

Invitation to an ENE-Seminar

Date: Thursday, 28.03.2013, 11:00h

Place: OSGA / EG6

Novel Strategies for Combining Molecules, Clusters, and Nanocrystals into Functional Inorganic Solids

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Organometallically synthesized inorganic nanocrystals are considered to be promising building blocks for a broad spectrum of applications including electronic, thermoelectric, and photovoltaic devices. To achieve high degree of electronic coupling, the nanocrystal packing, surface chemistry and surrounding medium need to be properly designed.

This talk will provide an overview of the most recent developments towards functional inorganic materials built from nanocrystal building blocks. Special attention will be paid to rational combinations of inorganic molecules, clusters and nanocrystals – from synthesis strategies to self-assembly and device applications. Several examples will include nanocrystal-based materials for Li-ion batteries, infrared-active nanostructures, and hybrid molecular-nanocrystal superlattices.