

Gareth S. Parkinson – Full Publication List and Full List of Invited Talks

Papers in Peer Reviewed Journals

81. P Sombut, L Puntischer, M Atzmueller, Z Jakub, M Reticioli, M Meier, Gareth S Parkinson, Cesare Franchini
Role of Polarons in Single-Atom Catalysts: Case Study of Me₁ [Au₁, Pt₁, and Rh₁] on TiO₂ (110)
arXiv preprint arXiv:2204.06991
80. Florian Kraushofer and Gareth S. Parkinson
“Single Atom Catalysis: Lessons from Model Systems”
Invited Review for *Chemical Reviews* – Under Review
79. Matthias Meier, Jan Hulva, Zdenek Jakub, Florian Kraushofer, Mislav Bobić, Roland Bliem, Martin Setvin, Michael Schmid, Ulrike Diebold, Cesare Franchini and Gareth S. Parkinson
“CO oxidation by Pt₂/Fe₃O₄: metastable dimer and support configurations facilitate lattice oxygen extraction”
Science Advances 8 (13), eabn4580 (2022)
<https://doi.org/10.1038/s41467-021-26601>
78. Florian Kraushofer, Lena Haager, Moritz Eder, Ali Rafsanjani-Abbasi, Zdeněk Jakub, Giada Franceschi, Michele Riva, Matthias Meier, Michael Schmid, Ulrike Diebold, Gareth S Parkinson
“Single Rh Adatoms Stabilized on α -Fe₂O₃(1 $\bar{1}$ 02) by Coadsorbed Water”
ACS energy letters 7, 375-380 (2021)
<https://doi.org/10.1021/acseenergylett.1c02405>
77. Gareth S. Parkinson
“Adding Oxides to the 2D Toolkit”
Nature Materials - News and Views
<https://doi.org/10.1038/s41563-021-01048-6>
76. Zdenek Jakub, Matthias Meier, Florian Kraushofer, Jan Balajka, Jiri Pavelec, Michael Schmid, Cesare Franchini, Ulrike Diebold, Gareth S. Parkinson
Rapid oxygen exchange between hematite and water vapor
Nature Communications 12, 6488 (2021)
<https://doi.org/10.1038/s41467-021-26601>
75. Francesca Mirabella, Matthias Müllner, Thomas Touzalin, Michele Riva, Zdenek Jakub, Florian Kraushofer, Michael Schmid, Marc T.M. Koper, Gareth S. Parkinson, Ulrike Diebold
“Ni-modified Fe₃O₄(001) surface as a simple model system for understanding the oxygen evolution reaction”
Electrochimica Acta Volume 389, 138638 (2021)
<https://doi.org/10.1016/j.electacta.2021.138638>
74. Florian Kraushofer, Nikolaus Resch, Moritz Eder, Ali Rafsanjani-Abbasi, Sarah Tobisch, Zdenek Jakub, Giada Franceschi, Michele Riva, Matthias Meier, Michael Schmid, Ulrike Diebold, Gareth S. Parkinson
“Surface Reduction State Determines Stabilization and Incorporation of Rh on α -Fe₂O₃(11 $\bar{0}$ 2)”
Advanced Materials Interfaces special issue on Single-Atom Catalysis, in press
Article selected for cover of the special issue
<https://doi.org/10.1002/admi.202001908>

73. Jan Hulva, Matthias Meier, Roland Bliem, Zdenek Jakub, Michael Schmid, Ulrike Diebold, Cesare Franchini, Gareth S. Parkinson
 “Unravelling CO Adsorption on Model Single-Atom Catalysts”
 Science 371 (2021) 375-379
<https://doi.org/10.1126/science.abe5757>
72. Jakob Timmermann, Florian Kraushofer, Nikolaus Resch, Peigang Li, Yu Wang, Zhiqiang Mao, Michele Riva, Yonghyuk Lee, Carsten Staacke, Michael Schmid, Christoph Scheurer, Gareth S. Parkinson, Ulrike Diebold, and Karsten Reuter
 “IrO₂ Surface Complexions Identified Through Machine Learning and Surface Investigations”
 Phys. Rev. Lett. 125 (2020) 206101
<https://doi.org/10.1103/PhysRevLett.125.206101>
71. Doris Grumelli, Tim Wiegmann, Sara Barja, Finn Reikowski, Fouad Maroun, Jan Balajka, Gareth S. Parkinson, Ulrike Diebold, Philippe Allongue, Klaus Kern, Olaf Magnussen
 “Electrochemical Stability of the Reconstructed Fe₃O₄(001) Surface”
 Angewandte Chemie, 59, 21904-21908 (2020).
<https://doi.org/10.1002/anie.202008785>
70. Francesca Mirabella, Jan Balajka, Jiri Pavelec, Markus Göbel, Florian Kraushofer, Michael Schmid, Gareth Parkinson, and Ulrike Diebold
 “Atomic-Scale Studies of Fe₃O₄(001) and TiO₂(110) Surfaces Following Immersion in CO₂-Acidified Water”
 ChemPhysChem 21 (2020) 1788-1796
<https://doi.org/10.1002/cphc.202000471>
69. Giada Franceschi, Florian Kraushofer, Matthias Meier, Gareth S. Parkinson, Michael Schmid, Ulrike Diebold, and Michele Riva
 “A model system for photocatalysis: Ti-doped Fe₂O₃(1-102) single-crystalline films”
 Chemistry of Materials, 32, 9, 3753-3764 (2020)
<https://doi.org/10.1021/acs.chemmater.9b04908>
68. Björn Arndt, Barbara A. J. Lechner, Alexander Bourgund, Elin Grånäs, Marcus Creutzburg, Konstantin Krausert, Vedran Vonk, Jan Hulva, Gareth S. Parkinson, Michael Schmid, Friedrich Esch, Andreas Stierle
 “Order-disorder phase transition of the subsurface cation vacancy reconstruction on Fe₃O₄(001)”
 Physical Chemistry Chemical Physics, 22, 8336-8343 (2020)
 Selected for “2020 PCCP Hot Article Collection”
<https://doi.org/10.1039/D0CP00690D>
67. Zdenek Jakub, Jan Hulva, Paul T. P. Ryan, David A. Duncan, David J. Payne, Roland Bliem, Manuel Ulreich, Patrick Hofegger, Florian Kraushofer, Matthias Meier, Michael Schmid, Ulrike Diebold, Gareth S. Parkinson
 “Adsorbate-induced structural evolution changes the mechanism of CO oxidation on a Rh/Fe₃O₄(001) model catalyst”
 Nanoscale 12, 5866 – 5875 (2020)
<https://doi.org/10.1039/C9NR10087C>
66. Matthew D. Marcinkowski, Kræn C. Adamsen, Nassar Doudin, Marcus A. Sharp, R. Scott Smith, Yang Wang, Stefan Wendt, Jeppe V. Lauritsen, Gareth S. Parkinson, Bruce D. Kay, Zdenek Dohnálek
 “Adsorption and reaction of methanol on Fe₃O₄(001)”
 J. Chem. Phys. 152, 064703 (2020)
<https://doi.org/10.1063/1.5139418>

65. P. T. P. Ryan, M. Meier, Z. Jakub, J. Balajka, J. Hulva, D. J. Payne, T.-L. Lee, C. Franchini, F. Allegretti, G. S. Parkinson, D. A. Duncan
 “Probing structural changes upon carbon monoxide coordination to single metal adatoms”
 J. Chem. Phys. 152, 051102 (2020);
<https://doi.org/10.1063/1.5137904>
64. Florian Kraushofer, Francesca Mirabella, Jian Xu, Jiří Pavelec, Jan Balajka, Matthias Müllner, Nikolaus Resch, Zdeňek Jakub, Jan Hulva, Matthias Meier, Michael Schmid, Ulrike Diebold, Gareth S. Parkinson
 “Self-limited Growth of an Oxyhydroxide Phase at the $Fe_3O_4(001)$ Surface in Liquid and Ambient Pressure Water”
 The Journal of Chemical Physics, 151 (15), 154702 (2019)
<https://doi.org/10.1063/1.5116652>
63. Nassar Doudin, Simuck F. Yuk, Matthew D. Marcinkowski, Manh-Thuong Nguyen, Jin-Cheng Liu, Yang Wang, Bruce D. Kay, Jun Li, Vassiliki-Alexandra Glezakou, Gareth S. Parkinson, Roger Rousseau, Zdenek Dohnálek
 “Hydrogen Activation and Spillover on Single Palladium Atoms Supported on the $Fe_3O_4(001)$ Surface”
 ACS Catalysis 9, 7876-7887 (2019)
<https://doi.org/10.1021/acscatal.9b01425>
62. Alexander Bourgund, Barbara A. J. Lechner, Matthias Meier, Cesare Franchini, Gareth S. Parkinson, Ueli Heiz and Friedrich Esch
 “Influence of Local Defects on the Dynamics of O-H Bond Breaking and Formation on a Magnetite Surface”
 The Journal of Physical Chemistry C, 123, 19742-19747 (2019)
<https://doi.org/10.1021/acs.jpcc.9b05547>
61. Zdenek Jakub, Jan Hulva, Matthias Meier, Roland Bliem, Florian Kraushofer, Martin Setvin, Michael Schmid, Ulrike Diebold, Cesare Franchini, Gareth S. Parkinson
 “Local Structure and Coordination Effects Define Adsorption in a Model Ir_1/Fe_3O_4 Single-Atom Catalyst”
 Angewandte Chemie International Edition 58, 13961-13968 (2019)
<https://doi.org/10.1002/anie.201907536>
60. Zdenek Jakub, Jan Hulva, Francesca Mirabella, Florian Kraushofer, Ulrike Diebold, Gareth S. Parkinson
 “Nickel Doping Enhances the Reactivity of $Fe_3O_4(001)$ to Water”
 Journal of Physical Chemistry C 2019,12, 15038-15045
<https://doi.org/10.1021/acs.jpcc.9b02993>
59. Eman Zaki, Zdenek Jakub, Francesca Mirabella, Gareth S. Parkinson, Shamil Shaikhutdinov , and Hans-Joachim Freund
 “Water Ordering on the Magnetite Fe_3O_4 Surfaces”
 J. Phys. Chem. Lett., 2019, 10, pp 2487–2492
<https://doi.org/10.1021/acs.jpcc.9b00773>
58. G. S. Parkinson.
 Invited Perspective: “Single-Atom Catalysis: How Structure Influences Catalytic Performance”
 Catalysis Letters 149, 1137 (2019)
<https://doi.org/10.1007/s10562-019-02709-7>
57. Z. Jakub, F. Kraushofer, M. Bichler, J. Balajka, Jan, J. Hulva, J. Pavelec, I. Sokolović, M. Müllner, M. Setvin, M. Schmid, U. Diebold, P. Blaha, G. S. Parkinson

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ACS Energy Letters 4, 390–396 (2019)
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56. Matthias Müllner, Michele Riva, Florian Kraushofer, Michael Schmid, Gareth S. Parkinson*, Stijn F.L. Mertens and Ulrike Diebold
 “Stability and catalytic performance of reconstructed $Fe_3O_4(001)$ and $Fe_3O_4(110)$ surfaces during oxygen evolution reaction” -JPCC Festschrift in honor of H.J. Freund and J. Sauer
J. Phys. Chem. C, Article ASAP
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55. Peter Lackner, Jan Hulva, Eva-Maria Köck, Wernfried Mayr-Schmölzer, Joong Il J Choi, Simon Penner, Ulrike Diebold, Florian Mittendorfer, Josef Redinger, Bernhard Klötzer, Gareth S Parkinson, Michael Schmid
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53. Matthias Meier, Zdeněk Jakub, Jan Balajka, Jan Hulva, Roland Bliem, Pardeep K. Thakur, Tien-Lin Lee, Cesare Franchini, Michael Schmid, Ulrike Diebold, Francesco Allegretti, David A. Duncan and Gareth S. Parkinson
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52. Florian Kraushofer, Zdenek Jakub, Magdalena Bichler, Jan Hulva, Peter Drmota, Michael Weinold, Michael Schmid, Martin Setvin, Ulrike Diebold, Peter Blaha, Gareth S. Parkinson
 “Atomic-Scale Structure of the Hematite $\alpha\text{-Fe}_2\text{O}_3(11\bar{0}2)$ “R-cut” Surface”
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51. M. Setvin, X. Shi, J. Hulva, T. Simschitz, G.S. Parkinson, M. Schmid, C. Di Valentin, A. Selloni, U. Diebold
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50. J. Hulva, Z. Jakub, Z. Novotny, N. Johansson, J. Knudsen, J. Schnadt, M. Schmid, U. Diebold, G.S. Parkinson
 “Adsorption of CO on the $Fe_3O_4(001)$ Surface”
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46. M. Setvin, J. Hulva, G.S. Parkinson, M. Schmid, U. Diebold
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45. Jiri Pavelec, Jan Hulva, Daniel Halwidl, Roland Bliem, Oscar Gamba, Zdenek Jakub, Florian Brunbauer, Michael Schmid, Ulrike Diebold and Gareth S Parkinson
“A Multi-Technique Study of CO₂ Adsorption on Fe₃O₄ Magnetite”
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42. Oscar Gamba, Jan Hulva, Jiri Pavelec, Roland Bliem, Michael Schmid, Ulrike Diebold, Gareth S. Parkinson
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41. Roland Bliem, Jessi van der Hoeven, Adam Zavodny, Oscar Gamba, Jiri Pavelec, Petra E de Jongh, Michael Schmid, Ulrike Diebold, Gareth S Parkinson
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39. Gareth S. Parkinson, Peter Lackner, Oscar Gamba, Sebastian Maaß, Stefan Gerhold, Michele Riva, Roland Bliem, Ulrike Diebold and Michael Schmid

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36. Roland Bliem, Jessi van der Hoeven, Adam Zavodny, Oscar Gamba, Jiri Pavelec, Petra E de Jongh, Michael Schmid, Ulrike Diebold, Gareth S Parkinson
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35. Martin Setvin, Maria Buchholz, Weiyi Hou, Cui Zhang, Bernhard Stöger, Jan Hulva, Thomas Simschitz, Xiao Shi, Jiri Pavelec, Gareth S Parkinson, Mingchun Xu, Yuemin Wang, Michael Schmid, Christof Wöll, Annabella Selloni, Ulrike Diebold
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33. Roland Bliem, Eamon McDermott, Pascal Ferstl, Martin Setvin, Oscar Gamba, M. Alexander Schneider, Michael Schmid, Ulrike Diebold, Peter Blaha, Lutz Hammer, Gareth S. Parkinson
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“Medium energy ion scattering investigation of methylthiolate-induced modification of the Au(111) surface”
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12. D.C. Sheppard, G.S. Parkinson, A. Hentz, P.D. Quinn, M.A. Muñoz-Márquez, D.P. Woodruff, P. Bailey, T.C.Q. Noakes,
“Surface relaxation in Cu(410)-O: A medium energy ion scattering study”
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11. Y.K. Kim, Z.R. Zhang, G.S. Parkinson, S.C. Li, B.D. Kay, Z. Dohnalek, *"Reactivity of FeO(111)/Pt(111) with Alcohols"*, J. Phys. Chem. C 113, 20020-20028 (2009)
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10. G.S. Parkinson, Z. Dohnalek, R.S. Smith, B.D. Kay, *"Reactivity of C₂Cl₆ and C₂Cl₄ Multilayers with Fe⁰ Atoms over FeO(111)"*, J. Phys. Chem. C 113, 10233-10241 (2009)
DOI: <http://dx.doi.org/10.1021/jp901040f>
9. G.S. Parkinson, Y.K. Kim, Z. Dohnalek, R.S. Smith, B.D. Kay, *"Reactivity of Fe⁰ Atoms and Clusters with D₂O over FeO(111)"*. J. Phys. Chem. C 113, 4960 (2009)
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8. A. Hentz, G.S. Parkinson, A. Window, D.P. Woodruff, P.L. Grande, G. Schwietz, P. Bailey, T.C.Q. Noakes, *"Direct observation and theory of trajectory-dependent electronic energy losses in medium-energy ion scattering"* Phys. Rev. Lett. 102, 096103 (2009)
DOI: <http://dx.doi.org/10.1103/PhysRevLett.102.096103>
7. G.S. Parkinson, Z. Dohnalek, R.S. Smith, B.D. Kay, *"Reactivity of Fe⁰ Atoms, Clusters, and Nanoparticles with CCl₄ Multilayers on FeO(111)"* J. Phys. Chem. C 113, 5, 1818-1829 (2009)
DOI: <http://dx.doi.org/10.1021/jp8076062>
6. G.S. Parkinson, P.D. Quinn, D.P. Woodruff, P. Bailey, T.C.Q. Noakes, *"Methylthiolate-induced reconstruction of Ag(1 1 1): A medium energy ion scattering study"* Surf. Sci 601, 50-57 (2007)
DOI: <http://dx.doi.org/10.1016/j.susc.2006.09.007>
5. A. Hentz, G.S. Parkinson, P.D. Quinn, M.A. Muñoz-Marquez, D.P. Woodruff, P.L. Grande, G. Schwietz, P. Bailey, T.C.Q. Noakes, *Inelastic energy loss in 100-keV H⁺ scattering from single atoms: Theory and experiment for K, Rb, and Cs* Phys. Rev. B 74, 125408 (2006)
DOI: <http://dx.doi.org/10.1103/PhysRevB.74.125408>
4. G.S. Parkinson, M.A. Muñoz-Márquez, P.D. Quinn, M.J. Gladys, R.E. Tanner, D.P. Woodruff, P. Bailey, T.C.Q. Noakes, *"Medium-energy ion-scattering study of the structure of clean TiO₂(110)-(1×1)"* Phys. Rev. B 73, 245409 (2006)
DOI: <http://dx.doi.org/10.1103/PhysRevB.73.245409>
3. G.S. Parkinson, M.A. Muñoz-Márquez, P.D. Quinn, M.J. Gladys, D.P. Woodruff, P. Bailey, T.C.Q. Noakes, *"The methanethiolate-induced pseudo-(1 0 0) reconstruction of Cu(1 1 1): A medium energy ion scattering structure study"* Surf. Sci 598, 209-217 (2005)
DOI: <http://dx.doi.org/10.1016/j.susc.2005.08.038>
2. M.A. Muñoz-Márquez, G.S. Parkinson, D.P. Woodruff, A. Hentz, P.L. Grande, G. Schwietz, T.J. Wood, C. Bonet, S.P. Tear, P. Bailey, and T.C.Q. Noakes,

“Energy loss in medium-energy ion scattering: A combined theoretical and experimental study of the model system Y on Si(111)”

Phys. Rev. B 72, 075415 (2005)

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1. M.A. Munoz-Marquez, G.S. Parkinson, P.D. Quinn, M.J. Gladys, R.E. Tanner, D.P. Woodruff,
“N-induced pseudo-(1 0 0) reconstruction of Cu(1 1 1): One layer or more?”
Surf. Sci. 582, 97-109 (2005)
DOI: <http://dx.doi.org/10.1016/j.susc.2005.03.008>

Book Chapters

1. G. S. Parkinson, U. Diebold, J. K. Tang, and L. Malkinski, in *Magnetic Materials*, edited by L. Malkinski (InTech, 2012)
2. G.S. Parkinson, U. Diebold, “Adsorption at metal oxide surfaces”,
published in “*Surface and Interface Science*” edited by Klaus Wandelt (Wiley, 2016)

Other Publications –

2018 - Atomic Scale Insights Into Single-Atom Catalysis

Invited Article for ViP (Vacuum in Research and Practise), the members’ magazine of the German Vacuum Society

<https://doi.org/10.1002/vipr.201800695>

2013 - [Experiment & Theory: The Perfect Marriage](#) – Editorial article for the Energy Frontier Research Centre Newsletter

Invited Talks at International Conferences, Workshops and Summer Schools

1. ACS Spring 2012 National Meeting and Exposition San Diego, March 25-29, 2012
2. Nature Conference “Frontiers in Electronic Materials”, June 17-20, 2012, Aachen, Germany
3. SPIE Optics & Photonics San Diego, USA, August 12-16, 2012
4. IUPAC 8th International Conference on Novel Materials and their Synthesis (NMS-VIII), Xi’An, China, 14 to 19 October, 2012
5. 28th International Workshop on Novel Materials and superconductors, Plannersalm, Austria, February 9 - 16, 2013
6. ACS Spring 2013 National Meeting and Exposition New Orleans, April 7-11, 2013
7. Austrian Physical Society (ÖPG) Meeting, Linz Austria, 3-6 September 2013
8. 3rd International Conference on Physics at Surfaces and Interfaces (PSI2014), Puri, India, Feb 24-28 2014
9. 79th DPG Annual Meeting and DPG Spring Meeting (DPG-Frühjahrstagung), Berlin (TU), 15-20 March 2015
10. Nanoforum 2015, June 8–9, 2015, University Linz
11. ACS Fall 2015 National Meeting and Exposition Boston, August 16-20, 2015
12. CRC 1109 Summer School, Berlin, Germany, 03.09.2015
13. International SFB FOXSI Symposium, TU Wien, 12.5.2015
14. AMISPEC Workshop, Central European Institute of Technology, March 8 2016
15. ACS Spring 2016 National Meeting and Exposition San Diego, March 13-17, 2016
16. IUVESTA 76 Workshop, Avilla, Spain, July 2016
17. **(Keynote Lecture)** International Symposium on Single-Atom Catalysis, Dalian, China, June 30-July 2, 2016
18. **(Keynote Lecture)** 20th International Vacuum Congress (IVC-20), Busan, Korea August 21 to 26, 2016.

19. ECOS 32. Grenoble France, 28th August -2nd September 2016
20. Summer School of the Oldenburger LandesgraduiertenKolleg in Elstal, Germany. September 12-14, 2016.
21. Austrian Physical Society (ÖPG) Meeting, Vienna Austria, 3-6 September 2016
22. AVS 63rd International Symposium and Exhibition, Nashville November 6-11, 2016
23. 2016 Fall MRS Meeting, Boston, November 27- December 2, 2016
24. IUVESTA International Summer School on Physics at Nanoscale, June 10th-June 17th 2017, Devět Skal, Czech Republic
25. 5th International Conference on Chemical Bonding, ICCB, Kauai, Hawaii, June 22-26, 2017
26. E-MRS 2017 Fall Meeting, Warsaw Poland, September 18-21, 2017.
27. **(Plenary Lecture)** 82nd Annual Meeting of the German Physical Society (DPG-Frühjahrstagung), Berlin (TU), 11-16 March 2018
28. STINT workshop, Fort Myers, Florida, USA. 3-6 April 2018
29. **(Plenary Lecture)** 2nd International Symposium on Single Atom Catalysis, Beijing, China 15-18 July, 2018
30. SFB 986 Summer School, Hamburg, Germany, 9-13 July 2018
31. Telluride Workshop on Semiconductor Surface Chemistry, Telluride, Colorado July 2018
32. Deutsch-Brasilianischer Workshop, Bad Dürkheim Germany, 23.9 - 28.9 2018
33. AVS 65th International Symposium and Exhibition – Long Beach California – **„Future Stars of the AVS“ Symposium**
34. Gordon Research Conference on „Chemical Reactions at Surfaces“ – Ventura CA, Feb 2019
35. IWSP Workshop, Wrocklaw Poland, 24-28 June 2019
36. Festkörper Analytic Symposium (FKA-20), Wien, Austria 3rd July 2019
37. AVS 66th International Symposium and Exhibition – Columbus Ohio October 2019
38. Materials Research Meeting (MRM) 2019 – December 10-14, 2019, Yokohama, Japan
39. **(Plenary Lecture)** – International workshop on oxide surfaces (IWOX) Lake Placid NY, USA, Jan 2020
40. DPG Spring Meeting (DPG-Frühjahrstagung), Dresden, 15-20 March 2020 - conference cancelled due to Covid-19
41. ACS Spring Meeting, Philadelphia, USA – conference cancelled due to Covid-19
42. ACS Fall Meeting, San Francisco, USA - conference cancelled due to Covid-19
43. Summer school in Photo- and electro-catalysis at the atomic scale (PECAS), San Sebastian, Spain, June 22-25 2021 – postponed to 2022.
44. Multiscale approaches for modeling water splitting with nanocrystals, COST action online Workshop. 16.02.2021
45. Surface Science Discussions 2022, Online workshop (January 2022)
46. LINXS Catalysis Workshop, June 30, 2022, Lund, Sweden

Invited Seminars at Universities and Research Institutions

1. University of Cambridge, UK (2007)
2. Pacific Northwest National Laboratory (2009)
3. Ludwig-Maximilians University, Munich (2010)
4. Louisiana State University (2012)
5. Georgia Institute of Technology (2012)
6. Max Plank Institute for Solid State Research Stuttgart (2013)
7. TU Wien, IAP Seminar (2013)
8. Max Plank Institute for Microstructure Physics, Halle Saale (2014)
9. Chemisch Physikalische Gesellschaft (July 2015)
10. TU Munich (November 2015)
11. TU Graz (May 2016)
12. York University (June 2016)
13. Tufts University (December 2016)
14. Harvard University (December 2016)
15. PNNL (June 2017)
14. TU Hamburg (April 2018)

15. Aarhus iNano centre (June 2018)
16. TU Wien - Institute of Theoretical Physics (July 2018)
17. University of Marburg (May 2019)
18. University of Warwick (June 2019)
19. University of Duisburg-Essen (November 2019)
20. Tufts University (October 2020)
21. Michigan Technological University (October 2020)
22. Chalmers University (November 2021)
23. University of Zurich (May 2022)
24. Peking University (June 2022)