



SEMINAIRE ISMO

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High-resolution spectroscopic studies of transient carbonaceous species

Carbonaceous molecules are of importance in diverse scientific areas such as astrochemistry, material science, structural chemistry and theoretical chemistry. Carbon-rich chains in particular are abundant ingredients of molecular clouds and circumstellar shells.

In this talk, recent efforts towards spectroscopic characterization of neutral and charged carbon-rich chains harboring selected heteroelements will be presented. For the most part, neutral chains were studied at high spectral resolution using a combination of laser ablation production and infrared laser spectroscopy. Charged carbon-rich chains were observed using both infrared and millimeter-wave techniques employing Cologne-built 22-pole ion trap.

Experimental studies and spectroscopic analyses were guided and complemented by high-level quantum-chemical calculations performed at the CCSD(T) level of theory.

Mardi 21 janvier 2020 à 11 h
Amphithéâtre du bât 520 (3^{ème} étage)
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