

学術セミナーのお知らせ

演題;

UV spectroscopy of gas phase proteins and metal cluster-peptide hybrids

講師; [Professor Philippe Dugourd](#) (フランス・リヨン大学)

日時; 平成 20 年 11 月 4 日 (火) 16 : 30 – 18 : 30

場所; 共同会議室 (総合棟 3F)

講演概要;

We perform gas phase experiments with the objective of providing the bases to construct atomic models of functional biomolecule in actions. The experimental set up integrates an electrospray ion source, an ion trap mass spectrometer and one or two tunable UV-Vis lasers. A first series of results was obtained on multiply negatively charged peptides and proteins. Electron emission was observed after irradiation. Electron detachment yield as a function of the laser wavelength and optical signatures of proton and radical transfers will be presented. Metal cations are ubiquitous in biology. We will show that gas phase experiments can be used to determine the exact nature of the binding between the cation and the peptide and the influence of the cation on the conformation of the biomolecule. Finally, we will present results on peptide- silver cluster complexes. The surface plasmon of the metal moiety induces a spreading and a strong enhancement of the optical absorption of the complex. These systems can be used as prototypes of biomolecules on surfaces in a well-defined environment.

興味のある教員・学部生・大学院生は奮って御参加下さい。

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