LABORATOIRE INTERACTIONS, DYNAMIQUES ET LASERS

LIDYL-UMR 9222
CEA, CNRS, Université Paris-Saclay

SEMINAIRE LIDYL

Emmanuel Dartois
Institut d'Astrophysique Spatiale (UMR8617), Orsay

Le Vendredi 12 Janvier 2018 à 11h00
- Bâtiment 522 - Salle 138

"Interstellar and interplanetary solids, from observations to laboratory simulations for dust models"

The interstellar medium is a physico-chemical laboratory where extreme conditions are encountered, and whose environmental parameters (e.g. density, reactant nature, radiations, temperature, time scales) define the composition of matter. Whereas cosmochemists can spectroscopically examine collected extraterrestrial material in the laboratory or via space probes, astrochemists must rely on remote observations to monitor and analyze the physico-chemical composition of interstellar solids.
The observations give essentially access to the molecular functionality of these solids, rarely to elemental composition constraints and isotopic fractionation only in the gas phase. Astrochemists bring additional information from the study of analogs produced in the laboratory, placed in simulated space environments.
In this presentation, recent advances from laboratory experiments will be presented, setting constraints on the composition of organic solids and molecules in the cycling of matter in the Galaxy. One objective will be to draw some commonalities and differences between materials found in the Solar System and Interstellar dust.
This talk will particularly focus on carbonaceous dust materials from the far (ISM) and near (Solar System) space environments, small species released by the VUV irradiation of interstellar analogues and their influence on PDR regions compositions, and extraterrestrial collected dust, Ultracarbonaceous Antarctic Micrometeorites (UCAMMs), associated with the outer Solar System icy bodies.

Formalités d'entrée :

Visiteur U.E. *: Se faire connaître au moins 48 heures à l'avance pour l'établissement de votre autorisation d'entrée sur le Centre de Saclay.*
Visiteur hors U.E. *: Se faire connaître au moins 4 jours à l'avance pour les formalités d'entrée et se faire accompagner par un agent CEA.*
Sans autorisation, vous ne pourrez entrer sur le Centre de Saclay. Tél. : 33.1.69.08.74 09- Fax : 33. 1.69.08.76.39 - email : caroline.lebe@cea.fr ou veronique.gereczy@cea.fr
Dans TOUS LES CAS, se munir d'une pièce d'identité (passeport et carte d'identité - pas de permis de conduire)