

Vilas G Pol

List of Publications by Citations

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154
papers

4,702
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166
ext. papers

5,592
ext. citations

8.1
avg, IF

6.29
L-index

#	Paper	IF	Citations
154	Ultrasound assisted design of sulfur/carbon cathodes with partially fluorinated ether electrolytes for highly efficient Li/S batteries. <i>Advanced Materials</i> , 2013 , 25, 1608-15	24	204
153	Improving the high-temperature performance of LiMn ₂ O ₄ spinel electrodes by coating the active mass with MgO via a sonochemical method. <i>Electrochemistry Communications</i> , 2003 , 5, 940-945	5.1	191
152	Binder-Free N- and O-Rich Carbon Nanofiber Anodes for Long Cycle Life K-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 17872-17881	9.5	154
151	Spherical carbon particles and carbon nanotubes prepared by autogenic reactions: Evaluation as anodes in lithium electrochemical cells. <i>Energy and Environmental Science</i> , 2011 , 4, 1904-1912	35.4	146
150	Carbon spherules: synthesis, properties and mechanistic elucidation. <i>Carbon</i> , 2004 , 42, 111-116	10.4	135
149	Ordered Network of Interconnected SnO ₂ Nanoparticles for Excellent Lithium-Ion Storage. <i>Advanced Energy Materials</i> , 2015 , 5, 1401289	21.8	132
148	Spherical Carbon as a New High-Rate Anode for Sodium-ion Batteries. <i>Electrochimica Acta</i> , 2014 , 127, 61-67	6.7	119
147	Porous carbon sphere anodes for enhanced lithium-ion storage. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 9861-9868	13	107
146	Electrochemical performance of MXenes as K-ion battery anodes. <i>Chemical Communications</i> , 2017 , 53, 6883-6886	5.8	106
145	Upcycling: converting waste plastics into paramagnetic, conducting, solid, pure carbon microspheres. <i>Environmental Science & Technology</i> , 2010 , 44, 4753-9	10.3	100
144	Ultrasmooth submicrometer carbon spheres as lubricant additives for friction and wear reduction. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 5514-21	9.5	89
143	Reactions under autogenic pressure at elevated temperature (RAPET) of various alkoxides: formation of metals/metal oxides-carbon core-shell structures. <i>Chemistry - A European Journal</i> , 2004 , 10, 4467-73	4.8	86
142	Pollen-derived porous carbon by KOH activation: Effect of physicochemical structure on CO ₂ adsorption. <i>Journal of CO₂ Utilization</i> , 2019 , 29, 146-155	7.6	81
141	Tunable, functional carbon spheres derived from rapid synthesis of resorcinol-formaldehyde resins. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 10649-55	9.5	78
140	LiF modified stable flexible PVDF-garnet hybrid electrolyte for high performance all-solid-state LiS batteries. <i>Energy Storage Materials</i> , 2020 , 24, 198-207	19.4	77
139	CO Capture in the Sustainable Wheat-Derived Activated Microporous Carbon Compartments. <i>Scientific Reports</i> , 2016 , 6, 34590	4.9	76
138	Sustainable Potassium-Ion Battery Anodes Derived from Waste-Tire Rubber. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A1234-A1238	3.9	75

137	Remediating plastic waste into carbon nanotubes. <i>Journal of Environmental Monitoring</i> , 2010 , 12, 455-9		73
136	Novel Synthesis of High Surface Area Silicon Carbide by RAPET (Reactions under Autogenic Pressure at Elevated Temperature) of Organosilanes. <i>Chemistry of Materials</i> , 2005 , 17, 1797-1802	9.6	73
135	Carbon Anodes for Nonaqueous Alkali Metal-Ion Batteries and Their Thermal Safety Aspects. <i>Advanced Energy Materials</i> , 2019 , 9, 1900550	21.8	68
134	The Study of Carbon-Coated V[sub 2]O[sub 5] Nanoparticles as a Potential Cathodic Material for Li Rechargeable Batteries. <i>Journal of the Electrochemical Society</i> , 2007 , 154, A605	3.9	64
133	Tailored Carbon Anodes Derived from Biomass for Sodium-Ion Storage. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 8720-8728	8.3	61
132	Temperature dependent electrochemical performance of graphite anodes for K-ion and Li-ion batteries. <i>Journal of Power Sources</i> , 2019 , 410-411, 124-131	8.9	61
131	Application of microwave superheating for the synthesis of TiO2 rods. <i>Langmuir</i> , 2007 , 23, 11211-6	4	55
130	Facile synthesis of photoluminescent ZnS and ZnSe nanopowders. <i>Langmuir</i> , 2008 , 24, 10462-6	4	50
129	Stabilization of Metastable Face-Centered Cubic Cobalt and the Tetragonal Phase of Zirconia by a Carbon Shell: Reaction under Autogenic Pressure at Elevated Temperature of CoZr2(acac)2(OiPr)8. <i>Chemistry of Materials</i> , 2004 , 16, 1793-1798	9.6	48
128	One-step solution combustion synthesis of CuO/Cu2O/C anode for long cycle life Li-ion batteries. <i>Carbon</i> , 2019 , 142, 51-59	10.4	47
127	High Performance Lithium Metal Batteries Enabled by Surface Tailoring of Polypropylene Separator with a Polydopamine/Graphene Layer. <i>Advanced Energy Materials</i> , 2018 , 8, 1802665	21.8	47
126	Encapsulation and networking of silicon nanoparticles using amorphous carbon and graphite for high performance Li-ion batteries. <i>Carbon</i> , 2019 , 148, 36-43	10.4	45
125	Pushing the theoretical capacity limits of iron oxide anodes: capacity rise of Fe2O3 nanoparticles in lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 18107-18115	13	45
124	MoS2 nanolayer coated carbon spheres as an oil additive for enhanced tribological performance. <i>Carbon</i> , 2016 , 110, 367-377	10.4	43
123	Upcycling of Packing-Peanuts into Carbon Microsheet Anodes for Lithium-Ion Batteries. <i>Environmental Science & Technology</i> , 2015 , 49, 11191-8	10.3	42
122	Facile synthesis of novel photoluminescent ZnO micro- and nanopencils. <i>Langmuir</i> , 2008 , 24, 13640-5	4	42
121	Sonochemical deposition of Au nanoparticles on titania and the significant decrease in the melting point of gold. <i>Journal of Nanoscience and Nanotechnology</i> , 2005 , 5, 975-9	1.3	41
120	Dry autoclaving for the nanofabrication of sulfides, selenides, borides, phosphides, nitrides, carbides, and oxides. <i>Advanced Materials</i> , 2011 , 23, 1179-90	24	39

119	Microwave-assisted synthesis of tin sulfide nanoflakes and their electrochemical performance as Li-inserting materials. <i>Journal of Solid State Electrochemistry</i> , 2006 , 11, 186-194	2.6	39
118	Thermal decomposition of tetraethylorthosilicate (TEOS) produces silicon coated carbon spheres. <i>Journal of Materials Chemistry</i> , 2004 , 14, 966		39
117	Highly porous three-dimensional carbon nanotube foam as a freestanding anode for a lithium-ion battery. <i>RSC Advances</i> , 2016 , 6, 79734-79744	3.7	38
116	In Situ Mechanistic Elucidation of Superior Si-C-Graphite Li-Ion Battery Anode Formation with Thermal Safety Aspects. <i>Advanced Energy Materials</i> , 2020 , 10, 1902799	21.8	38
115	Long cycle life microporous spherical carbon anodes for sodium-ion batteries derived from furfuryl alcohol. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 6271-6275	13	38
114	Advancement in sodium-ion rechargeable batteries. <i>Current Opinion in Chemical Engineering</i> , 2015 , 9, 34-41	5.4	37
113	Strongly correlated perovskite lithium ion shuttles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 9672-9677	11.5	36
112	Probing the evolution and morphology of hard carbon spheres. <i>Carbon</i> , 2014 , 68, 104-111	10.4	36
111	Towards highly stable lithium sulfur batteries: Surface functionalization of carbon nanotube scaffolds. <i>Carbon</i> , 2018 , 131, 175-183	10.4	34
110	Hierarchical Micro/Mesoporous Copper Structure with Enhanced Antimicrobial Property via Laser Surface Texturing. <i>Advanced Materials Interfaces</i> , 2020 , 7, 1901890	4.6	33
109	Towards Next Generation Lithium-Sulfur Batteries: Non-Conventional Carbon Compartments/Sulfur Electrodes and Multi-Scale Analysis. <i>Journal of the Electrochemical Society</i> , 2016 , 163, A730-A741	3.9	33
108	Wild Fungus Derived Carbon Fibers and Hybrids as Anodes for Lithium-Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 2624-2631	8.3	33
107	Toward High-Performance Lithium-Sulfur Batteries: Upcycling of LDPE Plastic into Sulfonated Carbon Scaffold via Microwave-Promoted Sulfonation. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 14827-14834	9.5	32
106	Cobalt Nanoparticles Chemically Bonded to Porous Carbon Nanosheets: A Stable High-Capacity Anode for Fast-Charging Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 4652-4661	9.5	32
105	Lithium storage in structurally tunable carbon anode derived from sustainable source. <i>Carbon</i> , 2017 , 121, 134-142	10.4	31
104	Sonochemical decoration of multi-walled carbon nanotubes with nanocrystalline tin. <i>New Journal of Chemistry</i> , 2004 , 28, 1056	3.6	31
103	Surface Functionalization of Carbon Architecture with Nano-MnO for Effective Polysulfide Confinement in Lithium-Sulfur Batteries. <i>ChemSusChem</i> , 2018 , 11, 2375-2381	8.3	31
102	Tailored Solution Combustion Synthesis of High Performance ZnCo ₂ O ₄ Anode Materials for Lithium-Ion Batteries. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 7173-7183	3.9	30

101	Li-ion storage in an amorphous, solid, spheroidal carbon anode produced by dry-autoclaving of coffee oil. <i>Carbon</i> , 2018 , 133, 62-68	10.4	30
100	From Allergens to Battery Anodes: Nature-Inspired, Pollen Derived Carbon Architectures for Room- and Elevated-Temperature Li-ion Storage. <i>Scientific Reports</i> , 2016 , 6, 20290	4.9	30
99	Surface Functionalization of a Conventional Polypropylene Separator with an Aluminum Nitride Layer toward Ultrastable and High-Rate Lithium Metal Anodes. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 3917-3924	9.5	30
98	Mechanistic elucidation of thermal runaway in potassium-ion batteries. <i>Journal of Power Sources</i> , 2018 , 375, 131-137	8.9	29
97	Hybrid plasmonic Au@TiN vertically aligned nanocomposites: a nanoscale platform towards tunable optical sensing. <i>Nanoscale Advances</i> , 2019 , 1, 1045-1054	5.1	28
96	Room-temperature, high-voltage solid-state lithium battery with composite solid polymer electrolyte with in-situ thermal safety study. <i>Chemical Engineering Journal</i> , 2020 , 400, 125996	14.7	28
95	Biomimetic crystallization of monodisperse Mn ₂ O ₃ octahedra and assembly of high-capacity lithium-ion battery anodes. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 6079-6089	13	26
94	Ultrasound-assisted synthesis of sodium powder as electrode additive to improve cycling performance of sodium-ion batteries. <i>Journal of Power Sources</i> , 2018 , 396, 476-482	8.9	25
93	Novel tertiary dry solid lubricant on steel surfaces reduces significant friction and wear under high load conditions. <i>Carbon</i> , 2017 , 123, 7-17	10.4	25
92	Applied magnetic field rejects the coating of ferromagnetic carbon from the surface of ferromagnetic cobalt: RAPET of CoZr ₂ (acac) ₂ (O _i Pr) ₈ . <i>Journal of Physical Chemistry B</i> , 2005 , 109, 6121-5	3.4	25
91	Enhanced Lithium- and Sodium-Ion Storage in an Interconnected Carbon Network Comprising Electronegative Fluorine. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 18790-18798	9.5	24
90	A comparative study of cellulose derived structured carbons on the electrochemical behavior of lithium metal-based batteries. <i>Energy Storage Materials</i> , 2019 , 19, 179-185	19.4	24
89	Combining MoS ₂ or MoSe ₂ nanoflakes with carbon by reacting Mo(CO) ₆ with S or Se under their autogenic pressure at elevated temperature. <i>Journal of Materials Science</i> , 2008 , 43, 1966-1973	4.3	23
88	A two-step process for the synthesis of MoTe ₂ nanotubes: combining a sonochemical technique with heat treatment. <i>Journal of Materials Chemistry</i> , 2003 , 13, 2985		23
87	In situ sonochemical synthesis of luminescent Sn@C-dots and a hybrid Sn@C-dots@Sn anode for lithium-ion batteries. <i>RSC Advances</i> , 2016 , 6, 66256-66265	3.7	23
86	LiNi _{0.5} Mn _{0.3} Co _{0.2} O ₂ /Au nanocomposite thin film cathode with enhanced electrochemical properties. <i>Nano Energy</i> , 2018 , 46, 290-296	17.1	22
85	One-Step Synthesis and Characterization of SiC, Mo ₂ C, and WC Nanostructures. <i>European Journal of Inorganic Chemistry</i> , 2009 , 2009, 709-715	2.3	22
84	Fabrication of Carbon/Silicon Composite as Lithium-ion Anode with Enhanced Cycling Stability. <i>Electrochimica Acta</i> , 2017 , 247, 626-633	6.7	21

83	The Thermal Decomposition of Three Magnetic Acetates at Their Autogenic Pressure Yields Different Products. Why?. <i>European Journal of Inorganic Chemistry</i> , 2007 , 2007, 2089-2096	2.3	21
82	Ge ₂ Sb ₂ Se ₅ Glass as High-capacity Promising Lithium-ion Battery Anode. <i>Nano Energy</i> , 2020 , 68, 104326	17.1	21
81	Solving two environmental problems simultaneously: Scalable production of carbon microsheets from structured packing peanuts with tailored microporosity for efficient CO ₂ capture. <i>Chemical Engineering Journal</i> , 2020 , 379, 122219	14.7	21
80	Electrospun nanoporous TiO ₂ nanofibers wrapped with reduced graphene oxide for enhanced and rapid lithium-ion storage. <i>Materials Characterization</i> , 2017 , 131, 64-71	3.9	20
79	Core-shell nanorods of SnS-C and SnSe-C: synthesis and characterization. <i>Langmuir</i> , 2008 , 24, 5135-9	4	20
78	Amorphous Carbon Chips Li-Ion Battery Anodes Produced through Polyethylene Waste Upcycling. <i>ACS Omega</i> , 2018 , 3, 17520-17527	3.9	20
77	Uniform metal-ion flux through interface-modified membrane for highly stable metal batteries. <i>Electrochimica Acta</i> , 2018 , 283, 517-527	6.7	20
76	Synthesis of monodispersed prolate spheroid shaped paramagnetic carbon. <i>Carbon</i> , 2009 , 47, 1050-1055	10.4	18
75	Growth of carbon sausages filled with in situ formed tungsten oxide nanorods: thermal dissociation of tungsten(VI) isopropoxide in isopropanol. <i>New Journal of Chemistry</i> , 2006 , 30, 370	3.6	18
74	Waste Biomass-Derived Carbon Anode for Enhanced Lithium Storage. <i>ACS Omega</i> , 2020 , 5, 19715-19720	3.9	18
73	Synthesis and Tribology of Micro-Carbon Sphere Additives for Enhanced Lubrication. <i>Tribology Transactions</i> , 2015 , 58, 474-480	1.8	17
72	Rapid Upcycling of Waste Polyethylene Terephthalate to Energy Storing Disodium Terephthalate Flowers with DFT Calculations. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 6252-6262	8.3	17
71	Broad Range Tuning of Phase Transition Property in VO ₂ Through Metal-Ceramic Nanocomposite Design. <i>Advanced Functional Materials</i> , 2019 , 29, 1903690	15.6	16
70	Double transition metal MXene (TiTaC) 2D materials as anodes for Li-ion batteries. <i>Scientific Reports</i> , 2021 , 11, 688	4.9	16
69	Spherical cobalt/cobalt oxide - Carbon composite anodes for enhanced lithium-ion storage. <i>Electrochimica Acta</i> , 2018 , 264, 191-202	6.7	15
68	Superior Lithium-Ion Storage at Room and Elevated Temperature in an Industrial Woodchip Derived Porous Carbon. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 8706-8712	3.9	15
67	Mesoporous anatase TiO ₂ nanorods as thermally robust anode materials for Li-ion batteries: detailed insight into the formation mechanism. <i>Chemistry - A European Journal</i> , 2013 , 19, 17439-44	4.8	15
66	Engineered heat dissipation and current distribution boron nitride-graphene layer coated on polypropylene separator for high performance lithium metal battery. <i>Journal of Colloid and Interface Science</i> , 2021 , 583, 362-370	9.3	15

65	High-stability tin/carbon battery electrodes produced using reduction expansion synthesis. <i>Carbon</i> , 2018 , 132, 411-419	10.4	14
64	Sonochemical Deposition of Sn, SnO ₂ and Sb on Spherical Hard Carbon Electrodes for Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2014 , 161, A777-A782	3.9	14
63	Catalyst-Free, One-Step Synthesis of Olivary-Shaped Carbon from Olive Oil. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 5691-5695	3.9	14
62	Materials by Design: Tailored Morphology and Structures of Carbon Anodes for Enhanced Battery Safety. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 13334-13342	9.5	13
61	Binder mediated enhanced surface adhesion of cured dry solid lubricant on bearing steel for significant friction and wear reduction under high contact pressure. <i>Carbon</i> , 2019 , 146, 588-596	10.4	13
60	Role of operando microscopy techniques on the advancement of sustainable sodium-ion battery anodes. <i>Journal of Power Sources</i> , 2019 , 437, 226851	8.9	13
59	Enhancing electrochemical performance of thin film lithium ion battery via introducing tilted metal nanopillars as effective current collectors. <i>Nano Energy</i> , 2020 , 69, 104381	17.1	13
58	In Situ Replenishment of Formation Cycle Lithium-Ion Loss for Enhancing Battery Life. <i>Advanced Functional Materials</i> , 2020 , 30, 2003668	15.6	13
57	Upcycling of Spent Lithium Cobalt Oxide Cathodes from Discarded Lithium-Ion Batteries as Solid Lubricant Additive. <i>Environmental Science & Technology</i> , 2019 , 53, 3757-3763	10.3	12
56	Sodium-Ion Battery Anodes Comprising Carbon Sheets: Stable Cycling in Half- and Full-Pouch Cell Configuration. <i>Energy Technology</i> , 2018 , 6, 213-220	3.5	12
55	Basic Medium Heterogeneous Solution Synthesis of MnO Nanoflakes as an Anode or Cathode in Half Cell Configuration (vs. Lithium) of Li-Ion Batteries. <i>Nanomaterials</i> , 2018 , 8,	5.4	12
54	Lithium-ion Battery Thermal Safety by Early Internal Detection, Prediction and Prevention. <i>Scientific Reports</i> , 2019 , 9, 13255	4.9	11
53	All-solid-state Li-metal batteries: role of blending PTFE with PEO and LiTFSI salt as a composite electrolyte with enhanced thermal stability. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 2229-2235	5.8	11
52	Probing the Thermal Safety of Li Metal Batteries. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 120513	3.9	11
51	In Situ Thermal Runaway Detection in Lithium-Ion Batteries with an Integrated Internal Sensor. <i>ACS Applied Energy Materials</i> , 2020 , 3, 7997-8008	6.1	11
50	Bismuth germanate (BiGeO), a promising high-capacity lithium-ion battery anode. <i>Chemical Communications</i> , 2018 , 54, 11483-11486	5.8	11
49	Towards high performance of supercapacitor: New approach to design 3 D architected electrodes with bacteria. <i>Journal of Industrial and Engineering Chemistry</i> , 2019 , 78, 232-238	6.3	9
48	Encapsulated Sb and Sb ₂ O ₃ particles in waste-tire derived carbon as stable composite anodes for sodium-ion batteries. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 3613-3622	5.8	9

47	Li-Ion-Permeable and Electronically Conductive Membrane Comprising Garnet-Type Li ₆ La ₃ Ta _{1.5} Y _{0.5} O ₁₂ and Graphene Toward Ultrastable and High-Rate Lithium Sulfur Batteries. <i>ACS Applied Energy Materials</i> , 2018 , 1, 3733-3741	6.1	9
46	Reversible, stable Li-ion storage in 2 D single crystal orthorhombic HfMoO anodes. <i>Journal of Colloid and Interface Science</i> , 2020 , 565, 197-204	9.3	9
45	Understanding the Na-Ion Storage Mechanism in Na _{3+x} V ₂ Mx(PO ₄) ₃ (M = Ni ²⁺ , Co ²⁺ , Mg ²⁺ ; x = 0.10.5) Cathodes. <i>ACS Applied Energy Materials</i> , 2020 , 3, 8475-8486	6.1	9
44	Li ₂ MnO ₃ Thin Films with Tilted Domain Structure as Cathode for Li-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2019 , 2, 3461-3468	6.1	8
43	Environmental impact, life cycle analysis and battery performance of upcycled carbon anodes. <i>Environmental Science: Nano</i> , 2018 , 5, 1237-1250	7.1	8
42	TiO ₂ nanoparticle embedded nitrogen doped electrospun helical carbon nanofiber-carbon nanotube hybrid anode for lithium-ion batteries. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 2464-2478 ⁸	6.7	8
41	Dipotassium terephthalate as promising potassium storing anode with DFT calculations. <i>Materials Today Energy</i> , 2020 , 17, 100454	7	7
40	Identification and Mitigation of Generated Solid By-Products during Advanced Electrode Materials Processing. <i>Environmental Science & Technology</i> , 2016 , 50, 2627-34	10.3	7
39	Synergistically advancing Li storage property of hydrothermally grown 1D pristine MnO ₂ over a mesh-like interconnected framework of 2D graphene oxide. <i>Journal of Solid State Electrochemistry</i> , 2019 , 23, 1443-1454	2.6	6
38	Room and elevated temperature lithium-ion storage in structurally submicron carbon spheres with mechanistic. <i>Carbon</i> , 2018 , 134, 334-344	10.4	6
37	Three-Dimensional Antimony Nanochains for Lithium-Ion Storage. <i>ACS Applied Nano Materials</i> , 2019 , 2, 5351-5355	5.6	6
36	Single-Step Synthesis of Ruthenium Catalytic Nanocrystallites in a Stable Carbon Support. <i>European Journal of Inorganic Chemistry</i> , 2011 , 2011, 2856-2862	2.3	6
35	Revealing the Thermal Safety of Prussian Blue Cathode for Safer Nonaqueous Batteries. <i>Advanced Energy Materials</i> , 2021 , 11, 2101764	21.8	6
34	Nanostructured LiTi ₂ (PO ₄) ₃ anode with superior lithium and sodium storage capability aqueous electrolytes. <i>Journal of Power Sources</i> , 2021 , 481, 229110	8.9	6
33	Laser-induced atmospheric Cu ₂ O formation on copper surface with enhanced electrochemical performance for non-enzymatic glucose sensing. <i>Journal of Materials Chemistry C</i> ,	7.1	6
32	Cavitation and radicals drive the sonochemical synthesis of functional polymer spheres. <i>Applied Physics Letters</i> , 2016 , 109, 041901	3.4	5
31	Safer lithium-ion battery anode based on Ti ₃ C ₂ T _z MXene with thermal safety mechanistic elucidation. <i>Chemical Engineering Journal</i> , 2021 , 419, 129387	14.7	5
30	Tailored sonochemical synthesis of V ₂ O ₅ /graphene nanoplatelets composites and its enhanced Li-ion insertion properties. <i>Materials Research Bulletin</i> , 2019 , 114, 37-44	5.1	4

29	Kinetic Pathways To Control Hydrogen Evolution and Nanocarbon Allotrope Formation via Thermal Decomposition of Polyethylene. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 9706-9714	3.8	4
28	Fabrication of Magnetic Nanoparticles Using RAPET Technique with or without Employing External Magnetic Field. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 6627-6637	3.8	4
27	Discharge State of Layered P2-Type Cathode Reveals Unsafe than Charge Condition in Thermal Runaway Event for Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 31594-31604	9.5	4
26	WS2 anode in Na and K-ion battery: Effect of upper cut-off potential on electrochemical performance. <i>Electrochimica Acta</i> , 2021 , 383, 138339	6.7	4
25	Structural orientation effect of cellulose nanocrystals (CNC) films on electrochemical kinetics and stability in lithium-ion batteries. <i>Chemical Engineering Journal</i> , 2021 , 417, 128128	14.7	4
24	Investigating the stable operating voltage for the MnFe2O4 Li-ion battery anode. <i>Sustainable Energy and Fuels</i> , 2021 , 5, 1904-1913	5.8	4
23	Investigation of Response of LiCoO2 Cathode to Dynamic Impact Using Raman Imaging-Based Analyses. <i>Jom</i> , 2018 , 70, 1423-1429	2.1	4
22	Lithium Metal Battery Pouch Cell Assembly and Prototype Demonstration Using Tailored Polypropylene Separator. <i>Energy Technology</i> , 2020 , 8, 2000094	3.5	3
21	Atomic-Scale Understanding of Li Storage Processes in the Ti4C3 and Chemically Ordered Ti2Ta2C3 MXenes: A Theoretical and Experimental Assessment. <i>ACS Applied Energy Materials</i> ,	6.1	3
20	Ultrafast, dry microwave superheating for the synthesis of an SbO-GNP hybrid anode to investigate the Na-ion storage compatibility in ester and ether electrolytes. <i>Chemical Communications</i> , 2020 , 56, 9663-9666	5.8	3
19	Flame retardant vermiculite coated on polypropylene separator for lithium-ion batteries. <i>Applied Clay Science</i> , 2021 , 208, 106111	5.2	3
18	Hysteresis abated P2-type NaCoO2 cathode reveals highly reversible multiple phase transitions for high-rate sodium-ion batteries. <i>Sustainable Energy and Fuels</i> , 2021 , 5, 3219-3228	5.8	3
17	Operando Monitoring of Electrode Temperatures During Overcharge-Caused Thermal Runaway. <i>Energy Technology</i> , 2021 , 9, 2100497	3.5	3
16	Blocking Polysulfides in GrapheneSulfur Cathodes of LithiumSulfur Batteries through Atomic Layer Deposition of Alumina. <i>Energy Technology</i> , 2019 , 7, 1900621	3.5	2
15	Freestanding polyimide fiber network as thermally safer separator for high-performance Li metal batteries. <i>Electrochimica Acta</i> , 2021 , 377, 138069	6.7	2
14	One-step combustion synthesis of carbon-coated NiO/Ni composites for lithium and sodium storage. <i>Journal of Alloys and Compounds</i> , 2021 , 884, 160927	5.7	2
13	Worldwide ubiquitous utilization of lithium-ion batteries: What we have done, are doing, and could do safely once they are dead?. <i>Journal of Power Sources</i> , 2022 , 523, 231015	8.9	1
12	Role of the Solvation Shell Structure and Dynamics on K-Ion and Li-Ion Transport in Mixed Carbonate Electrolytes. <i>Batteries and Supercaps</i> ,	5.6	1

11	Rheological and Wettability Properties of Engine Oil with a Submicron Spherical Carbon Particle Lubricant Mixture. <i>International Journal of Automotive Technology</i> , 2020 , 21, 1475-1482	1.6	1
10	Single-Source Alkoxide Precursor Approach to Titanium Molybdate, TiMoO, and Its Structure, Electrochemical Properties, and Potential as an Anode Material for Alkali Metal Ion Batteries. <i>Inorganic Chemistry</i> , 2021 , 60, 3593-3603	5.1	1
9	Layered Na _x CoO ₂ -based cathodes for advanced Na-ion batteries: review on challenges and advancements. <i>Ionics</i> , 2021 , 27, 4549	2.7	1
8	Mechanistic Elucidation of Electronically Conductive PEDOT:PSS Tailored Binder for a Potassium-Ion Battery Graphite Anode: Electrochemical, Mechanical, and Thermal Safety Aspects. <i>Advanced Energy Materials</i> , 2103439	21.8	1
7	Effect of Synthesis Method Using Varying Types of Micropore Level Sulfur Infiltration on Electrochemical Performance in Lithium Sulfur Batteries. <i>Energy Technology</i> , 2019 , 7, 1900194	3.5	0
6	Is the Plastic Pandemic a Greater Threat to Humankind than COVID-19?. <i>ACS Sustainable Chemistry and Engineering</i> ,	8.3	0
5	First-principles view of the interaction between Li and BiGeO anodes. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 26967-26971	3.6	0
4	Ultrafast anchored SnO ₂ nanoparticles revealed capacity fade and hysteresis abated stable cycling performance for high-rate lithium-ion batteries. <i>Carbon</i> , 2021 , 185, 608-608	10.4	0
3	Prolate carbon architecture as a novel Li-ion battery anode with kinetic study. <i>Carbon Trends</i> , 2022 , 8, 100178	0	0
2	A Correlative Study of HRTEM, HAADF-STEM, and STEM-EELS Spectrum Imaging for Biphasic Electrochemically Active TiO ₂ . <i>Microscopy and Microanalysis</i> , 2015 , 21, 2133-2134	0.5	
1	Thermal Safety Analysis of Disordered Li-Rich Rock salt Li _{1.3} Mn _{0.4} Nb _{0.3} O ₂ Cathode. <i>ACS Applied Energy Materials</i> , 2022 , 5, 516-523	6.1	