

Water vapor measurement was carried out in a cabin top (~3 meter above the ground) on the grassland of the Department of Atmospheric Science (25°00'52"N 121°32'20"E; from Jan to Aug 2012) and at the 7th floor (~30 m above the ground) of the Department of Geography (25°00'54"N 121°32'18"E; from Aug, 2012 to Mar 2013), NTU campus.

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.

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	3 (11th January to 14th August 2012); 30 (from 15th August 2012 to 31st March 2013)	–
Column 4	Water vapour isotopic ratio (18O)	per mil	Picarro L2120-i	3 (11th January to 14th August 2012); 30 (from 15th August 2012 to 31st March 2013)	Normalized to V-SMOW; Humidity dependence correlation: No
Column 5	Standard deviation of 18O	per mil	Picarro L2120-i	3 (11th January to 14th August 2012);	Hourly

				30 (from 15th August 2012 to 31st March 2013)	
Column 6	Water vapour isotopic ratio (D)	per mil	Picarro L2120-i	3 (11th January to 14th August 2012); 30 (from 15th August 2012 to 31st March 2013)	Normalized to V-SMOW; Humidity dependence correlation: No
Column 7	Standard deviation of D	per mil	Picarro L2120-i	3 (11th January to 14th August 2012); 30 (from 15th August 2012 to 31st March 2013)	Hourly
Column 8	Air temperature	Celsius (°C)	–	–	CWB station
Column 9	Relative humidity	<=1	–	–	CWB station
Column 10	Air pressure	kPa	–	–	CWB station
Column 11	Precipitation	mm	–	–	CWB station
Column 12	Net radiation	W/m2	–	–	–
Column 13	Wind speed	m/s	–	–	CWB station
Column 14	Wind direction	degree (°C)	–	–	CWB station
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

Laskar A.H., J.C. Huang, S.C. Hsu, S.K. Bhattacharya, C.H. Wang, M.C. Liang (2014), Stable isotopic composition of near surface atmospheric water vapor and rain-vapor interaction in Taipei, Taiwan, ***Journal of Hydrology***, 519, 2091-2100, 10.1016/j.jhydrol.2014.10.017.

7. Site contact

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