

Students' Annual Seminar

Understanding of Atom/molecule- surface Interactions at the microscopic level

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The study of collision and reaction dynamics of molecules on metal surfaces gives insight into the elementary processes involved in the heterogeneous catalysis reaction. To have a complete picture of molecule-surface interactions, we need to develop tools for collision as well as reaction dynamic studies. To study the collision dynamics, I am working on designing and characterising an experimental set-up for quantum state-selected detection of molecules in surface scattering experiments using ion imaging techniques. For the reaction dynamics, I will discuss the recently developed surface-sensitive tool (based on specular Helium reflectivity measurement) used for real-time surface coverage measurement at the surfaces. In the end, I would also like to discuss the versatility of our new surface-scattering UHV chamber.

Monday, Apr 24th 2023

5:00 PM

CR-4, TIFR-H