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Beamline: BM28	Date of experiment: from: 31/1/07 to: 6/3/07	Date of report: 7/5/2008
Shifts: 18	Local contact(s): Paul Thompson	<i>Received at ESRF:</i>
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Report:

This experiment completed our studies of Ag(111) crystal in alkaline electrolyte. The results have been combined with previous data and density functional theory (DFT) calculations and are included in a paper that is shortly to be submitted for publication. The abstract of the paper is given below:

Adsorbate-Induced Structural Changes at the Ag(111)/Electrolyte Interface

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Abstract

In-situ surface x-ray scattering (SXS) measurements have been combined with density functional theory (DFT) calculations to probe the potential-driven adsorption of oxygenated species on a Ag(111) electrode in the electrochemical environment. Analysis of the crystal truncation rod (CTR) scattering

indicates that a low coverage of OH induces distortion in the surface Ag atomic layer that persists as the OH coverage increases prior to oxidation. The results are similar to those obtained for the adsorption of atomic oxygen onto Ag(111) in the ultra-high vacuum (UHV) environment.