Vilas G Pol

List of Publications by Year
in descending order

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162 papers	6,519 citations	57719 44 h-index	85498 71 g-index
166 all docs	166 docs citations	166 times ranked	8103 citing authors

#	Article	IF	Citations
1	Ultrasound Assisted Design of Sulfur/Carbon Cathodes with Partially Fluorinated Ether Electrolytes for Highly Efficient Li/S Batteries. Advanced Materials, 2013, 25, 1608-1615.	11.1	224
2	Improving the high-temperature performance of LiMn2O4 spinel electrodes by coating the active mass with MgO via a sonochemical method. Electrochemistry Communications, 2003, 5, 940-945.	2.3	209
3	Binder-Free N- and O-Rich Carbon Nanofiber Anodes for Long Cycle Life K-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 17872-17881.	4.0	194
4	Spherical carbon particles and carbon nanotubes prepared by autogenic reactions: Evaluation as anodes in lithium electrochemical cells. Energy and Environmental Science, 2011, 4, 1904-1912.	15.6	165
5	Electrochemical performance of MXenes as K-ion battery anodes. Chemical Communications, 2017, 53, 6883-6886.	2.2	157
6	Carbon spherules: synthesis, properties and mechanistic elucidation. Carbon, 2004, 42, 111-116.	5.4	153
7	Pollen-derived porous carbon by KOH activation: Effect of physicochemical structure on CO2 adsorption. Journal of CO2 Utilization, 2019, 29, 146-155.	3.3	148
8	Ordered Network of Interconnected SnO₂ Nanoparticles for Excellent Lithiumâ€ion Storage. Advanced Energy Materials, 2015, 5, 1401289.	10.2	147
9	LiF modified stable flexible PVDF-garnet hybrid electrolyte for high performance all-solid-state Liâ€“S batteries. Energy Storage Materials, 2020, 24, 198-207.	9.5	139
10	Spherical Carbon as a New High-Rate Anode for Sodium-ion Batteries. Electrochimica Acta, 2014, 127, 61-67.	2.6	135
11	Porous carbon sphere anodes for enhanced lithium-ion storage. Journal of Materials Chemistry A, 2015, 3, 9861-9868.	5.2	130
12	Upcycling: Converting Waste Plastics into Paramagnetic, Conducting, Solid, Pure Carbon Microspheres. Environmental Science & Technology, 2010, 44, 4753-4759.	4.6	123
13	CO2 Capture in the Sustainable Wheat-Derived Activated Microporous Carbon Compartments. Scientific Reports, 2016, 6, 34590.	1.6	119
14	Carbon Anodes for Nonaqueous Alkali Metalâ€ion Batteries and Their Thermal Safety Aspects. Advanced Energy Materials, 2019, 9, 1900550.	10.2	115
15	Ultrasmooth Submicrometer Carbon Spheres as Lubricant Additives for Friction and Wear Reduction. ACS Applied Materials & Interfaces, 2015, 7, 5514-5521.	4.0	105
16	Tunable, Functional Carbon Spheres Derived from Rapid Synthesis of Resorcinol-Formaldehyde Resins. ACS Applied Materials & Interfaces, 2014, 6, 10649-10655.	4.0	91
17	Reactions under Autogenic Pressure at Elevated Temperature (RAPET) of Various Alkoxides: Formation of Metals/Metal Oxides-Carbon Core-Shell Structures. Chemistry - A European Journal, 2004, 10, 4467-4473.	1.7	90
18	Remediating plastic waste into carbon nanotubes. Journal of Environmental Monitoring, 2010, 12, 455-459.	2.1	88

#	ARTICLE	IF	CITATIONS
19	Sustainable Potassium-Ion Battery Anodes Derived from Waste-Tire Rubber. Journal of the Electrochemical Society, 2017, 164, A1234-A1238.	1.3	88
20	Temperature dependent electrochemical performance of graphite anodes for K-ion and Li-ion batteries. Journal of Power Sources, 2019, 410-411, 124-131.	4.0	86
21	Tailored Carbon Anodes Derived from Biomass for Sodium-Ion Storage. ACS Sustainable Chemistry and Engineering, 2017, 5, 8720-8728.	3.2	82
22	One-step solution combustion synthesis of CuO/Cu2O/C anode for long cycle life Li-ion batteries. Carbon, 2019, 142, 51-59.	5.4	79
23	Novel Synthesis of High Surface Area Silicon Carbide by RAPET (Reactions under Autogenic Pressure at) Tj ETQq1 1 0.784314 rgBT /Ov	3.2	78
24	High Performance Lithium Metal Batteries Enabled by Surface Tailoring of Polypropylene Separator with a Polydopamine/Graphene Layer. Advanced Energy Materials, 2018, 8, 1802665.	10.2	72
25	Encapsulation and networking of silicon nanoparticles using amorphous carbon and graphite for high performance Li-ion batteries. Carbon, 2019, 148, 36-43.	5.4	72
26	The Study of Carbon-Coated V[sub 2]O[sub 5] Nanoparticles as a Potential Cathodic Material for Li Rechargeable Batteries. Journal of the Electrochemical Society, 2007, 154, A605.	1.3	69
27	In Situ Mechanistic Elucidation of Superior Siâ€Câ€Graphite Liâ€Ion Battery Anode Formation with Thermal Safety Aspects. Advanced Energy Materials, 2020, 10, 1902799.	10.2	67
28	Pushing the theoretical capacity limits of iron oxide anodes: capacity rise of Î³-Fe₂O₃nanoparticles in lithium-ion batteries. Journal of Materials Chemistry A, 2016, 4, 18107-18115.	5.2	61
29	Application of Microwave Superheating for the Synthesis of TiO2 Rods. Langmuir, 2007, 23, 11211-11216.	1.6	58
30	MoS2 nanolayer coated carbon spheres as an oil additive for enhanced tribological performance. Carbon, 2016, 110, 367-377.	5.4	57
31	Advancement in sodium-ion rechargeable batteries. Current Opinion in Chemical Engineering, 2015, 9, 34-41.	3.8	55
32	Strongly correlated perovskite lithium ion shuttles. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9672-9677.	3.3	55
33	Room-temperature, high-voltage solid-state lithium battery with composite solid polymer electrolyte with in-situ thermal safety study. Chemical Engineering Journal, 2020, 400, 125996.	6.6	55
34	Stabilization of Metastable Face-Centered Cubic Cobalt and the Tetragonal Phase of Zirconia by a Carbon Shell:â€‰ Reaction under Autogenic Pressure at Elevated Temperature of CoZr2(acac)2(OiPr)8. Chemistry of Materials, 2004, 16, 1793-1798.	3.2	54
35	Toward High-Performance Lithiumâ€“Sulfur Batteries: Upcycling of LDPE Plastic into Sulfonated Carbon Scaffold via Microwave-Promoted Sulfonation. ACS Applied Materials & Interfaces, 2018, 10, 14827-14834.	4.0	54
36	Amorphous Carbon Chips Li-Ion Battery Anodes Produced through Polyethylene Waste Upcycling. ACS Omega, 2018, 3, 17520-17527.	1.6	53

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37	Surface Functionalization of a Conventional Polypropylene Separator with an Aluminum Nitride Layer toward Ultrastable and High-Rate Lithium Metal Anodes. ACS Applied Materials & Interfaces, 2019, 11, 3917-3924.	4.0	53
38	Facile Synthesis of Photoluminescent ZnS and ZnSe Nanopowders. Langmuir, 2008, 24, 10462-10466.	1.6	52
39	Double transition metal MXene (TixTa4â^'xC3) 2D materials as anodesÂfor Li-ionÂbatteries. Scientific Reports, 2021, 11, 688.	1.6	52
40	Hierarchical Micro/Mesoporous Copper Structure with Enhanced Antimicrobial Property via Laser Surface Texturing. Advanced Materials Interfaces, 2020, 7, 1901890.	1.9	51
41	Upcycling of Packing-Peanuts into Carbon Microsheet Anodes for Lithium-Ion Batteries. Environmental Science & Technology, 2015, 49, 11191-11198.	4.6	48
42	Li-ion storage in an amorphous, solid, spheroidal carbon anode produced by dry-autoclaving of coffee oil. Carbon, 2018, 133, 62-68.	5.4	48
43	Towards highly stable lithium sulfur batteries: Surface functionalization of carbon nanotube scaffolds. Carbon, 2018, 131, 175-183.	5.4	47
44	Long cycle life microporous spherical carbon anodes for sodium-ion batteries derived from furfuryl alcohol. Journal of Materials Chemistry A, 2016, 4, 6271-6275.	5.2	46
45	Probing the evolution and morphology of hard carbon spheres. Carbon, 2014, 68, 104-111.	5.4	44
46	Highly porous three-dimensional carbon nanotube foam as a freestanding anode for a lithium-ion battery. RSC Advances, 2016, 6, 79734-79744.	1.7	44
47	Sonochemical Deposition of Au Nanoparticles on Titania and the Significant Decrease in the Melting Point of Gold. Journal of Nanoscience and Nanotechnology, 2005, 5, 975-979.	0.9	43
48	Facile Synthesis of Novel Photoluminescent ZnO Micro- and Nanopencils. Langmuir, 2008, 24, 13640-13645.	1.6	43
49	Dry Autoclaving for the Nanofabrication of Sulfides, Selenides, Borides, Phosphides, Nitrides, Carbides, and Oxides. Advanced Materials, 2011, 23, 1179-1190.	11.1	43
50	Towards Next Generation Lithium-Sulfur Batteries: Non-Conventional Carbon Compartments/Sulfur Electrodes and Multi-Scale Analysis. Journal of the Electrochemical Society, 2016, 163, A730-A741.	1.3	43
51	Rapid Upcycling of Waste Polyethylene Terephthalate to Energy Storing Disodium Terephthalate Flowers with DFT Calculations. ACS Sustainable Chemistry and Engineering, 2020, 8, 6252-6262.	3.2	43
52	Microwave-assisted synthesis of tin sulfide nanoflakes and their electrochemical performance as Li-inserting materials. Journal of Solid State Electrochemistry, 2006, 11, 186-194.	1.2	42
53	Waste Biomass-Derived Carbon Anode for Enhanced Lithium Storage. ACS Omega, 2020, 5, 19715-19720.	1.6	42
54	Lithium storage in structurally tunable carbon anode derived from sustainable source. Carbon, 2017, 121, 134-142.	5.4	41

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55	Tailored Solution Combustion Synthesis of High Performance ZnCo₂O₄ Anode Materials for Lithium-Ion Batteries. Industrial & Engineering Chemistry Research, 2017, 56, 7173-7183.	1.8	41
56	Thermal decomposition of tetraethylorthosilicate (TEOS) produces silicon coated carbon spheres. Journal of Materials Chemistry, 2004, 14, 966.	6.7	40
57	Cobalt Nanoparticles Chemically Bonded to Porous Carbon Nanosheets: A Stable High-Capacity Anode for Fast-Charging Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 4652-4661.	4.0	40
58	Surface Functionalization of Carbon Architecture with Nanoâ€MnO₂ for Effective Polysulfide Confinement in Lithiumâ€“Sulfur Batteries. ChemSusChem, 2018, 11, 2375-2381.	3.6	39
59	In Situ Thermal Runaway Detection in Lithium-Ion Batteries with an Integrated Internal Sensor. ACS Applied Energy Materials, 2020, 3, 7997-8008.	2.5	39
60	Enhanced Lithium- and Sodium-Ion Storage in an Interconnected Carbon Network Comprising Electronegative Fluorine. ACS Applied Materials & Interfaces, 2017, 9, 18790-18798.	4.0	38
61	Ge2Sb2Se5 Glass as High-capacity Promising Lithium-ion Battery Anode. Nano Energy, 2020, 68, 104326.	8.2	38
62	Wild Fungus Derived Carbon Fibers and Hybrids as Anodes for Lithium-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2016, 4, 2624-2631.	3.2	37
63	Ultrasound-assisted synthesis of sodium powder as electrode additive to improve cycling performance of sodium-ion batteries. Journal of Power Sources, 2018, 396, 476-482.	4.0	37
64	Hybrid plasmonic Auâ€“TiN vertically aligned nanocomposites: a nanoscale platform towards tunable optical sensing. Nanoscale Advances, 2019, 1, 1045-1054.	2.2	37
65	Mechanistic elucidation of thermal runaway in potassium-ion batteries. Journal of Power Sources, 2018, 375, 131-137.	4.0	36
66	A comparative study of cellulose derived structured carbons on the electrochemical behavior of lithium metal-based batteries. Energy Storage Materials, 2019, 19, 179-185.	9.5	36
67	Sonochemical decoration of multi-walled carbon nanotubes with nanocrystalline tin. New Journal of Chemistry, 2004, 28, 1056.	1.4	32
68	From Allergens to Battery Anodes: Nature-Inspired, Pollen Derived Carbon Architectures for Room- and Elevated- Temperature Li-ion Storage. Scientific Reports, 2016, 6, 20290.	1.6	32
69	Solving two environmental problems simultaneously: Scalable production of carbon microsheets from structured packing peanuts with tailored microporosity for efficient CO2 capture. Chemical Engineering Journal, 2020, 379, 122219.	6.6	32
70	Biomineralization-inspired crystallization of monodisperse Î±-Mn₂O₃ octahedra and assembly of high-capacity lithium-ion battery anodes. Journal of Materials Chemistry A, 2017, 5, 6079-6089.	5.2	31
71	Engineered heat dissipation and current distribution boron nitride-graphene layer coated on polypropylene separator for high performance lithium metal battery. Journal of Colloid and Interface Science, 2021, 583, 362-370.	5.0	31
72	Probing the Thermal Safety of Li Metal Batteries. Journal of the Electrochemical Society, 2020, 167, 120513.	1.3	31

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73	In situ sonochemical synthesis of luminescent Sn@C-dots and a hybrid Sn@C-dots@Sn anode for lithium-ion batteries. RSC Advances, 2016, 6, 66256-66265.	1.7	30
74	Lithium-ion Battery Thermal Safety by Early Internal Detection, Prediction and Prevention. Scientific Reports, 2019, 9, 13255.	1.6	30
75	LiNi0.5Mn0.3Co0.2O2/Au nanocomposite thin film cathode with enhanced electrochemical properties. Nano Energy, 2018, 46, 290-296.	8.2	29
76	In Situ Replenishment of Formation Cycle Lithiumâ€Ion Loss for Enhancing Battery Life. Advanced Functional Materials, 2020, 30, 2003668.	7.8	29
77	Revealing the Thermal Safety of Prussian Blue Cathode for Safer Nonaqueous Batteries. Advanced Energy Materials, 2021, 11, 2101764.	10.2	29
78	Applied Magnetic Field Rejects the Coating of Ferromagnetic Carbon from the Surface of Ferromagnetic Cobalt: RAPET of CoZr2(acac)2(OiPr)8. Journal of Physical Chemistry B, 2005, 109, 6121-6125.	1.2	28
79	Novel tertiary dry solid lubricant on steel surfaces reduces significant friction and wear under high load conditions. Carbon, 2017, 123, 7-17.	5.4	28
80	Upcycling of Spent Lithium Cobalt Oxide Cathodes from Discarded Lithium-Ion Batteries as Solid Lubricant Additive. Environmental Science & Technology, 2019, 53, 3757-3763.	4.6	27
81	A two-step process for the synthesis of MoTe2 nanotubes: combining a sonochemical technique with heat treatment. Journal of Materials Chemistry, 2003, 13, 2985.	6.7	26
82	Fabrication of Carbon/Silicon Composite as Lithium-ion Anode with Enhanced Cycling Stability. Electrochimica Acta, 2017, 247, 626-633.	2.6	26
83	Broad Range Tuning of Phase Transition Property in VO₂ Through Metalâ€Ceramic Nanocomposite Design. Advanced Functional Materials, 2019, 29, 1903690.	7.8	26
84	Combining MoS2 or MoSe2 nanoflakes with carbon by reacting Mo(CO)6 with S or Se under their autogenic pressure at elevated temperature. Journal of Materials Science, 2008, 43, 1966-1973.	1.7	25
85	Uniform metal-ion flux through interface-modified membrane for highly stable metal batteries. Electrochimica Acta, 2018, 283, 517-527.	2.6	25
86	Understanding the Na-Ion Storage Mechanism in Na_{3+x}V_{2â€“x}M_x(PO₄)₃ (M = Ni²⁺, Co²⁺, Mg²⁺; x = 0.1â€“0.5) Cathodes. ACS Applied Energy Materials, 2020, 3, 8475-8486.	2.5	25
87	Electrospun nanoporous TiO 2 nanofibers wrapped with reduced graphene oxide for enhanced and rapid lithium-ion storage. Materials Characterization, 2017, 131, 64-71.	1.9	24
88	Worldwide ubiquitous utilization of lithium-ion batteries: What we have done, are doing, and could do safely once they are dead?. Journal of Power Sources, 2022, 523, 231015.	4.0	24
89	Oneâ€Step Synthesis and Characterization of SiC, Mo 2 C, and WC Nanostructures. European Journal of Inorganic Chemistry, 2009, 2009, 709-715.	1.0	23
90	Superior Lithium-Ion Storage at Room and Elevated Temperature in an Industrial Woodchip Derived Porous Carbon. Industrial & Engineering Chemistry Research, 2016, 55, 8706-8712.	1.8	23

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91	Structural orientation effect of cellulose nanocrystals (CNC) films on electrochemical kinetics and stability in lithium-ion batteries. Chemical Engineering Journal, 2021, 417, 128128.	6.6	23
92	Coreâ˜'Shell Nanorods of SnSâ˜'C and SnSeâ˜'C:â€‰ Synthesis and Characterization. Langmuir, 2008, 24, 5135-5139.	1.6	22
93	Synthesis and Tribology of Micro-Carbon Sphere Additives for Enhanced Lubrication. Tribology Transactions, 2015, 58, 474-480.	1.1	22
94	All-solid-state Li-metal batteries: role of blending PTFE with PEO and LiTFSI salt as a composite electrolyte with enhanced thermal stability. Sustainable Energy and Fuels, 2020, 4, 2229-2235.	2.5	22
95	The Thermal Decomposition of Three Magnetic Acetates at Their Autogenic Pressure Yields Different Products. Why?. European Journal of Inorganic Chemistry, 2007, 2007, 2089-2096.	1.0	21
96	TiO2 nanoparticle embedded nitrogen doped electrospun helical carbon nanofiber-carbon nanotube hybrid anode for lithium-ion batteries. International Journal of Hydrogen Energy, 2021, 46, 2464-2478.	3.8	21
97	Safer lithium-ion battery anode based on Ti3C2Tz MXene with thermal safety mechanistic elucidation. Chemical Engineering Journal, 2021, 419, 129387.	6.6	21
98	Growth of carbon sausages filled with in situ formed tungsten oxide nanorods: thermal dissociation of tungsten(vi) isopropoxide in isopropanol. New Journal of Chemistry, 2006, 30, 370.	1.4	20
99	Synthesis of monodispersed prolate spheroid shaped paramagnetic carbon. Carbon, 2009, 47, 1050-1055.	5.4	19
100	Spherical cobalt/cobalt oxide - Carbon composite anodes for enhanced lithium-ion storage. Electrochimica Acta, 2018, 264, 191-202.	2.6	19
101	Bismuth germanate (Bi₄Ge₃O₁₂), a promising high-capacity lithium-ion battery anode. Chemical Communications, 2018, 54, 11483-11486.	2.2	19
102	Mechanistic Elucidation of Electronically Conductive PEDOT:PSS Tailored Binder for a Potassiumâ€ion Battery Graphite Anode: Electrochemical, Mechanical, and Thermal Safety Aspects. Advanced Energy Materials, 2022, 12, .	10.2	19
103	High-stability tin/carbon battery electrodes produced using reduction expansion synthesis. Carbon, 2018, 132, 411-419.	5.4	18
104	Basic Medium Heterogeneous Solution Synthesis of Î±-MnO2 Nanoflakes as an Anode or Cathode in Half Cell Configuration (vs. Lithium) of Li-Ion Batteries. Nanomaterials, 2018, 8, 608.	1.9	18
105	Synergistically advancing Li storage property of hydrothermally grown 1D pristine MnO2 over a mesh-like interconnected framework of 2D graphene oxide. Journal of Solid State Electrochemistry, 2019, 23, 1443-1454.	1.2	18
106	Enhancing electrochemical performance of thin film lithium ion battery via introducing tilted metal nanopillars as effective current collectors. Nano Energy, 2020, 69, 104381.	8.2	18
107	WS2 anode in Na and K-ion battery: Effect of upper cut-off potential on electrochemical performance. Electrochimica Acta, 2021, 383, 138339.	2.6	18
108	Sonochemical Deposition of Sn, SnO₂and Sb on Spherical Hard Carbon Electrodes for Li-Ion Batteries. Journal of the Electrochemical Society, 2014, 161, A777-A782.	1.3	17

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109	Hysteresis abated P2-type NaCoO₂ cathode reveals highly reversible multiple phase transitions for high-rate sodium-ion batteries. Sustainable Energy and Fuels, 2021, 5, 3219-3228.	2.5	17
110	Discharge State of Layered P2-Type Cathode Reveals Unsafe than Charge Condition in Thermal Runaway Event for Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 31594-31604.	4.0	17
111	Sodiumâ€Ion Battery Anodes Comprising Carbon Sheets: Stable Cycling in Halfâ€and Fullâ€Pouch Cell Configuration. Energy Technology, 2018, 6, 213-220.	1.8	16
112	Role of operando microscopy techniques on the advancement of sustainable sodium-ion battery anodes. Journal of Power Sources, 2019, 437, 226851.	4.0	16
113	Materials by Design: Tailored Morphology and Structures of Carbon Anodes for Enhanced Battery Safety. ACS Applied Materials & Interfaces, 2019, 11, 13334-13342.	4.0	16
114	Binder mediated enhanced surface adhesion of cured dry solid lubricant on bearing steel for significant friction and wear reduction under high contact pressure. Carbon, 2019, 146, 588-596.	5.4	16
115	Laser-induced atmospheric Cu_xO formation on copper surface with enhanced electrochemical performance for non-enzymatic glucose sensing. Journal of Materials Chemistry C, 2021, 9, 14997-15010.	2.7	16
116	Catalyst-Free, One-Step Synthesis of Olivary-Shaped Carbon from Olive Oil. Industrial & Engineering Chemistry Research, 2009, 48, 5691-5695.	1.8	15
117	Mesoporous Anatase TiO₂ Nanorods as Thermally Robust Anode Materials for Liâ€Ion Batteries: Detailed Insight into the Formation Mechanism. Chemistry - A European Journal, 2013, 19, 17439-17444.	1.7	15
118	Critical-Point-Dried, Porous, and Safer Aramid Nanofiber Separator for High-Performance Durable Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 29176-29187.	4.0	15
119	Towards high performance of supercapacitor: New approach to design 3 D architectured electrodes with bacteria. Journal of Industrial and Engineering Chemistry, 2019, 78, 232-238.	2.9	14
120	Flame retardant vermiculite coated on polypropylene separator for lithium-ion batteries. Applied Clay Science, 2021, 208, 106111.	2.6	14
121	Atomic-Scale Understanding of Li Storage Processes in the Ti₄C₃ and Chemically Ordered Ti₂Ta₂C₃ MXenes: A Theoretical and Experimental Assessment. ACS Applied Energy Materials, 2022, 5, 1801-1809.	2.5	14
122	Three-Dimensional Antimony Nanochains for Lithium-Ion Storage. ACS Applied Nano Materials, 2019, 2, 5351-5355.	2.4	13
123	Encapsulated Sb and Sb₂O₃ particles in waste-tire derived carbon as stable composite anodes for sodium-ion batteries. Sustainable Energy and Fuels, 2020, 4, 3613-3622.	2.5	13
124	Li-Ion-Permeable and Electronically Conductive Membrane Comprising Garnet-Type Li₆La₃Ta_{1.5}Y_{0.5}O₁₂ and Graphene Toward Ultrastable and High-Rate Lithium Sulfur Batteries. ACS Applied Energy Materials, 2018, 1, 3733-3741.	2.5	12
125	Dipotassium terephthalate as promising potassium storing anode with DFT calculations. Materials Today Energy, 2020, 17, 100454.	2.5	12
126	Investigating Architectured Na₃V₂(PO₄)₃/C/CNF Hybrid Cathode in Aqueous Zinc Ion Battery. Energy & Fuels, 2021, 35, 16194-16201.	2.5	12

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127	Is the Plastic Pandemic a Greater Threat to Humankind than COVID-19?. ACS Sustainable Chemistry and Engineering, 2022, 10, 3150-3154.	3.2	12
128	Li₂MnO₃ Thin Films with Tilted Domain Structure as Cathode for Li-Ion Batteries. ACS Applied Energy Materials, 2019, 2, 3461-3468.	2.5	11
129	Reversible, stable Li-ion storage in 2 D single crystal orthorhombic Î±â€“MoO3 anodes. Journal of Colloid and Interface Science, 2020, 565, 197-204.	5.0	11
130	Nanostructured LiTi2(PO4)3 anode with superior lithium and sodium storage capability aqueous electrolytes. Journal of Power Sources, 2021, 481, 229110.	4.0	11
131	Freestanding polyimide fiber network as thermally safer separator for high-performance Li metal batteries. Electrochimica Acta, 2021, 377, 138069.	2.6	11
132	Layered NaxCoO2-based cathodes for advanced Na-ion batteries: review on challenges and advancements. Ionics, 2021, 27, 4549-4572.	1.2	11
133	Operando Monitoring of Electrode Temperatures During Overchargeâ€Caused Thermal Runaway. Energy Technology, 2021, 9, 2100497.	1.8	11
134	A novel cyclopentyl methyl ether electrolyte solvent with a unique solvation structure for subzero (â˜’40 Â°C) lithium-ion batteries. Chemical Communications, 2022, 58, 5124-5127.	2.2	11
135	Impedimetric Chemosensing of Volatile Organic Compounds Released from Li-Ion Batteries. ACS Sensors, 2022, 7, 674-683.	4.0	11
136	In Situ Thermal Safety Aspect of the Electrospun Polyimide-Al₂O₃ Separator Reveals Less Exothermic Heat Energies Than Polypropylene at the Thermal Runaway Event of Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 28310-28320.	4.0	10
137	Environmental impact, life cycle analysis and battery performance of upcycled carbon anodes. Environmental Science: Nano, 2018, 5, 1237-1250.	2.2	9
138	Investigating the stable operating voltage for the MnFe₂O₄ Li-ion battery anode. Sustainable Energy and Fuels, 2021, 5, 1904-1913.	2.5	9
139	One-step combustion synthesis of carbon-coated NiO/Ni composites for lithium and sodium storage. Journal of Alloys and Compounds, 2021, 884, 160927.	2.8	9
140	Identification and Mitigation of Generated Solid By-Products during Advanced Electrode Materials Processing. Environmental Science & Technology, 2016, 50, 2627-2634.	4.6	7
141	Room and elevated temperature lithium-ion storage in structurally submicron carbon spheres with mechanistic. Carbon, 2018, 134, 334-344.	5.4	7
142	Single-Step Synthesis of Ruthenium Catalytic Nanocrystallites in a Stable Carbon Support. European Journal of Inorganic Chemistry, 2011, 2011, 2856-2862.	1.0	6
143	Tailored sonochemical synthesis of V2O5	graphene nanoplatelets composites and its enhanced Li-ion insertion properties. Materials Research Bulletin, 2019, 114, 37-44.	2.7	6
144	Cavitation and radicals drive the sonochemical synthesis of functional polymer spheres. Applied Physics Letters, 2016, 109, .	1.5	5

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145	Blocking Polysulfides in Grapheneâ€“Sulfur Cathodes of Lithiumâ€“Sulfur Batteries through Atomic Layer Deposition of Alumina. Energy Technology, 2019, 7, 1900621.	1.8	5
146	Ultrafast, dry microwave superheating for the synthesis of an SbOxâ€“GNP hybrid anode to investigate the Na-ion storage compatibility in ester and ether electrolytes. Chemical Communications, 2020, 56, 9663-9666.	2.2	5
147	Lithium Metal Battery Pouch Cell Assembly and Prototype Demonstration Using Tailored Polypropylene Separator. Energy Technology, 2020, 8, 2000094.	1.8	5
148	Ultrafast anchored SnO2 nanoparticles revealed capacity fade and hysteresis abated stable cycling performance for high-rate lithium-ion batteries. Carbon, 2021, 185, 608-618.	5.4	5
149	Influence of the fluoroethylene carbonate on the electrochemical behavior of Bi3Ge4O12 as Lithium-ion anode. Journal of Colloid and Interface Science, 2022, 627, 64-71.	5.0	5
150	Fabrication of Magnetic Nanoparticles Using RAPET Technique with or without Employing External Magnetic Field. Journal of Physical Chemistry C, 2008, 112, 6627-6637.	1.5	4
151	Kinetic Pathways To Control Hydrogen Evolution and Nanocarbon Allotrope Formation via Thermal Decomposition of Polyethylene. Journal of Physical Chemistry C, 2014, 118, 9706-9714.	1.5	4
152	Investigation of Response of LiCoO2 Cathode to Dynamic Impact Using Raman Imaging-Based Analyses. Jom, 2018, 70, 1423-1429.	0.9	4
153	Effect of Synthesis Method Using Varying Types of Micropore Level Sulfur Infiltration on Electrochemical Performance in Lithiumâ€“Sulfur Batteries. Energy Technology, 2019, 7, 1900194.	1.8	4
154	Single-Source Alkoxide Precursor Approach to Titanium Molybdate, TiMoO5, and Its Structure, Electrochemical Properties, and Potential as an Anode Material for Alkali Metal Ion Batteries. Inorganic Chemistry, 2021, 60, 3593-3603.	1.9	4
155	Prolate carbon architecture as a novel Li-ion battery anode with kinetic study. Carbon Trends, 2022, 8, 100178.	1.4	4
156	Role of the Solvation Shell Structure and Dynamics on Kâ€ion and Liâ€ion Transport in Mixed Carbonate Electrolytes. Batteries and Supercaps, 0, , .	2.4	3
157	Thermal Safety Analysis of Disordered Li-Rich Rock salt Li_{1.3}Mn_{0.4}Nb_{0.3}O₂ Cathode. ACS Applied Energy Materials, 2022, 5, 516-523.	2.5	3
158	First-principles view of the interaction between Li and Bi₄Ge₃O₁₂ anodes. Physical Chemistry Chemical Physics, 2020, 22, 26967-26971.	1.3	2
159	Rheological and Wettability Properties of Engine Oil with a Submicron Spherical Carbon Particle Lubricant Mixture. International Journal of Automotive Technology, 2020, 21, 1475-1482.	0.7	1
160	Mesoporous Weaved Turbostratic Nanodomains Enable Stable Na⁺ Ion Storage and Micropore Filling is Revealed to be More Unsafe than Adsorption and Deintercalation. ACS Applied Materials & Interfaces, 2022, 14, 684-697.	4.0	1
161	A Correlative Study of HRTEM, HAADF-STEM, and STEM-EELS Spectrum Imaging for Biphasic Electrochemically Active TiO2. Microscopy and Microanalysis, 2015, 21, 2133-2134.	0.2	0
162	In Situ Thermal Runaway Detection in Lithium-Ion Batteries with Integrated Internal Sensor. SSRN Electronic Journal, 0, , .	0.4	0