

Juan Carlos Moreno López

Faculty of Physics, University of Vienna

Tuesday, 31th January 2023, 16:00 s.t.

TU Wien, Institut für Angewandte Physik, E134
1040 Wien, Wiedner Hauptstraße 8-10
Yellow Tower „B“, 5th floor, SEM.R. DB gelb 05 B

The seminar will be also held as a Zoom Meeting
<https://tuwien.zoom.us/j/2827737278>



Organic molecules on surfaces: growing and charge carriers confinement

Molecular self-assembly, the spontaneous organization of molecules without human intervention, has attracted considerable attention during the last few years. Beyond the spontaneous organization of the molecules, usually stabilized by a subtle interplay between non-covalent bonds and substrate-molecule interactions, molecular self-assembly has emerged as a feasible and scalable route toward realizing novel optical and electronic devices with tailored properties. Here, in the first part of the talk, I will present some examples of organic molecules deposited on metal single crystals, where their growth mechanism and on-surface reactions have been rationalized by a combined approach, including scanning tunnelling microscopy (STM), X-ray photoelectron spectroscopy (XPS), and angle-resolved photoemission spectroscopy (ARPES), among others. As outlook, I will discuss a plausible strategy to tune the electronic properties of two-dimensional materials by using organic molecules.

All interested colleagues are welcome to this seminar lecture
(45 min. presentation followed by discussion).

Friedrich Aumayr
(LVA-Leiter)

G. Parkinson
(Seminar Chair)