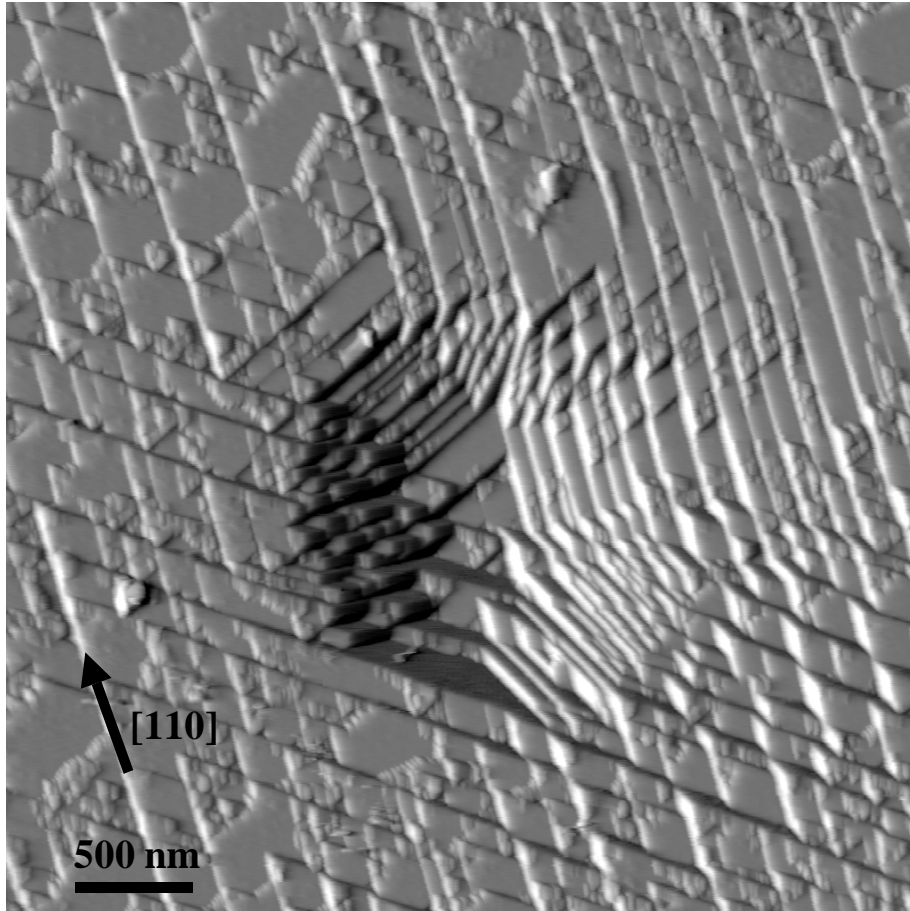


Faceted Pore on the SrTiO₃ Surface



An Atomic Force Microscopy error signal image of a faceted pore on the SrTiO₃ surface with an orientation near (111). The three-fold rotational symmetry perpendicular to the surface plane is evident in the facet pattern and the shape of the pore. The directions of the edges of the triangular facets are $\langle 110 \rangle$ and the pore, in the central part of the image, is 130 nm deep. The sample was polished and then thermally etched in air at 1400°C for 6 minutes. The black to white shading of the error image represents 0.4 nanoNewtons of difference between the actual probe signal and the set point value of the probe tip force.

Tomoko Sano and Gregory S. Rohrer
Department of Materials Science and Engineering
Carnegie Mellon University
Pittsburgh, PA 15213

This work was supported by NASA, under
grant number 8-1674

Second Place, Ceramographic competition, 2003
Classification: Scanning Probe Microscopy