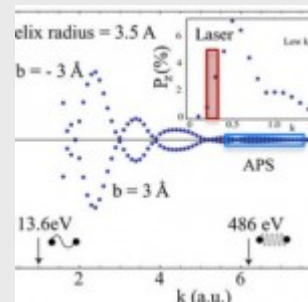


## Spin Polarization and Molecular Chirality In STM Junctions



Title: Spin Polarization and Molecular Chirality In STM Junctions

When: Wednesday, 24 February (2016), 12:00h

Place: Departamento de Física de la Materia Condensada, Facultad Ciencias, Module 3, Seminar Room (5th Floor).

Speaker: Vladimiro Mujica, Arizona State University, USA.

**E**lectron spin polarization is usually associated to the presence of external fields or magnetic interfaces. However, Chiral-Induced Spin Selectivity (CISS) refers to a symmetry-breaking effect whereby chiral molecules are capable of filtering an electronic spin component. This effect has been verified in electron photo-emission experiments but it also has important consequences in other instances of electron transport and transfer, e.g., STM and chemical reactions.

In this talk, a general theoretical framework for CISS will be presented and some recent experiments in molecular junctions using local probes like STM, where CISS manifests itself in asymmetries in the molecular conductance, will be discussed.

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