

Name of research institute or organization:

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**Institut für Umweltphysik, Universität Heidelberg**

Title of project:

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Long-term observations of  $^{14}\text{CO}_2$  at Jungfraujoch

Part of this programme:

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ICOS

Project leader and team:

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Dr. Ingeborg Levin, project leader  
Dr. Samuel Hammer, Dr. Bernd Kromer, Dr. Dietmar Wagenbach<sup>†</sup>

Project description:

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Atmospheric  $^{14}\text{CO}_2$  observations at Jungfraujoch started in 1986 and were continued until today without interruption. The respective long-term data record has extensively been used as clean air background for other observational sites in Central Europe to estimate the regional fossil fuel  $\text{CO}_2$  component. They are also applied as tracer for carbon cycle studies or bomb radiocarbon dating of young organic material. Our quasi-continuous measurements are now continued in the framework of the European ICOS (Integrated Carbon Observation System) Atmospheric Station network, and continue to serve as reference for estimates of the fossil fuel  $\text{CO}_2$  component over Europe and other applications.

Key words:

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Carbon dioxide, carbon cycle modelling, radiocarbon, fossil fuel  $\text{CO}_2$

Internet data bases:

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<http://www.iup.uni-heidelberg.de/institut/forschung/groups/kk/>  
Data have regularly been published in peer-reviewed journals, yet unpublished data are available on request by the authors.

Collaborating partners/networks:

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ICOS (<http://www.icos-infrastructure.eu>)

Address:

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