Peter P Edwards

List of Publications by Year in descending order

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54 papers	4,687 citations	279487 23 h-index	168136 53 g-index
54 all docs	54 docs citations	54 times ranked	5538 citing authors

#	Article	IF	Citations
1	Thermal Decomposition of the Non-Interstitial Hydrides for the Storage and Production of Hydrogen. Chemical Reviews, 2004, 104, 1283-1316.	23.0	1,448
2	Metal nanoparticles and their assemblies. Chemical Society Reviews, 2000, 29, 27-35.	18.7	703
3	Microwave-initiated catalytic deconstruction of plastic waste into hydrogen and high-value carbons. Nature Catalysis, 2020, 3, 902-912.	16.1	287
4	Exceptional visible-light-driven photocatalytic activity over BiOBrâ€“ZnFe2O4 heterojunctions. Chemical Communications, 2011, 47, 5512-5514.	2.2	258
5	Unusual reactivity of visible-light-responsive AgBrâ€“BiOBr heterojunction photocatalysts. Journal of Catalysis, 2012, 293, 116-125.	3.1	237
6	The hydrothermal synthesis of BiOBr flakes for visible-light-responsive photocatalytic degradation of methyl orange. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 212, 8-13.	2.0	201
7	Decarbonising energy: The developing international activity in hydrogen technologies and fuel cells. Journal of Energy Chemistry, 2020, 51, 405-415.	7.1	199
8	Transforming carbon dioxide into jet fuel using an organic combustion-synthesized Fe-Mn-K catalyst. Nature Communications, 2020, 11, 6395.	5.8	161
9	Template-free synthesis of mesoporous N-doped SrTiO3 perovskite with high visible-light-driven photocatalytic activity. Chemical Communications, 2012, 48, 8514.	2.2	132
10	Dissolved Alkali Metals in Zeolites. Accounts of Chemical Research, 1996, 29, 23-29.	7.6	120
11	The importance of inner cavity space within Ni@SiO2 nanocapsule catalysts for excellent coking resistance in the high-space-velocity dry reforming of methane. Applied Catalysis B: Environmental, 2019, 259, 118019.	10.8	80
12	The decarbonisation of petroleum and other fossil hydrocarbon fuels for the facile production and safe storage of hydrogen. Energy and Environmental Science, 2019, 12, 238-249.	15.6	75
13	The transition to the metallic state. Accounts of Chemical Research, 1982, 15, 87-93.	7.6	67
14	Will solid hydrogen ever be a metal?. Nature, 1997, 388, 621-622.	13.7	63
15	Facile in situ reductive synthesis of both nitrogen deficient and protonated g-C₃N₄ nanosheets for the synergistic enhancement of visible-light H₂ evolution. Chemical Science, 2020, 11, 2716-2728.	3.7	55
16	Microwave absorption in powders of small conducting particles for heating applications. Physical Chemistry Chemical Physics, 2013, 15, 2757.	1.3	42
17	Rapid Production of Highâ€Purity Hydrogen Fuel through Microwaveâ€Promoted Deep Catalytic Dehydrogenation of Liquid Alkanes with Abundant Metals. Angewandte Chemie - International Edition, 2017, 56, 10170-10173.	7.2	42
18	Polarons, Bipolarons, and Possible High-Tc Superconductivity in Metal-Ammonia Solutions. Journal of Superconductivity and Novel Magnetism, 2000, 13, 933-946.	0.5	38

#	Article	IF	Citations
19	Microwave treatment in oil refining. Applied Petrochemical Research, 2012, 2, 37-44.	1.3	38
20	Rapid synthesis of colossal magnetoresistance manganites by microwave dielectric heating. Chemical Communications, 2000, , 159-160.	2.2	34
21	Thermodynamic study of hydrocarbon synthesis from carbon dioxide and hydrogen. , 2017, 7, 942-957.		29
22	On the occurrence of metallic character in the periodic table of the elements. Journal of Chemical Education, 1983, 60, 691.	1.1	27
23	Rapid synthesis of BiOBrxI1-x photocatalysts: Insights to the visible-light photocatalytic activity and strong deviation from Vegardâ€™s law. Catalysis Today, 2019, 335, 477-484.	2.2	27
24	Ionization and Delocalization in Potassium Zeolite L: A Combined Neutron Diffraction and Electron Spin Resonance Study. Angewandte Chemie International Edition in English, 1994, 33, 641-643.	4.4	26
25	Ball-milled Si powder for the production of H2 from water for fuel cell applications. International Journal of Hydrogen Energy, 2016, 41, 12730-12737.	3.8	25
26	Hydrogen, the First Alkali Metal. Chemistry - A European Journal, 1996, 2, 1201-1203.	1.7	21
27	Ionisierung und Elektronendelokalisierung in Kaliumâ€Zeolithâ€L: eine kombinierte Neutronenbeugungsâ€• und ESRâ€Studie. Angewandte Chemie, 1994, 106, 669-671.	1.6	20
28	The Catalyst Selectivity Index (CSI): A Framework and Metric to Assess the Impact of Catalyst Efficiency Enhancements upon Energy and CO2 Footprints. Topics in Catalysis, 2015, 58, 682-695.	1.3	18
29	Synthesis and structure of zinc oxide clusters encapsulated in zeolite LTA. Chemical Communications, 2000, , 595-596.	2.2	17
30	Superconductivity in transition metals. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140476.	1.6	16
31	Bulk synthesis of the 135 K superconductor HgBa2Ca2Cu3O8+?. Advanced Materials, 1997, 9, 248-251.	11.1	15
32	Probing the Nature of Divided Metals. Materials Research Society Symposia Proceedings, 1992, 272, 311.	0.1	13
33	Metallic Oxygen. ChemPhysChem, 2002, 3, 53-56.	1.0	13
34	MnO_x-Promoted, Coking-Resistant Nickel-Based Catalysts for Microwave-Initiated CO₂ Utilization. Industrial & Engineering Chemistry Research, 2020, 59, 6914-6923.	1.8	13
35	EPR study of alkali metal atoms in hydrocarbon matrices. Magnetic Resonance in Chemistry, 1995, 33, S98-S106.	1.1	11
36	H2â€“rich gas production from leaves. Catalysis Today, 2018, 317, 43-49.	2.2	10

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37	Hydrogen production from crude oil with fine iron particles through microwave-initiated catalytic dehydrogenation promoted by emulsified feed. International Journal of Hydrogen Energy, 2018, 43, 23201-23208.	3.8	10
38	Induction of high-temperature superconductivity in pulsed laser ablated La2CuO4thin films by room temperature chemical oxidation. Advanced Materials, 1997, 9, 823-826.	11.1	9
39	Synthesis and Structure of Hg1â^'xCrxSr2CuO4+Î´ Mercurocuprates. Journal of Superconductivity and Novel Magnetism, 1998, 11, 141-142.	0.5	9
40	¹³³Cs NMR and ESR Studies of Cesium-Loaded LiX and LiA Zeolites. Journal of Physical Chemistry C, 2008, 112, 17796-17803.	1.5	9
41	Size-Dependent Microwave Heating and Catalytic Activity of Fine Iron Particles in the Deep Dehydrogenation of Hexadecane. Chemistry of Materials, 2022, 34, 4682-4693.	3.2	8
42	Crystal Structure and Magnetic Properties of the Quasi-One-Dimensional Compound (Ca1â^'xYx)0.82CuO2 Prepared at Room Pressure. Chemistry - A European Journal, 1999, 5, 2265-2269.	1.7	7
43	One-Pot Synthesis of Ca Oxide-Promoted Cr Catalysts for the Dehydrogenation of Propane Using CO₂. Industrial & Engineering Chemistry Research, 2020, 59, 12645-12656.	1.8	7
44	Catalytic Activity of Various Carbons during the Microwave-Initiated Deep Dehydrogenation of Hexadecane. Jacs Au, 2021, 1, 2021-2032.	3.6	7
45	Size-Dependent Chemistry: Properties of Nanocrystals. World Scientific Series in 20th Century Chemistry, 2003, , 227-233.	0.0	6
46	On the occurrence of metallic character in the periodic table of the chemical elements. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140477.	1.6	6
47	29Si and 27Al MAS NMR spectra are affected by alkali metal cluster formation in zeolite LTA. Chemical Communications, 2000, , 55-56.	2.2	5
48	Sustainable chemical processing of flowing wastewater through microwave energy. Chemosphere, 2022, 287, 132035.	4.2	5
49	Rapid, non-invasive characterization of the dispersity of emulsionsviamicrowaves. Chemical Science, 2018, 9, 6975-6980.	3.7	4
50	Metals and non-metals in the periodic table. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20200213.	1.6	4
51	Fluorination of Underdoped Mercurocuprate Superconductors. Journal of Superconductivity and Novel Magnetism, 1998, 11, 127-128.	0.5	3
52	The new chemistry of the elements. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140190.	1.6	3
53	Synthesis, Structure and Magnetic Properties of the Group IV Ternary Nitrides, AMN₂ (A =) Tj ETQq1 1 0.784314 rgBT /O 547, 401.	0.1	2
54	The periodic law of the chemical elements: â€˜ The new system of atomic weights which renders evident the analogies which exist between bodies ' []. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190537.	1.6	2