

LIST OF PUBLICATIONS as of 9 September, 2023

One Nature, three Science, four Nature Nanotechnology, two Nature Chemistry and one Nature Materials. My articles have attracted about 14,400 citations with an H-index of 65 (Google Scholar).

PAPERS IN REFEREED JOURNALS

1. *Adsorbate motors for uni-directional translation and transport*, G.J. Simpson, M. Persson and L. Grill, *Nature* **621**, 82 (2023)
2. *Tautomerization of single asymmetric oxahemoporphycene molecules*, S. Jaekel, E. Durant, M. Schied, M. Persson, J. Ostapko, M. Kijak, J. Waluk and L. Grill, *Physical Chemistry Chemical Physics* **25**, 1096 (2022)
3. *Revealing buckling of an apparently flat monolayer of NaCl on Pt(111)*, A. J. Weymouth, M. Persson and F. J. Giessel, *Physical Review B* **105**, 035412 (2022)
4. *Probing molecular excited states by atomic force microscopy*, S. Fatayer, F. Albrecht, I. Tavernelli, M. Persson, N. Moll and L. Gross, *Physical Review Letters* **126**, 176801 (2021)
5. *Surface electric potentials at the atomic scale*, M. Persson, *Nature Materials* **18**, 773 (2019)
6. *Porphine Homocoupling on Au(111)*, K. Seufert, F. McBride, S. Jaekel, B. Wit, S. Haq, A. Steiner, P. Poli, M. Persson, R. Raval and L. Grill, *The Journal of Physical Chemistry C* **123**, 16690 (2019)
7. *Real-Space Observation of Quantum Tunneling by Carbon Atom: Flipping Reaction of Formaldehyde on Cu(110)*, C. Lin, E. Durant, M. Persson, M. Rossi and T. Kumagai, *The Journal of Physical Chemistry Letter* **10**, 645-649 (2019)
8. *Anharmonicity in a Double Hydrogen Transfer Reaction Studied in a Single Porphycene Molecule on a Cu(110) Surface*, S. Liu, D. Baugh, K. Motobayashi, X. Zhao, S. Levchenko, S. Gawinkowski, J. Waluk, L. Grill, M. Persson, and T. Kumagai *Physical Chemistry Chemical Physics* **20**, 12112-12119 (2018)
9. *Reorganization energy upon charging a single molecule on an insulator measured by atomic force microscopy*, S. Fatayer, B. Schuler, W. Steurer, I. Scivetti, J. Repp, L. Gross, M. Persson and G. Meyer, *Nature Nanotechnology* **13**, 376-380 (2018)
10. *Electric polarisation switching in an atomically-thin binary rock salt structure*, J. Martinez-Castro, M. Piantek, S. Schubert, M. Persson, D. Serrate, and C.F. Hirjibehedin, *Nature Nanotechnology* **13**, 19-23 (2018)
11. *Quantum Tunneling in Real Space: Tautomerization of Single Porphycene Molecules on the (111) Surface of Cu, Ag, and Au*, T. Kumagai, J. Ladenthin, Y. Litman, M. Rossi, L. Grill, S. Gawinkowski, J. Waluk and M. Persson *Journal of Chemical Physics* **148**, 102330 (2018)
12. *Direct observation of double hydrogen transfer via quantum tunneling in a single porphycene molecule on a Ag(110) surface*, M. Koch, M. Pagan, M. Persson, S. Gawinkowski, J. Waluk, and T. Kumagai, *Journal of American Chemical Society* **139**, 12681 (2017)
13. *Desorption of CO from individual single ruthenium porphyrin molecules on a copper surface by inelastic tunneling process*, T. Omiya, P. Poli, H. Arnolds, R. Raval, M. Persson and Yousoo Kim, *Chem. Commun.* **53**, 6148-6151 (2017)

14. *Frontier molecular orbitals of single molecules adsorbed on thin insulating films supported by a metal substrate: A simplified density functional theory approach*, I. Scivetti and M. Persson, *J. of Phys: Cond. Matt.* **35**, 355002 (2017)
15. *Controlling electronic access to the spin excitations of a single molecule in a tunnel junction*, B. Warner, F. El Hallak, H. Pruser, A. Ajibade, T. G. Gill, A.J. Fisher, M. Persson and C.F. Hirjibehedin, *Nanoscale* **9**, 4053-4057 (2017)
16. *Charge State Dependent Diffusion of Individual Gold Adatoms on Ionic Thin Films*, J. Repp, W. Steurer, I. Scivetti, M. Persson, L. Gross and G. Meyer, *Physical Review Letters* **117**, 141602 (2016)
17. *Chemical Bond Activation Observed with an X-ray Laser*, M. Beye, H. berg, H. Xin, G. L. Dakovski, M. Dell'Angela, A. Fhlisch, J. Gladh, M. Hantschmann, F. Hieke, S. Kaya, D. Khn, J. LaRue, G. Mercurio, M. P. Minitti, A. Mitra, S. P. Mller, M. L. Ng, A. Nilsson, D. Nordlund, J. Nrskov, H. strm, H. Ogasawara, M. Persson, W. F. Schlotter, J. A. Sellberg, M. Wolf, F. Abild-Pedersen, L. G. M. Pettersson, W. Wurth, *Journal of Physical Chemistry Letters* **7**, 3647, (2016)
18. *Force-induced tautomerization in a single molecule*, J. N. Ladenthin, T. Frederiksen, M. Persson, J. C. Sharp, S. Gawinkowski, J. Waluk, and T. Kumagai, *Nature Chemistry* **8**, 935 (2016)
19. *Toggling the local electric field with an embedded adatom switch*, W. Steurer, B. Schuler, N. Pavlicek, L. Gross, I. Scivetti, M. Persson and G. Meyer, *Nano Letters* **15**, 5564, (2015)
20. *Effect of electron-phonon interaction on the formation of one-dimensional electronic states in coupled Cl vacancies*, B. Schuler, M. Persson, S. Paavilainen, N. Pavlicek, L. Gross, G. Meyer, and J. Repp, *Physical Review* **B91**, 235443 (2015)
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22. *Tunable magnetoresistance in an asymmetrically coupled single-molecule junction*, B. Warner, F. El Hallak, H. Pruser, J. Sharp, M. Persson, A. J. Fisher and C. F. Hirjibehedin, *Nature Nanotechnology* **10**, 259 (2015)
23. *Adatoms Underneath Single Porphyrin Molecules on Au(111)*, Johannes Mielke, Felix Hanke, Maike V. Peters, Stefan Hecht, Mats Persson, Leonhard Grill, *Journal of the American Chemical Society* **137**, 1844 (2015)
24. *Manipulation of the charge state of single Au atoms on insulating multilayer films*, W. Steurer, J. Repp, L. Gross, I. Scivetti, M. Persson, G. Meyer, *Physical Review Letters* **114**, 036801 (2015)
25. *Investigating atomic contrast in atomic force microscopy and Kelvin probe force microscopy on ionic systems using functionalized tips*, Leo Gross, Bruno Schuler, Fabian Mohn, Nikolaj Moll, Ivan Scivetti, Konstantinos Kotsis, Mats Persson, Gerhard Meyer, *Physical Review B* **90**, 155455 (2014)
26. *Versatile Bottom-Up Construction of Diverse Macromolecules on a Surface Observed by Scanning Tunnelling Microscopy*, Sam Haq, Felix Hanke, John Sharp, Mats Persson, David B. Amabilino, and Rasmita Raval, *ACS Nano* **8**, 8856 (2014)

27. *Interplay between Electronic Properties and Interatomic Spacing in Artificial Gold Chains on NiAl(110)*, Niklas Nilus, Thomas M. Wallis, Mats Persson and Wilson Ho, Journal of Physical Chemistry C **118**, 29001 (2014)
28. *On-surface synthesis of a two-dimensional porous coordination network: Unraveling adsorbate interaction*, M. Mantena, J. Björk, M. Wahl, T.-L. Lee, J. Zegenhagen, L. Gade, T. Jung, M Persson and M. Sthr, Physical Review B **90**, 125408 (2014)
29. *A simplified density functional theory method for charged adsorbates on an ultrathin, insulating film supported by a metal substrate*, I. Scivetti and M. Persson, Journal of Physics: Condensed Matter **26**, 135003 (2014)
30. *Controlling intramolecular hydrogen transfer in a porphycene molecule with single atoms or molecules located nearby*, Takashi Kumagai, Felix Hanke, Sylwester Gawinkowski, John Sharp, Konstantinos Kotsis, Jacek Waluk, Mats Persson, and Leonhard Grill, Nature Chemistry **6**, 41 (2014)
31. *Thermally- and vibrationally-induced tautomerization of single porphycene molecules on a Cu(110) surface*, Takashi Kumagai, Felix Hanke, Sylwester Gawinkowski, John Sharp, Konstantinos Kotsis, Jacek Waluk, Mats Persson, and Leonhard Grill, Physical Review Letters **111**, 246101 (2013)
32. *The electrostatic interaction of an external charged system with a metal surface: a simplified density functional theory approach*, I. Scivetti and M. Persson, Journal of Physics: Condensed Matter **25**, 355006 (2013)
33. *Atypical charge redistribution over a charge-transfer monolayer on a metal*, T. R. Umbach, I. Fernandez-Torrente, M. Ruby, F. Schulz, C. Lotze, R. Rurali, M. Persson, J. I. Pascual, K. J. Franke, New Journal of Physics **15**, 083048 (2013).
34. *Structure and stability of weakly chemisorbed ethene adsorbed on low-index Cu surfaces: Performance of density functionals with van der Waals interactions*, F. Hanke, M. S. Dyer, J. Björk, M. Persson, Journal of Physics: Condensed Matter **24**, 424217 (2012)
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37. *Heat to connect: Surface commensurability directs organometallic one-dimensional self-assembly*, F. Hanke, S. Haq, R. Raval, M. Persson, ACS Nano **5**, 9093 (2011)
38. *Tailoring Homochirality at Surfaces: Going Beyond Molecular Handedness*, M. Forster, M. S. Dyer, S. D. Barrett, M. Persson and R. Raval, Journal of the American Chemical Society **133**, 15992 (2011)
39. *Clean Coupling of Unfunctionalised Porphyrins at Surfaces to Give Highly Oriented Organometallic Oligomers*, R. Raval, S. Haq, F. Hanke, M. S. Dyer, M. Persson, P. Iavicoli, D. Amabilino, Journal of the American Chemical Society **133**, 12031 (2011)
40. *High-resolution molecular orbital imaging using a p-wave STM tip*, Leo Gross, Nikolaž Moll, Fabian Mohn, Gerhard Meyer, Felix Hanke and Mats Persson, Physical Review Letters **107**, 086101 (2011)
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44. *Assembly of Chiral Amino-Acids at Surfaces from a Single Molecule Perspective: Proline on Cu(110)*, M. Forster, M. S. Dyer, M. Persson, and R. Raval, Topics of Catalysis **54**, 13 (2011)
45. *Mapping Complex Chiral Adlayers: A Truly Random 2-D Solid Solution of (R,S)-3-Pyrroline-2-Carboxylic Acid on Cu(110)*, M. Forster, M. S. Dyer, S. D. Barrett, M. Persson, R. Raval, Journal of Physical Chemistry C **115**, 1180 (2011)
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47. *$\pi - \pi$ Stacking as a Prevalently Dispersive Interaction in Aromatic and Anti-Aromatic Systems Adsorbed on Graphene*, J. Björk, F. Hanke, C.-A. Palma, P. Samori, M. Cecchine, and M. Persson, Journal of Physical Chemistry Letters **1**, 3407 (2010)
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49. *The Nature of the Observed Free-electron-like state in a PTCDA Monolayer on Ag(111)*, Matthew S. Dyer and Mats Persson, New Journal of Physics **12**, 063014 (2010)
50. *STM Fingerprint of molecule-adatom interactions in a self-assembled metal-organic surface coordination network on Cu(111)*, J. Björk, M. Matena, M. S. Dyer, M. Enache, J. Lobo-Checa, L. H. Gade, T. A. Jung, Meike Stohr, and Mats Persson, Physical Chemistry Chemical Physics **12**, 8815 (2010)
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53. *Tailoring Bi-component Supramolecular Nanoporous Networks: Phase Segregation, Polymorphism and Glasses at the Solid-liquid interface*, C.-A. Palma, J. Björk, M. Bonini, M. S. Dyer, A. Llanes-Pallas, D. Bonifazi, M. Persson, P. Samori, Journal of the American Chemical Society **131**, 13062 (2009)
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55. *Organization of spin-labelled organic molecules on a non magnetic surface: A combined STM, RAIRS and DFT study of 3-Carboxy Proxyl on Cu(110)*, Abel Robin, Lisa Marnell, Phaedra Silva Bermudez, Steve D. Barrett, Sam Haq, Jonas Bjork, Matthew S. Dyer, Mats Persson, Andrea Minoia, Roberto Lazzaroni, and Rasmita Raval, Journal of Physical Chemistry C **113**, 13223 (2009)

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63. *Highly efficient energy transfer into molecules at surface step sites.*, Ellen H. G. Backus, Mattias Forsblom, Mats Persson, and Mischa Bonn, Journal of Physical Chemistry C **111**, 6149 (2007).
64. *Spectrum of electronic excitations due to adsorption of atoms on metal surfaces.*, M. S. Miziaelinski, D. M. Bird, M. Persson, and S. Holloway, Journal of Chemical Physics **126**, 034705 (2007)
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