

## Ion Beam Analysis: New Environmental Applications for an Old Physics Tool

Wednesday

February 18

4 P.M.

Rm 118 NSH

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Various ion beam analysis techniques have been used with small accelerators for decades, especially Particle Induced X-ray Emission (PIXE) spectroscopy and Rutherford BackScattering (RBS) spectroscopy. These typically non-destructive analytical techniques allow the measurement of elemental composition and layer thickness on the surface of almost any solid target. We have been expanding the repertoire of samples studied by these techniques (and other ion beam analysis techniques) to include environmental samples such as lake sediment, forensic samples such as glass and automotive paint, and most recently environmental toxins in consumer products. This work includes the screening of polyurethane foams, textiles and plastics for halogenated flame retardant chemicals, and various consumer products for the presence of per- and polyfluorinated compounds. A summary of these results will be presented together with future directions accessible to any ion beam analysis laboratory.

Refreshments @  
3:30 in 202 NSH