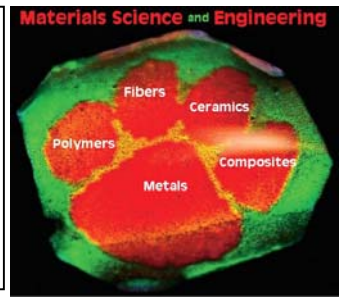


Seminar Series

Sponsored by
School of Materials Science and Engineering
Thursday, September 25 2008, 5:00 PM
Room 200 Olin Hall



Thermal Analysis Workshop

MSE 800

September 25, 2008

The response of a material to changes in temperature is an important consideration in materials research, and many thermal analysis techniques exist to study various material properties. This workshop will focus on three common thermal analysis techniques used in materials science including differential thermal analysis (DTA), dynamic mechanical thermal analysis (DMTA), and dielectric thermal analysis (DETA). DTA can be used to detect thermal transitions in a material such as glass transitions, melting, and crystallization. DMTA is used to examine changes in stress-strain relationships of a material, and DETA is used to measure viscoelastic properties. A brief history and an overview of the principles of operation and instrumentation for each technique will be provided. The interpretation of results from the techniques as well as relevant research examples will also be discussed.