# Philip Davies

List of Publications by Year
in descending order

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|---|---|---|---|
| 127 papers | 2,861 citations | 159585 30 h-index | 206112 48 g-index |
| 135 all docs | 135 docs citations | 135 times ranked | 3198 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | New insights into the mechanism of photocatalytic reforming on Pd/TiO2. Applied Catalysis B: Environmental, 2011, 107, 205-209. | 20.2 | 140 |
| 2 | The photocatalytic reforming of methanol. Catalysis Today, 2007, 122, 46-50. | 4.4 | 136 |
| 3 | Reaction pathways in the oxydehydrogenation of ammonia at Cu(110) surfaces. Surface Science, 1993, 284, 109-120. | 1.9 | 128 |
| 4 | Sustainable H2 gas production by photocatalysis. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 216, 115-118. | 3.9 | 117 |
| 5 | The reactive chemisorption of carbon dioxide at magnesium and copper surfaces at low temperature. Catalysis Letters, 1988, 1, 11-19. | 2.6 | 115 |
| 6 | Hydrogen production by photoreforming of biofuels using Au, Pd and Auâ€“Pd/TiO2 photocatalysts. Journal of Catalysis, 2014, 310, 10-15. | 6.2 | 112 |
| 7 | Photocatalytic Reforming of Glycerol over Gold and Palladium as an Alternative Fuel Source. Catalysis Letters, 2009, 128, 253-255. | 2.6 | 104 |
| 8 | Hydroxylation of molecularly adsorbed water at Ag(111) and Cu(100) surfaces by dioxygen: photoelectron and vibrational spectroscopic studies. Surface Science, 1990, 238, L467-L472. | 1.9 | 73 |
| 9 | The functionalisation of graphite surfaces with nitric acid: Identification of functional groups and their effects on gold deposition. Journal of Catalysis, 2015, 323, 10-18. | 6.2 | 59 |
| 10 | The structure of sulfur adlayers at Cu(110) surfaces: an STM and XPS study. Surface Science, 2000, 447, 39-50. | 1.9 | 57 |
| 11 | Photoactivated reaction of water with silicon nanoparticles. International Journal of Hydrogen Energy, 2009, 34, 8504-8510. | 7.1 | 54 |
| 12 | Title is missing!. Catalysis Letters, 2002, 80, 25-34. | 2.6 | 52 |
| 13 | Oxidation of Methanol at Cu(110) Surfaces:Â New TPD Studies. The Journal of Physical Chemistry, 1996, 100, 19975-19980. | 2.9 | 49 |
| 14 | Oxygen sites active in H-abstraction at a Cu(110)-O surface: Comparison of a Monte Carlo simulation with imide formation studied by XPS and VEELS. Topics in Catalysis, 1994, 1, 35-42. | 2.8 | 48 |
| 15 | The adsorption and reaction of alcohols on TiO2 and Pd/TiO2 catalysts. Applied Catalysis A: General, 2013, 454, 66-73. | 4.3 | 48 |
| 16 | The chemisorption of organophosphorus compounds at an Al(1 1 1) surface. Applied Surface Science, 2001, 181, 296-306. | 6.1 | 47 |
| 17 | The importance of metal reducibility for the photo-reforming of methanol on transition metal-TiO2 photocatalysts and the use of non-precious metals. International Journal of Hydrogen Energy, 2015, 40, 1465-1471. | 7.1 | 47 |
| 18 | The role of a dioxygen precursor in the selective formation of imide NH(a) species at a Cu(110) surface. Surface Science, 1991, 259, L724-L728. | 1.9 | 45 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Photocatalytic methanol reforming on Au/TiO2 for hydrogen production. Gold Bulletin, 2006, 39, 216-219. | 2.7 | 45 |
| 20 | Reaction pathways in methanol oxidation at Cu(110) surfaces. Surface Science, 1996, 364, L525-L529. | 1.9 | 44 |
| 21 | Advanced XPS characterization: XPS-based multi-technique analyses for comprehensive understanding of functional materials. Materials Chemistry Frontiers, 2021, 5, 7931-7963. | 5.9 | 41 |
| 22 | Hydrogen generation by photocatalytic reforming of potential biofuels: Polyols, cyclic alcohols, and saccharides. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 356, 451-456. | 3.9 | 39 |
| 23 | Activation of carbon dioxide at bismuth, gold and copper surfaces. Applied Surface Science, 1991, 47, 375-379. | 6.1 | 37 |
| 24 | The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces. Surface Science, 1995, 322, 8-20. | 1.9 | 37 |
| 25 | Chemisorption theory of ammonia on copper. Chemical Physics Letters, 1992, 188, 477-486. | 2.6 | 36 |
| 26 | A hybrid strain and thermal energy harvester based on an infra-red sensitive Er3+ modified poly(vinylidene fluoride) ferroelectret structure. Scientific Reports, 2017, 7, 16703. | 3.3 | 36 |
| 27 | The reaction of carbon dioxide with amines at a Cu(211) surface. Surface Science, 2000, 469, 204-213. | 1.9 | 34 |
| 28 | On the Role of Water in Heterogeneous Catalysis: A Tribute to Professor M. Wyn Roberts. Topics in Catalysis, 2016, 59, 671-677. | 2.8 | 34 |
| 29 | The effect of acid treatment on the surface chemistry and topography of graphite. Carbon, 2013, 61, 124-133. | 10.3 | 32 |
| 30 | Controlling reaction selectivity in the oxidation of methanol at Cu(110) surfaces. Catalysis Letters, 1997, 43, 261-266. | 2.6 | 31 |
| 31 | Controlling the Nanoscale Patterning of AuNPs on Silicon Surfaces. Nanomaterials, 2013, 3, 192-203. | 4.1 | 30 |
| 32 | Activation of oxygen at metal surfaces. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2005, 363, 829-846. | 3.4 | 29 |
| 33 | The Reactive Chemisorption of Alkyl Iodides at Cu(110) and Ag(111) Surfaces:Â A Combined STM and XPS Study. Journal of Physical Chemistry B, 2005, 109, 9556-9566. | 2.6 | 29 |
| 34 | Coadsorption of carbon monoxide and nitric oxide at Ag(111): evidence for a COâ€“NO surface complex. Surface Science, 1998, 406, L587-L591. | 1.9 | 28 |
| 35 | Effect of slurry composition on the chemical mechanical polishing of thin diamond films. Science and Technology of Advanced Materials, 2017, 18, 654-663. | 6.1 | 28 |
| 36 | Surface state modulation through wet chemical treatment as a route to controlling the electrical properties of ZnO nanowire arrays investigated with XPS. Applied Surface Science, 2014, 320, 664-669. | 6.1 | 27 |

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|---|---|---|---|
| 37 | The oxidation of formic acid to carbonate at Cu(110) surfaces. Surface Science, 1998, 401, 400-411. | 1.9 | 26 |
| 38 | The hydroxylation of Cu(111) and Zn(0001) surfaces. Applied Surface Science, 1994, 81, 265-272. | 6.1 | 25 |
| 39 | Activation of carbon dioxide by ammonia at Cu(100) and Zn(0001) surfaces leading to the formation of a surface carbamate. Journal of the Chemical Society, Faraday Transactions, 1992, 88, 361. | 1.7 | 24 |
| 40 | Oxygen states at a Cu(111) surface: the influence of coadsorbed ammonia. Surface Science, 1995, 325, 50-56. | 1.9 | 24 |
| 41 | Surface oxygen and chemical specificity at copper and caesium surfaces. Faraday Discussions, 1996, 105, 225. | 3.2 | 24 |
| 42 | The oxidation of Fe(111). Surface Science, 2011, 605, 1754-1762. | 1.9 | 22 |
| 43 | Rutile TiO2â€“Pd Photocatalysts for Hydrogen Gas Production from Methanol Reforming. Topics in Catalysis, 2015, 58, 70-76. | 2.8 | 22 |
| 44 | A low energy pathway to CuCl2 at Cu(110) surfaces. Physical Chemistry Chemical Physics, 2009, 11, 10899. | 2.8 | 21 |
| 45 | Practical guide for x-ray photoelectron spectroscopy: Applications to the study of catalysts. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, . | 2.1 | 21 |
| 46 | On the nature of the active site in catalysis: the reactivity of surface oxygen on Cu(110). Catalysis Today, 2010, 154, 31-37. | 4.4 | 20 |
| 47 | An STMâ€“XPS study of ammonia oxidation: the molecular architecture of chemisorbed imide â€˜stringsâ€™ at Cu(110) surfaces. Chemical Communications, 1998, , 1793-1794. | 4.1 | 19 |
| 48 | Surface structure of Î³-Fe2O3(111). Surface Science, 2012, 606, 1594-1599. | 1.9 | 19 |
| 49 | The chemisorption and decomposition of pyridine and ammonia at clean and oxidised Al(111) surfaces. Surface Science, 2003, 546, 149-158. | 1.9 | 18 |
| 50 | Spectroscopic and atomic force studies of the functionalisation of carbon surfaces: new insights into the role of the surface topography and specific chemical states. Faraday Discussions, 2014, 173, 257-272. | 3.2 | 18 |
| 51 | The reactive chemisorption of formic acid at A1(111) surfaces and the influence of surface oxidation and coadsorption with water: a combined XPS and HREELS investigation. Journal of Physics Condensed Matter, 1991, 3, S237-S244. | 1.8 | 17 |
| 52 | Title is missing!. Topics in Catalysis, 2000, 14, 101-109. | 2.8 | 17 |
| 53 | Oxygen transient states in catalytic oxidation at metal surfaces. Catalysis Today, 2011, 169, 118-124. | 4.4 | 17 |
| 54 | The deposition of metal nanoparticles on carbon surfaces: the role of specific functional groups. Faraday Discussions, 2018, 208, 455-470. | 3.2 | 17 |

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|---|---|---|---|
| 55 | Oxygen chemisorption at Cu(110) at 120 K: dimers, clusters and mono-atomic oxygen states. Catalysis Letters, 1999, 58, 93-97. | 2.6 | 16 |
| 56 | Enhanced Long-Path Electrical Conduction in ZnO Nanowire Array Devices Grown via Defect-Driven Nucleation. Journal of Physical Chemistry C, 2014, 118, 21177-21184. | 3.1 | 16 |
| 57 | STM and XPS Studies of the Oxidation of Aniline at Cu(110) Surfaces. Journal of Physical Chemistry B, 2004, 108, 18630-18639. | 2.6 | 15 |
| 58 | Enhancement in the rate of nitrate degradation on Au- and Ag-decorated TiO2 photocatalysts. Catalysis Science and Technology, 2020, 10, 2082-2091. | 4.1 | 14 |
| 59 | Rationalization of the X-ray photoelectron spectroscopy of aluminium phosphates synthesized from different precursors. RSC Advances, 2020, 10, 8444-8452. | 3.6 | 14 |
| 60 | XPS and STM studies of the oxidation of hydrogen chloride at Cu(100) surfaces. Surface Science, 2016, 650, 177-186. | 1.9 | 13 |
| 61 | Rockâ€crushing derived hydrogen directly supports a methanogenic community: significance for the deep biosphere. Environmental Microbiology Reports, 2019, 11, 165-172. | 2.4 | 13 |
| 62 | Oxygen states present at a Ag(111) surface in the presence of ammonia: evidence for a NH3â€“O2Î´â˜ complex. Chemical Communications, 1998, , 35-36. | 4.1 | 12 |
| 63 | Activation of carbon dioxide leading to a chemisorbed carbamate species at a Cu(100) surface. Journal of the Chemical Society Chemical Communications, 1989, , 677. | 2.0 | 11 |
| 64 | Chemisorption and reaction of phenyl iodide at Cu(110) surfaces: a combined STM and XPS study. Surface Science, 2004, 555, L138-L142. | 1.9 | 11 |
| 65 | Comparison of Methods for Generating Planar DNA-Modified Surfaces for Hybridization Studies. ACS Applied Materials & Interfaces, 2009, 1, 1793-1798. | 8.0 | 11 |
| 66 | Influence of Thermal Treatment on Nanostructured Gold Model Catalystsâ€. Langmuir, 2010, 26, 16261-16266. | 3.5 | 11 |
| 67 | A facile route to model catalysts: the synthesis of Au@Pd coreâ€“shell nanoparticles on Î³-Fe2O3 (0001). Nanoscale, 2013, 5, 9018. | 5.6 | 11 |
| 68 | Facile hydrogenation of carbon dioxide at Al(111) surfaces: the role of coadsorbed water. Surface Science, 1996, 364, L563-L567. | 1.9 | 10 |
| 69 | Structural aspects of chemisorption at Cu(110) revealed at the atomic level. Topics in Catalysis, 2000, 11/12, 299-306. | 2.8 | 10 |
| 70 | Oxygen States at Magnesium and Copper Surfaces Revealed by Scanning Tunneling Microscopy and Surface Reactivity. Topics in Catalysis, 2003, 24, 51-59. | 2.8 | 10 |
| 71 | Title is missing!. Topics in Catalysis, 2003, 22, 161-172. | 2.8 | 10 |
| 72 | Fabrication of complex model oxide catalysts: Mo oxide supported on Fe3O4(111). Faraday Discussions, 2013, 162, 201. | 3.2 | 10 |

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|---|---|---|---|
| 73 | Modifying the Interface Edge to Control the Electrical Transport Properties of Nanocontacts to Nanowires. Nano Letters, 2017, 17, 687-694. | 9.1 | 10 |
| 74 | Production of Metal-Free Diamond Nanoparticles. ACS Omega, 2018, 3, 16099-16104. | 3.5 | 10 |
| 75 | Molecularly Resolved Studies of the Reaction of Pyridine and Dimethylamine with Oxygen at a Cu(110) Surface. Topics in Catalysis, 2005, 36, 21-32. | 2.8 | 9 |
| 76 | Molecularly resolved studies of the role of basicity in the reaction of amines with oxygen at a Cu(110) surface. Surface Science, 2007, 601, 3253-3260. | 1.9 | 9 |
| 77 | Encapsulation of Au Nanoparticles on a Silicon Wafer During Thermal Oxidation. Journal of Physical Chemistry C, 2013, 117, 21577-21582. | 3.1 | 9 |
| 78 | Influence of $$hbox {TiO}_{2}$$ TiO 2 structural properties on photocatalytic hydrogen gas production. Journal of Chemical Sciences, 2019, 131, 1. | 1.5 | 9 |
| 79 | Title is missing!. Catalysis Letters, 1997, 46, 133-135. | 2.6 | 8 |
| 80 | Reactivity and Structural Aspects of Cesium and Oxygen States at Cu(110) Surfaces:Â An XPS and STM Investigationâ€. Journal of Physical Chemistry B, 2004, 108, 14518-14526. | 2.6 | 8 |
| 81 | Possible Role for Cu(II) Compounds in the Oxidation of Malonyl Dichloride and HCl at Cu(110) Surfaces. Journal of Physical Chemistry C, 2009, 113, 10333-10336. | 3.1 | 8 |
| 82 | Intermolecular migration of methyl groups at a Cu(211) surface. Catalysis Letters, 1999, 58, 99-102. | 2.6 | 7 |
| 83 | Flexibility of the Cu(110)â€“O structure in the presence of pyridine. Chemical Communications, 1999, , 687-688. | 4.1 | 7 |
| 84 | A glimpse of the inner workings of the templated site. Chemical Communications, 2009, , 165-167. | 4.1 | 7 |
| 85 | The Role of Growth Directors in Controlling the Morphology of Hematite Nanorods. Nanoscale Research Letters, 2020, 15, 161. | 5.7 | 7 |
| 86 | Atom resolved evidence for a defective chemisorbed oxygen state at a Mg(0001) surface. Chemical Communications, 2002, , 2020-2021. | 4.1 | 6 |
| 87 | Aromatic interactions in the close packing of phenyl-imides at Cu(110) surfaces. Surface Science, 2004, 573, 284-290. | 1.9 | 6 |
| 88 | Enhancing surface reactivity with a noble metal. Chemical Communications, 2013, 49, 8223. | 4.1 | 6 |
| 89 | Photo induced force microscopy: chemical spectroscopy beyond the diffraction limit. Materials Chemistry Frontiers, 2022, 6, 1552-1573. | 5.9 | 6 |
| 90 | An STM and XPS study of the chemisorption of methyl mercaptan at a Cu(110) surface. Surface Science, 2001, 490, L585-L591. | 1.9 | 5 |

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|---|---|---|---|
| 91 | Transient Oxygen States in Catalysis: Ammonia Oxidation at Ag(111). Langmuir, 2010, 26, 16221-16225. | 3.5 | 5 |
| 92 | The challenges of characterising nanoparticulate catalysts: general discussion. Faraday Discussions, 2018, 208, 339-394. | 3.2 | 5 |
| 93 | The photocatalytic destruction of cinnamic acid and cinnamyl alcohol: Mechanism and the effect of aqueous ions. Chemosphere, 2020, 251, 126469. | 8.2 | 5 |
| 94 | The adsorption site of ammonia at copper surfaces. Catalysis Today, 1992, 12, 427-432. | 4.4 | 4 |
| 95 | The active site in oxygenation catalysis at single crystal metal surfaces. Current Opinion in Solid State and Materials Science, 1997, 2, 525-529. | 11.5 | 4 |
| 96 | A quantum chemical investigation of imide adsorption at model Cu(110) surfaces. Physical Chemistry Chemical Physics, 1999, 1, 1383-1386. | 2.8 | 4 |
| 97 | Doping and Theory: general discussion. Faraday Discussions, 2014, 173, 233-256. | 3.2 | 4 |
| 98 | Designing new catalysts: synthesis of new active structures: general discussion. Faraday Discussions, 2016, 188, 131-159. | 3.2 | 4 |
| 99 | Hydrogen production by the photoreforming of methanol and the photocatalytic waterâ€“gas shift reaction. JPhys Energy, 2021, 3, 024007. | 5.3 | 4 |
| 100 | Trapping of metastable oxygen species at Cu(111) surfaces. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 2885. | 1.7 | 3 |
| 101 | Controlling oxygen states at a Cu(110) surface: the role of coadsorbed sulfur and temperature. Chemical Communications, 2000, , 185-186. | 4.1 | 3 |
| 102 | A view of surface science since 1960: Oxygen states at metal surfaces. Catalysis Today, 2009, 145, 2-9. | 4.4 | 3 |
| 103 | Bridging model and real catalysts: general discussion. Faraday Discussions, 2016, 188, 565-589. | 3.2 | 3 |
| 104 | Structural behaviour of copper chloride catalysts during the chlorination of CO to phosgene. Faraday Discussions, 2018, 208, 67-85. | 3.2 | 3 |
| 105 | Theory as a driving force to understand reactions on nanoparticles: general discussion. Faraday Discussions, 2018, 208, 147-185. | 3.2 | 3 |
| 106 | Control of catalytic nanoparticle synthesis: general discussion. Faraday Discussions, 2018, 208, 471-495. | 3.2 | 3 |
| 107 | Tuning the structure of cerium phosphate nanorods. CrystEngComm, 2021, 23, 8215-8225. | 2.6 | 3 |
| 108 | A reactive oxygen state at a barium promoted Au (100) surface: the oxidation of ethene at cryogenic temperatures. Catalysis Letters, 2005, 101, 137-139. | 2.6 | 2 |

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| 109 | Chirality at Metal Surfaces. , 0, , 1-27. | | 2 |
| 110 | A simple zero length surface-modification approach for preparing novel bifunctional supports for co-immobilisation studies. Tetrahedron Letters, 2012, 53, 3727-3730. | 1.4 | 2 |
| 111 | An investigation into the chemistry of electrodeposited lanthanum hydroxide-polyethylenimine films. Thin Solid Films, 2012, 520, 2735-2738. | 1.8 | 2 |
| 112 | Synthesis in gas and liquid phase: general discussion. Faraday Discussions, 2014, 173, 115-135. | 3.2 | 2 |
| 113 | Supramolecular effects in self-assembled monolayers: general discussion. Faraday Discussions, 2017, 204, 123-158. | 3.2 | 2 |
| 114 | The interaction of CO with a copper(ii) chloride oxy-chlorination catalyst. Faraday Discussions, 2021, 229, 318-340. | 3.2 | 2 |
| 115 | The role of a dioxygen precursor in the selective formation of imide NH(a) species at a Cu(110) surface. Surface Science Letters, 1991, 259, L724-L728. | 0.1 | 1 |
| 116 | The two states of methoxy at Cu(110) surfaces identified. Chemical Communications, 1996, , 2319. | 4.1 | 1 |
| 117 | Theory of Scanning Tunneling Microscopy and Applications in Catalysis. , 0, , 97-118. | | 1 |
| 118 | Effects of the Nanostructuring of Gold Films upon Their Thermal Stability. ACS Nano, 2010, 4, 2228-2232. | 14.6 | 1 |
| 119 | Advanced approaches: general discussion. Faraday Discussions, 2021, 229, 378-421. | 3.2 | 1 |
| 120 | Investigating the Effects of Surface Adsorbates on Gold and Palladium Deposition on Carbon. Topics in Catalysis, 0, , 1. | 2.8 | 1 |
| 121 | 7th rormond conference on catalysis. Applied Catalysis, 1990, 66, N11-N12. | 0.8 | 0 |
| 122 | Point Defects on Rutile TiO2(1 1 0): Reactivity, Dynamics, and Tunability. , 0, , 219-238. | | 0 |
| 123 | Surface Mobility of Atoms and Molecules Studied with High-Pressure Scanning Tunneling Microscopy. , 0, , 189-217. | | 0 |
| 124 | Functionalisation, separation and solvation: general discussion. Faraday Discussions, 2014, 173, 337-349. | 3.2 | 0 |
| 125 | Preparing macromolecular systems on surfaces: general discussion. Faraday Discussions, 2017, 204, 395-418. | 3.2 | 0 |
| 126 | Theory: general discussion. Faraday Discussions, 2021, 229, 131-160. | 3.2 | 0 |

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|---|---|---|---|
| 127 | Dissociative Chemisorption of Hydrogen Chloride at Cu(110): Atom-Resolved Time-Dependent Evidence for Transient States in the Formation of the â€œFinal Stateâ€•Stable Chloride Overlayer. , 2007, , 479-491. | | 0 |