Sadia Ilyas

List of Publications by Year in descending order

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108 papers	5,093 citations	81900 39 h-index	91884 69 g-index
114 all docs	114 docs citations	114 times ranked	3564 citing authors

#	Article	IF	Citations
1	Advance review on the exploitation of the prominent energy-storage element: Lithium. Part I: From mineral and brine resources. Minerals Engineering, 2016, 89, 119-137.	4.3	310
2	Disinfection technology and strategies for COVID-19 hospital and bio-medical waste management. Science of the Total Environment, 2020, 749, 141652.	8.0	278
3	Hydrometallurgical recovery/recycling of platinum by the leaching of spent catalysts: A review. Hydrometallurgy, 2013, 133, 23-32.	4.3	272
4	Bio-processing of solid wastes and secondary resources for metal extraction â€“ A review. Waste Management, 2012, 32, 3-18.	7.4	266
5	Bioleaching of metals from electronic scrap by moderately thermophilic acidophilic bacteria. Hydrometallurgy, 2007, 88, 180-188.	4.3	254
6	Present status of the recycling of waste electrical and electronic equipment in Korea. Resources, Conservation and Recycling, 2007, 50, 380-397.	10.8	231
7	Advance review on the exploitation of the prominent energy-storage element Lithium. Part II: From sea water and spent lithium ion batteries (LIBs). Minerals Engineering, 2017, 110, 104-121.	4.3	209
8	Column bioleaching of metals from electronic scrap. Hydrometallurgy, 2010, 101, 135-140.	4.3	195
9	Selective recovery of gold from waste mobile phone PCBs by hydrometallurgical process. Journal of Hazardous Materials, 2011, 198, 206-215.	12.4	177
10	Resource recovery of critically-rare metals by hydrometallurgical recycling of spent lithium ion batteries. Separation and Purification Technology, 2019, 209, 725-733.	7.9	141
11	Bioleaching of gold and copper from waste mobile phone PCBs by using a cyanogenic bacterium. Minerals Engineering, 2011, 24, 1219-1222.	4.3	136
12	Separation of platinum, palladium and rhodium from aqueous solutions using ion exchange resin: A review. Separation and Purification Technology, 2020, 246, 116896.	7.9	118
13	Leaching of lead from solder material of waste printed circuit boards (PCBs). Hydrometallurgy, 2012, 121-124, 28-34.	4.3	106
14	Bioleaching of metals from electronic scrap and its potential for commercial exploitation. Hydrometallurgy, 2013, 131-132, 138-143.	4.3	103
15	A review on the recycling processes of spent auto-catalysts: Towards the development of sustainable metallurgy. Waste Management, 2020, 114, 148-165.	7.4	92
16	Resource recycling of superalloys and hydrometallurgical challenges. Journal of Materials Science, 2014, 49, 4671-4686.	3.7	84
17	Bioremoval of heavy metals from recycling industry electronic waste by a consortium of moderate thermophiles: process development and optimization. Journal of Cleaner Production, 2014, 70, 194-202.	9.3	81
18	Biometallurgical Recovery of Metals from Waste Electrical and Electronic Equipment: a Review. ChemBioEng Reviews, 2014, 1, 148-169.	4.4	76

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19	Use of Phosphate Solubilizing Bacteria to Leach Rare Earth Elements from Monazite-Bearing Ore. Minerals (Basel, Switzerland), 2015, 5, 189-202.	2.0	73
20	Liquidâ€“liquid extraction of rhenium(VII) from an acidic chloride solution using Cyanex 923. Hydrometallurgy, 2015, 157, 33-38.	4.3	64
21	Extraction of nickel and cobalt from a laterite ore using the carbothermic reduction roasting-ammoniacal leaching process. Separation and Purification Technology, 2020, 232, 115971.	7.9	60
22	Recovery of copper and recycling of acid from the leach liquor of discarded Printed Circuit Boards (PCBs). Separation and Purification Technology, 2015, 156, 269-275.	7.9	59
23	Selective recovery of rhenium from molybdenite flue-dust leach liquor using solvent extraction with TBP. Separation and Purification Technology, 2018, 191, 116-121.	7.9	56
24	Selective recovery of cobalt, nickel and lithium from sulfate leachate of cathode scrap of Li-ion batteries using liquid-liquid extraction. Metals and Materials International, 2014, 20, 357-365.	3.4	55
25	Complexation chemistry in liquidâ€“liquid extraction of rhenium. Journal of Chemical Technology and Biotechnology, 2015, 90, 1752-1764.	3.2	54
26	Bioleaching of metals from electronic scrap in a stirred tank reactor. Hydrometallurgy, 2014, 149, 50-62.	4.3	53
27	Novel Aqueous Processing of the Reverted Turbine-Blade Superalloy for Rhenium Recovery. Industrial & Engineering Chemistry Research, 2016, 55, 8191-8199.	3.7	50
28	Recovery of Sn, Ag and Cu from Waste Pb-Free Solder Using Nitric Acid Leaching. Materials Transactions, 2012, 53, 2175-2180.	1.2	49
29	Highly selective separation of individual platinum group metals (Pd, Pt, Rh) from acidic chloride media using phosphonium-based ionic liquid in aromatic diluent. RSC Advances, 2016, 6, 62717-62728.	3.6	49
30	Eco-threat Minimization in HCl Leaching of PGMs from Spent Automobile Catalysts by Formic Acid Prereduction. ACS Sustainable Chemistry and Engineering, 2017, 5, 7302-7309.	6.7	49
31	Solvent extraction of copper, zinc, cadmium and nickel from sulfate solution in mixer settler unit (MSU). Separation and Purification Technology, 2014, 122, 119-127.	7.9	47
32	Total recycling of all the components from spent auto-catalyst by NaOH roasting-assisted hydrometallurgical route. Journal of Hazardous Materials, 2019, 379, 120772.	12.4	47
33	Circular bioeconomy and environmental benignness through microbial recycling of e-waste: A case study on copper and gold restoration. Waste Management, 2021, 121, 175-185.	7.4	46
34	Hydrometallurgical recycling of palladium and platinum from exhausted diesel oxidation catalysts. Separation and Purification Technology, 2020, 248, 117029.	7.9	45
35	Leaching of exhausted <scp>LNCM</scp> cathode batteries in ascorbic acid lixiviant: a green recycling approach, reaction kinetics and process mechanism. Journal of Chemical Technology and Biotechnology, 2020, 95, 2286-2294.	3.2	44
36	Recycling of end-of-life LiNixCoyMnzO2 batteries for rare metals recovery. Environmental Engineering Research, 2020, 25, 88-95.	2.5	43

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37	Leaching of platinum group metals (<scp>PGMs</scp>) from spent automotive catalyst using electroâ€generated chlorine in <scp>HCl</scp> solution. Journal of Chemical Technology and Biotechnology, 2013, 88, 1991-1999.	3.2	42
38	Bio-Reclamation of Strategic and Energy Critical Metals from Secondary Resources. Metals, 2017, 7, 207.	2.3	42
39	Biotechnological recycling of critical metals from waste printed circuit boards. Journal of Chemical Technology and Biotechnology, 2020, 95, 2796-2810.	3.2	42
40	Bacterial Cyanide Generation in the Presence of Metal Ions (Na+, Mg2+, Fe2+, Pb2+) and Gold Bioleaching from Waste PCBs. Journal of Chemical Engineering of Japan, 2011, 44, 692-700.	0.6	38
41	Fungal Bioleaching of Metals From Mine Tailing. Mineral Processing and Extractive Metallurgy Review, 2013, 34, 185-194.	5.0	38
42	Leaching behavior of nickel from waste multi-layer ceramic capacitors. Hydrometallurgy, 2007, 86, 89-95.	4.3	35
43	Simple recycling of copper by the synergistic exploitation of industrial wastes: a step towards sustainability. Green Chemistry, 2016, 18, 3823-3834.	9.0	35
44	Integration of microbial and chemical processing for a sustainable metallurgy. Journal of Chemical Technology and Biotechnology, 2018, 93, 320-332.	3.2	34
45	Biotechnological recycling of hazardous waste PCBs using Sulfobacillus thermosulfidooxidans through pretreatment of toxicant metals: Process optimization and kinetic studies. Chemosphere, 2022, 286, 131978.	8.2	34
46	Gold recovery from secondary waste of PCBs by electro-Cl2 leaching in brine solution and solvo-chemical separation with tri-butyl phosphate. Journal of Cleaner Production, 2021, 295, 126389.	9.3	33
47	One Step Bioleaching of Sulphide Ore with Low Concentration of Arsenic by Aspergillus niger and Taguchi Orthogonal Array Optimization. Chinese Journal of Chemical Engineering, 2012, 20, 923-929.	3.5	32
48	Intensified bioleaching of chalcopyrite concentrate using adapted mesophilic culture in continuous stirred tank reactors. Bioresource Technology, 2020, 307, 123181.	9.6	32
49	Hydrometallurgical valorization of chromium, iron, and zinc from an electroplating effluent. Separation and Purification Technology, 2019, 209, 964-971.	7.9	30
50	Extraction equilibria of cerium(IV) with Cyanex 923 followed by precipitation kinetics of cerium(III) oxalate from sulfate solution. Separation and Purification Technology, 2021, 254, 117634.	7.9	29
51	O2-enriched microbial activity with pH-sensitive solvo-chemical and electro-chlorination strategy to reclaim critical metals from the hazardous waste printed circuit boards. Journal of Hazardous Materials, 2021, 416, 125769.	12.4	29
52	Separation of Tungsten from Mo-Rich Leach Liquor by Adsorption onto a Typical Feâ€“Mn Cake: Kinetics, Equilibrium, Mechanism, and Thermodynamics Studies. Industrial & Engineering Chemistry Research, 2013, 52, 17591-17597.	3.7	26
53	Mobilization of platinum and palladium from exhausted catalytic converters using bio-cyanide and an ionic-liquid as mass transport carriers. Green Chemistry, 2022, 24, 5204-5218.	9.0	26
54	Removal of copper from an electroplating industrial effluent using the native and modified spirogyra. Water Science and Technology, 2018, 78, 147-155.	2.5	25

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55	Bubbleâ"particle interactions with hydrodynamics, XDLVO theory, and surface roughness for flotation in an agitated tank using CFD simulations. Minerals Engineering, 2020, 152, 106368.	4.3	25
56	Cleaner production of rare earth elements from phosphorus-bearing sulfuric acid solution of vein deposit monazite. Journal of Cleaner Production, 2021, 278, 123435.	9.3	25
57	Recovery of nitric acid from effluent streams using solvent extraction with TBP: A comparative study in absence and presence of metal nitrates. Separation and Purification Technology, 2017, 186, 90-95.	7.9	25
58	Liquidâ€"Liquid Extraction and Reductive Stripping of Chromium to Valorize Industrial Effluent. Jom, 2020, 72, 839-846.	1.9	23
59	Reclamation of tungsten from carbide scraps and spent materials. Journal of Materials Science, 2019, 54, 83-107.	3.7	22
60	Prediction of grade and recovery in flotation from physicochemical and operational aspects using machine learning models. Minerals Engineering, 2022, 183, 107627.	4.3	21
61	Column bioleaching of low-grade mining ore containing high level of smithsonite, talc, sphaerocobaltite and azurite. Bioprocess and Biosystems Engineering, 2012, 35, 433-440.	3.4	20
62	Hydrometallurgical Recycling of Rare Earth Metalâ€"Cerium from Bio-processed Residual Waste of Exhausted Automobile Catalysts. Jom, 2021, 73, 19-26.	1.9	19
63	Separation of platinum group metals from model chloride solution using phosphonium-based ionic liquid. Separation and Purification Technology, 2021, 278, 119577.	7.9	19
64	Sorption of uranium(VI) byTrapa bispinosafrom aqueous solution: effect of pretreatments and modeling studies. Desalination and Water Treatment, 2016, 57, 11121-11132.	1.0	16
65	Hydrometallurgical recycling of surface-coated metals from automobile-discarded ABS plastic waste. Waste Management, 2018, 80, 414-422.	7.4	15
66	Inorganic nanofiber as a promising sorbent for lithium recovery. Separation and Purification Technology, 2020, 242, 116757.	7.9	15
67	Sequestering of uranium (VI) onto eucalyptus bark: kinetic, equilibrium and thermodynamic studies. Desalination and Water Treatment, 2016, 57, 14578-14589.	1.0	14
68	Cationic collector conformations on an oxide mineral interface: Roles of pH, ionic strength, and ion valence. Minerals Engineering, 2020, 150, 106277.	4.3	14
69	Ionic Liquids-Assisted Solvent Extraction of Precious Metals from Chloride Solutions. Separation and Purification Reviews, 2023, 52, 242-261.	5.5	13
70	Biodegradation mechanism of arsenopyrite mine tailing with Acidithiobacillus ferrooxidans and influence of ferric supplements. International Biodeterioration and Biodegradation, 2020, 153, 105042.	3.9	11
71	Recovery of Platinum-Group Metals from an Unconventional Source of Catalytic Converter Using Pressure Cyanide Leaching and Ionic Liquid Extraction. Jom, 2022, 74, 1020-1026.	1.9	11
72	Liquid-liquid extraction of phosphorus from sulfuric acid solution using benzyl dimethyl amine. International Journal of Minerals, Metallurgy and Materials, 2021, 28, 367-372.	4.9	9

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73	Synthesis and characterization of new soluble thermally stable poly(azomethine-ether-imide)s: discerning the possibility for high temperature applications. Polymers for Advanced Technologies, 2016, 27, 221-227.	3.2	8
74	The Effect of Oxygen and Hydroxide Ion on Electrochemical Leaching Behavior of Tin. Materials Transactions, 2012, 53, 2208-2210.	1.2	6
75	Bio-Hydrometallurgical Processing of Non-Ferrous Metals from Copper Smelting Slag. Advanced Materials Research, 2013, 825, 250-253.	0.3	6
76	Fungal leaching of metals from electronic scrap. Mining, Metallurgy and Exploration, 2013, 30, 151-156.	0.8	6
77	Biosorption of Strontium from Aqueous Solutions. Handbook of Environmental Chemistry, 2020, , 65-83.	0.4	6
78	A CFD study of the transport and fate of airborne droplets in a ventilated office: The role of droplet-droplet interactions. Frontiers of Environmental Science and Engineering, 2022, 16, 31.	6.0	6
79	Roles of solution chemistry and reagentâ€“reagent interaction on carboxymethylcellulose adsorption onto graphite and implications on its floatability. Minerals Engineering, 2021, 167, 106873.	4.3	6
80	Sustainable treatment of bimetallic (Agâ€“Pd/Î±-Al2O3) catalyst waste from naptha cracking process: An innovative waste-to-value recycling of precious metals. Journal of Environmental Management, 2021, 291, 112748.	7.8	6
81	Intensive Leaching of Red Phosphor Rare Earth Metals from Waste Fluorescent Lamp: Parametric Optimization and Kinetic Studies. Jom, 2022, 74, 1054-1060.	1.9	6
82	Leaching of Gold from the Spent/End-of-Life Mobile Phone-PCBs using â€œGreener Reagentsâ€• , 2016, , 7-56.		5
83	Electrical and electronic waste in Pakistan: the management practices and perspectives. , 2020, , 263-281.		5
84	Microbial Cyanidation of Gold. , 2018, , 157-183.		5
85	Bioleaching for the Removal of Arsenic from Mine Tailings by Psychrotolerant and Mesophilic Microbes at Markedly Continental Climate Temperatures. Minerals (Basel, Switzerland), 2020, 10, 972.	2.0	4
86	Strontium Extraction from the Geo-environment. Handbook of Environmental Chemistry, 2020, , 43-63.	0.4	4
87	Lead Trace Removal from Waste Electronic Scraps by Organic Acids. Materials Transactions, 2014, 55, 586-590.	1.2	3
88	Valuable Metal Recycling. Metals, 2018, 8, 345.	2.3	3
89	Carbothermic Reduction Roasting of a Low-Grade Nickel Laterite Ore in the Modified Caron Process. Minerals, Metals and Materials Series, 2021, , 317-328.	0.4	3
90	Role of Chemistry in Alternative Energy: The Thermodynamics and Electrochemical Approach. Handbook of Environmental Chemistry, 2020, , 293-315.	0.4	2

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91	Feasibility of the Bio-Mobilization of Rare Earth Elements from Bauxite Residual Red Mud. , 0, , .		2
92	Equilibrium, Thermodynamic and Kinetic studies for biosorption of Terasil Brown 2RFL from contaminated water using economical biomaterial. Mediterranean Journal of Chemistry, 2015, 4, 239-251.	0.7	2
93	Solvo-Chemical Recovery of Cerium from Sulfate Solution Using Cyanex 923 and Oxalate Precipitation. Minerals, Metals and Materials Series, 2021, , 303-310.	0.4	1
94	Sustainable Urban Mining of Precious Metals. , 2021, , 1-33.		1
95	Resource Recovery of Cerium from Spent Catalytic Converter Using Aqueous Metallurgy. Minerals, Metals and Materials Series, 2021, , 1055-1062.	0.4	1
96	Urban Mining of Precious Metals with Cyanide as Lixiviant. , 2021, , 91-122.		1
97	Pre-treatment, Concentration, and Enrichment of Precious Metals from Urban Mine Resources. , 2021, , 35-65.		1
98	Halide Leaching of Gold. , 2018, , 141-156.		1
99	Statistical optimization for enhanced decolorization of Golden Yellow PRA byCitrus reticulatavar. kinnow peroxidase and phytotoxicity evaluation of its degraded products. Desalination and Water Treatment, 0, , 1-14.	1.0	0
100	Role of Green and Integrated Chemistry in Sustainable Metallurgy. , 2019, , 325-342.		0
101	Potential and Transformational Needs of Alternative Energy in Developing Countries. Handbook of Environmental Chemistry, 2020, , 1-24.	0.4	0
102	Recovery of Precious Metals Using Precipitation, Adsorption, Electrowinning, Supercritical Fluids and Bio-mediated Approaches. , 2021, , 149-171.		0
103	Urban Mining of Precious Metals with Thiosulfate and Thiourea as Lixiviant. , 2021, , 123-148.		0
104	Recovery of Precious Metals Using Ion-Exchange Chromatographic Approaches. , 2021, , 187-212.		0
105	Integrated Recovery Processes for Precious Metals from Urban Mine Sources and Case Studies. , 2021, , 213-240.		0
106	Recovery of Precious Metals by Solvent Extraction. , 2021, , 173-186.		0
107	Human Perspectives on Gold Exploitation and Case Studies. , 2018, , 185-201.		0
108	Editorial on Special Issue â€œSurface Chemistry in Mineral Processing and Extractive Metallurgyâ€• Minerals (Basel, Switzerland), 2021, 11, 13.	2.0	0