

# Gareth S. Parkinson – Full Publication List

## 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)

## Papers in Peer Reviewed Journals

55. PTP Ryan, Z Jakub, J Balajka, J Hulva, M Meier, JT Kuchle, PJ Blowey, P Kumar Thakur, C Franchini, DJ Payne, DP Woodruff, LA Rochford, F Allegretti, T-L Lee, GS Parkinson, DA Duncan  
“Direct measurement of Ni incorporation into  $\text{Fe}_3\text{O}_4(001)$ ”  
Physical Chemistry Chemical Physics, 2018  
DOI: <https://doi.org/10.1039/C8CP02516A>
54. Matthias Meier, Jan Hulva, Zdeněk Jakub, Jiří Pavelec, Martin Setvin, Roland Bliem, Michael Schmid, Ulrike Diebold, Cesare Franchini, and Gareth S. Parkinson  
“Water Agglomerates on  $\text{Fe}_3\text{O}_4(001)$ ”  
Proceedings of the National Academy of Sciences, 201801661  
<https://doi.org/10.1073/pnas.1801661115>  
<https://arxiv.org/abs/1801.09601>
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  
“Benchmarking the Active-Site Geometry in a Model Single-Atom Catalyst: NIXSW Studies of Copper and Silver Adatoms on Magnetite”  
Nanoscale, 2018, 10, 2226 – 2230  
<https://doi.org/10.1039/C7NR07319D>
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  $\alpha\text{-Fe}_2\text{O}_3(1\bar{1}02)$  “R-cut” Surface”  
*J. Phys. Chem. C*, 2018, 122 (3), pp 1657–1669  
<http://dx.doi.org/10.1021/acs.jpcc.7b10515>
51. M. Setvin, X. Shi, J. Hulva, T. Simschitz, G.S. Parkinson, M. Schmid, C. Di Valentin, A. Selloni, U. Diebold  
“*Methanol on Anatase  $\text{TiO}_2(101)$ : Mechanistic Insights into Photocatalysis*”  
*ACS Catalysis* 7, 7081 (2017)  
<http://dx.doi.org/10.1021/acscatal.7b02003>
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  $\text{Fe}_3\text{O}_4(001)$  Surface*”  
Miquel Salmeron Festschrift Issue - *Journal of Chemistry B* (2017)  
<http://dx.doi.org/10.1021/acs.jpcc.7b06349>

49. G.S. Parkinson  
Invited Perspective Article: "Single Atom Catalysis: The Surface Science Approach"  
Chinese Journal of Catalysis 38 (2017)  
<http://www.cjatal.org/CN/article/downloadArticleFile.do?attachType=PDF&id=22213>
48. M. Setvin, J. Hulva, H. Wang, T. Simschitz, M. Schmid, G.S. Parkinson, C. Di Valentin, A. Selloni, U. Diebold  
"Formaldehyde Adsorption on the Anatase  $\text{TiO}_2(101)$  Surface: Experimental and Theoretical Investigation"  
The Journal of Physical Chemistry C 121 (16), 8914-8922 (2017)  
<http://dx.doi.org/10.1021/acs.jpcc.7b01434>
47. M. Setvin, M. Wagner, M. Schmid, G.S. Parkinson, U. Diebold,  
"Surface point defects on bulk oxides: atomically-resolved scanning probe microscopy"  
Chemical Society Reviews 46 1772-1784 (2017)  
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46. M. Setvin, J. Hulva, G.S. Parkinson, M. Schmid, U. Diebold  
"Electron transfer between anatase  $\text{TiO}_2$  and an  $\text{O}_2$  molecule directly observed by atomic force microscopy"  
Proceedings of the National Academy of Sciences 114 E2556-E2562 (2017)  
DOI: <http://dx.doi.org/10.1073/pnas.1618723114>
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  $\text{CO}_2$  Adsorption on  $\text{Fe}_3\text{O}_4$  Magnetite"  
The Journal of Chemical Physics 146 014701 (2017)  
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44. Björn Arndt, Roland Bliem, Oscar Gamba, Jessi E.S. van der Hoeven, Heshmat Noei, Ulrike Diebold, Gareth S. Parkinson, Andreas Stierle  
"Atomic structure and stability of magnetite  $\text{Fe}_3\text{O}_4(001)$ : An X-ray view"  
Surface Science 653 (2016), 76  
DOI: <http://dx.doi.org/10.1016/j.susc.2016.06.002>
43. Gareth S. Parkinson  
"Iron Oxide Surfaces"  
Surface Science Reports 71 (2016) 272  
DOI: [10.1016/j.surfrep.2016.02.001](http://dx.doi.org/10.1016/j.surfrep.2016.02.001)
42. Oscar Gamba, Jan Hulva, Jiri Pavelec, Roland Bliem, Michael Schmid, Ulrike Diebold, Gareth S. Parkinson  
"The role of surface defects in the adsorption of methanol on  $\text{Fe}_3\text{O}_4(001)$ "  
Topics In Catalysis special issue – "Surface Chemistry of Well-Characterized Metal Oxides"  
DOI: <http://dx.doi.org/10.1007/s11244-016-0713-9>
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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PNAS 113, (2016) 8921  
DOI: <http://dx.doi.org/10.1073/pnas.1605649113>
40. Laura Martin-Garcia, Arantzazu Mascaraque, Beatriz Martinez Pabon, Roland Bliem,

- Gareth S. Parkinson, Gong Chen, Andreas K. Schmid, and Juan de la Figuera  
*"Spin-reorientation transition of magnetite (001)"*  
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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  
*"Fe<sub>3</sub>O<sub>4</sub>(110)-(1×3) Revisited: Periodic (111) Nano-Facets"*  
 Surface Science 649, 120-123 (2016)  
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38. Raquel Gargallo-Caballero, Laura Martín-García, Adrian Quesada, Cecilia Granados-Miralles, Michael Foerster, Lucia Aballe, Roland Bliem, Gareth Parkinson, Peter Blaha, José Marco, and Juan de la Figuera  
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 The Journal of chemical physics 144 (9), 094704 (2016)  
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37. Daniel Halwidl, Bernhard Stöger, Wernfried Mayr-Schmölzer, Jiri Pavelec, David Fobes, Jin Peng, Zhiqiang Mao, Gareth S Parkinson, Michael Schmid, Florian Mittendorfer, Josef Redinger, Ulrike Diebold  
*"Adsorption of water at the SrO surface of ruthenates"*  
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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  
*"An Atomic-Scale View of CO and H<sub>2</sub> Oxidation on a Pt/Fe<sub>3</sub>O<sub>4</sub> Model Catalyst"*  
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 DOI: <http://dx.doi.org/10.1002/anie.201507368>
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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**Other Publications - [Experiment & Theory: The Perfect Marriage](#)** – Editorial article for the Energy Frontier Research Centre Newsletter