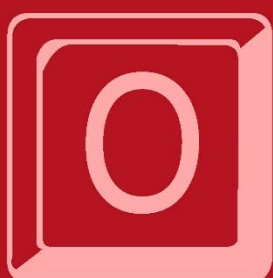
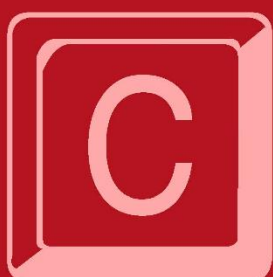
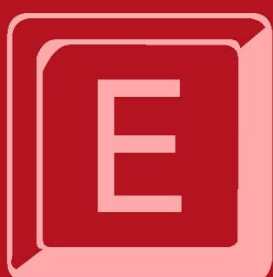


UNIVERSITÀ
DEGLI STUDI
DIPADOVA



Il Dipartimento di Scienze Chimiche accoglie il

dott. Agostino Migliore

che terrà un seminario dal titolo

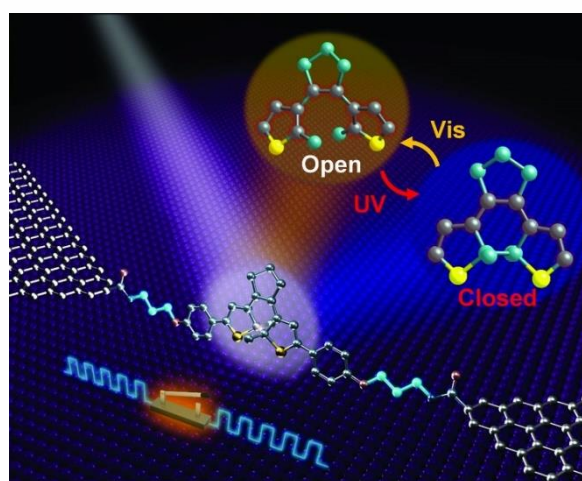
Communicating via charge transfer: from intracellular signaling to optoelectronics

Venerdì 21 Maggio 2021, ore 15:00 <https://unipd.zoom.us/j/763282419>

Dipartimento di Scienze Chimiche, Via Marzolo, 1.

Abstract

The dependence of electronic structure and dynamics in molecules on nuclear motion, the dielectric environment and external stimuli offers an extremely rich toolbox for the implementation of chemical reactions and relaxation processes relevant to nanotechnology. Charge transfer is at the heart of biological and bioinspired catalytic mechanisms; charge relaxation and polarization processes can enable chemical sensing, as well as enhanced solar energy harvesting; the effect of photoinduced conformational changes on electronic structure properties can be used to produce molecular switches. I will describe our developments in charge transfer theory and their application to contexts ranging from intracellular redox signaling to molecular conduction-based electronic devices. As will be highlighted by the work described, charge and energy transfer processes generally involve electronic and electronic-nuclear correlations with a great potential for molecular sensing, recognition, signaling and information transfer that is still largely unexplored.



Science 2016, 352, 1443-1445

La presenza della S. V. sarà molto gradita.

*Il Direttore del Dipartimento
Michele Maggini*

maggini@unipd.it