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Host: Dr. Yi Rao



Seminar Presentation Details:

Date: Feb. 13, 2019

Room: W330

Time: 4:00-5:00 p.m.

Refreshments will be served

Nonlinear Spectroscopy and Dynamics for Chemistry of Molecular Surfaces/Interfaces and Beyond

In the past three decades or so, there have been many applications of surface nonlinear vibrational spectroscopy, i.e. sum-frequency generation vibrational spectroscopy (SFG-VS), for its interface selectivity and sub-monolayer sensitivity, in obtaining chemical structure and bonding, as well as dynamic interactions, of molecular surfaces/interfaces. The potentials of SFG-VS in studies of complex molecular systems at surfaces/interfaces can be greatly expanded with the recent development of the sub-wavenumber high-resolution broadband sum-frequency generation vibrational spectroscopy (HR-BB-SFG-VS). HR-BB-SFG-VS is realized by combining the infrared and visible pulses at both the time and the frequency resolution limit, as it allows measurement of the nearly intrinsic lineshape of the SFG vibrational spectra. In this talk, the development, new opportunities and applications of such unique quantitative spectroscopic tool for complex molecular surfaces/interfaces in energy, environmental and biological sciences and technologies are to be discussed.

Web Site Link: <http://www.chemistry.fudan.edu.cn/En/Data/View/2863>