

Scanning Probe Methods Group, Prof. Dr. Roland Wiesendanger

Publications: Original Articles

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Subgroup: STM/SPSTM on Magnetic Molecules

Probing Weakly Hybridized Magnetic Molecules by Single-Atom Magnetometry

E. Sierda, M. Elsebach, R. Wiesendanger, and M. Bazarnik, Nano Lett. 19 9013-9018 (2019)

Stable bismuth sub-monolayer termination of Bi₂Se₃

M. Hermanowicz, W. Koczorowski, M. Bazarnik, M. Kopciuszynski, R. Zdyb, A. Materna, A. Hruban, R. Czajka, and M.W. Radny, App. Surf. Sci. 476 701-705 (2019)

Exploring the Relation Between Intramolecular Conjugation and Band Dispersion in One-Dimensional Polymers

C. García-Fernández, E. Sierda, M. Abadía, B. Bugenhagen, M.H. Prosenc, R. Wiesendanger, M. Bazarnik, J.E. Ortega, J. Brede, E. Matito, and A. Arnau, J. Phys. Chem. C 121 27118 (2017)

On-Surface Oligomerization of Self-Terminating Molecular Chains for the Design of Spintronic Devices

E. Sierda, M. Abadia, J. Brede, M. Elsebach, B. Bugenhagen, M. H. Prosenc, C. Rogero, M. Bazarnik, and R. Wiesendanger, ACS Nano 11 9200 (2017)

Toward Tailored All-Spin Molecular Devices

M. Bazarnik, B. Bugenhagen, M. Elsebach, E. Sierda, A. Frank, M. H. Prosenc, and R. Wiesendanger, Nano Lett. 16 577 (2016)

Investigating the differences between Co adatoms states on surfaces of selected bismuth chalcogenides

M. Wałowska, M. Sikora, M. Dobrzańska, T. Eelbo, M. M. Soares, M. Rams, I. Miotkowski, R. Wiesendanger, R. Berndt, Z. Kozłowski, and A. Kozłowski, Phys. Rev. B 92 115412 (2015)

Multi-layer and multi-component intercalation at the graphene/Ir(111) interface

M. Bazarnik, R. Decker, J. Brede, and R. Wiesendanger, Surf. Sci. 639 70 (2015)

Mechanism of a molecular photo-switch adsorbed on Si(100)

M. Bazarnik, L. Jurczyszyn, R. Czajka, K. Morgenstern, Phys. Chem. Chem. Phys. 17 5366 (2015)

Long-range magnetic coupling between nanoscale organic-metal hybrids mediated by a nanoskymion lattice

J. Brede, N. Atodiresei, V. Caciuc, M. Bazarnik, A. Al-Zubi, S. Blügel, and R. Wiesendanger, Nature Nanotechnology 9 1018 (2014)

Local tunnel magnetoresistance of an iron intercalated graphene-based heterostructure

R. Decker, M. Bazarnik, N. Atodiresei, V. Caciuc, S. Blügel, and R. Wiesendanger, J. Phys.: Condens. Matter 26 394004 (2014)

Spin-resolved imaging and spectroscopy of individual molecules with sub-molecular spatial resolution

J. Brede and R. Wiesendanger, MRS Bulletin 39 608 (2014)

Tailoring Molecular Self-Assembly of Magnetic Phthalocyanine Molecules on Fe- and Co-Intercalated Graphene

M. Bazarnik, J. Brede, R. Decker, and R. Wiesendanger, ACS Nano 7 11341 (2013)

Atomic-scale magnetism of cobalt-intercalated graphene

R. Decker, J. Brede, N. Atodiresei, V. Caciuc, S. Blügel, and R. Wiesendanger, Phys. Rev. B 87 041403 (2013)

Spin-resolved characterization of single cobalt phthalocyanine molecules on a ferromagnetic support

J. Brede and R. Wiesendanger, Phys. Rev. B 86 184423 (2012)

Real-space observation of spin-split molecular orbitals of adsorbed single-molecule magnets

J. Schwöbel, Y. Fu, J. Brede, A. Dilullo, G. Hoffmann, S. Klyatskaya, M. Ruben, and R. Wiesendanger, Nature Communications 3 953 (2012)

Reversible chiral switching of Bis(phthalocyaninato) Terbium(III) on a metal surface

Y. Fu, J. Schwöbel, S.-W. Hla, A. Dilullo, G. Hoffmann, S. Klyatskaya, M. Ruben, and R. Wiesendanger, Nano Lett. 12 3931 (2012)

Controlled sequential dehydrogenation of single molecules by scanning tunneling microscopy

N. Baadji, S. Kuck, J. Brede, G. Hoffmann, R. Wiesendanger, and S. Sanvito, Phys. Rev. B 82 115447 (2010)

Design of the Local Spin-polarization at the Organic-Ferromagnetic Interface

N. Atodiresei, J. Brede, P. Lazic, V. Caciuc, G. Hoffmann, R. Wiesendanger, and S. Blügel, Phys. Rev. Lett. **105** 066601 (2010)

Spin- and Energy-Dependent Tunneling through a Single Molecule with Intramolecular Spatial Resolution

J. Brede, N. Atodiresei, G. Hoffmann, S. Kuck, P. Lazić, V. Caciuc, Y. Morikawa, S. Blügel, and R. Wiesendanger, Phys. Rev. Lett. **105** 047204 (2010)

Adsorption behavior of asymmetric Pd pincer complexes on a Cu(111)surface

S.-H. Chang, A. Scarfato, C. Kleeberg, M. Bröring, G. Hoffmann, and R. Wiesendanger, Langmuir **26** 10868 (2010)

The disposition of the axial ligand in the physical vapordeposition of organometallic complexes

S. Kuck, M. Prostak, M. Funk, M. Bröring, G. Hoffmann, and R. Wiesendanger, J. Vac. Sci. & Tech. A **28** 795 (2010)

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S. Kuck, S.-H. Chang, J.-P. Klöckner, M. H. Prosenc, G. Hoffmann, and R. Wiesendanger, ChemPhysChem **10** 2008 (2009)

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J. Brede, S. Kuck, J. Schwöbel, S.-H. Chang, M. Linares, G. Hoffmann, R. Wiesendanger, A. Scarfato, R. Lensen, P. Kouwer, J. Hoogboom, A. Rowan, M. Bröring, M. Funk, S. Stafström, F. Zerbetto, and R. Lazzaroni, Nanotechnology **20** 275602 (2009)

Adsorption and Conformation of Porphyrins on Metallic Surfaces

J. Brede, M. Linares, R. Lensen, A. E. Rowan, M. Funk, M. Bröring, G. Hoffmann, and R. Wiesendanger, J. Vac. Sci. & Tech. B **27(2)** 799 (2009)

Symmetry reduction of metal phthalocyanines on metals

S.-H. Chang, S. Kuck, J. Brede, L. Lichtenstein, G. Hoffmann, and R. Wiesendanger, Phys. Rev. B **78** 233409 (2008)

"Naked" Iron-5,10,15-triphenylcorrole on Cu(111): Observation of Chirality on a Surface and Manipulation of Multiple Conformational States by STM

S. Kuck, G. Hoffmann, M. Bröring, M. Fechtelt, M. Funk, and R. Wiesendanger, J. Am. Chem. Soc. **130** 14072 (2008)

A versatile variable-temperature scanning tunneling microscope for molecular growth

S. Kuck, J. Wienhausen, G. Hoffmann, and R. Wiesendanger, Rev. Sci. Instr. **79** 083903 (2008)

Scanning tunneling microscope study of iron(II) phthalocyaninegrowth on metal and insulating surfaces

A. Scarfato, S.-H. Chang, S. Kuck, J. Brede, G. Hoffmann, and R. Wiesendanger, Surf. Sci. **602** 677 (2008)