第3回錯体物性化学講演会

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基盤表面での金属錯体自己組織化構造の構築と STM を用いた原子レベルでの構造解析と物性評価に関する研究を精力的に進められている Mario Ruben 先生(ドイツ・カールスルーエ研究センター 研究グループリーダー 兼 フランス国立科学研究センター教授)をお招きして、講演会を開催いたします。皆さまのご来聴をお待ち申し上げます。

日時: 2012 年 5 月 17 日 (木) 14: 00 ~ 15:30

場所: 理学部 2 号館 3 階 化学第 2 講義室 (2355 室)

講演タイトル: Surface-Confined Coordination Chemistry

Abstract: Molecular nanostructures have recently attracted interest in view of their potential to host tuneable functionalities which might be accessed within the few nanometre regime. We will report on the controlled generation of molecular nanostructures on surfaces by coordinative bond formation. The obtained molecular networks are investigated by means of UHV- and solution-based STM-techniques. A combined self-assembly/deposition approach yields a new protocol for the generation of modular metal-ion arrays on surfaces and advents features of "surface-confined" coordination chemistry. Alternatively, the deposition of conventionally synthesized coordination compounds onto electrically conducting will be shown. The controlled design of operable surfaces by the principles of surface-assisted coordination chemistry is a fascinating combination of new scientific perspectives with the aesthetic beauty of the real time observation of the altered interfaces.

References:

[1] Angew. Chem. Int. Ed. 2007, 46, 710-713.

[2] Proc. Nat. Ac. Sciences, 2007, 17927-17930.

[3] J. Am Chem. Soc. 2008, 11778-11781.

[4] Angew. Chem. Int. Ed. 2008, 8596-8599 (Hot Paper).

[5] J. Am Chem. Soc. 2009, 3881-3883.

[6] Nature Chem. 2010, 2, 131-133.

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