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FINAL REPORT TO THE AFOSR "STUDIES IN SCANNING PROBE MICROSCOPY"

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Abstract

The following is the Final Report on our work in the field of Scanning Probe Microscopy (SPM), which has been funded by the AFOSR under Contract F49620-92-J-0164. The AFOSR funding was instrumental in the establishment of a multi-lab facility at the Optical Sciences Center, which performs research in SPM using two ultrahigh vacuum (UHV) STM facilities, and several Atomic Force Microscopy (AFM) facilities. The fabrication and characterization work performed in the SPM Laboratory is supplemented by infrared (IR) spectroscopy, high resolution transmission electron microscopy (HRTEM), and scanning electron microscopy (SEM), available in other departments. The report contains the list of our publications related to the OSR which appeared in refereed journals, as well as two books titled *Scanning Force Microscopy, With Applications to Electric, Magnetic, and Atomic Forces* published by Oxford University Press in 1991 and a revised edition in 1994.

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