

Sheng-Heng Chung

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

67
papers

9,379
citations

37
h-index

75
g-index

75
ext. papers

10,691
ext. citations

13.9
avg, IF

7.23
L-index

#	Paper	IF	Citations
67	Nickel-plated sulfur nanocomposites for electrochemically stable high-loading sulfur cathodes in a lean-electrolyte lithium-sulfur cell. <i>Chemical Engineering Journal</i> , 2022 , 429, 132257	14.7	17
66	A LiS-Based Catholyte/Solid-State-Electrolyte Composite for Electrochemically Stable Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021 ,	9.5	1
65	Nanoporosity of Carbon-Sulfur Nanocomposites toward the Lithium-Sulfur Battery Electrochemistry. <i>Nanomaterials</i> , 2021 , 11,	5.4	5
64	Lean-electrolyte lithium-sulfur electrochemical cells with high-loading carbon nanotube/nanofiber-polysulfide cathodes. <i>Chemical Communications</i> , 2021 , 57, 2009-2012	5.8	30
63	A Poly(ethylene oxide)/Lithium bis(trifluoromethanesulfonyl)imide-Coated Polypropylene Membrane for a High-Loading Lithium-Sulfur Battery. <i>Polymers</i> , 2021 , 13,	4.5	15
62	Advanced Current Collectors with Carbon Nanofoams for Electrochemically Stable Lithium-Sulfur Cells. <i>Nanomaterials</i> , 2021 , 11,	5.4	5
61	Materials and electrode designs of high-performance NiCo ₂ S ₄ /Reduced graphene oxide for supercapacitors. <i>Ceramics International</i> , 2021 , 47, 25942-25950	5.1	5
60	A design of the cathode substrate for high-loading polysulfide cathodes in lean-electrolyte lithium-sulfur cells. <i>Chemical Engineering Journal</i> , 2021 , 422, 130363	14.7	30
59	Module-Designed Carbon-Coated Separators for High-Loading, High-Sulfur-Utilization Cathodes in Lithium-Sulfur Batteries.. <i>Molecules</i> , 2021 , 27,	4.8	5
58	Structural and Surficial Modification of Carbon Nanofoam as an Interlayer for Electrochemically Stable Lithium-Sulfur Cells.. <i>Nanomaterials</i> , 2021 , 11,	5.4	4
57	Li/S 2020 , 1-36		
56	A Li ₂ S-TiS ₂ -Electrolyte Composite for Stable Li ₂ S-Based Lithium Sulfur Batteries. <i>Advanced Energy Materials</i> , 2019 , 9, 1901397	21.8	25
55	Current Status and Future Prospects of Metal-Sulfur Batteries. <i>Advanced Materials</i> , 2019 , 31, e1901125	24	237
54	Bifunctional Binder with Nucleophilic Lithium Polysulfide Immobilization Ability for High-Loading, High-Thickness Cathodes in Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 17393-17399	9.5	16
53	Pyrrolic-Type Nitrogen-Doped Hierarchical Macro/Mesoporous Carbon as a Bifunctional Host for High-Performance Thick Cathodes for Lithium-Sulfur Batteries. <i>Small</i> , 2019 , 15, e1900690	11	27
52	An ant-nest-like cathode substrate for lithium-sulfur batteries with practical cell fabrication parameters. <i>Energy Storage Materials</i> , 2019 , 18, 491-499	19.4	12
51	Designing a high-loading sulfur cathode with a mixed ionic-electronic conducting polymer for electrochemically stable lithium-sulfur batteries. <i>Energy Storage Materials</i> , 2019 , 17, 317-324	19.4	50

50	A three-dimensional self-assembled SnS ₂ -nano-dots@graphene hybrid aerogel as an efficient polysulfide reservoir for high-performance lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 7659-7667	13	70
49	Designing Lithium-Sulfur Cells with Practically Necessary Parameters. <i>Joule</i> , 2018 , 2, 710-724	27.8	122
48	TiS ₂ /Polysulfide Hybrid Cathode with High Sulfur Loading and Low Electrolyte Consumption for Lithium-Sulfur Batteries. <i>ACS Energy Letters</i> , 2018 , 3, 568-573	20.1	105
47	Rational Design of Statically and Dynamically Stable Lithium-Sulfur Batteries with High Sulfur Loading and Low Electrolyte/Sulfur Ratio. <i>Advanced Materials</i> , 2018 , 30, 1705951	24	134
46	Binder-free, freestanding cathodes fabricated with an ultra-rapid diffusion of sulfur into carbon nanofiber mat for lithium sulfur batteries. <i>Materials Today Energy</i> , 2018 , 9, 336-344	7	22
45	Thin-Layered Molybdenum Disulfide Nanoparticles as an Effective Polysulfide Mediator in Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 23122-23130	9.5	31
44	Long-Life Lithium-Sulfur Batteries with a Bifunctional Cathode Substrate Configured with Boron Carbide Nanowires. <i>Advanced Materials</i> , 2018 , 30, e1804149	24	89
43	Rational Design of a Dual-Function Hybrid Cathode Substrate for Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1801014	21.8	77
42	Nanostructured Host Materials for Trapping Sulfur in Rechargeable Li-S Batteries: Structure Design and Interfacial Chemistry. <i>Small Methods</i> , 2018 , 2, 1700279	12.8	159
41	A core-shell cathode substrate for developing high-loading, high-performance lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 24841-24847	13	17
40	Designing Lithium-Sulfur Batteries with High-Loading Cathodes at a Lean Electrolyte Condition. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 43749-43759	9.5	22
39	A Facile, Low-Cost Hot-Pressing Process for Fabricating Lithium-Sulfur Cells with Stable Dynamic and Static Electrochemistry. <i>Advanced Materials</i> , 2018 , 30, e1805571	24	29
38	Progress on the Critical Parameters for Lithium-Sulfur Batteries to be Practically Viable. <i>Advanced Functional Materials</i> , 2018 , 28, 1801188	15.6	257
37	Three-Dimensional Graphene-Carbon Nanotube-Ni Hierarchical Architecture as a Polysulfide Trap for Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 20627-20634	9.5	56
36	Highly flexible, freestanding tandem sulfur cathodes for foldable Li-S batteries with a high areal capacity. <i>Materials Horizons</i> , 2017 , 4, 249-258	14.4	66
35	Dendrite-Free Lithium Anode via a Homogenous Li-Ion Distribution Enabled by a Kimwipe Paper. <i>Advanced Sustainable Systems</i> , 2017 , 1, 1600034	5.9	70
34	Transforming waste newspapers into nitrogen-doped conducting interlayers for advanced Li-S batteries. <i>Sustainable Energy and Fuels</i> , 2017 , 1, 444-449	5.8	24
33	Lithium-Sulfur Batteries with the Lowest Self-Discharge and the Longest Shelf life. <i>ACS Energy Letters</i> , 2017 , 2, 1056-1061	20.1	45

32	A Shell-Shaped Carbon Architecture with High-Loading Capability for Lithium Sulfide Cathodes. <i>Advanced Energy Materials</i> , 2017 , 7, 1700537	21.8	37
31	Quantitative Analysis of Electrochemical and Electrode Stability with Low Self-Discharge Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 20318-20323	9.5	19
30	A rationally designed polysulfide-trapping interface on the polymeric separator for high-energy LiS batteries. <i>Materials Today Energy</i> , 2017 , 6, 72-78	7	20
29	Oligoanilines as a suppressor of polysulfide shuttling in lithium-sulfur batteries. <i>Materials Horizons</i> , 2017 , 4, 908-914	14.4	19
28	A nickel-foam@carbon-shell with a pie-like architecture as an efficient polysulfide trap for high-energy LiS batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 15002-15007	13	37
27	A core-shell electrode for dynamically and statically stable LiS battery chemistry. <i>Energy and Environmental Science</i> , 2016 , 9, 3188-3200	35.4	107
26	Hierarchical sulfur electrodes as a testing platform for understanding the high-loading capability of Li-S batteries. <i>Journal of Power Sources</i> , 2016 , 334, 179-190	8.9	36
25	A Carbon-Cotton Cathode with Ultrahigh-Loading Capability for Statically and Dynamically Stable Lithium-Sulfur Batteries. <i>ACS Nano</i> , 2016 , 10, 10462-10470	16.7	205
24	Effective Stabilization of a High-Loading Sulfur Cathode and a Lithium-Metal Anode in Li-S Batteries Utilizing SWCNT-Modulated Separators. <i>Small</i> , 2016 , 12, 174-9	11	154
23	A Polysulfide-Trapping Interface for Electrochemically Stable Sulfur Cathode Development. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 4709-17	9.5	58
22	Robust, Ultra-Tough Flexible Cathodes for High-Energy Li-S Batteries. <i>Small</i> , 2016 , 12, 939-50	11	52
21	A trifunctional multi-walled carbon nanotubes/polyethylene glycol (MWCNT/PEG)-coated separator through a layer-by-layer coating strategy for high-energy LiS batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 16805-16811	13	64
20	Ultra-lightweight PANiNF/MWCNT-functionalized separators with synergistic suppression of polysulfide migration for LiS batteries with pure sulfur cathodes. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 18829-18834	13	117
19	Carbonized Eggshell Membranes as a Natural and Abundant Counter Electrode for Efficient Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2015 , 5, 1401524	21.8	39
18	Electrochemically Stable Rechargeable Lithium-Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide. <i>Advanced Energy Materials</i> , 2015 , 5, 1500738	21.8	226
17	Porous Carbon Mat as an Electrochemical Testing Platform for Investigating the Polysulfide Retention of Various Cathode Configurations in Li-S Cells. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 2163-9	6.4	58
16	Lithium-Sulfur Batteries: Electrochemically Stable Rechargeable Lithium-Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide (Adv. Energy Mater. 18/2015). <i>Advanced Energy Materials</i> , 2015 , 5, n/a-n/a	21.8	1
15	A free-standing carbon nanofiber interlayer for high-performance lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 4530-4538	13	274

14	Lithium-sulfur batteries: progress and prospects. <i>Advanced Materials</i> , 2015 , 27, 1980-2006	24	1044
13	Low-cost, porous carbon current collector with high sulfur loading for lithium-sulfur batteries. <i>Electrochemistry Communications</i> , 2014 , 38, 91-95	5.1	66
12	A polyethylene glycol-supported microporous carbon coating as a polysulfide trap for utilizing pure sulfur cathodes in lithium-sulfur batteries. <i>Advanced Materials</i> , 2014 , 26, 7352-7	24	279
11	A hierarchical carbonized paper with controllable thickness as a modulable interlayer system for high performance Li-S batteries. <i>Chemical Communications</i> , 2014 , 50, 4184-7	5.8	150
10	High-Performance Li-S Batteries with an Ultra-lightweight MWCNT-Coated Separator. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 1978-83	6.4	292
9	Bifunctional Separator with a Light-Weight Carbon-Coating for Dynamically and Statically Stable Lithium-Sulfur Batteries. <i>Advanced Functional Materials</i> , 2014 , 24, 5299-5306	15.6	384
8	Eggshell Membrane-Derived Polysulfide Absorbents for Highly Stable and Reversible Lithium-Sulfur Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2014 , 2, 2248-2252	8.3	45
7	Rechargeable lithium-sulfur batteries. <i>Chemical Reviews</i> , 2014 , 114, 11751-87	68.1	3074
6	Carbonized eggshell membrane as a natural polysulfide reservoir for highly reversible Li-S batteries. <i>Advanced Materials</i> , 2014 , 26, 1360-5	24	310
5	A natural carbonized leaf as polysulfide diffusion inhibitor for high-performance lithium-sulfur battery cells. <i>ChemSusChem</i> , 2014 , 7, 1655-61	8.3	111
4	Lithium-sulfur batteries with superior cycle stability by employing porous current collectors. <i>Electrochimica Acta</i> , 2013 , 107, 569-576	6.7	118
3	Nano-cellular carbon current collectors with stable cyclability for Li-S batteries. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 9590	13	65
2	Effects of B ₂ O ₃ addition on the microstructure and microwave dielectric properties of La ₄ Ba ₂ Ti ₅ O ₁₈ . <i>Journal of Alloys and Compounds</i> , 2008 , 465, 356-360	5.7	13
1	Preparation and Electrical Properties of LaFeO ₃ Compacts Using Chemically Synthesized Powders. <i>Japanese Journal of Applied Physics</i> , 2008 , 47, 8498-8501	1.4	16