

Water vapor isotope experiment was conducted at Gaoqiao site (costal wetland), Zhanjiang, China (21.5674°N, 109.7565°E) from July 2015 to July 2015 (2017 data will be updated).

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+08:00).

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 L2130-i | 7 | – |
| Column 4 | Water vapour isotopic ratio (18O) | per mil | Picarro L2130-i | 7 | Normalized to V-SMOW; Humidity dependence correlation: No |
| Column 5 | Standard deviation of 18O | per mil | Picarro L2130-i | 7 | Hourly |
| Column 6 | Water vapour isotopic ratio (D) | per mil | Picarro L2130-i | 7 | Normalized to V-SMOW; Humidity dependence correlation: No |
| Column 7 | Standard deviation of D | per mil | Picarro L2130-i | 7 | Hourly |
| Column 8 | Air temperature | Celsius (°C) | HMP-45A | – | – |
| Column 9 | Relative humidity | <=1 | HMP-45A | – | – |

| | | | | | |
|-----------|-------------------|--------------|--|----|------|
| Column 10 | Air pressure | kPa | HMP-45AC | 7 | – |
| Column 11 | Precipitation | mm | TE525MM | 7 | – |
| Column 12 | Net radiation | W/m2 | CNR-1 | 7 | – |
| Column 13 | Wind speed | m/s | 010C (Met One Instruments, Inc., USA) | 7 | – |
| Column 14 | Wind direction | degree (°C) | 020C (Met One Instruments, Inc., USA), | 14 | – |
| 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

Will be updated

7. Site contact

Name: Jonathon S. Wright and Guanghui Lin

Email: lingh@tsinghua.edu.cn (Guanghui Lin) and jswright@tsinghua.edu.cn (Jonathon S. Wright)