

## New developments in AFM cantilevers fabrication methods

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(1) Polysilicon AFM cantilevers: technology of separate preparation of polysilicon bulk and silicon tip. Method of polysilicon bulk deposition to achieve accurately defined lever's resonance and stiffness parameters. AFM cantilevers with pencil-shape tips of Etalon Premium series for high quality AFM topography measurements.

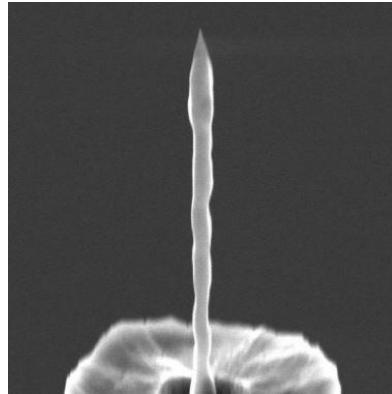


Figure 1. Pencil-shape tip of cantilevers of Etalon Premium series.

(2) Chemical stable metal  $W_2C$  coating which demonstrates stability under high force loads and currents, as the result of special technology of tip's coating conservation.

(3) AFM cantilevers with full diamond (FD) tips. Comparison of wear off velocity between full diamond and standard silicon tips using a special test structure of hemi-spherical grains. Application of FD cantilevers for investigations of topography of sticky samples.