Theoretical and Physical Chemistry Institute
National Hellenic Research Foundation

Vass. Constantinou 48, Athens

LECTURE

"Visiting single molecules, atoms and their assemblies on the solid-vacuum interface with scanning probe microscopy and complementary techniques"

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Thursday, June 6, 2024, 12:00

Seminar room, ground floor, NHRF

Visiting single molecules, atoms and their assemblies on the solid-vacuum interface with scanning probe microscopy and complementary techniques

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Supramolecular engineering and control of molecular species at interfaces is key to advance the development of novel low-dimensional materials. The insights gained affect various fields of application, including catalysis, sensing, spintronics and organic electronics. I will present part of our experimental work in Munich, where we explore molecular systems on well-defined surfaces which impart novel functions. With scanning probe microscopy, we visualize structural features with atomistic precision, revealing molecular recognition and self-assembly phenomena mediating the expression of original nanoarchitectures. With laboratory and synchrotron based electron spectroscopies we are able to provide further quantitative structural determination and information of chemical changes. Finally, I will lay out the development of this line of research in our laboratory in Athens.