



# Max-Planck-Institut für Chemie

Otto-Hahn-Institut

## Postdoctoral Research Opportunity

at the

**Max Planck Institute for Chemistry, Biogeochemistry Department**

## **Emission Modelling of Pyrogenic Aerosols from Biomass Burning and Biofuel Use**

Within the “**European Integrated Project on Aerosol-Cloud-Climate and Air Quality Interactions**” (EUCAARI), the Max Planck Institute for Chemistry, Biogeochemistry Department invites qualified candidates to apply for a postdoctoral researcher position.

### **Project Task: Size-resolved particle emissions of pyrogenic aerosols**

A state-of-the-art dynamic emissions model for pyrogenic aerosols will be developed for use in regional and global models. This work will start with an integration and synthesis of the available data from field studies and lab experiments on the formation of aerosols during open vegetation burning and biofuel use. This information will then be used to drive local emission models that take into account the different emissions characteristics of the various combustion phases, and the spatio-temporal distribution of these emissions within a fire event. Regional upscaling will involve consideration of land cover/fuel types, fire weather, and fire management. Application of remote sensing information will then allow both the development of emission climatologies using historical satellite data, and chemical weather forecasting.

**EUCAARI** is a highly interdisciplinary and international project involving over 40 major atmospheric research institutions across Europe as well as partners from around the world (coordinator: M. Kulmala, Helsinki). It addresses aerosol properties, interactions, and effects relevant for climate and public health, and it comprises laboratory experiments, ground-based and airborne field measurements, remote sensing, and environmental modelling activities.

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