



## Special Issue on Atomic Force Microscopy

### Call for Papers

Atomic Force Microscopy (AFM) or scanning force microscopy (SFM) is a very high-resolution type of scanning probe microscopy, with demonstrated resolution on the order of fractions of a nanometer, more than 1000 times better than the optical diffraction limit. The precursor to the AFM, the scanning tunneling microscope, was developed by Gerd Binnig and Heinrich Rohrer in the early 1980s at IBM Research - Zurich, a development that earned them the Nobel Prize for Physics in 1986. Binnig, Quate and Gerber invented the first atomic force microscope in 1986. The first commercially available atomic force microscope was introduced in 1989. The AFM is one of the foremost tools for imaging, measuring, and manipulating matter at the nanoscale. The information is gathered by "feeling" the surface with a mechanical probe. Piezoelectric elements that facilitate tiny but accurate and precise movements on (electronic) command enable the very precise scanning. In some variations, electric potentials can also be scanned using conducting cantilevers. In more advanced versions, currents can be passed through the tip to probe the electrical conductivity or transport of the underlying surface, but this is much more challenging with few research groups reporting consistent data.

In this special issue, we are going to invite front-line researchers and authors to submit original research and review articles that explore **Atomic Force Microscopy**.

Authors should read over the journal's [Author's Guidelines](#) carefully before submission. Prospective authors should submit an electronic copy of their complete manuscript through the journal at [Paper Submission System](#).

Please kindly notice that the "Special Issue" under your manuscript title is supposed to be specified and the research field "Special Issue —**Atomic Force Microscopy**" should be chosen during your submission.

According to the following timetable:

Submission Deadline	August 21rd, 2013
Publication Date	October 2013

#### Guest Editor:

For further questions or inquiries  
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