ATMO ACCESS

Access to Atmospheric Research Facilities

Services provided by CESAM

Multiphase Atmospheric Experimental Simulation Chamber

This work has received funding from the European Union's Horizon 2020 research and innovation programme through the ATMO-ACCESS Integrating Activity under grant agreement No 101008004

SERVICE 1 – Scientific research on gas phase and multiphase processes under controlled chamber conditions at CESAM platform	
TYPE OF SERVICE	Research service
SERVICE DESCRIPTION	The CESAM platform consists of a combination of two chambers (CESAM chamber and CSA chamber) that can work both with gas or multiphase reacting mixtures involving gaseous trace species, organic particles, water droplets, mineral dust, soot and salts. It has been designed to perform studies on multiphase atmospheric processes under realistic conditions. This platform is equipped with a large panel of instrumentation for and aerosol characterizations (PTR-Tof-MS, ACSM, SMPS, in situ spectroscopic devices (IR and UV-Visible), gas monitors (O3, SO2, NO2, NOx, CO, CO2), OPC, SFE-GC-MS, LC-MSMS, Nephelometer, Aethalometer...) - Kinetic and mechanistic studies - VOC oxidation, SOA formation and aging - Radiative forcing of aerosol (optical and hygroscopic properties) - Multiphase chemistry (gas, aerosol, cloud) - Cloud chemistry - Health impact (platform for exposition of living organisms) - Spectroscopic studies
ATMOSPHERE TYPE	Controlled atmosphere
TYPE OF ACCESS	Physical, remote
TARGET USERS	Academia, Business, Public sector
SERVICE STATUS	Available
AVAILABILITY PERIOD	All year round
TIME CONSTRAINTS	None
CONTACT	Bénédicte Picquet-Varrault: benedicte.picquet-varrault@lisa.ipsl.fr Mathieu Cazaunau: mathieu.cazaunau@lisa.ipsl.fr
SERVICE 2 – Training on chamber instrumentations and chamber experiments	
TYPE OF SERVICE	Training service
SERVICE DESCRIPTION	- Training on state of the art of on-line (PTR-Tof-MS, ACSM, SMPS, OPCs, Nephelometer, Aethalometer...) and off-line (SFE-GC-MS, LC-MSMS, Sunset...) analytical instrumentation available on CESAM platform - - Training on how to perform chamber experiments to investigate gas phase and multiphase processes
ATMOSPHERE TYPE	Controlled atmosphere
TYPE OF ACCESS	Physical
TARGET USERS	Academia, Business, Public sector

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SERVICE STATUS	Available
AVAILABILITY PERIOD	All year round
TIME CONSTRAINTS	None
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SERVICE 3 – Support to allow validation, (inter)calibration, intercomparison of instruments	
TYPE OF SERVICE	Innovation and technological service
SERVICE DESCRIPTION	CESAM platform allow for testing newly developed instruments and performing intercalibration and intercomparison under various atmospheric conditions (Pressure : few millibars to ambient, Temperature : 5°C to 40°C) and with various complex chemical mixture
ATMOSPHERE TYPE	Controlled atmosphere
TYPE OF ACCESS	Physical
TARGET USERS	Academia, Business, Public sector
SERVICE STATUS	Available
AVAILABILITY PERIOD	All year round
TIME CONSTRAINTS	None
CONTACT	Bénédicte Picquet-Varrault: benedicte.picquet-varrault@lisa.ipsl.fr Mathieu Cazaunau: mathieu.cazaunau@lisa.ipsl.fr

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