

Abstract Submitted
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Detection of Pathogens Using AFM and SPR ASHOK VASEASHTA, Marshall University — A priori detection of pathogens in food and water has become a subject of paramount importance. Several recent incidents have resulted in the government passing stringent regulations for tolerable amounts of contamination of food products. Identification and/or monitoring of bacterial contamination in food are critical. The conventional methods of pathogen detection require time-consuming steps to arrive disembark at meaningful measurement in a timely manner as the detection time exceeds the time in which perishable food recycles through the food chain distribution. The aim of this presentation is to outline surface plasmon resonance (SPR) and atomic force microscopy (AFM) as two methods for fast detection of pathogens. Theoretical basis of SPR and experimental results of SPR and AFM on E. coli O157:H7 and prion are presented.

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