

第 19 回機能物質化学講演会のお知らせ

日時：2014 年 7 月 7 日（月）午後 3 時～午後 4 時 30 分

場所：J 棟 505 室

概要：アムステルダム大学 Van't Hoff Institute for Molecular Sciences の Albert M. Brouwer 教授が来日するにあたり、本学相模原キャンパスで蛍光顕微鏡による材料物性研究についての講演会を開催いたします。



講演題目：Looking into materials with fluorescence microspectroscopy

講演概要：

Fluorescence microscopy is a well established and powerful tool in the life sciences, but less common in the study of materials. In this lecture I will show three cases where we have used fluorescence microscopy to study physical processes in materials. The first case is a new way to observe the glass transition using on/off switching of the fluorescence of single molecules, which we attribute to the dependence of an electron transfer quenching process on the (non)availability of local free volume. The second case is of direct technological relevance: we observed the coalescence of acrylate type latex particles to form a coating. In the last example we show how we can observe mechanical contacts between objects on the nanoscale, again using a fluorescence turn-on probe.