Sheng-Heng Chung

List of Publications by Citations

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	Rechargeable lithium-sulfur batteries. *Chemical Reviews*, **2014**, 114, 11751-87	68.1	3074
66	Lithium-sulfur batteries: progress and prospects. *Advanced Materials*, **2015**, 27, 1980-2006	24	1044
65	Bifunctional Separator with a Light-Weight Carbon-Coating for Dynamically and Statically Stable Lithium-Sulfur Batteries. *Advanced Functional Materials*, **2014**, 24, 5299-5306	15.6	384
64	Carbonized eggshell membrane as a natural polysulfide reservoir for highly reversible Li-S batteries. *Advanced Materials*, **2014**, 26, 1360-5	24	310
63	High-Performance Li-S Batteries with an Ultra-lightweight MWCNT-Coated Separator. *Journal of Physical Chemistry Letters*, **2014**, 5, 1978-83	6.4	292
62	A polyethylene glycol-supported microporous carbon coating as a polysulfide trap for utilizing pure sulfur cathodes in lithium-sulfur batteries. *Advanced Materials*, **2014**, 26, 7352-7	24	279
61	A free-standing carbon nanofiber interlayer for high-performance lithium–sulfur batteries. *Journal of Materials Chemistry A*, **2015**, 3, 4530-4538	13	274
60	Progress on the Critical Parameters for Lithium–Sulfur Batteries to be Practically Viable. *Advanced Functional Materials*, **2018**, 28, 1801188	15.6	257
59	Current Status and Future Prospects of Metal-Sulfur Batteries. *Advanced Materials*, **2019**, 31, e1901125	24	237
58	Electrochemically Stable Rechargeable Lithium–Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide. *Advanced Energy Materials*, **2015**, 5, 1500738	21.8	226
57	A Carbon-Cotton Cathode with Ultrahigh-Loading Capability for Statically and Dynamically Stable Lithium-Sulfur Batteries. *ACS Nano*, **2016**, 10, 10462-10470	16.7	205
56	Nanostructured Host Materials for Trapping Sulfur in Rechargeable Li–S Batteries: Structure Design and Interfacial Chemistry. *Small Methods*, **2018**, 2, 1700279	12.8	159
55	Effective Stabilization of a High-Loading Sulfur Cathode and a Lithium-Metal Anode in Li-S Batteries Utilizing SWCNT-Modulated Separators. *Small*, **2016**, 12, 174-9	11	154
54	A hierarchical carbonized paper with controllable thickness as a modulable interlayer system for high performance Li-S batteries. *Chemical Communications*, **2014**, 50, 4184-7	5.8	150
53	Rational Design of Statically and Dynamically Stable Lithium-Sulfur Batteries with High Sulfur Loading and Low Electrolyte/Sulfur Ratio. *Advanced Materials*, **2018**, 30, 1705951	24	134
52	Designing Lithium-Sulfur Cells with Practically Necessary Parameters. *Joule*, **2018**, 2, 710-724	27.8	122
51	Lithium–sulfur batteries with superior cycle stability by employing porous current collectors. *Electrochimica Acta*, **2013**, 107, 569-576	6.7	118

50	Ultra-lightweight PANiNF/MWCNT-functionalized separators with synergistic suppression of polysulfide migration for Li–S batteries with pure sulfur cathodes. *Journal of Materials Chemistry A*, **2015**, 3, 18829-18834	13	117
49	A natural carbonized leaf as polysulfide diffusion inhibitor for high-performance lithium-sulfur battery cells. *ChemSusChem*, **2014**, 7, 1655-61	8.3	111
48	A core–shell electrode for dynamically and statically stable Li–S battery chemistry. *Energy and Environmental Science*, **2016**, 9, 3188-3200	35.4	107
47	TiS_2–Polysulfide Hybrid Cathode with High Sulfur Loading and Low Electrolyte Consumption for Lithium–Sulfur Batteries. *ACS Energy Letters*, **2018**, 3, 568-573	20.1	105
46	Long-Life Lithium-Sulfur Batteries with a Bifunctional Cathode Substrate Configured with Boron Carbide Nanowires. *Advanced Materials*, **2018**, 30, e1804149	24	89
45	Rational Design of a Dual-Function Hybrid Cathode Substrate for Lithium–Sulfur Batteries. *Advanced Energy Materials*, **2018**, 8, 1801014	21.8	77
44	Dendrite-Free Lithium Anode via a Homogenous Li-Ion Distribution Enabled by a Kimwipe Paper. *Advanced Sustainable Systems*, **2017**, 1, 1600034	5.9	70
43	A three-dimensional self-assembled SnS2-nano-dots@graphene hybrid aerogel as an efficient polysulfide reservoir for high-performance lithium–sulfur batteries. *Journal of Materials Chemistry A*, **2018**, 6, 7659-7667	13	70
42	Highly flexible, freestanding tandem sulfur cathodes for foldable Li–S batteries with a high areal capacity. *Materials Horizons*, **2017**, 4, 249-258	14.4	66
41	Low-cost, porous carbon current collector with high sulfur loading for lithium–sulfur batteries. *Electrochemistry Communications*, **2014**, 38, 91-95	5.1	66
40	Nano-cellular carbon current collectors with stable cyclability for Li–S batteries. *Journal of Materials Chemistry A*, **2013**, 1, 9590	13	65
39	A trifunctional multi-walled carbon nanotubes/polyethylene glycol (MWCNT/PEG)-coated separator through a layer-by-layer coating strategy for high-energy Li–S batteries. *Journal of Materials Chemistry A*, **2016**, 4, 16805-16811	13	64
38	A Polysulfide-Trapping Interface for Electrochemically Stable Sulfur Cathode Development. *ACS Applied Materials & Interfaces*, **2016**, 8, 4709-17	9.5	58
37	Porous Carbon Mat as an Electrochemical Testing Platform for Investigating the Polysulfide Retention of Various Cathode Configurations in Li-S Cells. *Journal of Physical Chemistry Letters*, **2015**, 6, 2163-9	6.4	58
36	Three-Dimensional Graphene-Carbon Nanotube-Ni Hierarchical Architecture as a Polysulfide Trap for Lithium-Sulfur Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 20627-20634	9.5	56
35	Robust, Ultra-Tough Flexible Cathodes for High-Energy Li-S Batteries. *Small*, **2016**, 12, 939-50	11	52
34	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	19.4	50
33	Lithium–Sulfur Batteries with the Lowest Self-Discharge and the Longest Shelf life. *ACS Energy Letters*, **2017**, 2, 1056-1061	20.1	45

32	Eggshell Membrane-Derived Polysulfide Absorbents for Highly Stable and Reversible Lithium–Sulfur Cells. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 2248-2252	8.3	45
31	Carbonized Eggshell Membranes as a Natural and Abundant Counter Electrode for Efficient Dye-Sensitized Solar Cells. *Advanced Energy Materials*, **2015**, 5, 1401524	21.8	39
30	A Shell-Shaped Carbon Architecture with High-Loading Capability for Lithium Sulfide Cathodes. *Advanced Energy Materials*, **2017**, 7, 1700537	21.8	37
29	A nickel-foam@carbon-shell with a pie-like architecture as an efficient polysulfide trap for high-energy Li–S batteries. *Journal of Materials Chemistry A*, **2017**, 5, 15002-15007	13	37
28	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	8.9	36
27	Thin-Layered Molybdenum Disulfide Nanoparticles as an Effective Polysulfide Mediator in Lithium-Sulfur Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 23122-23130	9.5	31
26	Lean-electrolyte lithium-sulfur electrochemical cells with high-loading carbon nanotube/nanofiber-polysulfide cathodes. *Chemical Communications*, **2021**, 57, 2009-2012	5.8	30
25	A design of the cathode substrate for high-loading polysulfide cathodes in lean-electrolyte lithium-sulfur cells. *Chemical Engineering Journal*, **2021**, 422, 130363	14.7	30
24	A Facile, Low-Cost Hot-Pressing Process for Fabricating Lithium-Sulfur Cells with Stable Dynamic and Static Electrochemistry. *Advanced Materials*, **2018**, 30, e1805571	24	29
23	Pyrrolic-Type Nitrogen-Doped Hierarchical Macro/Mesoporous Carbon as a Bifunctional Host for High-Performance Thick Cathodes for Lithium-Sulfur Batteries. *Small*, **2019**, 15, e1900690	11	27
22	A Li2S-TiS2-Electrolyte Composite for Stable Li2S-Based Lithium–Sulfur Batteries. *Advanced Energy Materials*, **2019**, 9, 1901397	21.8	25
21	Transforming waste newspapers into nitrogen-doped conducting interlayers for advanced Li–S batteries. *Sustainable Energy and Fuels*, **2017**, 1, 444-449	5.8	24
20	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	7	22
19	Designing Lithium-Sulfur Batteries with High-Loading Cathodes at a Lean Electrolyte Condition. *ACS Applied Materials & Interfaces*, **2018**, 10, 43749-43759	9.5	22
18	A rationally designed polysulfide-trapping interface on the polymeric separator for high-energy Li–S batteries. *Materials Today Energy*, **2017**, 6, 72-78	7	20
17	Quantitative Analysis of Electrochemical and Electrode Stability with Low Self-Discharge Lithium-Sulfur Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 20318-20323	9.5	19
16	Oligoanilines as a suppressor of polysulfide shuttling in lithium–sulfur batteries. *Materials Horizons*, **2017**, 4, 908-914	14.4	19
15	A core–shell cathode substrate for developing high-loading, high-performance lithium–sulfur batteries. *Journal of Materials Chemistry A*, **2018**, 6, 24841-24847	13	17

14	Nickel-plated sulfur nanocomposites for electrochemically stable high-loading sulfur cathodes in a lean-electrolyte lithium-sulfur cell. *Chemical Engineering Journal*, **2022**, 429, 132257	14.7	17
13	Bifunctional Binder with Nucleophilic Lithium Polysulfide Immobilization Ability for High-Loading, High-Thickness Cathodes in Lithium-Sulfur Batteries. *ACS Applied Materials & Interfaces*, **2019**, 11, 17393-17399	9.5	16
12	Preparation and Electrical Properties of LaFeO3Compacts Using Chemically Synthesized Powders. *Japanese Journal of Applied Physics*, **2008**, 47, 8498-8501	1.4	16
11	A Poly(ethylene oxide)/Lithium bis(trifluoromethanesulfonyl)imide-Coated Polypropylene Membrane for a High-Loading Lithium-Sulfur Battery. *Polymers*, **2021**, 13,	4.5	15
10	Effects of B2O3 addition on the microstructure and microwave dielectric properties of La4Ba2Ti5O18. *Journal of Alloys and Compounds*, **2008**, 465, 356-360	5.7	13
9	An ant-nest-like cathode substrate for lithium-sulfur batteries with practical cell fabrication parameters. *Energy Storage Materials*, **2019**, 18, 491-499	19.4	12
8	Nanoporosity of Carbon-Sulfur Nanocomposites toward the Lithium-Sulfur Battery Electrochemistry. *Nanomaterials*, **2021**, 11,	5.4	5
7	Advanced Current Collectors with Carbon Nanofoams for Electrochemically Stable Lithium-Sulfur Cells. *Nanomaterials*, **2021**, 11,	5.4	5
6	Materials and electrode designs of high-performance NiCo2S4/Reduced graphene oxide for supercapacitors. *Ceramics International*, **2021**, 47, 25942-25950	5.1	5
5	Module-Designed Carbon-Coated Separators for High-Loading, High-Sulfur-Utilization Cathodes in Lithium-Sulfur Batteries.. *Molecules*, **2021**, 27,	4.8	5
4	Structural and Surfacial Modification of Carbon Nanofoam as an Interlayer for Electrochemically Stable Lithium-Sulfur Cells.. *Nanomaterials*, **2021**, 11,	5.4	4
3	LithiumSulfur Batteries: Electrochemically Stable Rechargeable LithiumSulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide (Adv. Energy Mater. 18/2015). *Advanced Energy Materials*, **2015**, 5, n/a-n/a	21.8	1
2	A LiS-Based Catholyte/Solid-State-Electrolyte Composite for Electrochemically Stable Lithium-Sulfur Batteries. *ACS Applied Materials & Interfaces*, **2021**,	9.5	1
1	Li/S **2020**, 1-36		