

TOOLS IN THE NANOKOSMOS

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Scanning probe microscopes are versatile tools for imaging on the atomic scale. Furthermore, they allow for nanomanipulation of single atoms and nanostructuring. One can for example produce electric circuitry orders of magnitude smaller than commercially available ones.

Most recent developments are hybrid systems on the nanometer scale, combinations of biological molecules and electric circuitry. Scanning probe microscopy methods thereby open a new world to the field of Neuromorphic Engineering, since artificial neural systems can be built closer to the scale of the biological systems which provide the design and principle they are based on¹.

- [1] Gebeshuber I.C. "Naturally nanostructured biomaterials", Invited lecture, Bionanotechnology Meeting @ Oxford University, UK, April 11-13, 2002.