



Laboratories of Physics and Chemistry involved in the *laboratoire d'excellence* «Chemical and Physical Properties of the Atmosphere» (CaPPA)

Laboratoire d'Optique Atmosphérique

UMR 8518 CNRS - Université Lille 1
Villeneuve d'Ascq
www-loa.univ-lille1.fr



Laboratoire de Physico-Chimie de l'Atmosphère

EA 4493 CNRS- Université du littoral Côte d'Opale
Dunkerque
lpca.univ-littoral.fr



Laboratoire de PhysicoChimie des Processus de Combustion et de l'Atmosphère

UMR 8522 CNRS - Université Lille1
Villeneuve d'Ascq
pc2a.univ-lille1.fr



Laboratoire de Physique des Lasers, Atomes et Molécules

UMR 8523 CNRS - Université Lille 1
Villeneuve d'Ascq
www.phlam.univ-lille1.fr



Laboratoire de Spectrochimie Infrarouge et Raman

UMR 8516 CNRS - Université Lille1
Villeneuve d'Ascq
lasir.univ-lille1.fr



Sciences de l'Atmosphère et Génie de l'Environnement

Mines Douai - Higher School of Engineering and Research Centre
Douai
sage.mines-douai.fr



master-physique.univ-lille1.fr

master-physical-analytical-chemistry.univ-lille1.fr/master2/AE/
(this website will be operational in May 2015)

www.labex-cappa.fr/master-atmospheric-environment

For further information, please contact the coordinators of the Master 2 "Atmospheric Environment" :

Master in Chemistry
Prof. Denis Petitprez

Denis.Petitprez@univ-lille1.fr
Ph: +33 (0) 320 43 65 62

Master in Physics
Prof. Thérèse Huet

Therese.Huet@univ-lille1.fr
Ph: +33 (0) 320 33 64 60

Practical informations

The commuter-friendly university campus is located in Villeneuve d'Ascq, only 10 kilometers away from Lille center.

Lille, european capital of culture in 2004, succeeded in preserving its cultural dynamism combined with an affordable way of life. 3 European capitals: Paris, London, Bruxelles are ideally reached by train in 1 hour.

**INTERNATIONAL
Master 2**

**ATMOSPHERIC
ENVIRONMENT**

Master in Physics
Light - Matter

Master in Chemistry
Chemistry Energy Environment

High level of education
Research at the top level
Stimulating environment

**SCHOLARSHIPS
AVAILABLE**

© JohanSvanepoel - Fotolia.com



Objectives



The International Master 2 “Atmospheric Environment” of the University of Lille 1 is providing a 1-year program in physics and chemistry of the atmosphere, at the highest level.

It is supported by the french *laboratoire d'excellence CaPPA* (Chemical and Physical Properties of the Atmosphere). The *laboratoire d'excellence* (labex) involves large complementary research projects gathering together partner teams with strong scientific qualifications. By the diversity of researchers' disciplines and the promising research topics, the labex aims to reach **the top-level of research**.

Training is dedicated to students in **physics and/or chemistry** wishing to follow a specialization in atmospheric sciences to get a strong background in theory and practical work.

Students are immersed in an **international environment** and all courses are delivered in English. The first semester (01 Sept-31 Jan) is dedicated to lectures and practical work, while the second semester (01 Feb-30 June) focuses on a full-time laboratory research project. A large selection of research projects will be offered to students.

In order to facilitate **interactions and discussions with the professional world**, master students are involved in CaPPA's events such as conferences or seminars. A visit to every laboratory involved in CaPPA is organized, helping students to identify the research topic they want to specialize in.

Job opportunities

- > PhD thesis in a research laboratory
- > Engineer in air quality, in atmospheric measurements, in remote sensing



Application

This program is open to students in chemistry and/or physics with a **validated first-year of Master in Physics, Chemical Physics or Chemistry**.

The application forms are available on the website on December 1st and must be returned by March 15th. Each candidate will receive an answer by the end of March.



Master in chemistry
website operational in May 2015
master-physical-analytical-chemistry
.univ-lille1.fr/master2/AE/

Master in physics
master-physique.univ-lille1.fr

International students

All students should check if their country has a Campusfrance agency.

➤ If so, they have **to create as soon as possible and mandatory before April 15th** (deadline changes depending on countries). Once international students are selected to follow the master, they will have to go through the Campusfrance procedure. Campusfrance is also in charge of visa issuing. www.campusfrance.org

➤ If not, they need to follow Lille 1 University validation process. Documents will be sent by Lille 1 University.

Scholarships

Scholarships are available for students having the **highest academic records**. Each selected candidate will receive **7 000€ for the academic year**. Please consult the application form.

For information
University fees (2014-2015):
261,10 € (registration) + 213 € (social security)
Fees are updated each year.

2 courses of Physics

AE1 - PHY
Electronic structure and vibration-rotation spectroscopy

AE2 - PHY
Radiative transfer in the atmosphere

2 courses of Chemistry

AE1 - CHEM
Advanced methods of analysis

AE2 - CHEM
Reactivity in homogeneous and heterogeneous phases

3 courses of Chemical Physics

AE3
Physics and chemistry of the atmosphere

AE4
Advanced Spectroscopic Techniques for Environmental Analysis

AE5
Observation systems for atmospheric monitoring

AE6
Advanced English / French

Research project in a laboratory

Full-time research position in a laboratory involved in the labex CaPPA

Semester 3

Sept-Jan

Semester 4

Feb-June

MASTER IN PHYSICS
60 ECTS

MASTER IN CHEMISTRY
60 ECTS

Each semester corresponds to 30 ECTS.
ECTS: European Credit Transfer and Accumulation System