

Laboratory investigations

Cloud Laboratory

Clouds are a major player in the earth's weather and climate system and their behaviour is neither well understood nor predictable. Therefore, our cloud laboratory deals with the investigation of aerosol-cloud and turbulence-cloud interactions in both laboratory and field. The main focus lies on the investigation of the influences of aerosol particles on the formation and freezing of clouds, and a comprehensive physical characterization of atmospheric clouds.



Source: TROPOS



TROPOS Cloud Laboratory, Source: TROPOS



"Leipzig Aerosol CLoud Interaction Simulator (LACIS)



Counterflow Virtual Impactor (CVI), Source: TROPOS

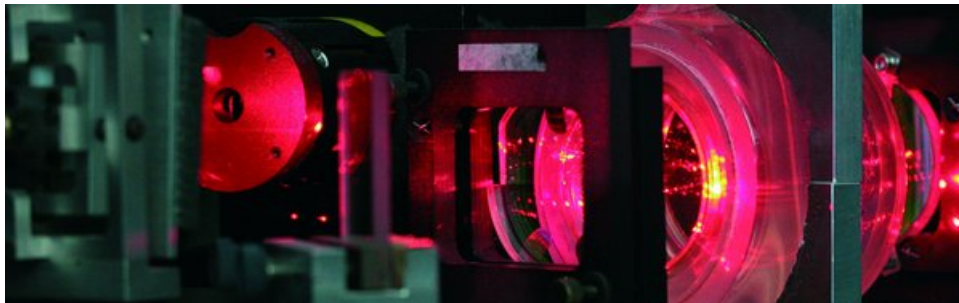
- LACIS

Chemical Prozesses

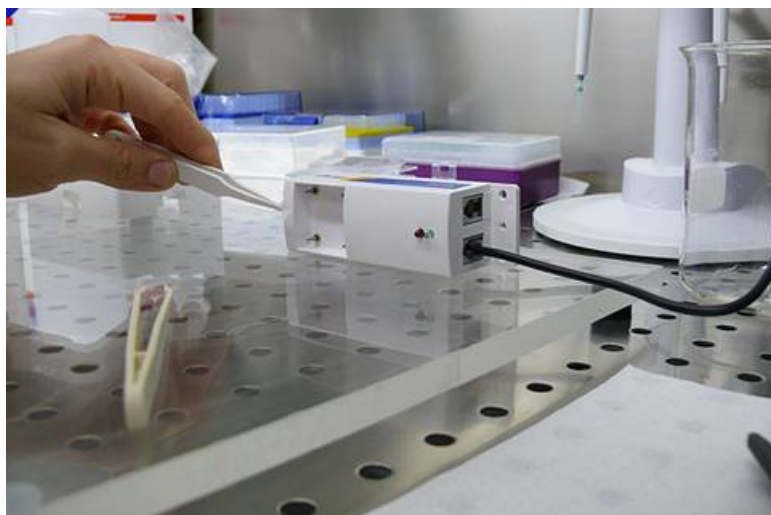
The picture below shows a cell to investigate nitrate radical reactions in aqueous solution. The cell is surrounded by mirrors used to pass red laserlight through the cell for the optical detection of the nitrate radical.

The picture in the middle shows a so-called Berner impactor for size-resolved sampling of aerosol particles is assembled for field experiments.

The figure on the rights shows a look into the Leipzig Aerosol Chamber ('LEAK'), a large experiment for the simulation of chemical conversions of aerosol particles under controlled conditions.



Source: Christian Weller/TROPOS



Preparation of samples, Source: TROPOS



Assembling of a Berner Impactor, Source: TROPOS



Leipzig Aerosol Chamber (LEAK), Source: Yoshiteru Iinuma/TROPOS

- Atmospheric Chemistry Department - Chamber (ACD-C)

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