

UMF Equipment – Scanning Probe Microscope

Bruker MultiMode 8

Scanning Probe Microscope (SPM) scans the sample surface using a very sharp probe (cantilever) with the scanner moves back and forth to extract information from the sample surface at unprecedented resolution. With the help of special coating tip, the SPM can detect the magnetic field and electric field on the sample surface as well as the piezo response of a ferroelectric film. The capabilities of SPM have been extended to cover wide range of modes, such as mechanical, electrical and chemical mapping at nanoscale. A complete range of Atomic Force Microscopy (AFM) and Scanning Tunneling Microscopy (STM) techniques is available with the Bruker MultiMode 8 SPM and it is optimized for lower noise and higher performance in all operating modes, helping researchers advance new nanomechanical, nanoelectrical, and nanoelectrochemical research.

Features:

- Scanners: J type (125 x 125 μm), E type (12 x 12 μm)
- Temperature range from -35 to 250 $^{\circ}\text{C}$
- Mode of operation: Contact, Tapping, Phase Imaging, Lateral Force, Magnetic Force, Electric Force, Electrochemical, Scanning Tunneling, and Lithography etc.
- Sample holder: 12 mm or 15 mm metal disk (pucks)

Please refer to supplier information page for further details of the system:

<https://www.bruker.com/products/surface-and-dimensional-analysis/atomic-force-microscopes/multimode-8-hr/overview.html>

For any inquiry, please contact Dr. Hardy Lui (Tel: 2766 7791; Email: hardy.lui@polyu.edu.hk).

