	8.30	23.05	107.58	98	1147	8634
SO2	air	0.36	0.21	0.33	1.69	-0.13	0.12	0.36	0.66	4.21	921	4531	32520

GB0045R Wicken Fen
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.37	0.59	0.27	1.93	0.01	0.12	0.24	0.97	22.12	97	7808	8529
NO2	air	1.76	1.53	1.27	2.28	0.05	0.32	1.29	4.90	14.30	97	1954	8529
SO2	air	0.48	0.31	0.42	1.81	-0.38	0.13	0.40	1.02	12.26	943	3155	33185

GB0048R Auchencorth Moss
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.04	0.03	0.03	2.46	0.00	0.01	0.03	0.10	0.49	77	301	6786
Ca++	pm25	0.02	0.02	0.02	2.76	0.00	0.00	0.02	0.06	0.29	76	534	6725
Cl-	pm10	0.67	0.88	0.34	3.33	0.00	0.05	0.33	2.53	9.03	82	6	7259
Cl-	pm25	0.40	0.51	0.22	3.01	0.00	0.04	0.21	1.48	4.87	84	18	7427
HNO3	air	0.02	0.01	0.01	2.34	0.00	0.00	0.01	0.04	0.14	89	185	7809
K+	pm10	0.03	0.02	0.02	2.58	0.00	0.00	0.03	0.07	0.41	79	627	6941
K+	pm25	0.02	0.02	0.01	3.15	0.00	0.00	0.02	0.05	0.24	80	1334	7044
Mg++	pm10	0.05	0.05	0.03	3.26	0.00	0.00	0.03	0.15	0.48	82	418	7266
Mg++	pm25	0.03	0.03	0.01	4.82	0.00	0.00	0.01	0.09	0.27	84	1085	7372
NH3	air	1.35	1.82	0.82	2.60	0.00	0.19	0.79	4.45	46.31	90	2	7931
NH4+	pm10	0.33	0.39	0.18	3.40	0.00	0.03	0.19	1.15	3.22	81	140	7142
NH4+	pm25	0.31	0.36	0.17	3.29	0.00	0.03	0.18	1.08	2.85	83	85	7277
NO3-	pm10	0.18	0.26	0.09	3.50	0.00	0.01	0.09	0.70	2.34	80	70	7042
NO3-	pm25	0.15	0.23	0.07	3.62	0.00	0.01	0.07	0.60	2.18	82	88	7253
Na+	pm10	0.38	0.43	0.21	3.33	0.00	0.02	0.23	1.28	3.66	78	2	6916
Na+	pm25	0.24	0.26	0.14	2.87	0.00	0.03	0.14	0.78	2.24	78	1	6861
PM10 mass	pm10	5.47	4.26	4.10	2.24	0.05	0.97	4.35	13.60	42.33	99	4014	8738
PM25 mass	pm25	3.47	3.15	2.45	2.41	0.03	0.52	2.62	9.43	30.78	99	5963	8738
SO2	air	0.02	0.04	0.02	2.26	0.00	0.01	0.01	0.07	0.95	88	65	7760
SO4--	pm10	0.22	0.22	0.16	2.41	0.00	0.04	0.16	0.58	4.17	80	11	7025
SO4--	pm25	0.20	0.21	0.14	2.42	0.00	0.03	0.14	0.55	4.02	82	10	7239
SO4-- corr	pm10	0.19	0.22	0.12	2.70	-0.01	0.02	0.12	0.56	4.12	80	11	7025
SO4-- corr	pm25	0.18	0.21	0.11	2.68	-0.01	0.02	0.12	0.53	4.00	82	10	7239

GB0050R St. Osyth
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.37	1.10	0.16	3.16	-0.06	0.02	0.13	1.31	43.52	94	6755	8273
NO2	air	2.33	2.09	1.70	2.19	0.12	0.50	1.68	6.40	19.80	94	202	8273

GB0053R Charlton Mackrell
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.35	0.56	0.26	1.90	-0.02	0.11	0.24	0.78	16.52	99	8174	8689
NO2	air	1.44	1.18	1.09	2.16	0.00	0.31	1.12	3.64	11.33	99	2375	8688

GB1055R Chilbolton Observatory
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.15	0.26	0.05	5.45	0.00	0.00	0.08	0.53	4.92	37	878	3308
Ca++	pm25	0.06	0.07	0.02	5.24	0.00	0.00	0.04	0.18	0.97	42	1613	3722
Cl-	pm10	1.38	1.69	0.58	5.02	0.01	0.01	0.80	4.74	18.75	41	349	3640
Cl-	pm25	0.54	0.73	0.18	7.12	0.00	0.00	0.27	1.85	9.43	40	730	3544
HNO3	air	0.02	0.02	0.01	2.94	0.00	0.00	0.01	0.06	0.20	49	971	4377
K+	pm10	0.06	0.10	0.02	4.73	0.00	0.01	0.01	0.25	1.01	37	1912	3290
K+	pm25	0.05	0.09	0.02	4.46	0.00	0.01	0.01	0.23	0.91	42	2434	3718
Mg++	pm10	0.11	0.15	0.04	5.61	0.00	0.00	0.06	0.40	1.59	43	1549	3850
Mg++	pm25	0.06	0.08	0.02	6.46	0.00	0.00	0.03	0.19	1.03	42	1394	3735
NH3	air	3.01	2.62	2.26	2.12	0.21	0.67	2.14	8.07	32.22	56	0	4990
NH4+	pm10	0.73	0.82	0.34	4.85	0.00	0.00	0.44	2.43	6.97	47	314	4200
NH4+	pm25	0.59	0.71	0.28	4.26	0.01	0.01	0.33	2.13	5.53	38	267	3393
NO3-	pm10	0.51	0.55	0.33	2.67	0.00	0.07	0.32	1.71	4.54	41	11	3639
NO3-	pm25	0.39	0.48	0.23	2.88	0.00	0.05	0.22	1.47	4.09	40	21	3538
Na+	pm10	0.66	0.95	0.22	6.00	0.01	0.01	0.31	2.38	11.16	47	654	4193
Na+	pm25	0.19	0.31	0.05	6.45	0.00	0.00	0.08	0.76	5.03	44	1283	3935
PM10 mass	pm10	11.42	8.75	9.05	2.00	0.55	2.83	9.15	27.00	193.40	99	989	8680
PM25 mass	pm25	7.43	6.32	5.60	2.13	0.26	1.63	5.54	19.32	57.59	99	2561	8680
SO2	air	0.03	0.03	0.02	2.77	0.00	0.00	0.03	0.08	0.41	50	269	4383
SO4--	pm10	0.44	0.38	0.35	1.93	0.03	0.12	0.35	1.11	4.41	41	0	3618
SO4--	pm25	0.41	0.41	0.30	2.11	0.01	0.10	0.29	1.18	4.58	40	0	3508
SO4-- corr	pm10	0.39	0.38	0.29	2.14	0.02	0.09	0.28	1.08	4.32	41	0	3618
SO4-- corr	pm25	0.39	0.42	0.27	2.25	0.01	0.08	0.27	1.18	4.54	40	0	3508

GR0001R Aliartos
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NO	air	0.87	1.38	0.65	1.79	0.50	0.50	0.50	2.30	30.30	99	0	8713
NO2	air	2.54	2.46	1.65	2.62	0.30	0.30	1.80	7.66	18.00	99	0	8715
Nox	air	3.41	3.37	2.46	2.16	0.80	0.80	2.30	10.00	38.60	99	0	8690
PM10 mass	pm10	22.04	18.40	17.64	1.95	1.00	6.00	18.00	52.00	357.00	57	0	5030
PM25 mass	pm25	16.92	16.95	12.78	2.09	0.00	4.00	12.00	45.00	224.00	55	0	4839
SO2	air	4.89	4.06	3.33	2.54	1.00	1.00	4.50	12.00	34.00	58	0	5128

HR0002R Puntijarka
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	9.43	11.51	7.23	2.00	0.91	2.08	7.55	20.07	172.55	89	0	328
PM25 mass	pm25	5.13	3.53	4.10	2.04	0.20	1.25	4.21	11.91	27.49	96	0	353

HU0002R K-pusztá
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.41	0.42	0.26	2.80	0.01	0.05	0.28	1.30	3.91	98	9	361
HNO3	air	0.13	0.08	0.11	2.02	0.01	0.03	0.12	0.28	0.50	98	4	362
K+	aerosol	0.20	0.23	0.12	2.95	0.01	0.01	0.14	0.53	3.24	98	30	361
Mg++	aerosol	0.07	0.06	0.05	2.53	0.01	0.01	0.06	0.17	0.42	98	66	361
NH3	air	1.77	1.02	1.46	1.98	0.06	0.45	1.66	3.61	6.07	98	2	362
NH4+	aerosol	0.63	0.63	0.38	3.09	0.02	0.05	0.41	1.79	4.61	98	14	361
NO2	air	0.93	0.53	0.80	1.78	0.03	0.34	0.80	2.12	3.67	97	1	357
NO3-	aerosol	0.35	0.38	0.19	3.25	0.01	0.02	0.23	1.13	2.26	98	13	361
Na+	aerosol	0.13	0.13	0.08	2.58	0.03	0.03	0.09	0.35	0.94	98	123	362
PM25 mass	pm25	12.68	10.29	9.21	2.43	0.28	2.38	10.16	40.47	48.29	15	0	57
SO2	air	0.40	0.62	0.21	3.09	0.03	0.03	0.20	1.80	5.62	98	37	362
SO4--	aerosol	0.55	0.41	0.45	1.85	0.03	0.17	0.46	1.22	4.59	98	0	361
SO4-- corr	aerosol	0.50	0.41	0.40	1.97	0.03	0.13	0.41	1.16	4.58	98	0	361

HU0017R Nyirjes
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	12.45	7.14	10.64	1.78	1.34	4.21	11.05	25.59	45.82	92	0	337
PM25 mass	pm25	9.42	4.84	8.22	1.72	1.20	3.00	8.50	19.43	28.90	92	0	336

IE0001R Valentia Observatory
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.16	0.12	0.12	2.18	0.03	0.03	0.13	0.40	0.68	95	38	349
Cl-	aerosol	4.91	4.01	3.62	2.26	0.28	0.95	3.73	12.87	24.40	95	0	350
HNO3+NO3-	air+aerosol	0.24	0.34	0.14	2.57	0.02	0.04	0.12	0.90	3.04	95	0	350
K+	aerosol	0.11	0.09	0.08	2.19	0.03	0.03	0.08	0.26	0.73	95	81	349
Mg++	aerosol	0.26	0.26	0.16	2.74	0.03	0.03	0.17	0.80	1.64	95	39	349
NH3+NH4+	air+aerosol	0.95	1.05	0.69	2.13	0.04	0.24	0.62	2.45	11.36	95	1	349
NO2	air	2.33	2.32	1.51	2.66	0.05	0.30	1.60	7.03	13.80	100	3	366
Na+	aerosol	2.61	2.29	1.78	2.61	0.07	0.34	1.96	7.12	14.37	95	0	349
SO2	air	0.16	0.19	0.10	2.81	0.01	0.01	0.11	0.44	1.74	95	32	350
SO4--	aerosol	0.46	0.26	0.39	1.89	0.01	0.15	0.41	0.92	2.79	95	2	350
SO4-- corr	aerosol	0.24	0.28	0.15	2.86	-1.01	0.02	0.14	0.74	2.49	96	2	352

IE0005R Oak Park
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.06	0.05	0.05	2.06	0.01	0.02	0.05	0.16	0.33	98	9	358
Cl-	aerosol	1.00	0.85	0.73	2.20	0.13	0.21	0.73	2.79	5.01	98	0	358
K+	aerosol	0.04	0.02	0.04	1.67	0.01	0.02	0.04	0.09	0.14	98	6	358
Mg++	aerosol	0.06	0.05	0.05	2.13	0.01	0.01	0.04	0.17	0.34	98	24	358
NH4+	aerosol	0.47	0.48	0.36	1.99	0.10	0.14	0.32	1.41	4.70	98	0	358
NO3-	aerosol	0.25	0.37	0.13	3.00	0.01	0.03	0.11	1.01	3.15	98	0	358
Na+	aerosol	0.54	0.51	0.35	2.74	0.02	0.05	0.41	1.57	3.01	98	0	358
SO4--	aerosol	0.26	0.22	0.21	1.83	0.06	0.09	0.20	0.64	2.40	98	0	358
SO4-- corr	aerosol	0.22	0.23	0.15	2.47	0.01	0.03	0.15	0.59	2.39	98	0	358

IE0006R Malin Head
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.09	0.05	0.08	1.77	0.01	0.03	0.08	0.18	0.32	99	8	362
Cl-	aerosol	2.78	2.08	2.04	2.36	0.10	0.43	2.20	6.61	12.96	99	0	362
K+	aerosol	0.08	0.08	0.06	2.00	0.01	0.02	0.06	0.26	0.70	99	3	362
Mg++	aerosol	0.17	0.13	0.12	2.25	0.01	0.03	0.12	0.43	0.90	99	6	362
NH4+	aerosol	0.38	0.39	0.28	2.01	0.08	0.12	0.24	1.32	4.07	99	0	362
NO3-	aerosol	0.19	0.30	0.09	3.43	0.00	0.01	0.07	0.80	3.41	99	0	362
Na+	aerosol	1.60	1.20	1.16	2.48	0.03	0.22	1.28	3.84	7.49	99	0	362
SO4--	aerosol	0.32	0.21	0.24	2.27	0.01	0.04	0.28	0.69	1.43	99	0	362
SO4-- corr	aerosol	0.18	0.24	0.14	2.66	-0.48	-0.14	0.12	0.62	1.40	99	0	362

IE0008R Carnsore Point
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.14	0.10	0.11	2.11	0.01	0.03	0.10	0.37	0.67	93	1	342
Cl-	aerosol	4.55	4.37	2.89	2.73	0.20	0.52	2.88	14.68	19.73	93	0	342
K+	aerosol	0.14	0.17	0.10	2.26	0.02	0.03	0.09	0.44	1.32	93	1	342
Mg++	aerosol	0.29	0.31	0.18	2.73	0.02	0.04	0.17	1.00	1.58	93	2	342
NH4+	aerosol	0.52	0.57	0.38	2.03	0.12	0.16	0.33	1.71	5.81	93	0	342
NO3-	aerosol	0.32	0.45	0.18	2.90	0.02	0.03	0.16	1.01	3.97	93	0	342
Na+	aerosol	2.68	2.59	1.71	2.71	0.09	0.34	1.71	8.75	12.16	93	0	342
SO4--	aerosol	0.45	0.27	0.37	1.92	0.01	0.13	0.39	0.95	1.90	93	0	342
SO4-- corr	aerosol	0.22	0.28	0.16	2.81	-0.61	-0.09	0.16	0.78	1.82	93	0	342

IS0002R Irafoss
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.14	0.16	0.10	2.10	0.03	0.04	0.10	0.49	1.24	96	242	355
Cl-	aerosol	1.81	2.24	1.01	2.94	0.10	0.20	0.87	6.12	16.26	87	0	322
K+	aerosol	0.06	0.04	0.04	2.03	0.01	0.01	0.05	0.13	0.26	96	1	355
Mg++	aerosol	0.15	0.14	0.09	3.02	0.00	0.01	0.11	0.45	0.87	96	17	355
Na+	aerosol	0.98	1.15	0.51	3.54	0.01	0.04	0.58	3.36	7.49	96	19	355
SO2	air	0.78	3.12	0.10	5.84	0.01	0.01	0.06	3.81	43.18	99	126	363
SO4--	aerosol	0.31	0.48	0.15	3.61	0.00	0.02	0.16	1.14	4.22	96	1	355
SO4-- corr	aerosol	0.23	0.49	0.06	6.18	-0.03	-0.01	0.04	1.09	4.20	96	0	354

IS0091R Storhofdi
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	aerosol	10.33	6.98	7.89	2.25	1.19	1.28	8.07	23.96	24.17	76	0	20
NO3-	aerosol	0.04	0.04	0.03	2.45	0.00	0.00	0.03	0.14	0.14	76	0	20
SO4--	aerosol	0.71	0.32	0.62	1.89	0.15	0.15	0.83	1.21	1.21	76	0	20
SO4-- corr	aerosol	0.35	0.33	0.27	3.20	-0.04	-0.04	0.36	0.98	0.99	76	0	20

IT0004R Ispra
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
CO	air	257.25	166.70	222.22	1.65	94.00	121.00	190.00	630.00	1232.00	99	0	8701
Ca++	pm25	0.01	0.06	0.01	3.75	-0.02	-0.01	0.00	0.07	0.91	98	289	361
Cl-	pm25	0.03	0.07	0.02	3.68	0.00	0.00	0.01	0.13	0.70	98	191	361
K+	pm25	0.19	0.26	0.08	4.54	0.00	0.01	0.09	0.72	2.73	98	80	361
Mg++	pm25	0.00	0.02	0.00	3.25	-0.00	-0.00	0.00	0.02	0.20	98	314	361
NH4+	pm25	0.67	0.66	0.43	2.90	0.00	0.06	0.47	2.02	4.06	98	16	361
NO	air	1.77	4.49	0.34	5.37	0.01	0.04	0.23	10.69	48.28	98	115	8655
NO2	air	4.41	3.12	3.56	1.92	0.51	1.26	3.41	10.69	29.73	98	0	8655
NO3-	pm25	0.41	0.60	0.14	5.42	0.00	0.00	0.12	1.75	3.15	98	90	361
Na+	pm25	0.03	0.06	0.02	3.01	-0.01	0.00	0.02	0.09	0.92	98	112	361
PM25 mass	pm25	11.61	9.96	8.41	2.40	-0.10	1.98	8.75	35.52	53.70	80	16	294
SO2	air	0.22	0.20	0.16	2.34	0.00	0.04	0.16	0.59	2.56	99	2074	8746
SO4--	pm25	0.32	0.24	0.24	2.35	0.01	0.05	0.27	0.73	1.37	98	0	361
SO4-- corr	pm25	0.32	0.24	0.23	2.35	0.01	0.05	0.27	0.73	1.37	98	0	361

IT0009R Monte Cimone
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
SO2	air	0.13	0.95	0.07	3.84	-0.17	-0.07	0.00	0.36	23.92	65	4254	5769

IT0019R Monte Martano
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm10	0.78	1.06	0.14	8.98	0.02	0.02	0.16	2.75	4.60	50	86	183
Cl-	pm10	0.08	0.17	0.02	5.05	0.00	0.00	0.03	0.44	1.48	50	52	183
K+	pm10	0.06	0.20	0.00	6.08	0.00	0.00	0.00	0.46	1.44	50	151	183
Mg++	pm10	0.02	0.04	0.01	2.88	0.01	0.01	0.01	0.11	0.27	50	141	183
NH4+	pm10	0.28	0.26	0.13	4.61	0.01	0.01	0.22	0.78	1.10	50	55	183
NO	air	0.25	0.09	0.25	1.10	0.25	0.25	0.25	6.99	93	8115	8157	
NO2	air	0.77	0.52	0.61	2.08	0.16	0.16	0.67	1.75	5.68	93	1337	8179
NO3-	pm10	0.16	0.12	0.12	2.27	0.01	0.03	0.13	0.42	0.69	50	5	183
NOx	air	0.80	0.57	0.63	2.02	0.25	0.25	0.70	1.85	12.67	93	2474	8157
Na+	pm10	0.16	0.19	0.08	4.16	0.00	0.00	0.10	0.54	1.49	50	21	183
PM10 mass	pm10	11.28	9.89	8.31	2.24	0.50	2.20	8.70	26.30	59.00	87	2	319
PM25 mass	pm25	5.84	4.54	4.38	2.23	0.50	1.10	4.90	14.41	30.10	86	9	317
SO4--	pm10	0.37	0.28	0.26	2.59	0.01	0.04	0.30	0.93	1.34	50	2	183
SO4-- corr	pm10	0.36	0.28	0.25	2.68	0.01	0.03	0.29	0.92	1.34	50	2	183

LT0015R Preila
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	aerosol	0.18	0.17	0.11	3.10	0.01	0.01	0.14	0.54	1.13	92	0	339
Cl-	aerosol	2.27	2.57	1.10	3.78	0.01	0.14	1.20	7.81	15.56	92	0	339
HNO3+NO3-	air+aerosol	0.47	0.46	0.33	2.19	0.05	0.10	0.31	1.35	3.07	92	0	339
K+	aerosol	0.15	0.09	0.13	1.65	0.02	0.06	0.13	0.32	1.03	92	0	339
NH3+NH4+	air+aerosol	0.88	0.70	0.60	2.75	0.01	0.08	0.73	2.27	4.21	92	0	338
NH4+	aerosol	0.66	0.62	0.41	3.04	0.01	0.04	0.49	1.99	3.59	92	0	339
NO2	air	0.86	0.54	0.73	1.79	0.11	0.27	0.72	1.78	4.52	91	0	334
NO3-	aerosol	0.43	0.45	0.29	2.39	0.02	0.08	0.27	1.30	3.02	92	0	339
Na+	aerosol	1.37	1.46	0.73	3.45	0.02	0.08	0.78	4.55	8.88	92	0	339
SO2	air	0.16	0.14	0.12	2.08	0.01	0.04	0.12	0.45	1.32	92	0	337
SO4--	aerosol	0.47	0.28	0.40	1.75	0.07	0.16	0.39	0.97	1.99	92	0	339
SO4-- corr	aerosol	0.36	0.30	0.27	2.48	-0.19	0.02	0.30	0.94	1.98	92	0	339

LV0010R Rucava
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm25	0.08	0.09	0.04	3.37	0.01	0.01	0.04	0.31	0.41	100	26	53
Cl-	pm25	0.06	0.09	0.02	4.51	0.00	0.00	0.03	0.29	0.50	100	23	53
HNO3	air	0.04	0.07	0.02	2.75	0.01	0.01	0.02	0.13	1.03	96	288	353
HNO3+NO3-	air+aerosol	0.49	0.53	0.32	2.43	0.03	0.08	0.32	1.56	4.25	96	0	353
K+	pm25	0.09	0.07	0.07	2.03	0.00	0.03	0.07	0.29	0.35	100	1	53
Mg++	pm25	0.01	0.01	0.01	2.52	0.00	0.00	0.01	0.03	0.03	100	34	53
NH3	air	0.40	0.53	0.15	4.48	0.02	0.02	0.17	1.62	3.23	96	139	355
NH3+NH4+	air+aerosol	1.00	0.75	0.76	2.18	0.09	0.19	0.79	2.52	5.12	96	0	355
NH4+	aerosol	0.61	0.53	0.44	2.25	0.02	0.11	0.48	1.72	4.48	96	21	355
NH4+	pm25	0.31	0.22	0.24	2.45	0.00	0.06	0.23	0.81	1.05	100	1	53
NO2	air	0.74	0.53	0.61	1.89	0.01	0.25	0.58	2.07	3.18	96	2	352
NO3-	aerosol	0.44	0.51	0.27	2.82	0.00	0.05	0.27	1.54	4.08	96	8	353
NO3-	pm25	0.06	0.09	0.03	3.45	0.00	0.00	0.02	0.24	0.57	100	3	53
Na+	pm25	0.10	0.09	0.07	2.39	0.01	0.02	0.07	0.33	0.45	100	5	53
PM10 mass	pm10	18.41	13.40	14.03	2.17	1.10	3.60	14.40	47.98	64.10	90	0	331
PM25 mass	pm25	10.87	8.61	8.27	2.14	0.40	2.66	8.00	28.06	51.30	96	0	351
SO2	air	0.21	0.25	0.13	3.01	0.01	0.01	0.15	0.66	2.07	96	85	353
SO4--	aerosol	0.39	0.33	0.27	2.60	0.01	0.05	0.30	1.12	2.46	96	12	353
SO4--	pm25	0.31	0.19	0.24	2.50	0.00	0.02	0.26	0.73	0.91	100	0	53
SO4-- corr	pm25	0.30	0.19	0.23	2.63	0.00	0.02	0.26	0.72	0.91	100	0	53

MT0001R Giordan Lighthouse
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
CO	air	118.03	21.78	116.14	1.19	69.20	87.80	117.30	155.38	234.30	64	0	5620
NO	air	0.01	0.01	0.01	1.94	0.00	0.00	0.01	0.04	0.31	53	0	4719
NO2	air	0.08	0.07	0.06	2.25	0.00	0.01	0.05	0.21	0.69	53	0	4727
NOx	air	0.09	0.08	0.07	2.02	0.01	0.02	0.07	0.24	1.00	53	0	4727
SO2	air	0.33	0.14	0.32	1.34	0.13	0.22	0.30	0.55	3.79	76	0	6693

NL0007R Eibergen
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.62	1.46	0.29	3.35	-0.26	0.00	0.25	2.32	24.86	99	0	8715
NO2	air	3.24	2.24	2.64	1.90	0.15	0.93	2.63	7.94	18.00	99	0	8715
PM10 mass	pm10	14.64	11.41	12.36	2.27	-19.89	-0.69	13.39	33.87	164.43	99	0	8731
SO2	air	0.22	0.52	0.13	3.06	-0.22	-0.06	0.10	0.80	10.53	99	0	8678

NL0008R Bilthoven
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	pm10	0.25	0.17	0.21	1.71	0.04	0.09	0.20	0.60	1.07	49	1	180
Mg++	pm10	0.11	0.08	0.09	2.08	0.01	0.02	0.09	0.26	0.55	49	4	180
Na+	pm10	0.77	0.66	0.53	2.50	0.06	0.10	0.58	2.09	4.31	49	0	180

NL0009R Kollumerwaard
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NO	air	0.27	0.59	0.17	3.39	-0.73	-0.07	0.12	1.12	9.09	99	0	8720
NO2	air	1.84	1.63	1.31	2.35	-0.05	0.32	1.39	4.88	19.81	99	0	8720
PM10 mass	pm10	14.18	11.70	11.58	2.33	-19.89	-0.69	12.11	35.15	192.59	98	0	8610
PM25 mass	pm25	6.54	6.50	4.66	2.77	-4.42	-0.26	4.72	19.71	73.64	98	0	8640
SO2	air	0.11	0.19	0.09	2.74	-0.24	-0.07	0.07	0.41	4.38	98	0	8668

NL0010R Vredepeel
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	pm10	0.71	0.85	0.41	2.85	0.07	0.09	0.36	2.47	6.04	46	12	170
NH4+	pm10	0.90	0.75	0.60	2.71	0.03	0.08	0.69	2.32	3.87	46	0	170
NO	air	1.04	2.40	0.40	3.72	-0.22	0.02	0.33	4.47	33.28	99	0	8722
NO2	air	3.88	2.65	3.12	1.96	0.26	1.04	3.12	9.47	20.58	99	0	8722
NO3-	pm10	0.94	0.65	0.75	1.97	0.17	0.22	0.78	2.25	4.00	46	0	170
PM10 mass	pm10	17.45	15.65	13.94	2.28	-19.89	0.59	14.67	41.55	301.39	99	0	8707
PM25 mass	pm25	10.63	7.79	8.32	2.17	-4.67	2.07	8.67	25.39	81.49	98	0	8625
SO4--	pm10	0.55	0.30	0.48	1.71	0.13	0.20	0.48	1.13	1.77	46	0	170
SO4-- corr	pm10	0.54	0.30	0.47	1.72	0.12	0.20	0.48	1.13	1.77	46	0	170

NL0091R De Zilk
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	pm10	1.41	1.60	0.73	3.42	0.07	0.10	0.84	4.61	8.92	49	10	180
NH3	air	1.71	2.26	0.94	3.11	-0.44	0.14	0.87	6.35	31.52	96	0	8494
NH4+	pm10	0.54	0.72	0.25	3.78	0.01	0.03	0.23	2.01	4.15	49	4	180
NO	air	0.61	1.99	0.24	4.03	-0.40	-0.07	0.16	2.47	39.44	98	0	8640
NO2	air	3.47	2.98	2.40	2.46	0.12	0.52	2.56	9.71	22.44	98	0	8640
NO3-	pm10	0.69	0.60	0.53	2.06	0.05	0.19	0.49	1.90	4.18	49	0	180
PM10 mass	pm10	14.94	13.50	12.41	2.22	-19.89	0.59	13.39	33.87	352.59	98	0	8644
PM25 mass	pm25	8.53	9.09	6.61	2.37	-4.99	0.25	6.91	21.57	253.21	97	0	8544
SO2	air	0.30	0.49	0.17	3.18	-0.21	-0.01	0.15	1.08	7.57	97	0	8557
SO4--	pm10	0.52	0.28	0.46	1.62	0.16	0.22	0.45	1.01	2.28	49	0	180
SO4-- corr	pm10	0.51	0.29	0.44	1.74	0.04	0.18	0.45	1.01	2.28	49	0	180

NL0644R Cabauw Wielsekade
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.12	0.07	0.11	1.63	0.04	0.05	0.11	0.24	0.54	23	0	87
Mg++	pm25	0.03	0.02	0.02	1.87	0.01	0.01	0.02	0.08	0.11	23	29	87
NO	air	1.02	2.63	0.40	3.71	-0.36	-0.02	0.32	4.03	36.82	98	0	8642
NO2	air	3.95	2.81	3.10	2.03	0.31	0.95	3.12	9.78	19.96	98	0	8641
Na+	pm25	0.18	0.14	0.14	1.93	0.04	0.05	0.14	0.51	0.90	23	1	87
PM10 mass	pm10	14.37	12.73	12.18	2.36	-19.89	-3.25	13.39	35.15	289.87	98	0	8600
PM25 mass	pm25	8.09	7.95	6.14	2.73	-4.96	-1.13	6.20	23.22	113.95	95	0	8364
SO2	air	0.24	0.36	0.16	2.79	-0.13	-0.01	0.15	0.84	12.48	98	0	8599

NO0002R Birkenes II
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.04	0.05	0.03	2.54	0.01	0.01	0.03	0.13	0.31	99	116	363
Cl-	aerosol	0.46	0.78	0.14	5.41	0.01	0.01	0.17	2.44	6.50	99	61	364
HNO3	air	0.03	0.05	0.02	2.22	0.01	0.01	0.01	0.09	0.78	99	261	364
HNO3+NO3-	air+aerosol	0.12	0.15	0.07	2.67	0.01	0.02	0.06	0.40	1.43	99	74	364
K+	aerosol	0.04	0.05	0.02	2.60	0.01	0.01	0.03	0.12	0.66	99	114	363
Mg++	aerosol	0.05	0.06	0.02	3.01	0.01	0.01	0.02	0.21	0.39	99	128	364
NH3	air	0.14	0.30	0.08	2.65	0.02	0.02	0.09	0.35	5.28	99	79	364
NH3+NH4+	air+aerosol	0.27	0.38	0.17	2.76	0.03	0.03	0.17	0.74	5.38	99	30	364
NH4+	aerosol	0.13	0.17	0.05	5.06	0.01	0.01	0.08	0.45	1.47	99	95	364
NO2	air	0.25	0.22	0.18	2.45	0.00	0.06	0.20	0.59	1.91	98	8	360
NO3-	aerosol	0.09	0.14	0.05	3.13	0.01	0.01	0.05	0.32	1.40	99	81	364
Na+	aerosol	0.37	0.50	0.17	4.05	0.01	0.01	0.18	1.61	4.19	99	32	364
PM10 mass	pm10	4.07	1.99	3.59	1.69	0.91	1.24	3.96	8.74	9.41	85	0	46
PM10 mass	pm10	4.16	4.61	3.24	2.73	-10.30	-1.10	3.10	12.90	74.00	91	0	8024
PM10-PM25	pm10_pm25	1.72	0.92	1.49	1.81	0.20	0.50	1.64	3.42	5.28	83	0	45
PM25 mass	pm25	2.30	1.41	1.80	2.30	0.06	0.31	2.08	5.34	6.30	95	0	51
SO2	air	0.07	0.25	0.03	3.23	0.01	0.01	0.02	0.22	4.35	99	178	364
SO4--	aerosol	0.19	0.16	0.12	2.83	0.01	0.01	0.15	0.55	0.90	99	20	364
SO4-- corr	aerosol	0.16	0.16	0.09	3.52	-0.02	0.01	0.11	0.48	0.89	99	20	364

NO0015R Tustervatn
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.02	0.04	0.01	2.11	0.01	0.01	0.01	0.06	0.53	99	236	364
Cl-	aerosol	0.26	0.42	0.07	5.78	0.01	0.01	0.09	1.17	2.72	99	133	365
HNO3	air	0.01	0.01	0.01	1.28	0.01	0.01	0.01	0.01	0.09	100	351	366
HNO3+NO3-	air+aerosol	0.03	0.02	0.03	1.59	0.02	0.02	0.07	0.18	0.99	99	245	365
K+	aerosol	0.02	0.02	0.01	2.10	0.01	0.01	0.01	0.06	0.28	99	235	364
Mg++	aerosol	0.02	0.03	0.01	2.42	0.01	0.01	0.01	0.09	0.28	99	222	364
NH3	air	0.35	0.35	0.23	2.67	0.02	0.02	0.24	0.94	2.86	100	23	366
NH3+NH4+	air+aerosol	0.40	0.39	0.28	2.34	0.03	0.06	0.27	1.06	3.23	99	7	364
NH4+	aerosol	0.05	0.09	0.02	4.00	0.01	0.01	0.01	0.19	0.82	99	174	364
NO2	air	0.13	0.16	0.09	2.56	0.00	0.02	0.09	0.34	1.75	100	10	366
NO3-	aerosol	0.02	0.02	0.01	1.89	0.01	0.01	0.01	0.06	0.15	99	246	365
Na+	aerosol	0.18	0.27	0.07	4.46	0.01	0.01	0.07	0.77	2.17	99	97	364
SO2	air	0.03	0.04	0.02	2.33	0.01	0.01	0.01	0.11	0.48	100	259	366
SO4--	aerosol	0.11	0.15	0.06	2.97	0.01	0.01	0.07	0.31	1.55	99	55	365
SO4-- corr	aerosol	0.09	0.14	0.04	3.83	-0.01	0.00	0.05	0.29	1.44	99	55	365

NO0039R Kärvatn
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.03	0.04	0.01	2.61	0.00	0.01	0.01	0.11	0.40	98	213	361
Cl-	aerosol	0.20	0.42	0.05	4.75	0.01	0.01	0.04	1.01	2.88	98	121	361
HNO3	air	0.01	0.01	0.01	1.32	0.00	0.01	0.01	0.02	0.11	98	338	360
HNO3+NO3-	air+aerosol	0.03	0.03	0.03	1.77	0.01	0.01	0.02	0.09	0.28	98	209	360
K+	aerosol	0.02	0.03	0.01	2.24	0.00	0.01	0.01	0.07	0.26	98	196	359
Mg++	aerosol	0.02	0.03	0.01	2.38	0.00	0.01	0.01	0.09	0.25	98	216	361
NH3	air	0.64	0.62	0.41	2.64	0.02	0.08	0.42	1.92	3.65	98	1	359
NH3+NH4+	air+aerosol	0.69	0.64	0.45	2.61	0.03	0.09	0.46	2.06	3.65	98	1	359
NH4+	aerosol	0.05	0.11	0.01	4.56	0.00	0.01	0.01	0.29	1.19	98	190	361
NO2	air	0.14	0.11	0.11	1.91	0.00	0.04	0.11	0.33	0.87	99	1	365
NO3-	aerosol	0.02	0.03	0.01	2.28	0.00	0.01	0.01	0.07	0.27	98	212	361
Na+	aerosol	0.15	0.28	0.05	4.11	0.01	0.01	0.05	0.81	1.96	98	82	361
PM10 mass	pm10	3.28	3.05	2.19	2.73	0.07	0.41	2.63	8.94	17.11	94	0	50
PM10-PM25	pm10_pm25	1.14	1.10	0.76	3.43	-0.12	-0.03	1.04	3.48	5.31	83	0	44
PM25 mass	pm25	2.14	2.43	1.33	2.59	0.24	0.26	1.30	7.21	13.94	91	0	49
SO2	air	0.03	0.05	0.02	2.34	0.00	0.01	0.01	0.10	0.38	98	229	360
SO4--	aerosol	0.10	0.18	0.04	3.71	0.01	0.01	0.04	0.43	2.14	98	96	361
SO4-- corr	aerosol	0.09	0.17	0.03	4.33	-0.00	0.00	0.03	0.39	1.98	98	96	361

NO0042G Zeppelin mountain (Ny-Ålesund)
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
CO	air	128.20	22.09	126.09	1.21	78.67	83.85	132.92	161.07	188.93	96	0	8463
Ca++	aerosol	0.03	0.03	0.02	2.37	0.00	0.01	0.02	0.08	0.20	95	161	349
Cl-	aerosol	0.39	0.54	0.15	5.12	0.01	0.01	0.20	1.58	3.31	95	60	349
HNO3	air	0.01	0.00	0.01	1.17	0.01	0.01	0.01	0.01	0.06	95	345	349
HNO3+NO3-	air+aerosol	0.02	0.01	0.02	1.33	0.01	0.02	0.02	0.04	0.07	95	261	349
K+	aerosol	0.03	0.07	0.01	2.47	0.00	0.01	0.01	0.08	0.82	95	184	349
Mg++	aerosol	0.04	0.04	0.02	2.75	0.00	0.01	0.02	0.12	0.26	95	132	349
NH3	air	0.14	0.09	0.11	2.21	0.01	0.02	0.12	0.32	0.46	94	8	347
NH3+NH4+	air+aerosol	0.17	0.09	0.14	1.87	0.01	0.04	0.15	0.34	0.48	94	5	347
NH4+	aerosol	0.03	0.04	0.01	3.43	0.00	0.01	0.01	0.11	0.24	95	168	349
NO3-	aerosol	0.01	0.01	0.01	1.61	0.00	0.01	0.01	0.03	0.06	95	265	349
Na+	aerosol	0.25	0.32	0.11	4.40	0.01	0.01	0.14	0.96	1.89	95	56	349
SO2	air	0.05	0.16	0.02	3.08	0.00	0.01	0.01	0.24	1.64	95	239	349
SO4--	aerosol	0.09	0.09	0.06	2.83	0.00	0.01	0.07	0.28	0.62	95	44	349
SO4-- corr	aerosol	0.07	0.08	0.04	3.04	-0.05	0.01	0.04	0.24	0.61	95	44	349

NO0056R Hurdal
January 2021 - December 2021

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	0.02	2.22	0.01	0.01	0.02	0.07	0.36	96	173	352
Cl-	aerosol	0.11	0.18	0.04	4.01	0.01	0.01	0.03	0.49	1.26	96	149	353
HNO3	air	0.01	0.01	0.01	1.65	0.01	0.01	0.01	0.04	0.10	96	299	353
HNO3+NO3-	air+aerosol	0.07	0.09	0.05	2.32	0.02	0.02	0.04	0.24	0.92	96	114	352
K+	aerosol	0.03	0.03	0.02	2.38	0.01	0.01	0.02	0.09	0.25	96	133	352
Mg++	aerosol	0.02	0.02	0.01	2.00	0.01	0.01	0.01	0.05	0.12	96	256	352
NH3	air	0.12	0.08	0.10	2.03	0.02	0.02	0.11	0.30	0.59	96	34	353
NH3+NH4+	air+aerosol	0.22	0.17	0.17	2.11	0.03	0.05	0.17	0.51	1.17	95	13	351
NH4+	aerosol	0.09	0.13	0.03	4.65	0.01	0.01	0.04	0.33	1.03	96	113	352
NO2	air	0.40	0.48	0.26	2.58	0.00	0.06	0.25	1.10	5.69	91	1	335
NO3-	aerosol	0.06	0.09	0.03	2.87	0.01	0.01	0.03	0.21	0.91	96	120	353
Na+	aerosol	0.12	0.17	0.05	3.70	0.01	0.01	0.05	0.48	1.02	96	91	352
PM10 mass	pm10	4.04	1.92	3.62	1.58	1.44	1.62	3.48	7.89	10.16	95	0	51
PM10-PM25	pm10_pm25	1.65	1.01	1.42	1.91	-0.04	0.09	1.48	3.81	4.13	88	0	47
PM25 mass	pm25	2.74	1.91	2.31	1.77	0.80	0.92	2.25	7.02	11.42	95	0	51
SO2	air	0.02	0.03	0.02	2.08	0.01	0.01	0.01	0.07	0.22	96	252	353
SO4--	aerosol	0.12	0.12	0.07	2.97	0.01	0.01	0.08	0.37	0.81	96	38	353
SO4-- corr	aerosol	0.11	0.12	0.06	3.29	-0.02	0.01	0.07	0.34	0.80	96	38	353

PL0002R Jarczew
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	aerosol	0.61	0.34	0.52	1.84	0.05	0.20	0.54	1.23	2.44	98	6	362
HNO3+NO3-	air+aerosol	0.55	0.43	0.44	1.98	0.08	0.15	0.41	1.45	2.65	98	0	362
NH3+NH4+	air+aerosol	2.34	1.64	1.96	1.80	0.34	0.71	1.90	5.51	17.06	98	0	362
NH4+	aerosol	0.78	0.55	0.62	1.98	0.07	0.19	0.60	2.03	3.54	98	0	362
NO2	air	2.37	1.16	2.13	1.58	0.20	1.10	2.10	4.70	7.80	98	0	361
NO3-	aerosol	0.46	0.40	0.34	2.13	0.03	0.10	0.32	1.30	2.56	98	0	362
SO2	air	0.74	0.41	0.62	1.88	0.10	0.20	0.70	1.40	2.90	98	10	362
SO4--	aerosol	0.97	0.60	0.79	1.98	0.10	0.22	0.83	2.30	3.23	98	9	362
SO4-- corr	aerosol	0.96	0.59	0.79	1.97	0.10	0.22	0.83	2.26	3.17	98	9	362

PL0003R Sniezka
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	aerosol	0.49	0.23	0.41	2.00	0.05	0.05	0.48	0.88	1.03	100	22	366
HNO3+NO3-	air+aerosol	0.62	0.20	0.59	1.42	0.13	0.31	0.61	1.00	1.41	100	0	366
NH3+NH4+	air+aerosol	0.77	0.31	0.70	1.59	0.06	0.29	0.74	1.30	1.59	100	0	366
NH4+	aerosol	0.50	0.20	0.45	1.71	0.03	0.16	0.50	0.82	1.15	100	3	366
NO2	air	1.20	0.40	1.14	1.38	0.40	0.70	1.10	1.97	3.60	100	0	366
NO3-	aerosol	0.57	0.19	0.54	1.45	0.11	0.29	0.56	0.93	1.18	100	0	366
SO2	air	1.24	0.29	1.21	1.26	0.50	0.83	1.20	1.70	3.10	100	0	366
SO4--	aerosol	0.94	0.31	0.88	1.48	0.10	0.47	0.94	1.41	1.89	100	2	366
SO4-- corr	aerosol	0.94	0.31	0.87	1.52	0.03	0.47	0.93	1.41	1.87	100	2	366

PL0004R Leba
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	aerosol	0.69	0.39	0.59	1.83	0.05	0.21	0.61	1.48	2.27	99	2	363
HNO3+NO3-	air+aerosol	0.44	0.42	0.32	2.18	0.04	0.10	0.30	1.25	3.34	99	0	364
NH3+NH4+	air+aerosol	1.15	0.80	0.91	2.01	0.14	0.28	0.91	2.72	5.15	99	0	363
NH4+	aerosol	0.52	0.46	0.38	2.23	0.07	0.10	0.39	1.35	3.19	99	0	363
NO2	air	1.42	0.94	1.19	1.81	0.20	0.50	1.15	3.20	7.30	98	0	362
NO3-	aerosol	0.32	0.36	0.21	2.42	0.02	0.06	0.21	1.04	2.93	99	0	363
SO2	air	0.59	0.37	0.50	1.82	0.10	0.20	0.50	1.20	2.90	99	9	363
SO4--	aerosol	0.71	0.36	0.62	1.78	0.10	0.21	0.67	1.34	2.34	99	8	363
SO4-- corr	aerosol	0.71	0.36	0.61	1.79	0.05	0.21	0.67	1.34	2.30	99	8	363

PL0005R Diabla Gora
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.03	0.02	0.03	2.13	0.00	0.00	0.03	0.08	0.09	99	0	53
Cl-	pm25	0.05	0.05	0.02	3.89	0.00	0.00	0.03	0.14	0.19	99	0	53
HNO3	air	0.10	0.08	0.08	1.81	0.02	0.03	0.08	0.23	0.72	99	0	363
HNO3+NO3-	air+aerosol	0.53	0.53	0.36	2.36	0.05	0.10	0.32	1.70	3.15	99	0	363
K+	pm25	0.07	0.05	0.05	2.20	0.01	0.01	0.05	0.18	0.21	99	0	53
Mg++	pm25	0.01	0.00	0.01	1.60	0.00	0.00	0.01	0.02	0.02	99	0	53
NH3	air	0.91	0.71	0.63	2.55	0.00	0.12	0.74	2.26	4.33	99	0	365
NH3+NH4+	air+aerosol	1.61	1.01	1.32	1.96	0.00	0.36	1.39	3.46	7.71	99	0	365
NH4+	aerosol	0.71	0.81	0.40	3.20	0.00	0.03	0.38	2.46	4.77	99	0	365
NH4+	pm25	0.57	0.42	0.45	2.05	0.12	0.15	0.45	1.54	1.77	99	0	53
NO	air	0.12	0.20	0.09	2.27	0.00	0.02	0.09	0.30	8.30	99	147	8677
NO2	air	1.18	1.01	0.89	2.12	0.04	0.27	0.86	3.21	10.72	99	17	8677
NO3-	aerosol	0.43	0.50	0.25	2.77	0.02	0.06	0.22	1.49	2.81	99	0	364
NO3-	pm25	0.26	0.26	0.15	3.31	0.02	0.03	0.17	0.82	1.05	99	0	53
NOx	air	4.26	3.49	3.36	1.94	0.51	1.23	3.18	11.14	50.27	99	17	8676
Na+	pm25	0.06	0.04	0.05	1.95	0.01	0.01	0.05	0.15	0.17	99	0	53
PM10 mass	pm10	13.58	8.88	11.38	1.80	2.92	4.27	11.06	33.01	60.84	96	0	352
PM25 mass	pm25	9.64	7.38	7.65	1.95	1.52	2.52	7.54	26.80	49.64	99	0	362
SO2	air	0.28	0.40	0.17	2.45	0.00	0.05	0.15	0.97	7.56	99	0	8701
SO4--	aerosol	0.49	0.40	0.38	2.13	0.06	0.09	0.38	1.28	2.98	99	0	363
SO4--	pm25	0.36	0.15	0.34	1.47	0.19	0.20	0.33	0.65	0.81	99	0	53
SO4-- corr	pm25	0.36	0.15	0.34	1.48	0.18	0.20	0.33	0.65	0.80	99	0	53

PL0009R Zielonka
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.15	0.12	0.11	2.66	0.01	0.01	0.12	0.39	0.60	99	4	53
Cl-	pm25	0.13	0.08	0.11	2.13	0.02	0.02	0.12	0.29	0.34	97	0	52
K+	pm25	0.07	0.05	0.05	2.94	0.00	0.01	0.05	0.20	0.24	99	5	53
Mg++	pm25	0.01	0.01	0.01	1.91	0.00	0.00	0.01	0.02	0.03	99	4	53
NH4+	pm25	0.36	0.37	0.21	3.10	0.02	0.04	0.17	1.17	1.53	99	0	53
NO3-	pm25	0.27	0.21	0.19	2.56	0.04	0.05	0.20	0.69	0.89	99	0	53
Na+	pm25	0.15	0.09	0.12	2.34	0.01	0.02	0.18	0.27	0.32	99	2	53
PM10 mass	pm10	15.90	12.32	12.70	1.92	2.19	4.72	12.04	39.72	95.60	92	0	336
PM25 mass	pm25	8.70	6.80	6.64	2.10	0.78	2.00	6.87	22.95	40.86	99	0	364
SO4--	pm25	0.39	0.18	0.36	1.58	0.09	0.17	0.36	0.82	0.92	99	0	53
SO4-- corr	pm25	0.38	0.18	0.35	1.59	0.09	0.16	0.35	0.82	0.91	99	0	53

RU0018R Danki
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
NH4+	aerosol	0.43	0.44	0.30	2.46	-0.01	0.07	0.30	1.43	3.81	83	0	304
NO3-	aerosol	0.22	0.27	0.13	3.08	0.00	0.01	0.12	0.78	1.99	87	0	319
SO2	air	0.29	0.34	0.20	2.31	0.01	0.06	0.19	0.82	3.70	89	0	328
SO4--	aerosol	0.41	0.46	0.23	3.22	0.00	0.03	0.25	1.47	2.55	85	0	313

RU0020R Lesnoy
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
NH4+	aerosol	0.25	0.20	0.18	2.21	0.03	0.04	0.17	0.75	0.78	90	0	48
NO3-	aerosol	0.14	0.13	0.08	3.14	0.01	0.01	0.08	0.44	0.47	92	0	49
SO2	air	0.17	0.16	0.11	3.08	0.00	0.00	0.10	0.53	0.59	90	0	48
SO4--	aerosol	0.34	0.25	0.25	2.57	0.01	0.02	0.28	0.91	1.09	91	0	48

SE0005R Bredkålen
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	aerosol	0.03	0.04	0.03	1.80	0.02	0.02	0.02	0.10	0.34	99	299	362
Cl-	aerosol	0.13	0.22	0.04	4.26	0.01	0.01	0.03	0.59	1.70	99	0	362
HNO3	air	0.01	0.01	0.01	1.56	0.01	0.01	0.01	0.03	0.07	99	0	362
HNO3+NO3-	air+aerosol	0.03	0.02	0.03	1.65	0.01	0.02	0.03	0.07	0.21	99	0	362
K+	aerosol	0.03	0.02	0.03	1.39	0.02	0.02	0.03	0.05	0.38	99	0	362
Mg++	aerosol	0.02	0.02	0.01	2.21	0.00	0.01	0.01	0.05	0.12	99	0	362
NH3	air	0.06	0.08	0.03	3.19	0.00	0.00	0.04	0.18	1.20	99	0	362
NH3+NH4+	air+aerosol	0.12	0.12	0.08	2.69	0.00	0.01	0.09	0.32	1.24	99	0	362
NH4+	aerosol	0.06	0.07	0.03	3.77	0.00	0.00	0.04	0.20	0.45	99	0	362
NO2	air	0.11	0.08	0.09	1.62	0.06	0.06	0.09	0.26	0.75	99	0	363
NO3-	aerosol	0.02	0.02	0.01	2.22	0.00	0.01	0.01	0.05	0.14	99	0	362
Na+	aerosol	0.10	0.13	0.06	2.68	0.02	0.02	0.06	0.37	0.89	99	0	362
PM10 mass	pm10	3.52	4.01	2.14	2.90	0.00	0.30	2.20	11.10	76.00	96	0	8479
PM25 mass	pm25	1.95	1.87	1.31	2.55	0.00	0.30	1.30	6.00	12.00	96	0	354
PM25 mass	pm25	2.87	3.14	1.79	2.80	0.00	0.30	1.90	8.90	50.80	96	0	8479
SO2	air	0.05	0.06	0.03	2.64	0.01	0.01	0.03	0.17	0.43	99	0	362
SO4--	aerosol	0.11	0.13	0.07	2.96	0.00	0.01	0.07	0.35	0.98	99	0	362
SO4-- corr	aerosol	0.10	0.12	0.06	3.14	0.00	0.01	0.06	0.33	0.95	99	0	362

SE0014R Råö
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	aerosol	0.11	0.09	0.08	2.48	0.02	0.02	0.08	0.28	0.64	98	86	359
Cl-	aerosol	2.04	2.66	0.64	6.12	0.01	0.03	0.77	7.90	15.00	98	0	359
HNO3	air	0.10	0.11	0.07	2.41	0.01	0.02	0.07	0.30	0.88	97	0	357
HNO3+NO3-	air+aerosol	0.36	0.38	0.24	2.50	0.02	0.05	0.23	1.21	3.07	97	0	357
K+	aerosol	0.11	0.08	0.09	1.96	0.02	0.03	0.09	0.25	0.64	98	0	359
Mg++	aerosol	0.17	0.18	0.09	3.65	0.01	0.01	0.10	0.56	1.00	98	0	359
NH3	air	0.29	0.27	0.19	2.75	0.01	0.03	0.21	0.89	1.80	95	0	349
NH3+NH4+	air+aerosol	0.56	0.56	0.38	2.38	0.04	0.10	0.40	1.65	4.40	95	0	349
NH4+	aerosol	0.27	0.40	0.13	3.41	0.01	0.02	0.14	0.98	3.50	98	0	359
NO2	air	0.92	0.58	0.78	1.78	0.21	0.31	0.73	2.10	3.49	100	0	365
NO3-	aerosol	0.27	0.34	0.15	3.14	0.01	0.02	0.16	1.00	3.00	98	0	359
Na+	aerosol	1.31	1.41	0.63	4.07	0.02	0.04	0.77	4.30	7.00	98	0	359
PM10 mass	pm10	11.81	7.95	9.31	2.09	0.40	2.50	10.40	27.22	61.80	98	0	8635
PM25 mass	pm25	5.75	4.57	4.58	1.91	1.70	1.80	3.90	15.00	27.00	16	0	59
PM25 mass	pm25	9.07	6.63	7.01	2.12	0.30	1.90	7.50	22.10	51.40	98	0	8635
SO2	air	0.13	0.12	0.10	2.36	0.01	0.02	0.10	0.39	0.79	97	0	357
SO4--	aerosol	0.35	0.24	0.27	2.31	0.01	0.06	0.32	0.83	1.60	98	0	359
SO4-- corr	aerosol	0.24	0.22	0.16	2.71	-0.09	0.02	0.17	0.73	1.42	98	0	359

SE0020R Hallahus
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
Ca++	aerosol	0.08	0.10	0.05	2.54	0.02	0.02	0.05	0.26	0.88	96	137	351
Cl-	aerosol	0.49	0.82	0.12	6.02	0.01	0.01	0.10	2.34	5.00	96	0	351
HNO3	air	0.10	0.10	0.06	2.68	0.01	0.01	0.07	0.30	0.63	95	0	350
HNO3+NO3-	air+aerosol	0.30	0.32	0.20	2.59	0.01	0.04	0.21	0.91	2.46	95	0	350
K+	aerosol	0.07	0.04	0.06	1.70	0.02	0.02	0.07	0.15	0.29	96	0	351
Mg++	aerosol	0.06	0.06	0.04	2.91	0.00	0.01	0.04	0.19	0.34	96	0	351
NH3	air	0.40	0.44	0.22	3.66	0.00	0.01	0.26	1.30	2.70	95	0	350
NH3+NH4+	air+aerosol	0.64	0.65	0.40	2.88	0.01	0.06	0.44	1.97	4.70	95	0	350
NH4+	aerosol	0.24	0.33	0.12	3.56	0.00	0.01	0.14	0.82	2.60	96	0	351
NO2	air	1.00	0.55	0.87	1.68	0.09	0.37	0.87	2.23	4.08	99	0	363
NO3-	aerosol	0.20	0.28	0.11	3.28	0.00	0.01	0.12	0.75	2.40	96	0	351
Na+	aerosol	0.42	0.49	0.22	3.39	0.02	0.02	0.23	1.50	2.90	96	0	351
SO2	air	0.13	0.15	0.08	2.70	0.01	0.01	0.09	0.38	1.20	96	0	351
SO4--	aerosol	0.25	0.19	0.19	2.44	0.00	0.01	0.22	0.63	1.20	96	0	351
SO4-- corr	aerosol	0.22	0.19	0.16	2.62	-0.10	0.01	0.17	0.59	1.19	96	0	351

SE0022R Norunda Stenen
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.06	0.10	0.04	2.28	0.02	0.02	0.02	0.19	1.20	98	217	358
Cl-	aerosol	0.15	0.28	0.06	3.75	0.01	0.01	0.06	0.56	3.20	98	0	358
HNO3	air	0.06	0.08	0.04	2.56	0.01	0.01	0.04	0.20	0.65	97	0	357
HNO3+NO3-	air+aerosol	0.14	0.18	0.09	2.45	0.01	0.02	0.09	0.39	1.99	97	0	357
K+	aerosol	0.06	0.08	0.04	1.93	0.02	0.02	0.04	0.14	1.20	98	0	358
Mg++	aerosol	0.03	0.03	0.02	2.33	0.00	0.00	0.02	0.08	0.29	98	0	358
NH3	air	0.15	0.16	0.09	3.46	0.00	0.00	0.10	0.47	0.97	96	0	353
NH3+NH4+	air+aerosol	0.29	0.31	0.19	2.56	0.01	0.04	0.21	0.85	3.11	96	0	353
NH4+	aerosol	0.14	0.24	0.07	3.35	0.00	0.01	0.08	0.39	3.10	98	0	358
NO2	air	0.39	0.23	0.34	1.70	0.09	0.13	0.34	0.77	1.83	97	0	357
NO3-	aerosol	0.08	0.14	0.04	3.01	0.00	0.00	0.04	0.30	1.80	98	0	358
Na+	aerosol	0.20	0.23	0.13	2.50	0.02	0.03	0.13	0.54	1.90	98	0	358
PM10 mass	pm10	6.39	5.33	4.81	2.26	-1.10	1.10	5.00	16.50	68.40	99	0	8759
PM25 mass	pm25	4.19	4.58	2.78	2.49	0.10	0.70	2.80	12.80	67.30	99	0	8732
SO2	air	0.08	0.10	0.05	2.91	0.01	0.01	0.05	0.31	0.73	97	0	357
SO4--	aerosol	0.21	0.26	0.13	2.80	0.00	0.01	0.14	0.57	3.10	98	0	358
SO4-- corr	aerosol	0.19	0.25	0.12	3.03	-0.06	0.00	0.13	0.55	3.06	98	0	358

SI0008R Iskrba
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	pm25	0.05	0.08	0.02	2.66	0.01	0.01	0.01	0.19	0.75	96	246	354
Cl-	pm25	0.01	0.01	0.01	1.28	0.01	0.01	0.01	0.01	0.22	96	350	354
K+	pm25	0.11	0.07	0.09	1.94	0.00	0.03	0.08	0.24	0.50	96	1	354
Mg++	pm25	0.01	0.01	0.01	4.22	0.00	0.00	0.01	0.04	0.11	96	142	354
NH4+	pm25	0.35	0.30	0.25	2.40	0.00	0.05	0.27	0.87	2.78	96	1	354
NO2	air	0.45	0.40	0.33	2.15	-0.01	0.11	0.33	1.17	6.19	95	0	8390
NO3-	pm25	0.05	0.08	0.02	4.20	0.00	0.00	0.02	0.22	0.57	96	125	354
Na+	pm25	0.04	0.05	0.02	3.03	0.00	0.00	0.03	0.13	0.30	96	42	354
PM10 mass	pm10	9.26	6.48	7.51	1.96	0.60	2.20	7.75	20.36	56.30	99	0	362
PM25 mass	pm25	7.04	4.06	5.92	1.87	0.50	1.90	6.35	14.25	28.00	96	0	354
SO2	air	0.42	0.49	0.34	2.16	-0.77	0.01	0.34	0.92	13.22	95	0	8387
SO4--	pm25	0.38	0.33	0.29	2.13	0.05	0.08	0.30	0.94	3.29	96	2	354
SO4-- corr	pm25	0.38	0.33	0.28	2.14	0.04	0.08	0.30	0.94	3.29	96	2	354

SK0002R Chopok
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Cl-	aerosol	0.07	0.05	0.04	3.44	0.00	0.00	0.06	0.15	0.49	99	21	364
HNO3	air	0.04	0.04	0.03	2.10	0.01	0.01	0.03	0.11	0.37	99	0	364
HNO3+NO3-	air+aerosol	0.13	0.11	0.09	2.33	0.01	0.02	0.09	0.33	0.87	99	0	363
NO2	air	0.98	0.44	0.91	1.51	0.01	0.51	0.92	1.50	4.42	83	1	307
NO3-	aerosol	0.09	0.09	0.06	2.68	0.00	0.01	0.06	0.27	0.51	99	3	364
SO2	air	0.21	0.22	0.15	2.21	0.02	0.04	0.14	0.65	1.59	99	0	364
SO4--	aerosol	0.12	0.13	0.07	3.31	0.00	0.01	0.07	0.37	0.83	99	6	364
SO4-- corr	aerosol	0.12	0.13	0.07	3.21	-0.08	-0.01	0.07	0.37	0.83	99	6	364

SK0004R Stará Lesná
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
PM10 mass	pm10	9.14	5.09	7.88	1.75	2.08	2.44	8.70	18.13	31.30	72	0	77

SK0006R Starina
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
Ca++	aerosol	0.14	0.14	0.10	2.35	0.02	0.02	0.10	0.43	1.05	96	36	355
Cl-	aerosol	0.12	0.11	0.09	2.60	0.00	0.02	0.10	0.28	0.89	93	5	343
HNO3	air	0.05	0.05	0.04	2.00	0.00	0.01	0.03	0.12	0.50	93	0	341
HNO3+NO3-	air+aerosol	0.23	0.25	0.17	2.14	0.01	0.06	0.16	0.69	2.23	93	0	342
K+	aerosol	0.17	0.12	0.14	1.99	0.01	0.05	0.15	0.40	1.23	96	4	355
Mg++	aerosol	0.03	0.02	0.03	2.05	0.01	0.01	0.03	0.08	0.13	96	56	355
NH3	air	1.22	1.00	0.91	2.26	0.06	0.19	1.00	2.90	7.78	95	0	350
NH3+NH4+	air+aerosol	2.00	1.08	1.72	1.77	0.27	0.57	1.82	3.89	8.25	95	0	349
NH4+	aerosol	0.78	0.62	0.61	2.02	0.11	0.16	0.63	2.06	5.37	96	0	355
NO2	air	1.55	0.66	1.45	1.44	0.49	0.77	1.41	2.80	5.69	98	0	361
NO3-	aerosol	0.18	0.20	0.12	2.43	0.00	0.03	0.12	0.53	1.81	93	3	344
Na+	aerosol	0.20	0.14	0.16	1.89	0.01	0.06	0.16	0.48	0.94	96	1	355
PM10 mass	pm10	10.82	4.20	9.72	1.63	1.00	4.95	10.04	18.42	19.48	97	1	54
SO2	air	0.27	0.39	0.17	2.51	0.00	0.04	0.17	0.87	4.62	93	0	343
SO4--	aerosol	0.32	0.26	0.22	2.87	0.00	0.03	0.26	0.84	1.92	93	5	344
SO4-- corr	aerosol	0.31	0.26	0.21	2.77	-0.03	0.02	0.25	0.82	1.90	93	5	344

SK0007R Topolniky
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% anal	Num bel	Num sampl
PM10 mass	pm10	16.54	8.34	13.86	1.63	4.38	6.35	13.84	33.88	46.23	71	0	72

Annex 4

Annual statistics on carbonaceous compounds

CY0002R Agia Marina Xyliatou / Cyprus Atmospheric Observatory
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.22	0.16	0.19	1.79	0.04	0.08	0.16	0.60	0.90	85	0	312
OC	pm10	1.47	0.92	1.30	1.58	0.74	0.74	1.26	3.12	8.07	85	0	312
TC	pm10	1.68	1.04	1.48	1.62	0.74	0.74	1.43	3.77	8.74	85	0	312

CH0002R Payerne
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.31	0.15	0.28	1.56	0.12	0.14	0.28	0.61	0.84	24	0	90
OC	pm25	1.55	0.94	1.29	1.87	0.21	0.42	1.27	3.53	5.14	24	0	90
TC	pm25	1.85	1.05	1.59	1.77	0.38	0.55	1.67	4.03	5.56	24	0	90

CH0005R Rigi
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.20	0.09	0.19	1.47	0.10	0.10	0.17	0.42	0.46	7	0	28
OC	pm25	1.19	0.75	0.90	2.40	0.08	0.14	1.14	2.57	2.62	7	0	28
TC	pm25	1.39	0.80	1.13	2.03	0.21	0.26	1.36	2.83	2.85	7	0	28

CZ0003R Kosetice (NAOK)
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.28	0.23	0.22	2.05	0.05	0.05	0.21	0.78	1.28	47	13	175
EC	pm25	0.45	0.38	0.28	4.35	0.00	0.00	0.34	1.22	2.77	59	141	1418
OC	pm25	2.21	1.72	1.83	1.79	0.62	0.76	1.78	5.09	11.37	47	0	175
OC	pm25	5.06	3.25	4.19	1.94	0.12	1.12	4.71	9.81	40.13	59	0	1419
OC,Artifact=neg	pm25	0.40	0.32	0.30	2.19	0.04	0.08	0.30	1.00	1.96	47	0	175
OC,Artifact=pos	pm25	0.09	0.07	0.07	1.79	0.03	0.03	0.07	0.20	0.46	47	0	175
OC,Fraction=OC1	pm25	0.19	0.16	0.15	1.96	0.03	0.05	0.14	0.53	1.05	47	0	175
OC,Fraction=OC1	pm25	1.14	0.91	0.59	4.62	-0.15	0.02	1.24	2.59	4.20	59	269	1423
OC,Fraction=OC2	pm25	0.58	0.42	0.48	1.76	0.16	0.21	0.45	1.25	2.80	47	0	175
OC,Fraction=OC2	pm25	1.09	0.60	0.92	1.93	0.03	0.24	1.08	2.01	5.80	59	13	1423
OC,Fraction=OC3	pm25	0.51	0.35	0.44	1.75	0.15	0.19	0.41	1.03	2.26	47	0	175
OC,Fraction=OC3	pm25	0.86	0.66	0.74	1.71	-0.01	0.31	0.74	1.68	10.90	59	4	1423
OC,Fraction=OC4	pm25	0.33	0.14	0.30	1.49	0.12	0.16	0.30	0.55	1.03	47	0	175
OC,Fraction=OC4	pm25	1.45	1.10	1.19	1.92	-1.90	0.40	1.20	3.22	14.02	59	11	1423
OC,Fraction=OCPyr	pm25	0.50	0.60	0.34	2.69	-3.15	0.03	0.35	1.47	7.71	59	199	1423
OC,Fraction=OCPyr	pm25	0.61	0.74	0.38	2.57	0.03	0.08	0.40	2.01	4.79	47	0	175
TC	pm25	2.50	1.91	2.08	1.78	0.74	0.87	2.00	5.87	12.52	47	0	175
TC	pm25	5.51	3.46	4.63	1.87	0.26	1.35	5.07	10.73	42.04	59	0	1419

DE0002R Waldhof
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.18	0.10	0.16	1.60	0.07	0.08	0.16	0.42	0.48	16	0	62
OC	pm25	1.50	0.85	1.30	1.73	0.40	0.51	1.32	3.23	4.75	16	0	62
TC	pm25	1.69	0.90	1.48	1.67	0.48	0.62	1.44	3.38	5.18	16	0	62

DE0003R Schauinsland
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.10	0.05	0.08	1.77	0.01	0.04	0.10	0.19	0.21	16	7	62
OC	pm25	1.01	0.77	0.76	2.23	0.09	0.17	0.79	2.94	4.00	16	1	62
TC	pm25	1.11	0.81	0.85	2.16	0.10	0.20	0.89	3.13	4.19	16	0	62

DE0007R Neuglobsow
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.21	0.18	0.17	1.91	0.05	0.07	0.16	0.56	1.19	19	0	71
OC	pm25	1.77	1.50	1.39	1.95	0.35	0.52	1.30	4.59	9.50	19	0	71
TC	pm25	1.98	1.66	1.57	1.92	0.42	0.61	1.47	5.12	10.68	19	0	71

DE0008R Schmücke
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.15	0.08	0.13	1.61	0.05	0.06	0.12	0.33	0.52	19	0	72
OC	pm25	1.04	0.77	0.82	1.97	0.24	0.28	0.78	2.68	3.74	19	0	72
TC	pm25	1.19	0.83	0.97	1.86	0.33	0.39	0.87	2.88	4.26	19	0	72

DE0009R Zingst
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.14	0.10	0.11	1.88	0.03	0.04	0.11	0.31	0.55	16	4	61
OC	pm25	1.21	0.85	0.98	1.94	0.28	0.30	0.99	3.38	3.99	16	0	61
TC	pm25	1.35	0.93	1.10	1.92	0.31	0.36	1.09	3.73	4.55	16	0	61

DE0044R Melpitz
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.39	0.27	0.32	1.87	0.04	0.13	0.31	0.99	1.65	100	1	365
EC	pm25	0.33	0.24	0.26	1.97	0.05	0.09	0.25	0.83	1.51	98	0	361
OC	pm10	3.49	1.90	3.03	1.72	0.80	1.24	3.06	6.99	12.31	100	0	365
OC	pm25	2.83	1.62	2.44	1.72	0.65	1.06	2.31	6.37	8.96	98	0	361
OC, Fraction=OC1	pm10	0.46	0.23	0.41	1.60	0.13	0.20	0.40	0.96	1.52	100	0	365
OC, Fraction=OC1	pm25	0.42	0.23	0.37	1.61	0.12	0.18	0.36	0.92	1.48	98	0	361
OC, Fraction=OC2	pm10	0.61	0.31	0.54	1.66	0.16	0.24	0.54	1.22	1.80	100	0	365
OC, Fraction=OC2	pm25	0.52	0.28	0.46	1.65	0.14	0.20	0.46	1.07	1.75	98	0	361
OC, Fraction=OC3	pm10	0.69	0.38	0.59	1.72	0.17	0.24	0.60	1.50	1.94	100	0	365
OC, Fraction=OC3	pm25	0.49	0.30	0.42	1.71	0.12	0.19	0.40	1.09	2.02	98	0	361
OC, Fraction=OC4	pm10	0.36	0.11	0.34	1.36	0.14	0.20	0.35	0.56	0.69	100	0	365
OC, Fraction=OC4	pm25	0.31	0.12	0.29	1.44	0.13	0.16	0.28	0.57	0.93	98	0	361
OC, Fraction=OC4Pyr	pm10	1.36	1.05	1.05	2.11	0.13	0.31	1.09	3.39	8.07	100	0	365
OC, Fraction=OC4Pyr	pm25	1.09	0.85	0.83	2.16	0.04	0.22	0.80	2.88	5.45	98	0	361
TC	pm10	3.88	2.05	3.39	1.69	0.92	1.47	3.41	7.82	13.75	100	0	365
TC	pm25	3.16	1.78	2.74	1.70	0.73	1.18	2.64	6.92	10.12	98	0	361

ES0001R San Pablo de los Montes
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.16	0.12	0.13	2.09	0.00	0.01	0.16	0.26	0.85	16	0	62
OC	pm25	2.20	1.41	1.79	1.98	0.35	0.47	1.84	4.67	7.59	16	0	62
TC	pm25	2.36	1.48	1.93	1.96	0.38	0.49	2.02	4.88	8.44	16	0	62

ES0007R Viznar
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.28	0.13	0.26	1.59	0.00	0.09	0.27	0.52	0.89	16	0	62
OC	pm25	3.12	2.04	2.68	1.76	0.44	0.95	2.77	5.62	15.47	16	0	62
TC	pm25	3.40	2.14	2.95	1.74	0.44	1.04	3.06	6.02	16.36	16	0	62

ES0008R Niembro
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.14	0.09	0.12	1.94	0.00	0.03	0.13	0.38	0.42	16	0	62
OC	pm25	1.61	0.83	1.45	1.56	0.53	0.78	1.31	3.44	4.69	16	0	62
TC	pm25	1.75	0.89	1.58	1.55	0.64	0.87	1.42	3.59	5.09	16	0	62

ES0012R Zarra
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.15	0.07	0.14	1.63	0.00	0.03	0.14	0.28	0.39	17	0	63
OC	pm25	1.73	0.95	1.44	1.92	0.19	0.36	1.61	3.39	4.95	17	0	63
TC	pm25	1.88	1.01	1.58	1.89	0.21	0.44	1.76	3.64	5.34	17	0	63

ES0014R Els Torms
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.18	0.10	0.16	1.68	0.00	0.07	0.15	0.40	0.51	16	0	61
OC	pm25	2.26	1.22	1.90	1.94	0.26	0.28	2.08	4.99	5.99	16	0	61
TC	pm25	2.44	1.30	2.08	1.87	0.30	0.44	2.30	5.39	6.34	16	0	61

ES0022R Montsec
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.12	0.05	0.11	1.57	0.03	0.05	0.12	0.22	0.35	21	1	77
OC	pm10	1.59	0.79	1.37	1.83	0.24	0.35	1.51	3.11	3.54	21	0	77
OC,Fraction=OC1	pm10	0.20	0.12	0.17	1.84	0.02	0.06	0.17	0.46	0.60	21	1	77
OC,Fraction=OC2	pm10	0.31	0.16	0.27	1.71	0.08	0.10	0.28	0.65	0.89	21	0	77
OC,Fraction=OC3	pm10	0.48	0.23	0.41	1.84	0.07	0.11	0.47	0.88	1.17	21	0	77
OC,Fraction=OC4	pm10	0.48	0.28	0.39	2.13	0.04	0.07	0.46	1.07	1.30	21	1	77
OC,Fraction=OCPyr	pm10	0.11	0.09	0.09	2.92	-0.06	-0.01	0.10	0.29	0.35	21	19	77
TC	pm10	1.71	0.82	1.49	1.78	0.32	0.42	1.66	3.21	3.74	21	0	77

ES1778R Montseny
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm1	0.10	0.06	0.09	1.71	0.02	0.03	0.09	0.24	0.33	19	8	72
EC	pm10	0.13	0.06	0.11	1.71	0.01	0.04	0.12	0.25	0.34	29	5	106
EC	pm25	0.12	0.06	0.10	1.74	0.01	0.04	0.10	0.23	0.31	26	3	97
OC	pm1	1.57	0.79	1.39	1.71	0.21	0.58	1.40	3.19	3.91	19	0	72
OC	pm10	1.63	0.68	1.46	1.69	0.19	0.51	1.66	2.68	3.56	29	0	106
OC	pm25	1.63	0.80	1.40	1.86	0.17	0.31	1.52	3.22	3.99	26	0	97
OC,Fraction=OC1	pm1	0.33	0.20	0.28	1.80	0.07	0.11	0.26	0.76	0.81	19	0	72
OC,Fraction=OC1	pm10	0.23	0.12	0.20	1.67	0.04	0.09	0.20	0.53	0.64	29	0	106
OC,Fraction=OC1	pm25	0.28	0.17	0.23	1.85	0.04	0.08	0.23	0.66	0.77	26	0	97
OC,Fraction=OC2	pm1	0.37	0.23	0.31	1.82	0.05	0.10	0.32	0.88	1.23	19	0	72
OC,Fraction=OC2	pm10	0.31	0.14	0.28	1.71	0.04	0.10	0.32	0.54	0.71	29	0	106
OC,Fraction=OC2	pm25	0.37	0.21	0.30	1.93	0.04	0.07	0.33	0.78	1.32	26	0	97
OC,Fraction=OC3	pm1	0.28	0.18	0.24	1.82	-0.00	0.07	0.23	0.71	0.83	19	2	72
OC,Fraction=OC3	pm10	0.44	0.20	0.39	1.79	0.04	0.13	0.43	0.79	0.98	29	1	106
OC,Fraction=OC3	pm25	0.34	0.20	0.28	2.21	-0.01	0.04	0.32	0.71	1.16	26	4	97
OC,Fraction=OC4	pm1	0.28	0.14	0.24	1.77	0.02	0.09	0.24	0.56	0.70	19	1	72
OC,Fraction=OC4	pm10	0.46	0.21	0.40	1.79	0.04	0.14	0.46	0.82	1.27	29	2	106
OC,Fraction=OC4	pm25	0.34	0.17	0.29	2.06	0.01	0.07	0.33	0.69	0.94	26	2	97
OC,Fraction=OC5	pm1	0.00	0.00	0.00	1.49	0.00	0.00	0.00	0.00	0.01	19	72	72
OC,Fraction=OC5	pm10	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00	0.01	29	106	106
OC,Fraction=OC5	pm25	0.00	0.00	0.00	1.35	0.00	0.00	0.00	0.00	0.00	26	97	97
OC,Fraction=OCPyr	pm1	0.31	0.14	0.27	1.80	0.04	0.08	0.30	0.57	0.66	19	0	72
OC,Fraction=OCPyr	pm10	0.19	0.12	0.15	2.26	0.01	0.03	0.16	0.44	0.59	29	6	106
OC,Fraction=OCPyr	pm25	0.30	0.16	0.25	2.04	0.02	0.06	0.28	0.54	0.92	26	2	97
TC	pm1	1.68	0.80	1.49	1.67	0.23	0.65	1.49	3.33	4.08	19	0	72
TC	pm10	1.76	0.72	1.59	1.67	0.22	0.56	1.78	2.91	3.84	29	0	106
TC	pm25	1.74	0.82	1.51	1.82	0.18	0.35	1.67	3.50	4.20	26	0	97

FR0008R Donon
January 2021 - December 2021

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	1.88	0.02	0.02	0.09	0.28	0.37	16	3	60
OC	pm25	1.58	0.88	1.35	1.77	0.36	0.55	1.36	3.45	4.01	16	0	60
OC,Fraction=OC1	pm25	0.30	0.17	0.25	1.88	0.06	0.07	0.28	0.72	0.73	16	0	60
OC,Fraction=OC2	pm25	0.36	0.23	0.30	1.84	0.08	0.12	0.28	0.82	1.09	16	0	60
OC,Fraction=OC3	pm25	0.31	0.19	0.26	1.76	0.10	0.11	0.26	0.68	0.92	16	0	60
OC,Fraction=OC4	pm25	0.43	0.24	0.37	1.75	0.09	0.14	0.35	0.83	1.38	16	0	60
OC,Fraction=OCPyr	pm25	0.18	0.15	0.13	2.48	0.01	0.02	0.14	0.51	0.63	16	3	60
TC	pm25	1.70	0.92	1.46	1.75	0.39	0.59	1.49	3.60	4.18	16	0	60

FR0009R Revin
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.15	0.07	0.14	1.57	0.05	0.06	0.14	0.29	0.40	15	0	56
OC	pm25	1.45	0.69	1.31	1.58	0.46	0.57	1.32	2.89	4.15	15	0	56
OC,Fraction=OC1	pm25	0.29	0.15	0.26	1.69	0.09	0.10	0.28	0.65	0.78	15	0	56
OC,Fraction=OC2	pm25	0.32	0.18	0.28	1.64	0.09	0.12	0.28	0.67	1.10	15	0	56
OC,Fraction=OC3	pm25	0.28	0.13	0.26	1.58	0.11	0.12	0.25	0.57	0.57	15	0	56
OC,Fraction=OC4	pm25	0.38	0.19	0.34	1.61	0.12	0.14	0.34	0.75	1.05	15	0	56
OC,Fraction=OCPyr	pm25	0.18	0.16	0.12	2.84	0.01	0.01	0.14	0.41	0.95	15	6	56
TC	pm25	1.61	0.73	1.46	1.55	0.51	0.66	1.43	3.17	4.30	15	0	56

FR0013R Peyrusse Vieille
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.15	0.11	0.11	2.19	0.02	0.02	0.11	0.40	0.59	15	6	59
OC	pm25	1.84	1.34	1.45	2.00	0.35	0.40	1.54	5.36	7.30	15	0	59
OC,Fraction=OC1	pm25	0.31	0.22	0.24	2.10	0.04	0.06	0.25	0.84	1.00	15	0	59
OC,Fraction=OC2	pm25	0.54	0.61	0.39	2.16	0.10	0.11	0.37	1.78	4.07	15	0	59
OC,Fraction=OC3	pm25	0.38	0.25	0.32	1.80	0.10	0.11	0.30	0.94	1.34	15	0	59
OC,Fraction=OC4	pm25	0.41	0.25	0.33	1.93	0.07	0.10	0.34	0.94	1.12	15	0	59
OC,Fraction=OCPyr	pm25	0.21	0.17	0.13	3.20	0.01	0.02	0.19	0.51	0.76	15	7	59
TC	pm25	1.99	1.43	1.58	1.99	0.38	0.44	1.68	5.95	7.62	15	0	59

FR0019R Pic du Midi
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	aerosol	0.06	0.03	0.06	1.58	0.00	0.02	0.06	0.12	0.13	72	1	39
OC	aerosol	1.04	0.52	0.90	1.75	0.28	0.31	0.95	2.05	2.15	72	0	39
OC,Fraction=OC1	aerosol	0.38	0.25	0.32	1.82	0.09	0.12	0.35	0.68	1.52	72	0	39
OC,Fraction=OC2	aerosol	0.17	0.09	0.15	1.89	0.03	0.03	0.18	0.33	0.38	72	0	39
OC,Fraction=OC3	aerosol	0.16	0.09	0.13	1.89	0.03	0.04	0.14	0.35	0.37	72	0	39
OC,Fraction=OC4	aerosol	0.15	0.12	0.13	1.81	0.04	0.04	0.12	0.37	0.75	72	0	39
OC,Fraction=OCPyr	aerosol	0.18	0.16	0.08	5.22	0.00	0.00	0.15	0.53	0.58	72	0	39
TC	aerosol	1.10	0.54	0.96	1.72	0.32	0.34	1.00	2.15	2.20	72	0	39

FR0022R Observatoire Perenne de l'Environnement
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm10	0.18	0.12	0.15	1.93	0.02	0.04	0.17	0.56	0.62	16	0	59
EC	pm25	0.14	0.11	0.12	1.80	0.03	0.05	0.11	0.29	0.77	16	0	61
OC	pm10	1.96	1.02	1.75	1.66	0.51	0.66	1.71	4.44	5.88	16	0	59
OC	pm25	1.27	0.70	1.09	1.75	0.30	0.44	1.12	2.69	3.49	15	1	59
OC,Fraction=OC1	pm10	0.30	0.13	0.28	1.46	0.10	0.15	0.29	0.58	0.94	16	0	59
OC,Fraction=OC1	pm25	0.23	0.10	0.21	1.53	0.09	0.11	0.20	0.41	0.56	16	0	61
OC,Fraction=OC2	pm10	0.37	0.21	0.33	1.64	0.12	0.14	0.31	0.90	1.17	16	0	59
OC,Fraction=OC2	pm25	0.28	0.14	0.25	1.66	0.08	0.11	0.25	0.57	0.72	16	0	61
OC,Fraction=OC3	pm10	0.56	0.31	0.50	1.63	0.16	0.25	0.49	1.18	1.67	16	0	59
OC,Fraction=OC3	pm25	0.34	0.18	0.30	1.64	0.11	0.14	0.29	0.86	0.93	16	0	61
OC,Fraction=OC4	pm10	0.61	0.26	0.55	1.62	0.13	0.22	0.60	1.15	1.23	16	0	59
OC,Fraction=OC4	pm25	0.41	0.25	0.35	1.82	0.09	0.13	0.35	0.99	1.15	16	0	61
OC,Fraction=OCPyr	pm10	0.31	0.29	0.19	3.12	0.00	0.02	0.24	0.99	1.40	13	0	51
OC,Fraction=OCPyr	pm25	0.19	0.20	0.12	3.34	0.00	0.00	0.15	0.53	1.23	14	0	53
TC	pm10	2.14	1.12	1.91	1.66	0.55	0.71	1.92	5.02	6.21	16	0	59
TC	pm25	1.42	0.74	1.23	1.72	0.33	0.50	1.27	2.79	3.69	15	1	59

FR0023R Saint-Nazaire-le-Désert
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.16	0.10	0.14	1.73	0.05	0.06	0.13	0.31	0.62	16	0	60
OC	pm25	1.93	0.78	1.77	1.52	0.82	0.89	1.78	3.39	3.52	16	0	60
OC,Fraction=OC1	pm25	0.38	0.15	0.35	1.50	0.13	0.17	0.34	0.70	0.82	16	0	60
OC,Fraction=OC2	pm25	0.46	0.22	0.41	1.59	0.16	0.20	0.41	0.96	0.99	16	0	60
OC,Fraction=OC3	pm25	0.40	0.15	0.37	1.47	0.17	0.18	0.39	0.73	0.83	16	0	60
OC,Fraction=OC4	pm25	0.44	0.20	0.40	1.58	0.16	0.20	0.37	0.80	0.84	16	0	60
OC,Fraction=OCPyr	pm25	0.26	0.15	0.21	1.98	0.02	0.05	0.23	0.54	0.71	16	0	60
TC	pm25	2.09	0.84	1.92	1.52	0.88	0.97	1.95	3.62	3.71	16	0	60

FR0025R Verneuil
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.19	0.13	0.15	2.04	0.02	0.05	0.15	0.46	0.58	15	1	58
OC	pm25	1.94	1.28	1.64	1.77	0.55	0.62	1.65	4.33	7.69	15	0	58
OC,Fraction=OC1	pm25	0.31	0.20	0.27	1.73	0.09	0.12	0.25	0.70	1.29	15	0	58
OC,Fraction=OC2	pm25	0.46	0.35	0.39	1.79	0.12	0.15	0.35	1.07	2.42	15	0	58
OC,Fraction=OC3	pm25	0.41	0.23	0.36	1.67	0.14	0.17	0.36	0.96	1.22	15	0	58
OC,Fraction=OC4	pm25	0.50	0.37	0.40	1.93	0.11	0.15	0.38	1.24	1.84	15	0	58
OC,Fraction=OCPyr	pm25	0.25	0.21	0.18	2.59	0.02	0.02	0.22	0.81	1.09	15	3	58
TC	pm25	2.14	1.39	1.81	1.78	0.60	0.69	1.86	4.67	8.27	15	0	58

FR0028R Kergoff
January 2021 - December 2021

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	1.66	0.05	0.06	0.16	0.34	0.63	16	0	60
OC	pm25	1.03	0.68	0.86	1.83	0.22	0.30	0.84	2.84	3.46	16	0	60
OC,Fraction=OC1	pm25	0.17	0.10	0.14	1.81	0.03	0.04	0.14	0.40	0.47	16	0	60
OC,Fraction=OC2	pm25	0.25	0.16	0.21	1.80	0.06	0.08	0.20	0.66	0.75	16	0	60
OC,Fraction=OC3	pm25	0.21	0.13	0.18	1.72	0.06	0.08	0.17	0.47	0.70	16	0	60
OC,Fraction=OC4	pm25	0.30	0.22	0.24	1.93	0.06	0.08	0.23	0.83	1.14	16	0	60
OC,Fraction=OCPyr	pm25	0.11	0.12	0.06	3.46	0.01	0.01	0.08	0.36	0.51	16	20	60
TC	pm25	1.21	0.77	1.02	1.77	0.32	0.37	0.95	3.16	3.89	16	0	60

FR0030R Puy de Dôme
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	aerosol	0.06	0.07	0.07	2.97	0.00	0.00	0.04	0.23	0.32	26	110	195
OC	aerosol	1.68	1.11	1.41	1.80	0.43	0.58	1.34	3.81	7.60	26	4	193
OC,Fraction=OC1	aerosol	0.44	0.31	0.34	2.11	0.02	0.11	0.33	1.19	1.28	26	2	195
OC,Fraction=OC2	aerosol	0.49	0.46	0.31	2.71	0.05	0.06	0.34	1.44	2.22	26	72	193
OC,Fraction=OC3	aerosol	0.23	0.26	0.16	2.48	0.01	0.03	0.16	0.66	2.07	25	53	189
OC,Fraction=OC4	aerosol	0.21	0.20	0.14	2.62	0.01	0.03	0.14	0.68	0.92	26	56	191
OC,Fraction=OCPyr	aerosol	0.32	0.27	0.25	1.94	0.05	0.09	0.23	1.00	1.41	26	6	195
TC	aerosol	1.74	1.14	1.45	1.81	0.43	0.58	1.37	3.84	7.60	26	4	193

IT0004R Ispra
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm25	0.70	0.66	0.47	2.55	0.00	0.10	0.41	2.03	3.27	93	6	344
OC	pm25	3.64	3.34	2.53	2.50	-0.03	0.57	2.57	11.34	18.91	95	15	348
OC,Artifact=neg	pm25	0.19	0.18	0.13	2.49	-0.01	0.02	0.13	0.60	1.01	98	0	362
OC,Artifact=pos	pm25	0.16	0.16	0.11	2.51	-0.01	0.02	0.12	0.53	0.89	98	0	362
OC,Fraction=OC1	pm25	0.58	0.69	0.39	2.66	-0.17	-0.03	0.35	2.12	4.02	95	27	348
OC,Fraction=OC2	pm25	0.64	0.51	0.48	2.21	0.02	0.12	0.50	1.79	3.04	95	64	348
OC,Fraction=OC3	pm25	0.78	0.70	0.56	2.30	0.04	0.13	0.51	2.38	3.88	95	205	348
OC,Fraction=OC4	pm25	1.09	1.11	0.74	2.44	0.05	0.19	0.68	3.87	6.60	95	5	348
OC,Fraction=OCPyr	pm25	0.55	0.48	0.36	2.94	-0.03	0.03	0.48	1.41	3.21	95	52	348
TC	pm25	4.33	3.96	3.02	2.48	-0.03	0.70	2.96	13.33	21.70	95	11	348

IT0019R Monte Martano
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.11	0.06	0.09	1.94	0.00	0.02	0.11	0.21	0.49	50	38	183
OC	pm10	1.94	1.10	1.75	1.56	0.58	0.83	1.76	3.26	11.54	50	0	183
OC,Fraction=OC1	pm10	0.35	0.15	0.33	1.47	0.00	0.17	0.34	0.55	1.17	50	0	183
OC,Fraction=OC2	pm10	0.47	0.31	0.42	1.59	0.15	0.20	0.41	0.81	3.50	50	0	183
OC,Fraction=OC3	pm10	0.33	0.25	0.28	1.65	0.09	0.13	0.27	0.59	2.97	50	0	183
OC,Fraction=OC4	pm10	0.37	0.37	0.32	1.58	0.10	0.17	0.32	0.68	4.93	50	0	183
OC,Fraction=OCPyr	pm10	0.42	0.29	0.34	2.12	-0.10	0.07	0.36	0.95	2.29	50	0	183
TC	pm10	2.05	1.14	1.86	1.53	0.64	0.95	1.85	3.39	12.03	50	0	183

NL0644R Cabauw Wielsekade
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.41	0.28	0.35	1.74	0.10	0.14	0.35	0.93	1.85	24	0	91
OC	pm10	2.13	0.96	1.94	1.52	0.84	0.97	1.99	4.33	5.49	24	0	91
OC,Fraction=OC1	pm10	0.51	0.16	0.49	1.36	0.24	0.29	0.50	0.79	1.27	24	0	91
OC,Fraction=OC2	pm10	0.39	0.18	0.35	1.55	0.13	0.19	0.36	0.74	1.04	24	0	91
OC,Fraction=OC3	pm10	0.38	0.20	0.33	1.62	0.11	0.14	0.31	0.77	1.22	24	0	91
OC,Fraction=OC4	pm10	0.26	0.09	0.25	1.44	0.09	0.13	0.26	0.43	0.58	24	0	91
OC,Fraction=OCPyr	pm10	0.59	0.42	0.45	2.12	0.06	0.13	0.51	1.49	2.15	24	0	91
TC	pm10	2.53	1.17	2.31	1.53	0.94	1.14	2.26	4.98	7.34	24	0	91

NO0002R Birkenes II
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.06	0.03	0.05	1.58	0.01	0.02	0.05	0.12	0.15	91	0	49
EC	pm25	0.05	0.02	0.05	1.57	0.01	0.02	0.04	0.11	0.13	99	0	53
OC	pm10	0.77	0.50	0.63	1.84	0.20	0.25	0.56	1.70	2.67	91	0	49
OC	pm10_pm25	0.19	0.16	0.12	3.55	-0.02	-0.01	0.17	0.45	0.77	86	0	46
OC	pm25	0.58	0.36	0.50	1.73	0.21	0.24	0.49	1.25	1.91	99	0	53
TC	pm10	0.83	0.51	0.69	1.78	0.25	0.30	0.64	1.75	2.81	91	0	49
TC	pm10_pm25	0.19	0.17	0.12	3.71	-0.02	-0.01	0.18	0.44	0.78	86	0	46
TC	pm25	0.64	0.37	0.55	1.69	0.23	0.27	0.52	1.30	2.03	99	0	53

NO0039R Kärvatn
 January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	%	Num bel	Num sampl
EC	pm10	0.04	0.03	0.04	1.87	0.01	0.01	0.04	0.10	0.13	89	0	48
EC	pm25	0.04	0.03	0.04	1.89	0.01	0.01	0.04	0.11	0.17	96	0	51
OC	pm10	0.78	0.58	0.56	2.31	0.13	0.15	0.52	1.89	2.13	89	0	48
OC	pm10_pm25	0.27	0.34	0.12	5.33	-0.01	-0.00	0.10	1.16	1.48	88	1	47
OC	pm25	0.53	0.43	0.39	2.18	0.10	0.12	0.40	1.47	2.02	94	0	50
TC	pm10	0.82	0.58	0.61	2.22	0.14	0.16	0.57	1.93	2.21	89	0	48
TC	pm10_pm25	0.27	0.35	0.12	4.84	-0.01	-0.01	0.11	1.17	1.52	88	1	47
TC	pm25	0.57	0.44	0.44	2.10	0.11	0.14	0.45	1.52	2.08	94	0	50

NO0042G Zeppelin mountain (Ny-Ålesund)
 January 2021 - December 2021

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	2.71	0.00	0.00	0.01	0.04	0.04	65	17	38
OC	pm10	0.09	0.05	0.08	1.62	0.03	0.04	0.08	0.20	0.20	65	0	38
OC,Artifact=pos	pm10	0.03	0.02	0.03	1.53	0.01	0.02	0.02	0.08	0.11	60	0	35
TC	pm10	0.09	0.05	0.09	1.65	0.03	0.04	0.08	0.23	0.23	65	0	38

NO0056R Hurdal
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm10	0.09	0.04	0.08	1.52	0.04	0.04	0.08	0.16	0.24	95	0	51
EC	pm25	0.08	0.04	0.08	1.52	0.03	0.04	0.07	0.15	0.22	88	0	47
OC	pm10	1.14	0.65	0.96	1.78	0.32	0.42	0.88	2.35	3.17	95	0	51
OC	pm10_pm25	0.41	0.35	0.28	2.76	-0.04	0.02	0.25	1.04	1.38	94	0	50
OC	pm25	0.73	0.38	0.64	1.63	0.23	0.30	0.60	1.40	2.08	95	0	51
TC	pm10	1.23	0.66	1.06	1.70	0.35	0.47	1.01	2.44	3.29	95	0	51
TC	pm10_pm25	0.42	0.35	0.29	2.67	-0.05	0.02	0.25	1.06	1.42	94	0	50
TC	pm25	0.81	0.39	0.73	1.58	0.26	0.35	0.70	1.50	2.21	95	0	51

PL0005R Diabla Gora
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.35	0.32	0.25	2.46	0.00	0.07	0.24	1.00	2.04	98	9	361
OC	pm25	2.70	1.98	2.20	1.86	0.54	0.82	2.25	7.29	14.70	98	0	361
TC	pm25	3.05	2.27	2.48	1.87	0.58	0.89	2.45	8.25	16.74	98	0	361

PL0009R Zielonka
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.45	0.38	0.33	2.13	0.04	0.10	0.33	1.28	2.38	50	0	183
OC	pm25	2.88	1.96	2.42	1.77	0.40	1.07	2.24	7.54	11.87	50	0	183
TC	pm25	3.33	2.30	2.80	1.76	0.58	1.20	2.56	8.82	14.25	50	0	183

SE0022R Norunda Stenen
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm10	0.08	0.06	0.07	1.83	0.01	0.02	0.06	0.20	0.40	96	0	118
OC	pm10	0.84	0.59	0.67	1.98	0.16	0.21	0.70	2.21	2.88	96	10	118
OC,Artifact=neg	pm10	0.12	0.09	0.09	2.07	0.00	0.03	0.08	0.32	0.42	96	5	118
OC,Artifact=pos	pm10	0.03	0.02	0.02	1.98	0.01	0.01	0.02	0.07	0.09	96	5	118
OC,Fraction=OC1	pm10	0.10	0.08	0.07	2.11	0.01	0.02	0.07	0.27	0.38	96	5	118
OC,Fraction=OC2	pm10	0.14	0.09	0.11	1.98	0.03	0.04	0.12	0.36	0.46	96	5	118
OC,Fraction=OC3	pm10	0.20	0.14	0.17	1.82	0.05	0.06	0.17	0.51	0.76	96	5	118
OC,Fraction=OC4	pm10	0.23	0.13	0.19	1.79	0.05	0.07	0.21	0.50	0.56	96	5	118
OC,Fraction=OCPyr	pm10	0.17	0.19	0.10	3.60	-0.01	0.00	0.12	0.52	1.16	96	5	118
TC	pm10	0.93	0.63	0.75	1.94	0.18	0.25	0.79	2.40	3.28	96	5	118

SI0008R Iskrba
January 2021 - December 2021

Component	matrix	Arit mean	Arit sd	Geom mean	Geom sd	Min	5%	50%	95%	Max anal	% bel	Num	Num sampl
EC	pm25	0.16	0.10	0.13	2.04	0.02	0.02	0.14	0.36	0.62	96	22	354
OC	pm25	2.21	0.89	2.04	1.51	0.69	1.03	2.10	3.73	6.35	96	0	354
TC	pm25	2.38	0.94	2.19	1.50	0.74	1.12	2.24	3.96	6.68	96	0	354

Annex 5

Overview of sampling and analytical methods 2021

Country: Armenia		Main components- EMEP		Year: 2021	
	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: 2021	
	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	
Nitrogen dioxide	All	Instrumental: Chemiluminescence	Hourly	Chemiluminescence	
Nitric acid					
Ammonia					
Sulphate	AT0002R	High Volume Sampler, quartz fibre filters with binder, 720 m ³ /day, EN 12341	Every 3 rd day	Ion chromatography EN ISO 10304-1	
Nitrate	AT0002R	High Volume Sampler, quartz fibre filters with binder, 720 m ³ /day, EN 12341	Every 3 rd day	Ion chromatography EN ISO 10304-1	
Ammonium	AT0002R	High Volume Sampler, quartz fibre filters with binder, 720 m ³ /day, EN 12341	Every 3 rd day	Ion chromatography EN ISO 14911	
Sodium	AT0002R	High Volume Sampler, quartz fibre filters with binder, 720 m ³ /day, EN 12341	Every 3 rd day	Ion chromatography EN ISO 14911	
Calcium	AT0002R	High Volume Sampler, quartz fibre filters with binder, 720 m ³ /day, EN 12341	Every 3 rd day	Ion chromatography EN ISO 14911	
Magnesium	AT0002R	High Volume Sampler, quartz fibre filters with binder, 720 m ³ /day, EN 12341	Every 3 rd day	Ion chromatography EN ISO 14911	
Potassium	AT0002R	High Volume Sampler, quartz fibre filters with binder, 720 m ³ /day, EN 12341	Every 3 rd day	Ion chromatography EN ISO 14911	
Chloride	AT0002R	High Volume Sampler, quartz fibre filters with binder, 720 m ³ /day, EN 12341	Every 3 rd day	Ion chromatography EN ISO 10304-1	
EC	AT0002R	High Volume Sampler, quartz fibre filters with binder, 720 m ³ /day, EN 12341	Every 6 th day	Thermal method EUSAAR protocol, optical correction (transmission) EN 16909:2017	
OC	AT0002R	High Volume Sampler, quartz fibre filters with binder, 720 m ³ /day, EN 12341	Every 6 th day	Thermal method EUSAAR protocol, optical correction (transmission) EN 16909:2017	
PM ₁₀	AT0002R	High Volume Sampler, glass fibre filters with binder, 720 m ³ /day, every 3 rd day quartz fibre filter (EN 12341)	Daily	Micro balance	
PM ₁₀	AT0005R, AT0048R	High Volume Sampler, glass fibre filters with binder, 720 m ³ /day, (EN 12341)	Every 3 rd day	Micro balance	
PM _{2.5}	AT0002R	High Volume Sampler, glass fibre filters with binder, 720 m ³ /day, , every 3 rd day quartz fibre filter(EN 14907)	Daily	Micro balance	
PM ₁	AT0002R	High Volume Sampler, glass fibre filters with 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: 2021	
	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: 2021	
	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				
Nitrogen dioxide	BE0011R, BE0013R	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: 2021	
	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	HR0002R	Low volume sampler, Teflon filter 47 mm, 55 m ³ /day, EN 12341	Daily	Gravimetric	
PM _{2.5}	HR0002R	Low volume sampler, Teflon filter 47 mm, 55 m ³ /day, EN 12341	Daily	Gravimetric	
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Cyprus		Main components - EMEP		Year: 2021	
	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	

Country: Czech Republic		Main components - EMEP		Year: 2021	
	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, SMA-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, SMA-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 EMEP		Year: 2021	
	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	
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: 2021	
	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: 2021	
	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: 2021	
	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	FR08, FR09, FR13, FR23, FR25, FR28	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Nitrate	FR08, FR09, FR13, FR23, FR25, FR28	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Ammonium	FR08, FR09, FR13, FR23, FR25, FR28	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Sodium	FR08, FR09, FR13, FR23, FR25, FR28	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Calcium	FR08, FR09, FR13, FR23, FR25, FR28	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Magnesium	FR08, FR09, FR13, FR23, FR25, FR28	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Potassium	FR08, FR09, FR13, FR23, FR25, FR28	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
Chloride	FR08, FR09, FR13, FR23, FR25, FR28	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h Every 6 days	Ion chromatography
PM ₁₀	FR08, FR09, FR10, FR13, FR14, FR15, FR18, FR23, FR28	TEOM FDMS, MP101M	Hourly	TEOM FDMS, MP101M
PM _{2.5}	FR08, FR09, FR13, FR15, FR18, FR23, FR25, FR28	TEOM FDMS, MP101M	Hourly	TEOM FDMS, MP101M
Sum of nitric acid and nitrate				
Sum of ammonia and ammonium				
EC/OC	FR08, FR09, FR13, FR23, FR25, FR28	TISSUQUARTZ 2500QAT-UP, PM2.5, 720m3/day	24h every 6 days	Thermo optical, EUSAAR 2 protocol

Country: Georgia		Main components - EMEP		Year: 2021	
	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: 2021	
	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)	hourly	UV fluorescence	
Nitrogen dioxide	DE01, DE02, DE03, DE07, DE08, DE09	Monitor	hourly	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		Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Sodium		Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Calcium		Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Magnesium		Teflon filter, 22 m ³ /day (Filterpack)	Daily	Ion chromatography	
Potassium		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: 2021	
	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 /hour	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 /hour	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 /hour	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 /hour	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 /hour	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 /hour	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 /hour	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 /hour	Every 6 th day	Ion chromatography	
EC/OC PM _{2.5}	DE02, DE03, DE07, DE08, DE09	PM2.5 low volume sampler (55 m ³ /day), TISSUEQUARTZ 2500QAT-UP	24 hour, once every 6 days (60 samples per year)	Thermal optical, EUSAAR-2 Protocol,	

Country: Greece		Main components - EMEP		Year: 2021	
	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: 2021
	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: 2021	
	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: 2021	
	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	Nal 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: 2021	
	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: 2021	
	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: 2021	
	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: 2021	
	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: 2021	
	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	NaI-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: 2021	
	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: 2021	
	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: 2021	
	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: 2021	
	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: 2021	
	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		
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: 2021	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount	NL091	Wet-only	Daily		
Precipitation amount, official gauge					
Sulphate	NL091	Wet-only	Daily	Ion chromatography	
Nitrate	NL091	Wet-only	Daily	Ion chromatography	
Ammonium	NL091	Wet-only	Daily	CFA	
Magnesium	NL091	Wet-only	Daily	HR-ICP/MS	
Sodium	NL091	Wet-only	Daily	HR-ICP/MS	
Chloride	NL091	Wet-only	Daily	Ion chromatography	
Calcium	NL091	Wet-only	Daily	HR-ICP/MS	
Potassium	NL091	Wet-only	Daily	HR-ICP/MS	
Conductivity	NL091	Wet-only	Daily	Conductivity meter	
pH	NL091	Wet-only	Daily	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 4 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 4 day	HR-ICP/MS	
Potassium	NL644R	Teflon filter, Pall Zefluor 2 µm, 47 mm diameter, 55.2 m ³ /day	NL644R every 4 day	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: 2021	
	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: 2021	
	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	All	Whatman 40 filter, 3.5-4.2 m ³ /day	Daily	Spectrophotometric, Thiocyanate	
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: 2021	
	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	ICP-AES	
Sodium	PL05	Wet-only	Daily	ICP-AES	
Chloride	PL05	Wet-only	Daily	Ion chromatography	
Calcium	PL05	Wet-only	Daily	ICP-AES	
Potassium	PL05	Wet-only	Daily	ICP-AES	
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.)	Spectrophotometric, Indophenol method	
Sodium	PL05	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	ICP-AES	
Calcium	PL05	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	ICP-AES	
Magnesium	PL05	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	ICP-AES	
Potassium	PL05	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	ICP-AES	
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: Poland: PL09 (lab. CRL)		Main components - EMEP		Year: 2021	
	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					
Sulphate	PL09	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	Ion chromatography	
Nitrate	PL09	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	Ion chromatography	
Ammonium	PL09	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	Ion chromatography	
Sodium	PL09	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	ICP-AES	
Calcium	PL09	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	ICP-AES	
Magnesium	PL09	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	ICP-AES	
Potassium	PL09	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	ICP-AES	
Chloride	PL09	QMA Whatman filter, 750 m ³ /day (PM2,5)	Daily/Weekly (anal.)	Ion chromatography	
EC/OC	PL09	QMA Whatman filter, 750 m ³ /day (PM2,5)	Every 2 nd day	Thermo optical	
PM ₁₀	PL09	High Volume Sampler (750 m ³ /day)	Daily	By weight	
PM _{2.5}	PL09	High Volume Sampler (750 m ³ /day)	Daily	By weight	
Sum of nitric acid and nitrate					
Sum of ammonia and ammonium					

Country: Russian Federation		Main components - EMEP		Year: 2021	
	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: 2021	
	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: 2021	
	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					
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: SK04, 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	
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, BAM	Weekly (SK06), 72 hour (SK04, SK07)	Gravimetric method (SK06), BAM (SK04, SK07)	
TSP	SK02	Low volume sampler (MicroPNS)	Weekly	Gravimetric method	
EC/OC PM2.5	SK04	Low volume sampler	Weekly	Thermal optical analysis	

Country: Slovenia		Main components - EMEP	Year: 2021	
	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	Instrumental: Cavity-Attenuated Phase-Shift spectroscopy	Hourly	Cavity-Attenuated Phase-Shift spectroscopy
Sulphur dioxide	SI08	Instrumental: UV-Fluorescence	Hourly	UV-Fluorescence
PM10	SI08	Low volume sampler, 2.3 m3/h, Quartz filter, 47 mm	Daily	Gravimetric method
PM2.5	SI08	Low volume sampler, 2.3 m3/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 PM2.5	SI08	Leckel - Low volume sampler	Daily	Thermal optical analysis

Country: Spain		Main components - EMEP	Year: 2021	
	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, 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
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: 2021	
	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: 2021	
	Station	Sampling	Sampling frequency	Analysis method	
Precipitation					
Precipitation amount	CH02, CH05	Wet-only	Weekly		
Precipitation amount, official gauge					
Sulphate	CH02, CH05	Wet-only	Weekly	Ion chromatography	
Nitrate	CH02, CH05	Wet-only	Weekly	Ion chromatography	
Ammonium	CH02, CH05	Wet-only	Weekly	Ion chromatography	
Magnesium	CH02, CH05	Wet-only	Weekly	Ion chromatography	
Sodium	CH02, CH05	Wet-only	Weekly	Ion chromatography	
Chloride	CH02, CH05	Wet-only	Weekly	Ion chromatography	
Calcium	CH02, CH05	Wet-only	Weekly	Ion chromatography	
Potassium	CH02, CH05	Wet-only	Weekly	Ion chromatography	
Conductivity	CH02, CH05	Wet-only	Weekly	Conductivity meter	
pH	CH02, CH05	Wet-only	Weekly	pH meter	
Air					
Carbon monoxide	CH01	Instrumental: CRDS-analyzer	Hourly	Cavity Ring-Down Spectroscopy	
Sulphur dioxide	CH01, CH02, CH05	Instrumental: UV-fluorescence	Hourly	UV-fluorescence	
Nitrogen dioxide	CH01	Instrumental: Chemiluminescence-monitor	Hourly	Chemiluminescence (photolytic converter)	
Nitrogen dioxide	CH03, CH04, CH53	Instrumental: Chemiluminescence-monitor	Hourly	Chemiluminescence (molybdenum converter)	
Nitrogen dioxide	CH02, CH05	Instrumental: CAPS-analyzer	Hourly	Cavity-Attenuated Phase-Shift spectroscopy	
Nitrogen monoxide	CH01	Instrumental: Chemiluminescence-monitor	Hourly	Chemiluminescence (photolytic converter)	
Nitrogen monoxide	CH02, CH05, CH53	Instrumental: Chemiluminescence-monitor	Hourly	Chemiluminescence (molybdenum converter)	
Nitric acid	CH02, CH05, CH53	KOH impregnated Mini-Denuder / modified CEH DELTA-System, 0.5 m ³ /day	Biweekly	Ion chromatography	
Ammonia	CH02, CH05, CH53	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	Monthly	Ion chromatography	
Nitrate	CH02, CH05, CH53	KOH impregnated Whatman 1 filter, Delrin filterholder / modified CEH DELTA-System, 0.5 m ³ /day	Biweekly	Ion chromatography	
Ammonium	CH02, CH05, CH53	Citric acid impregnated Whatman 1 filter, Delrin filterholder / modified CEH DELTA-System, 0.5 m ³ /day	Biweekly	Ion chromatography	
Sodium	CH02, CH05	Citric acid impregnated Whatman 40 filter / Schleicher&Schüll filterholder, 18 m ³ /day	Daily	Ion chromatography	
Calcium	CH02, CH05	Citric acid impregnated Whatman 40 filter / Schleicher&Schüll filterholder, 18 m ³ /day	Daily	Ion chromatography	
Magnesium	CH02, CH05	Citric acid impregnated Whatman 40 filter / Schleicher&Schüll filterholder, 18 m ³ /day	Daily	Ion chromatography	
Potassium	CH02, CH05	Citric acid impregnated Whatman 40 filter / Schleicher&Schüll filterholder, 18 m ³ /day	Daily	Ion chromatography	
PM ₁₀	CH01	High Volume Samplers, Pallflex XP56 Tissuequartz 2500 QAT-UP, 1075 m ³ /day	Daily	Gravimetry	
PM ₁₀	CH02, CH03, CH04, CH05, CH53	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 / Schleicher&Schüll filterholder, 18 m ³ /day	Daily	Ion chromatography	
Sum of ammonia and ammonium	CH02, CH05	Citric acid impregnated Whatman 40 filter / Schleicher&Schüll filterholder, 18 m ³ /day	Daily	Ion chromatography	
OC, EC, TC in PM _{2.5}	CH02, CH05	High Volume Samplers, Pallflex XP56 Tissuequartz 2500 QAT-UP, 720 m ³ /day	Every 12 th day	OCEC Lab Instrument Model 5, Sunset Laboratory, EUSAAR 2 temperature program	

Country: United Kingdom		Main components - EMEP	Year: 2021	
	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	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

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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 $\ln c$:

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

$$sd_g = \exp(sd_{\ln c})$$

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.

NILU

The climate and environmental research institute NILU is an independent, non-profit research institution established in 1969. Through its research NILU increases the understanding of atmospheric composition, climate change, air quality, environmental contaminants, health effects, sustainable systems, circular economy, and digitalisation. Based on its research, NILU markets integrated services and products within analysing, monitoring, and consulting. NILU is concerned with increasing public awareness about climate change and environmental pollution.

NILU's values: Integrity - Competence - Benefit to society

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