

Water vapor isotope experiment was conducted during PIRATAFR24 cruise (Ship name: R/V Suroit) between May 2014 and May 2014 over the Atlantic Ocean (10 W - 15 E; 10 S - 10 N).

1. Time stamps

Data files are stored in 15 min resolutions using 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	Latitude	degree (°C)	-	-	-
Column 3	Longitude	degree (°C)	-	-	-
Column 4	Water mixing ratio	ppmv	Picarro L2130-i	12	-
Column 5	Water vapour isotopic ratio (18O)	per mil	Picarro L2130-i	12	Normalized to V-SMOW; Humidity dependence correlation: Non-linear regression
Column 6	Standard deviation of 18O	per mil	Picarro L2130-i	12	15 min
Column 7	Water vapour isotopic ratio (D)	per mil	Picarro L2130-i	12	Normalized to V-SMOW; Humidity dependence

					correlation: Non-linear regression
Column 8	Standard deviation of D	per mil	Picarro L2130-i	12	15 min
Column 9	Air temperature	Celsius (°C)	Batos	12	-
Column 10	Relative humidity	<=1	Batos	12	-
Column 11	Air pressure	kPa	Batos	12	-
Column 12	Precipitation	mm	Batos	12	-
Column 13	Net radiation	W/m2	Batos	12	-
Column 14	Wind speed	m/s	Batos	18	-
Column 15	Wind direction	degree (°C)	Batos	18	-

6. Reference papers

Benetti, M. et al. Stable isotopes in the atmospheric marine boundary layer water vapour over the Atlantic Ocean, 2012–2015. Sci. Data 4:160128 doi: 10.1038/sdata.2016.128 (2017).

7. Site contact

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