Circular economy strategies for electric vehicle batterie materials

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#	Article	IF	Citations
1	A qualitative assessment of lithium ion battery recycling processes. Resources, Conservation and Recycling, 2021, 165, 105219.	10.8	146
3	Social and Technological Impact of Businesses Surrounding Electric Vehicles. Clean Technologies, 2021, 3, 81-97.	4.2	6
4	Challenges in Ecofriendly Battery Recycling and Closed Material Cycles: A Perspective on Future Lithium Battery Generations. Metals, 2021, 11, 291.	2.3	61
5	The role of design in circular economy solutions for critical materials. One Earth, 2021, 4, 353-362.	6.8	57
6	Circularity of Lithium-Ion Battery Materials in Electric Vehicles. Environmental Science & Technology, 2021, 55, 5189-5198.	10.0	89
7	Sustainable paths to a circular economy: reusing aged Li-ion FePO₄ cathodes within Na-ion cells. JPhys Materials, 2021, 4, 034002.	4.2	5
8	Advances of 2nd Life Applications for Lithium Ion Batteries from Electric Vehicles Based on Energy Demand. Sustainability, 2021, 13, 5726.	3.2	12
9	Sustainability of Battery Technologies: Today and Tomorrow. ACS Sustainable Chemistry and Engineering, 2021, 9, 6507-6509.	6.7	16
10	Life cycle assessment of lithiumâ€ion battery recycling using pyrometallurgical technologies. Journal of Industrial Ecology, 2021, 25, 1560-1571.	5.5	73
11	Direct Cathode Recycling of End-Of-Life Li-Ion Batteries Enabled by Redox Mediation. ACS Sustainable Chemistry and Engineering, 2021, 9, 8214-8221.	6.7	36
12	Structuring an influential model for Indonesian pulp and paper circular supply chain practices. International Journal of Logistics Research and Applications, 2024, 27, 6-29.	8.8	8
13	Financial viability of electric vehicle lithium-ion battery recycling. IScience, 2021, 24, 102787.	4.1	105
14	Global implications of the EU battery regulation. Science, 2021, 373, 384-387.	12.6	107
15	Electric cars and batteries: how will the world produce enough?. Nature, 2021, 596, 336-339.	27.8	121
16	Life Cycle Modelling of Extraction and Processing of Battery Mineralsâ€”A Parametric Approach. Batteries, 2021, 7, 57.	4.5	21
17	Recovering large-scale battery aging dataset with machine learning. Patterns, 2021, 2, 100302.	5.9	71
18	Mg₃Si₃(MoO₆)₂ as a High-Performance Cathode Active Material for Magnesium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 47749-47755.	8.0	6
19	Towards sustainable extraction of technology materials through integrated approaches. Nature Reviews Earth & Environment, 2021, 2, 665-679.	29.7	46

#	Article	IF	Citations
20	Circular business models for electric vehicle lithium-ion batteries: An analysis of current practices of vehicle manufacturers and policies in the EU. Resources, Conservation and Recycling, 2021, 172, 105658.	10.8	58
21	Global Competition in the Lithium-Ion Battery Supply Chain: A Novel Perspective for Criticality Analysis. Environmental Science & Technology, 2021, 55, 12180-12190.	10.0	24
22	Increased Moisture Uptake of NCM622 Cathodes after Calendering due to Particle Breakage. Journal of the Electrochemical Society, 2021, 168, 090539.	2.9	26
23	Sizing Optimization and Energy Management Strategy for Hybrid Energy Storage System Using Multiobjective Optimization and Random Forests. IEEE Transactions on Power Electronics, 2021, 36, 11421-11430.	7.9	61
24	Technologies and economics of electric energy storages in power systems: Review and perspective. Advances in Applied Energy, 2021, 4, 100060.	13.2	77
25	Transportation of electric vehicle lithium-ion batteries at end-of-life: A literature review. Resources, Conservation and Recycling, 2021, 174, 105755.	10.8	65
26	To shred or not to shred: A comparative techno-economic assessment of lithium ion battery hydrometallurgical recycling retaining value and improving circularity in LIB supply chains. Resources, Conservation and Recycling, 2021, 175, 105741.	10.8	59
27	Thermal analysis of lithium ion battery cathode materials for the development of a novel pyrometallurgical recycling approach. Carbon Resources Conversion, 2021, 4, 184-189.	5.9	6
28	A vapor thermal approach to selective recycling of spent lithium-ion batteries. Green Chemistry, 2021, 23, 8673-8684.	9.0	20
29	Environmental impacts, pollution sources and pathways of spent lithium-ion batteries. Energy and Environmental Science, 2021, 14, 6099-6121.	30.8	240
30	Environmental Impacts of Aqueous Zinc Ion Batteries Based on Life Cycle Assessment. Advanced Sustainable Systems, 2022, 6, 2100308.	5.3	27
31	Make electric vehicles lighter to maximize climate and safety benefits. Nature, 2021, 598, 254-256.	27.8	52
32	From Materials to Cell: State-of-the-Art and Prospective Technologies for Lithium-Ion Battery Electrode Processing. Chemical Reviews, 2022, 122, 903-956.	47.7	343
33	A sodium salt-assisted roasting approach followed by leaching for recovering spent LiFePO4 batteries. Journal of Hazardous Materials, 2022, 424, 127586.	12.4	49
34	Characterizing end-of-life household vehiclesâ€™ generations in China: Spatial-temporal patterns and resource potentials. Resources, Conservation and Recycling, 2022, 177, 105979.	10.8	14
35	Second life and recycling: Energy and environmental sustainability perspectives for high-performance lithium-ion batteries. Science Advances, 2021, 7, eabi7633.	10.3	94
36	Running battery electric vehicles with extended range: Coupling cost and energy analysis. Applied Energy, 2022, 306, 118116.	10.1	46
37	An overview of global power lithium-ion batteries and associated critical metal recycling. Journal of Hazardous Materials, 2022, 425, 127900.	12.4	141

#	Article	IF	Citations
38	Temporal Copper Recycling Prospects Towards Sustainable Supply and Emission Reductions. SSRN Electronic Journal, 0, , .	0.4	0
39	The contribution of biomass and waste resources to decarbonizing transportation and related energy and environmental effects. Sustainable Energy and Fuels, 2022, 6, 721-735.	4.9	11
40	High Nickel and No Cobaltâ"€The Pursuit of Next-Generation Layered Oxide Cathodes. ACS Applied Materials & Interfaces, 2022, 14, 23056-23065.	8.0	30
41	Visioning a framework for effective environmental management of deep-sea polymetallic nodule mining: Drivers, barriers, and enablers. Journal of Cleaner Production, 2022, 337, 130487.	9.3	4
42	Recycling chains for lithium-ion batteries: A critical examination of current challenges, opportunities and process dependencies. Waste Management, 2022, 138, 125-139.	7.4	105
43	Saving global platinum demand while achieving carbon neutrality in the passenger transport sector: linking material flow analysis with integrated assessment model. Resources, Conservation and Recycling, 2022, 179, 106110.	10.8	16
44	A circular economy approach is needed for electric vehicles. Nature Electronics, 2022, 5, 5-7.	26.0	31
45	In-situ self-assembly synthesis of low-cost, long-life, shape-controllable spherical Li4Ti5O12 anode material for Li-ion batteries. Journal of Alloys and Compounds, 2022, 904, 164026.	5.5	7
46	Research Trends on Climate Change and Circular Economy from a Knowledge Mapping Perspective. Sustainability, 2022, 14, 521.	3.2	21
47	China Factor: Exploring the Byproduct and Host Metal Dynamics for Galliumâ€"Aluminum in a Global Green Transition. Environmental Science & Technology, 2022, 56, 2699-2708.	10.0	13
48	Circular economy and resilience: A research agenda. Business Strategy and the Environment, 2022, 31, 2754-2765.	14.3	58
49	Tunable surface pseudocapacitance assisted fast and flexible lithium storage of graphene wrapped NiO nano-arrays on nitrogen-doped carbon foams. Electrochimica Acta, 2022, 407, 139875.	5.2	4
50	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.	7.8	24
51	Modeling potential impact of COVID-19 pandemic on global electric vehicle supply chain. IScience, 2022, 25, 103903.	4.1	10
52	Bolstering supplies of critical raw materials for low-carbon technologies through circular economy strategies. Energy Research and Social Science, 2022, 88, 102534.	6.4	16
53	Porous walnut-like Mn2O3 anode derived from the waste graphene production effluent. Journal of Porous Materials, 2022, 29, 837-847.	2.6	6
54	Analysis of the Li-ion battery industry in light of the global transition to electric passenger light duty vehicles until 2050. Environmental Research: Infrastructure and Sustainability, 2022, 2, 011002.	2.3	14
55	Battery technology and recycling alone will not save the electric mobility transition from future cobalt shortages. Nature Communications, 2022, 13, 1341.	12.8	107

#	Article	IF	Citations
56	A Sustainable Multipurpose Separator Directed Against the Shuttle Effect of Polysulfides for Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2022, 12, .	19.5	53
57	Blockchain implementation for circular supply chain management: Evaluating critical success factors. Industrial Marketing Management, 2022, 102, 451-464.	6.7	65
58	Energy and greenhouse gas implications of shared automated electric vehicles. Transportation Research, Part D: Transport and Environment, 2022, 105, 103233.	6.8	8
59	Environmental Life Cycle Assessment of small water resource recovery facilities: Comparison of mechanical and lagoon systems. Water Research, 2022, 215, 118234.	11.3	8
60	The impacts of critical metal shortage on China's electric vehicle industry development and countermeasure policies. Energy, 2022, 248, 123646.	8.8	20
61	Cobalt Recovery from Li-Ion Battery Recycling: A Critical Review. Metals, 2021, 11, 1999.	2.3	37
62	Exploring the Potential for Electric Retrofit Regulations and an Accreditation Scheme for the UK. Electronics (Switzerland), 2021, 10, 3110.	3.1	4
63	Influence of Cell Opening Methods on Electrolyte Removal during Processing in Lithium-Ion Battery Recycling. Metals, 2022, 12, 663.	2.3	4
64	Environmental impact assessment of second life and recycling for LiFePO4 power batteries in China. Journal of Environmental Management, 2022, 314, 115083.	7.8	31
65	Collection mode choice of spent electric vehicle batteries: considering collection competition and third-party economies of scale. Scientific Reports, 2022, 12, 6691.	3.3	6
66	Influence of Polymorphism on the Electrochemical Behavior of Dilithium (2,3-Dilithium-oxy)-terephthalate vs. Li. Inorganics, 2022, 10, 62.	2.7	2
67	Unlocking digital technologies for waste recycling in Industry 4.0 era: A transformation towards a digitalization-based circular economy in Indonesia. Journal of Cleaner Production, 2022, 357, 131911.	9.3	98
68	Promising technologies under development for recycling, remanufacturing, and reusing batteries: an introduction. , 2022, , 79-103.		4
69	Counteracting electric vehicle range concern with a scalable behavioural intervention. Nature Energy, 2022, 7, 503-510.	39.5	13
70	How will retired electric vehicle batteries perform in grid-based second-life applications? A comparative techno-economic evaluation of used batteries in different scenarios. Journal of Cleaner Production, 2022, 361, 132281.	9.3	25
71	Recent progress in lithium-ion and lithium metal batteries. Mendeleev Communications, 2022, 32, 287-297.	1.6	26
72	Lithium-Ion Battery Recycling in the Circular Economy: A Review. Recycling, 2022, 7, 33.	5.0	44
73	Mathematics of the Circular Economics. Impact of Meat Consumption on Health and Environmental Sustainability, 2022, , 143-165.	0.4	1

#	Article	IF	Citations
74	Life cycle assessment of battery electric vehicles and internal combustion vehicles using sugarcane ethanol in Brazil: A critical review. , 2022, 2, 100008.		6
75	Prospects for managing endâ€ofâ€life lithiumâ€ion batteries: Present and future. , 2022, 1, 417-433.		66
76	LAYERS: A Decision-Support Tool to Illustrate and Assess the Supply and Value Chain for the Energy Transition. Sustainability, 2022, 14, 7120.	3.2	4
77	Towards the lithium-ion battery production network: Thinking beyond mineral supply chains. Energy Research and Social Science, 2022, 89, 102659.	6.4	47
78	Sustainable supply chain management and green technologies: a bibliometric review of literature. Environmental Science and Pollution Research, 2022, 29, 58454-58470.	5.3	27
79	Potentials of Circular Economy Approaches for Supply Chain Resilience. , 2022, , .		0
80	Global Resource Circularity for Lithium-Ion Batteries up to 2050: Traction and Stationary Use. Mining, 2022, 2, 449-462.	2.4	1
81	Does the metric matter? Climate change impacts of light-duty vehicle electrification in the US. Environmental Research: Infrastructure and Sustainability, 2022, 2, 035007.	2.3	1
82	The Geopolitical Risk and Strategic Uncertainty of Green Growth after the Ukraine Invasion: How the Circular Economy Can Decrease the Market Power of and Resource Dependency on Critical Minerals. Circular Economy and Sustainability, 2023, 3, 1099-1126.	5.5	11
83	Determining requirements and challenges for a sustainable and circular electric vehicle battery supply chain: A mixed-methods approach. Sustainable Production and Consumption, 2022, 33, 203-217.	11.0	14
84	Creating a circular EV battery value chain: End-of-life strategies and future perspective. Resources, Conservation and Recycling, 2022, 185, 106484.	10.8	30
85	Electric vehicle lithium-ion battery recycled content standards for the US â€“ targets, costs, and environmental impacts. Resources, Conservation and Recycling, 2022, 185, 106488.	10.8	30
86	Field Study and Multimethod Analysis of an EV Battery System Disassembly. Energies, 2022, 15, 5324.	3.1	11
87	Building power-ful health systems: the impacts of electrification on health outcomes in LMICs. Psychology, Health and Medicine, 2022, 27, 124-137.	2.4	3
88	Carbon neutrality of Chinaâ€™s passenger car sector requires coordinated short-term behavioral changes and long-term technological solutions. One Earth, 2022, 5, 875-891.	6.8	21
89	Chemical and structural evolution during solid-state synthesis of cobalt-free nickel-rich layered oxide cathode. Materials Today Energy, 2022, , 101114.	4.7	2
90	Supply chain risks of critical metals: Sources, propagation, and responses. Frontiers in Energy Research, 0, 10, .	2.3	10
91	Investigating carbon footprint and carbon reduction potential using a cradle-to-cradle LCA approach on lithium-ion batteries for electric vehicles in China. Journal of Cleaner Production, 2022, 369, 133342.	9.3	52

#	Article	IF	Citations
92	Circularity and life cycle environmental impact assessment of batteries for electric vehicles: Industrial challenges, best practices and research guidelines. Renewable and Sustainable Energy Reviews, 2022, 169, 112941.	16.4	17
93	Overcoming data gaps for an efficient circular economy: A case study on the battery materials ecosystem. Journal of Cleaner Production, 2022, 374, 133984.	9.3	12
94	Does China's new energy vehicles supply chain stock market have risk spillovers? Evidence from raw material price effect on lithium batteries. Energy, 2023, 262, 125420.	8.8	12
95	Boosting efficient and low-energy solid phase regeneration for single crystal LiNi0.6Co0.2Mn0.2O2 via highly selective leaching and its industrial application. Chemical Engineering Journal, 2023, 451, 139039.	12.7	20
96	The Dynamic Evolution of the Material Flow of Lithium Resources in China. SSRN Electronic Journal, 0, , .	0.4	1
97	The Crashworthiness Performance of the Energy-Absorbing Composite Structureâ€"A Review. Lecture Notes in Mechanical Engineering, 2022, , 637-650.	0.4	1
98	Submerged comminution of lithium-ion batteries in water in inert atmosphere for safe recycling. Energy Advances, 2022, 1, 935-940.	3.3	1
99	Emerging green technologies for recovery and reuse of spent lithium-ion batteries â€“ a review. Journal of Materials Chemistry A, 2022, 10, 17053-17076.	10.3	28
100	The Sound of a Circular City: Towards a Circularity-Driven Quietness. International Journal of Environmental Research and Public Health, 2022, 19, 12290.	2.6	2
101	Solvent-driven aqueous separations for hypersaline brine concentration and resource recovery. Trends in Chemistry, 2022, 4, 1078-1093.	8.5	18
102	The sustainable development of mobility in the green transition: Renewable energy, local industrial chain, and battery recycling. Sustainable Development, 2023, 31, 840-852.	12.5	17
103	Simulating the network structures in the Circular Economy and their impact on resilience. IFAC-PapersOnLine, 2022, 55, 2863-2868.	0.9	3
104	On the synergetic relationship between Circular Economy and Resilience: findings from a systematic literature review. IFAC-PapersOnLine, 2022, 55, 2869-2874.	0.9	1
105	A portable fiber optic sensor for the luminescent sensing of cobalt ions using carbon dots. Journal of Materials Chemistry C, 2022, 10, 16506-16516.	5.5	11
106	Selective bacterial separation of critical metals: towards a sustainable method for recycling lithium ion batteries. Green Chemistry, 2022, 24, 8512-8522.	9.0	2
107	Research on Closed-Loop Supply Chain Decision Making of Power Battery Considering Subsidy Transfer under EPR System. Sustainability, 2022, 14, 12488.	3.2	3
108	A Synergistic Strategy of Organic Molecules Introduced a High Zn²⁺Flux Solid Electrolyte Interphase for Stable Aqueous Zinc-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 48081-48090.	8.0	14
109	Impacts of shared mobility on vehicle lifetimes and onÂthe carbon footprint of electric vehicles. Nature Communications, 2022, 13, .	12.8	12

#	Article	IF	Citations
110	Synthesis of Fe2O3/rGO Based Composites as Anode material for Lithium ion batteries using sewage sludge as source of Iron (III) oxide. International Journal of Electrochemical Science, 0, , ArticleID:221173.	1.3	2
111	The application of deep eutectic solvents in lithium-ion battery recycling: A comprehensive review. Resources, Conservation and Recycling, 2023, 188, 106690.	10.8	55
112	The Application of Artificial Intelligence in the Effective Battery Life Cycle in the Closed Circular Economy Modelâ€"A Perspective. Recycling, 2022, 7, 81.	5.0	7
113	Overview of Green Energy as a Real Strategic Option for Sustainable Development. Energies, 2022, 15, 8573.	3.1	20
114	Traceability in Battery Cell Production. Energy Technology, 2023, 11, .	3.8	0
115	State of health estimation of lithium-ion batteries with a temporal convolutional neural network using partial load profiles. Applied Energy, 2023, 329, 120307.	10.1	26
116	Critical metal requirement for clean energy transition: A quantitative review on the case of transportation electrification. Advances in Applied Energy, 2023, 9, 100116.	13.2	11
117	Data-driven simulation-based planning for electric airport shuttle systems: A real-world case study. Applied Energy, 2023, 332, 120483.	10.1	3
118	Breaking it down: A techno-economic assessment of the impact of battery pack design on disassembly costs. Applied Energy, 2023, 331, 120437.	10.1	24
119	Resilience assessment of the cobalt supply chain in China under the impact of electric vehicles and geopolitical supply risks. Resources Policy, 2023, 80, 103183.	9.6	15
120	Critical systemic risk sources in global lithium-ion battery supply networks: Static and dynamic network perspectives. Renewable and Sustainable Energy Reviews, 2023, 173, 113083.	16.4	10
121	Metal requirements for road-based electromobility transitions in Sweden. Resources, Conservation and Recycling, 2023, 190, 106777.	10.8	1
122	Effect of welding conditions on the deformation of lithium battery pack of aluminum alloys. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2024, 238, 646-660.	1.9	0
123	Optimal choice of power battery joint recycling strategy for electric vehicle manufacturers under a deposit-refund system. International Journal of Production Research, 2023, 61, 7281-7301.	7.5	6
124	The Dynamic Evolution of the Material Flow of Lithium Resources in China. Sustainability, 2022, 14, 16928.	3.2	6
125	Exploring the potential for improving material utilization efficiency to secure lithium supply for China's battery supply chain. Fundamental Research, 2024, 4, 167-177.	3.3	5
126	Critical mineral sustainable supply: Challenges and governance. Futures, 2023, 146, 103101.	2.5	18
127	Towards a business model for second-life batteries: Barriers, opportunities, uncertainties, and technologies. Journal of Energy Chemistry, 2023, 78, 507-525.	12.9	16

#	Article	IF	Citations
128	To what extent can recycling batteries help alleviate metal supply shortages and environmental pressures in China?. Sustainable Production and Consumption, 2023, 36, 139-147.	11.0	4
129	Technology development as a tool towards circularity: a research agenda. Economic Research-Ekonomska Istrazivanja, 2023, 36, .	4.7	0
130	Assessing the European Electric-Mobility Transition: Emissions from Electric Vehicle Manufacturing and Use in Relation to the EU Greenhouse Gas Emission Targets. Environmental Science & Technology, 2023, 57, 44-52.	10.0	6
131	Toward efficient waste electric vehicle battery recycling via auction-based market trading mechanisms. International Journal of Production Research, 2023, 61, 8598-8617.	7.5	4
132	Nearâ€Roomâ€Temperature Quasiâ€Solidâ€State Fâ€Ion Batteries with High Conversion Reversibility Based on Layered Structured Electrolyte. Advanced Energy Materials, 2023, 13, .	19.5	9
133	A recrystallization approach to repairing spent LiFePO₄ black mass. Journal of Materials Chemistry A, 2023, 11, 9057-9065.	10.3	7
134	Designing of a Decentralized Pretreatment Line for EOL-LIBs Based on Recent Literature of LIB Recycling for Black Mass. Metals, 2023, 13, 374.	2.3	7
135	Circular Economy Approaches for Electrical and Conventional Vehicles. Sustainability, 2023, 15, 6140.	3.2	1
136	A wolf in sheep's clothing: Exposing the structural violence of private electric automobility. Energy Research and Social Science, 2023, 99, 103052.	6.4	4
137	Internal spillover effect of carbon emission between transportation sectors and electricity generation sectors. Renewable Energy, 2023, 208, 356-366.	8.9	0
138	Can the new energy vehicles (NEVs) and power battery industry help China to meet the carbon neutrality goal before 2060?. Journal of Environmental Management, 2023, 336, 117663.	7.8	14
139	Unleashing the circular economy in the electric vehicle battery supply chain: A case study on data sharing and blockchain potential. Resources, Conservation and Recycling, 2023, 193, 106969.	10.8	10
140	In situ and operando infrared spectroscopy of battery systems: Progress and opportunities. Journal of Energy Chemistry, 2023, 81, 472-491.	12.9	4
141	Electric Vehicle Supply Chain Management: A Bibliometric and Systematic Review. Energies, 2023, 16, 1563.	3.1	5
142	Impacts of battery energy storage technologies and renewable integration on the energy transition in the New York State. Advances in Applied Energy, 2023, 9, 100126.	13.2	16
143	Green mission creep: The unintended consequences of circular economy strategies for electric vehicles. Journal of Cleaner Production, 2023, 394, 136346.	9.3	10
144	A dynamic network design model with capacity expansions for EoL traction battery recycling â€“ A case study of an OEM in Germany. Waste Management, 2023, 160, 12-22.	7.4	5
145	Graphite Flows in the U.S.: Insights into a Key Ingredient of Energy Transition. Environmental Science & Technology, 2023, 57, 3402-3414.	10.0	12

#	Article	IF	Citations
146	Selective Extraction of Critical Metals from Spent Lithium-Ion Batteries. Environmental Science & Technology, 2023, 57, 3940-3950.	10.0	32
147	Cointegration between high base metals prices and backwardation: Getting ready for the metals super-cycle. Resources Policy, 2023, 81, 103413.	9.6	0
148	Chinaâ€™s electric vehicle and climate ambitions jeopardized by surging critical material prices. Nature Communications, 2023, 14, .	12.8	24
149	Synthesis and physicochemical properties of adsorbents based on Li1.33Mn1.67O4. , 2023, 67, 27-37.	0.1	0
150	Sustainability for all? The challenges of predicting and managing the potential risks of end-of-life electric vehicles and their batteries in the Global South. Environmental Earth Sciences, 2023, 82, .	2.7	3
151	Oneâ€Pot, Threeâ€Phase Recycling of Metals from Liâ€Ion Batteries in Rotating, Concentricâ€Liquid Reactors. Advanced Materials, 2023, 35, .	21.0	3
153	Are electric vehicle batteries being underused? A review of current practices and sources of circularity. Journal of Environmental Management, 2023, 338, 117814.	7.8	12
154	Mechanochemical upcycling of spent LiCoO ₂ to new LiNi _{0.80} Co _{0.15} Al _{0.05} O ₂ battery: An atom economy strategy. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	7.1	11
155	The slow-release effect of recycling on rapid demand growth of critical metals from EV batteries up to 2050: Evidence from China. Resources Policy, 2023, 82, 103504.	9.6	3
156	Enabling Future Closedâ€Loop Recycling of Spent Lithiumâ€Ion Batteries: Direct Cathode Regeneration. Advanced Materials, 2023, 35, .	21.0	28
157	Trade-off between critical metal requirement and transportation decarbonization in automotive electrification. Nature Communications, 2023, 14, .	12.8	19
158	The transition to electric vehicles and a net zero economy: A model based on circular economy, stakeholder theory, and system thinking approach. Journal of Cleaner Production, 2023, 410, 137031.	9.3	20
159	Material Flow Analysis of Lithium-Ion Battery Recycling in Europe: Environmental and Economic Implications. Batteries, 2023, 9, 231.	4.5	6
160	Transient and dry recycling of battery materials with negligible carbon footprint and roll-to-roll scalability. Energy and Environmental Science, 2023, 16, 2561-2571.	30.8	12
161	A High Energyâ€Density, Cobaltâ€Free, Lowâ€Nickel LiNi_{0.7}Mn_{0.25}Al_{0.05}O₂ Cathode with a Highâ€Voltage Electrolyte for Lithiumâ€Metal Batteries. Advanced Energy Materials, 2023, 13, .	19.5	9
162	Technological options and design evolution for recycling spent lithiumâ€ion batteries: Impact, challenges, and opportunities. Wiley Interdisciplinary Reviews: Energy and Environment, 2023, 12, .	4.1	4
163	Hidden delays of climate mitigation benefits in the race for electric vehicle deployment. Nature Communications, 2023, 14, .	12.8	4
164	Regionally differentiated promotion of electric vehicles in China considering environmental and human health impacts. Environmental Research Letters, 2023, 18, 074022.	5.2	2

#	Article	IF	Citations
165	Will reshoring manufacturing of advanced electric vehicle battery support renewable energy transition and climate targets?. Science Advances, 2023, 9, .	10.3	5
166	Battery as a service: Analysing multiple reuse and recycling loops. Resources, Conservation and Recycling, 2023, 197, 107091.	10.8	2
167	Generalized State of Health Estimation Approach based on Neural Networks for Various Lithium-Ion Battery Chemistries. , 2023, , .		1
168	Multi-system dynamics and the speed of net-zero transitions: Identifying causal processes related to technologies, actors, and institutions. Energy Research and Social Science, 2023, 102, 103178.	6.4	15
169	A facile new process for the efficient conversion of spent LiFePO4 batteries via (NH4)2S2O8-assisted mechanochemical activation coupled with water leaching. Chemical Engineering Journal, 2023, 471, 144265.	12.7	4
170	Environmental Impact Assessment of Autonomous Transportation Systems. Energies, 2023, 16, 5009.	3.1	0
171	Causality of circular supply chain management in small and medium-sized enterprises using qualitative information: a waste management practices approach in Indonesia. Annals of Operations Research, 0, , .	4.1	4
172	Sustainable Development Goals and End-of-Life Electric Vehicle Battery: Literature Review. Batteries, 2023, 9, 353.	4.5	3
173	Review on the Binders for Sustainable Highâ€Energyâ€Density Lithium Ion Batteries: Status, Solutions, and Prospects. Advanced Functional Materials, 2023, 33, .	14.9	14
174	Matching end-of-life household vehicle generation and recycling capacity in Chinese cities: A spatio-temporal analysis for 2022â€“2050. Science of the Total Environment, 2023, 899, 165498.	8.0	1
175	The Recycling of End-of-Life Lithium-Ion Batteries and the Phase Characterisation of Black Mass. Recycling, 2023, 8, 59.	5.0	2
176	Material efficiency strategies across the industrial chain to secure indium availability for global carbon neutrality. Resources Policy, 2023, 85, 103895.	9.6	0
177	Electric Vehicle Advancements, Barriers, and Potential: A Comprehensive Review. Electric Power Components and Systems, 2023, 51, 2010-2042.	1.8	5
178	Targeted regeneration and upcycling of spent graphite by defectâ€driven tin nucleation. , 0, , .		5
181	An RFID System Enabling Battery Lifecycle Traceability. , 2023, , .		0
182	Selective Lithium Extraction and Recycling of High-Value Metals from Spent LiNi_xCo_yMn_{1â€“xâ€“y}O₂ Cathode Materials. Industrial & Engineering Chemistry Research, 2023, 62, 13988-14000.	3.7	2
183	Analysing policy change towards the circular economy at the example of EU battery legislation. Renewable and Sustainable Energy Reviews, 2023, 186, 113665.	16.4	1
184	The Role of Automotive Flexibility in Supporting the Diffusion of Sustainable Mobility Initiatives: A Stakeholder Attitudes Assessment. Global Journal of Flexible Systems Management, 2023, 24, 459-481.	6.3	12

#	Article	IF	Citations
185	Three-Dimensional (3D) Ordered Macroporous Bimetallic (Mn,Fe) Selenide/Carbon Composite with Heterojunction Interface for High-Performance Sodium Ion Batteries. ACS Applied Materials & Interfaces, 2023, 15, 40100-40114.	8.0	7
186	Hydrometallurgical Routes to Close the Loop of Electric Vehicle (EV) Lithium-Ion Batteries (LIBs) Value Chain: A Review. Journal of Sustainable Metallurgy, 2023, 9, 950-971.	2.3	1
187	An Emerging and Consummate Photocatalysis-Assisted Strategy for Efficient Recycling of Spent Lithium-Ion Batteries. ACS Energy Letters, 2023, 8, 4287-4295.	17.4	3
188	Policy recommendations to enhance circular economy of LIBs in an emerging economy. Environment Systems and Decisions, 0, , .	3.4	0
189	Prospectivity modelling of critical mineral deposits using a generative adversarial network with oversampling and positive-unlabelled bagging. Ore Geology Reviews, 2023, 162, 105665.	2.7	0
190	Sentiment analysis of online reviews for electric vehicles using the SMAA-2 method and interval type-2 fuzzy sets. Applied Soft Computing Journal, 2023, 147, 110745.	7.2	0
191	Dynamic material flow analysis of antimony resources in China. Resources Policy, 2023, 86, 104154.	9.6	2
193	Comparative Carbon Footprint and Environmental Impacts of LiFePO4 - LiCoxNiyMn(1-x-y)O2 Hybrid Batteries Manufacturing. Lecture Notes in Computer Science, 2023, , 443-453.	1.3	0
194	Costs, carbon footprint, and environmental impacts of lithium-ion batteries â€“ From cathode active material synthesis to cell manufacturing and recycling. Applied Energy, 2024, 353, 122132.	10.1	4
195	Direct regeneration of spent LiFePO4 materials via a green and economical one-step hydrothermal process. Journal of Environmental Management, 2023, 348, 119384.	7.8	2
196	The ecological footprint of industrial value added and energy consumption in Indonesia. International Journal of Energy Sector Management, 0, , .	2.3	0
197	Designing the Locationâ€“Routing Problem for a Cold Supply Chain Considering the COVID-19 Disaster. Sustainability, 2023, 15, 15490.	3.2	6
198	Dynamic equilibrium mechanism of the closed-loop electric vehicle industry chain based on super-network model. Journal of the Operational Research Society, 0, , 1-18.	3.4	0
199	Waste from Electric Vehicle: A Bibliometric Analysis from 1995 to 2023. World Electric Vehicle Journal, 2023, 14, 300.	3.0	1
200	Room-temperature reversible F-ion batteries based on sulfone electrolytes with a mild anion acceptor additive. Materials Horizons, 2024, 11, 480-489.	12.2	0
201	Sustainable recovery and resynthesis of electroactive materials from spent Li-ion batteries to ensure material sustainability. Resources, Conservation and Recycling, 2024, 200, 107292.	10.8	2
202	Charting the electric vehicle battery reuse and recycling network in North America. Waste Management, 2024, 174, 76-87.	7.4	0
203	A battery value chain independent of primary raw materials: Towards circularity in China, Europe and the US. Resources, Conservation and Recycling, 2024, 201, 107218.	10.8	1

#	Article	IF	Citations
204	Complete Metal Recycling from Lithium-Ion Batteries Enabled by Hydrogen Evolution Catalyst Reconstruction. Journal of the American Chemical Society, 0, , .	13.7	0
205	Enhancing the sustainability and robustness of critical material supply in electrical vehicle market: an AI-powered supplier selection approach. Annals of Operations Research, 0, , .	4.1	2
206	Circular economy as crisis response: A primer. Journal of Cleaner Production, 2024, 434, 140140.	9.3	2
207	The importance of the structural pattern for the resilience of circular economy networks: A network-based approach. Journal of Cleaner Production, 2024, 436, 140164.	9.3	0
208	Beyond Lithium-Ion: The Promise and Pitfalls of BYDâ€™s Blade Batteries for Electric Vehicles. E3S Web of Conferences, 2023, 469, 00005.	0.5	1
209	A co-simulated material-component-system-district framework for climate-adaption and sustainability transition. Renewable and Sustainable Energy Reviews, 2024, 192, 114184.	16.4	4
210	Fast ammonium sulfate salt assisted roasting for selectively recycling degraded LiFePO4 cathode. Journal of Cleaner Production, 2024, 435, 140428.	9.3	0
211	Greenhouse gas emissions mitigation potential of municipal solid waste management: A case study of 13 prefecture-level cities in Jiangsu Province, China. Journal of Cleaner Production, 2023, 429, 139582.	9.3	0
212	Regional rare-earth element supply and demand balanced with circular economy strategies. Nature Geoscience, 2024, 17, 94-102.	12.9	0
213	Prospects of Passenger Vehicles in China to Meet Dual Carbon Goals and Bottleneck of Critical Materials from a Fleet Evolution Perspective. World Electric Vehicle Journal, 2024, 15, 14.	3.0	1
214	Batteries boost the internet of everything: technologies and potential orientations in renewable energy sources, new energy vehicles, energy interconnection and transmission. Sustainable Energy, Grids and Networks, 2024, 37, 101273.	3.9	0
215	The 21 most practiced RE-s of circular economy from LinkedIn company profiles on a global scale. Resources, Conservation & Recycling Advances, 2024, 21, 200202.	2.5	0
216	Toolchain for Automated Disassembly for Recycling of Electric Vehicle Batteries. Procedia CIRP, 2023, 120, 1053-1058.	1.9	0
217	Circular economy strategies for mitigating metals shortages in electric vehicle batteries under China's carbon-neutral target. Journal of Environmental Management, 2024, 352, 120079.	7.8	1
218	Techno-Economic Analysis of the Business Potential of Second-Life Batteries in Ostrobothnia, Finland. Batteries, 2024, 10, 36.	4.5	0
219	Exploring the state of health of electric vehicle batteries at end of use; hierarchical waste flow analysis to determine the recycling and reuse potential. Journal of Remanufacturing, 2024, 14, 155-168.	2.7	0
220	Metal electrodes for next-generation rechargeable batteries. , 2024, 1, 79-92.		0
221	Lithium-based energy transition through Chilean and Australian miningscapes. The Extractive Industries and Society, 2024, 17, 101384.	1.2	0

#	Article	IF	Citations
222	Principles of a Circular Economy for Batteries. The Materials Research Society Series, 2024, , 13-25.	0.2	0
223	Raw Materials and Recycling of Lithium-Ion Batteries. The Materials Research Society Series, 2024, , 143-169.	0.2	0
224	Dynamic optimization of battery recycling e-platforms under non-equalizing supply and demand: Recycling price and service commissions. Waste Management, 2024, 177, 266-277.	7.4	0
225	Electric Batteries and Critical Materials Dependency: A Geopolitical Analysis of the USA and the European Union. SSRN Electronic Journal, 0, , .	0.4	0
226	The Electric Vehicle Supply Chain Ecosystem: Changing Roles of Automotive Suppliers. Sustainability, 2024, 16, 1570.	3.2	0
227	Nonâ€“closedâ€“loop recycling strategies for spent lithiumâ€“ion batteries: Current status and future prospects. Energy Storage Materials, 2024, 67, 103288.	18.0	0
228	Direct lithium extraction from spent batteries for efficient lithium recycling. Science Bulletin, 2024, , .	9.0	0
229	Electric vehicle adoption and sustainability: Insights from the bibliometric analysis, cluster analysis, and morphology analysis. Operations Management Research, 0, , .	8.5	0
230	Design of Recycling Processes for NCA-Type Li-Ion Batteries from Electric Vehicles toward the Circular Economy. Energy & Fuels, 2024, 38, 5545-5557.	5.1	0
231	Toward Direct Regeneration of Spent Lithium-Ion Batteries: A Next-Generation Recycling Method. Chemical Reviews, 2024, 124, 2839-2887.	47.7	0
232	Electric vehicle battery chemistry affects supply chain disruption vulnerabilities. Nature Communications, 2024, 15, .	12.8	0
233	Collaborative optimization algorithm for electric vehicle industry chain based on regional economic development needs. International Journal of Emerging Electric Power Systems, 2024, .	0.8	0
234	Think global act local: The dependency of global lithium-ion battery emissions on production location and material sources. Journal of Cleaner Production, 2024, 449, 141725.	9.3	0