

Wintersemester 2011/12

 Gebäude NW I
Hörsaal H12

BayCEER Kolloquium

Vortragsreihe Ökologie und Umweltforschung

Donnerstag 27.10.2011, 17:00 Uhr, H12

Anschließend Postkolloquium mit Bier und Brezeln im Foyer H12

Dr. Thomas Karl

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Putting constraints on the life cycle of reactive organic carbon based on ecosystem scale flux measurements

Large quantities of volatile organic compounds (VOC) enter the atmosphere. The annual production of VOC (600 to 2000 TgC/a) likely exceeds that of methane and CO (~500 TgC/a each). Together these gases fuel tropospheric chemistry. Oxidation of VOC leads to the formation of aerosol via complex organic chemistry in the gas and aerosol phase thereby modulating the oxidation capacity of the atmosphere. It is currently believed that a large fraction of VOC originates from biogenic sources (e.g. >80%). The life cycle of organic carbon is ultimately controlled by emission and deposition processes at the surface. Uncertainties in budgets of VOC and potential ramifications for organic aerosol production in the atmosphere will be discussed based on a synthesis of direct VOC flux measurements performed in a range of different ecosystems. These direct flux measurements will be used to address some outstanding questions concerning (1) the amount of reactive biogenic organic aerosol precursors, (2) the magnitude of deposition processes and (3) the lifetime of reactive biogenic organic aerosol precursors in the atmosphere.

Die Vortragsreihe ist eine interdisziplinäre Plattform zur Information und Diskussion für Studierende, Forschende und Lehrende

Gäste sind herzlich willkommen