Thermogravimetic Analysis and Fourier Transform Infrared

Thermogravimetric analysis (TGA) provides testing for a wide range of materials including polymers, plastics, composites, laminates, adhesives, food, coatings, pharmaceuticals, organic materials, rubber, petroleum, chemicals, explosives and biological samples. Intertek laboratory scientists offer TGA expertise for determination of endotherms, exotherms, weight loss on heating or cooling and more.

TGA uses heat to force reactions and physical changes in materials. TGA provides quantitative measurement of mass change in materials associated with transition and thermal degradation. TGA records change in mass from dehydration, decomposition, and oxidation of a sample with time and temperature. Characteristic thermogravimetric curves are given for specific materials and chemical compounds due to unique sequence from physicochemical reactions occurring over specific temperature ranges and heating rates. These unique characteristics are related to the molecular structure of the sample. When used in combination with FTIR, TGA/FTIR is capable of detailed FTIR analysis of evolved gases produced from the TGA.

TGA/FTIR Models	Location
Mettler Toledo/Nicolet	MUPA

For more information and services, please contact:

Science Officer
Division of Instruments and MUPA
School Of Chemical Sciences, USM, 11800, Penang.

Tel: +60-653 4058 Fax: +60-657 4854 E-mail: MUPA@usm.my