Atomic-scale stick-slip processes on Cu(111)

ID 171190
Author(s) Bennewitz, R.; Gyalog, T.; Guggisberg, M.; Bammerlin, M.; Meyer, E.; Guntherodt, H.-J.
Author(s) at UniBasel Meyer, Ernst ;
Year 1999
Title Atomic-scale stick-slip processes on Cu(111)
Journal Physical Review B
Volume 60
Number 16
Pages / **Article-Number** R11301-4

Friction force microscopy experiments in ultrahigh vacuum allow the observation of atomic-scale stick-slip processes on Cu(111) surfaces. The lateral stiffness of the contact and the electrical characteristic of the junction are discussed. It is suggested that the tip is covered by copper forming a contact of a few atoms with the Cu(111) surface. The mean friction exhibits a clear dependence on the scan velocity. [S0163-1829(99)51140-5].

Publisher American Institute of Physics
ISSN/ISBN 0163-1829
edoc-URL http://edoc.unibas.ch/dok/A5262167
Full Text on edoc No;
Digital Object Identifier DOI 10.1103/PhysRevB.60.R11301
ISI-Number INSPEC:6408076
Document type (ISI) Journal Paper