




Conference Proceeding

Frontiers in Nanotechnology and Nanomedicine: A Force Microscopy Perspective

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Abstract

This contribution aims to provide a short overview of some recent advances in force microscopy and its applications in nanoscience, nanotechnology and biomedicine. The presentation covers instrumentation, imaging, nanomechanics and applications to study a wide range systems, from proteins, cells, polymers to novel 2D in air and liquid environments. The first section provides an introduction to advanced force microscopy. The second section describes some applications to generate high resolution (atomic, molecular or nanoscale) maps of soft matter interfaces (polymer and biomolecules). Those maps combined topography and nanomechanical properties. A method to generate three dimensional and atomically-resolved maps of solid-liquid interfaces will be presented. The third section, illustrates some applications in biomedicine.

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