

Powder X-ray Diffraction

Make: Bruker, Germany.

Model: Bruker D8 Advance

Applications: A rapid analytical technique primarily used for phase identification and quantification of Single crystalline and its unit cell dimensions.



Single Crystal X-ray Diffraction

Make: Bruker AXS GmbH, Germany.

Model: Bruker D8 QUEST

Applications: To determine poly-crystalline and single-crystalline materials. Used for the stress analysis of poly-crystalline Ceramic, Metal and Polymer powder samples and Pellet samples

High Resolution Mass Spectrometer

Make: Waters, USA

Model: XEVO-G2-XS-QTOF

Applications: To analyze complex chemical compounds, determine isotopes and to differentiate the isotopes, generating fragments pattern, and library matching for compound verification.



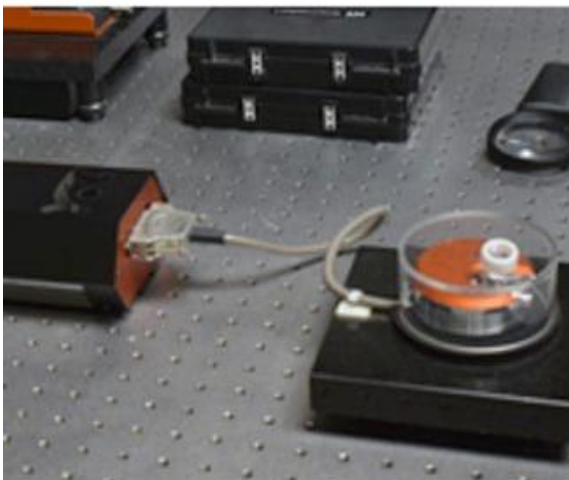


NMR Spectrometer

Make: Bruker, Germany

Model: AVANCE III 400 MHz, Bruker

Applications: To analyze and to determine the molecular structure of organic compounds. To determine the proton environment of organic compounds.



Scanning Tunneling Microscope

Make: Nanosurf AG Switzerland

Model: 23-06-154 Nanosurf easy Scan2

Applications: To analyze the friction, surface roughness, defects, and surface reaction in materials like catalysts. Important and powerful tool in Semiconductor and microelectronics.

Atomic Force Microscope

Make: Nanosurf AG Switzerland

Model: 60-14-080 NaioAFM

Applications: To image the surface topography by probe sample interaction, surface manipulation using force tips and even act as Force spectroscopy to measure forces between sample and probe.



Atomic Absorption Spectrometer

Make: VARIAN, USA

Model: VARIAN SPECTRAA240

Applications: To have quantitative analysis of the metal at trace and ultra-trace levels in a solution especially in biological samples.

