

Water vapor isotope experiment was conducted at Kourovka (pine forest), Russia, Sverdlovsk region (57.037 N, 59.547 E) from Sep 2012 to Aug 2013.

1. Time stamps

Data files are stored in hourly resolutions using start and end time stamps (YYYYMMDDHHmm).

2. Data format

Data files are CSV formatted.

3. Time zone convention

Time is reported in local standard time (UTC+06:00).

4. Missing data

Missing data is replaced with -9999.

5. Variable definitions

Column	Description	Unit	Equipment	Height (m)	Additional description
Column 1	Start time	–	–	–	UTC
Column 2	End time	–	–	–	UTC
Column 3	Water mixing ratio	ppmv	Picarro L2130-i	8	–
Column 4	Water vapour isotopic ratio (18O)	per mil	Picarro L2130-i	8	Normalized to V-SMOW; Humidity dependence correlation: Non-linear regression
Column 5	Standard deviation of 18O	per mil	Picarro L2130-i	8	Hourly
Column 6	Water vapour isotopic ratio (D)	per mil	Picarro L2130-i	8	Normalized to V-SMOW; Humidity dependence correlation: Non-linear regression
Column 7	Standard deviation of D	per mil	Picarro L2130-i	8	Hourly
Column 8	Air temperature	Celsius (°C)	MetPak-II	8	–

Column 9	Relative humidity	<=1	MetPak-II	8	–
Column 10	Air pressure	kPa	MetPak-II	8	–
Column 11	Precipitation	mm	MetPak-II	8	–
Column 12	Net radiation	W/m2	MetPak-II	8	–
Column 13	Wind speed	m/s	MetPak-II	8	–
Column 14	Wind direction	degree (°C)	MetPak-II	8	–
Column 15	Air temperature	Celsius (°C)	–	2	ERA5
Column 16	Relative humidity	<=1	–	2	ERA5
Column 17	Air pressure	kPa	–	2	ERA5
Column 18	Precipitation	mm	–	–	ERA5
Column 19	Net radiation	W/m2	–	–	ERA5
Column 20	Wind speed	m/s	–	–	ERA5
Column 21	Wind direction	°C	–	10	ERA5

6. Reference papers

Bastrikov, V., Steen-Larsen, H. C., Masson-Delmotte, V., Gribanov, K., Cattani, O., Jouzel, J., and Zakharov, V.: Continuous measurements of atmospheric water vapour isotopes in western Siberia (Kourovka), Atmos. Meas. Tech., 7, 1763-1776, doi:10.5194/amt-7-1763-2014, 2014.

7. Site contact

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