

## O 27: Overview Talk Katrin Domke

Time: Tuesday 9:30–10:15

Location: TRE Phy

**Invited Talk**

O 27.1 Tue 9:30 TRE Phy

**Dive right in! Molecular insights into electrochemical surface science** — ●KATRIN F. DOMKE — Universität Duisburg-Essen, Germany

Surface scientists have become increasingly aware of the importance of expanding the research focus from classical UHV systems to electrochemical settings that adequately represent realistic working conditions of applications based on solid/liquid reactive interfaces, such as (electro)catalysis or energy conversion schemes. Gathering atomistic understanding about the complex interrelation between charge transfer, chemical conversion and interfacial potential in the presence of a

solvent is one of the most imminent challenges that surface scientists working with solid/liquid interfaces are facing.

Great efforts are being devoted to the development of novel methodologies to elucidate interfacial electrochemistry mechanisms on the molecular scale. In my talk, I will highlight our advances to achieve simultaneous operando plasmon-supported Raman nanoscopy and break-junction experiments. These approaches allow us to gain unprecedented insights into the correlation of chemical, topographic and electronic properties of individual reactive sites at solid/liquid interfaces, such as catalyst structure or (bio)molecular switches in electrolyte under potential control.