Water vapor isotope experiment was conducted at Duolun site (grassland), Inner Mongolia, China (42.03N, 116.28E) from Jun 2009 to Sep 2009.

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 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	Campbell TG A-100A	1.6	–
Column 4	Water vapour isotopic ratio (18O)	per mil	Campbell TG A-100A	1.6	Normalized to V-SMOW; Humidity dependence correlation: Dripper system
Column 5	Standard deviation of 18O	per mil	Campbell TG A-100A	1.6	Hourly
Column 6	Water vapour isotopic ratio (D)	per mil	Campbell TG A-100A	1.6	Normalized to V-SMOW; Humidity dependence correlation: Dripper system
Column 7	Standard deviation of D	per mil	Campbell TG A-100A	1.6	Hourly
Column 8	Air temperature	Celsius (°C)	HMP45C	1.8	–

Column 9	Relative humidity	<=1	HMP45C	1.8	–
Column 10	Air pressure	kPa	CS105	1.8	–
Column 11	Precipitation	mm	TE525MM	1.8	–
Column12	Net radiation	W/m2	CNR-1	1.8	–
Column13	Wind speed	m/s	A100R	1.8	–
Column 14	Wind direction	degree (°C)	A100R	1.8	–
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

Wen, X.F., Lee, X., Sun, X.M., Wang, J.L., Hu, Z.M., Li, S.G. and Yu, G.R., 2012. Dew water isotopic ratios and their relationships to ecosystem water pools and fluxes in a cropland and a grassland in China. Oecologia, 168(2), pp.549-561.

7. Site contact

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