

Lu Zhan

List of Publications by Year in descending order

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44
papers

1,299
citations

361413

20
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361022

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all docs

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docs citations

44
times ranked

943
citing authors

#	ARTICLE	IF	CITATIONS
1	State-of-the-Art of Recycling E-Wastes by Vacuum Metallurgy Separation. <i>Environmental Science & Technology</i> , 2014, 48, 14092-14102.	10.0	79
2	Application of Vacuum Metallurgy to Separate Pure Metal from Mixed Metallic Particles of Crushed Waste Printed Circuit Board Scraps. <i>Environmental Science & Technology</i> , 2008, 42, 7676-7681.	10.0	78
3	Novel recycle technology for recovering rare metals (Ga, In) from waste light-emitting diodes. <i>Journal of Hazardous Materials</i> , 2015, 299, 388-394.	12.4	78
4	Reduction, detoxification and recycling of solid waste by hydrothermal technology: A review. <i>Chemical Engineering Journal</i> , 2020, 390, 124651.	12.7	76
5	Separating and Recovering Pb from Copper-Rich Particles of Crushed Waste Printed Circuit Boards by Evaporation and Condensation. <i>Environmental Science & Technology</i> , 2011, 45, 5359-5365.	10.0	70
6	Separating and Recycling Metals from Mixed Metallic Particles of Crushed Electronic Wastes by Vacuum Metallurgy. <i>Environmental Science & Technology</i> , 2009, 43, 7074-7078.	10.0	60
7	Preparation of zinc nano structured particles from spent zinc manganese batteries by vacuum separation and inert gas condensation. <i>Separation and Purification Technology</i> , 2015, 142, 227-233.	7.9	60
8	Products derived from waste plastics (PC, HIPS, ABS, PP and PA6) via hydrothermal treatment: Characterization and potential applications. <i>Chemosphere</i> , 2018, 207, 742-752.	8.2	59
9	Hydrothermal Treatment of E-Waste Plastics for Tertiary Recycling: Product Slate and Decomposition Mechanisms. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 1464-1473.	6.7	59
10	Research of the thermal decomposition mechanism and pyrolysis pathways from macromonomer to small molecule of waste printed circuit board. <i>Journal of Hazardous Materials</i> , 2020, 383, 121234.	12.4	58
11	A cleaner approach to the discharge process of spent lithium ion batteries in different solutions. <i>Journal of Cleaner Production</i> , 2020, 255, 120064.	9.3	55
12	Novel targetedly extracting lithium: An environmental-friendly controlled chlorinating technology and mechanism of spent lithium ion batteries recovery. <i>Journal of Hazardous Materials</i> , 2021, 404, 123947.	12.4	54
13	Catalytic effect and mechanism of coexisting copper on conversion of organics during pyrolysis of waste printed circuit boards. <i>Journal of Hazardous Materials</i> , 2021, 403, 123465.	12.4	42
14	Biochar modulates mineral nitrogen dynamics in soil and terrestrial ecosystems: A critical review. <i>Chemosphere</i> , 2021, 278, 130378.	8.2	42
15	Recycle Gallium and Arsenic from GaAs-Based E-Wastes via Pyrolysis-Vacuum Metallurgy Separation: Theory and Feasibility. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 1336-1342.	6.7	35
16	Separating zinc from copper and zinc mixed particles using vacuum sublimation. <i>Separation and Purification Technology</i> , 2009, 68, 397-402.	7.9	34
17	A novel method of preparing highly dispersed spherical lead nanoparticles from solders of waste printed circuit boards. <i>Chemical Engineering Journal</i> , 2016, 303, 261-267.	12.7	31
18	In-situ debromination mechanism based on self-activation and catalysis of Ca(OH) ₂ during pyrolysis of waste printed circuit boards. <i>Journal of Hazardous Materials</i> , 2020, 392, 122447.	12.4	28

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19	Recycling of metals (Ga, In, As and Ag) from waste light-emitting diodes in sub/supercritical ethanol. <i>Resources, Conservation and Recycling</i> , 2020, 155, 104695.	10.8	28
20	Utilizing E-Waste for Construction of Magnetic and Core-Shell Z-Scheme Photocatalysts: An Effective Approach to E-Waste Recycling. <i>Environmental Science & Technology</i> , 2021, 55, 1279-1289.	10.0	22
21	Study on the remediation of tetracycline antibiotics and roxarsone contaminated soil. <i>Environmental Pollution</i> , 2021, 271, 116312.	7.5	19
22	Preparing ultrafine PbS powders from the scrap lead-acid battery by sulfurization and inert gas condensation. <i>Journal of Power Sources</i> , 2017, 341, 435-442.	7.8	17
23	Preparing nano-zinc oxide with high-added-value from waste zinc manganese battery by vacuum evaporation and oxygen-control oxidation. <i>Journal of Cleaner Production</i> , 2020, 251, 119691.	9.3	17
24	Separating Criterion of Pb, Cd, Bi and Zn from Metallic Particles of Crushed Electronic Wastes by Vacuum Evaporation. <i>Separation Science and Technology</i> , 2012, 47, 913-919.	2.5	16
25	Leaching behavior of Sb and Br from E-waste flame retardant plastics. <i>Chemosphere</i> , 2020, 245, 125684.	8.2	16
26	Recycling Zinc and Preparing High-Value-Added Nanozinc Oxide from Waste Zinc-Manganese Batteries by High-Temperature Evaporation-Separation and Oxygen Control Oxidation. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 12104-12109.	6.7	15
27	Recycling Ag, As, Ga of waste light-emitting diodes via subcritical water treatment. <i>Journal of Hazardous Materials</i> , 2021, 408, 124409.	12.4	15
28	Unveiling the Control Mechanism of the Carbothermal Reduction Reaction for Waste Li-Ion Battery Recovery: Providing Instructions for Its Practical Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 9418-9425.	6.7	15
29	A novel method of preparing PbS from waste lead paste through in-situ vulcanization and reduction. <i>Journal of Cleaner Production</i> , 2019, 208, 778-784.	9.3	14
30	Characteristics of unorganized emissions of microplastics from road fugitive dust in urban mining bases. <i>Science of the Total Environment</i> , 2022, 827, 154355.	8.0	14
31	Decomposition of Packaging Materials and Recycling GaAs from Waste ICs by Hydrothermal Treatment. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 14111-14118.	6.7	13
32	Recycling Arsenic from Gallium Arsenide Scraps through Sulfurizing Thermal Treatment. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 3179-3185.	6.7	12
33	Preparing lead oxide nanoparticles from waste electric and electronic equipment by high temperature oxidation-evaporation and condensation. <i>Powder Technology</i> , 2017, 308, 30-36.	4.2	12
34	Novel Recycle Technology for Recovering Gallium Arsenide from Scraped Integrated Circuits. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 2874-2882.	6.7	12
35	An ignored potential microplastic contamination of a typical waste glass recycling base. <i>Journal of Hazardous Materials</i> , 2022, 422, 126854.	12.4	12
36	Thermal desorption behavior of fluoroquinolones in contaminated soil of livestock and poultry breeding. <i>Environmental Research</i> , 2022, 211, 113101.	7.5	7

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37	Hydrothermal Leaching Behavior of Manganese from Waste Zn-Mn Dry Batteries. ACS Sustainable Chemistry and Engineering, 2021, 9, 3137-3144.	6.7	5
38	Thermal defluorination behaviors of PFOS, PFOA and PFBS during regeneration of activated carbon by molten salt. Frontiers of Environmental Science and Engineering, 2022, 16, 1.	6.0	5
39	Self-catalytic pyrolysis thermodynamics of waste printed circuit boards with co-existing metals. Frontiers of Environmental Science and Engineering, 2022, 16, .	6.0	4
40	The Human-Machine Interface Design Based on Labview for Recycling Metals from Mixed Metallic Particles. Advanced Materials Research, 0, 878, 368-373.	0.3	3
41	Debromination process of Br-containing PS of E-wastes and reuse with virgin PS. Journal of Hazardous Materials, 2022, 431, 128526.	12.4	3
42	Vacuum Separation Behavior of Pb from Copper-Rich Particles of Crushed E-Wastes. Separation Science and Technology, 2014, 49, 2440-2447.	2.5	2
43	Assessment of heavy metals exposure, noise and thermal safety in the ambiance of a vacuum metallurgy separation system for recycling heavy metals from crushed e-wastes. Waste Management and Research, 2014, 32, 1247-1253.	3.9	2
44	A novel method of preparing ultrafine ZnS particles from waste zinc-manganese batteries by evaporation-separation, sulfurization and inert gas condensation. Nanotechnology, 2020, 31, 135601.	2.6	1