Xiaoliang Wei

List of Publications by Year
in descending order

55 papers	6,646 citations	117453 34 h-index	182168 51 g-index
56 all docs	56 docs citations	56 times ranked	4166 citing authors

#	Article	IF	Citations
1	Multielectron Organic Redoxmers for Energy-Dense Redox Flow Batteries. , 2022, 4, 277-306.		27
2	Techno-economic analysis of non-aqueous hybrid redox flow batteries. Journal of Power Sources, 2022, 536, 231493.	4.0	3
3	Fluorination Enables Simultaneous Improvements of a Dialkoxybenzene-Based Redoxmer for Nonaqueous Redox Flow Batteries. ACS Applied Materials & Interfaces, 2022, 14, 28834-28841.	4.0	2
4	(Invited) Understanding Benzothiadiazole Based Anolyte Materials for Nonaqueous Redox Flow Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
5	A Twoâ€Electron Storage Nonaqueous Organic Redox Flow Battery. Advanced Sustainable Systems, 2018, 2, 1700131.	2.7	60
6	Substituted thiadiazoles as energy-rich anolytes for nonaqueous redox flow cells. Journal of Materials Chemistry A, 2018, 6, 6251-6254.	5.2	32
7	Spatially Constrained Organic Diquat Anolyte for Stable Aqueous Flow Batteries. ACS Energy Letters, 2018, 3, 2533-2538.	8.8	56
8	A biomimetic high-capacity phenazine-based anolyte for aqueous organic redox flow batteries. Nature Energy, 2018, 3, 508-514.	19.8	337
9	Towards an all-vanadium redox flow battery with higher theoretical volumetric capacities by utilizing the VO2+/V3+ couple. Journal of Energy Chemistry, 2018, 27, 1381-1385.	7.1	14
10	(Invited) Materials Development for Organic Redox Flow Batteries. ECS Meeting Abstracts, 2018, , .	0.0	0
11	Thiadiazoles As Anolytes for Nonaqueous Redox Flow Cells. ECS Meeting Abstracts, 2018, , .	0.0	0
12	â€œWine-Dark Seaâ€•in an Organic Flow Battery: Storing Negative Charge in 2,1,3-Benzothiadiazole Radicals Leads to Improved Cyclability. ACS Energy Letters, 2017, 2, 1156-1161.	8.8	160
13	Unraveling pH dependent cycling stability of ferricyanide/ferrocyanide in redox flow batteries. Nano Energy, 2017, 42, 215-221.	8.2	210
14	Materials and Systems for Organic Redox Flow Batteries: Status and Challenges. ACS Energy Letters, 2017, 2, 2187-2204.	8.8	359
15	Annulated Dialkoxybenzenes as Catholyte Materials for Nonâ€aqueous Redox Flow Batteries: Achieving High Chemical Stability through Bicyclic Substitution. Advanced Energy Materials, 2017, 7, 1701272.	10.2	57
16	A Protocol for Electrochemical Evaluations and State of Charge Diagnostics of a Symmetric Organic Redox Flow Battery. Journal of Visualized Experiments, 2017, , .	0.2	1
17	Redox Flow Batteries: Annulated Dialkoxybenzenes as Catholyte Materials for Nonâ€aqueous Redox Flow Batteries: Achieving High Chemical Stability through Bicyclic Substitution (Adv. Energy Mater.) Tj ETQq1 1 0.784314 rg BT /Overl	10.2	0
18	A High-Current, Stable Nonaqueous Organic Redox Flow Battery. ACS Energy Letters, 2016, 1, 705-711.	8.8	202

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19	A symmetric organic-based nonaqueous redox flow battery and its state of charge diagnostics by FTIR. Journal of Materials Chemistry A, 2016, 4, 5448-5456.	5.2	167
20	Tuning the Perfluorosulfonic Acid Membrane Morphology for Vanadium Redox-Flow Batteries. ACS Applied Materials & Interfaces, 2016, 8, 34327-34334.	4.0	48
21	Preferential Solvation of an Asymmetric Redox Molecule. Journal of Physical Chemistry C, 2016, 120, 27834-27839.	1.5	18
22	The lightest organic radical cation for charge storage in redox flow batteries. Scientific Reports, 2016, 6, 32102.	1.6	59
23	Nuclear magnetic resonance studies of the solvation structures of a high-performance nonaqueous redox flow electrolyte. Journal of Power Sources, 2016, 308, 172-179.	4.0	15
24	A Total Organic Aqueous Redox Flow Battery Employing a Low Cost and Sustainable Methyl Viologen Anolyte and 4â€HOâ€TEMPO Catholyte. Advanced Energy Materials, 2016, 6, 1501449.	10.2	480
25	An Aqueous Redox Flow Battery Based on Neutral Alkali Metal Ferri/ferrocyanide and Polysulfide Electrolytes. Journal of the Electrochemical Society, 2016, 163, A5150-A5153.	1.3	64
26	Anion-Tunable Properties and Electrochemical Performance of Functionalized Ferrocene Compounds. Scientific Reports, 2015, 5, 14117.	1.6	62
27	Radical Compatibility with Nonaqueous Electrolytes and Its Impact on an Allâ€Organic Redox Flow Battery. Angewandte Chemie - International Edition, 2015, 54, 8684-8687.	7.2	271
28	Aqua-Vanadyl Ion Interaction with NafionÃ,Â® Membranes. Frontiers in Energy Research, 2015, 3, .	1.2	7
29	Batteries: Towards Highâ€Performance Nonaqueous Redox Flow Electrolyte Via Ionic Modification of Active Species (Adv. Energy Mater. 1/2015). Advanced Energy Materials, 2015, 5, .	10.2	2
30	On the Way Toward Understanding Solution Chemistry of Lithium Polysulfides for High Energy Liâ€"S Redox Flow Batteries. Advanced Energy Materials, 2015, 5, 1500113.	10.2	142
31	Natural abundance 17O nuclear magnetic resonance and computational modeling studies of lithium based liquid electrolytes. Journal of Power Sources, 2015, 285, 146-155.	4.0	29
32	Porous Polymeric Composite Separators for Redox Flow Batteries. Polymer Reviews, 2015, 55, 247-272.	5.3	48
33	Performance of NafionÂ® N115, NafionÂ® NR-212, and NafionÂ® NR-211 in a 1ÂkW class all vanadium mixed acid redox flow battery. Journal of Power Sources, 2015, 285, 425-430.	4.0	99
34	Towards Highâ€Performance Nonaqueous Redox Flow Electrolyte Via Ionic Modification of Active Species. Advanced Energy Materials, 2015, 5, 1400678.	10.2	181
35	TEMPOâ€Based Catholyte for Highâ€Energy Density Nonaqueous Redox Flow Batteries. Advanced Materials, 2014, 26, 7649-7653.	11.1	387
36	Diffusional motion of redox centers in carbonate electrolytes. Journal of Chemical Physics, 2014, 141, 104509.	1.2	24

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37	Nanorod Niobium Oxide as Powerful Catalysts for an All Vanadium Redox Flow Battery. Nano Letters, 2014, 14, 158-165.	4.5	279
38	Capacity Decay Mechanism of Microporous Separatorâ€Based Allâ€Vanadium Redox Flow Batteries and its Recovery. ChemSusChem, 2014, 7, 577-584.	3.6	72
39	Fe/V redox flow battery electrolyte investigation and optimization. Journal of Power Sources, 2013, 229, 1-5.	4.0	30
40	1ÂkW/1ÂkWh advanced vanadium redox flow battery utilizing mixed acid electrolytes. Journal of Power Sources, 2013, 237, 300-309.	4.0	160
41	Capacity Decay and Remediation of Nafionâ€based Allâ€Vanadium Redox Flow Batteries. ChemSusChem, 2013, 6, 268-274.	3.6	160
42	Bismuth Nanoparticle Decorating Graphite Felt as a High-Performance Electrode for an All-Vanadium Redox Flow Battery. Nano Letters, 2013, 13, 1330-1335.	4.5	392
43	Nanoporous Polytetrafluoroethylene/Silica Composite Separator as a Highâ€Performance Allâ€Vanadium Redox Flow Battery Membrane. Advanced Energy Materials, 2013, 3, 1215-1220.	10.2	143
44	Recent Progress in Redox Flow Battery Research and Development. Advanced Functional Materials, 2013, 23, 970-986.	7.8	1,240
45	Polyvinyl Chloride/Silica Nanoporous Composite Separator for All-Vanadium Redox Flow Battery Applications. Journal of the Electrochemical Society, 2013, 160, A1215-A1218.	1.3	38
46	A new hybrid redox flow battery with multiple redox couples. Journal of Power Sources, 2012, 216, 99-103.	4.0	32
47	In-situ investigation of vanadium ion transport in redox flow battery. Journal of Power Sources, 2012, 218, 15-20.	4.0	71
48	Microporous separators for Fe/V redox flow batteries. Journal of Power Sources, 2012, 218, 39-45.	4.0	59
49	Reactive capture of gold nanoparticles by strongly physisorbed monolayers on graphite. Journal of Colloid and Interface Science, 2012, 387, 221-227.	5.0	8
50	A New Fe/V Redox Flow Battery Using a Sulfuric/Chloric Mixedâ€Acid Supporting Electrolyte. Advanced Energy Materials, 2012, 2, 487-493.	10.2	114
51	Vanadium redox flow battery efficiency and durability studies of sulfonated Diels Alder poly(phenylene)s. Electrochemistry Communications, 2012, 20, 48-51.	2.3	110
52	Dipolar Control of Monolayer Morphology on Graphite: Self-Assembly of Anthracenes with Odd Length Diether Side Chains. Journal of Physical Chemistry C, 2009, 113, 17104-17113.	1.5	13
53	Increasing the sinterability of tape cast oxalate-derived doped ceria powder by ball milling. Ceramics International, 2007, 33, 201-205.	2.3	11
54	Dipolar Control of Monolayer Morphology:Â Spontaneous SAM Patterning. Journal of the American Chemical Society, 2006, 128, 13362-13363.	6.6	46

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55	Co-Sintering of SDC / NiO-SDC Bi-Layers Prepared by Tape Casting. Key Engineering Materials, 2005, 280-283, 779-784.	0.4	4