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	Recent Progress in Redox Flow Battery Research and Development. Advanced Functional Materials, 2013, 23, 970-986.	7.8	1,240
2	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
3	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
4	TEMPOâ€Based Catholyte for Highâ€Energy Density Nonaqueous Redox Flow Batteries. Advanced Materials, 2014, 26, 7649-7653.	11.1	387
5	Materials and Systems for Organic Redox Flow Batteries: Status and Challenges. ACS Energy Letters, 2017, 2, 2187-2204.	8.8	359
6	A biomimetic high-capacity phenazine-based anolyte for aqueous organic redox flow batteries. Nature Energy, 2018, 3, 508-514.	19.8	337
7	Nanorod Niobium Oxide as Powerful Catalysts for an All Vanadium Redox Flow Battery. Nano Letters, 2014, 14, 158-165.	4.5	279
8	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
9	Unraveling pH dependent cycling stability of ferricyanide/ferrocyanide in redox flow batteries. Nano Energy, 2017, 42, 215-221.	8.2	210
10	A High-Current, Stable Nonaqueous Organic Redox Flow Battery. ACS Energy Letters, 2016, 1, 705-711.	8.8	202
11	Towards Highâ€Performance Nonaqueous Redox Flow Electrolyte Via Ionic Modification of Active Species. Advanced Energy Materials, 2015, 5, 1400678.	10.2	181
12	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
13	1ÂkW/1ÂkWh advanced vanadium redox flow battery utilizing mixed acid electrolytes. Journal of Power Sources, 2013, 237, 300-309.	4.0	160
14	Capacity Decay and Remediation of Nafionâ€based Allâ€Vanadium Redox Flow Batteries. ChemSusChem, 2013, 6, 268-274.	3.6	160
15	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
16	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
17	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
18	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

#	Article	IF	Citations
19	Vanadium redox flow battery efficiency and durability studies of sulfonated Diels Alder poly(phenylene)s. Electrochemistry Communications, 2012, 20, 48-51.	2.3	110
20	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
21	Capacity Decay Mechanism of Microporous Separatorâ€Based Allâ€Vanadium Redox Flow Batteries and its Recovery. ChemSusChem, 2014, 7, 577-584.	3.6	72
22	In-situ investigation of vanadium ion transport in redox flow battery. Journal of Power Sources, 2012, 218, 15-20.	4.0	71
23	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
24	Anion-Tunable Properties and Electrochemical Performance of Functionalized Ferrocene Compounds. Scientific Reports, 2015, 5, 14117.	1.6	62
25	A Twoâ€Electron Storage Nonaqueous Organic Redox Flow Battery. Advanced Sustainable Systems, 2018, 2, 1700131.	2.7	60
26	Microporous separators for Fe/V redox flow batteries. Journal of Power Sources, 2012, 218, 39-45.	4.0	59
27	The lightest organic radical cation for charge storage in redox flow batteries. Scientific Reports, 2016, 6, 32102.	1.6	59
28	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
29	Spatially Constrained Organic Diquat Anolyte for Stable Aqueous Flow Batteries. ACS Energy Letters, 2018, 3, 2533-2538.	8.8	56
30	Porous Polymeric Composite Separators for Redox Flow Batteries. Polymer Reviews, 2015, 55, 247-272.	5.3	48
31	Tuning the Perfluorosulfonic Acid Membrane Morphology for Vanadium Redox-Flow Batteries. ACS Applied Materials & Interfaces, 2016, 8, 34327-34334.	4.0	48
32	Dipolar Control of Monolayer Morphology:Â Spontaneous SAM Patterning. Journal of the American Chemical Society, 2006, 128, 13362-13363.	6.6	46
33	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
34	A new hybrid redox flow battery with multiple redox couples. Journal of Power Sources, 2012, 216, 99-103.	4.0	32
35	Substituted thiadiazoles as energy-rich anolytes for nonaqueous redox flow cells. Journal of Materials Chemistry A, 2018, 6, 6251-6254.	5.2	32
36	Fe/V redox flow battery electrolyte investigation and optimization. Journal of Power Sources, 2013, 229, 1-5.	4.0	30

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37	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
38	Multielectron Organic Redoxmers for Energy-Dense Redox Flow Batteries. , 2022, 4, 277-306.		27
39	Diffusional motion of redox centers in carbonate electrolytes. Journal of Chemical Physics, 2014, 141, 104509.	1.2	24
40	Preferential Solvation of an Asymmetric Redox Molecule. Journal of Physical Chemistry C, 2016, 120, 27834-27839.	1.5	18
41	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
42	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
43	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
44	Increasing the sinterability of tape cast oxalate-derived doped ceria powder by ball milling. Ceramics International, 2007, 33, 201-205.	2.3	11
45	Reactive capture of gold nanoparticles by strongly physisorbed monolayers on graphite. Journal of Colloid and Interface Science, 2012, 387, 221-227.	5.0	8
46	Aqua-Vanadyl Ion Interaction with NafionÃ,Â® Membranes. Frontiers in Energy Research, 2015, 3, .	1.2	7
47	Co-Sintering of SDC / NiO-SDC Bi-Layers Prepared by Tape Casting. Key Engineering Materials, 2005, 280-283, 779-784.	0.4	4
48	Techno-economic analysis of non-aqueous hybrid redox flow batteries. Journal of Power Sources, 2022, 536, 231493.	4.0	3
49	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
50	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
51	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
52	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 ETQq0 0 0 rgBT /Overlock 10 Tf 5	10.2	0
53	(Invited) Materials Development for Organic Redox Flow Batteries. ECS Meeting Abstracts, 2018, , .	0.0	0
54	Thiadiazoles As Anolytes for Nonaqueous Redox Flow Cells. ECS Meeting Abstracts, 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