**Beachon Rocs 2010**

**Instrument:** Proton Transfer Reaction Time of Flight Mass Spectrometer (PTR-TOF) from the University of Innsbruck

**Contact:**

* Armin Hansel armin.hansel@uibk.ac.at
* Lisa Kaser lisa.kaser@uibk.ac.at
* Ralf Schnitzhofer ralf.schnitzhofer@uibk.ac.at

**Format:** ASCII text files, tab-delimited

**Filenames**: UIBK\_PTR\_TOF\_2010\_MMDD\_to\_MMDD.txt

**Time Interval:** 6 minute averages (calculated from 10Hz data)

**Time Tag:** Mid-point of the 6 minute period

**Location:** Manitou experimental forest (chemistry tower)

**Measurement height:** 25.3 m

**Missing Data:** NaN

**Data columns:**

1. Year

2. Month

3. Day

4. Hour

5. Minute

6. Second

7. Day of year (DOY)

8. Methanol [ppbV]

9. Acetonitrile [ppbV]

10. Acetaldehyde [ppbV]

11. Acetone and Propanal [ppbV]

12. MBO [ppbV]

13. MVK and MACR [ppbV]

14. Benzene [ppbV]

15. MT [ppbV]

**Calibration**: All data are given in volume mixing ratios (ppbV). Conversion from counts per second (cps) to ppbV is done with calibration factors obtained from weekly calibration with a calibration gas standard(from E. Apel(NCAR)).

**Background determination**: The instrumental background was determined by passing the analyte air periodically (approx. every 7 hours) through a heated platinum catalyst.

**Notes to the compounds**:

**m/z 33.034** was attributed to **methanol**

**m/z 45.035** was attributed to **acetonitrile**

**m/z 45.034** was attributed to **acetaldehyde**

**m/z 59.050** was attributed to the sum of **acetone** and **propanal.** Acetone and propanal are isobaric species and cannot be distinguished by PTR-TOF-MS.

**Methylbutenol (MBO)** data is the sum of **MBO (m/z 87.081)** and the main **fragment of MBO (m/z 69.070)**

**m/z 71.050** was attributed to the sum of **MVK and MACR**. Methyl vinyl ketone (MVK) and methacrolein (MACR) are isobaric species and cannot be distinguished by PTR-TOF-MS.

**m/z 79.06** was attributed to **benzene**

**Monoterpene (MT)** data is the sum of **MT fragment (m/z 81.071)** and **MT (m/z 137.13)**

**Note:** All here given substances are rated class A masses because they are calibrated. Other masses (class B - uncalibrated) are available on request