

## **New insights in SOA formation – from BVOCs to CCNs**

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**Monday, October 29th, 2012, 3:30 p.m.**

**3:00 p.m. – Refreshments & Socializing**

**Foothills Lab 2, Room 1022**

### **Abstract**

Today it is crucial to point out in any statement given from the scientific community to politicians that many of our future climate predictions are based on simplified and more or less empirical achieved parameterizations without knowing the detailed processes. In general, one of the main activities of our Division is to improve our knowledge in several atmosphere relevant topics focused to decrease the uncertainties in future climate predictions. One important goal in the group is to understand the formation of secondary organic aerosols (SOA) starting from the emissions of precursors from the canopy up to their activation to form cloud droplets.

The presentation will provide an overview about the activities in our institute, and in the Atmosphere Modelling Group in particular, related to a) the emissions of biogenic volatile organic compounds (BVOCs) from different ecosystems including organic nitrates; b) different not complete solved chemical reaction mechanisms important in the formation of secondary organic aerosols (e.g. OH and H<sub>2</sub>SO<sub>4</sub>); c) our current understanding in the formation and growth processes of SOA; d) the ability of SOA to act as cloud condensation nuclei (CCN) and the influence of turbulence on the CCN activation.