

第4回機能物質化学講演会のお知らせ

日時：2011年4月21日（木）午後4時～午後5時30分

場所：J棟505室

概要：仏リール第1大学のMichel SLIWA博士（CNRS 研究員）が来日するにあたり、本学相模原キャンパスでフォトクロミック分子の超高速分光研究についての講演会を開催いたします。

講演題目：Chemometric analysis of photochromic molecules: from stationary to ultrafast spectroscopy data analysis

講演概要：

Time resolved absorption spectroscopy of photochromic molecules enables to measure: 1) with pulsed irradiation, the photo-dynamics of the excited and intermediate species with femtosecond to millisecond time scale resolution; 2) with stationary irradiation, the formation and evolution of different photo-products with second time scale resolution. Only the combination of both experiments allows to get an entire picture on the evolution of a photochromic molecule under irradiation. Since there are many overlapping species and complex phenomena which can affect the structure of time resolved spectra (especially for femtosecond spectra such as distortions due to the apparatus function) dedicated chemometric strategies should be developed. Through different photochromic examples (diarylethene, salicylidene aniline, hexaarylbiimidazoles) we will discuss here how different chemometric approaches developed in our laboratory (pre-processing data, data exploration, multivariate curve resolution, kinetic fitting...) can be applied to help to characterize the ultrafast and long-time scale photo-mechanism.

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