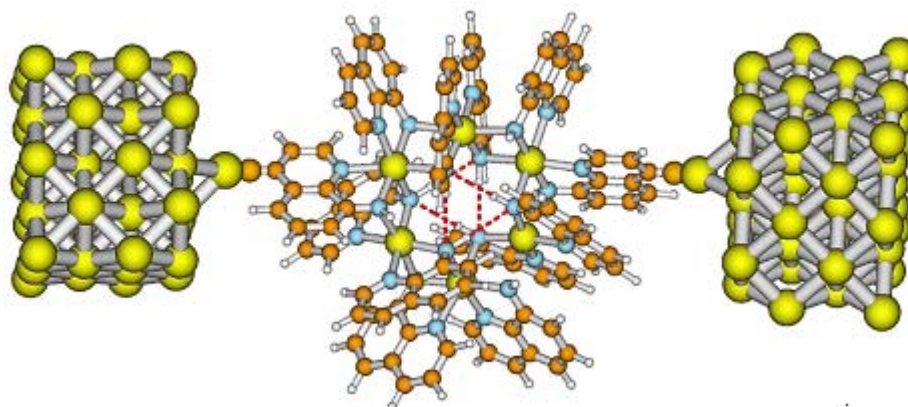


SEMINAR

DESIGNING MOLECULAR SPINTRONIC
DEVICES IN THE COHERENT TUNNELING
REGIME**CARMEN HERRMANN**

Northwestern University, Department of Chemistry.

Charge and spin transport on the molecular scale is not only a topic of crucial importance for biological processes such as photosynthesis, but has also become highly relevant for nanotechnology, for example for molecular electronics and spintronics. In this talk, the focus will be on how theory can contribute to the understanding and design of molecular spintronics devices within the coherent tunneling regime. Electron and spin transport properties are discussed for systems such as organic radicals and transition metal complexes, and are analyzed in terms of local transport pathways. The insight gained may be relevant for molecular bridges in a variety of environments, ranging from single-molecule junctions to polymeric structures, leading to possible applications such as organic spin filters and switches.



Ball-and-stick representation of a possible experimental setup: A [Mn6] molecular magnet between two metal electrodes.

REMEMBER

CARMEN HERRMANN**Specific Seminar: Designing Molecular
Spintronic Devices in the Coherent Tunneling
Regime****DATE:** April 16, 2010.**TIME:** 12:00 pm.**VENUE:** IFAE.