

Name of research institute or organization:

Max Planck Institut für Biogeochemie, Jena

Title of project:

Flask comparison on Jungfrauoch

Project leader and team:

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Project description:

The flask sampling for the intercomparison between MPI Jena, CIO Groningen (RUG) and the University of Bern (UBE) was ongoing during the reporting period. The sampling of the Jena flasks has not experienced major difficulties in contrast to those for the other two laboratories. The comparison for CO₂ (see RUG report, on pages 91-92) documents this differences very clearly. A similar comparison for O₂ reveals as well an obvious leak. The Bern data (red squares) have not been selected at all, MPI have discarded obvious outliers only. RUG O₂ data is not yet available.

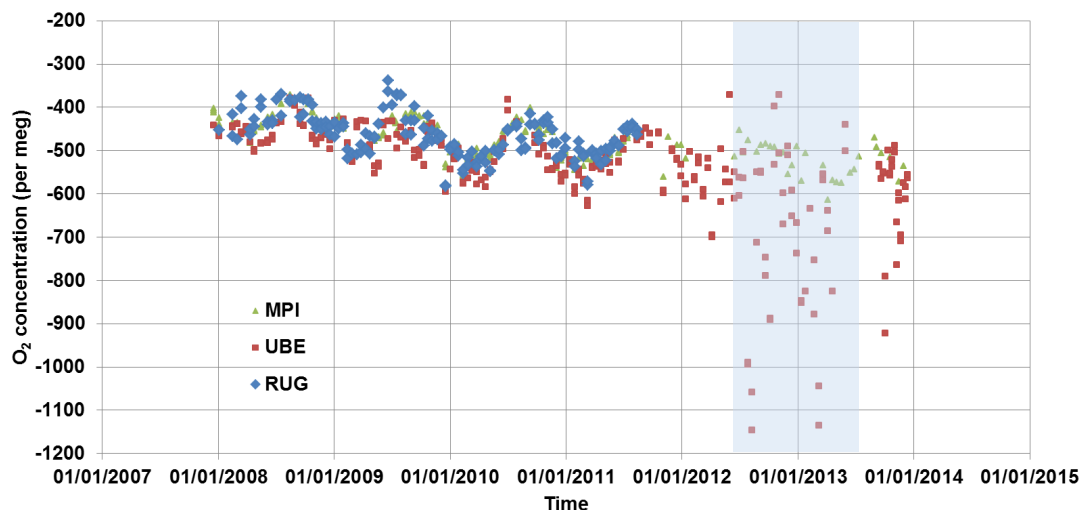


Figure 1. O₂ concentration as measured by each laboratory. The period from June 2012 to August 2013, shaded in light blue, corresponds to continuously leaky conditions for the combined UBE and RUG sampling device that progressively increased.

The MPI O₂ values document a mean negative trend that is slightly larger than -20 per meg/yr.

Key words:

Flask measurements, inter-comparison, oxygen and carbon dioxide measurements, greenhouse gas

Collaborating partners/networks:

IMECC partners

Scientific publications and public outreach 2013:

Refereed journal articles and their internet access

van der Laan-Luijkx, I.T., S. van der Laan, C. Uglietti, M.F. Schibig, R.E.M. Neubert, H.A.J. Meijer, W.A. Brand, A. Jordan, J.M. Richter, M. Rothe, and M.C. Leuenberger, Atmospheric CO₂, delta(O-2/N-2) and delta(CO₂)-C-13 measurements at Jungfraujoch, Switzerland: results from a flask sampling intercomparison program, *Atmospheric Measurement Techniques*, **6**, 7, 1805-1815, doi: 10.5194/amt-6-1805-2013, 2013.
<http://dx.doi.org/10.5194/amt-6-1805-2013>

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