



Hands-on Workshop

Thermogravimetric Analysis & Differential Scanning Calorimetry



IRCBM

Thursday, May 15, 2014

Interdisciplinary Research Centre in Biomedical Materials, COMSATS IIT, Lahore

IRCBM Training Cell

IRCBM Training Cell has organized various:

- **Hands-on Workshops: Analytical Techniques, Advanced Research Methodologies, Cell Culturing** etc.
- **Soft Skills Trainings: Balanced Scorecard & Project Management, Biostatistics** etc.

These activities have seen participation from **Academia, Research Centres, Industry and Medical and Dental Institutes.**

Moreover these events provide you with an excellent platform to meet people from different backgrounds but with similar interests.

TGA Analysis

Thermogravimetric Analysis (TGA) measures weight changes in a material as a function of temperature or time under a controlled atmosphere. Its principal uses include measurement of a material's thermal stability and composition. TGA instruments have been routinely used in all phases of research, quality control and production operations. It is useful for characterizing ceramics, polymers, composites, organic or inorganic chemicals, metals or other common classes of materials.

DSC Analysis

In Differential Scanning Calorimeter (DSC) technique, temperatures and heat-fluxes are measured as a function of temperature and time and to find out the heat capacity of compounds. DSC can be performed at temperatures from ambient to high temperature. It uses instantaneous weight data to assure heat flow normalization for more accurate and meaningful results.

Both TGA-DSC modes can be used to determine:

- Glass Transition Temperature (T_g)
- Weight Loss
- Melting Points
- Crystallinity
- Purity
- Moisture/ Volatile Content
- Thermal Stability
- Transformation Temperature
- Oxidative Stability

Who Should Attend

- Graduate & Postgraduate Students
- Faculty Members & Academicians
- Researchers
- Scientific Officers
- Industry Persons
- Pharmacists

Key Features of Training

- Theoretical Information
- Instrument Handling
- Result Interpretation
- Knowledge about TGA-DSC Based Publications
- CPD hours will be Awarded
- Q & A Session

Resource Person

Dr. Abdul Samad Khan

BDS, MSc. (London), PhD (London), MADM

Associate Professor, IRCBM

Visiting Faculty, Queen Mary University of London, UK

- Extensive proficiency in instrumentation specially in utilizing TGA-DSC for material sciences.
- Published papers on thermal analysis in peer-reviewed analytical journals.

Organized by IRCBM Training Cell

at

IRCBM COMSATS IIT,

Defence Road, Off Raiwind Road, Lahore

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Registration Fee

For Students: Rs. 3000/ participant

For Faculty/Industry: Rs. 4,000/ participant

* Group discount is also available for five or more people of same organization

Registration Deadline: May 10, 2014

Limited number of seats are available!