

Update of Operation of the Flask and Calibration Laboratory for ICOS (Integrated Carbon Observation System)

*Daniel Rzesanke, Maria Büttner, Frank Froehlich, , Annica Jacob, Markus Eritt, Adam Janoschka, Richard Kneißl, , Martin Strube, Stephan Braune, Michael Künast and Armin Jordan

ICOS-FCL, MPI for Biogeochemistry, Kahlaische Str. 4, 07745 Jena, Germany

daniel.rzesanke@bgc-jena.mpg.de

The Integrated Carbon Observation System (ICOS) is a European-wide research infrastructure that aims at providing high quality observational data for the long-term monitoring of the European greenhouse gases balance. To ensure the comparability of observations from the atmospheric stations within the network and to networks of the WMO/GAW a central facility for the ICOS research infrastructure, the Flask and Calibration Laboratory (FCL) in Jena (Germany) was established since 2013. Inter alia FCL covers the provision of real air reference standards calibrated relative to the respective WMO calibration scales for operation of continuous measurement systems at the monitoring stations. Therefore a standard filling facility including an oil-free compressor, absorbers and a spiking system for the production of user-defined reference air mixtures is available.

Within our contribution we will present the actual performance of operations and various quality control activities to ensure accuracy of observational data.