

# Quantitative Analysis of Questioned Documents Using an Atomic Force Microscope

Gregory Bode  
UNH Physics Department

## Abstract:

The goal of this research is to examine the atomic force microscope (AFM) as a tool for the quantitative analysis of questioned documents.

Stick" ballpoint pen. These letters were chosen because both the "i" and "j" have the dot at the top, which was of interest during the research, and the "x" had a cross which also posed interesting opportunities for experimentation. Glossy paper was chosen because the fibers were very tight and close together which minimized the amount of ink that bled into the paper and would leave the ink slightly raised. All three samples were obtained from the same author using the same pen. After the three samples were collected, they were prepared for AFM inspection by attaching them to glass slides using double-sided tape. The entire slide was then taped to the sample holder, and was placed in the machine. The purpose of the glass mount was to provide a solid surface for