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A quantum-chemical study on the discharge reaction mechanism of lithium-sulfur batteries

DOI: 10.1016/s2095-4956(13)60009-1 Journal of Energy Chemistry, 2013, 22, 72-77.

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160	Self-Assembled Protein Nanofilter for Trapping Polysulfides and Promoting Li+ Transport in LithiumSulfur Batteries.		
159	Redox Catalytic and Quasi-Solid Sulfur Conversion for High-Capacity Lean Lithium Sulfur Batteries.		
158	Functional porous carbon-based composite electrode materials for lithium secondary batteries. Journal of Energy Chemistry, 2013 , 22, 214-225	12	40
157	Potassium-sulfur batteries: a new member of room-temperature rechargeable metal-sulfur batteries. 2014 , 53, 9000-5		143
156	3D Hyperbranched Hollow Carbon Nanorod Architectures for High-Performance Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2014 , 4, 1301761	21.8	145
155	Multi-shelled hollow carbon nanospheres for lithiumBulfur batteries with superior performances. Journal of Materials Chemistry A, 2014 , 2, 16199-16207	13	104
154	Unravelling the role of Li2S2 in lithiumBulfur batteries: A first principles study of its energetic and electronic properties. 2014 , 272, 518-521		56
153	Metalization of LiB particle surfaces in Li-S batteries. 2014 , 6, 13391-5		30
152	Molecular structure and stability of dissolved lithium polysulfide species. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 10923-32	3.6	177
151	Formation of Large Polysulfide Complexes during the Lithium-Sulfur Battery Discharge. 2014 , 2,		89
150	Toward a Molecular Understanding of Energetics in Liß Batteries Using Nonaqueous Electrolytes: A High-Level Quantum Chemical Study. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 11545-11558	3.8	120
149	On the Electrode Potentials in Lithium-Sulfur Batteries and Their Solvent-Dependence. <i>Journal of the Electrochemical Society</i> , 2014 , 161, A1399-A1406	3.9	26
148	Progress in Mechanistic Understanding and Characterization Techniques of Li-S Batteries. <i>Advanced Energy Materials</i> , 2015 , 5, 1500408	21.8	321
147	Sulfur nanodots electrodeposited on ni foam as high-performance cathode for Li-S batteries. 2015 , 15, 721-6		149
146	First-Principles Study of Redox End Members in LithiumBulfur Batteries. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 4675-4683	3.8	53
145	Fabrication of a nano-Li+-channel interlayer for high performance LiB battery application. <i>RSC Advances</i> , 2015 , 5, 26273-26280	3.7	28
144	Adsorption of insoluble polysulfides Li2S(x) (x = 1, 2) on Li2S surfaces. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 9032-9	3.6	46

(2016-2015)

143	Evidence for the existence of Li2S2 clusters in lithium-sulfur batteries: ab initio Raman spectroscopy simulation. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 22009-14	3.6	39
142	Multi-chambered micro/mesoporous carbon nanocubes as new polysulfides reserviors for lithiumBulfur batteries with long cycle life. <i>Nano Energy</i> , 2015 , 16, 268-280	17.1	124
141	Long-life Li/polysulphide batteries with high sulphur loading enabled by lightweight three-dimensional nitrogen/sulphur-codoped graphene sponge. 2015 , 6, 7760		802
140	Nanomaterials: Science and applications in the lithium ulfur battery. 2015 , 10, 315-338		282
139	Recent Advances in Electrolytes for LithiumBulfur Batteries. Advanced Energy Materials, 2015, 5, 150011	1 7 1.8	426
138	Understanding the Anchoring Effect of Two-Dimensional Layered Materials for Lithium-Sulfur Batteries. 2015 , 15, 3780-6		636
137	Lithium sulfur batteries, a mechanistic review. Energy and Environmental Science, 2015, 8, 3477-3494	35.4	722
136	Anchoring Lithium Polysulfides via Affinitive Interactions: Electrostatic Attraction, Hydrogen Bonding, or in Parallel?. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 20495-20502	3.8	38
135	Reactivity at the Lithium Metal Anode Surface of Lithium Bulfur Batteries. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 26828-26839	3.8	112
134	On the reasons for low sulphur utilization in the lithium allulphur batteries. 2015, 274, 203-210		44
133	Carbon Materials for Lithium Sulfur Batteries-Ten Critical Questions. 2016 , 22, 7324-51		274
132	Reasons for the effect of the amount of electrolyte on the performance of lithiumBulfur cells. 2016 , 52, 273-282		10
131	Bifunctional separator as a polysulfide mediator for highly stable LiB batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 9661-9669	13	67
130	In-situ activated polycation as a multifunctional additive for Li-S batteries. <i>Nano Energy</i> , 2016 , 26, 43-49	17.1	28
129	Evaluating silicene as a potential cathode host to immobilize polysulfides in lithiumBulfur batteries. 2016 , 69, 2090-2105		32
128	Understanding the interactions between lithium polysulfides and N-doped graphene using density functional theory calculations. <i>Nano Energy</i> , 2016 , 25, 203-210	17.1	274
127	Mechanism of polysulfide immobilization on defective graphene sheets with N-substitution. 2016 , 110, 207-214		68
126	Advanced High Energy Density Secondary Batteries with Multi-Electron Reaction Materials. 2016 , 3, 160	00051	141

125	Insight into the Interfacial Process and Mechanism in Lithium-Sulfur Batteries: An In Situ AFM Study. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 15835-15839	16.4	93
124	Insight into the Interfacial Process and Mechanism in LithiumBulfur Batteries: An In Situ AFM Study. <i>Angewandte Chemie</i> , 2016 , 128, 16067-16071	3.6	9
123	Advances in lithiumBulfur batteries based on multifunctional cathodes and electrolytes. 2016 , 1,		1317
122	Performance Enhancement and Mechanistic Studies of Room-Temperature SodiumBulfur Batteries with a Carbon-Coated Functional Nafion Separator and a Na2S/Activated Carbon Nanofiber Cathode. 2016 , 28, 896-905		136
121	A zero dimensional model of lithium-sulfur batteries during charge and discharge. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 584-93	3.6	54
120	A graphene-like metallic cathode host for long-life and high-loading lithiumBulfur batteries. 2016 , 3, 130-136		355
119	Phosphorene as a promising anchoring material for lithium dulfur batteries: a computational study. Journal of Materials Chemistry A, 2016 , 4, 6124-6130	13	122
118	Li2S Film Formation on Lithium Anode Surface of Li-S batteries. <i>ACS Applied Materials & amp; Interfaces</i> , 2016 , 8, 4700-8	9.5	59
117	Comparative theoretical study of adsorption of lithium polysulfides (Li2Sx) on pristine and defective graphene. 2016 , 308, 166-171		54
116	Reduction mechanism of sulfur in lithium ulfur battery: From elemental sulfur to polysulfide. 2016 , 301, 312-316		72
115	A Novel Optical Diagnostic for In Situ Measurements of Lithium Polysulfides in Battery Electrolytes. 2017 , 71, 1593-1599		21
114	Understanding the role of lithium sulfide clusters in lithium Bulfur batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 9293-9298	13	34
113	Elucidating the Solvation Structure and Dynamics of Lithium Polysulfides Resulting from Competitive Salt and Solvent Interactions. 2017 , 29, 3375-3379		78
112	Understanding the anchoring behavior of titanium carbide-based MXenes depending on the functional group in LiS batteries: A density functional theory study. 2017 , 342, 64-69		106
111	Controllably Designed "Vice-Electrode" Interlayers Harvesting High Performance Lithium Sulfur Batteries. <i>ACS Applied Materials & Designed Materials & Desig</i>	9.5	36
110	Effect of lithium-trapping on nitrogen-doped graphene as an anchoring material for lithium-sulfur batteries: a density functional theory study. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 28189-28194	3.6	41
109	High-Temperature Formation of a Functional Film at the Cathode/Electrolyte Interface in Lithium-Sulfur Batteries: An In Situ AFM Study. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 14	4 3 5:44	437
108	High-Temperature Formation of a Functional Film at the Cathode/Electrolyte Interface in LithiumBulfur Batteries: An In Situ AFM Study. <i>Angewandte Chemie</i> , 2017 , 129, 14625-14629	3.6	7

(2019-2017)

107	Polysulfide intercalation in bilayer-structured graphitic CN: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 32708-32714	3.6	15	
106	Borophene as Efficient Sulfur Hosts for LithiumBulfur Batteries: Suppressing Shuttle Effect and Improving Conductivity. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 15549-15555	3.8	74	
105	Li-S and Li-O2 Batteries with High Specific Energy. 2017 ,		6	
104	Liß and Li©2 Batteries with High Specific Energy. 2017 , 1-48		3	
103	Nafion/Titanium Dioxide-Coated Lithium Anode for Stable Lithium-Sulfur Batteries. 2018 , 13, 1379-13	85	24	
102	Revealing reaction mechanisms of nanoconfined LiS: implications for lithium-sulfur batteries. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 11713-11721	3.6	18	
101	2D framework C2N as a potential cathode for lithium fulfur batteries: an ab initio density functional study. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 2984-2994	13	28	
100	Interaction between functionalized graphene and sulfur compounds in a lithium-sulfur battery - a density functional theory investigation <i>RSC Advances</i> , 2018 , 8, 2271-2279	3.7	38	
99	C3B monolayer as an anchoring material for lithium-sulfur batteries. 2018, 129, 38-44		72	
98	Non-uniformly functionalized titanium carbide-based MXenes as an anchoring material for Li-S batteries: A first-principles calculation. <i>Applied Surface Science</i> , 2018 , 435, 210-215	6.7	36	
97	. 2018,		1	
96	Determination of Redox Reaction Mechanisms in LithiumBulfur Batteries. 2018, 41-74		9	
95	Metal-N4/graphene as an efficient anchoring material for lithium-sulfur batteries: A computational study. 2018 , 90, 72-78		17	
94	First-principles explorations of the electrochemical lithiation dynamics of a multilayer graphene nanosheet-based sulfurdarbon composite. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 18084-18094	13	8	
93	Design rules of heteroatom-doped graphene to achieve high performance lithium-sulfur batteries: Both strong anchoring and catalysing based on first principles calculation. 2018 , 529, 426-431		33	
92	Combining theory and experiment in lithiumBulfur batteries: Current progress and future perspectives. 2019 , 22, 142-158		217	
91	Single Nickel Atoms on Nitrogen-Doped Graphene Enabling Enhanced Kinetics of Lithium-Sulfur Batteries. 2019 , 31, e1903955		263	
				P

89	Single-atom Fe and N co-doped graphene for lithium-sulfur batteries: a density functional theory study. 2019 , 6, 095620		15	
88	Accurate Binding Energies for Lithium Polysulfides and Assessment of Density Functionals for LithiumBulfur Battery Research. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 20737-20747	3.8	27	
87	Self-Assemble and In-Situ Formation of Laponite RDS-Decorated d-Ti3C2Tx Hybrids for Application in Lithium-ion Battery. 2019 , 4, 10694-10700		5	
86	Hollow Carbon Nanoballs Coupled with Ultrafine TiO2 Nanoparticles as Efficient Sulfur Hosts for LithiumBulfur Batteries. 2019 , 58, 18197-18204		9	
85	Theoretical Study of the Electrochemical Reduction of Sulfur in LithiumBulfur Cells: The Formation of Lithium Octasulfide. 2019 , 93, 1111-1115			
84	Na2S sacrificial cathodic material for high performance sodium-ion capacitors. <i>Electrochimica Acta</i> , 2019 , 318, 471-478	6.7	14	
83	A Comprehensive Understanding of LithiumBulfur Battery Technology. 2019 , 29, 1901730		156	
82	Sulfur-deficient MoS2-x promoted lithium polysulfides conversion in lithium-sulfur battery: A first-principles study. <i>Applied Surface Science</i> , 2019 , 487, 452-463	6.7	36	
81	Modeling of substitutionally modified graphene structures to prevent the shuttle mechanism in lithium-sulfur batteries. <i>Electrochimica Acta</i> , 2019 , 309, 402-414	6.7	15	
80	Dithiothreitol-assisted polysulfide reduction in the interlayer of lithium-sulfur batteries: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 16435-16443	3.6	5	
79	Density functional theory calculations for interactions between metal-free phthalocyanine and lithium polysulfides. 2019 , 423, 34-39		4	
78	. 2019,		11	
77	Carbon/Gelatin Microcapsules for Sulfur Cathode: A Micro-Reactor Suppressing Bhuttle Effect Journal of the Electrochemical Society, 2019 , 166, A1045-A1050	3.9	5	
76	Mechanism of Lithium Cation Hopping between Tetragonal Thiophene Cages. <i>Batteries and Supercaps</i> , 2019 , 2, 695-700	5.6	2	
75	A novel porous C4N4 monolayer as a potential anchoring material for lithium ulfur battery design. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 4134-4144	13	99	
74	Structure and Dynamics of Polysulfide Clusters in a Nonaqueous Solvent Mixture of 1,3-Dioxolane and 1,2-Dimethoxyethane. 2019 , 31, 2308-2319		36	
73	Redox Catalytic and Quasi-Solid Sulfur Conversion for High-Capacity Lean Lithium Sulfur Batteries. 2019 , 13, 14540-14548		24	
72	On the Possibility of Determination of Thermodynamic Functions of the Liß Electrochemical System Using the EMF Method. 2019 , 55, 978-988		2	

(2021-2019)

71	Diphenyl polysulfides: cathodes with excellent lithiation performance and high specific energy for LSBs <i>RSC Advances</i> , 2019 , 9, 34430-34436	3.7	1
70	Molecular Level Understanding of the Interactions Between Reaction Intermediates of Liß Energy Storage Systems and Ether Solvents. 2019 , 133-146		Ο
69	Lithium Sulfide. 2019 , 147-183		
68	Carbon-based derivatives from metal-organic frameworks as cathode hosts for LiB batteries. Journal of Energy Chemistry, 2019 , 38, 94-113	12	61
67	Electrochemical analysis of the reaction mechanism of sulfur reduction as a function of state of charge. <i>Electrochimica Acta</i> , 2019 , 295, 926-933	6.7	11
66	Fe, N co-doped graphene as a multi-functional anchor material for lithium-sulfur battery. 2019 , 126, 28	0-286	27
65	Biomass-derived nitrogen-doped hierarchical porous carbon as efficient sulfur host for lithiumBulfur batteries. <i>Journal of Energy Chemistry</i> , 2020 , 44, 61-67	12	70
64	Adsorption-Catalysis Design in the Lithium-Sulfur Battery. Advanced Energy Materials, 2020, 10, 190300	1 8 21.8	154
63	Designing Highly Conductive Functional Groups Improving Guest-Host Interactions in Li/S Batteries. 2020 , 16, e1905585		21
62	Mitigation of Polysulfide Shuttling by Interlayer/Permselective Separators in LithiumBulfur Batteries. 2020 , 3, 8095-8129		26
61	A fundamental look at electrocatalytic sulfur reduction reaction. 2020 , 3, 762-770		206
60	Computational refinement of the puzzling red tetrasulfur chromophore in ultramarine pigments. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 22684-22698	3.6	2
59	Probing the Extent of Polysulfide Confinement Using a CoNiS Additive Inside a Sulfur Cathode of a Na/Li-Sulfur Rechargeable Battery. <i>ACS Applied Materials & District Materials </i>	9.5	13
58	Activating Li2S as the Lithium-Containing Cathode in LithiumBulfur Batteries. <i>ACS Energy Letters</i> , 2020 , 5, 2234-2245	20.1	59
57	Theoretical prediction of B/Al-doped black phosphorus as potential cathode material in lithium-sulfur batteries. <i>Applied Surface Science</i> , 2020 , 512, 145639	6.7	12
56	Lithium Bonds in Lithium Batteries. Angewandte Chemie - International Edition, 2020, 59, 11192-11195	16.4	39
55	Lithium Bonds in Lithium Batteries. Angewandte Chemie, 2020, 132, 11288-11291	3.6	9
54	Theoretical understanding for anchoring effect of MOFs for lithium-sulfur batteries. <i>Computational and Theoretical Chemistry</i> , 2021 , 1196, 113110	2	O

53	Au modified single vacancy graphene as anchoring material for lithium Bulfur batteries. <i>Chemical Physics Letters</i> , 2021 , 762, 138101	2.5	1
52	Sodium borohydride (NaBH4) as a high-capacity material for next-generation sodium-ion capacitors. <i>Open Chemistry</i> , 2021 , 19, 432-441	1.6	2
51	Impact of Carbon Porosity on Sulfur Conversion in Liß Battery Cathodes in a Sparingly Polysulfide Solvating Electrolyte. <i>Batteries and Supercaps</i> , 2021 , 4, 823-833	5.6	7
50	Theoretical Study of Two-Dimensional ⊞ellurene with Pseudo-Heterospecies as a Promising Elemental Anchoring Material for LithiumBulfur Batteries. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 4623-4631	3.8	4
49	Surface/Interface Structure and Chemistry of LithiumBulfur Batteries: From Density Functional Theory Calculations Perspective. <i>Advanced Energy and Sustainability Research</i> , 2021 , 2, 2100007	1.6	9
48	Density Functional Theory Studies on Sulfur-Polyacrylonitrile as a Cathode Host Material for Lithium-Sulfur Batteries. <i>ACS Omega</i> , 2021 , 6, 9700-9708	3.9	6
47	Monolayer FeGeX (X = S, Se, and Te) as Highly Efficient Electrocatalysts for Lithium-Sulfur Batteries. <i>ACS Applied Materials & Distriction (Control of the Control of the </i>	9.5	8
46	Arsenene, antimonene and bismuthene as anchoring materials for lithium-sulfur batteries: A computational study. <i>International Journal of Quantum Chemistry</i> , 2021 , 121, 26661	2.1	1
45	Sodium amide as a Zero dead mass Bacrificial material for the pre-sodiation of the negative electrode in sodium-ion capacitors. <i>Electrochimica Acta</i> , 2021 , 375, 137980	6.7	6
44	Tailoring FeP with a Hollow Urchin Architecture for High-Performance Liß Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 5315-5321	8.3	7
43	DFT study of chemical reactivity parameters of lithium polysulfide molecules Li2Sn(1🖽) in gas and solvent phase. <i>Computational and Theoretical Chemistry</i> , 2021 , 1202, 113323	2	3
42	Nitrogen-Doped Buckybowls as Potential Scaffold Material for Lithium-Sulfur Battery: A DFT Study. <i>Electrocatalysis</i> , 2021 , 12, 678	2.7	1
41	Electrolyte solutions design for lithium-sulfur batteries. <i>Joule</i> , 2021 , 5, 2323-2364	27.8	38
40	New insights into synergistic effects of La2O3 and nitrogen doped carbon for improved redox kinetics in lithium-sulfur batteries: A computational study. <i>Applied Surface Science</i> , 2021 , 563, 150172	6.7	3
39	Two-dimensional conjugated aromatic polymer as a promising anchoring material for lithium-sulfur batteries. <i>Applied Surface Science</i> , 2022 , 571, 151226	6.7	1
38	Electrocatalysis of Lithium (Poly-) Sulfides in Organic Ether-Based Electrolytes. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 166520	3.9	
37	Emerging Catalysts to Promote Kinetics of LithiumBulfur Batteries. <i>Advanced Energy Materials</i> , 2021 , 11, 2002893	21.8	85
36	Thermodynamic aspect of sulfur, polysulfide anion and lithium polysulfide: plausible reaction path during discharge of lithium-sulfur battery. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 6832-6840	3.6	2

(2022-2020)

35	The origin of the two-plateaued or one-plateaued open circuit voltage in LiB batteries. <i>Nano Energy</i> , 2020 , 75, 104915	17.1	10
34	Nitride MXenes as sulfur hosts for thermodynamic and kinetic suppression of polysulfide shuttling: a computational study. <i>Journal of Materials Chemistry A</i> ,	13	4
33	TiS2-Graphene Heterostructures Enabling Polysulfide Anchoring and Fast Electrocatalyst for Lithium-Sulfur Batteries: A First-principles Calculation. <i>Chinese Physics B</i> ,	1.2	
32	In-situ Formed Polar Fe2N/MCMB Hybrid Interlayer for High-Rate Li ß Batteries. <i>Energy & Fuels</i> ,	4.1	О
31	A potential anchoring material for lithium ulfur batteries: Monolayer PtTe sheet. <i>Applied Surface Science</i> , 2022 , 572, 151378	6.7	1
30	Lithium sulfur batteries: Electrochemistry and mechanistic research. 2021,		
29	Influence of Ionic Coordination on the Cathode Reaction Mechanisms of Al/S Batteries. <i>Journal of Physical Chemistry C</i> ,	3.8	1
28	Suppressing the shuttle effect in lithium-sulphur batteries by defective single-walled ZnO nanotube: A DFT study. <i>Canadian Journal of Chemical Engineering</i> ,	2.3	
27	Li2S Cathodes in LithiumBulfur Batteries. <i>Modern Aspects of Electrochemistry</i> , 2022 , 83-109		
26	Computation and Simulation. <i>Modern Aspects of Electrochemistry</i> , 2022 , 355-395		
26	Computation and Simulation. <i>Modern Aspects of Electrochemistry</i> , 2022 , 355-395 Defects on Li2S@graphene cathode improves the performance of lithium-sulfur battery, A theoretical study. <i>Acta Materialia</i> , 2022 , 226, 117632	8.4	1
	Defects on Li2S@graphene cathode improves the performance of lithium-sulfur battery, A	8.4 5·3	1
25	Defects on Li2S@graphene cathode improves the performance of lithium-sulfur battery, A theoretical study. <i>Acta Materialia</i> , 2022 , 226, 117632 Sustainable cyanide-C60 fullerene cathode to suppress the lithium polysulfides in a lithium-sulfur	,	
25 24	Defects on Li2S@graphene cathode improves the performance of lithium-sulfur battery, A theoretical study. <i>Acta Materialia</i> , 2022 , 226, 117632 Sustainable cyanide-C60 fullerene cathode to suppress the lithium polysulfides in a lithium-sulfur battery. <i>Sustainable Materials and Technologies</i> , 2022 , 32, e00403 NbN nanodot decorated N-doped graphene as a multifunctional interlayer for high-performance	5.3	1
25 24 23	Defects on Li2S@graphene cathode improves the performance of lithium-sulfur battery, A theoretical study. <i>Acta Materialia</i> , 2022 , 226, 117632 Sustainable cyanide-C60 fullerene cathode to suppress the lithium polysulfides in a lithium-sulfur battery. <i>Sustainable Materials and Technologies</i> , 2022 , 32, e00403 NbN nanodot decorated N-doped graphene as a multifunctional interlayer for high-performance lithiumBulfur batteries. <i>Journal of Materials Chemistry A</i> , Evaluating the effectiveness of in situ characterization techniques in overcoming mechanistic	5-3	2
25 24 23 22	Defects on Li2S@graphene cathode improves the performance of lithium-sulfur battery, A theoretical study. <i>Acta Materialia</i> , 2022 , 226, 117632 Sustainable cyanide-C60 fullerene cathode to suppress the lithium polysulfides in a lithium-sulfur battery. <i>Sustainable Materials and Technologies</i> , 2022 , 32, e00403 NbN nanodot decorated N-doped graphene as a multifunctional interlayer for high-performance lithiumBulfur batteries. <i>Journal of Materials Chemistry A</i> , Evaluating the effectiveness of in situ characterization techniques in overcoming mechanistic limitations in lithiumBulfur batteries. <i>Energy and Environmental Science</i> , Computational screening of functionalized MXenes to catalyze the solid and non-solid conversion	5·3 13 35·4 3.6	2
25 24 23 22 21	Defects on Li2S@graphene cathode improves the performance of lithium-sulfur battery, A theoretical study. <i>Acta Materialia</i> , 2022 , 226, 117632 Sustainable cyanide-C60 fullerene cathode to suppress the lithium polysulfides in a lithium-sulfur battery. <i>Sustainable Materials and Technologies</i> , 2022 , 32, e00403 NbN nanodot decorated N-doped graphene as a multifunctional interlayer for high-performance lithiumBulfur batteries. <i>Journal of Materials Chemistry A</i> , Evaluating the effectiveness of in situ characterization techniques in overcoming mechanistic limitations in lithiumBulfur batteries. <i>Energy and Environmental Science</i> , Computational screening of functionalized MXenes to catalyze the solid and non-solid conversion reactions in cathodes of lithium-sulfur batteries <i>Physical Chemistry Chemical Physics</i> , 2022 ,	5·3 13 35·4 3.6	1 2 4

17	Theoretical probing the anchoring properties of BNP2 monolayer for lithium-sulfur batteries. <i>Applied Surface Science</i> , 2022 , 153393	6.7	1
16	Transition metal decorated phthalocyanine as a potential host material for lithium polysulfides: a first-principles study <i>RSC Advances</i> , 2022 , 12, 13975-13984	3.7	O
15	Catalysing the Performance of Li-Sulfur Batteries with Two-Dimensional Conductive Metal Organic Frameworks. <i>Journal of Materials Chemistry A</i> ,	13	1
14	A liquid cathode/anode based solid-state lithium-sulfur battery. <i>Electrochimica Acta</i> , 2022 , 421, 140456	6.7	1
13	Effective polysulfide adsorption and catalysis by polyoxometalate contributing to high performance Li-S batteries. <i>Materials Today Nano</i> , 2022 , 100231	9.7	2
12	Two-dimensional host materials for lithium-sulfur batteries: A review and perspective. <i>Energy Storage Materials</i> , 2022 , 50, 696-717	19.4	1
11	Double-active-site enables 2D B2S and B2S3 catalyst with suppressed shuttle effect and improved polysulfides redox kinetics in lithium-sulfur batteries: A first-principles study. <i>Applied Surface Science</i> , 2022 , 154295	6.7	О
10	Transition Metals Embedded Siloxene as Single-Atom Catalyst for Advanced Sulfur Host in LithiumBulfur Batteries: A Theoretical Study. <i>Advanced Energy Materials</i> , 2201530	21.8	О
9	Understanding the lithium Bulfur battery redox reactions via operando confocal Raman microscopy. 2022 , 13,		O
8	Intrinsic regularity of catalytic cobalt chalcogenides in lithium-sulfur battery: Theoretical study delivers new insights.		
7	Density functional theory model of LiB electrochemical system with explicit solvation of lithium polysulfides by sulfolane.		
6	Unraveling the hierarchical porous structure in natural pollen-derived Fe-containing carbon to address the shuttle effect and dead sulfur problems in lithium-sulfur batteries. 2022 , 139516		O
5	Encapsulate lithium sulfide cathodes with carbon-doped MoS2 for fast kinetics in lithium-sulfur batteries, a theoretical study. 2023 , 242, 118441		O
4	First-principles investigations to evaluate NiCl 2 /NiF 2 as cycle-catalyzed electrolyte additives to improve Li-S batteries[performance.		O
3	Structures and bonding properties of lithium polysulfide clusters LiSn (n = 3 lb) and Li2S4 (10: size-selected anion photoelectron spectroscopy and theoretical calculations. 2023 , 25, 10495-10503		0
2	Recent Progress in Solid Electrolytes for All-Solid-State Metal(Li/Na)Bulfur Batteries. 2023, 9, 110		О
1	Construction of Lithium Metal Anode with High Lithium Utilization and its Application in Lithium-Sulfur Batteries. 2023 , 13, 7-28		0