Sheng-Heng Chung

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Nickel-plated sulfur nanocomposites for electrochemically stable high-loading sulfur cathodes in a lean-electrolyte lithium-sulfur cell. Chemical Engineering Journal, 2022, 429, 132257.	6.6	61
2	Rational Design of Highâ€Performance Nickelâ€Sulfur Nanocomposites by the Electroless Plating Method for Electrochemical Lithiumâ€Sulfur Battery Cathodes. Batteries and Supercaps, 2022, 5, .	2.4	22
3	Module-Designed Carbon-Coated Separators for High-Loading, High-Sulfur-Utilization Cathodes in Lithiumâ€“Sulfur Batteries. Molecules, 2022, 27, 228.	1.7	16
4	Composite gel-polymer electrolyte for high-loading polysulfide cathodes. Journal of Materials Chemistry A, 2022, 10, 13719-13726.	5.2	28
5	Investigation and Design of High-Loading Sulfur Cathodes with a High-Performance Polysulfide Adsorbent for Electrochemically Stable Lithiumâ€“Sulfur Batteries. ACS Sustainable Chemistry and Engineering, 2022, 10, 9254-9264.	3.2	20
6	Lean-electrolyte lithiumâ€“sulfur electrochemical cells with high-loading carbon nanotube/nanofiberâ€“polysulfide cathodes. Chemical Communications, 2021, 57, 2009-2012.	2.2	56
7	A Poly(ethylene oxide)/Lithium bis(trifluoromethanesulfonyl)imide-Coated Polypropylene Membrane for a High-Loading Lithiumâ€“Sulfur Battery. Polymers, 2021, 13, 535.	2.0	25
8	Design and Development of High-Loading Carbon-Sulfur Nanocomposite Cathodes with Drop-Casting Method. ECS Meeting Abstracts, 2021, MA2021-01, 347-347.	0.0	0
9	A Functional PEO/LiTFSI-Coated Coated Separator for Electrochemical Lithium-Sulfur Battery. ECS Meeting Abstracts, 2021, MA2021-01, 348-348.	0.0	0
10	Nanoporosity of Carbonâ€“Sulfur Nanocomposites toward the Lithiumâ€“Sulfur Battery Electrochemistry. Nanomaterials, 2021, 11, 1518.	1.9	15
11	Advanced Current Collectors with Carbon Nanofoams for Electrochemically Stable Lithiumâ€”Sulfur Cells. Nanomaterials, 2021, 11, 2083.	1.9	10
12	Materials and electrode designs of high-performance NiCo2S4/Reduced graphene oxide for supercapacitors. Ceramics International, 2021, 47, 25942-25950.	2.3	40
13	A design of the cathode substrate for high-loading polysulfide cathodes in lean-electrolyte lithium-sulfur cells. Chemical Engineering Journal, 2021, 422, 130363.	6.6	61
14	A Li₂S-Based Catholyte/Solid-State-Electrolyte Composite for Electrochemically Stable Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2021, 13, 58712-58722.	4.0	23
15	A Design of Lean-Electrolyte Lithium-Sulfur Cells. ECS Meeting Abstracts, 2021, MA2021-02, 138-138.	0.0	0
16	Structural and Surfacial Modification of Carbon Nanofoam as an Interlayer for Electrochemically Stable Lithium-Sulfur Cells. Nanomaterials, 2021, 11, 3342.	1.9	9
17	Electrode Design for Lithium-Sulfur Batteries Featuring High Sulfur Loading and Low Electrolyte. ECS Meeting Abstracts, 2020, MA2020-02, 360-360.	0.0	0
18	A Li₂Sâ€TiS₂â€Electrolyte Composite for Stable Li₂Sâ€Based Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2019, 9, 1901397.	10.2	41

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19	Current Status and Future Prospects of Metalâ€“Sulfur Batteries. Advanced Materials, 2019, 31, e1901125.	11.1	422
20	Bifunctional Binder with Nucleophilic Lithium Polysulfide Immobilization Ability for High-Loading, High-Thickness Cathodes in Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2019, 11, 17393-17399.	4.0	24
21	Pyrrolicâ€Type Nitrogenâ€Doped Hierarchical Macro/Mesoporous Carbon as a Bifunctional Host for Highâ€Performance Thick Cathodes for Lithiumâ€Sulfur Batteries. Small, 2019, 15, e1900690.	5.2	37
22	An ant-nest-like cathode substrate for lithium-sulfur batteries with practical cell fabrication parameters. Energy Storage Materials, 2019, 18, 491-499.	9.5	16
23	Designing a high-loading sulfur cathode with a mixed ionic-electronic conducting polymer for electrochemically stable lithium-sulfur batteries. Energy Storage Materials, 2019, 17, 317-324.	9.5	63
24	A three-dimensional self-assembled SnS₂-nano-dots@graphene hybrid aerogel as an efficient polysulfide reservoir for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2018, 6, 7659-7667.	5.2	95
25	Designing Lithium-Sulfur Cells with Practically Necessary Parameters. Joule, 2018, 2, 710-724.	11.7	148
26	TiS₂â€“Polysulfide Hybrid Cathode with High Sulfur Loading and Low Electrolyte Consumption for Lithiumâ€“Sulfur Batteries. ACS Energy Letters, 2018, 3, 568-573.	8.8	138
27	Rational Design of Statically and Dynamically Stable Lithiumâ€“Sulfur Batteries with High Sulfur Loading and Low Electrolyte/Sulfur Ratio. Advanced Materials, 2018, 30, 1705951.	11.1	167
28	Nanostructured Host Materials for Trapping Sulfur in Rechargeable Liâ€“S Batteries: Structure Design and Interfacial Chemistry. Small Methods, 2018, 2, 1700279.	4.6	201
29	A coreâ€“shell cathode substrate for developing high-loading, high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2018, 6, 24841-24847.	5.2	20
30	Designing Lithiumâ€“Sulfur Batteries with High-Loading Cathodes at a Lean Electrolyte Condition. ACS Applied Materials & Interfaces, 2018, 10, 43749-43759.	4.0	27
31	A Facile, Lowâ€Cost Hotâ€Pressing Process for Fabricating Lithiumâ€“Sulfur Cells with Stable Dynamic and Static Electrochemistry. Advanced Materials, 2018, 30, e1805571.	11.1	38
32	Progress on the Critical Parameters for Lithiumâ€“Sulfur Batteries to be Practically Viable. Advanced Functional Materials, 2018, 28, 1801188.	7.8	368
33	Three-Dimensional Grapheneâ€“Carbon Nanotubeâ€“Ni Hierarchical Architecture as a Polysulfide Trap for Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 20627-20634.	4.0	72
34	Binder-free, freestanding cathodes fabricated with an ultra-rapid diffusion of sulfur into carbon nanofiber mat for lithium sulfur batteries. Materials Today Energy, 2018, 9, 336-344.	2.5	34
35	Thin-Layered Molybdenum Disulfide Nanoparticles as an Effective Polysulfide Mediator in Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 23122-23130.	4.0	39
36	Longâ€Life Lithiumâ€“Sulfur Batteries with a Bifunctional Cathode Substrate Configured with Boron Carbide Nanowires. Advanced Materials, 2018, 30, e1804149.	11.1	120

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37	Rational Design of a Dualâ€Function Hybrid Cathode Substrate for Lithiumâ€"Sulfur Batteries. Advanced Energy Materials, 2018, 8, 1801014.	10.2	103
38	Highly flexible, freestanding tandem sulfur cathodes for foldable Liâ€"S batteries with a high areal capacity. Materials Horizons, 2017, 4, 249-258.	6.4	78
39	Dendriteâ€Free Lithium Anode via a Homogenous Liâ€Ion Distribution Enabled by a Kimwipe Paper. Advanced Sustainable Systems, 2017, 1, 1600034.	2.7	82
40	Transforming waste newspapers into nitrogen-doped conducting interlayers for advanced Liâ€"S batteries. Sustainable Energy and Fuels, 2017, 1, 444-449.	2.5	26
41	Lithiumâ€"Sulfur Batteries with the Lowest Self-Discharge and the Longest Shelf life. ACS Energy Letters, 2017, 2, 1056-1061.	8.8	60
42	A Shellâ€Shaped Carbon Architecture with Highâ€Loading Capability for Lithium Sulfide Cathodes. Advanced Energy Materials, 2017, 7, 1700537.	10.2	40
43	Quantitative Analysis of Electrochemical and Electrode Stability with Low Self-Discharge Lithium-Sulfur Batteries. ACS Applied Materials & Interfaces, 2017, 9, 20318-20323.	4.0	27
44	A rationally designed polysulfide-trapping interface on the polymeric separator for high-energy Liâ€"S batteries. Materials Today Energy, 2017, 6, 72-78.	2.5	26
45	Oligoanilines as a suppressor of polysulfide shuttling in lithiumâ€"sulfur batteries. Materials Horizons, 2017, 4, 908-914.	6.4	24
46	A nickel-foam@carbon-shell with a pie-like architecture as an efficient polysulfide trap for high-energy Liâ€"S batteries. Journal of Materials Chemistry A, 2017, 5, 15002-15007.	5.2	44
47	Robust, Ultra-Tough Flexible Cathodes for High-Energy Li-S Batteries. Small, 2016, 12, 939-950.	5.2	59
48	A trifunctional multi-walled carbon nanotubes/polyethylene glycol (MWCNT/PEG)-coated separator through a layer-by-layer coating strategy for high-energy Liâ€"S batteries. Journal of Materials Chemistry A, 2016, 4, 16805-16811.	5.2	72
49	A coreâ€"shell electrode for dynamically and statically stable Liâ€"S battery chemistry. Energy and Environmental Science, 2016, 9, 3188-3200.	15.6	124
50	Hierarchical sulfur electrodes as a testing platform for understanding the high-loading capability of Li-S batteries. Journal of Power Sources, 2016, 334, 179-190.	4.0	46
51	A Carbon-Cotton Cathode with Ultrahigh-Loading Capability for Statically and Dynamically Stable Lithiumâ€"Sulfur Batteries. ACS Nano, 2016, 10, 10462-10470.	7.3	252
52	Effective Stabilization of a High-Loading Sulfur Cathode and a Lithium-Metal Anode in Li-S Batteries Utilizing SWCNT-Modulated Separators. Small, 2016, 12, 174-179.	5.2	175
53	A Polysulfide-Trapping Interface for Electrochemically Stable Sulfur Cathode Development. ACS Applied Materials & Interfaces, 2016, 8, 4709-4717.	4.0	64
54	Electrochemically Stable Rechargeable Lithiumâ€"Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide. Advanced Energy Materials, 2015, 5, 1500738.	10.2	255

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55	Porous Carbon Mat as an Electrochemical Testing Platform for Investigating the Polysulfide Retention of Various Cathode Configurations in Liâ€“S Cells. Journal of Physical Chemistry Letters, 2015, 6, 2163-2169.	2.1	61
56	Lithium-Sulfur Batteries: Electrochemically Stable Rechargeable Lithium-Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide (Adv. Energy Mater. 18/2015). Advanced Energy Materials, 2015, 5, n/a-n/a.	10.2	1
57	A free-standing carbon nanofiber interlayer for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2015, 3, 4530-4538.	5.2	317
58	Lithiumâ€“Sulfur Batteries: Progress and Prospects. Advanced Materials, 2015, 27, 1980-2006.	11.1	1,288
59	Ultra-lightweight PANiNF/MWCNT-functionalized separators with synergistic suppression of polysulfide migration for Liâ€“S batteries with pure sulfur cathodes. Journal of Materials Chemistry A, 2015, 3, 18829-18834.	5.2	147
60	Carbonized Eggshell Membranes as a Natural and Abundant Counter Electrode for Efficient Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2015, 5, 1401524.	10.2	43
61	Carbonized Eggshell Membrane as a Natural Polysulfide Reservoir for Highly Reversible Liâ€S Batteries. Advanced Materials, 2014, 26, 1360-1365.	11.1	351
62	A Natural Carbonized Leaf as Polysulfide Diffusion Inhibitor for Highâ€Performance Lithiumâ€“Sulfur Battery Cells. ChemSusChem, 2014, 7, 1655-1661.	3.6	129
63	Low-cost, porous carbon current collector with high sulfur loading for lithiumâ€“sulfur batteries. Electrochemistry Communications, 2014, 38, 91-95.	2.3	73
64	A Polyethylene Glycolâ€Supported Microporous Carbon Coating as a Polysulfide Trap for Utilizing Pure Sulfur Cathodes in Lithiumâ€“Sulfur Batteries. Advanced Materials, 2014, 26, 7352-7357.	11.1	325
65	A hierarchical carbonized paper with controllable thickness as a modulable interlayer system for high performance Liâ€“S batteries. Chemical Communications, 2014, 50, 4184.	2.2	169
66	High-Performance Liâ€“S Batteries with an Ultra-lightweight MWCNT-Coated Separator. Journal of Physical Chemistry Letters, 2014, 5, 1978-1983.	2.1	340
67	Bifunctional Separator with a Lightâ€Weight Carbonâ€Coating for Dynamically and Statically Stable Lithiumâ€Sulfur Batteries. Advanced Functional Materials, 2014, 24, 5299-5306.	7.8	457
68	Eggshell Membrane-Derived Polysulfide Absorbents for Highly Stable and Reversible Lithiumâ€“Sulfur Cells. ACS Sustainable Chemistry and Engineering, 2014, 2, 2248-2252.	3.2	49
69	Rechargeable Lithiumâ€“Sulfur Batteries. Chemical Reviews, 2014, 114, 11751-11787.	23.0	3,842
70	Lithiumâ€“sulfur batteries with superior cycle stability by employing porous current collectors. Electrochimica Acta, 2013, 107, 569-576.	2.6	134
71	Nano-cellular carbon current collectors with stable cyclability for Liâ€“S batteries. Journal of Materials Chemistry A, 2013, 1, 9590.	5.2	73
72	Effects of B2O3 addition on the microstructure and microwave dielectric properties of La4Ba2Ti5O18. Journal of Alloys and Compounds, 2008, 465, 356-360.	2.8	13

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73	Preparation and Electrical Properties of LaFeO3Compacts Using Chemically Synthesized Powders. Japanese Journal of Applied Physics, 2008, 47, 8498-8501.	0.8	16