Water vapor isotope experiment was conducted at Mase site (rice), Tsukuba, Japan (36.05N, 140.03E) from Jun 2013 to Dec 2015.

1. Time stamps

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

2. Data formate

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	2	–
Column 4	Water vapour isotopic ratio (18O)	per mil	Picarro L2120-i	2	Normalized to V-SMOW; Humidity dependence correlation: No
Column 5	Standard deviation of 18O	per mil	Picarro L2120-i	2	Hourly
Column 6	Water vapour isotopic ratio (D)	per mil	Picarro L2120-i	2	Normalized to V-SMOW; Humidity dependence correlation: No
Column 7	Standard deviation of D	per mil	Picarro L2120-i	2	Hourly
Column 8	Air temperature	Celsius (°C)	HMP45A	3.9	–
Column 9	Relative humidity	<=1	HMP45A	3.9	–

Column 10	Air pressure	kPa	HMP45A	3.9	–
Column 11	Precipitation	mm	TE525MM	–	–
Column 12	Net radiation	W/m2	CNR-1	2.35	–
Column 13	Wind speed	m/s	DA600-62AX	3.9	–
Column 14	Wind direction	degree (°C)	DA600-62AX	4.9	–
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	℃	–	10	ERA5

6. Reference papers

Wei, Z., Yoshimura, K., Okazaki, A., Kim, W., Liu, Z. and Yokoi, M., 2015. Partitioning of evapotranspiration using high-frequency water vapor isotopic measurement over a rice paddy field. Water Resources Research, 51(5), pp.3716-3729.

Wei, Z., Yoshimura, K., Okazaki, A., Ono, K., Kim, W., Yokoi, M. and Lai, C.T., 2016. Understanding the variability of water isotopologues in near-surface atmospheric moisture over a humid subtropical rice paddy in Tsukuba, Japan. Journal of Hydrology, 533, pp.91-102.

7. Site contact

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