

LaTEP LABORATORY FOR THERMICS, ENERGY AND PROCESSES

LaTEP/ EA 1932

Fields of application

Energy

The environment

Biomass, biofuel

Chemical and petroleum industries

Energy production and transformation

The refrigeration and air-conditioning
industry

Engines, cogeneration

Research themes and know-how

EXPERIMENTATION, MODELING AND SIMULATION IN:

Thermodynamics of multiphase reactive systems

Thermodynamics of energy systems

Multiphase transfers (heat and matter)

Flow in reactive systems

Transfer intensification and process coupling

Energy storage, transportation and distribution (natural gas, geothermics, phase-change
materials, distribution networks, etc.)

Analysis and intensification of energy systems and processes (solar refrigeration, external
combustion engine, two-phase loop, etc.)

Treatment of air and gaseous effluents

Waste and biomass valorization

Main equipment

High-pressure/high-temperature reactors and equilibrium cells, metrology and associated analyses

Heat analyses, PVT and transport properties of salt systems

Mechanical dehydration tools (electro-dehydration, filter press, filtration-compression cells, etc.)

Unit operation pilots: crystallizers, reactive absorption, reactive distillation, etc.

Thermal energy storage pilots

External combustion engines

Heat transfer benches

Partnerships

Industrial partnerships: AIR LIQUIDE, ALSTOM, ARAMCO, AREVA, ARKEMA, CIAT, CRISTOPIA, EADS, EDF, EUROPLASMA, FRANCE TELECOM, ENGIE, GERG, PROSIM, THERMYA, TERECA, TOTAL, VEOLIA

Institutional partnerships: ADEME, ANR, BRGM, IRSTEA, IFPEN, Nouvelle-Aquitaine region

Spearheaded by



LaTEP in figures

20
PhD students and
post-doctoral
researchers

24
researchers
and lecturers-
researchers

Contacts:

Director:
Jean-Pierre BEDECARRATS

Deputy Director:
Pierre CÉZAC

Deputy Director:
Vincent PLATEL

Bâtiment d'Alembert
Rue Jules Ferry BP7511
64 075 PAU Cedex

pierre.cezac@univ-pau.fr
+33 (0)5 59 40 78 30

vincent.platel@univ-pau.fr
+33 (0)5 62 56 35 12

jean-pierre.bedecarrats
@univ-pau.fr

+33 (0)5 59 40 77 17

<http://latep.univ-pau.fr>