明治大学主催　研究者交流支援事業

特別講義

Self-assembly and pattern formation in precipitation reactions: the Liesegang phenomenon

IstvánLagzi　(Budapest University)

講演詳細

日時：2019年12月18日(水)
15：30～16：30

場所：明治大学中野キャンパス
高層棟6階　Room 3 (研究セミナー室3)教室

使用言語：英語（日本語通訳なし）

講演の概要：
Oppositely charged nanoparticles precipitate rapidly only at the point of electro neutrality wherein their charges are macroscopically compensated. In my talk, I will present results on the aggregation and precipitation of oppositely charged nanoparticles at concentrations ranging from 10 to 10^3 mM (based on gold atoms) by using UV-Vis measurements. We employed solutions of equally sized (4-6 nm) gold nanoparticles, which were functionalized and stabilized with either positively or with negatively charged alkane thiols. Results showed that oppositely charged nanoparticles do not precipitate if their concentration is below a certain threshold even if the electro neutrality condition is fulfilled. This finding suggests a universal behavior of chemical systems comprising oppositely charged building blocks such as ions and charged nanoparticles.

参加対象者：大学院生向け、学部生、教職員も可。

講師紹介

István Lagzi(Budapest University of Technology and Economics)

Prof. István Lagzi is a top researcher in the field of self-organization and active matter and has many publications including original papers, review papers, and books. Although he is an experimental researcher of chemistry, he actively collaborates with theoretical researchers and succeeded to uncover the detail mechanism of his system.

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