

Jie Xiao

List of Publications by Year in descending order

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109
papers

3,219
citations

147801

31
h-index

175258

52
g-index

109
all docs

109
docs citations

109
times ranked

4666
citing authors

#	ARTICLE	IF	CITATIONS
1	Wet Chemical Synthesis of Graphene. <i>Advanced Materials</i> , 2013, 25, 3583-3587.	21.0	453
2	Coordination and Metalation Bifunctionality of Cu with 5,10,15,20-Tetra(4-pyridyl)porphyrin: Toward a Mixed-Valence Two-Dimensional Coordination Network. <i>Journal of the American Chemical Society</i> , 2012, 134, 6401-6408.	13.7	199
3	Honeycomb-like Hard Carbon Derived from Pine Pollen as High-Performance Anode Material for Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 42796-42803.	8.0	129
4	Self-Assembly and Properties of Nonmetalated Tetraphenyl-Porphyrin on Metal Substrates. <i>Journal of Physical Chemistry C</i> , 2010, 114, 9408-9415.	3.1	101
5	Influence of surface chemistry on optical, chemical and electronic properties of blue luminescent carbon dots. <i>Nanoscale</i> , 2019, 11, 2056-2064.	5.6	94
6	Combined Photoemission and Scanning Tunneling Microscopy Study of the Surface-Assisted Ullmann Coupling Reaction. <i>Journal of Physical Chemistry C</i> , 2014, 118, 6820-6830.	3.1	84
7	Diffusion, Rotation, and Surface Chemical Bond of Individual 2 <i>H</i> -Tetraphenylporphyrin Molecules on Cu(111). <i>Journal of Physical Chemistry C</i> , 2011, 115, 24172-24177.	3.1	74
8	A high performance direct carbon solid oxide fuel cell – A green pathway for brown coal utilization. <i>Applied Energy</i> , 2019, 248, 679-687.	10.1	74
9	Temperature-Dependent Chemical and Structural Transformations from 2 <i>H</i> -tetraphenylporphyrin to Copper(II)-Tetraphenylporphyrin on Cu(111). <i>Journal of Physical Chemistry C</i> , 2012, 116, 12275-12282.	3.1	68
10	Deactivation of nickel-based anode in solid oxide fuel cells operated on carbon-containing fuels. <i>Journal of Power Sources</i> , 2014, 268, 508-516.	7.8	66
11	Graphene/Substrate Charge Transfer Characterized by Inverse Photoelectron Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2010, 114, 21618-21624.	3.1	61
12	Characterization of symmetrical SrFe _{0.75} Mo _{0.25} O ₃ electrodes in direct carbon solid oxide fuel cells. <i>Journal of Alloys and Compounds</i> , 2016, 688, 939-945.	5.5	61
13	Surface state engineering of molecule–molecule interactions. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 4971.	2.8	56
14	Effective and environmentally friendly recycling process designed for LiCoO ₂ cathode powders of spent Li-ion batteries using mixture of mild organic acids. <i>Waste Management</i> , 2018, 78, 51-57.	7.4	55
15	Electrochemical gas–electricity cogeneration through direct carbon solid oxide fuel cells. <i>Journal of Power Sources</i> , 2015, 277, 1-8.	7.8	52
16	Evolution of Oxygen–Metal Electron Transfer and Metal Electronic States During Manganese Oxide Catalyzed Water Oxidation Revealed with In-Situ Soft X-Ray Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 3426-3432.	13.8	52
17	Abrupt Coverage-Induced Enhancement of the Self-Metalation of Tetraphenylporphyrin with Cu(111). <i>Journal of Physical Chemistry C</i> , 2014, 118, 1661-1667.	3.1	51
18	Electrolysis of Carbon Dioxide in a Solid Oxide Electrolyzer with Silver-Gadolinium-Doped Ceria Cathode. <i>Journal of the Electrochemical Society</i> , 2015, 162, F397-F402.	2.9	47

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19	A novel strategy for realizing high nitrogen doping in Fe ₃ C-embedded nitrogen and phosphorus-co-doped porous carbon nanowires: efficient oxygen reduction reaction catalysis in acidic electrolytes. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17923-17936.	10.3	47
20	IrO ₂ nanoparticles highly dispersed on nitrogen-doped carbon nanotubes as an efficient cathode catalyst for high-performance Li-O ₂ batteries. <i>Ceramics International</i> , 2017, 43, 14082-14089.	4.8	46
21	Behavior of strontium- and magnesium-doped gallate electrolyte in direct carbon solid oxide fuel cells. <i>Journal of Alloys and Compounds</i> , 2014, 608, 272-277.	5.5	40
22	Unraveling the Electronic Structure of Photocatalytic Manganese Complexes by L-Edge X-ray Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2015, 119, 19192-19200.	3.1	40
23	Effects of doping alumina on the electrical and sintering performances of yttrium-stabilized-zirconia. <i>Solid State Ionics</i> , 2016, 289, 28-34.	2.7	40
24	In Situ L-Edge XAS Study of a Manganese Oxide Water Oxidation Catalyst. <i>Journal of Physical Chemistry C</i> , 2017, 121, 12003-12009.	3.1	40
25	Enhanced electrokinetic remediation of lead- and cadmium-contaminated paddy soil by composite electrolyte of sodium chloride and citric acid. <i>Journal of Soils and Sediments</i> , 2018, 18, 1915-1924.	3.0	40
26	Joint Analysis of Radiative and Non-Radiative Electronic Relaxation Upon X-ray Irradiation of Transition Metal Aqueous Solutions. <i>Scientific Reports</i> , 2016, 6, 24659.	3.3	38
27	Combustion synthesized macroporous structure MFe ₂ O ₄ (M= Zn, Co) as anode materials with excellent electrochemical performance for lithium ion batteries. <i>Journal of Alloys and Compounds</i> , 2017, 699, 401-407.	5.5	38
28	Altering the Static Dipole on Surfaces through Chemistry: Molecular Films of Zwitterionic Quinonoids. <i>Journal of the American Chemical Society</i> , 2012, 134, 8494-8506.	13.7	37
29	The role of the interface in the electronic structure of adsorbed metal(II) (Co, Ni, Cu) phthalocyanines. <i>Journal of Materials Chemistry</i> , 2009, 19, 2172.	6.7	36
30	Facile design of ultrafine CuFe ₂ O ₄ nanocrystallines coupled porous carbon nanowires: Highly effective electrocatalysts for hydrogen peroxide reduction and the oxygen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2019, 809, 151766.	5.5	36
31	An investigation on the kinetics of direct carbon solid oxide fuel cells. <i>Journal of Solid State Electrochemistry</i> , 2016, 20, 2207-2216.	2.5	34
32	Valence holes observed in nanodiamonds dispersed in water. <i>Nanoscale</i> , 2015, 7, 2987-2991.	5.6	33
33	The interface bonding and orientation of a quinonoid zwitterion. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 10329.	2.8	30
34	Evolution of Oxygen-Metal Electron Transfer and Metal Electronic States During Manganese Oxide Catalyzed Water Oxidation Revealed with In-Situ Soft X-Ray Spectroscopy. <i>Angewandte Chemie</i> , 2019, 131, 2.0 3464-3470.		28
35	Comparison of the electronic structure of two polymers with strong dipole ordering. <i>Journal of Physics Condensed Matter</i> , 2006, 18, L155-L161.	1.8	26
36	The Electronic Structure and Secondary Pyroelectric Properties of Lithium Tetraborate. <i>Materials</i> , 2010, 3, 4550-4579.	2.9	24

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37	New insights into carbon deposition mechanism of nickel/yttrium-stabilized zirconia cermet from methane by in situ investigation. <i>Applied Energy</i> , 2019, 256, 113910.	10.1	24
38	Effect of pre-calcined ceramic powders at different temperatures on Ni-YSZ anode-supported SOFC cell/stack by low pressure injection molding. <i>Ceramics International</i> , 2019, 45, 20066-20072.	4.8	23
39	Stable Acidic Water Oxidation with a Cobalt-Iron-Lead Oxide Catalyst Operating via a Cobalt-Selective Self-Healing Mechanism. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 15821-15826.	13.8	23
40	Characterization of the soft X-ray spectrometer PEAXIS at BESSY-II. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 238-249.	2.4	23
41	Co-precipitation synthesis of alumina doped yttria stabilized zirconia. <i>Journal of Alloys and Compounds</i> , 2018, 731, 1080-1088.	5.5	22
42	Undistorted X-ray Absorption Spectroscopy Using s-Core-Orbital Emissions. <i>Journal of Physical Chemistry A</i> , 2016, 120, 2808-2814.	2.5	21
43	TiO ₂ -MoS ₂ hybrid nano composites with 3D network architecture as binder-free flexible electrodes for lithium ion batteries. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 9519-9527.	2.2	21
44	Selective nanoshaving of self-assembled monolayers of 2-(4-pyridylethyl)triethoxysilane. <i>Materials Letters</i> , 2009, 63, 961-964.	2.6	20
45	On the Origin of the Improvement of Electrodeposited MnOx Films in Water Oxidation Catalysis Induced by Heat Treatment. <i>ChemSusChem</i> , 2015, 8, 1980-1985.	6.8	20
46	Coverage- and Temperature-Dependent Metalation and Dehydrogenation of Tetraphenylporphyrin on Cu(111). <i>Chemistry - A European Journal</i> , 2014, 20, 8948-8953.	3.3	19
47	Coordination Reactions and Layer Exchange Processes at a Buried Metal-Organic Interface. <i>Journal of Physical Chemistry C</i> , 2014, 118, 8501-8507.	3.1	19
48	Crystalline Ice Grown on the Surface of the Ferroelectric Polymer Poly(vinylidene fluoride) (70%) and Trifluoroethylene (30%). <i>Journal of the American Chemical Society</i> , 2005, 127, 17261-17265.	13.7	18
49	The off-axis pyroelectric effect observed for lithium tetraborate. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2010, 374, 891-895.	2.1	18
50	A Microtubular Direct Carbon Solid Oxide Fuel Cell Operated on the Biochar Derived from Pepper Straw. <i>Energy Technology</i> , 2020, 8, 1901077.	3.8	18
51	Adsorbate/absorbate interactions with organic ferroelectric polymers. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2009, 174, 10-21.	1.7	16
52	Weak screening of a large dipolar molecule adsorbed on graphene. <i>Carbon</i> , 2012, 50, 1981-1986.	10.3	16
53	Electronic Structure of Hemin in Solution Studied by Resonant X-ray Emission Spectroscopy and Electronic Structure Calculations. <i>Journal of Physical Chemistry B</i> , 2014, 118, 9938-9943.	2.6	16
54	Introducing Ionic-Current Detection for X-ray Absorption Spectroscopy in Liquid Cells. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2087-2092.	4.6	16

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55	Facile synthesis of cobalt nanoparticles encapsulated in nitrogen-doped carbon nanotubes for use as a highly efficient bifunctional catalyst in rechargeable Zn-Air batteries. <i>Journal of Alloys and Compounds</i> , 2020, 842, 155791.	5.5	16
56	A novel Chinese parasol leaf biochar fuelled direct carbon solid oxide fuel cell for high performance electricity generation. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 1172-1182.	7.1	16
57	Different approaches to adjusting band offsets at intermolecular interfaces. <i>Applied Surface Science</i> , 2008, 254, 4238-4244.	6.1	15
58	Chemical Speciation and Bond Lengths of Organic Solutes by Core-Level Spectroscopy: pH and Solvent Influence on <i>p</i> -Aminobenzoic Acid. <i>Chemistry - A European Journal</i> , 2015, 21, 7256-7263.	3.3	15
59	In-Situ X-ray Spectroscopy of the Electric Double Layer around TiO ₂ Nanoparticles Dispersed in Aqueous Solution: Implications for H ₂ Generation. <i>ACS Applied Nano Materials</i> , 2020, 3, 264-273.	5.0	15
60	Chemical bonding in aqueous hexacyano cobaltate from photon- and electron-detection perspectives. <i>Scientific Reports</i> , 2017, 7, 40811.	3.3	14
61	A Fast and Effective Sensitivity Calculation Method for Circuit Input Vectors. <i>IEEE Transactions on Reliability</i> , 2019, 68, 938-953.	4.6	14
62	Performance improvement of a direct carbon solid oxide fuel cell via strontium-catalyzed carbon gasification. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 23368-23377.	7.1	14
63	The surface core level shift for lithium at the surface of lithium borate. <i>Physica B: Condensed Matter</i> , 2010, 405, 461-464.	2.7	13
64	Uncovering the Charge Transfer between Carbon Dots and Water by In Situ Soft X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3843-3848.	4.6	13
65	Nafion-Induced Reduction of Manganese and its Impact on the Electrocatalytic Properties of a Highly Active MnFeNi Oxide for Bifunctional Oxygen Conversion**. <i>ChemElectroChem</i> , 2021, 8, 2979-2983.	3.4	13
66	Co(III) protoporphyrin IX chloride in solution: spin-state and metal coordination revealed from resonant inelastic X-ray scattering and electronic structure calculations. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 3409-3414.	2.8	12
67	Circuit reliability estimation based on an iterative PTM model with hybrid coding. <i>Microelectronics Journal</i> , 2016, 52, 117-123.	2.0	12
68	Local Energy Gap Opening Induced by Hemin Dimerization in Aqueous Solution. <i>Journal of Physical Chemistry B</i> , 2015, 119, 3058-3062.	2.6	11
69	X-ray Absorption Spectroscopy of TiO ₂ Nanoparticles in Water Using a Holey Membrane-Based Flow Cell. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700755.	3.7	11
70	Generalized Synchronization Between Chen System and Rucklidge System. <i>IEEE Access</i> , 2019, 7, 8519-8526.	4.2	11
71	The Electronic Structures of Co and Ni Tetraazaannulenes. <i>Journal of Physical Chemistry B</i> , 2006, 110, 26180-26184.	2.6	10
72	Influence of the Outer Ligands on Metal-to-Ligand Charge Transfer in Solvated Manganese Porphyrins. <i>Inorganic Chemistry</i> , 2016, 55, 22-28.	4.0	10

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73	Bulk-Sensitive Detection of the Total Ion Yield for X-ray Absorption Spectroscopy in Liquid Cells. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5136-5140.	4.6	10
74	Innovative Savonius rotors evolved by genetic algorithm based on 2D-DCT encoding. <i>Soft Computing</i> , 2018, 22, 8001-8010.	3.6	10
75	Surface charging at the (100) surface of Cu doped and undoped Li ₂ B ₄ O ₇ . <i>Applied Surface Science</i> , 2011, 257, 3399-3403.	6.1	9
76	Intermolecular bonding of hemin in solution and in solid state probed by N K-edge X-ray spectroscopies. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 29000-29006.	2.8	9
77	Blockchain Architecture Reliability-Based Measurement for Circuit Unit Importance. <i>IEEE Access</i> , 2018, 6, 15326-15334.	4.2	9
78	Improving Robustness of Interdependent Networks by Reducing Key Unbalanced Dependency Links. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2020, 67, 3187-3191.	3.0	9
79	BM-RCGL: Benchmarking Approach for Localization of Reliability-Critical Gates in Combinational Logic Blocks. <i>IEEE Transactions on Computers</i> , 2022, 71, 1063-1076.	3.4	9
80	A Method of Gate-Level Circuit Reliability Estimation Based on Iterative PTM Model. , 2011, , .		8
81	A Locating Method for Reliability-Critical Gates with a Parallel-Structured Genetic Algorithm. <i>Journal of Computer Science and Technology</i> , 2019, 34, 1136-1151.	1.5	8
82	Highly efficient utilization of industrial barium slag for carbon gasification in direct carbon solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 37029-37038.	7.1	8
83	Assistance of the Iron Porphyrin Ligands to the Binding Interaction between the Fe Center and Small Molecules in Solution. <i>Journal of Physical Chemistry B</i> , 2014, 118, 9371-9377.	2.6	7
84	Enhancing Catalytic Activity by Narrowing Local Energy Gaps—X-ray Studies of a Manganese Water Oxidation Catalyst. <i>ChemSusChem</i> , 2015, 8, 872-877.	6.8	7
85	Link prediction based on local major path degree. <i>Modern Physics Letters B</i> , 2018, 32, 1850348.	1.9	7
86	Comparative Study of Yttria-Stabilized Zirconia Synthesis by Co-Precipitation and Solvothermal Methods. <i>Jom</i> , 2019, 71, 3806-3813.	1.9	7
87	Investigation on the formation mechanism of twinned crystals of hypoxanthine-doped beta-phase anhydrous guanine microplatelets. <i>CrystEngComm</i> , 2021, 23, 3444-3452.	2.6	7
88	Uniform non-Bernoulli sequences oriented locating method for reliability-critical gates. <i>Tsinghua Science and Technology</i> , 2021, 26, 24-35.	6.1	7
89	Analysis of the Electronic Structure of Aqueous Urea and Its Derivatives: A Systematic Soft X-ray—DFT Approach. <i>Chemistry - A European Journal</i> , 2016, 22, 12040-12049.	3.3	6
90	A Novel Trust Evaluation Method for Logic Circuits in IoT Applications Based on the E-PTM Model. <i>IEEE Access</i> , 2018, 6, 35683-35696.	4.2	6

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91	Identifying Reliability-Critical Primary Inputs of Combinational Circuits Based on the Model of Gate-Sensitive Attributes. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 4708-4720.	2.7	6
92	Insight into pH-Dependent Formation of Manganese Oxide Phases in Electrodeposited Catalytic Films Probed by Soft X-Ray Absorption Spectroscopy. ChemPlusChem, 2018, 83, 721-727.	2.8	5
93	Circuit reliability prediction based on deep autoencoder network. Neurocomputing, 2019, 370, 140-154.	5.9	5
94	Sex-related Difference in Mental Rotation Performance is Mediated by the special Functional Connectivity Between the Default Mode and Salience Networks. Neuroscience, 2021, 478, 65-74.	2.3	5
95	Flower-like three-dimensional bifunctional cathode catalyst for high-performance Li-O ₂ batteries: ZIF-67@3D-N/rGO. Ceramics International, 2022, 48, 5601-5608.	4.8	5
96	Electronic structure evidence for all-trans poly(methylvinylidene cyanide). Polymer Engineering and Science, 2008, 48, 1649-1654.	3.1	4
97	Halofom adsorption on crystalline copolymer films of vinylidene fluoride with trifluoroethylene. Surface Science, 2009, 603, 513-517.	1.9	4
98	Low Remanent Polarization for High Energy Density by Poly(vinylidene fluoride-co-chloride) (PVDF-Cl) Films. Materials, 2019, 48, 8172-8180.	2.2	4
99	Blends based P(VDF-CTFE) with quenching in ice water and PLZST modification with high energy storage performance. Polymer, 2020, 202, 122727.	3.8	4
100	Franck-Condon Coupling in Anthracene Isomer Self-Assembled Layers and Symmetry Effects on the High Resolution Ultraviolet Photoemission Spectra. Journal of Physical Chemistry C, 2010, 114, 1015-1018.	3.1	3
101	Stable Acidic Water Oxidation with a Cobalt-Iron-Lead Oxide Catalyst Operating via a Cobalt-Selective Self-Healing Mechanism. Angewandte Chemie, 2021, 133, 15955-15960.	2.0	3
102	Structural and functional biomarkers of the insula subregions predict sex differences in aggression subscales. Human Brain Mapping, 2022, 43, 2923-2935.	3.6	3
103	Electrochemical Performance of Cone-Shaped Tubular Anode Supported Solid Oxide Fuel Cells Fabricated by Low-Pressure Injection Moulding Technique. ECS Transactions, 2011, 35, 609-614.	0.5	2
104	Multiscale Photo-Based In-Situ and Operando Spectroscopies in Time and Energy Landscapes. Synchrotron Radiation News, 2017, 30, 14-19.	0.8	2
105	Laplacian Centrality Peaks Clustering Based on Potential Entropy. IEEE Access, 2018, 6, 55462-55472.	4.2	1
106	Thermal-aware SoC Test Scheduling with Voltage/Frequency Scaling and Test Partition. Journal of Electronic Testing: Theory and Applications (JETTA), 2018, 34, 447-460.	1.2	1
107	Accelerating stochastic-based reliability estimation for combinational circuits at RTL using GPU parallel computing. International Journal of Intelligent Systems, 2022, 37, 8309-8326.	5.7	1
108	A Method of Gate-level Circuit Yield Calculation Based on PTM. Procedia Computer Science, 2017, 107, 674-684.	2.0	0

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109	A Stochastic-Based Reliability Calculation Method for RTL Circuits. , 2020, , .		0