

Steven Bradshaw

List of Publications by Year in descending order

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Version: 2024-02-01

62
papers

1,700
citations

279798

23
h-index

289244

40
g-index

62
all docs

62
docs citations

62
times ranked

1407
citing authors

#	ARTICLE	IF	CITATIONS
1	Solvent free microwave extraction of <i>Elletaria cardamomum</i> L.: A multivariate study of a new technique for the extraction of essential oil. <i>Journal of Food Engineering</i> , 2007, 79, 1079-1086.	5.2	185
2	An investigation into the influence of microwave treatment on mineral ore comminution. <i>Powder Technology</i> , 2004, 146, 176-184.	4.2	126
3	Recent developments in microwave-assisted comminution. <i>International Journal of Mineral Processing</i> , 2004, 74, 71-83.	2.6	112
4	Evaluating organic acids as alternative leaching reagents for metal recovery from lithium ion batteries. <i>Minerals Engineering</i> , 2019, 137, 108-117.	4.3	107
5	Bonded-particle modelling of microwave-induced damage in ore particles. <i>Minerals Engineering</i> , 2010, 23, 780-790.	4.3	76
6	Remediation of oil-contaminated drill cuttings using continuous microwave heating. <i>Chemical Engineering Journal</i> , 2009, 152, 458-463.	12.7	72
7	Combustion Synthesis of Aluminum Nitride Particles and Whiskers. <i>Journal of the American Ceramic Society</i> , 1999, 82, 2293-2300.	3.8	66
8	Scale-up and design of a continuous microwave treatment system for the processing of oil-contaminated drill cuttings. <i>Chemical Engineering Research and Design</i> , 2010, 88, 146-154.	5.6	66
9	Discrete element simulation of tribological interactions in rock cutting. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2014, 65, 8-19.	5.8	63
10	Quantifying damage around grain boundaries in microwave treated ores. <i>Chemical Engineering and Processing: Process Intensification</i> , 2009, 48, 1566-1573.	3.6	61
11	Confined particle bed breakage of microwave treated and untreated ores. <i>Minerals Engineering</i> , 2011, 24, 1625-1630.	4.3	51
12	A numerical modelling investigation into design variables influencing mixing efficiency in full scale gas stirred ladles. <i>Minerals Engineering</i> , 2013, 46-47, 16-24.	4.3	47
13	The effect of microwave pretreatment on the liberation of a copper carbonatite ore after milling. <i>International Journal of Mineral Processing</i> , 2008, 85, 121-128.	2.6	45
14	A mathematical modelling study of fluid flow and mixing in full-scale gas-stirred ladles. <i>Progress in Computational Fluid Dynamics</i> , 2009, 9, 345.	0.2	42
15	A computational fluid dynamics model for the flotation rate constant, Part I: Model development. <i>Minerals Engineering</i> , 2014, 69, 214-222.	4.3	40
16	The extraction of Pt, Pd and Au from an alkaline cyanide simulated heap leachate by granular activated carbon. <i>Minerals Engineering</i> , 2014, 55, 11-17.	4.3	38
17	Computational fluid dynamic modelling of an electric furnace used in the smelting of PGM containing concentrates. <i>Minerals Engineering</i> , 2009, 22, 995-1006.	4.3	33
18	Evaluation of the Merrill-Crowe process for the simultaneous removal of platinum, palladium and gold from cyanide leach solutions. <i>Hydrometallurgy</i> , 2014, 142, 36-46.	4.3	32

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19	Quantification of numerical uncertainty in computational fluid dynamics modelling of hydrocyclones. <i>Computers and Chemical Engineering</i> , 2012, 43, 45-54.	3.8	31
20	The effect of temperature, cyanide and base metals on the adsorption of Pt, Pd and Au onto activated carbon. <i>Hydrometallurgy</i> , 2014, 149, 132-142.	4.3	30
21	Comparing iron phosphate and hematite precipitation processes for iron removal from chloride leach solutions. <i>Minerals Engineering</i> , 2016, 98, 14-21.	4.3	27
22	Spontaneous combustion of coal stockpiles - an unusual chemical reaction engineering problem. <i>Chemical Engineering Science</i> , 1988, 43, 2139-2145.	3.8	24
23	The extraction of platinum and palladium from a synthetic cyanide heap leach solution with strong base anion exchange resins. <i>International Journal of Mineral Processing</i> , 2017, 162, 27-35.	2.6	24
24	SELF-IGNITION AND CONVECTION PATTERNS IN AN INFINITE COAL LAYER. <i>Chemical Engineering Communications</i> , 1991, 105, 255-278.	2.6	21
25	Factors affecting the elution of Pt, Pd and Au cyanide from activated carbon. <i>Minerals Engineering</i> , 2015, 80, 14-24.	4.3	21
26	A CFD-kinetic model for the flotation rate constant, Part II: Model validation. <i>Minerals Engineering</i> , 2014, 69, 205-213.	4.3	20
27	Development of a novel solvent extraction process using citric acid for lithium-ion battery recycling. <i>Minerals Engineering</i> , 2021, 173, 107204.	4.3	18
28	Determination of the relative leaching kinetics of Cu, Rh, Ru and Ir during the sulphuric acid pressure leaching of leach residue derived from Ni ²⁺ -Cu converter matte enriched in platinum group metals. <i>Minerals Engineering</i> , 2011, 24, 583-589.	4.3	17
29	The Dependence of Microwave Regeneration of Activated Carbon on Time and Temperature. <i>Journal of Microwave Power and Electromagnetic Energy</i> , 1998, 33, 151-157.	0.8	16
30	Microwave Initiated Self-Propagating High-Temperature Synthesis of SiC. <i>Journal of Materials Synthesis and Processing</i> , 2001, 9, 363-368.	0.3	14
31	Long-term evaluation of a UF pilot plant for potable water production. <i>Desalination</i> , 1998, 115, 229-238.	8.2	13
32	An experimental study of the effect of microwave treatment on long term bioleaching of coarse, massive zinc sulphide ore particles. <i>Hydrometallurgy</i> , 2017, 173, 106-114.	4.3	13
33	The development of a caustic pre-leaching step for the recovery of Au from a refractory ore tailings heap. <i>Minerals Engineering</i> , 2018, 121, 23-30.	4.3	13
34	Physical and numerical modelling of a four-strand steelmaking tundish using flow analysis of different configurations. <i>Journal of the South African Institute of Mining and Metallurgy</i> , 2015, 115, 355-362.	0.5	13
35	Modelling of an autoclave used for high pressure sulphuric acid/oxygen leaching of first stage leach residue. Part 1: Model development. <i>Minerals Engineering</i> , 2013, 53, 220-227.	4.3	12
36	Techno-Economic Considerations in the Commercial Microwave Processing of Mineral Ores. <i>Journal of Microwave Power and Electromagnetic Energy</i> , 2005, 40, 228-240.	0.8	11

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37	Reverse-pressure back-flush in pilot scale, dead-end ultrafiltration of surface water. Journal of Membrane Science, 2005, 252, 51-63.	8.2	9
38	Precipitation of Ru, Rh and Ir with iron ions from synthetic nickel sulphate leach solutions. Hydrometallurgy, 2018, 175, 79-92.	4.3	9
39	Pyrometallurgical upgrading of PGM-rich leach residues from the Western Platinum base metals refinery through roasting. Minerals Engineering, 2013, 53, 228-240.	4.3	8
40	Modelling of an autoclave used for high pressure sulphuric acid/oxygen leaching of first stage leach residue, Part 2: Model application. Minerals Engineering, 2013, 53, 213-219.	4.3	7
41	The Efficiency of Black Mass Preparation by Discharge and Alkaline Leaching for LIB Recycling. Minerals (Basel, Switzerland), 2022, 12, 753.	2.0	7
42	Thermochemical stress development in ceramic catalyst supports. Chemical Engineering Science, 1993, 48, 1925-1932.	3.8	6
43	Fault detection for simulated valve faults in a high pressure leaching process. IFAC-PapersOnLine, 2016, 49, 394-399.	0.9	6
44	The elution of platinum and palladium cyanide from strong base anion exchange resins. International Journal of Mineral Processing, 2017, 162, 19-26.	2.6	6
45	Prediction of gas holdup in a column flotation cell using computational fluid dynamics (CFD). Journal of the Southern African Institute of Mining and Metallurgy, 2019, 119, .	0.3	6
46	Performance Quantification of Applicators for Microwave Treatment of Crushed Mineral Ore. Journal of Microwave Power and Electromagnetic Energy, 2011, 45, 30-35.	0.8	5
47	Microwave Treatment of Oil-Contaminated Drill Cuttings at Pilot Scale. SPE Drilling and Completion, 2009, 24, 430-435.	1.6	4
48	CFD modelling of molten matte and slag flows in a circular three-phase smelting furnace. Progress in Computational Fluid Dynamics, 2009, 9, 316.	0.2	4
49	Estimation of Rh, Ru, and Ir leaching kinetics during the sulfuric acid pressure leaching of Ni&Cu matte as a function of temperature, pressure, and acid concentration. Hydrometallurgy, 2013, 138, 21-32.	4.3	4
50	An optimisation methodology for a supply chain operating under any pertinent conditions of uncertainty - an application with two forms of operational uncertainty, multi-objectivity and fuzziness. International Journal of Operational Research, 2015, 23, 200.	0.2	4
51	Determination of the equilibrium and film diffusion constants of the platinum cyanide anions during the elution from activated carbon. Minerals Engineering, 2015, 80, 57-68.	4.3	4
52	Thermal stresses during cooling of prismatic bodies. Chemical Engineering Science, 1994, 49, 1613-1619.	3.8	3
53	Microwave treatment of oil-contaminated drill cuttings at pilot scale. , 2008, , .		3
54	The stability of a compressible fluid with variable transport properties in a horizontal chemical vapour deposition reactor. The Chemical Engineering Journal and the Biochemical Engineering Journal, 1994, 54, 137-145.	0.1	2

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55	Effect of Grain Size and Thermo-Mechanical Properties of Minerals on Strength Reduction of Binary Ores Subjected to Microwave Radiation. , 2008, , .		2
56	Microwave Drying: Process Engineering Aspects. , 2006, , 271-281.		1
57	Reactor design model for the aerosol synthesis of sinterable aluminium nitride powder. Journal of Aerosol Science, 2000, 31, 885-886.	3.8	0
58	Carbinatite Sample Computer Modeling for Use in Electromagnetic Field Simulations. , 2006, , .		0
59	The planning and optimisation of a supply chain network under conditions of uncertainty. International Journal of Operational Research, 2016, 27, 411.	0.2	0
60	Investigating the behaviour of PGEs during first-stage leaching of a Ni-Fe-Cu-S converter matte. Journal of the Southern African Institute of Mining and Metallurgy, 2018, 118, 353-360.	0.3	0
61	Investigation of flow regime transition in a column flotation cell using CFD. Journal of the Southern African Institute of Mining and Metallurgy, 2019, 119, .	0.3	0
62	Behaviour of Cu, Fe, Ni, and PGMs during leaching of Ni-Fe-Cu-S converter matte. Journal of the Southern African Institute of Mining and Metallurgy, 2021, 121, 1-8.	0.3	0