

Invited talks

1. Physical Electronics Conference, Baton Rouge, USA, June 22, 2000.
'Photon emission spectroscopy of individual oxide-supported silver clusters in a scanning tunneling microscope' (Nottingham Competition).
2. SPIE Conference, San Diego, USA, July 31, 2001.
'Photon emission spectroscopy of individual oxide-supported gold and silver clusters in the STM' (Invited Paper)
3. 10th International Colloquium on Scanning Probe Microscopy, Honolulu, USA, November 1, 2002.
'From single atoms to one-dimensional solids: Artificial gold chains on NiAl(110)' (Invited talk)
4. 12th International Conference on Scanning Tunneling Microscopy / Spectroscopy, Eindhoven, July 23, 2003.
'From single atoms to nano-particles: Spectroscopy on the atomic level' (Plenary Talk)
5. Spring meeting of the DPG, Regensburg, March 8, 2004.
'Tailoring electronic properties of atomic chains assembled by STM' (Plenary talk)
6. COST Meeting, London, May 2, 2004.
'Line Defects in Al₂O₃ Thin Films: Structure and Electronic Properties'
7. Dutch SPM Day, Amsterdam, November 5, 2004.
'Model Catalysts at the Atomic Scale: Metal Atoms and Clusters on Oxide Films' (Invited talk)
8. Humboldt-University Berlin, Department of Physics, Prof. Winter. November 17, 2005.
'Elektronische und Optische Eigenschaften von metallischen Nanoteilchen auf dünnen Oxidfilmen' (Seminar)
9. 4th International Workshop on Oxide Surfaces, Aussois and Torino, France and Italy, January 6, 2005.
'Model Catalysts at the Atomic Scale: Atoms and Clusters on ultrathin Al₂O₃ Films' (Invited talk)
10. MPI für Festkörperforschung Stuttgart, Nanoscale Science Department, Prof. K. Kern February 2, 2005.
'Model catalysts at the atomic scale: Oxide films and supported metal clusters studied by STM' (Seminar)

11. Clustertreffen 2005, Bad Herrenalb, September 14, 2005.
'Keimbildung auf dünnen Oxidfilmen: Goldatome auf Al_2O_3 und FeO ' (Invited talk)
12. RWTH-Aachen, Institutsseminar Festkörperphysik, Prof. M. Morgenstern, January 18, 2006.
„Adsorption and Nucleation on thin Oxide Films’ (Colloquium)
13. University Bremen, Department of Chemistry, Prof. M. Bäumer, June 9, 2006.
‘Eigenschaften dünner FeO und Al_2O_3 Filme’ (Seminar)
14. University Würzburg, Department of Physics, Prof. Umbach, August 30, 2006.
‘Fabrication and properties of low-dimensional systems with an STM’ (Focus lecture)
15. IFF-Spring-School, FZ-Jülich, March 15, 2007.
„Light emission spectroscopy with the STM’ (Keynote-lecture)
16. CeNS-München, May 25, 2007.
„From workfunction tuning to Kondo physics: The properties of thin oxide films’ (Colloquium)
17. University of Halle, Symposium: Surfaces of 3d transition metals, June 13, 2007.
‘From self-organization to Kondo physics: The properties of thin FeO films’ (Invited talk)
18. Meeting of the Fachbeirat, Fritz-Haber-Institut, November 12, 2007.
‘Thin oxide films: A support with tunable properties’
19. Humboldt-University Berlin, Department of Physics, Prof. Winter, January 15, 2008.
‘Adsorptionsverhalten dünner Oxidefilme’ (Seminar)
20. University of Modena, Department of Physics, Prof. Valeri, January 18, 2008.
‘Adsorption of metal atoms on thin oxide films’ (Colloquium)
21. University of Milan, Department of Materials Science, Prof. Pacchioni, March 18, 2008.
‘Au chains self-assembled on alumina thin films’ (Colloquium)
22. Humboldt-University Berlin, May 27, 2008.
‘Elektronische Eigenschaften linearer Atomketten auf metallischen und oxidischen Substraten’ (Habilitation-Colloquium)
23. University of Modena, Department of Physics, February 13, 2009.
‘Photon-Emission Spectroscopy at the Nanometer Scale’ (Colloquium)

24. Humboldt-University Berlin, June 5, 2009.
Materials with negative index of refraction' (Habilitation-Colloquium)
25. COST meeting, University P.-M. Curie, Paris, October 22-24, 2009.
'Probing oxide polarity at the atomic scale: MgO on Au(111) (Invited talk)
26. University Bonn, Department of Chemical Physics, Prof. Sokolowski, 15. January 2010.
'Light emission spectroscopy at the nanometer scale' (Colloquium)
27. USB-MPG workshop, University of British Columbia, Vancouver, May 10-17,2010.
'Transition metal oxides: An STM study' (Invited talk)
28. USB-MPG Summer School, MPI für Festkörperforschung Stuttgart, Stuttgart, October 5, 2010.
'Electron quantization in low-dimensional metal systems' (Lecture)
29. UNICAT / SFB 546 Meeting, Erkner, February 23, 2011.
'Defects in rare earth and transition metal oxides' (Invited talk)
30. University of Osnabrück, Department of Physics, Nano-Science Group, Prof. Reichling, March 4, 2011.
'Oxygen vacancies in single crystalline ceria films' (Seminar)
31. University of Köln, Department of Physics, Prof. Michely, May 18, 2011.
'Defects in rare earth and transition metal oxides' (SfB- Seminar)
32. CECAM Workshop: Understanding Structure and Functions of Reducible Oxide Systems, Zaragoza, Spain, June 23, 2011
'Topographic and electronic properties of line defects in the CeO₂(111) surface'
33. ECOSS 28, Wroclaw University, September 1, 2011.
'Tailoring the properties of oxide materials via doping' (Invited talk)
34. 15th International Workshop on Surface Physics, Ladek Zdroj, September 4, 2011.
'Optical spectroscopy at the nanometer scale using a scanning tunnelling microscope' (Invited talk)
35. University of Oldenburg, Department of Physics, Nano-Optics Group, Prof. Lienau, November 15, 2011.
'Das STM: Ein spektroskopische Werkzeugkiste' (Seminar)

36. Technical University Munich, Department of Chemistry, Catalysis Research Center, Prof. Heiz, December 5, 2011.
'Doped oxide materials: Their electronic, optical and adsorption properties' (Seminar)
37. Free University Berlin, Department of Physics, Prof. I. J. Pascual, January 16, 2012.
'Doping of oxide materials: An STM study' (Seminar)
38. Statusseminar SFB 855 on 'Magnetoelectric Composites', Sankelmark, March 7, 2012
'Tailoring the optical properties of oxide materials via doping'
39. University Duisburg-Essen, Seminar SFB 616, Prof. R. Möller, May 29, 2012.
'Doped oxide materials: Their electronic, optical and adsorption properties' (Seminar)
40. International Conference on Nanoscience & Technology, Paris, July 25, 2012.
'Tailoring the properties of oxide materials via doping' (Invited talk)
41. University Pierre and Marie Curie, Institute for Nanoscience, Profs. C. Noguera and J. Jupille, July 26, 2012.
'Exploring polarity at the nanoscale: MgO(111) islands on gold supports' (Seminar)
42. Complex Surfaces in Material Science, German-Japanese Meeting, Berlin, September 21, 2012. *'Tailoring the shape of metal particles on oxide supports' (Invited talk)*
43. Technologies & Measurements on Atomic Scale (Surface Science School), Khosta, Russia, October, 3, 2012.
'STM studies on model catalysts' (Lecture)
44. German-Korean Symposium on Nano-Optics and Nano-Technology, Delmenhorst, December 13, 2013.
'Optical Properties of Doped Oxide Materials' (Seminar)
45. Physikalisches Kolloquium, Universität Oldenburg, Oldenburg, February 4, 2013.
'Functionalized Oxide Surfaces in the STM: From Polarity Tuning to Doping'
46. Faraday Discussion 162 on fabrication, structure and reactivity of anchored nanoparticles, Berlin, April 11, 2013.
'Charge competition with oxygen molecules determines the growth of gold particles on doped CaO films' (Invited talk)
47. Hauptvortrag 'Tag der Physik', Universität Oldenburg, Oldenburg, November 6, 2013
,'Von atomaren Ketten und Nanoblumen'
48. International workshop of oxide surfaces, IWOX, Lake Tahoe, January, 8, 2014.
'Charge Transfer Reactions on Oxide Surfaces'

49. Physikalisches Kolloquium, Universität Osnabrück, Osnabrück, January, 23, 2014
'Tailoring Oxide Properties via Doping'
50. Kompaktseminar der Energie- und Halbleiterforschung, Wangerooge, February, 12, 2014
'Investigating Dielectric Materials at the Atomic Scale'
51. Nano Self-assembly NANOSEA, Marseille, France, July 8, 2014
'Self-assembly processes on oxide surfaces' (Keynote Lecture)
52. 5th International Summer School: Modern Computational Science, Oldenburg, August 28, 2014
'An Introduction into Scanning Tunnelling Microscopy for Theoreticians'
53. COST Training school 'Advanced experimental methods for energy materials characterization', Delmenhorst, September 7, 2014
'The scanning tunnelling microscope: A spectroscopic toolbox for surface science research'
54. 1st German-Iraqi Workshop on Nano-photonics, Delmenhorst, September 30, 2014
'ZnO thin films: From preparation to optical properties'
55. 7th Surface Science Symposium, Matsue, Japan, November 4, 2014
'Topographic and spectroscopic fingerprints of doped oxide materials' (Invited talk)
56. COST CM1104 Workgroup meeting, Osnabrück, May 07, 2015
'ZnO thin films: Probing optical properties with the STM'
57. 2nd German-Iraqi Workshop on Nano-photonics, Delmenhorst, September 24, 2015
'Polaronic electron transport through CaO thin films'
58. Spring meeting of the DPG, Regensburg, March 10, 2016,
'Conductance phenomena in oxide materials' (Hauptvortrag)
59. BIAMS 2016 – Beam induced assessment of microstructure samples, Versailles, France, June 8, 2016
'Probing optical properties of semiconducting oxides at nanometer scales' (Invited talk)
60. IUVESTA 76 – Structures of ultrathin films, Avila, Spain, June 29, 2016
'Doped Oxides: Structure, electronic properties and adsorption behavior' (Invited talk)
61. ISSPIC 18, Int. Symposium on Small Particles / Clusters, Jyväskylä, Finland, August 16, 2016
'Supported metal particles probed individually: An STM study' (Invited talk)