

Benjamin P. Wilson

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	The interference of copper, iron and aluminum with hydrogen peroxide and its effects on reductive leaching of LiNi _{1/3} Mn _{1/3} Co _{1/3} O ₂ . Separation and Purification Technology, 2022, 281, 119903.	7.9	19
2	Utilizing Cu ⁺ as catalyst in reductive leaching of lithium-ion battery cathode materials in H ₂ SO ₄ -NaCl solutions. Hydrometallurgy, 2022, 208, 105808.	4.3	10
3	Green and Controllable Preparation of Cu/Zn Alloys Using Combined Electrodeposition and Redox Replacement. ACS Sustainable Chemistry and Engineering, 2022, 10, 4770-4779.	6.7	4
4	Electrochemical Growth of Ag/Zn Alloys from Zinc Process Solutions and Their Dealloying Behavior. ACS Sustainable Chemistry and Engineering, 2022, 10, 3716-3725.	6.7	3
5	Targeted surface modification of Cu/Zn/Ag coatings and Ag/Cu particles based on sacrificial element selection by electrodeposition and redox replacement. Surface and Coatings Technology, 2022, 441, 128531.	4.8	3
6	Hazard-free treatment of electrolytic manganese residue and recovery of manganese using low temperature roasting-water washing process. Journal of Hazardous Materials, 2021, 402, 123561.	12.4	38
7	Selective lithium recovery and integrated preparation of high-purity lithium hydroxide products from spent lithium-ion batteries. Separation and Purification Technology, 2021, 259, 118181.	7.9	46
8	Investigation into the effect of mechanical activation on the leaching of chalcopyrite in a glycine medium. Hydrometallurgy, 2021, 203, 105492.	4.3	10
9	Cyclic voltammetry and potentiodynamic polarization studies of chalcopyrite concentrate in glycine medium. Transactions of Nonferrous Metals Society of China, 2021, 31, 545-554.	4.2	5
10	Selective extraction of valuable metals from spent EV power batteries using sulfation roasting and two stage leaching process. Separation and Purification Technology, 2021, 258, 118078.	7.9	28
11	Selective separation of rare earths from spent Nd-Fe-B magnets using two-stage ammonium sulfate roasting followed by water leaching. Hydrometallurgy, 2021, 203, 105626.	4.3	20
12	The efficiency of scrap Cu and Al current collector materials as reductants in LIB waste leaching. Hydrometallurgy, 2021, 203, 105608.	4.3	25
13	Controllable Production of Ag/Zn and Ag Particles from Hydrometallurgical Zinc Solutions. ACS Sustainable Chemistry and Engineering, 2021, 9, 8186-8197.	6.7	9
14	Biopolymeric Anticorrosion Coatings from Cellulose Nanofibrils and Colloidal Lignin Particles. ACS Applied Materials & Interfaces, 2021, 13, 41034-41045.	8.0	11
15	Industrial validation of conductivity and viscosity models for copper electrolysis processes. Minerals Engineering, 2021, 171, 107069.	4.3	2
16	Modelling the Effect of Solution Composition and Temperature on the Conductivity of Zinc Electrowinning Electrolytes. Metals, 2021, 11, 1824.	2.3	6
17	Study on valuable metal incorporation in the Fe-Al precipitate during neutralization of LIB leach solution. Scientific Reports, 2021, 11, 23283.	3.3	11
18	Recovery of High-Purity MnO ₂ from the Acid Leaching Solution of Spent Li-Ion Batteries. Jom, 2020, 72, 790-799.	1.9	15

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19	Applicability of solid process residues as sorbents for the treatment of industrial wastewaters. <i>Journal of Cleaner Production</i> , 2020, 246, 118951.	9.3	5
20	Recovery and separation of rare earths and boron from spent Nd-Fe-B magnets. <i>Minerals Engineering</i> , 2020, 145, 106097.	4.3	35
21	Electrochemical recovery of tellurium from metallurgical industrial waste. <i>Journal of Applied Electrochemistry</i> , 2020, 50, 1-14.	2.9	27
22	Comparison of Different Leaching Media and Their Effect on REEs Recovery from Spent Nd-Fe-B Magnets. <i>Jom</i> , 2020, 72, 806-815.	1.9	11
23	Role of impurity copper in Li-ion battery recycling to LiCoO ₂ cathode materials. <i>Journal of Power Sources</i> , 2020, 450, 227630.	7.8	38
24	High Purity Nickel Recovery from an Industrial Sidestream Using Concentration and Liquid-Liquid Extraction Techniques. <i>Jom</i> , 2020, 72, 831-838.	1.9	2
25	Glycine leaching of Sarcheshmeh chalcopyrite concentrate at high pulp densities in a stirred tank reactor. <i>Minerals Engineering</i> , 2020, 157, 106555.	4.3	9
26	Mechanism of selective gold extraction from multi-metal chloride solutions by electrodeposition-redox replacement. <i>Green Chemistry</i> , 2020, 22, 3615-3625.	9.0	26
27	Design of optimal electrolyte circulation based on the kinetic modelling of copper dissolution in silver electrorefining. <i>Hydrometallurgy</i> , 2020, 196, 105403.	4.3	1
28	Solubility study of lignin in industrial organic solvents and investigation of electrochemical properties of spray-coated solutions. <i>Industrial Crops and Products</i> , 2020, 148, 112310.	5.2	44
29	A sustainable two-layer lignin-anodized composite coating for the corrosion protection of high-strength low-alloy steel. <i>Progress in Organic Coatings</i> , 2020, 148, 105866.	3.9	11
30	Nickel Metal Hydride Battery Waste: Mechano-hydrometallurgical Experimental Study on Recycling Aspects. <i>Journal of Sustainable Metallurgy</i> , 2020, 6, 78-90.	2.3	28
31	Clean and efficient recovery of spent LiCoO cathode material: Water-leaching characteristics and low-temperature ammonium sulfate calcination mechanisms. <i>Journal of Cleaner Production</i> , 2020, 268, 122299.	9.3	21
32	Global occurrence, chemical properties, and ecological impacts of e-wastes (IUPAC Technical Report). <i>Pure and Applied Chemistry</i> , 2020, 92, 1733-1767.	1.9	42
33	Extraction of Li and Co from industrially produced Li-ion battery waste Using the reductive power of waste itself. <i>Waste Management</i> , 2019, 95, 604-611.	7.4	55
34	Recycling of spent NiMH batteries: Integration of battery leach solution into primary Ni production using solvent extraction. <i>Sustainable Materials and Technologies</i> , 2019, 22, e00121.	3.3	19
35	Modelling of silver anode dissolution and the effect of gold as impurity under simulated industrial silver electrorefining conditions. <i>Hydrometallurgy</i> , 2019, 189, 105105.	4.3	2
36	Toxicity Identification and Evolution Mechanism of Thermolysis-Driven Gas Emissions from Cathodes of Spent Lithium-Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 18228-18235.	6.7	54

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37	Synergistic Recovery of Valuable Metals from Spent Nickel–Metal Hydride Batteries and Lithium-Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 16103-16111.	6.7	49
38	Biomass-Assisted Reductive Leaching in H ₂ SO ₄ Medium for the Recovery of Valuable Metals from Spent Mixed-Type Lithium-Ion Batteries. <i>Jom</i> , 2019, 71, 4465-4472.	1.9	23
39	Oxalic Acid Recovery from High Iron Oxalate Waste Solution by a Combination of Ultrasound-Assisted Conversion and Cooling Crystallization. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 17372-17378.	6.7	18
40	Recovery and separation of silver and mercury from hazardous zinc refinery residues produced by zinc oxygen pressure leaching. <i>Hydrometallurgy</i> , 2019, 185, 38-45.	4.3	26
41	Selective extraction of lithium (Li) and preparation of battery grade lithium carbonate (Li ₂ CO ₃) from spent Li-ion batteries in nitrate system. <i>Journal of Power Sources</i> , 2019, 415, 179-188.	7.8	166
42	Recovery of Silver from Dilute Effluents via Electrodeposition and Redox Replacement. <i>Journal of the Electrochemical Society</i> , 2019, 166, E266-E274.	2.9	23
43	Recovery of Gold from Chloride Solution by TEMPO-Oxidized Cellulose Nanofiber Adsorbent. <i>Sustainability</i> , 2019, 11, 1406.	3.2	17
44	Purification of Nickel Sulfate by Batch Cooling Crystallization. <i>Chemical Engineering and Technology</i> , 2019, 42, 1475-1480.	1.5	6
45	Electro-hydraulic fragmentation vs conventional crushing of photovoltaic panels – Impact on recycling. <i>Waste Management</i> , 2019, 87, 43-50.	7.4	64
46	Diffusion coefficient of cupric ion in a copper electrorefining electrolyte containing nickel and arsenic. <i>Minerals Engineering</i> , 2019, 134, 381-389.	4.3	15
47	Mechanical and hydrometallurgical processes in HCl media for the recycling of valuable metals from Li-ion battery waste. <i>Resources, Conservation and Recycling</i> , 2019, 142, 257-266.	10.8	91
48	Selective reductive leaching of cobalt and lithium from industrially crushed waste Li-ion batteries in sulfuric acid system. <i>Waste Management</i> , 2018, 76, 582-590.	7.4	118
49	Time-Dependent Behavior of Cation Transport through Cellulose Acetate-Cationic Polyelectrolyte Membranes. <i>Journal of the Electrochemical Society</i> , 2018, 165, H39-H44.	2.9	0
50	Kinetic study and modelling of silver dissolution in synthetic industrial silver electrolyte as a function of electrolyte composition and temperature. <i>Corrosion Science</i> , 2018, 138, 163-169.	6.6	3
51	Structural distinction due to deposition method in ultrathin films of cellulose nanofibres. <i>Cellulose</i> , 2018, 25, 1715-1724.	4.9	12
52	Lanthanide-alkali double sulfate precipitation from strong sulfuric acid NiMH battery waste leachate. <i>Waste Management</i> , 2018, 71, 381-389.	7.4	55
53	From Waste to Valuable Resource: Lignin as a Sustainable Anti-Corrosion Coating. <i>Coatings</i> , 2018, 8, 454.	2.6	34
54	Platinum Recovery from Industrial Process Solutions by Electrodeposition – Redox Replacement. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 14631-14640.	6.7	32

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55	A direct synthesis of platinum/nickel co-catalysts on titanium dioxide nanotube surface from hydrometallurgical-type process streams. <i>Journal of Cleaner Production</i> , 2018, 201, 39-48.	9.3	24
56	Environmentally Friendly Coatings for Improved Stainless Steel Corrosion Resistance from Biorefinery Side Streams. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
57	Carbon Nanostructure Based Platform for Enzymatic Glutamate Biosensors. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4618-4626.	3.1	27
58	Observations of copper deposition on functionalized carbon nanotube films. <i>Electrochimica Acta</i> , 2017, 232, 495-504.	5.2	38
59	Modelling the physico-chemical effect of silver electrorefining as effect of temperature, free acid, silver, copper and lead concentrations. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	1
60	Recovery and separation of gallium(III) and germanium(IV) from zinc refinery residues : Part II: Solvent extraction. <i>Hydrometallurgy</i> , 2017, 171, 149-156.	4.3	43
61	Noncovalent Surface Modification of Cellulose Nanopapers by Adsorption of Polymers from Aprotic Solvents. <i>Langmuir</i> , 2017, 33, 5707-5712.	3.5	43
62	Extraction of Ga and Ge from zinc refinery residues in H ₂ C ₂ O ₄ solutions containing H ₂ O ₂ . <i>International Journal of Mineral Processing</i> , 2017, 163, 14-23.	2.6	29
63	Strongly reduced thermal conductivity in hybrid ZnO/nanocellulose thin films. <i>Journal of Materials Science</i> , 2017, 52, 6093-6099.	3.7	19
64	Recovery and separation of gallium(III) and germanium(IV) from zinc refinery residues: Part I: Leaching and iron(III) removal. <i>Hydrometallurgy</i> , 2017, 169, 564-570.	4.3	50
65	Effect of typical impurities for the formation of floating slimes in copper electrorefining. <i>International Journal of Mineral Processing</i> , 2017, 168, 109-115.	2.6	21
66	Improved Metal Circular Economy-Selective Recovery of Minor Ag Concentrations from Zn Process Solutions. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 10996-11004.	6.7	22
67	Study of Transport Properties of Polyelectrolyte-Cellulose Acetate Membranes. <i>ECS Transactions</i> , 2017, 77, 663-669.	0.5	1
68	The Effect of the Redox Potential of Aqua Regia and Temperature on the Au, Cu, and Fe Dissolution from WPCBs. <i>Recycling</i> , 2017, 2, 14.	5.0	13
69	Leaching of Metals from Spent Lithium-Ion Batteries. <i>Recycling</i> , 2017, 2, 20.	5.0	78
70	Leaching of Sb from TROF Furnace Dor [®] Slag. <i>Minerals, Metals and Materials Series</i> , 2017, , 43-49.	0.4	1
71	Deposition of Ultrathin Cellulose Nanofibers Films As Bio-Implant Corrosion Coatings. <i>ECS Meeting Abstracts</i> , 2017, , .	0.0	0
72	Study of Transport Properties of Polyelectrolyte-Cellulose Acetate Membranes. <i>ECS Meeting Abstracts</i> , 2017, , .	0.0	0

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73	Value-added materials from the hydrometallurgical processing of jarosite waste. E3S Web of Conferences, 2016, 8, 01015.	0.5	2
74	Modelling the effect of temperature and free acid, silver, copper and lead concentrations on silver electrorefining electrolyte conductivity. Hydrometallurgy, 2016, 166, 154-159.	4.3	8
75	The effect of gold on anode passivation and high current density operation under simulated silver electrorefining conditions. Hydrometallurgy, 2016, 166, 57-61.	4.3	4
76	Carbon nanotube-copper composites by electrodeposition on carbon nanotube fibers. Carbon, 2016, 107, 281-287.	10.3	83
77	Parameters affecting monolayer organisation of substituted polysaccharides on solid substrates upon Langmuir-Schaefer deposition. Reactive and Functional Polymers, 2016, 99, 100-106.	4.1	11
78	Extraction of gallium and germanium from zinc refinery residues by pressure acid leaching. Hydrometallurgy, 2016, 164, 313-320.	4.3	63
79	The Use of 3D-SVET for the Examination of Plasticized PVC Coatings: Effect of Deformation and UV Irradiation on Barrier Properties. ECS Transactions, 2015, 64, 69-80.	0.5	2
80	Electrochemical Scanning Techniques for the Examination of Bi-Metallic Coins. ECS Transactions, 2015, 64, 47-59.	0.5	0
81	Direct alcohol fuel cells: Increasing platinum performance by modification with sp-group metals. Journal of Power Sources, 2015, 275, 341-350.	7.8	34
82	Dissolution Control of Mg by Cellulose Acetate-Polyelectrolyte Membranes. ACS Applied Materials & Interfaces, 2014, 6, 22393-22399.	8.0	11
83	Life cycle assessment of gas atomised sponge nickel for use in alkaline hydrogen fuel cell applications. Journal of Power Sources, 2013, 243, 242-252.	7.8	13
84	Formation of Pt/Pb nanoparticles by electrodeposition and redox replacement cycles on fluorine doped tin oxide glass. Electrochimica Acta, 2013, 88, 278-286.	5.2	18
85	Life cycle assessment of sponge nickel produced by gas atomisation for use in industrial hydrogenation catalysis applications. International Journal of Life Cycle Assessment, 2013, 18, 362-376.	4.7	13
86	Investigation into the Effect of Spot Weld Electrode Life and Quality on the Corrosion Behavior of Galvanized Automotive Steel Using the Three-dimensional Scanning Vibrating Technique. ECS Transactions, 2013, 50, 53-64.	0.5	4
87	Effect of probe tip inclination on the response of the Scanning Vibrating Electrode Technique to an idealised pit-like feature. Electrochimica Acta, 2012, 66, 52-60.	5.2	13
88	Combined in situ electrochemical impedance spectroscopy-UV/Vis and AFM studies of Ag nanoparticle stability in perfluorinated films. Materials Chemistry and Physics, 2012, 134, 302-308.	4.0	6
89	QCM study of the adsorption of polyelectrolyte covered mesoporous TiO ₂ nanocontainers on SAM modified Au surfaces. Journal of Colloid and Interface Science, 2011, 362, 180-187.	9.4	18
90	Effect of viscosity and applied potential on oscillations at a Pt-Pt dual-electrode in a ferricyanide system. Electrochimica Acta, 2010, 55, 4669-4675.	5.2	3

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91	Sympathetic current oscillations at an enzyme electrode induced by potential oscillations at a Pt surface. <i>Electrochemistry Communications</i> , 2009, 11, 2328-2331.	4.7	2
92	The formation and characterisation of ultra-thin films containing Ag nanoparticles. <i>Journal of Materials Chemistry</i> , 2008, 18, 199-206.	6.7	35
93	Effect of Additives on Smut-Layer Formation and Pitting during Aluminum Etching in Hydrochloric Acid. <i>Journal of the Electrochemical Society</i> , 2008, 155, C22.	2.9	7
94	Formation of ultra-thin amorphous conversion films on zinc alloy coatings. <i>Electrochimica Acta</i> , 2006, 51, 2956-2963.	5.2	41
95	Formation of ultra-thin amorphous conversion films on zinc alloy coatings. <i>Electrochimica Acta</i> , 2006, 51, 3066-3075.	5.2	30
96	Investigating changes in corrosion mechanism induced by laser welding galvanised steel specimens using scanning vibrating electrode technique. <i>Corrosion Engineering Science and Technology</i> , 2002, 37, 225-230.	0.3	9
97	Mechanistic and Spatial Study of Ultrasonically Induced Luminol Chemiluminescence. <i>Journal of Physical Chemistry A</i> , 1999, 103, 3955-3962.	2.5	123