

EMEP – 32nd intercomparison of analytical methods

Laboratory 3, Czech Hydrometeorological Institute, Praha (Czech Republic)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	35.55	36.49	36.274	3.177	-0.228	S
J4	NH ₃	16.23	16.44	16.315	2.267	-0.038	S
J5	NH ₃	12.96	12.4	12.782	1.608	0.111	S
J6	NH ₃	37.29	38.5	37.445	4.663	-0.033	S

¥ Reported values are blank corrected. Corrections are done by subtracting the blank value when a value was reported or 1/2MDL when MDL was reported.

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Please check the EMEP intercalibration website for more statistics, Youden plots, updated expected values ect: <http://www.nilu.no/projects/ccc/intercomparison.html>

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EMEP – 32nd intercomparison of analytical methods

Laboratory 4, Aarhus University, Department of Environmental Science (Denmark)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	35.36	36.49	36.274	3.177	-0.288	S
J4	NH ₃	16.36	16.44	16.315	2.267	0.02	S
J5	NH ₃	12.24	12.4	12.782	1.608	-0.337	S
J6	NH ₃	37.9	38.5	37.445	4.663	0.097	S

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Laboratory 5, Finnish Meteorological Institute. Air Quality Department (Finland)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	34.045	36.49	36.274	3.177	-0.702	S
J4	NH ₃	15.535	16.44	16.315	2.267	-0.344	S
J5	NH ₃	12.135	12.4	12.782	1.608	-0.402	S
J6	NH ₃	36.065	38.5	37.445	4.663	-0.296	S

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Laboratory 6, SGS Multilab (France)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	-4.985	36.49	36.274	3.177	-12.986	U
J4	NH ₃	8.915	16.44	16.315	2.267	-3.264	U
J5	NH ₃	8.185	12.4	12.782	1.608	-2.859	Q
J6	NH ₃	23.935	38.5	37.445	4.663	-2.897	Q

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Laboratory 8, Umweltbundesamt, Langen (Germany)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	37.85	36.49	36.274	3.177	0.496	S
J4	NH ₃	18.65	16.44	16.315	2.267	1.03	S
J5	NH ₃	15.05	12.4	12.782	1.608	1.411	Q
J6	NH ₃	37.05	38.5	37.445	4.663	-0.085	S

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Laboratory 10, Institute for Atmospheric Physics (Hungary)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	39.88	36.49	36.274	3.177	1.135	S
J4	NH ₃	17.04	16.44	16.315	2.267	0.32	S
J5	NH ₃	13.04	12.4	12.782	1.608	0.161	S
J6	NH ₃	39.36	38.5	37.445	4.663	0.411	S

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Laboratory 13, C.N.R. Istituto Inquinamento Atmosferico (Italy)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	39.2	36.49	36.274	3.177	0.921	S
J4	NH ₃	17.5	16.44	16.315	2.267	0.523	S
J5	NH ₃	13.6	12.4	12.782	1.608	0.509	S
J6	NH ₃	40.9	38.5	37.445	4.663	0.741	S

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Laboratory 15, Norwegian Institute for Air Research NILU (Norway)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	35.547	36.49	36.274	3.177	-0.229	S
J4	NH ₃	15.547	16.44	16.315	2.267	-0.339	S
J5	NH ₃	11.648	12.4	12.782	1.608	-0.705	S
J6	NH ₃	37.547	38.5	37.445	4.663	0.022	S

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Laboratory 16, Institute of Meteorology and Water Management, Warsaw (Poland)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	34.8	36.49	36.274	3.177	-0.464	S
J4	NH ₃	15.8	16.44	16.315	2.267	-0.227	S
J5	NH ₃	12.4	12.4	12.782	1.608	-0.237	S
J6	NH ₃	37	38.5	37.445	4.663	-0.096	S

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Laboratory 19, Centro Nacional de Sanidad Ambiental (Spain)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	37.46	36.49	35.941	4.123	0.368	S
J4	NH ₃	18.8	16.44	16.36	2.246	1.086	S
J5	NH ₃	12.98	12.4	12.688	1.784	0.164	S
J6	NH ₃	38.73	38.5	37.231	4.711	0.318	S

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EMEP – 32nd intercomparison of analytical methods

Laboratory 20, Swedish Environmental Research Institute IVL, Gothenburg (Sweden)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	71.168	36.49	35.941	4.123	8.543	U
J4	NH ₃	32.368	16.44	16.36	2.246	7.128	U
J5	NH ₃	25.368	12.4	12.688	1.784	7.108	U
J6	NH ₃	75.568	38.5	37.231	4.711	8.138	U

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Laboratory 31, Slovak Hydrometeorological Institute (Slovakia)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	34.76	36.49	36.274	3.177	-0.477	S
J4	NH ₃	15.7	16.44	16.315	2.267	-0.271	S
J5	NH ₃	12.31	12.4	12.782	1.608	-0.293	S
J6	NH ₃	37.2	38.5	37.445	4.663	-0.053	S

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EMEP – 32nd intercomparison of analytical methods

Laboratory 32, Atmospheric Pollution Research Laboratory, Institute of Physics, Vilnius (Lithuania)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	34.64	36.49	36.274	3.177	-0.514	S
J4	NH ₃	16.25	16.44	16.315	2.267	-0.029	S
J5	NH ₃	12.54	12.4	12.782	1.608	-0.15	S
J6	NH ₃	36.5	38.5	37.445	4.663	-0.203	S

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EMEP – 32nd intercomparison of analytical methods

Laboratory 33, Environmental Pollution Observ. Centre (Latvia)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	39.42	36.49	36.274	3.177	0.99	S
J4	NH ₃	16.98	16.44	16.315	2.267	0.293	S
J5	NH ₃	13.185	12.4	12.782	1.608	0.251	S
J6	NH ₃	41.385	38.5	37.445	4.663	0.845	S

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EMEP – 32nd intercomparison of analytical methods

Laboratory 34, Ministry of Environment and Urbanisation (Turkey)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	1.417	36.49	36.274	3.177	-10.971	U
J4	NH ₃	0.833	16.44	16.315	2.267	-6.83	U
J5	NH ₃	0.635	12.4	12.782	1.608	-7.554	U
J6	NH ₃	1.648	38.5	37.445	4.663	-7.677	U

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EMEP – 32nd intercomparison of analytical methods

Laboratory 36, Hydrometeorological Institute of Slovenia (Slovenia)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	35.855	36.49	36.274	3.177	-0.132	S
J4	NH ₃	15.655	16.44	16.315	2.267	-0.291	S
J5	NH ₃	11.955	12.4	12.782	1.608	-0.514	S
J6	NH ₃	38.055	38.5	37.445	4.663	0.131	S

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EMEP – 32nd intercomparison of analytical methods

Laboratory 38, Estonian Environmental Research Centre, Tallinn (Estonia)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	39.06	36.49	36.274	3.177	0.877	S
J4	NH ₃	20.84	16.44	16.315	2.267	1.996	Q
J5	NH ₃	16.67	12.4	12.782	1.608	2.418	Q
J6	NH ₃	40.86	38.5	37.445	4.663	0.732	S

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EMEP – 32nd intercomparison of analytical methods

Laboratory 39, Environmental Monitoring Laboratory, Institute of Environmental Protection (Poland)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	35.75	36.49	36.274	3.177	-0.165	S
J4	NH ₃	16.35	16.44	16.315	2.267	0.015	S
J5	NH ₃	11.95	12.4	12.782	1.608	-0.517	S
J6	NH ₃	38.15	38.5	37.445	4.663	0.151	S

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EMEP – 32nd intercomparison of analytical methods

Laboratory 158, Acid Deposition and Oxidant Research Center ADOCRC, Niigata (Japan)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	32.045	36.49	36.274	3.177	-1.331	S
J4	NH ₃	16.455	16.44	16.315	2.267	0.062	S
J5	NH ₃	13.295	12.4	12.782	1.608	0.319	S
J6	NH ₃	33.785	38.5	37.445	4.663	-0.785	S

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EMEP – 32nd intercomparison of analytical methods

Laboratory 165, Institute of Meteorology and Hydrology, Ha Noi city (Vietnam)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	42.7	36.49	36.274	3.177	2.023	S
J4	NH ₃	17.8	16.44	16.315	2.267	0.655	S
J5	NH ₃	12.9	12.4	12.782	1.608	0.073	S
J6	NH ₃	46.7	38.5	37.445	4.663	1.985	Q

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EMEP – 32nd intercomparison of analytical methods

Laboratory 178, Environmental Chemistry and EANET Monitoring Laboratory, Limnological Institute RAS/SB, Irkutsk (Russian Federation)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	28.25	36.49	36.274	3.177	-2.526	Q
J4	NH ₃	14.67	16.44	16.315	2.267	-0.726	S
J5	NH ₃	12.26	12.4	12.782	1.608	-0.325	S
J6	NH ₃	29.2	38.5	37.445	4.663	-1.768	Q

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EMEP – 32nd intercomparison of analytical methods

Laboratory 190, Institute for occupational safety and preventive engineering - Novi Sad (Republic of Serbia)

Ammonia on impregnated filters (J-samples)

Sample name	Determinand	Reported value [¥]	Expected value	Mean value	Standard deviation	Z score	EMEP quality norm [¤]
J3	NH ₃	37.035	36.49	36.274	3.177	0.239	S
J4	NH ₃	15.225	16.44	16.315	2.267	-0.481	S
J5	NH ₃	14.335	12.4	12.782	1.608	0.966	S
J6	NH ₃	41.295	38.5	37.445	4.663	0.826	S

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