Peng Diao

List of Publications by Year
in descending order

79 papers	4,485 citations	136950 32 h-index	102487 66 g-index
80 all docs	80 docs citations	80 times ranked	6957 citing authors

#	Article	IF	Citations
1	Oxygen Reduction Electrocatalyst Based on Strongly Coupled Cobalt Oxide Nanocrystals and Carbon Nanotubes. Journal of the American Chemical Society, 2012, 134, 15849-15857.	13.7	747
2	Hydrothermal growth of well-aligned ZnO nanorod arrays: Dependence of morphology and alignment ordering upon preparing conditions. Journal of Solid State Chemistry, 2005, 178, 1864-1873.	2.9	424
3	Cu2O/CuO Bilayered Composite as a High-Efficiency Photocathode for Photoelectrochemical Hydrogen Evolution Reaction. Scientific Reports, 2016, 6, 35158.	3.3	338
4	The effect of hydrothermal growth temperature on preparation and photoelectrochemical performance of ZnO nanorod array films. Journal of Solid State Chemistry, 2005, 178, 3210-3215.	2.9	198
5	Studies of structural disorder of self-assembled thiol monolayers on gold by cyclic voltammetry and ac impedance. Journal of Electroanalytical Chemistry, 1999, 464, 61-67.	3.8	130
6	Hydrothermal growth of perpendicularly oriented ZnO nanorod array film and its photoelectrochemical properties. Applied Surface Science, 2005, 249, 71-75.	6.1	129
7	Highly hydrophilic and superhydrophobic ZnO nanorod array films. Thin Solid Films, 2007, 515, 7162-7166.	1.8	116
8	Photoelectrochemical studies of nanocrystalline TiO2 co-sensitized by novel cyanine dyes. Solar Energy Materials and Solar Cells, 2005, 88, 23-35.	6.2	113
9	CuO/Pd composite photocathodes for photoelectrochemical hydrogen evolution reaction. International Journal of Hydrogen Energy, 2014, 39, 7686-7696.	7.1	110
10	Iridium Oxide Nanoparticles and Iridium/Iridium Oxide Nanocomposites: Photochemical Fabrication and Application in Catalytic Reduction of 4-Nitrophenol. ACS Applied Materials & Interfaces, 2015, 7, 16738-16749.	8.0	106
11	Characterization of defects in the formation process of self-assembled thiol monolayers by electrochemical impedance spectroscopy. Journal of Electroanalytical Chemistry, 2001, 495, 98-105.	3.8	101
12	Chemically Assembled Single-Wall Carbon Nanotubes and their Electrochemistry. ChemPhysChem, 2002, 3, 898-991.	2.1	100
13	WO3 nanoneedles/Î±-Fe2O3/cobalt phosphate composite photoanode for efficient photoelectrochemical water splitting. Applied Catalysis B: Environmental, 2014, 148-149, 304-310.	20.2	88
14	Nickel foam supported Cr-doped NiCo2O4/FeOOH nanoneedle arrays as a high-performance bifunctional electrocatalyst for overall water splitting. Nano Research, 2020, 13, 3299-3309.	10.4	88
15	Sulfur-Doped CoSe₂ Porous Nanosheets as Efficient Electrocatalysts for the Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2020, 12, 28288-28297.	8.0	86
16	Vertically Aligned Singleâ€Walled Carbon Nanotubes by Chemical Assembly â€“ Methodology, Properties, and Applications. Advanced Materials, 2010, 22, 1430-1449.	21.0	84
17	Gold/WO3 nanocomposite photoanodes for plasmonic solar water splitting. Nano Research, 2016, 9, 1735-1751.	10.4	83
18	Surface-Enhanced Raman Scattering ofp-Aminothiophenol on a Au(core)/Cu(shell) Nanoparticle Assembly. ChemPhysChem, 2005, 6, 913-918.	2.1	82

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19	Copper(<scp>ii</scp>) tungstate nanoflake array films: sacrificial template synthesis, hydrogen treatment, and their application as photoanodes in solar water splitting. Nanoscale, 2016, 8, 5892-5901.	5.6	78
20	Electrochemistry at Chemically Assembled Single-Wall Carbon Nanotube Arrays. Journal of Physical Chemistry B, 2005, 109, 20906-20913.	2.6	77
21	Composite of Few-Layered MoS₂ Grown on Carbon Black: Tuning the Ratio of Terminal to Total Sulfur in MoS₂ for Hydrogen Evolution Reaction. Journal of Physical Chemistry C, 2017, 121, 14413-14425.	3.1	58
22	Sulfur and selenium doped nickel chalcogenides as efficient and stable electrocatalysts for hydrogen evolution reaction: The importance of the dopant atoms in and beneath the surface. Nano Energy, 2020, 74, 104787.	16.0	52
23	Assessing the apparent effective thickness of alkanethiol self-assembled monolayers in different concentrations of Fe(CN)63â^'/Fe(CN)64â^' by ac impedance spectroscopy. Journal of Electroanalytical Chemistry, 1999, 470, 9-13.	3.8	51
24	Kinetically Controlled Pt Deposition onto Self-Assembled Au Colloids:Â Preparation of Au (Core)â^'Pt (Shell) Nanoparticle Assemblies. Chemistry of Materials, 2004, 16, 3239-3245.	6.7	50
25	Molybdenum doped CuWO4 nanoflake array films as an efficient photoanode for solar water splitting. Electrochimica Acta, 2019, 308, 195-205.	5.2	47
26	Fractional coverage of defects in self-assembled thiol monolayers on gold. Journal of Electroanalytical Chemistry, 2000, 480, 59-63.	3.8	46
27	Cyclic voltammetry and a.c. impedance studies of Ca2+-induced ion channels on Pt-BLM. Bioelectrochemistry, 1998, 45, 173-179.	1.0	40
28	Electrocatalytic oxidation of CO on supported gold nanoparticles and submicroparticles: Support and size effects in electrochemical systems. Journal of Catalysis, 2007, 250, 247-253.	6.2	37
29	Raman spectra in a broad frequency region ofpâ^'type porous silicon. Journal of Applied Physics, 1994, 76, 3016-3019.	2.5	36
30	Draining the photoinduced electrons away from an anode: the preparation of Ag/Ag₃PO₄ composite nanoplate photoanodes for highly efficient water splitting. Journal of Materials Chemistry A, 2015, 3, 18991-18999.	10.3	36
31	Electrodeposition of Vertically Aligned Silver Nanoplate Arrays on Indium Tin Oxide Substrates. Journal of Physical Chemistry C, 2015, 119, 20709-20720.	3.1	34
32	How Does the Particle Density Affect the Electrochemical Behavior of Gold Nanoparticle Assembly?. Journal of Physical Chemistry C, 2008, 112, 7036-7046.	3.1	33
33	High-aspect-ratio WO3 nanoneedles modified with nickel-borate for efficient photoelectrochemical water oxidation. Electrochimica Acta, 2013, 114, 271-277.	5.2	33
34	Unmodified supported thiol/lipid bilayers: studies of structural disorder and conducting mechanism by cyclic voltammetry and AC impedance. Bioelectrochemistry, 1999, 48, 469-475.	1.0	32
35	Effect of solvent polarity on the assembly behavior of PVP coated rhodium nanoparticles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 417, 32-38.	4.7	29
36	Molybdenum Diselenide Nanolayers Prepared on Carbon Black as an Efficient and Stable Electrocatalyst for Hydrogen Evolution Reaction. Journal of Physical Chemistry C, 2017, 121, 26686-26697.	3.1	28

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37	Hybrids of iridiumâ€“cobalt phosphates as a highly efficient electrocatalyst for the oxygen evolution reaction in neutral solution. Chemical Communications, 2019, 55, 3000-3003.	4.1	25
38	Nickel foam supported NiFe2O4-NiO hybrid: A novel 3D porous catalyst for efficient heterogeneous catalytic ozonation of azo dye and nitrobenzene. Applied Surface Science, 2021, 541, 148683.	6.1	25
39	Nickel-foam-supported Î²-Ni(OH)₂ as a green anodic catalyst for energy efficient electrooxidative degradation of azo-dye wastewater. RSC Advances, 2018, 8, 19776-19785.	3.6	24
40	CuO/CuBi2O4 bilayered heterojunction as an efficient photocathode for photoelectrochemical hydrogen evolution reaction. International Journal of Hydrogen Energy, 2021, 46, 11607-11620.	7.1	24
41	Potential-Induced Shape Evolution of Gold Nanoparticles Prepared on ITO Substrate. Journal of Physical Chemistry C, 2009, 113, 15796-15800.	3.1	23
42	Electrodeposition of Vertically Aligned Palladium Nanoneedles and Their Application as Active Substrates for Surface-Enhanced Raman Scattering. Journal of Physical Chemistry C, 2014, 118, 9758-9768.	3.1	23
43	Steplike behavior of photoluminescence peak energy and formation ofpâ€type porous silicon. Applied Physics Letters, 1993, 62, 642-644.	3.3	22
44	Ca2+ induced Fe(CN)63â^'/4â^' electron transfer at Pt supported BLM electrode. Bioelectrochemistry, 1998, 44, 285-288.	1.0	21
45	Direct electrochemical detection of pyruvic acid by cobalt oxyhydroxide modified indium tin oxide electrodes. Electrochimica Acta, 2011, 56, 10159-10165.	5.2	21
46	Electrochemically Partitioned Assembly of Organosulfur Monolayers and Nanoparticles. Journal of Physical Chemistry B, 2006, 110, 20386-20391.	2.6	20
47	Dual detection strategy for electrochemical analysis of glucose and nitrite using a partitionally modified electrode. Analyst, The, 2012, 137, 145-152.	3.5	20
48	Tailored preparation of WO₃nano-grassblades on FTO substrate for photoelectrochemical water splitting. CrystEngComm, 2016, 18, 6798-6808.	2.6	20
49	Shape-controlled electrodeposition of standing Rh nanoplates on indium tin oxide substrates and their electrocatalytic activity toward formic acid oxidation. Electrochimica Acta, 2012, 83, 146-154.	5.2	19
50	Nernst-ping-pong model for evaluating the effects of the substrate concentration and anode potential on the kinetic characteristics of bioanode. Bioresource Technology, 2013, 136, 610-616.	9.6	19
51	Dendritic CuBi₂O₄ Array Photocathode Coated with Conformal TiO₂ Protection Layer for Efficient and Stable Photoelectrochemical Hydrogen Evolution Reaction. Journal of Physical Chemistry C, 2021, 125, 1890-1901.	3.1	19
52	Effect of substrate potentials on the structural disorders of alkanethiol monolayers prepared by electrochemically directed assembly. Journal of Electroanalytical Chemistry, 2006, 597, 103-110.	3.8	17
53	Simultaneous detection of ammonia and nitrate using a modified electrode with two regions. Microchemical Journal, 2020, 154, 104649.	4.5	17
54	Electrocatalytic activity of supported gold nanoparticles toward CO oxidation: The perimeter effect of goldâ€“support interface. Electrochemistry Communications, 2010, 12, 1622-1625.	4.7	16

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55	The effect of halide ions on the electrooxidation of CO on gold particles supported by indium tin oxide. Journal of Electroanalytical Chemistry, 2009, 630, 81-90.	3.8	15
56	Network Structured CuWO4/BiVO4/Co-Pi Nanocomposite for Solar Water Splitting. Catalysts, 2018, 8, 663.	3.5	14
57	Uniform Electrochemical Deposition of Copper onto Self-Assembled Gold Nanoparticles. Journal of Physical Chemistry B, 2004, 108, 3535-3539.	2.6	12
58	Electrochemical Identification of Metallic and Semiconducting Single-Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2008, 112, 13346-13348.	3.1	12
59	Photo-catalyzed surface hydrolysis of iridium(<scp>iii</scp>) ions on semiconductors: a facile method for the preparation of semiconductor/IrO_x composite photoanodes toward oxygen evolution reaction. Physical Chemistry Chemical Physics, 2017, 19, 145-154.	2.8	12
60	Fluorine doped copper tungsten nanoflakes with enhanced charge separation for efficient photoelectrochemical water oxidation. Electrochimica Acta, 2020, 352, 136471.	5.2	12
61	Electrochemical sensing of CO by gold particles electrodeposited on indium tin oxide substrate. Electrochemistry Communications, 2009, 11, 1069-1072.	4.7	11
62	A Composite of Pyroleâ€Doped Carbon Black Modified with Co₃O₄ for Efficient Electrochemical Oxygen Reduction Reaction. ChemElectroChem, 2017, 4, 2260-2268.	3.4	11
63	Photochemical synthesis of iridium submicroparticles and their application in catalytic reduction of methylene blue. Applied Catalysis A: General, 2016, 516, 109-116.	4.3	9
64	Studies of Adsorption Kinetics and Defects of Selfâ€Assembled Thiol Monolayers on Gold by Capacitance Plane Plot. Journal of the Chinese Chemical Society, 2000, 47, 1197-1203.	1.4	8
65	Electrochemical studies for the formation of sodium lauryl sulfate monolayer on an octadecanethiol-coated gold electrode. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 175, 141-145.	4.7	8
66	Photoinduced electron transfer across a gold supported octadecanethiol/phosphatidylcholine hybrid bilayer membrane mediated by C60 in different redox species solution. Journal of Photochemistry and Photobiology A: Chemistry, 2000, 132, 219-224.	3.9	8
67	Boosting the Activity and Stability of Copper Tungsten Nanoflakes toward Solar Water Oxidation by Iridium-Cobalt Phosphates Modification. Catalysts, 2020, 10, 913.	3.5	8
68	Activity and stability of supported gold nano- and submicro-particles toward the electrocatalytic oxidation of carbon monoxide. Applied Catalysis A: General, 2014, 469, 65-73.	4.3	7
69	Construction of the Fe3+-O-Mn3+/2+ hybrid bonds on the surface of porous silica as active centers for efficient heterogeneous catalytic ozonation. Journal of Solid State Chemistry, 2021, 300, 122266.	2.9	7
70	Electron transfer between ferrocene-modified Au/octadecanethiol/lipid BLM electrode and redox couples in solution. Bioelectrochemistry, 1999, 48, 243-247.	1.0	6
71	Comments on â€˜Electricâ€Fieldâ€Assisted Growth of Highly Uniform and Oriented Gold Nanotriangles on Conducting Glass Substratesâ€™. Advanced Materials, 2009, 21, 1317-1319.	21.0	6
72	Polyazulene-Based Materials for Heavy Metal Ion Detection. 2. (E)-5-(azulen-1-yldiazenyl)-1H-Tetrazole-Modified Electrodes for Heavy Metal Sensing. Coatings, 2020, 10, 869.	2.6	6

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73	Preparation and Characterization of Highly Oriented ZnO Single Crystal Submicrorod Arrays. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2003, 19, 478-480.	4.9	6
74	Preparation of iridium nano- and submicroparticles on solid substrates by direct surface growth and drop-drying assembly. Rare Metals, 2012, 31, 523-530.	7.1	4
75	A.c. impedance studies of the mechanism of electron transfer across TCNQ modified Au/thiol/lipid bilayer. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 175, 203-206.	4.7	3
76	Size-controlled electrochemical synthesis of hemispherical gold nanoparticles on ITO substrates. Journal of Electroanalytical Chemistry, 2015, 755, 174-181.	3.8	3
77	Pholuminuksence Studies on Porous Silioon Quantum Confinement Mechanism. Materials Research Society Symposia Proceedings, 1993, 298, 123.	0.1	1
78	Assessing the Apparent Effective Thickness of the Supported Hybrid Bilayer Membranes Consisting of Octadecanethiol and Phospholipid by ac Impedance Spectroscopy. Journal of the Chinese Chemical Society, 1999, 46, 571-576.	1.4	1
79	Studies of Structural Disorder of Gold Supported Thiol-Lipid Bilayers. Molecular Crystals and Liquid Crystals, 1999, 337, 169-172.	0.3	0