

# From Interstellar Ices to PAHs

A symposium to honor Lou Allamandola's Contributions to the Molecular Universe  
Annapolis, MD, USA - September 13<sup>th</sup> to September 17<sup>th</sup>, 2015

## INVITED TALK

### Factors impacting the Far, Mid and Near Infrared Spectroscopy of Polycyclic Aromatic Hydrocarbons

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The past decade has witnessed a resurgence of molecular and spectroscopic investigations concerning Polycyclic Aromatic Hydrocarbons (PAHs). This is due in a large part to the role PAHs play in interstellar chemistry, where they are responsible for the interstellar mid-infrared emission bands. Given their nearly ubiquitous interstellar presence, the infrared spectroscopic properties of PAHs are now being utilized as chemical probes of a wide variety of interstellar objects. This presentation will discuss the similarities and differences in the spectroscopic properties of PAHs as one goes from the Far to Mid to Near infrared wavelength regions and probe the changes observed in PAH spectra as they go from molecules suspended in an inert gas matrix, to a water ice matrix and as a thin film. In selected instances, the experimental results will be compared to theoretical values.