

Frontiers in Catalysis Science and Engineering Lecture Series

Physical Sciences Division



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Material Sciences Division
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Solid Liquid Interfaces: A New Surface Science Frontier

Tuesday, September 17 | 11:00 am | EMSL 1077

In this presentation I will review progress in liquid interfaces research in my laboratory, covering topics such as the melting of ice (liquid-gas interface) near the triple point using XPS and NEXAFS¹. We later develop a variation of the NEXAFS technique that made possible the study of solid-liquid interfaces in electrochemical environments, allowing us to determine the chemical and structural nature of the electrical double layer. Today we continue our efforts to push the frontier of solid-liquid interface science by implementing interface sensitive FTIR vibrational spectroscopy. To that effect we use plasmonic tip enhancement of the IR field which allows us to achieve nm spatial resolution spectra and to map and explore in greater detail the nature of the electrode-electrolyte interface.

Host: Zdenek Dohnalek | 1-6150

Admin: Diane Stephens | 1-6147