Cheng-yan Wang

List of Publications by Year
in descending order

108	3,145	201658	197805
papers	citations	27 h-index	49 g-index

109	109	109	2090
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A promising approach for the recovery of high value-added metals from spent lithium-ion batteries. Journal of Power Sources, 2017, 351, 192-199.	7.8	371
2	Sustainable and Facile Method for the Selective Recovery of Lithium from Cathode Scrap of Spent LiFePO₄ Batteries. ACS Sustainable Chemistry and Engineering, 2019, 7, 5626-5631.	6.7	188
3	Efficient and economical recovery of lithium, cobalt, nickel, manganese from cathode scrap of spent lithium-ion batteries. Journal of Cleaner Production, 2018, 204, 437-446.	9.3	166
4	Graphite Recycling from the Spent Lithium-Ion Batteries by Sulfuric Acid Curingâ€“Leaching Combined with High-Temperature Calcination. ACS Sustainable Chemistry and Engineering, 2020, 8, 9447-9455.	6.7	121
5	Highâ€Performance Perovskite Solar Cells with Large Grainâ€Size obtained by using the Lewis Acidâ€Base Adduct of Thiourea. Solar Rrl, 2018, 2, 1800034.	5.8	102
6	Direct Regeneration of Spent LiFePO₄ Cathode Material by a Green and Efficient One-Step Hydrothermal Method. ACS Sustainable Chemistry and Engineering, 2020, 8, 17622-17628.	6.7	96
7	Facile and efficient recovery of lithium from spent LiFePO₄ batteries via air oxidationâ€“water leaching at room temperature. Green Chemistry, 2022, 24, 152-162.	9.0	84
8	Enhanced performance of TiO2-based perovskite solar cells with Ru-doped TiO2 electron transport layer. Solar Energy, 2018, 169, 335-342.	6.1	74
9	Introduction of carbon nanodots into SnO₂ electron transport layer for efficient and UV stable planar perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 5353-5362.	10.3	67
10	Pilot-scale plant study on the innovative nitric acid pressure leaching technology for laterite ores. Hydrometallurgy, 2015, 155, 88-94.	4.3	66
11	E-pH Diagrams for the Li-Fe-P-H₂O System from 298 to 473 K: Thermodynamic Analysis and Application to the Wet Chemical Processes of the LiFePO₄ Cathode Material. Journal of Physical Chemistry C, 2019, 123, 14207-14215.	3.1	63
12	Selective pressure leaching of Fe (II)-rich limonitic laterite ores from Indonesia using nitric acid. Minerals Engineering, 2013, 45, 151-158.	4.3	59
13	Sustainable and Facile Process for Lithium Recovery from Spent LiNi_xCo_yMn_zO₂ Cathode Materials via Selective Sulfation with Ammonium Sulfate. ACS Sustainable Chemistry and Engineering, 2020, 8, 15732-15739.	6.7	56
14	Lithium Extraction and Hydroxysodalite Zeolite Synthesis by Hydrothermal Conversion of Î±-Spodumene. ACS Sustainable Chemistry and Engineering, 2019, 7, 9498-9505.	6.7	48
15	Efficient removal and recovery of arsenic from copper smelting flue dust by a roasting method: Process optimization, phase transformation and mechanism investigation. Journal of Hazardous Materials, 2021, 412, 125232.	12.4	48
16	Recovery of valuable metals from spent LiNixCoyMnzO2 cathode material via phase transformation and stepwise leaching. Separation and Purification Technology, 2021, 267, 118609.	7.9	46
17	Surface determination and electrochemical behavior of IrO 2 -RuO 2 -SiO 2 ternary oxide coatings in oxygen evolution reaction application. Electrochimica Acta, 2018, 264, 350-357.	5.2	45
18	Interface modification by a multifunctional ammonium salt for high performance and stable planar perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 11867-11876.	10.3	45

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19	Regenerating spent graphite from scrapped lithium-ion battery by high-temperature treatment. Carbon, 2022, 189, 493-502.	10.3	42
20	Chloridization and Reduction Roasting of High-Magnesium Low-Nickel Oxide Ore Followed by Magnetic Separation to Enrich Ferronickel Concentrate. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2016, 47, 145-153.	2.1	40
21	Behavior and mechanism of fluoride removal from aqueous solutions by using synthesized CaSO4Â·2H2O nanorods. Chemical Engineering Journal, 2021, 426, 131364.	12.7	40
22	Screening and reduction roasting of limonitic laterite and ammonia-carbonate leaching of nickelâ€“cobalt to produce a high-grade iron concentrate. Minerals Engineering, 2013, 50-51, 106-113.	4.3	39
23	Co-treatment of copper smelting flue dust and arsenic sulfide residue by a pyrometallurgical approach for simultaneous removal and recovery of arsenic. Journal of Hazardous Materials, 2021, 416, 126149.	12.4	39
24	Rubidium extraction from mineral and brine resources: A review. Hydrometallurgy, 2021, 203, 105644.	4.3	37
25	Recovery and regeneration of LiFePO4 from spent lithium-ion batteries via a novel pretreatment process. International Journal of Minerals, Metallurgy and Materials, 2021, 28, 1478-1487.	4.9	34
26	Effect of activation pretreatment of limonitic laterite ores using sodium fluoride and sulfuric acid on water leaching of nickel and cobalt. Hydrometallurgy, 2017, 169, 411-417.	4.3	30
27	A breakthrough method for the recycling of spent lithium-ion batteries without pre-sorting. Green Chemistry, 2021, 23, 8434-8440.	9.0	30
28	Efficient Extraction of Lithium and Rubidium from Polylithionite via Alkaline Leaching Combined with Solvent Extraction and Precipitation. ACS Sustainable Chemistry and Engineering, 2020, 8, 14462-14470.	6.7	29
29	An advanced strategy of â€œmetallurgy before sortingâ€•for recycling spent entire ternary lithium-ion batteries. Journal of Cleaner Production, 2022, 361, 132268.	9.3	29
30	Surface morphology and electrochemical properties of RuO2-doped Ti/IrO2-ZrO2 anodes for oxygen evolution reaction. Journal of Alloys and Compounds, 2019, 778, 593-602.	5.5	26
31	Solid-State Metalized Reduction of Magnesium-Rich Low-Nickel Oxide Ores Using Coal as the Reductant Based on Thermodynamic Analysis. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2017, 48, 2037-2046.	2.1	25
32	Efficient Phase Transformation of Î³-Al₂O₃ to Î±-Al₂O₃ in Spent Hydrodesulphurization Catalyst by Microwave Roasting Method. Industrial & Engineering Chemistry Research, 2019, 58, 1495-1501.	3.7	25
33	A simple and effective process for recycling zinc-rich paint residue. Waste Management, 2018, 76, 234-241.	7.4	24
34	Clean and efficient process for the extraction of rubidium from granitic rubidium ore. Journal of Cleaner Production, 2018, 196, 64-73.	9.3	24
35	Electrochemical behavior and corrosion mechanism of Ti/IrO2-RuO2 anodes in sulphuric acid solution. Journal of Electroanalytical Chemistry, 2019, 837, 175-183.	3.8	24
36	Effective Separation and Beneficiation of Iron and Chromium from Laterite Sulfuric Acid Leach Residue. ACS Sustainable Chemistry and Engineering, 2020, 8, 3959-3968.	6.7	23

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37	Removal of Pb(II) from aqueous solution using a new zeolite-type absorbent: Potassium ore leaching residue. Journal of Environmental Chemical Engineering, 2018, 6, 7138-7143.	6.7	22
38	Composition of Ag-WO3 core-shell nanostructures as efficient electrocatalysts for hydrogen evolution reaction. Journal of Solid State Chemistry, 2019, 271, 246-252.	2.9	22
39	Nonmolten state metalized reduction of saprolitic laterite ores: Effective extraction and process optimization of nickel and iron. Journal of Cleaner Production, 2020, 256, 120415.	9.3	21
40	Adsorption behavior and mechanism of mixed heavy metal ions by zeolite adsorbent prepared from lithium leach residue. Microporous and Mesoporous Materials, 2022, 329, 111553.	4.4	21
41	Introduction of LiCl into SnO2 electron transport layer for efficient planar perovskite solar cells. Chemical Physics Letters, 2020, 745, 137220.	2.6	20
42	Mechanism of sodium chloride in promoting reduction of high-magnesium low-nickel oxide ore. Scientific Reports, 2016, 6, 29061.	3.3	19
43	Separation of rubidium from potassium in rubidium ore liquor by solvent extraction with t-BAMBP. Minerals Engineering, 2018, 121, 158-163.	4.3	19
44	Comprehensive utilization of Philippine laterite ore, part 1: Design of technical route and classification of the initial ore based on mineralogical analysis. International Journal of Mineral Processing, 2013, 124, 42-49.	2.6	18
45	Rubidium and Potassium Extraction from Granitic Rubidium Ore: Process Optimization and Mechanism Study. ACS Sustainable Chemistry and Engineering, 2018, 6, 4922-4930.	6.7	18
46	The improvement of inverted perovskite solar cells by the introduction of CTAB into PEDOT:PSS. Solar Energy, 2019, 188, 28-34.	6.1	18
47	Cobalt separation from nickel in sulfate aqueous solution by a new extractant: Di-decylphosphinic acid (DDPA). Hydrometallurgy, 2012, 113-114, 86-90.	4.3	17
48	E-pH diagrams for the metal-water system at 150ÂÂ°C: Thermodynamic analysis and application for extraction and separation of target metals from saprolitic laterite. Minerals Engineering, 2020, 152, 106365.	4.3	17
49	Regeneration of graphite anode from spent lithium-ion batteries via microwave calcination. Journal of Electroanalytical Chemistry, 2022, 908, 116087.	3.8	17
50	Incorporation of Rb cations into Cu 2 FeSnS 4 thin films improves structure and morphology. Materials Letters, 2017, 202, 36-38.	2.6	16
51	A novel way to synthesize calcium sulfate whiskers with high aspect ratios from concentrated calcium nitrate solution. Materials Letters, 2018, 219, 1-3.	2.6	16
52	Efficient removal of oil from spent hydrodesulphurization catalysts using microwave pyrolysis method. Journal of Analytical and Applied Pyrolysis, 2018, 135, 169-175.	5.5	16
53	Enhanced efficiency and stability of inverted perovskite solar cells by carbon dots cathode interlayer via solution process. Organic Electronics, 2019, 74, 228-236.	2.6	16
54	Separation and Recovery of Valuable Elements from Spent CIGS Materials. ACS Sustainable Chemistry and Engineering, 2019, 7, 19816-19823.	6.7	16

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55	Nitric acid pressure leaching of limonitic laterite ores: Regeneration of HNO3 and simultaneous synthesis of fibrous CaSO4Â·2H2O by-products. Journal of Central South University, 2020, 27, 3249-3258.	3.0	16
56	Improvement of the electrochemical performance of spent graphite by asphalt coating. Surfaces and Interfaces, 2021, 24, 101089.	3.0	16
57	Novel geochemistry-inspired method for the deep removal of vanadium from molybdate solution. Journal of Hazardous Materials, 2017, 331, 210-217.	12.4	15
58	Effective Separation and Recovery of Valuable Components from CIGS Chamber Waste via Controlled Phase Transformation and Selective Leaching. ACS Sustainable Chemistry and Engineering, 2020, 8, 3026-3037.	6.7	15
59	Selective recovery and efficient separation of lithium, rubidium, and cesium from lepidolite ores. Separation and Purification Technology, 2022, 288, 120667.	7.9	15
60	Large guanidinium cation enhance photovoltage for perovskite solar cells via solution-processed secondary growth technique. Solar Energy, 2018, 176, 118-125.	6.1	14
61	Interfacial modification of various alkali metal cations in perovskite solar cells and their influence on photovoltaic performance. New Journal of Chemistry, 2020, 44, 8902-8909.	2.8	14
62	Efficient separation and recovery of gallium and indium in spent CIGS materials. Separation and Purification Technology, 2022, 282, 120087.	7.9	14
63	Recovering metals from flue dust produced in secondary copper smelting through a novel process combining low temperature roasting, water leaching and mechanochemical reduction. Journal of Hazardous Materials, 2022, 430, 128497.	12.4	14
64	Recovery of iron from copper tailings via low-temperature direct reduction and magnetic separation: process optimization and mineralogical study. International Journal of Minerals, Metallurgy and Materials, 2017, 24, 974-982.	4.9	13
65	Solid-phase synthesis of Cu2MoS4 nanoparticles for degradation of methyl blue under a halogen-tungsten lamp. International Journal of Minerals, Metallurgy and Materials, 2018, 25, 310-314.	4.9	13
66	NH4F as an interfacial modifier for high performance NiOx-based inverted perovskite solar cells. Organic Electronics, 2020, 78, 105627.	2.6	13
67	Electrochemical behavior and corrosion resistance of IrO2-ZrO2 binary oxide coatings for promoting oxygen evolution in sulfuric acid solution. International Journal of Minerals, Metallurgy and Materials, 2020, 27, 264-273.	4.9	13
68	Deep and efficient removal of vanadium from molybdate solution using magnetic Î³-Fe2O3 nanoparticles. Applied Surface Science, 2020, 529, 147060.	6.1	13
69	Innovative and sustainable separation and recovery of valuable metals in spent CIGS materials. Journal of Cleaner Production, 2022, 350, 131426.	9.3	13
70	Influence of Calcium Chloride Addition on Coal-Based Reduction Roasting of Low-Nickel Garnierite Ore. Materials Transactions, 2017, 58, 1161-1168.	1.2	12
71	Polyvinylpyrrolidone as additive for perovskite solar cells with water and isopropanol as solvents. Beilstein Journal of Nanotechnology, 2019, 10, 2374-2382.	2.8	12
72	Mineralogical Characterization of Limonitic Laterite from Africa and Its Proposed Processing Route. Journal of Sustainable Metallurgy, 2020, 6, 491-503.	2.3	12

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73	Stepwise removal and recovery of phosphate and fluoride from wastewater via pH-dependent precipitation: Thermodynamics, experiment and mechanism investigation. Journal of Cleaner Production, 2021, 320, 128872.	9.3	12
74	Efficient separation and purification of indium and gallium in spent Copper indium gallium diselenide (CIGS). Journal of Cleaner Production, 2022, 339, 130658.	9.3	12
75	Efficient recovery of valuable metals from waste printed circuit boards by microwave pyrolysis. Chinese Journal of Chemical Engineering, 2021, 40, 262-268.	3.5	12
76	Sustainable process for valuable-metal recovery from circulating fluidized bed fly ash through nitric acid pressure leaching. Journal of Cleaner Production, 2022, 360, 132212.	9.3	12
77	A shortcut approach for cooperative disposal of flue dust and waste acid from copper smelting: Decontamination of arsenic-bearing waste and recovery of metals. Science of the Total Environment, 2022, 843, 157063.	8.0	12
78	Deep cleaning of a metallurgical zinc leaching residue and recovery of valuable metals. International Journal of Minerals, Metallurgy and Materials, 2017, 24, 1217-1227.	4.9	11
79	Enrichment of scandium and aluminum from limonitic laterite during the nitric acid pressure leaching process. Hydrometallurgy, 2022, 208, 105819.	4.3	11
80	Thorough extraction of lithium and rubidium from lepidolite via thermal activation and acid leaching. Minerals Engineering, 2022, 178, 107407.	4.3	11
81	A sustainable process to recycle aluminum from coal fly ash for simultaneous removal of iron: Solid waste management and evaluation. Minerals Engineering, 2022, 184, 107638.	4.3	11
82	Microwave pretreatment for enhanced selective nitric acid pressure leaching of limonitic laterite. Journal of Central South University, 2021, 28, 3050-3060.	3.0	10
83	A Review on the Removal of Magnesium and Fluoride in Zinc Hydrometallurgy. Journal of Sustainable Metallurgy, 2022, 8, 25-36.	2.3	10
84	Pilot-scale plant study on solid-state metalized reductionâ€“magnetic separation for magnesium-rich nickel oxide ores. International Journal of Mineral Processing, 2017, 169, 99-105.	2.6	9
85	Effects of Calcination Temperature on the Surface Morphology and Electrocatalytic Properties of Ti/IrO₂-ZrO₂Anodes in an Oxygen Evolution Application. Journal of the Electrochemical Society, 2018, 165, F1192-F1198.	2.9	9
86	Crystallization behavior-dependent electrocatalytic activity and stability of Ti/IrO2RuO2SiO2 anodes for oxygen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 511-522.	7.1	9
87	Kinetics of pyrite multi-step thermal decomposition in refractory gold sulphide concentrates. Journal of Thermal Analysis and Calorimetry, 2022, 147, 3689-3702.	3.6	9
88	Two-stage reduction for the preparation of ferronickel alloy from nickel laterite ore with low Co and high MgO contents. International Journal of Minerals, Metallurgy and Materials, 2017, 24, 512-522.	4.9	8
89	Phytate modifies the hole transport layer and assists in blade coating to prepare efficient perovskite solar cells. Solar Energy, 2020, 203, 25-31.	6.1	8
90	Mineral evolution and porous kinetics of nitric acid pressure leaching limonitic laterite. Minerals Engineering, 2022, 181, 107544.	4.3	8

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91	Enhanced performance of mesostructured perovskite solar cells with a composite Sn4+-doped TiO2 electron transport layer. Ionics, 2019, 25, 4509-4516.	2.4	7
92	Thermodynamic analysis and application for preparing FePO4 from nitric acid pressure leach laterite residue by selective leaching in phosphoric acid and induced precipitation. Hydrometallurgy, 2022, 212, 105896.	4.3	7
93	Separation and recovery of scandium from high pressure sulfuric acid leach liquor of limonitic laterite. Chemical Engineering Research and Design, 2022, 165, 161-172.	5.6	7
94	Effects of K ions doping on the structure, morphology and optical properties of Cu2FeSnS4 thin films prepared by blade-coating process. Optoelectronics Letters, 2017, 13, 291-294.	0.8	6
95	Cleaning of lead smelting flue gas scrubber sludge and recovery of lead, selenium and mercury by the hydrometallurgical route. Environmental Technology (United Kingdom), 2018, 39, 1461-1469.	2.2	6
96	Efficient Recovery of Copper and Cobalt from the Matteâ€“Slag Mixture of ISA Furnace by Injection of Coke and Pyrite. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 3118-3126.	2.1	6
97	Interfacial modification by multifunctional octocrylene for high efficiency and stable planar perovskite solar cells. Chemical Communications, 2020, 56, 6731-6734.	4.1	6
98	A Facile and Environmentally Friendly Approach for Lead Recovery from Lead Sulfate Residue via Mechanochemical Reduction: Phase Transformation and Reaction Mechanism. ACS Sustainable Chemistry and Engineering, 2021, 9, 10227-10239.	6.7	6
99	Reactive-Sputtered Prepared Tin Oxide Thin Film as an Electron Transport Layer for Planar Perovskite Solar Cells. Coatings, 2019, 9, 320.	2.6	5
100	Insights into the effect of cations on cathodic behavior and microstructure in cadmium electrochemical recovery process. Chemosphere, 2022, 292, 133423.	8.2	5
101	Leaching Behavior of Lead and Silver from Lead Sulfate Hazardous Residues in NaCl-CaCl2-NaClO3 Media. Jom, 2019, 71, 2388-2395.	1.9	4
102	Efficient separation of impurities in scrap copper by sulfurization-vacuum distillation. Vacuum, 2022, 202, 111145.	3.5	4
103	Efficient recovery of iron and chromium from laterite residue by non-molten metallization reduction. Powder Technology, 2022, 407, 117618.	4.2	4
104	Effect of Cu2O Content in Electrodeposited CuOx Film on Perovskite Solar Cells. Nano, 2019, 14, 1950126.	1.0	3
105	Microwave Pyrolysis Pretreatment of High Arsenic Refractory Gold Sulfide Concentrates in Nitrogen Atmosphere: Process Optimization and Mechanism Study. Jom, 2022, 74, 167-177.	1.9	2
106	Facile synthesis of monodispersed copper oxalate flaky particles in the presence of EDTA. International Journal of Minerals, Metallurgy and Materials, 2018, 25, 762-769.	4.9	1
107	Separation of potassium from sodium in alkaline solution by solvent extraction with 4-tert-butyl-2-(Î±-methylbenzyl) phenol. Journal of Central South University, 2021, 28, 2003-2009.	3.0	1
108	Preparation of tungsten-based material and the effect on oxygen reduction reaction. Materials Research Express, 2019, 6, 0850c2.	1.6	0