Water vapor isotope experiment was conducted at Ivittuut site (ice sheet), Greenland (61°12′ N, 47°10′ W) from Oct 2011 – May 2013.

1. Time stamps

Data files are stored in hourly resolutions using YYYYMMDDHHmm

2. Data format

Data files are CSV formatted.

3. Time zone convention

Time is reported in UTC.

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 L2120 -i	5 m	–
Column 4	Water vapour isotopic ratio (18O)	per mil	Picarro L2120 -i	5 m	Normalized to V-SMOW; Humidity dependence correlation: Non-linear regression
Column 5	Standard deviation of 18O	per mil	Picarro L2120 -i	5 m	daily
Column 6	Water vapour isotopic ratio (D)	per mil	Picarro L2120 -i	5 m	Normalized to V-SMOW; Humidity dependence correlation: Non-linear regression
Column 7	Standard deviation of D	per mil	Picarro L2120 -i	5 m	daily
Column 8	Air temperature	Celsius (°C)	–	–	–

Column 9	Relative humidity	<=1	–	–	–
Column 10	Air pressure	kPa	–	–	–
Column 11	Precipitation	mm	–	–	–
Column 12	Net radiation	W/m2	–	–	–
Column 13	Wind speed	m/s	–	–	–
Column 14	Wind direction	degree (°C)	–	–	–
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

Bonne, J.-L., Masson-Delmotte, V., Cattani, O., Delmotte, M., Risi, C., Sodemann, H., and Steen-Larsen, H. C.: The isotopic composition of water vapour and precipitation in Ivittuut, southern Greenland, Atmos. Chem. Phys., 14, 4419-4439 （2014）.

Steen-Larsen, H. C., et al. "Evaluating the skills of isotope-enabled General Circulation Models against in-situ atmospheric water vapor isotope observations." Journal of Geophysical Research: Atmospheres (2016).

7. Site contact

Name: Hans Christian Steen-Larsen

Email: hanschr@gfy.ku.dk