Recovery of metals and nonmetals from electronic wast recycling processes

Waste Management

57, 64-90

DOI: 10.1016/j.wasman.2016.08.004

Citation Report

#	Article	IF	Citations
1	Bioleaching Process for Metal Recovery from Waste Materials. Minerals, Metals and Materials Series, 2017, , 283-290.	0.3	6
2	Recovery of Metals and Nonmetals from Waste Printed Circuit Boards (PCBs) by Physical Recycling Techniques. Minerals, Metals and Materials Series, 2017, , 433-451.	0.3	9
3	New technology for recovering residual metals from nonmetallic fractions of waste printed circuit boards. Waste Management, 2017, 64, 228-235.	3.7	39
4	A detailed spectrophotometric investigation of the complexation of palladium(II) with chloride and bromide. Hydrometallurgy, 2017, 169, 447-455.	1.8	24
5	Ecological Recycling of Lithium-Ion Batteries from Electric Vehicles with Focus on Mechanical Processes. Journal of the Electrochemical Society, 2017, 164, A6184-A6191.	1.3	214
6	Selective Recovery of Gold from Electronic Waste Using 3D-Printed Scavenger. ACS Omega, 2017, 2, 7299-7304.	1.6	36
8	Selective recovery of silver from waste low-temperature co-fired ceramic and valorization through silver nanoparticle synthesis. Waste Management, 2017, 69, 79-87.	3.7	11
9	An overview of the potential of eco-friendly hybrid strategy for metal recycling from WEEE. Resources, Conservation and Recycling, 2017, 126, 228-239.	5.3	94
10	Recovery of precious metals from waste streams. Microbial Biotechnology, 2017, 10, 1194-1198.	2.0	43
11	Recovery of gold from hydrometallurgical leaching solution of electronic waste via spontaneous reduction by polyaniline. Progress in Natural Science: Materials International, 2017, 27, 514-519.	1.8	33
12	Laboratory simulations of the mixed solvent extraction recovery of dominate polymers in electronic waste. Waste Management, 2017, 69, 393-399.	3.7	25
13	Impact of the Longâ€Range Electronic Effect of a Fluorous Ponytail on Metal Coordination during Solvent Extraction. ChemPhysChem, 2017, 18, 3583-3594.	1.0	6
14	The greenhouse gas benefit of recycling waste electrical and electronic equipment above the legal minimum requirement: An Austrian LCA case study. Journal of Cleaner Production, 2017, 164, 1635-1644.	4.6	28
15	Shredding and liberation characteristics of refrigerators and small appliances. Waste Management, 2017, 59, 409-421.	3.7	4
16	Recovery of metallic concentrations from waste printed circuit boards via reverse floatation. Waste Management, 2017, 60, 618-628.	3.7	71
17	Fungal Biorecovery of Gold From E-waste. Advances in Applied Microbiology, 2017, 99, 53-81.	1.3	51
18	Incineration, pyrolysis and gasification of electronic waste. E3S Web of Conferences, 2017, 22, 00060.	0.2	10
19	Design and analysis of sustainable computer mouse using design for disassembly methodology. IOP Conference Series: Earth and Environmental Science, 2017, 109, 012007.	0.2	1

#	Article	IF	Citations
20	Green Processes for Electronic Waste Recycling: A Review. Journal of Sustainable Metallurgy, 2018, 4, 295-311.	1.1	57
21	The utilization of a three-dimensional reduced graphene oxide and montmorillonite composite aerogel as a multifunctional agent for wastewater treatment. RSC Advances, 2018, 8, 4239-4248.	1.7	38
22	Enhancement of gold and silver recovery from discarded computer printed circuit boards by Pseudomonas balearica SAE1 using response surface methodology (RSM). 3 Biotech, 2018, 8, 100.	1.1	18
23	High voltage fragmentation of composites from secondary raw materials â€“ Potential and limitations. Waste Management, 2018, 74, 123-134.	3.7	35
24	Recovery of Valuable Metals from Waste Printed Circuit Boards by Using Iodine-Iodide Leaching and Precipitation. Minerals, Metals and Materials Series, 2018, , 131-142.	0.3	2
25	Three-liquid-phase extraction in metal recovery from complex mixtures. Separation and Purification Technology, 2018, 195, 367-376.	3.9	18
26	Elevated inflammatory Lp-PLA2 and IL-6 link e-waste Pb toxicity to cardiovascular risk factors in preschool children. Environmental Pollution, 2018, 234, 601-609.	3.7	62
27	Economic evaluation of an electrochemical process for the recovery of metals from electronic waste. Waste Management, 2018, 74, 384-392.	3.7	47
28	Incineration and pyrolysis vs. steam gasification of electronic waste. Science of the Total Environment, 2018, 624, 1119-1124.	3.9	39
29	Metallurgical and mechanical methods for recycling of lithium-ion battery pack for electric vehicles. Resources, Conservation and Recycling, 2018, 136, 198-208.	5.3	184
30	Sources, behaviour, and environmental and human health risks of high-technology rare earth elements as emerging contaminants. Science of the Total Environment, 2018, 636, 299-313.	3.9	440
31	Recycling Waste Crystalline Silicon Photovoltaic Modules by Electrostatic Separation. Journal of Sustainable Metallurgy, 2018, 4, 176-186.	1.1	52
32	A wet dismantling process for the recycling of computer printed circuit boards. Resources, Conservation and Recycling, 2018, 132, 71-76.	5.3	40
33	Novel technologies and conventional processes for recovery of metals from waste electrical and electronic equipment: Challenges & opportunities â€“ A review. Journal of Environmental Chemical Engineering, 2018, 6, 1288-1304.	3.3	118
34	Bioleaching of Gold and Silver from Waste Printed Circuit Boards by Pseudomonas balearica SAE1 Isolated from an e-Waste Recycling Facility. Current Microbiology, 2018, 75, 194-201.	1.0	79
35	Composite manhole covers prepared with recycled printed circuit boards as a reinforcing filler. Polymer Composites, 2018, 39, 4532-4541.	2.3	13
36	Effects of Cu and CuO on the preparation of activated carbon from waste circuit boards by H3PO4 activation. Chemical Engineering Journal, 2018, 331, 93-101.	6.6	40
37	Efficient Retention of Chromate from Industrial Wastewater onto a Green Magnetic Polymer Based on Shrimp Peels. Journal of Polymers and the Environment, 2018, 26, 2018-2029.	2.4	40

#	Article	IF	Citations
38	Recovery of Precious and Base Metals from Waste Printed Circuit Boards Using a Sequential Leaching Procedure. Jom, 2018, 70, 124-128.	0.9	16
39	Separation of Copper from Electric Cable Waste Based on Mineral Processing Methods: A Case Study. Minerals (Basel, Switzerland), 2018, 8, 517.	0.8	20
40	Advances and challenges of green materials for electronics and energy storage applications: from design to end-of-life recovery. Journal of Materials Chemistry A, 2018, 6, 20546-20563.	5.2	96
41	Comparison of different routes for recovery of metals from electronic scrap. Materials Today: Proceedings, 2018, 5, 17046-17054.	0.9	4
42	Selective recovery of Copper from waste mobile phone printed circuit boards using Sulphuric acid leaching. Materials Today: Proceedings, 2018, 5, 21698-21702.	0.9	14
43	Waste Management of Discarded Cell Phones and Proposal of Material Recovery Techniques. Procedia CIRP, 2018, 69, 974-979.	1.0	11
44	E-Waste Recycling System in Closed Loop Supply Chain. International Journal of System Dynamics Applications, 2018, 7, 55-80.	0.3	7
45	Concentration of precious metals from waste printed circuit boards using supergravity separation. Waste Management, 2018, 82, 147-155.	3.7	9
46	E-waste in the international context â€“ A review of trade flows, regulations, hazards, waste management strategies and technologies for value recovery. Waste Management, 2018, 82, 258-275.	3.7	335
47	Characterizing the Materials Composition and Recovery Potential from Waste Mobile Phones: A Comparative Evaluation of Cellular and Smart Phones. ACS Sustainable Chemistry and Engineering, 2018, 6, 13016-13024.	3.2	59
48	Enrichment of indium tin oxide from colour filter glass in waste liquid crystal display panels through flotation. Journal of Cleaner Production, 2018, 189, 464-471.	4.6	18
49	LIBS analyses for industrial applications â€“ an overview of developments from 2014 to 2018. Journal of Analytical Atomic Spectrometry, 2018, 33, 945-956.	1.6	171
50	Heavy metals uptake on Malpighia emarginata D.C. seed fiber microparticles: Physicochemical characterization, modeling and application in landfill leachate. Waste Management, 2018, 78, 356-365.	3.7	21
51	Antimicrobial copper nanoparticles synthesized from waste printed circuit boards using advanced chemical technology. Waste Management, 2018, 78, 521-531.	3.7	37
52	From Waste Metallized Film Capacitors to Valuable Materials: Hexagonal Flake-Like Micron Zinc Powder, Copperâ€“Iron Electrodes, and an Energy Resource. ACS Sustainable Chemistry and Engineering, 2018, 6, 12281-12290.	3.2	2
53	Recovery of base metals, silicon and fluoride ions from mobile phone printed circuit boards after leaching with hydrogen fluoride and hydrogen peroxide mixtures. Waste Management, 2018, 78, 781-788.	3.7	8
54	Enhanced Tolerance to Cadmium in Bacterial-Fungal Co-Cultures as a Strategy for Metal Biorecovery from e-Waste. Minerals (Basel, Switzerland), 2018, 8, 121.	0.8	7
55	Sequential separation of Ag, Al, Cu and Pb from a multi-metal leached solution using a zero waste technology. Separation Science and Technology, 2018, 53, 2961-2970.	1.3	4

#	Article	IF	Citations
56	Enhancement of copper, nickel, and gallium recovery from LED waste by adaptation of Acidithiobacillus ferrooxidans. Waste Management, 2018, 79, 98-108.	3.7	72
57	Status of electronic waste recycling techniques: a review. Environmental Science and Pollution Research, 2018, 25, 16533-16547.	2.7	126
58	Mineralogical Characterisation of an Agâ€“In-Bearing Polymetallic Ore with Regard to Its Mineral Separation Behaviour. Russian Journal of Non-Ferrous Metals, 2018, 59, 16-22.	0.2	1
59	Toward sustainable and systematic recycling of spent rechargeable batteries. Chemical Society Reviews, 2018, 47, 7239-7302.	18.7	624
60	Hydrometallurgical recovery of metals from waste printed circuit boards (WPCBs): Current status and perspectives â€“ A review. Resources, Conservation and Recycling, 2018, 139, 122-139.	5.3	197
61	Electronic wastes. ChemistrySelect, 2018, 3, .	0.7	2
62	Current WEEE recycling solutions. , 2018, , 33-93.		28
63	Critical Metals Ga, Ge and In: Experimental Evidence for Smelter Recovery Improvements. Minerals (Basel, Switzerland), 2019, 9, 367.	0.8	9
64	Fabrication of hydrogen-bonded metal-complex frameworks for capturing iodine. Journal of Solid State Chemistry, 2019, 277, 525-530.	1.4	7
65	Lab scale optimization and two-step sequential bench scale reactor leaching tests for the chemical dissolution of Cu, Au & Ag from waste electrical and electronic equipment (WEEE). Waste Management, 2019, 95, 636-643.	3.7	18
66	Towards minimization of secondary wastes: Element recycling to achieve future complete resource recycling of electronic wastes. Waste Management, 2019, 96, 175-180.	3.7	15
67	Use of poly(vinylidene fluoride-co-vinyl dimethylphosphonate) copolymers for efficient extraction of valuable metals. Polymer Chemistry, 2019, 10, 4173-4184.	1.9	7
68	Recovery of copper from a mixture of printed circuit boards (PCBs) and sulphidic tailings using bioleaching and solvent extraction processes. Chemical Engineering and Processing: Process Intensification, 2019, 142, 107584.	1.8	31
69	Electronic Waste and Printed Circuit Board Recycling Technologies. Minerals, Metals and Materials Series, 2019, , .	0.3	40
70	Leaching and Selective Recovery of Cu from Printed Circuit Boards. Metals, 2019, 9, 1034.	1.0	24
71	A Critical Review of Lithium-Ion Battery Recycling Processes from a Circular Economy Perspective. Batteries, 2019, 5, 68.	2.1	288
72	Environmentally sound system for E-waste: Biotechnological perspectives. Current Research in Biotechnology, 2019, 1, 58-64.	1.9	43
73	Improved bioleaching efficiency of metals from waste printed circuit boards by mechanical activation. Waste Management, 2019, 98, 21-28.	3.7	41

#	Article	IF	Citations
74	Effect of thermal shock process on the microstructure and peel resistance of singleâ€“sided copper clad laminates used in waste printed circuit boards. Journal of the Air and Waste Management Association, 2019, 69, 1490-1502.	0.9	9
75	Value generation of remanufactured products: multi-case study of third-party companies. Sustainability, 2019, 11, 584.	1.6	10
76	Characterisation and partition of valuable metals from WEEE in weathered municipal solid waste incineration bottom ash, with a view to recovering. Journal of Cleaner Production, 2019, 218, 61-68.	4.6	29
77	Palladium Isolation and Purification from Nitrate Media: Efficient Process Based on Malonamides. Solvent Extraction and Ion Exchange, 2019, 37, 140-156.	0.8	13
78	Photochemically Enhanced Selective Adsorption of Gold Ions on Tannin-Coated Porous Polymer Microspheres. ACS Applied Materials & Interfaces, 2019, 11, 21915-21925.	4.0	29
79	Comparative life cycle analysis for value recovery of precious metals and rare earth elements from electronic waste. Resources, Conservation and Recycling, 2019, 149, 20-30.	5.3	95
80	Recovery of Rare Earth Elements by Carbon-Based Nanomaterialsâ€”A Review. Nanomaterials, 2019, 9, 814.	1.9	87
81	Bioleaching of metal from waste stream using a native strain ofAcidithiobacillusisolated from a coal mine drainage. Canadian Journal of Chemical Engineering, 2019, 97, 2920-2927.	0.9	9
82	Eco-friendly and cost-effective strategies for metals recovery from printed circuit boards. Renewable and Sustainable Energy Reviews, 2019, 112, 317-323.	8.2	34
83	Electrochemical extraction of tin and copper from acid leachate of printed circuit boards using copper electrodes. Journal of Environmental Management, 2019, 246, 410-417.	3.8	14
84	Effect of variation in recycled e-waste reinforcement on mechanical behaviour of polymer matrix composites. AIP Conference Proceedings, 2019, , .	0.3	0
85	Bioleaching for extracting heavy metals from electronic waste sludge. , 2019, , 525-551.		4
86	Neodymium recovery from scrap magnet using ammonium persulfate. Hydrometallurgy, 2019, 186, 226-234.	1.8	15
87	Hydrometallurgical Recovery of Metals From E-waste. , 2019, , 225-246.		37
88	Adsorption of Cd²⁺ and Ni²⁺ from Aqueous Single-Metal Solutions on Graphene Oxide-Chitosan-Poly(vinyl alcohol) Hydrogels. Langmuir, 2019, 35, 4481-4490.	1.6	53
89	Biotechnological Initiatives in E-waste Management: Recycling and Business Opportunities. , 2019, , 201-223.		2
90	Mechanisms and reutilization of modified biochar used for removal of heavy metals from wastewater: A review. Science of the Total Environment, 2019, 668, 1298-1309.	3.9	315
91	Nanomanipulation of Consumer Goods: Effects on Human Health and Environment. , 2019, , 221-254.		3

#	Article	IF	Citations
92	Nanoparticle foam flotation for caesium decontamination using a pH-sensitive surfactant. Environmental Science: Nano, 2019, 6, 1576-1584.	2.2	11
93	A detailed spectrophotometric investigation of the stability constants of [PdCln(OH)4-n]2â^' and [PdBrn(OH)4-n]2â^' (nâ€¯=â€¯0â€“4). Hydrometallurgy, 2019, 186, 21-29.	1.8	9
94	Selective extraction of copper from Cu-Zn sulfate media by new generation extractants. Separation and Purification Technology, 2019, 222, 22-29.	3.9	16
96	A relative risk assessment of the open burning of WEEE. Environmental Science and Pollution Research, 2019, 26, 11042-11052.	2.7	49
97	Characterization of Printed Circuit Boards of Obsolete (PCBs) Aimed at the Production of Copper Nanoparticles. Minerals, Metals and Materials Series, 2019, , 543-551.	0.3	2
98	Silicon photovoltaic modules at end-of-life: Removal of polymeric layers and separation of materials. Waste Management, 2019, 87, 97-107.	3.7	62
99	Recycling Waste Circuit Board Efficiently and Environmentally Friendly through Small-Molecule Assisted Dissolution. Scientific Reports, 2019, 9, 17902.	1.6	31
100	Innovations and Breakthroughs in the Gold and Silver Industries. , 2019, , .		9
101	Design and preparation of a novel degradable low-temperature co-fired ceramic (LTCC) composites. Ceramics International, 2019, 45, 7001-7010.	2.3	16
102	Preparation of calcium stannate from lead refining slag by alkaline leaching-purification-causticization process. Separation and Purification Technology, 2019, 212, 119-125.	3.9	16
103	Effect of chloride ion on synthesis of silver nanoparticle using retrieved silver chloride as a precursor from the electronic scrap. Applied Surface Science, 2019, 475, 781-784.	3.1	12
104	Recent advances on hydrometallurgical recovery of critical and precious elements from end of life electronic wastes - a review. Critical Reviews in Environmental Science and Technology, 2019, 49, 212-275.	6.6	219
105	Influence of scope definition in recycling rate calculation for European e-waste extended producer responsibility. Waste Management, 2019, 84, 256-268.	3.7	30
106	Assessing the efficiency of End of Life technology in waste treatmentâ€"A bibliometric literature review. Resources, Conservation and Recycling, 2019, 140, 189-208.	5.3	32
107	Waste Printed Circuit Board (WPCB) Recovery Technology: Disassembly and Desoldering Approach. , 2020, , 658-676.		9
108	Waste Printed Circuit Board (WPCB) Recycling: Conventional and Emerging Technology Approach. , 2020, , 677-694.		12
110	Environmental Concerns and Sustainable Development. , 2020, , .		2
111	Recent Technologies in Electronic-Waste Management. Environmental Chemistry for A Sustainable World, 2020, , 63-80.	0.3	6

#	Article	IF	Citations
112	E-Waste Management from Macroscopic to Microscopic Scale. Environmental Chemistry for A Sustainable World, 2020, , 143-157.	0.3	2
113	E-waste Recycling and Management. Environmental Chemistry for A Sustainable World, 2020, , .	0.3	6
114	Composition and Recyclability Analysis of Poly(Vinyl Chloride) Recovered from Computer Power Cables and Commercial Wires. Journal of Vinyl and Additive Technology, 2020, 26, 213-223.	1.8	9
115	Development of Water Based Transient Resistive Screen-Printing Paste with Carbon Nanotubes for Biomedical Applications. Advances in Intelligent Systems and Computing, 2020, , 430-437.	0.5	1
116	An innovative method of recycling metals in printed circuit board (PCB) using solutions from PCB production. Journal of Hazardous Materials, 2020, 390, 121892.	6.5	24
117	Urban mining of E-waste: treasure hunting for precious nanometals. , 2020, , 19-54.		16
118	Non-destructive characterization of mechanically processed waste printed circuit boards - particle liberation analysis. Waste Management, 2020, 102, 510-519.	3.7	38
119	Electrochemical enhanced metal extraction from E-waste. , 2020, , 119-139.		5
120	Environmentally friendly approach for the recovery of metallic fraction from waste printed circuit boards using pyrolysis and ultrasonication. Waste Management, 2020, 118, 150-160.	3.7	67
121	Urgency of Proper E-Waste Management Plan in Nepal: An Overview. Nepal Journal of Science and Technology, 2020, 19, 107-118.	0.1	2
122	E-Wastes: Bridging the Knowledge Gaps in Global Production Budgets, Composition, Recycling and Sustainability Implications. Sustainable Chemistry, 2020, 1, 154-182.	2.2	59
123	New insights into the mechanism of selective flotation of copper and copper-tin alloy. Separation and Purification Technology, 2020, 253, 117497.	3.9	14
124	Reconfigurable and Recyclable Circuits Based on Liquid Passive Components. Advanced Electronic Materials, 2020, 6, 1901388.	2.6	8
125	Droplet Microfluidic Device for Rapid and Efficient Metals Separation Using Host-Guest Chemistry. , 2020, , .		4
126	Recovery of high-grade copper from metal-rich particles of waste printed circuit boards by ball milling and sieving. Environmental Technology (United Kingdom), 2022, 43, 514-523.	1.2	5
127	From Electronic Waste to Suzukiâ^'Miyaura Crossâ€Coupling Reaction in Water: Direct Valuation of Recycled Palladium in Catalysis. ChemSusChem, 2020, 13, 5224-5230.	3.6	10
128	Evaluation of US EPA Method 3052 Microwave Acid Digestion for Quantification of Majority Metals in Waste Printed Circuit Boards. Metals, 2020, 10, 1511.	1.0	7
129	Resurrecting Catalysts by Flash Annealing. Joule, 2020, 4, 2249-2251.	11.7	2

#	Article	IF	Citations
130	Hydrometallurgical metal recovery from waste printed circuit boards pretreated by microwave pyrolysis. Resources, Conservation and Recycling, 2020, 163, 105090.	5.3	40
131	Application Research of Biochar for the Remediation of Soil Heavy Metals Contamination: A Review. Molecules, 2020, 25, 3167.	1.7	92
132	Selective Gold Recovery from Homogenous Aqueous Solutions Containing Gold and Platinum Ions by Aromatic Amino Acid-Containing Peptides. International Journal of Molecular Sciences, 2020, 21, 5060.	1.8	8
133	Selective acid leaching of connector pins removed from waste central processing units with focus on gold recovery. Hydrometallurgy, 2020, 196, 105432.	1.8	8
134	E-waste upcycling for the synthesis of plasmonic responsive gold nanoparticles. Waste Management, 2020, 117, 9-17.	3.7	13
135	Energy recovery from waste printed circuit boards using microwave pyrolysis: product characteristics, reaction kinetics, and benefits. Environmental Science and Pollution Research, 2020, 27, 43274-43282.	2.7	22
136	Effect of zinc ions on copper electrodeposition in the context of metal recovery from waste printed circuit boards. Hydrometallurgy, 2020, 198, 105513.	1.8	10
137	Environmental Microbiology and Biotechnology. , 2020, , .		2
138	Unveiling the Release Mechanism of Pollutants during the Crushing Process of Waste Printed Circuit Boards. ACS Sustainable Chemistry and Engineering, 2020, 8, 14540-14548.	3.2	5
139	Dissolution of Metals in Different Bromide-Based Systems: Electrochemical Measurements and Spectroscopic Investigations. Materials, 2020, 13, 3630.	1.3	6
140	Recovery of Lanthanum(III) and Nickel(II) Ions from Acidic Solutions by the Highly Effective Ion Exchanger. Molecules, 2020, 25, 3718.	1.7	7
141	Supercritical CO2-induced alteration of a polymerâ€“metal matrix and selective extraction of valuable metals from waste printed circuit boards. Green Chemistry, 2020, 22, 7080-7092.	4.6	12
142	Precious and critical metals from wasted LED lamps: characterization and evaluation. Environmental Technology (United Kingdom), 2022, 43, 1870-1881.	1.2	12
143	Hydrometallurgical processes for heavy metals recovery from industrial sludges. Critical Reviews in Environmental Science and Technology, 2022, 52, 1022-1062.	6.6	57
144	Uptake and Recovery of Gold from Simulated Hydrometallurgical Liquors by Adsorption on Pine Bark Tannin Resin. Water (Switzerland), 2020, 12, 3456.	1.2	12
145	Processing of Discarded Printed Circuit Board Fines via Flotation. Journal of Sustainable Metallurgy, 2020, 6, 631-642.	1.1	9
146	Extraction Behavior and Separation of Precious and Base Metals from Chloride, Bromide, and Iodide Media Using Undiluted Halide Ionic Liquids. ACS Sustainable Chemistry and Engineering, 2020, 8, 8223-8234.	3.2	23
147	Valorization of the plastic residue from a WEEE treatment plant by pyrolysis. Waste Management, 2020, 112, 1-10.	3.7	32

#	Article	IF	Citations
148	Preparation of nanocomposites from agricultural waste and their versatile applications. , 2020, , 51-98.		4
149	Recycling of carbon fiber reinforced compositeÂwaste to close their life cycle in a cradle-to-cradle approach. Current Opinion in Green and Sustainable Chemistry, 2020, 26, 100368.	3.2	38
150	Sustainable Development of Water and Environment. Environmental Science and Engineering, 2020, , .	0.1	3
151	Importance of weak interactions in the formulation of organic phases for efficient liquid/liquid extraction of metals. Current Opinion in Colloid and Interface Science, 2020, 46, 36-51.	3.4	37
152	Sustainability in steelmaking. Current Opinion in Green and Sustainable Chemistry, 2020, 24, 42-47.	3.2	17
155	Cleaner utilization of non-metallic components in separation tailings of waste printed circuit board: Pyrolysis oil, calorific value and building aggregate. Journal of Cleaner Production, 2020, 258, 120976.	4.6	25
156	Metal recovery from waste printed circuit boards: A review for current status and perspectives. Resources, Conservation and Recycling, 2020, 157, 104787.	5.3	129
157	Recycling Chain for Spent Lithium-Ion Batteries. Metals, 2020, 10, 316.	1.0	69
158	Emerging technologies for the recovery of rare earth elements (REEs) from the end-of-life electronic wastes: a review on progress, challenges, and perspectives. Environmental Science and Pollution Research, 2020, 27, 36052-36074.	2.7	72
159	Emission characteristics of polybrominated diphenyl ethers from the thermal disassembly of waste printed circuit boards. Atmospheric Environment, 2020, 226, 117402.	1.9	9
160	Industrial applications. , 2020, , 421-439.		1
161	Novel trends in the thermo-chemical recycling of plastics from WEEE containing brominated flame retardants. Environmental Science and Pollution Research, 2021, 28, 59190-59213.	2.7	36
162	Data quality assessment framework for critical raw materials. The case of cobalt. Resources, Conservation and Recycling, 2020, 157, 104564.	5.3	18
163	Flotation dynamics of metal and non-metal components in waste printed circuit boards. Journal of Hazardous Materials, 2020, 392, 122322.	6.5	48
164	Inconsistencies of e-waste management in developing nations â€“ Facts and plausible solutions. Journal of Environmental Management, 2020, 261, 110234.	3.8	102
165	A novel process for the biological detoxification of non-metal residue from waste copper clad laminate treatment: From lab to pilot scale. Journal of Cleaner Production, 2020, 255, 120116.	4.6	3
166	Challenges and opportunities in the recovery of gold from electronic waste. RSC Advances, 2020, 10, 4300-4309.	1.7	159
167	Sustainable product design: A life-cycle approach. Chemical Engineering Science, 2020, 217, 115508.	1.9	27

#	Article	IF	Citations
168	Advanced Recovery Techniques for Waste Materials from IT and Telecommunication Equipment Printed Circuit Boards. Sustainability, 2020, 12, 74.	1.6	50
169	Experimental investigation on the effect of varying percentage of E-waste particulate filler in GFRP composite laminates. Materials Today: Proceedings, 2020, 28, 1130-1134.	0.9	2
170	Comparative investigation on copper leaching efficiency from waste mobile phones using various types of ionic liquids. Journal of Cleaner Production, 2020, 256, 120368.	4.6	26
171	Combination of Pyrolysis and Physical Separation to Recover Copper and Tin from Waste Printed Circuit Boards. Jom, 2020, 72, 3179-3185.	0.9	14
172	Effect of dissociation size on flotation behavior of waste printed circuit boards. Journal of Cleaner Production, 2020, 265, 121840.	4.6	15
173	Assessment of LED lamps components and materials for a recycling perspective. Waste Management, 2020, 107, 285-293.	3.7	41
174	Studies on leaching characteristics of electronic waste for metal recovery using inorganic and organic acids and base. Waste Management and Research, 2021, 39, 242-249.	2.2	12
175	Advanced utilization of copper in waste printed circuit boards: Synthesis of nano-copper assisted by physical enrichment. Journal of Hazardous Materials, 2021, 401, 123294.	6.5	34
176	Recent developments on recycling end-of-life flat panel displays: A comprehensive review focused on indium. Critical Reviews in Environmental Science and Technology, 2021, 51, 429-456.	6.6	23
177	Cleaner Pre-concentration of Metals from Printed Circuit Board Waste Using Novel Dense Liquid Medium Based on Sodium Silicate. Waste and Biomass Valorization, 2021, 12, 4081-4087.	1.8	4
178	Recycling Ag, As, Ga of waste light-emitting diodes via subcritical water treatment. Journal of Hazardous Materials, 2021, 408, 124409.	6.5	15
179	Environmental-friendly recovery of non-metallic resources from waste printed circuit boards: A review. Journal of Cleaner Production, 2021, 279, 123738.	4.6	81
180	Precious Metals Recovery from Waste Printed Circuit Boards by Gravity Separation and Leaching. Mineral Processing and Extractive Metallurgy Review, 2021, 42, 24-37.	2.6	25
181	Polybrominated diphenyl ethers in indoor air from two typical E-waste recycling workshops in Southern China: Emission, size-distribution, gas-particle partitioning, and exposure assessment. Journal of Hazardous Materials, 2021, 402, 123667.	6.5	14
182	Electronic waste generation, regulation and metal recovery: a review. Environmental Chemistry Letters, 2021, 19, 1347-1368.	8.3	78
183	The evolution of consumer electronic waste in the United States. Journal of Industrial Ecology, 2021, 25, 693-706.	2.8	35
184	Separation and concentration of valuable and critical materials from wasted LEDs by physical processes. Waste Management, 2021, 120, 136-145.	3.7	22
185	Enhanced flotation efficiency of metal from waste printed circuit boards modified by alkaline immersion. Waste Management, 2021, 120, 795-804.	3.7	10

#	Article	IF	Citations
186	Microrecycling of waste flexible printed circuit boards for in-situ generation of O- and N-doped activated carbon with outstanding supercapacitance performance. Resources, Conservation and Recycling, 2021, 167, 105221.	5.3	13
187	Environment-friendly recycling of resin in waste printed circuit boards. Chemical Engineering Research and Design, 2021, 146, 694-701.	2.7	8
188	Capture and release mechanism of La ions by new polyamine-based organoclays: A model system for rare-earths recovery in urban mining process. Journal of Environmental Chemical Engineering, 2021, 9, 104730.	3.3	7
189	Chemical inspection and elemental analysis of electronic waste using data fusion - Application of complementary spectroanalytical techniques. Talanta, 2021, 225, 122025.	2.9	8
190	Application of rhamnolipid surfactant for remediation of toxic metals of long- and short-term contamination sites. International Journal of Environmental Science and Technology, 2021, 18, 575-588.	1.8	29
191	New composite material for biodegradable electronics. Materials Today: Proceedings, 2022, 49, 2443-2448.	0.9	4
192	Electronic module assembly. CIRP Annals - Manufacturing Technology, 2021, 70, 471-493.	1.7	8
193	Recovery of Metal Oxide Nanomaterials from Electronic Waste Materials. Topics in Mining, Metallurgy and Materials Engineering, 2021, , 203-227.	1.4	11
194	Recycling, Management, and Valorization of Industrial Solid Wastes. Topics in Mining, Metallurgy and Materials Engineering, 2021, , 25-63.	1.4	5
196	Recovery of Metals from Electronic Waste. Green Chemistry and Sustainable Technology, 2021, , 127-156.	0.4	3
197	Hybrid bioleachingâ€"an emerging technique for extraction of critical metals from WEEE. , 2021, , 109-123.		1
198	Circular Economy Practices by the Informal Sector: an Implementation of Green Manufacturing in Urban Area. IOP Conference Series: Materials Science and Engineering, 2021, 1041, 012062.	0.3	0
199	Management of e-Waste: Technological Challenges and Opportunities. , 2021, , 1-35.		1
200	RECOVERY OF COPPER AND SILVER OF PRINTED CIRCUIT BOARDS FROM OBSOLETE COMPUTERS BY ONE-STEP ACID LEACHING. Detritus, 2021, , 86-91.	0.4	9
201	Capture Mechanism of La and Cu Ions in Mixed Solutions by Clay and Organoclay. Industrial & Engineering Chemistry Research, 2021, 60, 6803-6813.	1.8	10
202	KUYUMCULUK KÂ–KENLÄ° ARTIKLARDAN ALTIN VE GÃœMÃœÅžÃœN GERÄ° KAZANIMI. Scientific Mining Journal, 0, 0, 51-61.		0
203	Environmental Effects of Heavy Metals from the E-Waste Dismantling Site, South China. Soil and Sediment Contamination, 0, , 1-16.	1.1	3
204	Impact of Grinding of Printed Circuit Boards on the Efficiency of Metal Recovery by Means of Electrostatic Separation. Minerals (Basel, Switzerland), 2021, 11, 281.	0.8	13

#	Article	IF	Citations
205	Reveal the Release and Transformation Mechanism of Polybrominated Diphenyl Ethers during the Crushing of Waste Printed Circuit Boards Based on the Experimental Monitoring and Theoretical Simulation. ACS Sustainable Chemistry and Engineering, 2021, 9, 4926-4935.	3.2	3
206	Influence of the Material Composition SMD Diodes on Their Environmental Impact. Electronics (Switzerland), 2021, 10, 1033.	1.8	1
207	Dissolution of brominated epoxy resin for environment friendly recovery of copper as cupric oxide nanoparticles from waste printed circuit boards using ammonium chloride roasting. Journal of Cleaner Production, 2021, 291, 125928.	4.6	31
208	Ferrocene-based metal-organic framework for highly efficient recovery of gold from WEEE. Chemical Engineering Journal, 2021, 410, 128360.	6.6	46
209	Hydrometallurgical recovery of high-purity copper cathode from highly impure crude copper. Resources, Conservation and Recycling, 2021, 167, 105382.	5.3	16
210	Copper, zinc, and nickel recovery from printed circuit boards using an ammoniaâ€“ammonium sulphate system. Journal of Material Cycles and Waste Management, 2021, 23, 1456-1465.	1.6	15
211	Using E-waste in asphalt mixtures â€“ a laboratory investigation. IOP Conference Series: Materials Science and Engineering, 2021, 1138, 012022.	0.3	1
212	Recycling of printed circuit boards by abrasive waterjet cutting. Chemical Engineering Research and Design, 2021, 148, 805-812.	2.7	14
213	Simultaneous Recovery of Precious and Heavy Metal Ions from Waste Electrical and Electronic Equipment (WEEE) Using Polymer Films Containing Cyphos IL 101. Polymers, 2021, 13, 1454.	2.0	7
214	Cyanide consumption minimisation and concomitant toxic effluent minimisation during precious metals extraction from waste printed circuit boards. Waste Management, 2021, 125, 87-97.	3.7	17
215	Ecoâ€Friendly Electronicsâ€”A Comprehensive Review. Advanced Materials Technologies, 2022, 7, 2001263.	3.0	47
216	Combination of Dual-Energy X-ray Transmission and Variable Gas-Ejection for the In-Line Automatic Sorting of Many Types of Scrap in One Measurement. Applied Sciences (Switzerland), 2021, 11, 4349.	1.3	4
217	Microwave-assisted organic swelling promotes fast and efficient delamination of waste printed circuit boards. Waste Management, 2021, 126, 231-238.	3.7	10
218	Techno-economic evaluation of electronic waste based oxygen carriers for co-chemical looping combustion of coal and biomass integrated combined cycle power generating systems. Energy Conversion and Management, 2021, 236, 114075.	4.4	16
219	Review on E-waste Recycling: Part IIâ€”Technologies for Recovery of Rare Earth Metals. , 2021, 6, 613-631.		6
220	New Concept for the Study of the Fluid Dynamics of Lithium Extraction Using Calix[4]arene Derivatives in T-Type Microreactor Systems. Separations, 2021, 8, 70.	1.1	3
221	Recycling copper and gold from e-waste by a two-stage leaching and solvent extraction process. Separation and Purification Technology, 2021, 263, 118400.	3.9	78
222	On the Kinetic Behavior of Recycling Precious Metals (Au, Ag, Pt, and Pd) Through Copper Smelting Process. Journal of Sustainable Metallurgy, 2021, 7, 920-931.	1.1	9

#	Article	IF	Citations
223	Characterization and Evaluation of Recycling Potential for Discarded Laptops. Mining, Metallurgy and Exploration, 2021, 38, 2117-2131.	0.4	3
224	Electronic waste pollution and the COVID-19 pandemic. Environmental Chemistry Letters, 2022, 20, 971-974.	8.3	14
225	Toward the Implementation of Circular Economy Strategies: An Overview of the Current Situation in Mineral Processing. Mineral Processing and Extractive Metallurgy Review, 2022, 43, 775-797.	2.6	25
226	Settlement behavior and stratification of waste printed circuit boards particles in gravitational field. Resources, Conservation and Recycling, 2021, 170, 105615.	5.3	11
227	Bioleaching of metals from waste printed circuit boards using bacterial isolates native to abandoned gold mine. BioMetals, 2021, 34, 1043-1058.	1.8	13
228	Selective Gold and Palladium Adsorption from Standard Aqueous Solutions. Processes, 2021, 9, 1282.	1.3	4
229	Bioleaching metals from waste electrical and electronic equipment (WEEE) by Aspergillus niger: a review. Environmental Science and Pollution Research, 2021, 28, 44622-44637.	2.7	18
230	Volatile organic compounds in an e-waste dismantling region: From spatial-seasonal variation to human health impact. Chemosphere, 2021, 275, 130022.	4.2	42
231	Copper and critical metals production from porphyry ores and E-wastes: A review of resource availability, processing/recycling challenges, socio-environmental aspects, and sustainability issues. Resources, Conservation and Recycling, 2021, 170, 105610.	5.3	144
232	Industrial Symbiosis and Energy Efficiency in European Process Industries: A Review. Sustainability, 2021, 13, 9159.	1.6	19
233	Dynamic estimation of future obsolete laptop flows and embedded critical raw materials: The case study of Greece. Waste Management, 2021, 132, 74-85.	3.7	8
234	Recovery of Au, Ag and Cu from printed circuit board leachate using activated carbon derived from foxtail fruit. IOP Conference Series: Earth and Environmental Science, 2021, 842, 012063.	0.2	0
235	Environment-friendly flotation technology of waste printed circuit boards assisted by pyrolysis pretreatment. Chemical Engineering Research and Design, 2021, 152, 58-65.	2.7	9
236	Influence of Electrolyte Impurities from E-Waste Electrorefining on Copper Extraction Recovery. Metals, 2021, 11, 1383.	1.0	1
237	Eddy current separation can be used in separation of non-ferrous particles from crushed waste printed circuit boards. Journal of Cleaner Production, 2021, 312, 127755.	4.6	21
238	E-Waste Recycling and Resource Recovery: A Review on Technologies, Barriers and Enablers with a Focus on Oceania. Metals, 2021, 11, 1313.	1.0	64
239	Electrochemical Approaches for the Recovery of Metals from Electronic Waste: A Critical Review. Recycling, 2021, 6, 53.	2.3	43
240	Urban mining of obsolete computers by manual dismantling and waste printed circuit boards by chemical leaching and toxicity assessment of its waste residues. Environmental Pollution, 2021, 283, 117033.	3.7	25

#	Article	IF	Citations
241	E-Waste in Africa: A Serious Threat to the Health of Children. International Journal of Environmental Research and Public Health, 2021, 18, 8488.	1.2	38
242	Development of a Physical Separation Route for the Concentration of Base Metals from Old Wasted Printed Circuit Boards. Minerals (Basel, Switzerland), 2021, 11, 1014.	0.8	2
243	E-waste recycling practices: a review on environmental concerns, remediation and technological developments with a focus on printed circuit boards. Environment, Development and Sustainability, 2022, 24, 8965-9047.	2.7	13
244	Critical analysis of metallic and non-metallic fractions in the flotation of waste printed circuit boards. Powder Technology, 2021, 389, 450-459.	2.1	11
245	Dismantling of Printed Circuit Boards Enabling Electronic Components Sorting and Their Subsequent Treatment Open Improved Elemental Sustainability Opportunities. Sustainability, 2021, 13, 10357.	1.6	25
246	Substantiation Ð¾f Parameters Ð¾f Biosorption Extraction Ð¾f Indium from Electronic Waste. Ecology and Industry of Russia, 2021, 25, 24-29.	0.2	1
247	Efficient recovery of Cu and Ni from WPCB via alkali leaching approach. Journal of Environmental Management, 2021, 296, 113154.	3.8	31
248	Achievements in pyrolysis process in E-waste management sector. Environmental Pollution, 2021, 287, 117621.	3.7	29
249	Chemical recovery of waste electrical and electronic equipment by microwave-assisted pyrolysis: A review. Journal of Analytical and Applied Pyrolysis, 2021, 159, 105323.	2.6	16
250	Sequential recovery of metals from waste printed circuit boards using a zero-discharge hydrometallurgical process. Cleaner Engineering and Technology, 2021, 4, 100143.	2.1	12
251	Eco-design for dye solar cells: From hazardous waste to profitable recovery. Journal of Cleaner Production, 2021, 320, 128743.	4.6	14
252	Sustainable recovery of neodymium and dysprosium from waters through seaweeds: Influence of operational parameters. Chemosphere, 2021, 280, 130600.	4.2	17
253	Physical pre-concentration and ammonium leaching of metal copper from waste printed circuit boards. Journal of Cleaner Production, 2021, 318, 128512.	4.6	8
254	Calcite modification of agricultural waste biochar highly improves the adsorption of Cu(II) from aqueous solutions. Journal of Environmental Chemical Engineering, 2021, 9, 106215.	3.3	15
255	A novel method for simultaneous evaluation of particle geometry by using image processing analysis. Powder Technology, 2021, 393, 60-73.	2.1	8
256	Studies on copper(II) leaching from e-waste with hydrogen sulfate ionic liquids: Effect of hydrogen peroxide. Hydrometallurgy, 2021, 205, 105730.	1.8	12
257	Selection of process for aluminium separation from waste cables by TOPSIS and WASPAS methods. Minerals Engineering, 2021, 173, 107186.	1.8	8
258	Simple and near-zero-waste processing for recycling gold at a high purity level from waste printed circuit boards. Waste Management, 2021, 135, 90-97.	3.7	13

#	Article	IF	Citations
259	Solvent extraction of palladium(II) using diamides: A performing molecular system established through a detailed study of extraction kinetics. Separation and Purification Technology, 2021, 276, 119293.	3.9	8
260	Industrial wastewater treatment: Current trends, bottlenecks, and best practices. Chemosphere, 2021, 285, 131245.	4.2	85
261	A review on recent advancements in recovery of valuable and toxic metals from e-waste using bioleaching approach. Chemosphere, 2022, 287, 132230.	4.2	68
262	Analytical and reclamation technologies for identification and recycling of precious materials from waste computer and mobile phones. Chemosphere, 2022, 286, 131739.	4.2	26
263	Electronic wastes: A near inexhaustible and an unimaginably wealthy resource for water splitting electrocatalysts. Journal of Hazardous Materials, 2022, 421, 126687.	6.5	18
264	Electronic Waste Generation Prediction in Bandung City, Indonesia. Environmental and Climate Technologies, 2021, 25, 111-120.	0.5	0
265	E-Waste and Its Hazard Management by Specific Microbial Bioremediation Processes. Microorganisms for Sustainability, 2021, , 139-166.	0.4	6
267	Electronic Waste Management: Challenges and Opportunities. , 2020, , 69-90.		3
268	An environmentally friendly ball milling process for recovery of valuable metals from e-waste scraps. Waste Management, 2017, 68, 490-497.	3.7	41
269	Microbial technology for metal recovery from e-waste printed circuit boards. Journal of Bacteriology & Mycology Open Access, 2018, 6, .	0.2	10
271	Separating Inorganics from the Non-metal Fraction of the Processed Waste PCBS Using Heavy Liquid Separation. International Journal of Waste Resources, 2018, 08, .	0.2	4
272	Leaching Foams for Copper and Silver Dissolution: A Proof of Concept of a More Environmentally Friendly Process for the Recovery of Critical Metals. ACS Sustainable Chemistry and Engineering, 2021, 9, 14022-14028.	3.2	4
273	Urban mining by flash Joule heating. Nature Communications, 2021, 12, 5794.	5.8	35
274	An Optimization-Based System Dynamics Simulation for Sustainable Policy Design in WEEE Management Systems. Sustainability, 2021, 13, 11377.	1.6	4
275	Electronic Waste Low-Temperature Processing: An Alternative Thermochemical Pretreatment to Improve Component Separation. Materials, 2021, 14, 6228.	1.3	2
276	Recovery of valuable metals from WPCB fines by centrifugal gravity separation and froth flotation. Journal of Material Cycles and Waste Management, 2022, 24, 224-236.	1.6	22
277	Optimization of elemental recovery from electronic wastes using a mild oxidizer. Waste Management, 2021, 135, 420-427.	3.7	8
278	Influences of ferrous iron concentration and mixing speed on metal recovery from waste printed circuit boards using bio-Fenton process. Journal of Environmental Chemical Engineering, 2021, 9, 106460.	3.3	7

#	Article	IF	Citations
279	E-Waste and E-Waste Recycling. Minerals, Metals and Materials Series, 2019, , 1-32.	0.3	1
280	Printed Circuit Boards (PCBs). Minerals, Metals and Materials Series, 2019, , 33-57.	0.3	6
281	Traditional and Advanced WPCB Recycling. Minerals, Metals and Materials Series, 2019, , 83-122.	0.3	0
282	Sustainable Guideline for Developing the E-Waste Sector in Egypt. Journal of Environmental Protection, 2019, 10, 1043-1071.	0.3	3
283	Recycling of Gold and Silver. , 2019, , 175-198.		0
285	Reversible microfluidics device for precious metal electrodeposition and depletion yield studies. Electrochimica Acta, 2020, 352, 136474.	2.6	1
286	Electronic waste and their leachates impact on human health and environment: Global ecological threat and management. Environmental Technology and Innovation, 2021, 24, 102049.	3.0	71
287	AI based Sustainable Approach for Metal Extraction from E-Waste: A Comprehensive literature review. , 2020, , .		1
288	Sampling waste printed circuit boards: Achieving the right combination between particle size and sample mass to measure metal content. Waste Management, 2020, 118, 380-390.	3.7	17
289	Role of Biochar in Heavy Metal Toxicity in Plants. Nanotechnology in the Life Sciences, 2020, , 349-371.	0.4	1
290	Oxidant/complexing properties of the methimazole (MeImHS)/iodine system towards palladium and gold metals. Crystal structure of the complex cation [Pd^{II}(MeImHS)₄]²⁺ balanced by a tetraiodide/iodide mixture. New Journal of Chemistry, 2020, 44, 2652-2660.	1.4	5
291	ELEKTRONÄ°K SEKTÃ–RÃœNDE BULANIK Ã‡OK KRÄ°TERLÄ° KARAR VERME YAKLAÅžIMIYLA GERÄ° KAZANIM ALTERNATÄ°FÄ° SEÃ‡Ä°MÄ° UludaÄŸ University Journal of the Faculty of Engineering, 2018, 23, 141-158.	0.2	0
292	High added-value materials recovery using electronic scrap-transforming waste to valuable products. Journal of Cleaner Production, 2022, 330, 129836.	4.6	35
293	Collection and processing of recycled copper. , 2022, , 467-482.		0
294	Toxicity and hazardous waste regulations. , 2022, , 165-182.		4
295	Electronic waste: Environmental risks and opportunities. , 2022, , 421-458.		3
296	A comprehensive review on the recycling of discarded printed circuit boards for resource recovery. Resources, Conservation and Recycling, 2022, 178, 106027.	5.3	67
297	A Comparison of Methods for the Characterisation of Waste-Printed Circuit Boards. Metals, 2021, 11, 1935.	1.0	12

#	Article	IF	Citations
298	Extraction of silver from computer printed circuit boards wastes by supercritical fluids: pretreatment study. International Journal of Environmental Science and Technology, 2022, 19, 4883-4890.	1.8	2
299	A Review on Chemical versus Microbial Leaching of Electronic Wastes with Emphasis on Base Metals Dissolution. Minerals (Basel, Switzerland), 2021, 11, 1255.	0.8	8
300	Miniaturization of Anthracene-Containing Nonapeptides for Selective Precipitation/Recovery of Metallic Gold from Aqueous Solutions Containing Gold and Platinum Ions. Processes, 2021, 9, 2010.	1.3	1
303	Recovering metals from motherboard and memory board waste through sulfuric leaching. Journal of Environmental Chemical Engineering, 2021, 9, 106789.	3.3	11
304	Synthesis of Ag nanoparticles from waste printed circuit board. Journal of Environmental Chemical Engineering, 2021, 9, 106845.	3.3	13
305	Research trend and dynamical development of focusing on the global critical metals: a bibliometric analysis during 1991â€“2020. Environmental Science and Pollution Research, 2021, , 1.	2.7	9
306	Using ANP and QFD methodologies to analyze eco-efficiency requirements in an electronic supply chain. Cleaner Engineering and Technology, 2021, 5, 100350.	2.1	3
307	Process optimization and removal of phenol formaldehyde resin coating using mechanical erosion process. Progress in Rubber, Plastics and Recycling Technology, 0, , 147776062110663.	0.8	2
308	A closed and zero-waste loop strategy to recycle the main raw materials (gold, copper and fiber glass) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	6.8	14
309	In-situ, Ex-situ, and nano-remediation strategies to treat polluted soil, water, and air â€“ A review. Chemosphere, 2022, 289, 133252.	4.2	87
310	Waste electrical and electronic equipments as urban mines in Burkina Faso: Characterization and release of metal particles. Waste Management, 2022, 139, 17-24.	3.7	6
311	Performance of electronic waste based mixed metal oxide as novel oxygen carriers for chemical looping co-combustion of high ash coal and rice straw. Waste Management, 2022, 138, 199-209.	3.7	2
312	Assessment of precious metals positioning in waste printed circuit boards and the economic benefits of recycling. Waste Management, 2022, 139, 105-115.	3.7	31
313	Analysis of cyclic voltammetry in the recovery of copper from printed circuit board waste using diluted deep eutectic solvent. IOP Conference Series: Earth and Environmental Science, 2021, 882, 012023.	0.2	0
314	Selective Chelating Resin for Copper Removal and Recovery in Aqueous Acidic Solution Generated from Synthetic Copper-Citrate Complexes from Bioleaching of E-waste. Adsorption Science and Technology, 2022, 2022, .	1.5	8
315	A review on the utilization of waste material in asphalt pavements. Environmental Science and Pollution Research, 2022, 29, 27279-27282.	2.7	18
316	Biosorption and Bioleaching of Heavy Metals from Electronic Waste Varied with Microbial Genera. Sustainability, 2022, 14, 935.	1.6	20
317	Co-pyrolysis characteristics and kinetics of electronic waste and macroalgae: A synergy study based on thermogravimetric analysis. Algal Research, 2022, 61, 102601.	2.4	8

#	Article	IF	Citations
318	Gold recovery from waste printed circuit boards of mobile phones by using microwave pyrolysis and hydrometallurgical methods. Sustainable Environment Research, 2022, 32, .	2.1	9
319	Thermodynamic Rarity Assessment of Mobile Phone PCBs: A Physical Criticality Indicator in Times of Shortage. Entropy, 2022, 24, 100.	1.1	2
320	A Review on Global E-Waste Management: Urban Mining towards a Sustainable Future and Circular Economy. Sustainability, 2022, 14, 647.	1.6	106
321	Analysis of environmental sustainability of e-waste in developing countries â€" a case study from Pakistan. Environmental Science and Pollution Research, 2022, 29, 36721-36739.	2.7	14
322	Electronic-Waste-Driven Pollution of Liquid Crystal Monomers: Environmental Occurrence and Human Exposure in Recycling Industrial Parks. Environmental Science & Technology, 2022, 56, 2248-2257.	4.6	48
323	An Overview of Modified Chitosan Adsorbents for the Removal of Precious Metals Species from Aqueous Media. Molecules, 2022, 27, 978.	1.7	25
324	Iodineâ€Catalysed Dissolution of Elemental Gold in Ethanol. Angewandte Chemie - International Edition, 2022, 61, .	7.2	11
325	Iodineâ€Catalysed Dissolution of Elemental Gold in Ethanol. Angewandte Chemie, 2022, 134, .	1.6	3
326	Catalytic selective recovery of silver from dilute aqueous solutions and e-waste leachates. Separation and Purification Technology, 2022, 285, 120303.	3.9	1
327	Examination of metal sorting and concentration technology in landfill mining â€"with focus on gravity and magnetic force sortingâ€". Waste Management, 2022, 141, 147-153.	3.7	2
328	One-Pot Green Recovery of Copper Oxide nanoparticles from Discarded Printed Circuit Boards for electrode material in Supercapacitor Application. Resources, Conservation and Recycling, 2022, 180, 106180.	5.3	32
329	E-Waste Management: Rising Concern on Existing Problems, Modern Perspectives, and Innovative Solutions. , 2022, , 1573-1592.		0
330	Management of E-Waste: Technological Challenges and Opportunities. , 2022, , 1523-1557.		5
331	E-waste it wisely: lessons from Africa. SN Applied Sciences, 2022, 4, 72.	1.5	27
332	Environmental Nanoparticles Reach Human Fetal Brains. Biomedicines, 2022, 10, 410.	1.4	23
333	Household's awareness and participation in sustainable electronic waste management practices in Saudi Arabia. Ain Shams Engineering Journal, 2022, 13, 101729.	3.5	32
334	Persulfate Application for Landfill Leachate Treatment: Current Status and Challenges. Chemistry in the Environment, 2022, , 252-288.	0.2	4
335	Size Distributions of Inhalable Particulate Matter and Particle-bound Heavy Metals and Their Potential Occupational Health Risk Related to Informal E-waste Recycling in Thailand. , 2022, 22, .		0

#	Article	IF	Citations
336	Metals extraction processes from electronic waste: constraints and opportunities. Environmental Science and Pollution Research, 2022, 29, 32651-32669.	2.7	19
337	Biologically engineered microbes for bioremediation of electronic waste: Wayposts, challenges and future directions. Engineering Biology, 2022, 6, 23-34.	0.8	10
338	Study of Metal Recovery from Printed Circuit Boards by Physical-Mechanical Treatment Processes. , 2022, 5, .		3
339	Strategies and options for the sustainable recovery of rare earth elements from electrical and electronic waste. Chemical Engineering Journal, 2022, 442, 135992.	6.6	50
340	Applications, treatments, and reuse of plastics from electrical and electronic equipment. Journal of Industrial and Engineering Chemistry, 2022, 110, 84-99.	2.9	21
341	Gravity and Electrostatic Separation for Recovering Metals from Obsolete Printed Circuit Board. Materials, 2022, 15, 1874.	1.3	4
342	A Biodegradable and Recyclable Piezoelectric Sensor Based on a Molecular Ferroelectric Embedded in a Bacterial Cellulose Hydrogel. ACS Nano, 2022, 16, 3744-3755.	7.3	68
343	Recent advances in recovering technology for recycling gold from waste printed circuit boards: a review. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2022, 44, 1640-1659.	1.2	10
344	Electronic waste: A critical assessment on the unimaginable growing pollutant, legislations and environmental impacts. Environmental Challenges, 2022, 7, 100507.	2.0	41
345	Advancements in the field of electronic waste Recycling: Critical assessment of chemical route for generation of energy and valuable products coupled with metal recovery. Separation and Purification Technology, 2022, 289, 120773.	3.9	28
346	Extraction of precious metals from waste printed circuit boards using cyanide-free alkaline glycine solution in the presence of an oxidant. Minerals Engineering, 2022, 181, 107501.	1.8	13
347	Cyber-physical systems for end-of-life management of printed circuit boards and mechatronics products in home automation: A review. Sustainable Materials and Technologies, 2022, 32, e00422.	1.7	2
348	Review on the Use of Heavy Metal Deposits from Water Treatment Waste towards Catalytic Chemical Syntheses. International Journal of Molecular Sciences, 2021, 22, 13383.	1.8	38
349	Reduction Smelting Experiment of Copper Dross with Low Copper Content. Science of Advanced Materials, 2021, 13, 2403-2412.	0.1	0
350	From Mineral Processing to Recycling: The Case of End-of-Life Printed Circuit Boardsâ€™ Physical Processing. , 2021, 5, .		0
351	Recyclability and recycling technologies for lithiumâ€“sulfur batteries. , 2022, , 627-651.		0
352	The Physical Characterization and Terminal Velocities of Aluminium, Iron and Plastic Bottle Caps in a Water Environment. Recycling, 2022, 7, 28.	2.3	9
353	Occurrence, Distribution, and Human Exposure of Emerging Liquid Crystal Monomers (LCMs) in Indoor and Outdoor Dust: A Nationwide Study. Environment International, 2022, 164, 107295.	4.8	26

#	Article	IF	Citations
354	Potential and current practices of recycling waste printed circuit boards: A review of the recent progress in pyrometallurgy. Journal of Environmental Management, 2022, 316, 115242.	3.8	38
355	A review of the recent development, challenges, and opportunities of electronic waste (e-waste). International Journal of Environmental Science and Technology, 2023, 20, 4513-4520.	1.8	54
356	Photocatalytic Materials Obtained from E-Waste Recycling: Review, Techniques, Critique, and Update. Journal of Manufacturing and Materials Processing, 2022, 6, 69.	1.0	4
357	Economic Analysis of a Conceptual Industrial Route for Printed Circuit Boards Processing Based on Mass and Energy Balances. World, 2022, 3, 434-448.	1.0	2
358	A comprehensive review on hazardous aspects and management strategies of electronic waste: Bangladesh perspectives. Heliyon, 2022, 8, e09802.	1.4	14
359	Do the Main Developers of Electrical and Electronic Equipment Comply with the Precepts of the Circular Economy Concepts? A Patent-Based Approach. Sustainability, 2022, 14, 8467.	1.6	5
360	Recycling of printed circuit boards: ultrasound-assisted comminution and leaching for metals recovery. Journal of Material Cycles and Waste Management, 2022, 24, 1991-2001.	1.6	9
361	Management of waste printed circuit boards via supercritical water technology. Journal of Cleaner Production, 2022, 368, 133198.	4.6	5
362	Electronic Waste in Egypt and Material Recovery Economics. , 2022, , .		0
364	Effects of particle size on the separation efficiency in a rotary-drum eddy current separator. Powder Technology, 2022, 410, 117870.	2.1	2
365	Electronic waste management scenario in Bangladesh: policies, recommendations, and case study at Dhaka and Chittagong for a sustainable solution. , 2022, 1, 100025.		8
366	Structural study and metal speciation assessments of waste PCBs and environmental implications: Outlooks for choosing efficient recycling routes. Waste Management, 2022, 151, 181-194.	3.7	6
367	Kinetic characteristics and mechanism of copper leaching from waste printed circuit boards by environmental friendly leaching system. Chemical Engineering Research and Design, 2022, 166, 123-132.	2.7	16
368	A critical review of the pre-processing and metals recovery methods from e-wastes. Journal of Environmental Management, 2022, 320, 115887.	3.8	21
369	Preprocessing of spent lithium-ion batteries for recycling: Need, methods, and trends. Renewable and Sustainable Energy Reviews, 2022, 168, 112809.	8.2	52
370	Recycling value materials from waste PCBs focus on electronic components: Technologies, obstruction and prospects. Journal of Environmental Chemical Engineering, 2022, 10, 108516.	3.3	25
371	Enhanced cleaner flotation behavior of non-metallic particles in waste printed circuit boards: From the perspective of particle size. Waste Management, 2022, 153, 167-177.	3.7	4
372	A comparative LCA study on aluminum electrolytic capacitors: From liquid-state electrolyte, solid-state polymer to their hybrid. Journal of Cleaner Production, 2022, 375, 134044.	4.6	7

#	Article	IF	Citations
373	Applications of crushing and grinding-based treatments for typical metal-containing solid wastes: Detoxification and resource recovery potentials. Environmental Pollution, 2022, 314, 120034.	3.7	4
374	Waste LEDs in China: Generation estimation and potential recycling benefits. Resources, Conservation and Recycling, 2022, 187, 106640.	5.3	3
375	A Process Intensified Scalable Zero-Discharge Process for Extraction of Tin, Lead, and Copper from Low-Grade Waste Printed Circuit Boards. SSRN Electronic Journal, 0, , .	0.4	0
376	Repurposing metal containing wastes and mass-produced materials as electrocatalysts for water electrolysis. Sustainable Energy and Fuels, 2022, 6, 4829-4844.	2.5	7
377	Eco-friendly and low-cost removal of bromine from waste printed circuit board smelting ash by mechano-chemical leaching. Green Chemistry, 2022, 24, 7061-7073.	4.6	2
378	Extracting Transition Metals from HCl Solutions by Means of Polypropylene Glycol 425. Russian Journal of Physical Chemistry A, 2022, 96, 1693-1697.	0.1	0
379	Optimization of Gold Dissolution Parameters in Acidified Thiourea Leaching Solution with Hydrogen Peroxide as an Oxidant: Implications of Roasting Pretreatment Technology. Metals, 2022, 12, 1567.	1.0	2
380	Biohydrometallurgical Recovery of Metals from Waste Electronic Equipment: Current Status and Proposed Process. Recycling, 2022, 7, 67.	2.3	12
381	Greener reactants, renewable energies and environmental impact mitigation strategies in pyrometallurgical processes: A review. MRS Energy & Sustainability, 2022, 9, 212-247.	1.3	9
382	Analysis of the Impact of Remanufacturing Process Innovation on Closed-Loop Supply Chain from the Perspective of Government Subsidy. Sustainability, 2022, 14, 11333.	1.6	4
383	Supercritical fluid technology - an eco-friendly approach for resource recovery from e-waste and plastic waste: A review. Separation and Purification Technology, 2023, 304, 122314.	3.9	26
384	Highly selective conversion of tetrabromobisphenol A epoxy resin waste to high-purity phenolic chemicals by subcritical water-CuO process. Journal of Analytical and Applied Pyrolysis, 2022, 168, 105773.	2.6	3
385	Regional economic potential for recycling consumer waste electronics in the United States. Nature Sustainability, 2023, 6, 93-102.	11.5	9
386	Mixed bromine/chlorine transformation products of tetrabromobisphenol A formed in the combustion of printed circuit boards: Emission characteristics and transformation pathways. Science of the Total Environment, 2023, 859, 160104.	3.9	0
387	Advances in hydrometallurgical approaches for gold recovery from E-waste: A comprehensive review and perspectives. Minerals Engineering, 2023, 191, 107977.	1.8	14
388	The reuse of electronic components from waste printed circuit boards: a critical review. Environmental Science Advances, 2023, 2, 196-214.	1.0	5
389	Exfoliation of coarse printed circuit boards using dimethylacetamide: Production of copper concentrates. Minerals Engineering, 2023, 191, 107963.	1.8	2
390	Electronic waste considerations in the Middle East and North African (MENA) region: A review. Environmental Technology and Innovation, 2023, 29, 102961.	3.0	7

#	Article	IF	Citations
391	A review on recovery processes of metals from E-waste: A green perspective. Science of the Total Environment, 2023, 859, 160391.	3.9	44
392	DETERMINATION OF EVALUATION INDICATORS FOR PRE-ABANDONED PROJECT BASED ON SUSTAINABLE GOAL DEVELOPMENT ASPIRATION. ASEAN Engineering Journal, 2022, 12, 105-119.	0.2	0
393	Risk management of e-waste disposal in China: A life cycle perspective. Energy and Environment, 0, , 0958305X2211405.	2.7	0
394	Rheological Investigation of Welding Waste-Derived Graphene Oxide in Water-Based Drilling Fluids. Materials, 2022, 15, 8266.	1.3	6
395	Electrochemical Study of Al₂O₃/ Industrial Waste Coating on Mg Substrate via Sol-Gel Method. Materials Science Forum, 0, 1076, 73-81.	0.3	0
396	Biathlonda AtÄ±ÅŸ Ä°sabetini Etkileyen BazÄ± Fizyolojik FaktÃ¶rlerin Ä°ncelenmesi. Akdeniz Spor Bilimleri Dergisi, 0, , .	0.1	0
397	Utilizing scrap printed circuit boards to fabricate efficient Fenton-like catalysts for the removal of pharmaceutical diclofenac and ibuprofen from water. Journal of Environmental Chemical Engineering, 2022, 10, 109015.	3.3	21
398	A new approach to designing easily recyclable printed circuit boards. Scientific Reports, 2022, 12, .	1.6	11
399	Alkaliphiles for comprehensive utilization of red mud (bauxite residue)â€”an alkaline waste from the alumina refinery. Environmental Science and Pollution Research, 2023, 30, 9350-9368.	2.7	7
400	Recycling municipal, agricultural and industrial waste into energy, fertilizers, food and construction materials, and economic feasibility: a review. Environmental Chemistry Letters, 2023, 21, 765-801.	8.3	54
401	Global research into the relationship between electronic waste and health over the last 10 years: A scientometric analysis. Frontiers in Public Health, 0, 10, .	1.3	0
402	One-step separation of tin from e-waste by a chemical vapor transport process (CVT): Preparation of nano-SnO2. Waste Management, 2023, 157, 330-338.	3.7	3
403	A comprehensive review of urban mining and the value recovery from e-waste materials. Resources, Conservation and Recycling, 2023, 190, 106840.	5.3	32
404	Chemical methods for the treatment of e-waste. , 2023, , 181-204.		1
405	Electronic (E-waste) conduct: chemical assessment and treatment methods. , 2023, , 143-161.		1
406	AtÄ±k Seramik CPU ve Telefon KartlarÄ±nda AltÄ±n ve DiÄŸer DeÄŸerli Metallerin Geri KazanÄ±mÄ±. Osmaniye Korkut Ata Ãœniversitesi Fen Bilimleri EnstitÃ¼sÃ¼ Dergisi, 2023, 6, 141-150.	0.2	0
407	A novel S,N-rich MOF for efficient recovery of Au(III): Performance and mechanism. Journal of Hazardous Materials, 2023, 451, 131051.	6.5	13
408	Application of recycled crushed glass in road pavements and pipeline bedding: An integrated environmental evaluation using LCA. Science of the Total Environment, 2023, 881, 163488.	3.9	18

#	Article	IF	Citations
409	HYDROMETALLURGICAL METHODS OF GALVANIC SLUDGE RECYCLING. , 2022, , .		0
410	Electrochemically Mediated Recovery and Purification of Gold for Sustainable Mining and Electronic Waste Recycling. ACS Sustainable Chemistry and Engineering, 2023, 11, 3975-3986.	3.2	8
411	A global perspective on e-waste recycling. , 2023, 2, 100028.		22
412	Study of electrostatic separation to concentrate silver, aluminum, and silicon from solar panel scraps. , 2023, 2, 100027.		1
413	Polysulfides as Sorbents in Support of Sustainable Recycling. ACS Sustainable Chemistry and Engineering, 2023, 11, 3557-3567.	3.2	4
414	Current Scenario on Conventional and Modern Approaches Towards Eco-friendly ElectronicÂWaste Management. , 2023, , 1-44.		0
415	Electronic Waste and Their Management Strategies. , 2023, , 45-61.		0
416	Role of Biotechnological Approaches for the Valorization of Precious Metals from E-waste. , 2023, , 319-335.		0
417	Percutaneous Penetration of Liquid Crystal Monomers (LCMs) by In Vitro Three-Dimensional Human Skin Equivalents: Possible Mechanisms and Implications for Human Dermal Exposure Risks. Environmental Science & Technology, 2023, 57, 4454-4463.	4.6	10
418	A Reward-based Framework for Recovery and Utilization of Recyclable Wastes using Blockchain. , 2022, , .		1
419	Performance of EU Countries in Managing Electrical and Electronic Equipment Waste in the Context of the Circular Economy. Amfiteatru Economic, 2023, 25, 115.	1.0	1
420	A Critical Review on the Recovery of Base and Critical Elements from Electronic Waste-Contaminated Streams Using Microbial Biotechnology. Applied Biochemistry and Biotechnology, 2023, 195, 7859-7888.	1.4	7
421	Genesis of copper oxide nanoparticles from waste printed circuit boards and evaluation of their photocatalytic activity. Environmental Research, 2023, 229, 115951.	3.7	10
424	Rethinking circular economy for electronics, energy storage, and solar photovoltaics with long product lifeÂcycles. MRS Bulletin, 2023, 48, 375-385.	1.7	6
430	Recovery of precious metals from e-wastes through conventional and phytoremediation treatment methods: a review and prediction. Journal of Material Cycles and Waste Management, 2023, 25, 2726-2752.	1.6	8
434	A global glance on waste electrical and electronic equipments (WEEEs). , 2023, , 1-11.		0
435	Pyrometallurgy: urban mining and its future implications. , 2023, , 125-142.		0
436	Challenges and extended business opportunity associated with E-waste management options. , 2023, , 31-49.		0

#	Article	IF	Citations
442	Recovery of metals and valuable chemicals from waste electric and electronic materials: a critical review of existing technologies. , 2023, 1, 1085-1108.		9
453	Electronic waste in emerging countries: current scenario of generation, policies, and recycling technologies regarding the coronavirus pandemic. International Journal of Environmental Science and Technology, 2024, 21, 1121-1140.	1.8	2
454	Combined pyro-hydrometallurgical technology for recovering valuable metal elements from spent lithium-ion batteries: a review of recent developments. Green Chemistry, 2023, 25, 6561-6580.	4.6	7
461	A Review of the Indian Scenario of E-waste Management: Generation, Effect, and Material Recovery Method. Lecture Notes in Civil Engineering, 2024, , 99-116.	0.3	0
471	Review on heavy metal contaminants in freshwater fish in South India: current situation and future perspective. Environmental Science and Pollution Research, 2023, 30, 119594-119611.	2.7	2
475	Electronic Waste to Energy, Technologies, Economics, and Challenges: A Renewable or Non-Renewable Path?. , 2023, , .		0
485	Synthesis and characterization of graphene oxide-(carboxymethylcellulose-sodium alginate - Acrylic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 2023, , .	0.3	0
496	Resource recovery from the e-wastes through bioleaching. , 2024, , 271-280.		0
498	A toolbox for improved recycling of critical metals and materials in low-carbon technologies. , 2024, 2, 320-347.		1
509	E-Waste Collection and Recycling Best Practices and Innovations. Impact of Meat Consumption on Health and Environmental Sustainability, 2024, , 33-43.	0.4	0
521	Introductory Chapter: Foundations and Challenges in Hazardous Waste Management. , 0, , .		0