

Yan Xiang

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	A Direct Liquid Fuel Cell with High Power Density Using Reduced Phosphotungstic Acid as Redox Fuel. <i>Energy and Environmental Materials</i> , 2022, 5, 278-284.	7.3	7
2	A Light-Driven Integrated Bio-Capacitor with Single Nano-Channel Modulation. <i>Nanomaterials</i> , 2022, 12, 592.	1.9	4
3	Advancements of Polyvinylpyrrolidone-Based Polymer Electrolyte Membranes for Electrochemical Energy Conversion and Storage Devices. <i>ChemSusChem</i> , 2022, 15, .	3.6	7
4	Unidirectional electron injection and accelerated proton transport in bacteriorhodopsin based Bio-p-n junctions. <i>Biosensors and Bioelectronics</i> , 2021, 173, 112811.	5.3	6
5	Carbon Anode Materials: A Detailed Comparison between Na ⁺ ion and K ⁺ ion Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2003640.	10.2	150
6	The Interaction Energy between Solvent Molecules and Graphene as an Effective Descriptor for Graphene Dispersion in Solvents. <i>Journal of Physical Chemistry C</i> , 2021, 125, 5167-5171.	1.5	3
7	Elucidating the electro-catalytic oxidation of hydrazine over carbon nanotube-based transition metal single atom catalysts. <i>Nano Research</i> , 2021, 14, 4650-4657.	5.8	23
8	The effects of different dimensional carbon additives on performance of PEMFC with low-Pt loading cathode catalytic layers. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 15887-15895.	3.8	15
9	Novel Inorganic Integrated Membrane Electrodes for Membrane Capacitive Deionization. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 46537-46548.	4.0	15
10	A mediated fuel cell using alkaline proof alizarin as an anode mediator. <i>Journal of Power Sources</i> , 2021, 511, 230456.	4.0	0
11	Anions-capture materials for electrochemical electrode deionization: Mechanism, performance, and development prospects. <i>Desalination</i> , 2021, 520, 115336.	4.0	12
12	Enhanced electro-oxidation/peroxone (in situ) process with a Ti-based nickel-antimony doped tin oxide anode for phenol degradation. <i>Journal of Hazardous Materials</i> , 2020, 384, 121398.	6.5	30
13	Mass-producible polyhedral macrotube carbon arrays with multi-hole cross-section profiles: superb 3D tertiary porous electrode materials for supercapacitors and capacitive deionization cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 16312-16322.	5.2	38
14	Ion Transport of Biohybrid Asymmetric Membranes by pH and Light-Cooperative Modulation. <i>Advanced Materials Interfaces</i> , 2020, 7, 2001134.	1.9	2
15	The Effect of Functional Groups on the Electrocatalytic Activity of Carbon Nanotubes with Different Wall Numbers toward Carbohydrazide Oxidation Reaction. <i>Chemistry - an Asian Journal</i> , 2020, 15, 3451-3455.	1.7	2
16	Atomically Dispersed Cu ⁺ N ₄ C as a Promising Support for Low-Pt Loading Cathode Catalysts of Fuel Cells. <i>ACS Applied Energy Materials</i> , 2020, 3, 3807-3814.	2.5	22
17	Antimony-doped tin oxide as an efficient electrocatalyst toward the VO ²⁺ /VO ²⁺ redox couple of the vanadium redox flow battery. <i>Catalysis Science and Technology</i> , 2020, 10, 2484-2490.	2.1	12
18	Enhanced capacitive deionization of an integrated membrane electrode by thin layer spray-coating of ion exchange polymers on activated carbon electrode. <i>Desalination</i> , 2020, 491, 114460.	4.0	17

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19	Enhancing Cell Performance and Durability of High Temperature Polymer Electrolyte Membrane Fuel Cells by Inhibiting the Formation of Cracks in Catalyst Layers. <i>Journal of the Electrochemical Society</i> , 2020, 167, 114501.	1.3	21
20	Intrinsic Effect of Carbon Supports on the Activity and Stability of Precious Metal Based Catalysts for Electrocatalytic Alcohol Oxidation in Fuel Cells: A Review. <i>ChemSusChem</i> , 2020, 13, 2484-2502.	3.6	52
21	Effect of side chain on the electrochemical performance of poly (ether ether ketone) based anion-exchange membrane: A molecular dynamics study. <i>Journal of Membrane Science</i> , 2020, 605, 118105.	4.1	42
22	Substantially Enhanced Power Output and Durability of Direct Formic Acid Fuel Cells at Elevated Temperatures. <i>Advanced Sustainable Systems</i> , 2020, 4, 2000065.	2.7	10
23	A new perspective on metal particles enhanced MoS ₂ photocatalysis in hydrogen evolution: Excited electric field by surface plasmon resonance. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	2
24	Electrocatalysis: Nickel Promoted Palladium Nanoparticles for Electrocatalysis of Carbohydrazide Oxidation Reaction (<i>Small</i> 28/2019). <i>Small</i> , 2019, 15, 1970151.	5.2	0
25	High temperature polymer electrolyte membrane achieved by grafting poly(1-vinylimidazole) on polysulfone for fuel cells application. <i>Journal of Membrane Science</i> , 2019, 592, 117395.	4.1	45
26	Chitosan-based activated carbon as economic and efficient sustainable material for capacitive deionization of low salinity water. <i>RSC Advances</i> , 2019, 9, 26676-26684.	1.7	29
27	Bamboolike Carbon Microfibers Derived from <i>Typha Orientalis</i> Fibers for Supercapacitors and Capacitive Deionization. <i>Journal of the Electrochemical Society</i> , 2019, 166, A236-A244.	1.3	25
28	A Sustainable Redox Flow Battery with Alizarin-Based Aqueous Organic Electrolyte. <i>ACS Applied Energy Materials</i> , 2019, 2, 2469-2474.	2.5	43
29	The Structure-Activity Relationship in Membranes for Vanadium Redox Flow Batteries. <i>Advanced Sustainable Systems</i> , 2019, 3, 1900020.	2.7	22
30	Nickel Promoted Palladium Nanoparticles for Electrocatalysis of Carbohydrazide Oxidation Reaction. <i>Small</i> , 2019, 15, e1900929.	5.2	8
31	Unique Ni Crystalline Core/Ni Phosphide Amorphous Shell Heterostructured Electrocatalyst for Hydrazine Oxidation Reaction of Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 19048-19055.	4.0	59
32	Microscopic phase-segregated quaternary ammonia polysulfone membrane for vanadium redox flow batteries. <i>Journal of Power Sources</i> , 2019, 428, 88-92.	4.0	31
33	A copper single-atom catalyst towards efficient and durable oxygen reduction for fuel cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 16690-16695.	5.2	140
34	A novel light-driven pH-biosensor based on bacteriorhodopsin. <i>Nano Energy</i> , 2019, 66, 104129.	8.2	17
35	Structure reorganization-controlled electron transfer of bipyridine derivatives as organic redox couples. <i>Journal of Materials Chemistry A</i> , 2019, 7, 27016-27022.	5.2	19
36	Design of a Catalytic Layer with Hierarchical Proton Transport Structure: The Role of Nafion Nanofiber. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 2955-2963.	3.2	35

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37	Simultaneous electro-oxidation and in situ electro-peroxone process for the degradation of refractory organics in wastewater. <i>Journal of Hazardous Materials</i> , 2019, 364, 468-474.	6.5	47
38	Inducing microstructural changes in Nafion by incorporating graphitic carbon nitride to enhance the vanadium-blocking effect. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 7694-7700.	1.3	27
39	The electrocatalytic characterization and mechanism of carbon nanotubes with different numbers of walls for the VO ₂ ⁺ /VO ²⁺ redox couple. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 7791-7797.	1.3	9
40	High Temperature Polymer Electrolyte Membrane Fuel Cells for Integrated Fuel Cell “Methanol Reformer Power Systems: A Critical Review. <i>Advanced Sustainable Systems</i> , 2018, 2, 1700184.	2.7	44
41	High-Performance Oxygen Reduction Electrocatalysis Enabled by 3D PdNi Nanocorals with Hierarchical Porosity. <i>Particle and Particle Systems Characterization</i> , 2018, 35, 1700366.	1.2	21
42	A novel cell-scale bio-nanogenerator based on electron-ion interaction for fast light power conversion. <i>Nanoscale</i> , 2018, 10, 526-532.	2.8	10
43	An efficient cluster model to describe the oxygen reduction reaction activity of metal catalysts: a combined theoretical and experimental study. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 26675-26680.	1.3	10
44	Numerical and Experimental Investigations of Bipolar Membrane Fuel Cells: 3D Model Development and Effect of Gas Channel Width. <i>Journal of the Electrochemical Society</i> , 2018, 165, F994-F1001.	1.3	5
45	In situ construction of interconnected ion transfer channels in anion-exchange membranes for fuel cell application. <i>Journal of Materials Chemistry A</i> , 2017, 5, 4003-4010.	5.2	36
46	A Bunch-Like Tertiary Amine Grafted Polysulfone Membrane for VRFBs with Simultaneously High Proton Conductivity and Low Vanadium Ion Permeability. <i>Macromolecular Rapid Communications</i> , 2017, 38, 1600710.	2.0	24
47	Theoretical investigation of the weak interaction between graphene and alcohol solvents. <i>Chemical Physics Letters</i> , 2017, 676, 129-133.	1.2	12
48	An Aqueous Redox Flow Battery with a Tungsten-Cobalt Heteropolyacid as the Electrolyte for both the Anode and Cathode. <i>Advanced Energy Materials</i> , 2017, 7, 1601224.	10.2	40
49	Ion-Exchange-Induced Selective Etching for the Synthesis of Amino-Functionalized Hollow Mesoporous Silica for Elevated-High-Temperature Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 31922-31930.	4.0	22
50	Enhanced membrane ion selectivity by incorporating graphene oxide nanosheet for vanadium redox flow battery application. <i>Electrochimica Acta</i> , 2017, 248, 454-461.	2.6	36
51	Kinetics and gene diversity of denitrifying biocathode in biological electrochemical systems. <i>RSC Advances</i> , 2017, 7, 24981-24987.	1.7	5
52	A phosphotungstic acid self-anchored hybrid proton exchange membrane for direct methanol fuel cells. <i>RSC Advances</i> , 2016, 6, 43049-43055.	1.7	22
53	Amino-functionalized mesoporous silica based polyethersulfone-polyvinylpyrrolidone composite membranes for elevated temperature proton exchange membrane fuel cells. <i>RSC Advances</i> , 2016, 6, 86575-86585.	1.7	34
54	An Ni-P/C electro-catalyst with improved activity for the carbohydrazide oxidation reaction. <i>RSC Advances</i> , 2016, 6, 91956-91959.	1.7	10

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55	Photoelectric Frequency Response in a Bioinspired Bacteriorhodopsin/Alumina Nanochannel Hybrid Nanosystem. <i>Advanced Materials</i> , 2016, 28, 9851-9856.	11.1	23
56	Monolayer MoS ₂ film supported metal electrocatalysts: a DFT study. <i>RSC Advances</i> , 2016, 6, 107836-107839.	1.7	7
57	Doping structure and degradation mechanism of polypyrrole–Nafion® composite membrane for vanadium redox flow batteries. <i>RSC Advances</i> , 2016, 6, 103332-103336.	1.7	19
58	Platinum–Decorated Ultrafine Pd Nanoparticles Monodispersed on Pristine Graphene with Enhanced Electrocatalytic Performance. <i>ChemPlusChem</i> , 2016, 81, 172-175.	1.3	9
59	A novel polysulfone–polyvinylpyrrolidone membrane with superior proton-to-vanadium ion selectivity for vanadium redox flow batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 1174-1179.	5.2	85
60	Submicro-pore containing poly(ether sulfones)/polyvinylpyrrolidone membranes for high-temperature fuel cell applications. <i>Journal of Materials Chemistry A</i> , 2015, 3, 8847-8854.	5.2	59
61	Pristine graphene dispersion in solvents and its application as a catalyst support: a combined theoretical and experimental study. <i>Journal of Materials Chemistry A</i> , 2015, 3, 6282-6285.	5.2	26
62	Carbon–Nanotubes–Supported Pd Nanoparticles for Alcohol Oxidations in Fuel Cells: Effect of Number of Nanotube Walls on Activity. <i>ChemSusChem</i> , 2015, 8, 2956-2966.	3.6	39
63	Can bicarbonate replace phosphate to improve the sustainability of bioelectrochemical systems for H ₂ production?. <i>RSC Advances</i> , 2015, 5, 27082-27086.	1.7	8
64	3D Proton Transfer Augments Bio–Photocurrent Generation. <i>Advanced Materials</i> , 2015, 27, 2668-2673.	11.1	10
65	Titanium nitride as an electrocatalyst for V(II)/V(III) redox couples in all-vanadium redox flow batteries. <i>Electrochimica Acta</i> , 2015, 182, 834-840.	2.6	64
66	Free-Standing Bilayered Nanoparticle Superlattice Nanosheets with Asymmetric Ionic Transport Behaviors. <i>ACS Nano</i> , 2015, 9, 11218-11224.	7.3	45
67	A low-toxic artificial fluorescent glycoprotein can serve as an efficient cytoplasmic labeling in living cell. <i>Carbohydrate Polymers</i> , 2015, 117, 211-214.	5.1	1
68	Heterogeneous bacteriorhodopsin/gold nanoparticle stacks as a photovoltaic system. <i>Nano Energy</i> , 2015, 11, 654-661.	8.2	23
69	New anhydrous proton exchange membranes for high-temperature fuel cells based on PVDF–PVP blended polymers. <i>Journal of Materials Chemistry A</i> , 2015, 3, 148-155.	5.2	109
70	A Light–Powered Bio–Capacitor with Nanochannel Modulation. <i>Advanced Materials</i> , 2014, 26, 5846-5850.	11.1	50
71	A Gemini Quaternary Ammonium Poly (ether ether ketone) Anion–Exchange Membrane for Alkaline Fuel Cell: Design, Synthesis, and Properties. <i>ChemSusChem</i> , 2014, 7, 3389-3395.	3.6	65
72	Novel Pd-decorated amorphous Ni–B/C catalysts with enhanced oxygen reduction reaction activities in alkaline media. <i>RSC Advances</i> , 2014, 4, 51126-51132.	1.7	9

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73	Study of carbon black supported amorphous Ni ²⁺ B nano-catalyst for hydrazine electrooxidation in alkaline media. RSC Advances, 2014, 4, 26940.	1.7	33
74	Layer-by-layer self-assembly of Nafion [®] [CS ⁺ PWA] composite membranes with suppressed vanadium ion crossover for vanadium redox flow battery applications. RSC Advances, 2014, 4, 24831-24837.	1.7	70
75	Pt-based nanoparticles on non-covalent functionalized carbon nanotubes as effective electrocatalysts for proton exchange membrane fuel cells. RSC Advances, 2014, 4, 46265-46284.	1.7	60
76	Nonionic surfactant greatly enhances the reductive debromination of polybrominated diphenyl ethers by nanoscale zero-valent iron: Mechanism and kinetics. Journal of Hazardous Materials, 2014, 278, 592-596.	6.5	55
77	A Self ⁺ Anchored Phosphotungstic Acid Hybrid Proton Exchange Membrane Achieved via One ⁺ Step Synthesis. Advanced Energy Materials, 2014, 4, 1400842.	10.2	56
78	Effects of bicarbonate and cathode potential on hydrogen production in a biocathode electrolysis cell. Frontiers of Environmental Science and Engineering, 2014, 8, 624-630.	3.3	21
79	A proteorhodopsin-based biohybrid light-powering pH sensor. Physical Chemistry Chemical Physics, 2013, 15, 15821.	1.3	15
80	Ultra-low loading Pt decorated coral-like Pd nanochain networks with enhanced activity and stability towards formic acid electrooxidation. Journal of Materials Chemistry A, 2013, 1, 1548-1552.	5.2	46
81	Layer-by-layer self-assembly in the development of electrochemical energy conversion and storage devices from fuel cells to supercapacitors. Chemical Society Reviews, 2012, 41, 7291.	18.7	234
82	Preparation of p-type CuCr _{1-x} Mg _x O ₂ bulk with improved thermoelectric properties by sol ⁺ gel method. Journal of Sol-Gel Science and Technology, 2012, 63, 1-7.	1.1	14
83	Effective Homogeneous Hydrolysis of Phosphodiester and DNA Cleavage by Chitosan-copper Complex. Chinese Journal of Chemistry, 2011, 29, 711-718.	2.6	4
84	Phosphotungstic acid (HPW) molecules anchored in the bulk of Nafion as methanol-blocking membrane for direct methanol fuel cells. Journal of Membrane Science, 2011, 368, 241-245.	4.1	53
85	Homogeneous graft copolymerization and characterization of novel artificial glycoprotein: Chitosan ⁺ poly(L ⁺ tryptophan) copolymers with secondary structural side chains. Journal of Polymer Science Part A, 2009, 47, 925-934.	2.5	25
86	Glycolipid Biotinylation on Purple Membrane with Maintained Bioactivity. Journal of Physical Chemistry B, 2009, 113, 7762-7766.	1.2	6
87	Template-free Synthesis and Transport Properties of Bi ₂ Te ₃ Ordered Nanowire Arrays via a Physical Vapor Process. Crystal Growth and Design, 2009, 9, 3079-3082.	1.4	31