

**PROF. MURRAY JOHNSTON**

**UNIVERSITY OF DELAWARE**

**DEPT. OF CHEMISTRY & BIOCHEMISTRY**

# **ANALYTICAL SEMINAR**

*“Aerosol Mass Spectrometry: How  
it works and what it tells us  
about the air we breathe”*

Aerosol mass spectrometers measure the time-resolved chemical composition of airborne particles. Our laboratory has developed several instruments, each based on a different detection principle targeting a specific combination of particle size and chemical components - from the nanometer to micrometer size range and semi-volatile organic compounds to refractory inorganic materials. These instruments have been used in the field to characterize ambient air and in the laboratory to study chemical processes associated with particle formation and growth. This presentation will provide an overview of the methodology and applications of aerosol mass spectrometry, with the goal of understanding what's in the air we breathe and how it impacts the world around us. Applications to ambient aerosol chemistry will be discussed.

Thursday, October 21<sup>st</sup> at 12:15 p.m. in Room 1315