

Sheng-Ming Xu

List of Publications by Year in descending order

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62
papers

3,581
citations

126858

33
h-index

133188

59
g-index

62
all docs

62
docs citations

62
times ranked

3753
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on comprehensive recycling of spent power lithium-ion battery in China. <i>ETransportation</i> , 2022, 11, 100155.	6.8	102
2	Charging sustainable batteries. <i>Nature Sustainability</i> , 2022, 5, 176-178.	11.5	70
3	Research progress on high-temperature resistant polymer separators for lithium-ion batteries. <i>Energy Storage Materials</i> , 2022, 51, 638-659.	9.5	28
4	De novo synthesis of bifunctional conjugated microporous polymers for synergistic coordination mediated uranium entrapment. <i>Nano Research</i> , 2021, 14, 788-796.	5.8	20
5	On the sustainability of lithium ion battery industry – A review and perspective. <i>Energy Storage Materials</i> , 2021, 36, 186-212.	9.5	425
6	The effect of chitosan molecular weight on CO ₂ -triggered switching between emulsification and demulsification. <i>Soft Matter</i> , 2021, 17, 9332-9338.	1.2	2
7	A closed-loop regeneration of LiNi _{0.6} Co _{0.2} Mn _{0.2} O ₂ and graphite from spent batteries via efficient lithium supplementation and structural remodelling. <i>Sustainable Energy and Fuels</i> , 2021, 5, 4981-4991.	2.5	21
8	Highly Dispersed Submicrometer Single Crystal Nickel Rich Layered Cathode: Spray Synthesis and Accelerated Lithium Ion Transport. <i>Small</i> , 2021, 17, e2006869.	5.2	68
9	Sulfur in Amorphous Silica for an Advanced Room Temperature Sodium Sulfur Battery. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 10129-10136.	7.2	51
10	Strengthening Valuable Metal Recovery from Spent Lithium-Ion Batteries by Environmentally Friendly Reductive Thermal Treatment and Electrochemical Leaching. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 7053-7062.	3.2	38
11	Strategies for Polysulfide Immobilization in Sulfur Cathodes for Room Temperature Sodium Sulfur Batteries. <i>Small</i> , 2021, 17, e2100057.	5.2	24
12	Magnetic multi-functional SBA-15 supported silver nanocomposites: Synthesis, characterization and application. <i>Applied Surface Science</i> , 2021, 552, 149487.	3.1	12
13	A lattice defect-inspired leaching strategy toward simultaneous recovery and separation of value metals from spent cathode materials. <i>Waste Management</i> , 2021, 135, 40-46.	3.7	9
14	Structural Reorganization-Based Nanomaterials as Anodes for Lithium Ion Batteries: Design, Preparation, and Performance. <i>Small</i> , 2020, 16, e1902841.	5.2	32
15	Phase equilibrium diagram and phase transformation for preparation of Mo ₂ C: Thermodynamic study and experimental verification. <i>Ceramics International</i> , 2020, 46, 755-762.	2.3	4
16	Skeleton Engineering of Homocoupled Conjugated Microporous Polymers for Highly Efficient Uranium Capture via Synergistic Coordination. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 3688-3696.	4.0	74
17	Improved recovery of valuable metals from spent lithium-ion batteries by efficient reduction roasting and facile acid leaching. <i>Waste Management</i> , 2020, 102, 847-855.	3.7	111
18	Cleaner recycling of cathode material by in-situ thermite reduction. <i>Journal of Cleaner Production</i> , 2020, 249, 119340.	4.6	53

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19	Stepwise Recovery of Valuable Metals from Spent Lithium Ion Batteries by Controllable Reduction and Selective Leaching and Precipitation. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 15496-15506.	3.2	37
20	Self-powered energy conversion and energy storage system based on triboelectric nanogenerator. <i>Nano Energy</i> , 2020, 76, 105008.	8.2	35
21	Alkali Metal Salt Catalyzed Carbothermic Reduction for Sustainable Recovery of LiCoO_2 : Accurately Controlled Reduction and Efficient Water Leaching. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 16729-16737.	3.2	67
22	Structural Engineering of Graphitic Carbon Nitrides for Enhanced Metal-Free PET-RAFT Polymerizations in Heterogeneous and Homogeneous Systems. <i>ACS Omega</i> , 2019, 4, 16247-16255.	1.6	36
23	Cleaner recycling of spent $\text{Ni-Mo}/\text{Al}_2\text{O}_3$ catalyst based on mineral phase reconstruction. <i>Journal of Cleaner Production</i> , 2019, 232, 266-273.	4.6	27
24	Vanadium silicate (EVS)-supported silver nanoparticles: A novel catalytic sorbent for elemental mercury removal from flue gas. <i>Journal of Hazardous Materials</i> , 2019, 375, 1-8.	6.5	38
25	Microwave field: High temperature dielectric properties and heating characteristics of waste hydrodesulfurization catalysts. <i>Journal of Hazardous Materials</i> , 2019, 366, 432-438.	6.5	39
26	Recovery and regeneration of Al_2O_3 with a high specific surface area from spent hydrodesulfurization catalyst $\text{CoMo}/\text{Al}_2\text{O}_3$. <i>Rare Metals</i> , 2019, 38, 1-13.	3.6	18
27	Si@void@C Nanofibers Fabricated Using a Self-Powered Electrospinning System for Lithium-Ion Batteries. <i>ACS Nano</i> , 2018, 12, 4835-4843.	7.3	115
28	Enhancing the hydroxide conductivity of imidazolium-functionalized polysulfone by incorporating organic microsphere with ionic brushes. <i>Journal of Membrane Science</i> , 2018, 554, 6-15.	4.1	19
29	Synergistic Adsorption of Polyaromatic Compounds on Silica Surfaces Studied by Molecular Dynamics Simulation. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4290-4299.	1.5	27
30	Ether modified poly(ether ether ketone) nonwoven membrane with excellent wettability and stability as a lithium ion battery separator. <i>Journal of Power Sources</i> , 2018, 378, 176-183.	4.0	56
31	Theoretical Study of pK_a Values for Trivalent Rare-Earth Metal Cations in Aqueous Solution. <i>Journal of Physical Chemistry A</i> , 2018, 122, 700-707.	1.1	22
32	Interface-rich mixed P2 + T phase $\text{Na}_x\text{Co}_{0.1}\text{Mn}_{0.9}\text{O}_2$ (0.44 $\text{at}\%$ x 0.7) toward fast and high capacity sodium storage. <i>Journal of Materials Chemistry A</i> , 2018, 6, 6675-6684.	5.2	54
33	Understanding Interactions between Clay and Model Coal Surfaces in Electrolyte Solutions by a Quartz Crystal Microbalance with Dissipation Study. <i>Energy & Fuels</i> , 2018, 32, 233-240.	2.5	10
34	Creating ionic channels in single-ion conducting solid polymer electrolyte by manipulating phase separation structure. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24848-24859.	5.2	27
35	Ultrasound-assisted oil removal of Al_2O_3 -based spent hydrodesulfurization catalyst and microwave roasting recovery of metal Mo. <i>Ultrasonics Sonochemistry</i> , 2018, 49, 24-32.	3.8	20
36	Oil removal from spent HDT catalyst by an aqueous method with assistance of ultrasound. <i>Waste Management</i> , 2018, 78, 595-601.	3.7	12

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37	Tri-layer nonwoven membrane with shutdown property and high robustness as a high-safety lithium ion battery separator. <i>Journal of Membrane Science</i> , 2018, 565, 50-60.	4.1	63
38	Adsorption of a Polyaromatic Compound on Silica Surfaces from Organic Solvents Studied by Molecular Dynamics Simulation and AFM Imaging. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5020-5028.	1.5	65
39	Magnetically responsive catalytic sorbent for removal of Hg ⁰ and NO. <i>Fuel Processing Technology</i> , 2017, 160, 158-169.	3.7	26
40	Lithium recycling and cathode material regeneration from acid leach liquor of spent lithium-ion battery via facile co-extraction and co-precipitation processes. <i>Waste Management</i> , 2017, 64, 219-227.	3.7	253
41	Spherical Agglomeration of Octahedral LiNi _{0.5} Co ₄ Mn _{1.5} O ₄ Cathode Material Prepared by a Continuous Coprecipitation Method for 5 V Lithium-Ion Batteries. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 175-182.	1.8	24
42	Silica-Silver Nanocomposites as Regenerable Sorbents for Hg ⁰ Removal from Flue Gases. <i>Environmental Science & Technology</i> , 2017, 51, 11909-11917.	4.6	49
43	Highly conductive alkaline anion exchange membrane containing imidazolium-functionalized octaphenyl polyhedral oligomeric silsesquioxane filler. <i>Journal of Membrane Science</i> , 2017, 541, 474-482.	4.1	20
44	Suppressing Shuttle Effect Using Janus Cation Exchange Membrane for High-Performance Lithium-Sulfur Battery Separator. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 44776-44781.	4.0	40
45	Novel lithium ion battery separator based on hydroxymethyl functionalized poly(ether ether ketone). <i>Journal of Membrane Science</i> , 2017, 540, 422-429.	4.1	41
46	Synthesis of High Purity Nonsymmetric Dialkylphosphinic Acid Extractants. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	1
47	Electrochemical performance of CNTs/RGO/MnO ₂ composite material for supercapacitor. <i>Nanomaterials and Nanotechnology</i> , 2016, 6, 184798041666368.	1.2	19
48	Oil removal of spent hydrotreating catalyst CoMo/Al ₂ O ₃ via a facile method with enhanced metal recovery. <i>Journal of Hazardous Materials</i> , 2016, 318, 723-731.	6.5	26
49	Nanoparticle Decorated Ultrathin Porous Nanosheets as Hierarchical Co ₃ O ₄ Nanostructures for Lithium Ion Battery Anode Materials. <i>Scientific Reports</i> , 2016, 6, 20592.	1.6	68
50	Microspherical ZnO synthesized from a metal-organic precursor for supercapacitors. <i>Ionics</i> , 2016, 22, 2169-2174.	1.2	21
51	Synthesis of porous MnCo ₂ O ₄ microspheres with yolk-shell structure induced by concentration gradient and the effect on their performance in electrochemical energy storage. <i>RSC Advances</i> , 2016, 6, 10763-10774.	1.7	33
52	Co ₉ S ₈ nanoparticles encapsulated in nitrogen-doped mesoporous carbon networks with improved lithium storage properties. <i>RSC Advances</i> , 2016, 6, 31775-31781.	1.7	69
53	QCM-D study of nanoparticle interactions. <i>Advances in Colloid and Interface Science</i> , 2016, 233, 94-114.	7.0	145
54	Thermal treatment process for the recovery of valuable metals from spent lithium-ion batteries. <i>Hydrometallurgy</i> , 2016, 165, 390-396.	1.8	202

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55	Fabrication of coral like carbon black/MnO ₂ nano composites from commercial carbon black and their application in supercapacitors. RSC Advances, 2015, 5, 97080-97088.	1.7	8
56	Core-Shell Ellipsoidal MnCo ₂ O ₄ Anode with Micro-/Nano-Structure and Concentration Gradient for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2014, 6, 21325-21334.	4.0	114
57	Micro-/Nanostructured Co ₃ O ₄ Anode with Enhanced Rate Capability for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2014, 6, 7236-7243.	4.0	214
58	Porous polyhedral and fusiform Co ₃ O ₄ anode materials for high-performance lithium-ion batteries. Electrochimica Acta, 2014, 135, 420-427.	2.6	52
59	Kinetics of cobalt(II) extraction from sulfate aqueous solution by sodium salt of di-decylphosphinic acid (DDPA). Transactions of Nonferrous Metals Society of China, 2013, 23, 517-523.	1.7	16
60	Synthesis and performance of Li[(Ni _{1/3} Co _{1/3} Mn _{1/3}) _{1-x} Mg _x]O ₂ prepared from spent lithium ion batteries. Journal of Hazardous Materials, 2013, 246-247, 163-172.	6.5	171
61	Recent Development of Co ₃ O ₄ and Its Composites as Anode Materials of Lithium-ion Batteries. Acta Chimica Sinica, 2013, 71, 1589.	0.5	17
62	A Simplified Process for Recovery of Li and Co from Spent LiCoO ₂ Cathode Using Al Foil As the in Situ Reductant. ACS Sustainable Chemistry and Engineering, 0, , .	3.2	21