Philip Davies

List of Publications by Year
in descending order

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	Photo induced force microscopy: chemical spectroscopy beyond the diffraction limit. Materials Chemistry Frontiers, 2022, 6, 1552-1573.	5.9	6
2	The interaction of CO with a copper(ii) chloride oxy-chlorination catalyst. Faraday Discussions, 2021, 229, 318-340.	3.2	2
3	Theory: general discussion. Faraday Discussions, 2021, 229, 131-160.	3.2	0
4	Advanced approaches: general discussion. Faraday Discussions, 2021, 229, 378-421.	3.2	1
5	Hydrogen production by the photoreforming of methanol and the photocatalytic waterâ€“gas shift reaction. JPhys Energy, 2021, 3, 024007.	5.3	4
6	Advanced XPS characterization: XPS-based multi-technique analyses for comprehensive understanding of functional materials. Materials Chemistry Frontiers, 2021, 5, 7931-7963.	5.9	41
7	Tuning the structure of cerium phosphate nanorods. CrystEngComm, 2021, 23, 8215-8225.	2.6	3
8	The Role of Growth Directors in Controlling the Morphology of Hematite Nanorods. Nanoscale Research Letters, 2020, 15, 161.	5.7	7
9	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
10	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
11	Rationalization of the X-ray photoelectron spectroscopy of aluminium phosphates synthesized from different precursors. RSC Advances, 2020, 10, 8444-8452.	3.6	14
12	The photocatalytic destruction of cinnamic acid and cinnamyl alcohol: Mechanism and the effect of aqueous ions. Chemosphere, 2020, 251, 126469.	8.2	5
13	Influence of $$hbox {TiO}_{2}$$ TiO 2 structural properties on photocatalytic hydrogen gas production. Journal of Chemical Sciences, 2019, 131, 1.	1.5	9
14	Rockâ€crushing derived hydrogen directly supports a methanogenic community: significance for the deep biosphere. Environmental Microbiology Reports, 2019, 11, 165-172.	2.4	13
15	Structural behaviour of copper chloride catalysts during the chlorination of CO to phosgene. Faraday Discussions, 2018, 208, 67-85.	3.2	3
16	The deposition of metal nanoparticles on carbon surfaces: the role of specific functional groups. Faraday Discussions, 2018, 208, 455-470.	3.2	17
17	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
18	Production of Metal-Free Diamond Nanoparticles. ACS Omega, 2018, 3, 16099-16104.	3.5	10

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19	Theory as a driving force to understand reactions on nanoparticles: general discussion. Faraday Discussions, 2018, 208, 147-185.	3.2	3
20	Control of catalytic nanoparticle synthesis: general discussion. Faraday Discussions, 2018, 208, 471-495.	3.2	3
21	The challenges of characterising nanoparticulate catalysts: general discussion. Faraday Discussions, 2018, 208, 339-394.	3.2	5
22	Modifying the Interface Edge to Control the Electrical Transport Properties of Nanocontacts to Nanowires. Nano Letters, 2017, 17, 687-694.	9.1	10
23	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
24	Supramolecular effects in self-assembled monolayers: general discussion. Faraday Discussions, 2017, 204, 123-158.	3.2	2
25	Preparing macromolecular systems on surfaces: general discussion. Faraday Discussions, 2017, 204, 395-418.	3.2	0
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	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
28	Designing new catalysts: synthesis of new active structures: general discussion. Faraday Discussions, 2016, 188, 131-159.	3.2	4
29	Bridging model and real catalysts: general discussion. Faraday Discussions, 2016, 188, 565-589.	3.2	3
30	XPS and STM studies of the oxidation of hydrogen chloride at Cu(100) surfaces. Surface Science, 2016, 650, 177-186.	1.9	13
31	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
32	Rutile TiO2â€“Pd Photocatalysts for Hydrogen Gas Production from Methanol Reforming. Topics in Catalysis, 2015, 58, 70-76.	2.8	22
33	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
34	Synthesis in gas and liquid phase: general discussion. Faraday Discussions, 2014, 173, 115-135.	3.2	2
35	Doping and Theory: general discussion. Faraday Discussions, 2014, 173, 233-256.	3.2	4
36	Functionalisation, separation and solvation: general discussion. Faraday Discussions, 2014, 173, 337-349.	3.2	0

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37	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
38	Hydrogen production by photoreforming of biofuels using Au, Pd and Auâ€“Pd/TiO2 photocatalysts. Journal of Catalysis, 2014, 310, 10-15.	6.2	112
39	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
40	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
41	Enhancing surface reactivity with a noble metal. Chemical Communications, 2013, 49, 8223.	4.1	6
42	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
43	Fabrication of complex model oxide catalysts: Mo oxide supported on Fe3O4(111). Faraday Discussions, 2013, 162, 201.	3.2	10
44	The adsorption and reaction of alcohols on TiO2 and Pd/TiO2 catalysts. Applied Catalysis A: General, 2013, 454, 66-73.	4.3	48
45	The effect of acid treatment on the surface chemistry and topography of graphite. Carbon, 2013, 61, 124-133.	10.3	32
46	Encapsulation of Au Nanoparticles on a Silicon Wafer During Thermal Oxidation. Journal of Physical Chemistry C, 2013, 117, 21577-21582.	3.1	9
47	Controlling the Nanoscale Patterning of AuNPs on Silicon Surfaces. Nanomaterials, 2013, 3, 192-203.	4.1	30
48	Surface structure of Î³-Fe2O3(111). Surface Science, 2012, 606, 1594-1599.	1.9	19
49	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
50	An investigation into the chemistry of electrodeposited lanthanum hydroxide-polyethylenimine films. Thin Solid Films, 2012, 520, 2735-2738.	1.8	2
51	Oxygen transient states in catalytic oxidation at metal surfaces. Catalysis Today, 2011, 169, 118-124.	4.4	17
52	New insights into the mechanism of photocatalytic reforming on Pd/TiO2. Applied Catalysis B: Environmental, 2011, 107, 205-209.	20.2	140
53	The oxidation of Fe(111). Surface Science, 2011, 605, 1754-1762.	1.9	22
54	Sustainable H2 gas production by photocatalysis. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 216, 115-118.	3.9	117

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55	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
56	Effects of the Nanostructuring of Gold Films upon Their Thermal Stability. ACS Nano, 2010, 4, 2228-2232.	14.6	1
57	Transient Oxygen States in Catalysis: Ammonia Oxidation at Ag(111). Langmuir, 2010, 26, 16221-16225.	3.5	5
58	Influence of Thermal Treatment on Nanostructured Gold Model Catalystsâ€. Langmuir, 2010, 26, 16261-16266.	3.5	11
59	Photocatalytic Reforming of Glycerol over Gold and Palladium as an Alternative Fuel Source. Catalysis Letters, 2009, 128, 253-255.	2.6	104
60	Photoactivated reaction of water with silicon nanoparticles. International Journal of Hydrogen Energy, 2009, 34, 8504-8510.	7.1	54
61	A view of surface science since 1960: Oxygen states at metal surfaces. Catalysis Today, 2009, 145, 2-9.	4.4	3
62	Comparison of Methods for Generating Planar DNA-Modified Surfaces for Hybridization Studies. ACS Applied Materials & Interfaces, 2009, 1, 1793-1798.	8.0	11
63	A glimpse of the inner workings of the templated site. Chemical Communications, 2009, , 165-167.	4.1	7
64	A low energy pathway to CuCl2 at Cu(110) surfaces. Physical Chemistry Chemical Physics, 2009, 11, 10899.	2.8	21
65	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
66	The photocatalytic reforming of methanol. Catalysis Today, 2007, 122, 46-50.	4.4	136
67	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
68	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
69	Photocatalytic methanol reforming on Au/TiO2 for hydrogen production. Gold Bulletin, 2006, 39, 216-219.	2.7	45
70	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
71	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
72	Activation of oxygen at metal surfaces. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2005, 363, 829-846.	3.4	29

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73	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
74	Aromatic interactions in the close packing of phenyl-imides at Cu(110) surfaces. Surface Science, 2004, 573, 284-290.	1.9	6
75	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
76	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
77	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
78	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
79	Title is missing!. Topics in Catalysis, 2003, 22, 161-172.	2.8	10
80	The chemisorption and decomposition of pyridine and ammonia at clean and oxidised Al(111) surfaces. Surface Science, 2003, 546, 149-158.	1.9	18
81	Atom resolved evidence for a defective chemisorbed oxygen state at a Mg(0001) surface. Chemical Communications, 2002, , 2020-2021.	4.1	6
82	Title is missing!. Catalysis Letters, 2002, 80, 25-34.	2.6	52
83	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
84	The chemisorption of organophosphorus compounds at an Al(1 1 1) surface. Applied Surface Science, 2001, 181, 296-306.	6.1	47
85	Title is missing!. Topics in Catalysis, 2000, 14, 101-109.	2.8	17
86	Structural aspects of chemisorption at Cu(110) revealed at the atomic level. Topics in Catalysis, 2000, 11/12, 299-306.	2.8	10
87	The reaction of carbon dioxide with amines at a Cu(211) surface. Surface Science, 2000, 469, 204-213.	1.9	34
88	The structure of sulfur adlayers at Cu(110) surfaces: an STM and XPS study. Surface Science, 2000, 447, 39-50.	1.9	57
89	Controlling oxygen states at a Cu(110) surface: the role of coadsorbed sulfur and temperature. Chemical Communications, 2000, , 185-186.	4.1	3
90	Oxygen chemisorption at Cu(110) at 120 K: dimers, clusters and mono-atomic oxygen states. Catalysis Letters, 1999, 58, 93-97.	2.6	16

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91	Intermolecular migration of methyl groups at a Cu(211) surface. Catalysis Letters, 1999, 58, 99-102.	2.6	7
92	A quantum chemical investigation of imide adsorption at model Cu(110) surfaces. Physical Chemistry Chemical Physics, 1999, 1, 1383-1386.	2.8	4
93	Flexibility of the Cu(110)â€“O structure in the presence of pyridine. Chemical Communications, 1999, , 687-688.	4.1	7
94	The oxidation of formic acid to carbonate at Cu(110) surfaces. Surface Science, 1998, 401, 400-411.	1.9	26
95	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
96	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
97	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
98	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
99	Controlling reaction selectivity in the oxidation of methanol at Cu(110) surfaces. Catalysis Letters, 1997, 43, 261-266.	2.6	31
100	Title is missing!. Catalysis Letters, 1997, 46, 133-135.	2.6	8
101	Reaction pathways in methanol oxidation at Cu(110) surfaces. Surface Science, 1996, 364, L525-L529.	1.9	44
102	Facile hydrogenation of carbon dioxide at Al(111) surfaces: the role of coadsorbed water. Surface Science, 1996, 364, L563-L567.	1.9	10
103	The two states of methoxy at Cu(110) surfaces identified. Chemical Communications, 1996, , 2319.	4.1	1
104	Surface oxygen and chemical specificity at copper and caesium surfaces. Faraday Discussions, 1996, 105, 225.	3.2	24
105	Oxidation of Methanol at Cu(110) Surfaces:Â New TPD Studies. The Journal of Physical Chemistry, 1996, 100, 19975-19980.	2.9	49
106	Oxygen states at a Cu(111) surface: the influence of coadsorbed ammonia. Surface Science, 1995, 325, 50-56.	1.9	24
107	The adsorption of pyridine at clean, oxidised and hydroxylated Cu(111) surfaces. Surface Science, 1995, 322, 8-20.	1.9	37
108	Trapping of metastable oxygen species at Cu(111) surfaces. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 2885.	1.7	3

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109	The hydroxylation of Cu(111) and Zn(0001) surfaces. Applied Surface Science, 1994, 81, 265-272.	6.1	25
110	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
111	Reaction pathways in the oxydehydrogenation of ammonia at Cu(110) surfaces. Surface Science, 1993, 284, 109-120.	1.9	128
112	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
113	The adsorption site of ammonia at copper surfaces. Catalysis Today, 1992, 12, 427-432.	4.4	4
114	Chemisorption theory of ammonia on copper. Chemical Physics Letters, 1992, 188, 477-486.	2.6	36
115	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
116	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
117	Activation of carbon dioxide at bismuth, gold and copper surfaces. Applied Surface Science, 1991, 47, 375-379.	6.1	37
118	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
119	7th rormond conference on catalysis. Applied Catalysis, 1990, 66, N11-N12.	0.8	0
120	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
121	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
122	The reactive chemisorption of carbon dioxide at magnesium and copper surfaces at low temperature. Catalysis Letters, 1988, 1, 11-19.	2.6	115
123	Point Defects on Rutile TiO2(1 1 0): Reactivity, Dynamics, and Tunability. , 0, , 219-238.		0
124	Surface Mobility of Atoms and Molecules Studied with High-Pressure Scanning Tunneling Microscopy. , 0, , 189-217.		0
125	Theory of Scanning Tunneling Microscopy and Applications in Catalysis. , 0, , 97-118.		1
126	Chirality at Metal Surfaces. , 0, , 1-27.		2

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127	Investigating the Effects of Surface Adsorbates on Gold and Palladium Deposition on Carbon. Topics in Catalysis, 0, , 1.	2.8	1