



**ATMO ACCESS**  
Access to Atmospheric Research Facilities



## Services provided by PACS-C2

PSI Atmospheric Chemistry Simulation Chambers



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[atmo-access.eu](http://atmo-access.eu)

## SERVICE 1 – Scientific exploration at the PACS-C2 atmospheric simulation chamber

TYPE OF SERVICE	Research service
SERVICE DESCRIPTION	<p>The service consists of:</p> <ul style="list-style-type: none"> <li>- Provision of data from simulation chamber experiments,</li> <li>- possibility to perform 6hr experiments in the simulation chamber,</li> <li>- technical service to use own instruments,</li> <li>- training for planning, evaluation and interpretation of experiments,</li> <li>- Hands-on training sessions with state-of-the-art instrumentation connected to PACS-C2,</li> <li>- Training on how to perform chamber experiments by experienced scientists.</li> </ul> <p>PSI has a full suite of state-of-the-art instrumentation. Depending on the objectives of the campaign, the chambers can be equipped with the following instruments for gas phase characterization: a proton-transfer reaction time of flight mass spectrometer (PTR-TOF-MS), a chemical ionization atmospheric pressure interface time of flight MS (CI-API-TOF), as well as the standard NOx and ozone monitors; for NO there is also a high sensitivity instrument (detection limit 5 ppt) available, important for experiments at low NOx conditions. For the characterization of the particle phase the following instrumentation is available: condensation particle counters with different lower cut-off sizes (3 and 10 nm), a particle size magnifier (PSM for even smaller particles, scanning mobility particle sizers (SMPS) for the size distribution (two different size ranges available with a nano and a standard SMPS), a high resolution time of flight aerosol mass spectrometer (TOF-AMS), extractive electrospray ionization time-of-flight mass spectrometer (EESI-ToF), an instrument for on-line determination of reactive oxygen species (ROS) and peroxides. For black carbon measurements, a single particle soot photometer (SP2) and an aethalometer are available.</p> <p>PACS-C2 also focuses on studies on primary emissions and has many sources of primary emissions available (e.g residential wood burning, coal combustion, open burning emissions, vehicular idle emissions).</p>
ATMOSPHERE TYPE	Controlled atmosphere
TYPE OF ACCESS	Physical access is preferred, remote access can also be provided
TARGET USERS	Mainly academia, but also business /private sector
SERVICE STATUS	The service is available (operational and ready to be offered)
AVAILABILITY PERIOD	All year round.
TIME CONSTRAINTS	None, although access has to be coordinated with other activities in laboratory
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## SERVICE 2 – Newly developed instrumentation testing and intercomparisons at PACS-C2



TYPE OF SERVICE	Innovation service
SERVICE DESCRIPTION	PACS-C2 provides the possibility of testing new instrumentation and to perform (inter)calibrations or intercomparisons. Existing standard operation procedures can be used for comparison of new with established analytical techniques/instruments with the user.
ATMOSPHERE TYPE	Controlled atmosphere
TYPE OF ACCESS	Physical
TARGET USERS	Open
SERVICE STATUS	The service is available (operational and ready to be offered)
AVAILABILITY PERIOD	All year round
TIME CONSTRAINTS	None
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