

Sulfate adsorption on Au(111) electrodes - Influence of the potential on the force distance curves

Andreas Köllisch-Mirbach, Inhee Park and Helmut Baltruschat

Rheinische Friedrich-Wilhelms-Universität Bonn

Römerstraße 164, 53117 Bonn, Germany

koellisch@thch.uni-bonn.de

As earlier studies showed a dependence of friction on the electrode^[1, 2] potential applied to a Au(111) electrode in sulfuric acid solution, we herein investigated approach curves (force vs. distance) at several electrode potentials. Utilizing atomic force microscopy (AFM) under electrochemical conditions, we expect to obtain further insights into the sulfate adsorption on Au(111) electrodes.

- [1] M. Nielinger, F. Hausen, N. Podghainiy, H. Baltruschat, in *Friction, Wear and Wear Protection*, 1. Edition - June 2009 ed. (Eds.: A. Fischer, K. Bobzin), Wiley-VCH, Weinheim, **2009**, pp. 178.
- [2] F. Hausen, M. Nielinger, S. Ernst, H. Baltruschat, *Electrochimica Acta* **2008**, *53*, 6058.