

Abstract Submitted
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Force measurement with a scanning tunneling microscope KAI-FELIX BRAUN¹, SAW-WAI HLA, Ohio University — We present a method to measure the interaction force between single atoms with a scanning tunneling microscope [1]. During experiments for atomic manipulation with a scanning tunneling microscope the tip height curve is recorded. It is shown here that the amplitude of the manipulation curve is a measure for the interaction force between the microscope tip and a single atom adsorbed on a surface. A simple formula is derived and tested. Extensions of this scheme to different surfaces shall be discussed. [1] K.-F. Braun and S.W. Hla, Physical Review B **75** (2007), 033406.

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