

Xiaoliang Wei

List of Publications by Year in descending order

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papers

6,646
citations

117625

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51
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all docs

56
docs citations

56
times ranked

4166
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent Progress in Redox Flow Battery Research and Development. <i>Advanced Functional Materials</i> , 2013, 23, 970-986.	14.9	1,240
2	A Total Organic Aqueous Redox Flow Battery Employing a Low Cost and Sustainable Methyl Viologen Anolyte and 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl Catholyte. <i>Advanced Energy Materials</i> , 2016, 6, 1501449.	19.5	480
3	Bismuth Nanoparticle Decorating Graphite Felt as a High-Performance Electrode for an All-Vanadium Redox Flow Battery. <i>Nano Letters</i> , 2013, 13, 1330-1335.	9.1	392
4	TEMPO-Based Catholyte for High-Energy Density Nonaqueous Redox Flow Batteries. <i>Advanced Materials</i> , 2014, 26, 7649-7653.	21.0	387
5	Materials and Systems for Organic Redox Flow Batteries: Status and Challenges. <i>ACS Energy Letters</i> , 2017, 2, 2187-2204.	17.4	359
6	A biomimetic high-capacity phenazine-based anolyte for aqueous organic redox flow batteries. <i>Nature Energy</i> , 2018, 3, 508-514.	39.5	337
7	Nanorod Niobium Oxide as Powerful Catalysts for an All Vanadium Redox Flow Battery. <i>Nano Letters</i> , 2014, 14, 158-165.	9.1	279
8	Radical Compatibility with Nonaqueous Electrolytes and Its Impact on an All-Organic Redox Flow Battery. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 8684-8687.	13.8	271
9	Unraveling pH dependent cycling stability of ferricyanide/ferrocyanide in redox flow batteries. <i>Nano Energy</i> , 2017, 42, 215-221.	16.0	210
10	A High-Current, Stable Nonaqueous Organic Redox Flow Battery. <i>ACS Energy Letters</i> , 2016, 1, 705-711.	17.4	202
11	Towards High-Performance Nonaqueous Redox Flow Electrolyte Via Ionic Modification of Active Species. <i>Advanced Energy Materials</i> , 2015, 5, 1400678.	19.5	181
12	A symmetric organic-based nonaqueous redox flow battery and its state of charge diagnostics by FTIR. <i>Journal of Materials Chemistry A</i> , 2016, 4, 5448-5456.	10.3	167
13	1.1 kWh/1 kWh advanced vanadium redox flow battery utilizing mixed acid electrolytes. <i>Journal of Power Sources</i> , 2013, 237, 300-309.	7.8	160
14	Capacity Decay and Remediation of Nafion-based All-Vanadium Redox Flow Batteries. <i>ChemSusChem</i> , 2013, 6, 268-274.	6.8	160
15	Wine-Dark Sea in an Organic Flow Battery: Storing Negative Charge in 2,1,3-Benzothiadiazole Radicals Leads to Improved Cyclability. <i>ACS Energy Letters</i> , 2017, 2, 1156-1161.	17.4	160
16	Nanoporous Polytetrafluoroethylene/Silica Composite Separator as a High-Performance All-Vanadium Redox Flow Battery Membrane. <i>Advanced Energy Materials</i> , 2013, 3, 1215-1220.	19.5	143
17	On the Way Toward Understanding Solution Chemistry of Lithium Polysulfides for High Energy Li-S Redox Flow Batteries. <i>Advanced Energy Materials</i> , 2015, 5, 1500113.	19.5	142
18	A New Fe/V Redox Flow Battery Using a Sulfuric/Chloric Mixed-Acid Supporting Electrolyte. <i>Advanced Energy Materials</i> , 2012, 2, 487-493.	19.5	114

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19	Vanadium redox flow battery efficiency and durability studies of sulfonated Diels Alder poly(phenylene)s. <i>Electrochemistry Communications</i> , 2012, 20, 48-51.	4.7	110
20	Performance of Nafion® N115, Nafion® NR-212, and Nafion® NR-211 in a 1kW class all vanadium mixed acid redox flow battery. <i>Journal of Power Sources</i> , 2015, 285, 425-430.	7.8	99
21	Capacity Decay Mechanism of Microporous Separator-Based All-Vanadium Redox Flow Batteries and its Recovery. <i>ChemSusChem</i> , 2014, 7, 577-584.	6.8	72
22	In-situ investigation of vanadium ion transport in redox flow battery. <i>Journal of Power Sources</i> , 2012, 218, 15-20.	7.8	71
23	An Aqueous Redox Flow Battery Based on Neutral Alkali Metal Ferri/ferrocyanide and Polysulfide Electrolytes. <i>Journal of the Electrochemical Society</i> , 2016, 163, A5150-A5153.	2.9	64
24	Anion-Tunable Properties and Electrochemical Performance of Functionalized Ferrocene Compounds. <i>Scientific Reports</i> , 2015, 5, 14117.	3.3	62
25	A Two-Electron Storage Nonaqueous Organic Redox Flow Battery. <i>Advanced Sustainable Systems</i> , 2018, 2, 1700131.	5.3	60
26	Microporous separators for Fe/V redox flow batteries. <i>Journal of Power Sources</i> , 2012, 218, 39-45.	7.8	59
27	The lightest organic radical cation for charge storage in redox flow batteries. <i>Scientific Reports</i> , 2016, 6, 32102.	3.3	59
28	Annulated Dialkoxybenzenes as Catholyte Materials for Non-aqueous Redox Flow Batteries: Achieving High Chemical Stability through Bicyclic Substitution. <i>Advanced Energy Materials</i> , 2017, 7, 1701272.	19.5	57
29	Spatially Constrained Organic Diquat Anolyte for Stable Aqueous Flow Batteries. <i>ACS Energy Letters</i> , 2018, 3, 2533-2538.	17.4	56
30	Porous Polymeric Composite Separators for Redox Flow Batteries. <i>Polymer Reviews</i> , 2015, 55, 247-272.	10.9	48
31	Tuning the Perfluorosulfonic Acid Membrane Morphology for Vanadium Redox-Flow Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 34327-34334.	8.0	48
32	Dipolar Control of Monolayer Morphology: Spontaneous SAM Patterning. <i>Journal of the American Chemical Society</i> , 2006, 128, 13362-13363.	13.7	46
33	Polyvinyl Chloride/Silica Nanoporous Composite Separator for All-Vanadium Redox Flow Battery Applications. <i>Journal of the Electrochemical Society</i> , 2013, 160, A1215-A1218.	2.9	38
34	A new hybrid redox flow battery with multiple redox couples. <i>Journal of Power Sources</i> , 2012, 216, 99-103.	7.8	32
35	Substituted thiadiazoles as energy-rich anolytes for nonaqueous redox flow cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 6251-6254.	10.3	32
36	Fe/V redox flow battery electrolyte investigation and optimization. <i>Journal of Power Sources</i> , 2013, 229, 1-5.	7.8	30

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37	Natural abundance ¹⁷ O nuclear magnetic resonance and computational modeling studies of lithium based liquid electrolytes. <i>Journal of Power Sources</i> , 2015, 285, 146-155.	7.8	29
38	Multielectron Organic Redoxmers for Energy-Dense Redox Flow Batteries. , 2022, 4, 277-306.		27
39	Diffusional motion of redox centers in carbonate electrolytes. <i>Journal of Chemical Physics</i> , 2014, 141, 104509.	3.0	24
40	Preferential Solvation of an Asymmetric Redox Molecule. <i>Journal of Physical Chemistry C</i> , 2016, 120, 27834-27839.	3.1	18
41	Nuclear magnetic resonance studies of the solvation structures of a high-performance nonaqueous redox flow electrolyte. <i>Journal of Power Sources</i> , 2016, 308, 172-179.	7.8	15
42	Towards an all-vanadium redox flow battery with higher theoretical volumetric capacities by utilizing the VO ₂ ⁺ /V ³⁺ couple. <i>Journal of Energy Chemistry</i> , 2018, 27, 1381-1385.	12.9	14
43	Dipolar Control of Monolayer Morphology on Graphite: Self-Assembly of Anthracenes with Odd Length Diether Side Chains. <i>Journal of Physical Chemistry C</i> , 2009, 113, 17104-17113.	3.1	13
44	Increasing the sinterability of tape cast oxalate-derived doped ceria powder by ball milling. <i>Ceramics International</i> , 2007, 33, 201-205.	4.8	11
45	Reactive capture of gold nanoparticles by strongly physisorbed monolayers on graphite. <i>Journal of Colloid and Interface Science</i> , 2012, 387, 221-227.	9.4	8
46	Aqua-Vanadyl Ion Interaction with Nafion [®] Membranes. <i>Frontiers in Energy Research</i> , 2015, 3, .	2.3	7
47	Co-Sintering of SDC / NiO-SDC Bi-Layers Prepared by Tape Casting. <i>Key Engineering Materials</i> , 2005, 280-283, 779-784.	0.4	4
48	Techno-economic analysis of non-aqueous hybrid redox flow batteries. <i>Journal of Power Sources</i> , 2022, 536, 231493.	7.8	3
49	Batteries: Towards High-Performance Nonaqueous Redox Flow Electrolyte Via Ionic Modification of Active Species (Adv. Energy Mater. 1/2015). <i>Advanced Energy Materials</i> , 2015, 5, .	19.5	2
50	Fluorination Enables Simultaneous Improvements of a Dialkoxybenzene-Based Redoxmer for Nonaqueous Redox Flow Batteries. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 28834-28841.	8.0	2
51	A Protocol for Electrochemical Evaluations and State of Charge Diagnostics of a Symmetric Organic Redox Flow Battery. <i>Journal of Visualized Experiments</i> , 2017, , .	0.3	1
52	Redox Flow Batteries: Annulated Dialkoxybenzenes as Catholyte Materials for Nonaqueous Redox Flow Batteries: Achieving High Chemical Stability through Bicyclic Substitution (Adv. Energy Mater.)	0.0	0
53	(Invited) Materials Development for Organic Redox Flow Batteries. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
54	Thiadiazoles As Anolytes for Nonaqueous Redox Flow Cells. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0

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55	(Invited) Understanding Benzothiadiazole Based Anolyte Materials for Nonaqueous Redox Flow Cells. ECS Meeting Abstracts, 2019, , .	0.0	0