

The 91st iCeMS SEMINAR

Tue 11 Oct 2011
15:00-16:30

Perspectives in Molecular Tectonics

Lecturer: **Prof. Dr. Wais Hosseini**
University of Strasbourg

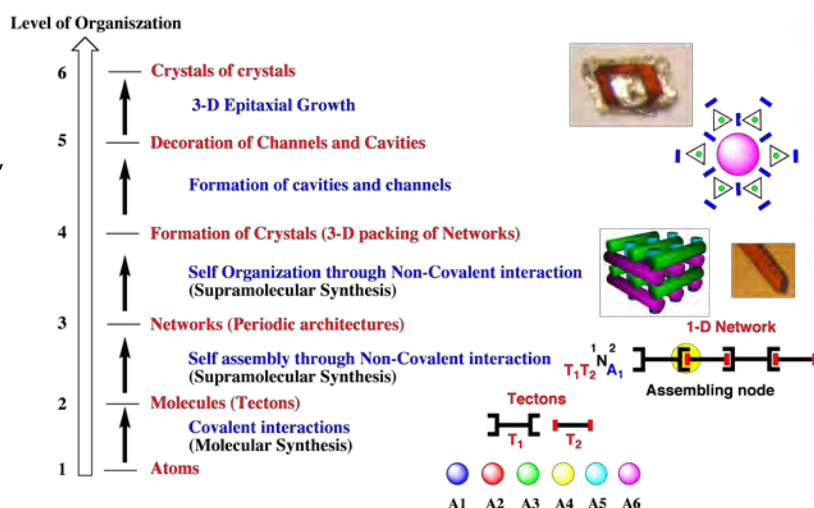
Venue: Seminar Room (#A207), 2nd Floor Main Building
iCeMS Complex 1, Kyoto University

The design and construction of periodic architectures in the crystalline phase or at surfaces are attracting considerable interest over the last two decades. The strategy called molecular tectonics that we follow to generate molecular networks is based on combinations of complementary tectons (molecular construction units). The generation of such infinite architectures is achieved by self-assembly processes through molecular recognition events and their repetition. This approach, not allows to analyse and describe molecular crystals as periodic networks, but is also operational for the design and construction of complex purely organic or hybrid architectures in the solid state or on surface. The approach combining supramolecular synthesis and self-assembly processes in the solid state or on surface will be presented and illustrated by a variety of tectons and networks.

Molecular Tectonics : from atoms to molecules, from molecules to networks, from networks to crystals, from crystals to crystals of crystals

Selected references

- 1) M. W. Hosseini, *Acc. Chem. Res.*, **2005**, 38, 313.
- 2) M. W. Hosseini, *Chem. Commun.*, Focus Article, **2005**, 582.
- 3) M. W. Hosseini, *Crys.Eng.Comm.*, **2004**, 6, 318



Contact: iCeMS Prof. Susumu Kitagawa at kitagawa-g@icems.kyoto-u.ac.jp
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