

# **Sigma Xi**

## **Leo Kaplan Memorial Lecture**



### **Aldo D. Migone, Ph.D.**

Elected Fellow American Physical Society  
Elected Member Peruvian National Academy of Science  
Professor Emeritus, School of Physics and Applied  
Physics  
Southern Illinois University Carbondale

#### **Date & Time:**

**Friday, September 15, 2023, at 4 p.m. in the  
Neckers building, Room 240.**

Zoom link for those who wish to attend virtually:

<https://siumed-edu.zoom.us/j/85671494310?pwd=QVAvN3ErWThSQUI2RmQ4K3gzTUyrUT09>

### **Gas Adsorption Studies on Solid Surfaces**

A fundamental understanding of the interaction of gas (adsorbate) molecules on solid surfaces (substrate) is a necessary first step leading to various applications, such as energy storage, gas separation, sensors, catalysis. Some of the key figures of merits closely associated with molecules' interactions with solid surfaces will be discussed. Techniques to extract these parameters from thermodynamic measurements will be presented. Adsorption studies of simple gas molecules on various solid substrates, such as bulk graphite, carbon nanotubes, metal organic frameworks, and porous carbon, will be discussed. Finally, similarities and differences in the adsorption behavior that arise from the nature of these materials' structural features will also be presented.

*The presentation is co-sponsored by Sigma Xi, the School of Chemical & Biomolecular Sciences, and the School of Physics and Applied Physics.*

For details, email Brent Bany at [bbany@siumed.edu](mailto:bbany@siumed.edu)