

# Shuai Yuan

## List of Publications by Year in descending order

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48  
papers

2,147  
citations

218677

26  
h-index

233421

45  
g-index

48  
all docs

48  
docs citations

48  
times ranked

2314  
citing authors

#	ARTICLE	IF	CITATIONS
1	Challenges and development of composite solid-state electrolytes for high-performance lithium ion batteries. <i>Journal of Power Sources</i> , 2019, 441, 227175.	7.8	168
2	Ionic liquids for high performance lithium metal batteries. <i>Journal of Energy Chemistry</i> , 2021, 59, 320-333.	12.9	155
3	Layer-by-Layer Deposition of Organic-Inorganic Hybrid Multilayer on Microporous Polyethylene Separator to Enhance the Electrochemical Performance of Lithium-Ion Battery. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 20678-20686.	8.0	131
4	Self-Assembly of PEI/SiO <sub>2</sub> on Polyethylene Separators for Li-Ion Batteries with Enhanced Rate Capability. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 3314-3322.	8.0	130
5	Excellent rate capability and cycle life of Li metal batteries with ZrO <sub>2</sub> /POSS multilayer-assembled PE separators. <i>Nano Energy</i> , 2016, 28, 1-11.	16.0	125
6	Perovskite Quantum Dots Encapsulated in a Mesoporous Metal-Organic Framework as Synergistic Photocathode Materials. <i>Journal of the American Chemical Society</i> , 2021, 143, 14253-14260.	13.7	118
7	Preparation, characterization and electrical properties of fluorine-doped tin dioxide nanocrystals. <i>Journal of Colloid and Interface Science</i> , 2010, 346, 12-16.	9.4	109
8	Polyethylene separator activated by hybrid coating improving Li <sup>+</sup> ion transference number and ionic conductivity for Li-metal battery. <i>Journal of Power Sources</i> , 2017, 342, 816-824.	7.8	89
9	Hydrothermal synthesis and humidity sensing properties of size-controlled Zirconium Oxide (ZrO <sub>2</sub> ) nanorods. <i>Journal of Colloid and Interface Science</i> , 2013, 396, 9-15.	9.4	67
10	Gel Polymer Electrolyte with High Li <sup>+</sup> Transference Number Enhancing the Cycling Stability of Lithium Anodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 5168-5175.	8.0	64
11	In Situ Synthesis of Tungsten-Doped SnO <sub>2</sub> and Graphene Nanocomposites for High-Performance Anode Materials of Lithium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 17163-17171.	8.0	58
12	Enhanced thermal stability and lithium ion conductivity of polyethylene separator by coating colloidal SiO <sub>2</sub> nanoparticles with porous shell. <i>Journal of Colloid and Interface Science</i> , 2019, 554, 29-38.	9.4	57
13	Polyethylene separators modified by ultrathin hybrid films enhancing lithium ion transport performance and Li-metal anode stability. <i>Electrochimica Acta</i> , 2018, 259, 386-394.	5.2	56
14	Multifunctional separators for high-performance lithium ion batteries. <i>Journal of Power Sources</i> , 2021, 499, 229973.	7.8	51
15	A novel polyhedral oligomeric silsesquioxane based ionic liquids (POSS-ILs) polymer electrolytes for lithium ion batteries. <i>Solid State Ionics</i> , 2018, 319, 247-255.	2.7	48
16	Surface activated polyethylene separator promoting Li <sup>+</sup> ion transport in gel polymer electrolytes and cycling stability of Li-metal anode. <i>Chemical Engineering Journal</i> , 2019, 368, 321-330.	12.7	48
17	Polymeric polyhedral oligomeric silsesquioxane ionic liquids based solid polymer electrolytes for lithium ion batteries. <i>Journal of Power Sources</i> , 2019, 414, 31-40.	7.8	47
18	Enhancement of power conversion efficiency of dye sensitized solar cells by modifying mesoporous TiO <sub>2</sub> photoanode with Al-doped TiO <sub>2</sub> layer. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2016, 319-320, 62-69.	3.9	45

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19	High Li <sup>+</sup> Ionic Flux Separator Enhancing Cycling Stability of Lithium Metal Anode. ACS Sustainable Chemistry and Engineering, 2018, 6, 2961-2968.	6.7	45
20	Water-Based Organic-Inorganic Hybrid Coating for a High-Performance Separator. ACS Sustainable Chemistry and Engineering, 2016, 4, 3794-3802.	6.7	43
21	Redox-Active Covalent Organic Frameworks with Nickel-Bis(dithiolene) Units as Guiding Layers for High-Performance Lithium Metal Batteries. Journal of the American Chemical Society, 2022, 144, 8267-8277.	13.7	42
22	Binary Network of Conductive Elastic Polymer Constraining Nanosilicon for a High-Performance Lithium-Ion Battery. ACS Nano, 2021, 15, 14570-14579.	14.6	39
23	A novel room temperature POSS ionic liquid-based solid polymer electrolyte. Journal of Materials Science, 2018, 53, 8420-8435.	3.7	38
24	Construction of silica-oxygen-borate hybrid networks on Al <sub>2</sub> O <sub>3</sub> -coated polyethylene separators realizing multifunction for high-performance lithium ion batteries. Journal of Power Sources, 2020, 472, 228445.	7.8	36
25	Highly Transparent, Robust Hydrophobic, and Amphiphilic Organic-Inorganic Hybrid Coatings for Antifogging and Antibacterial Applications. ACS Applied Materials & Interfaces, 2021, 13, 6615-6630.	8.0	35
26	Nature-Derived Cellulose-Based Composite Separator for Sodium-Ion Batteries. Frontiers in Chemistry, 2020, 8, 153.	3.6	30
27	Graphene anchored with ZrO <sub>2</sub> nanoparticles as anodes of lithium ion batteries with enhanced electrochemical performance. RSC Advances, 2014, 4, 8472-8480.	3.6	28
28	Ultraviolet-cured polyethylene oxide-based composite electrolyte enabling stable cycling of lithium battery at low temperature. Journal of Colloid and Interface Science, 2021, 596, 257-266.	9.4	25
29	Molecular-scale interface engineering of metal nanoparticles for plasmon-enhanced dye sensitized solar cells. Dalton Transactions, 2013, 42, 5330.	3.3	23
30	Dual-Scale Al <sub>2</sub> O <sub>3</sub> Particles Coating for High-Performance Separator and Lithium Metal Anode. Energy Technology, 2020, 8, 1901429.	3.8	19
31	Highly-ordered microstructure and well performance of LiNi <sub>0.6</sub> Mn <sub>0.2</sub> Co <sub>0.2</sub> O <sub>2</sub> cathode material via the continuous microfluidic synthesis. Chemical Engineering Journal, 2020, 394, 124846.	12.7	19
32	A simple method to enhance the lifetime of Ni-rich cathode by using low-temperature dehydratable molecular sieve as water scavenger. Journal of Power Sources, 2019, 435, 226773.	7.8	16
33	Thermally Robust Zirconia Nanorod/Polyimide Hybrid Films as a Highly Flexible Dielectric Material. ACS Applied Nano Materials, 2021, 4, 8217-8230.	5.0	14
34	Functional polyethylene separator with impurity entrapment and faster Li <sup>+</sup> ions transfer for superior lithium-ion batteries. Journal of Colloid and Interface Science, 2022, 607, 742-751.	9.4	14
35	Cobalt(II)-Hexaazatriphenylene Hexacarbonitrile Coordination Compounds Based Cathode Materials with High Capacity and Long Cycle Stability. Advanced Functional Materials, 2022, 32, .	14.9	14
36	High-Performance Dye-Sensitized Solar Cells Based on Colloid Solution Deposition Planarized Fluorine-Doped Tin Oxide Substrates. ACS Applied Materials & Interfaces, 2018, 10, 15697-15703.	8.0	13

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37	Evaporation and in-situ gelation induced porous hybrid film without template enhancing the performance of lithium ion battery separator. <i>Journal of Colloid and Interface Science</i> , 2021, 595, 142-150.	9.4	13
38	In situ constructed Ag/C conductive network enhancing the C-rate performance of Si based anode. <i>Journal of Energy Storage</i> , 2018, 17, 102-108.	8.1	11
39	Scalable Fabrication of Silicon@Graphite Microsphere by Mechanical Processing for Lithium-ion Battery Anode with Large Capacity and High Cycling Stability. <i>Batteries and Supercaps</i> , 2022, 5, .	4.7	11
40	Conversion Chemistry of Cobalt Oxalate for Sodium Storage. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 40523-40530.	8.0	10
41	Highly efficient colloidal solution deposition planarization of Hastelloy substrate for IBAD-MgO film. <i>Research on Chemical Intermediates</i> , 2016, 42, 4751-4758.	2.7	8
42	Ionic Conductive Thermoplastic Polymer Welding Layer for Low Electrode/Solid Electrolyte Interface Resistance. <i>ACS Applied Energy Materials</i> , 2020, 3, 7011-7019.	5.1	8
43	A silver-functionalized metal-organic framework with effective antibacterial activity. <i>New Journal of Chemistry</i> , 2022, 46, 5922-5926.	2.8	7
44	Fence Constructed at a Semiconductor/Electrolyte Interface Improving the Electron Collection Efficiency of the Photoelectrode for a Dye-Sensitized Solar Cell. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 2396-2402.	8.0	4
45	Depositing Pt nanoparticles by pulse electrodeposition for DSSCs counter electrode with high electrocatalytic activity. <i>Research on Chemical Intermediates</i> , 2017, 43, 4881-4892.	2.7	4
46	One-pot prepared silicon-silver-polydopamine ternary composite anode materials with high specific capacity and cycling stability. <i>Journal of Alloys and Compounds</i> , 2019, 810, 151820.	5.5	4
47	Nanocoating inside porous PE separator enables enhanced ionic transport of GPE and stable cycling of Li-metal anode. <i>Research on Chemical Intermediates</i> , 2019, 45, 4959-4973.	2.7	4
48	PEDOT:PSS @Molecular Sieve as Dual-Functional Additive to Enhance Electrochemical Performance and Stability of Ni-Rich NMC Lithium-ion Batteries. <i>Energy Technology</i> , 2020, 8, 2000339.	3.8	4