List of Publications and Invited Talks

Prof. Dr. Sabine Maier

Peer-reviewed Publications

Publications:	**50** articles / **5** book chapters
H-Index:	**25** Google Scholar
Citations:	**2383** Google Scholar
ResearcherID:	**B-5917-2008**
Scopus Author ID:	**16686925100**

updated 18.12.2022

50. F. Xiang, S. Maisel, S. Beniwal, V. Akhmetov, C. Ruppenstein, M. Devarajulu, A. Dörr, O. Papaianina, A. Görling, K.Y. Asharov, **S. Maier**
Planar π-extended cycloparaphenylenes featuring all-armchair edge topology
Nat. Chem. 14, 871–876 (2022)

49. Y. Jing, X. Zhu, **S. Maier**, T. Heine
2D Conjugated Polymers: Exploiting Topological Properties for the Rational Design of Metal-Free Photocatalysts
Trends in Chemistry 4, 9, 792-806 (2022)

48. M. Ammon, M. Devarajulu, Y. Liu, M. Gurrath, D. Lungerich, N. Jux, B. Meyer, **S. Maier** *Adsorption and self-assembly of a mono-cyano Zn-tetraphenylporphyrin derivative on KBr(001) and MgO(001)*
Surf. Sci. 723 122097 (2022)

47. T. Sander, Y. Liu, T.A. Pham, M. Ammon, M. Devarajulu, and **S. Maier**
Ultra-high vacuum cleaver for the preparation of ionic crystal surfaces
Rev. Sci. Instrum. 93, 053703 (2022)

46. **S. Maier**, M. Stöhr
Molecular assemblies on surfaces: towards physical and electronic decoupling of organic molecules
Beilstein J. Nanotechnol. 12, 950–956 (2021)

45. C. Steiner, L. Fromm, J. Gebhardt, Y. Liu, A. Heidenreich, N.Hammer, A. Görling, M. Kivala, **S. Maier**
Host guest chemistry and supramolecular doping in triphenylamine-based covalent frameworks on Au(111)
Nanoscale 13, 9798–9807 (2021)

44. Z. Yang, T. Sander, J. Gebhardt, T.A. Schaub, J. Schönamsgruber, H. Soni, A. Görling, M. Kivala, **S. Maier**
Metalated Graphyne-Based Networks as 2D Materials: Crystallization, Topological Defects, Delocalized Electronic States and Site-Specific Doping
ACS Nano, 14, 12, 16887-16896 (2020)

43. Z. Yang, L. Fromm, T. Sander, J. Gebhardt, T.A. Schaub, A. Görling, M. Kivala, **S. Maier**
On-surface assembly of hydrogen- and halogen-bonded supramolecular graphyne-like networks
Angew. Chem. Int. Ed., 59, 24, 9549-9555 (2020)

42. **S. Maier**
An atomic-scale view of cyclocarbon synthesis
Science, 365, 6459, 1245-1246 (2019)

41. M. Ammon, M. Haller, S. Sorayya, **S. Maier**
On-Surface Synthesis of Porous Carbon Nanoribbons on Silver: Reaction Kinetics and the Influence of the Surface Structure
ChemPhysChem, 20, 2333 (2019)

40. X. Zhang, N. Xue, C. Li, N. Li, H. Wang, N. Kocic, S. Beniwal, K. Palotás, R. Li, Q. Xue, **S. Maier**, S. Hou, Y. Wang
Coordination–controlled C–C coupling products via ortho-site C–H activation
ACS Nano, 13, 2, 1385-1393 (2019)

39. C. Steiner, Z. Yang, B.D. Gliemann, U. Meinhardt, M. Gurrath, M. Ammon, B. Meyer, M. Kivala, **S. Maier**
Binary supramolecular networks of bridged triphenylamines with different substituents and identical scaffolds
Chem. Commun. 54, 11554-11557 (2018)

38. D. Lungerich, O. Papaianina, M. Feofanov, J. Liu, M. Devarajulu, S. Troyanov, **S. Maier**, K. Amsharov
Dehydrative pi-extension to nanographenes with zig-zag edges
Nature Communications 9, 4756 (2018)

37. T.K. Shimizu, **S. Maier**, A. Verdaguer, J. Velasco-Velez, M. Salmeron
Water at surfaces and interfaces: from molecules to ice and bulk liquid
Progress in Surface Science, 93, 4, 87-107 (2018)

36. Z. Yang, J. Gebhardt, T.A. Schaub, T. Sander, J. Schönamsgruber, H. Soni, A. Görling, M. Kivala, **S. Maier**
Two-dimensional delocalized states in organometallic bis-acetylide networks on Ag(111)
Nanoscale, 10, 3769-3776 (2018)

35. N. Fritsch, Ch.R. Wick, T. Waidmann, S. Pflock, P.O. Dral, J. Tucher, Ch. Steiner, T. Shubina, **S. Maier*,** T. Clark*, N. Burzlaff*
1D Chains of Diruthenium Tetracarbonyl Sawhorse Complexes
European Journal of Inorganic Chemistry 1, 54–61 (2018)

34. M. Ammon, T. Sander, **S. Maier**
On-surface synthesis of porous carbon nanoribbons from polymer chains
J. Am. Chem. Soc., 139 (37), 12976–12984 (2017)

33. C. Steiner, J. Gebhardt, M. Ammon, Z. Yang, A. Heidenreich, N. Hammer, A. Görling, M. Kivala, **S. Maier**
Hierarchical on-surface synthesis and electronic structure of carbonyl-functionalized one- and two-dimensional covalent nanoarchitectures
Nature Communications, 8, 14765 (2017)

32. D. Prenzel, T. Sander, J. Gebhardt, H. Soni, F. Hampel, A. Görling, **S. Maier**, R.R. Tykwinski
Triethynylmethanol Derivatives: Stable Acetylenic Building Blocks for Surface Chemistry
Chemistry - A European Journal, 23, 8 1846–1852 (2017)

31. **S. Maier**, B.J. Lechner, M. Salmeron
Growth and structure of the first layer of ice on Ru(0001) and Pt(111)
J. Am. Chem. Soc. 138 (9), 3145-3151 (2016)

30. C. Steiner, B. D. Gliemann, U. Meinhardt, M. Gurrath, B. Meyer, M. Kivala*, **S. Maier***
Self-Assembly and Stability of Hydrogen-Bonded Networks of Bridged Triphenylamines on Au(111) and Cu(111)
J. Phys. Chem. C 119, 46, 25945–25955 (2015)

29. **S. Maier***, M. Salmeron
How does water wet a surface?
Accounts of Chemical Research 48, 10, 2783-2790 (2015)

28. **S. Maier**, I. Stass, X. Feng, A. Sisto, A. Zayak, J.B. Neaton, M. Salmeron
Dehydrogenation of ammonia on Ru(0001) by electronic excitations
J. Phys. Chem. C 119, 19, 10520–10525 (2015)

27. Ch. Sorger, S. Hertel, J. Jobst, C. Steiner, K. Meil, K. Ullmann, A. Albert, Y. Wang, M. Krieger, J. Ristein, **S. Maier**, H. Weber
Gateless patterning of epitaxial graphene by local intercalation
Nanotechnology 26**,** 025302 (2015)

26. K. Gotterbarm. C. Steiner, C. Bronnbauer, U. Bauer, H.-P. Steinrück, **S. Maier***, Ch. Papp*
Graphene-Templated Growth of Pd Nanoclusters
J. Phys. Chem. C 118, 29, 15934–15939 (2014)

25. **S. Maier**, I. Stass, J. Cerda, M. Salmeron
Unveiling the mechanism of water partial dissociation on Ru(0001)
Phys. Rev. Lett. 112, 126101 (2014)

24. E.T. Chernick, G. Borzsonyi, C. Steiner, M. Ammon, D. Gessner, S. Frühbeißer, F. Groehn, **S. Maier**, R. Tykwinski.
Optically Pure, Monodisperse cis-Oligodiacetylenes: Chiral Hydrocarbon Switches
Angew. Chem. Int. Ed. 53, 310 –314 (2014)

23. D. Waldmann , B. Butz, S. Bauer, J.M. Englert , J. Jobst, K. Ullmann, F. Fromm, M. Ammon, M. Enzelberger, A. Hirsch, **S. Maier**, P. Schmuki, Th. Seyller, E. Spiecker, and H.B. Weber
Robust Graphene Membranes in a Silicon Carbide Frame
ACS Nano 7 (5), 4441–4448 (2013)

22. **S. Maier**, I. Stass, J. Cerda, M. Salmeron
Bonding of Ammonia and its Dehydrogenated Fragments on Ru(0001)
J. Phys. Chem. C 116 (48), 25395–25400 (2012)

21. **S. Maier**, I. Stass, T. Mitsui, P.J. Feibelman, K. Thürmer, M. Salmeron
Adsorbed water-molecule hexagons with unexpected rotations in islands on Ru(0001) and Pd(111)
Phys. Rev. B 85, 155434 (2012)

20. X. Feng, **S. Maier**, M. Salmeron
Water Splits Epitaxial Graphene and Intercalates
J. Am. Chem. Soc. 134 (12), 5662–5668 (2012)

19. **S. Maier,** P. Cabrera-Sanfelix, I. Stass, D. Sanchez-Portal, A. Arnau, M. Salmeron
Water-Induced Surface Reconstruction of the Oxygen (2x1) covered Ru(0001)
Phys. Rev. B 82, 075421 (2010)

18. P. Steiner, E. Gnecco, T. Filleter, N. N. Gosvami, **S. Maier**, E. Meyer, R. Bennewitz
Atomic Friction Investigations on Ordered Superstructures
Tribology Letters 39, 321 (2010)

17. J.Y. Park, **S. Maier**, B.L.M. Hendriksen, M. Salmeron
Sensing current and forces with SPM
Materials Today 13, 10, 38-45 (2010)

16. M. Tatarkhanov. D.F. Ogletree, F. Rose, T. Mitsui, E. Fomin**, S. Maier**, M. Rose, J.I. Cerdá, M. Salmeron
Metal- and hydrogen-bonding competition during water absorption on Pd(111) and Ru(0001)
J. Am. Chem. Soc. 131 (51), 18425–18434 (2009)

15. E. Loginova, **S. Maier**, I.Stass, M. Salmeron, N.C. Bartelt, P.J. Feibelman, K. McCarty
Graphene Growth on Ru(0001) by Metal Etching
Phys. Rev. B 80, 235422 (2009)

14. S. Kawai, **S. Maier**, T. Glatzel, S. Koch, B. Such, L. Zimmerli, L.-A. Fendt, F. Diederich, E. Meyer
Cutting and self-healing molecular wires studied by Dynamic Force Microscopy
Applied Physics Letters 95, 103109 (2009)

13. P. Steiner, R. Roth, E. Gnecco, A. Baratoff, **S. Maier**, Th. Glatzel, E. Meyer
Two-dimensional simulation of superlubricity on NaCl and highly oriented pyrolytic graphite
Phys. Rev. B 79, 045414 (2009)

12. E. Gnecco, A. Socoliuc, **S. Maier**, J. Gessler, T. Glatzel, A. Baratoff, E. Meyer
Dynamic superlubricity on insulating and conductive surfaces in ultra-high vacuum and ambient environments
Nanotechnology 20, 025501 (2009)

11. **S. Maier**, E. Gnecco, A. Baratoff, R. Bennewitz, E. Meyer
Atomic-scale friction modulated by a buried interface: Combined atomic and friction force microscopy experiments
Phys. Rev. B 78, 045432 (2008**)**

10. **S. Maier**, L.A. Fendt, L. Zimmerli, T. Glatzel, O. Pfeiffer, F. Diederich, E. Meyer
Nano-Engineering of Molecular Porphyrin Wires on Insulating Surfaces
SMALL Vol. 4 Issue 8, 1115-1118 (2008)

9. E. Gnecco, **S. Maier**, E. Meyer
Supelubricity on dry nanocontacts
Journal of Physics: Condensed Matter 20, 354004 (2008)

8. U. Wyder, A. Baratoff, E.Meyer, L.N. Kantorovich, J. David, **S. Maier**, T. Filleter, R. Bennewitz
Interpretation of atomic friction experiments based on atomistic simulations
J. Vac. Sci. Technol. B 25 5, 1547-1553 (2007)

7. **S. Maier**, O. Pfeiffer, T. Glatzel, E. Meyer, T. Filleter, R. Bennewitz
Asymmetry in the reciprocal epitaxy of NaCl and KBr
Phys. Rev. B 75, 195408 (2007)

6. L. Zimmerli, **S. Maier**, Th. Glatzel, E. Gnecco, O. Pfeiffer, F. Diederich, L.A. Fendt, E. Meyer
Formation of molecular wires on nanostructured KBr
Journal of Physics: Conference Series 61, 1357-1360 (2007)

5. Socoliuc, E. Gnecco, **S. Maier**, O. Pfeiffer, A. Baratoff, R. Bennewitz, E. Meyer
Atomic-Scale Control of Friction by Actuation of Nanometer-Sized Contacts
SCIENCE 313, 207-210 (2006)

4. T. Filleter, **S. Maier**, R. Bennewitz
Atomic-scale yield and dislocation nucleation in KBr
Phys. Rev. B 73, 155433 (2006)

3. **S. Maier**, Yi Sang, T. Filleter, M. Grant, R. Bennewitz, E. Gnecco, E. Meyer
Fluctuations and jump dynamics in atomic friction
Phys. Rev. B 72, 245418 (2005)

2. Pfeiffer, E. Gnecco, L. Zimmerli, **S. Maier**, E. Meyer, L. Nony, R. Bennewitz, F. Diederich, H. Fang, D. Bonifazi
Force microscopy on insulators: Imaging of organic molecules
Journal of Physics: Conference Series 19, 166 (2005)

1. L. Nony, E. Gnecco, A. Baratoff, A. Alkauskas, R. Bennewitz, O. Pfeiffer, **S. Maier**, A. Wetzel, E. Meyer, C. Gerber
Observation of individual molecules trapped on a nanostructured insulator
Nano Letters 4, 2185 (2004)

Book Chapters

5. **S. Maier**
   Alterations in the electronic structure upon hierarchical growth of 2D networks.
   Encyclopedia of Interfacial Chemistry: Surface Science and Electrochemistry (Ed. K. Wandelt)
   Reference Module in Chemistry, Molecular Sciences and Chemical Engineering,
   Elsevier, 2018. ISBN: 978-0-12-809894-3.

4. **S. Maier**
   Water adsorption on metals and nano-structured interfaces.
   Encyclopedia of Interfacial Chemistry: Surface Science and Electrochemistry (Ed. K. Wandelt)
   Reference Module in Chemistry, Molecular Sciences and Chemical Engineering,
   Elsevier, 2018. ISBN: 978-0-12-809894-3.

3. **S. Maier**
   On-surface synthesis of two-dimensional polymers: Rational design and electronic properties. On-surface synthesis II (Ed.: Dimas G. de Oteyza).
   Springer Verlag, 2018. ISBN 978-3-319-75810-7.

2. **S. Maier** and M. Salmeron
   Water adsorption.
   Surface Science and Interfaces (Ed. K. Wandelt).
   Wiley-VCH, Berlin 2016. ISBN: 978-3-527-41158-0.

1. **S. Maier**, E. Gnecco, E. Meyer,
   Atomic-scale friction measurements in ultra-high vacuum.
   Fundamentals of friction and wear on the nanoscale (Eds. E. Gnecco and E. Meyer).
   pringer Verlag 2015, pp 95-114. ISBN 978-3-319-10559-8.

Doctoral Thesis

Sabine Maier, *Contact dynamics from the atomic scale to nanostructured surfaces,* Universität Basel 2007. https://edoc.unibas.ch/664/

Other Publications

1. **S. Maier**
   Tailor-made molecular nanostructures
   Science & Technology, Issue 19, p.43, 2016

Invited Lectures at Conferences/Workshops and Research Institutions

Invited talks at Conferences / Workshops / Schools

38. Bottom-up fabrication and electronic properties of macrocycles
On-Surface Synthesis International Workshop, Sant Feliu de Guixols, 25.-30.9.2022, Spain
37. On-Surface Synthesis: A Bottom-Up Strategy to Low-Dimensional Carbon Structures
Summer School 2022 "Synthetic 2D Materials“, TU Dresden 20.9.2022
36. On-surface synthesis: A bottom-up strategy to low-dimensional carbon-structures
11th Brazilian German Workshop on Applied Surface Science, Manaus, Brazil, 19.-24.4.2022
35. On-surface synthesis: A versatile bottom-up strategy to low-dimensional carbon-based nanostructures
ACS National Meeting, San Diego, USA, (online) 20.-24.3.2022
34. On-surface synthesis: A versatile bottom-up strategy to low-dimensional carbon-based nanostructures
Pacifichem 2021 Honolulu, Hawaii (online), 16–21.12.2021
33. On-surface synthesis and electronic properties of low-dimensional carbon structures
IEEE Nano 2021, Montreal, Canada (online), 28.7-31.7.2021
32. On-surface synthesis, structural and electronic properties of molecular nanostructures
School on "Self-assembly on surfaces and 2D reactivity" in the framework of the MSCA ITN "Ultimate", Online Meeting, 16.9.-18.9.2020
31. On-surface synthesis: A versatile bottom-up strategy to low-dimensional carbon-based nanostructures
CMD2020GEFES, Online Conference, 31.8.-4.9.2020
30. On-surface synthesis: A versatile bottom-up strategy to low-dimensional carbon-based nanostructures
International Winterschool on Electronic Properties of Novel Materials (IWEPN), Kirchberg, Austria, March 2020
29. On-surface synthesis of low-dimensional carbon-based nanostructures.
22nd Symposium on Atomic, Cluster and Surface Physics (SASP 2020), 2.-7.2.2019 St. Moritz, Switzerland
28. An atomic-scale view on the on-surface synthesis of low-dimensional carbon materials
Workshop on chemical and energy conversion at interfaces, Bayerische Akademie München, 17.-18.2.2020
27. Bottom-up fabrication of atomically precise molecular nanostructures through on-surface synthesis
66th AVS International Symposium, Columbus, Ohio, 20.-25.10.2019
26. An Atomic-Scale View of On-Surface Reactions with STM
Symposium on Surface and Interface Science, Berkeley, California 13.9.2019
25. Bottom-up fabrication of atomically precise molecular nanostructures through on-surface synthesis
Spanish Physics Society Conference 2019, Zaragoza, Spain, 15.-19.7.2019
24. Bottom-up fabrication of atomically precise molecular nanostructures through on-surface reactions
257th ACS National Meeting, Orlando, Florida, 31.3-4.4.2019
23. On-Surface Assembly and Reactions of Molecular Nanostructures: From Metals to Insulating Surfaces
Gordon Research Conference: Chemical Reactions at Surfaces,
Ventura, California, 17.2-22.2.2019
22. On-surface assembly and reaction of molecular nanostructures: from metals to insulating surfaces
Towards Reality in Nanoscale Materials X, Levi, Finland, 12-14.2 2019
21. Bottom-up fabrication of atomically precise molecular nanostructures through on-surface synthesis
10th Singapore International Chemical Conference (SICC-10), Singapore, 16.-19.12.2018
20. Bottom-up fabrication and electronic properties of covalently linked 2D molecular networks.
On-Surface Synthesis International Workshop (OSS-18),
Sant Feliu de Guíxols, Spain, 24.-28.9.2018

19. On-surface synthesis and electronic structure of surface-supported molecular networks.
34th European Conference on Surface Science (ECOSS-34), Aarhus, Denmark, 26.-31.8.2018

18. Structure formation in molecular self-assemblies on a bulk insulator,
663. WE-Heraeus-Seminar: Dynamics and Structure Formation of Organic Molecules on Dielectric Surfaces, Bad Honnef, Germany, 25-28.2.2018

17. On-Surface Synthesis and Electronic Properties of 2D Molecular Networks,
654. WE-Heraeus Seminar, Bad Honnef, Germany, 23.11.2017

16. On-surface synthesis and electronic properties of 2D molecular networks,
4th Erlangen Symposium on Synthetic Carbon Allotropes, Erlangen, Germany, 25.9.2017

15. An atomic-scale view on the adsorption and reaction of water and functionalized molecules
Universität Wien, International FOXSI Conference, Austria, 15.5.2017

14. On-Surface Synthesis and Electronic Properties of Molecular Networks
Minisymposium Chemical Reactions at Interfaces, Universität Marburg, Marburg, Germany, 2.5.2017

13. Electronic structure of covalently-linked molecular networks on metal surfaces,
IWEPNM Conference 2017, Kirchberg, Austria, 4.3.-11.3.2017

12 On-surface synthesis: From metal to insulators
8th EAM Symposium, Kloster Banz, Germany, 22.11.2016

11. On-surface synthesis and self-assembly of molecular nanostructures: From metal to insulator surfaces
The 1st Sino-German Young Scientist Symposium on "Interfaces: Construction, Characterization and Functionalization, Beijing, Chinese Academy of Sciences, 10.11.2016

10. On-surface polymerization and self-assembly of molecular nanostructures
Workshop Innovative Surfaces and Materials, Primosten, Croatia, 28.-31.8.2016

9. Heteroatom-doped molecular nanostructures on surfaces
Deutsche Physikalische Gesellschaft (DPG) Meeting, Regensburg, Germany, 6.-11.3.2016

8. Heteroatom-doped molecular nanostructures on surfaces
3nd Erlangen Symposium on Synthetic Carbon Allotropes, Erlangen, Germany, 5.10.2015

7. Water adsorption on Ru(0001): A molecular perspective
Deutsche Physikalische Gesellschaft (DPG) Meeting, Berlin, 17.3.2015

6. Manipulation and self-assembly of organic molecules on surfaces
5th European Nanomanipulation Workshop, Mulhouse, France, 19.6.2014

5. Structure and electronic properties of functional two-dimensional materials
5th Engineering of Advanced Materials Symposium, Kloster Banz, Germany, 19.11.2013

4. Self-assemblies of carbon-rich molecules doped with heteroatoms
2nd Erlangen Symposium on Synthetic Carbon Allotropes, Erlangen, Germany, 1.10.2013

3. 3. Wetting phenomena at the nanoscale: Water at surfaces
2nd Engineering of Advanced Materials Symposium, Kloster Banz, Bad Staffelstein, 17.11.2010

2. Wetting and single-molecule manipulation on surfaces,
Minisymposium Engineering of advanced materials, Erlangen, 10.11.2009

1. Residual friction, dissipation and thermal effects in atomic-scale contacts subject to periodic loading
U.S. National Congress on Computational Mechanics 9, San Francisco, 26.7.2007

Invited Lectures at Research Institutions

32. On-surface synthesis and electronic properties of low-dimensional carbon structures,
Universtiät Basel, Physik Kolloqium, 28.6.2021

31. On-surface synthesis: A versatile bottom-up strategy to low-dimensional carbon-based nanostructures
Nanjing University, Herbert Gleiter Institute Colloquium, (online) 22.1.2021

30. On-surface synthesis: A versatile bottom-up strategy to low-dimensional carbon-based nanostructures,
Universität Ulm, Physikalische Chemie, 14.2.2020
29. On-surface synthesis: A versatile bottom-up strategy to low-dimensional carbon-based nanostructures,
Universität Innsbruck, Physikalische Chemie, 21.1.2020
28. On-surface synthesis of atomically precise carbon nanostructures,
UC Davis, Chemistry Department, California, USA, 18.9.2019
27. Bottom-up fabrication of atomically precise molecular nanostructures on metal and insulator surfaces
EMPA, Dübendorf, Switzerland, 8.7.2019
26. Bottom-up Fabrication and Electronic Properties of Atomically Precise Molecular Nanostructures
Technische Universität München, Festkörperkolloqium, 16.5.2019
25. Bottom-up Fabrication and Electronic Structure of Heteroatom-doped 2D Molecular Networks
Universität Heidelberg, SFB Seminar, 25.1.2019
24. On-surface synthesis and electronic structure of surface-supported molecular nanostructures.
Universität Basel, Nano- & Quantum Physics Seminar, 8.10.2018
23. Bottom-up fabrication of atomically precise molecular nanostructures through on-surface synthesis
Universität Regensburg, Colloquium Department für Physik, 2.7.2018
22. On-Surface Synthesis and Electronic Properties of Molecular Networks,
Aalto University, Department of Applied Physics, Helsinki, Finland, 14.9.2017
21. On-Surface Synthesis and Electronic Properties of Molecular Networks
Max-Planck-Institute for Solid State Research, Department Prof. Kern, Stuttgart, 27.6.2017
20. On-Surface Synthesis and Electronic Properties of Molecular Networks
Universität Köln, Colloquium Physikalische Chemie, Köln, 18.5.2017
19. On-surface polymerization and self-assembly of molecular nanostructures
Czech Academy of Science, Institute of Physics, Prag, 3.5.2016
18. Self-assembly and on-surface polymerization of functionalized molecular nanostructures
University of Groningen, Zernike Institute for Advanced Materials, The Netherlands, 11.2.2016
17. Assembly and electronic properties of molecular nanostructures on surfaces
Fritz-Haber Institute, Department for Physical Chemistry, Berlin, Germany, 18.1.2016
16. Self-assembly and covalent coupling of molecules on surfaces
Technische Universität Bergakademie Freiberg, Department für Chemie, 7.7.2015
15. Self-organization and polymerization of organic molecules on surfaces
University of Bayreuth, Department of Physics, 17.6.2015
14. Self-assembled and covalently coupled molecular nanostructures on surfaces
Universität Bern, Department für Chemie und Biochemie, 27.1.2015
13. Towards novel two-dimensional carbon allotropes
Universität Braunschweig, Institut für Halbleitertechnik, 20.11.2013
12. Water at surfaces: A molecular perspective
Max-Plank-Institut für Polymerforschung, Mainz, Seminar Arbeitskreis Prof. Butt, 10.9.2013
11. Wetting phenomena at the nanoscale: Water at surfaces
Universität Osnabrück, Fachbereich Physik, Physikalisches Kolloquium, 24.1.2013
10. Struktur und Selbstorganisation von maßgeschneiderten molekularen Schichten
Bayerische Akademie der Wissenschaften, München, 11.7.2012
9. Selbstorganisation und Manipulation von Molekülen auf Metalloberflächen
Universität Oldenburg, Institut für Physik, 14.11.2011
8. Water at Surfaces: Adsorption, Reactions, Wetting
Universität Erlangen-Nürnberg, Department für Physik, Physikalisches Kolloquium, 20.6.2011
7. Wetting phenomena at the nanoscale: Water at surfaces
Universität Basel, Department für Physik, Seminar Nano- und Quantenphysik, 21.2.2011

6. Scanning Probe Microscopy on Molecular Structures: From Self-assembly to Manipulation
Universität Erlangen-Nürnberg, Cluster of Excellence Engineering Advanced Materials, 28.1.2011
5. Molecular level study of ammonia dehydrogenation and water growth on ruthenium
Lawrence Berkeley National Laboratory, Molecular Foundry, Theory Seminar, 30.6.2010
4. Water wetting and single-molecule manipulation on surfaces
Brookhaven National Laboratory, Center for Functional Nanomaterials, 22.4.2010
3. Contact dynamics: From the atomic scale to nanostructured surfaces
Hitachi Global Storage Technologies, San Jose Research Center, Tribology Seminar, 5.3.2009
2. Structure and manipulation of ultra-thin water films on Ruthenium
Lawrence Berkeley National Laboratory, Prof. Dubon Group, 26.2.2009
1. The structure and growth of ultrathin water films on Ruthenium
Universität Basel, Department für Physik, 18.12.2008

Contributed Talks (only oral contributions as presenter)

29. Tuning of binding-motifs and chirality in cyano-porphyrin selfassemblies: From metal to bulk insulator on surfaces
3s conference 2022, St. Christoph, Austria, 13-19.3.2022
28. Molecular self-assemblies of bridged-triphenylamines on bulk insulators
NC-AFM conference 2018, Porvoo, Finland, 17-21.9.2018
27. Electronic structure of 2D covalently linked molecular networks on metal surfaces
E-MRS Spring Meeting, Strasbourg, 18-22.6.2018
26. Electronic structure of 1D and 2D polymers fabricated in a hierarchical on-surface synthesis
International Congress Engineering of Advanced Materials ICEAM2017 – Erlangen, 11.10.2017
25. Electronic structure of covalently-linked 2D molecular networks on metal surfaces
Workshop on SPM & on-surface chemistry, Prag, 23.5.2017
24. The effect of dimensionality on the electronic band gap in hierarchically synthesized 1D and 2D-dimensional covalent structures
3s conference 2017, St. Moritz, Switzerland
23. Self-assembled bridged triphenylamines on bulk insulator surfaces: The role of functional groups
3s conference 2016, St. Christoph am Arlberg
22. Molecular self-assembly on bulk insulator surfaces
1st Functional Molecular Structures on Complex Oxide Surfaces (FUNCOS) International Workshop 2015, Erlangen
21. Steering the Self-assembly of Bridged Triphenylamines on KBr(001)
18th International Conference on ncAFM 2015, Cassis, France
20. Steering the Self-assembly of Bridged Triphenylamines on KBr(001)
ECOSS31 2015, Barcelona, Spain
19. Steering the self-assembly of bridged triphenylamines on KBr(001)
IWSP 2015, 23.6.2015, Trzebnica, Poland
18. Self-assembled triarylamines on KBr(001) and Au(111): Balancing intermolecular and molecule-surface interactions
ECOSS30 2014, Antalya
17. Directed growth of functionalized triarylamine derivatives on KBr(001)
DPG Meeting 2014, Dresden
16. Engineering carbon-rich networks doped with heteroatoms,
5th International Workshop on Advanced Atomic Force Microscopy Techniques 2014, Karlsruhe
15. Water Splits Epitaxial Graphene and Intercalates
4th International Workshop on Advanced Atomic Force Microscopy Techniques 2013, Karlsruhe

14. Bonding of ammonia and its dehydrogenated fragments on Ru(0001)
    DPG Meeting 2013, Regensburg
13. Interaction of water molecules with epitaxial graphene, International Conference on Nanoscience and Technology, ICN+T 2012, Paris
12. Water adsorption on oxygen covered Ru(0001) surfaces
    APS Meeting 2011, Dallas, Texas
11. Structure of the first water layer on Ru(0001)
    DPG 2011, Dresden
10. Structure of Ultra Thin Water Films on Ruthenium,
    AVS 56th International Symposium 2009, San Jose, California
9. Water Adsorption on O(2x1)-Ru(0001)
    AVS 56th International Symposium 2009, San Jose, California
8. Atomic friction modulated by a buried interface
    MRS Spring meeting 2008, San Francisco, California
7. Residual friction and dissipation in atomic-scale contacts subject to periodic loading
    International Conference on Nanoscience and Technology 2007, Stockholm
6. Atomic friction on alkali halide superstructures
    International Conference on Nanoscience and Technology 2007, Stockholm
5. Heteroepitaxial Growth of NaCl/KBr and KBr/NaCl Investigated by nc-AFM
    International Conference on Nanoscience and Technology 2006, Basel
4. Heteroepitaxial growth of NaCl and KBr,
    9th International Conference on Non-contact Atomic Force Microscopy 2006, Kobe, Japan
3. Thermal fluctuations and jump dynamics in atomic friction,
    FRONTIERS Workshop "Understanding processes at the molecular level" 2006, Lenzerheide, Switzerland
2. Time-resolved measurements of atomic stick-slip in friction,
    4th ESF Nanotribology Workshop 2005, Porquerolles, France
1. Ordered molecular assemblies confined on a nanostructured insulator investigated by UHV-AFM.
    Swiss Physical Society Annual Meeting 2004, Neuchatel, Switzerland