

Geoffrey Brooks

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

84 papers	1,533 citations	21 h-index	37 g-index
88 ext. papers	1,754 ext. citations	2.3 avg, IF	4.77 L-index

#	Paper	IF	Citations
84	Metals Production and Metal Oxides Reduction Using Hydrogen: A Review. <i>Journal of Sustainable Metallurgy</i> , 2022 , 8, 1	2.7	3
83	Contribution of CO2 Emissions from Basic Oxygen Steelmaking Process. <i>Metals</i> , 2022 , 12, 797	2.3	0
82	Droplet Heat Transfer in Oxygen Steelmaking. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2021 , 52, 4141	2.5	0
81	General mass balance for oxygen steelmaking. <i>Ironmaking and Steelmaking</i> , 2020 , 1-15	1.3	4
80	Diffusion Measurements of CO2 Within Carbon Anodes for Aluminium Smelting. <i>Minerals, Metals and Materials Series</i> , 2020 , 1183-1188	0.3	
79	StructureThermodynamics Interrelation for the GeO2 and PdO Containing MgO-Saturated Ferrous Calcium Silicate (FCS) Slag Relevant to E-waste Processing. <i>Minerals, Metals and Materials Series</i> , 2020 , 83-93	0.3	
78	Application of mass and energy balance in oxygen steelmaking. <i>Ironmaking and Steelmaking</i> , 2020 , 1-6	1.3	2
77	Application of vibration and sound signals in monitoring iron and steelmaking processes. <i>Ironmaking and Steelmaking</i> , 2020 , 47, 178-187	1.3	3
76	Cold model study of sound signals from gas-stirred ladles. <i>Ironmaking and Steelmaking</i> , 2020 , 47, 210-217.	1.3	3
75	Thermodynamic-Based Exergy Analysis of Precious Metal Recovery out of Waste Printed Circuit Board through Black Copper Smelting Process. <i>Energies</i> , 2019 , 12, 1313	3.1	4
74	Diffusion and Flow of CO2 in Carbon Anode for Aluminium Smelting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2019 , 50, 846-856	2.5	1
73	Slag Basicity: What Does It Mean?. <i>Minerals, Metals and Materials Series</i> , 2019 , 297-308	0.3	4
72	Mass and energy analysis of composite pellet process. <i>Ironmaking and Steelmaking</i> , 2018 , 45, 978-983	1.3	1
71	Understanding the Anode Porosity as a Means for Improved Aluminium Smelting. <i>Minerals, Metals and Materials Series</i> , 2018 , 1235-1242	0.3	4
70	Dynamic Model of Basic Oxygen Steelmaking Process Based on Multizone Reaction Kinetics: Modeling of Decarburization. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 1022-1033	2.5	14
69	Novel multi-stage aluminium production: part 1 Thermodynamic assessment of carbosulphidation of Al2O3/bauxite using H2S and sodiothermic reduction of Al2S3. <i>Mineral Processing and Extractive Metallurgy: Transactions of the Institute of Mining and Metallurgy</i> , 2018 , 127, 91-102	0.8	1
68	Thermodynamic analysis of metals recycling out of waste printed circuit board through secondary copper smelting. <i>Journal of Material Cycles and Waste Management</i> , 2018 , 20, 386-401	3.4	15

67	Dynamic Model of Basic Oxygen Steelmaking Process Based on Multizone Reaction Kinetics: Modeling of Manganese Removal. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 2191-2208	2.5	7
66	Structural Analysis of Germanium (Ge)-Containing Ferrous Calcium Silicate Magnesia Slag for Applications of Black Copper Smelting. <i>Minerals, Metals and Materials Series</i> , 2018 , 295-304	0.3	1
65	Study of Low Flow Rate Ladle Bottom Gas Stirring Using Triaxial Vibration Signals. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 423-433	2.5	5
64	Solar processing of composite iron ore pellets: Preliminary assessments. <i>Journal of Cleaner Production</i> , 2018 , 205, 1017-1028	10.3	7
63	Existence of periodic solutions of a continuous flow bioreactor model with impulsive control in microorganisms. <i>Journal of Applied Mathematics and Computing</i> , 2017 , 53, 471-486	1.8	1
62	High Temperature Properties of Molten Nitrate Salt for Solar Thermal Energy Storage Application. <i>Minerals, Metals and Materials Series</i> , 2017 , 531-539	0.3	1
61	Analysis for Optimum Conditions for Recovery of Valuable Metals from E-waste Through Black Copper Smelting. <i>Minerals, Metals and Materials Series</i> , 2017 , 419-427	0.3	4
60	Anode characterisation and gas diffusion behaviour in aluminium smelting 2017 ,		1
59	Numerical modeling of three-phase slurry bubble column: Study of particle effects 2017 ,		1
58	A thermodynamic-based life cycle assessment of precious metal recycling out of waste printed circuit board through secondary copper smelting. <i>Environmental Development</i> , 2017 , 24, 36-49	4.1	29
57	Thermodynamics of Palladium (Pd) and Tantalum (Ta) Relevant to Secondary Copper Smelting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2017 , 48, 317-327	2.5	11
56	Thermodynamics Behavior of Germanium During Equilibrium Reactions between FeOx-CaO-SiO ₂ -MgO Slag and Molten Copper. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016 , 47, 2889-2903	2.5	15
55	2D condensation model for the inner Solar Nebula: an enstatite-rich environment. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016 , 457, 1359-1370	4.3	13
54	Production of Aluminum Sulfide through Carbosulfidation Utilising H ₂ S. <i>Minerals, Metals and Materials Series</i> , 2016 , 1299-1304	0.3	
53	Thermodynamics and kinetics analyses of ZrB ₂ formation in molten aluminium alloys. <i>Canadian Metallurgical Quarterly</i> , 2016 , 55, 161-172	0.9	4
52	Energy Balance Around Gas Injection into Oxygen Steelmaking. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016 , 47, 458-466	2.5	5
51	Techno economic analysis of electronic waste processing through black copper smelting route. <i>Journal of Cleaner Production</i> , 2016 , 126, 178-190	10.3	65
50	Analysis of steelmaking kinetics from IMPHOS pilot plant data. <i>Ironmaking and Steelmaking</i> , 2016 , 43, 358-370	1.3	7

49	Multivariate Analysis of Ladle Vibration. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016 , 47, 2681-2689	2.5	5
48	Development of high flux solar simulators for solar thermal research. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 141, 436-446	6.4	35
47	Splash Distribution in Oxygen Steelmaking. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015 , 46, 863-872	2.5	32
46	Development of High Flux Solar Simulators for Solar Thermal Research 2015 , 149-159		1
45	Electrically Enhanced Boron Removal from Silicon Using Slag. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014 , 45, 1-5	2.5	13
44	Cathode Characterization with Steel and Copper Collector Bars in an Electrolytic Cell. <i>Jom</i> , 2014 , 66, 235-244	2.1	14
43	Wetting Characteristics of Cryolite-Based Melts on Spinel Substrate 2014 , 609-614		
42	Cold Modelling of Splashing Phenomena in Oxygen Steelmaking 2014 , 325-332		
41	Splashing in Oxygen Steelmaking. <i>ISIJ International</i> , 2014 , 54, 836-844	1.7	36
40	Metal Extraction Processes for Electronic Waste and Existing Industrial Routes: A Review and Australian Perspective. <i>Resources</i> , 2014 , 3, 152-179	3.7	282
39	Kinetic analysis of silicothermic process under flowing argon atmosphere. <i>Canadian Metallurgical Quarterly</i> , 2014 , 53, 17-25	0.9	13
38	Wetting Characteristics of Cryolite-Based Melts on Spinel Substrate 2014 , 609-614		
37	Cold Modelling of Splashing Phenomena in Oxygen Steelmaking 2014 , 325-332		
36	Investigation of Anodic Gas Film Behavior in Hall-Heroult Cell Using Low Temperature Electrolyte. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2013 , 44, 1155-1165	2.5	24
35	Alternative Al production methods. <i>Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy</i> , 2013 , 122, 87-104		13
34	Alternative Al production methods. <i>Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy</i> , 2013 , 122, 113-121		6
33	Computational Fluid Dynamic Modeling of Zinc Slag Fuming Process in Top-Submerged Lance Smelting Furnace. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2012 , 43, 39-55	2.5	30
32	Refractory Metal Nuggets Formation of the first condensates in the Solar Nebula. <i>Icarus</i> , 2012 , 221, 89-105	3.8	6

31	Principal characteristics of a bubble formation on a horizontal downward facing surface. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012 , 411, 94-104	5.1	26
30	Computational Fluid Dynamics (CFD) Investigation of Submerged Combustion Behavior in a Tuyere Blown Slag-fuming Furnace. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2012 , 43, 1054-1068	2.5	19
29	A Computational Fluid Dynamics Model of Shrouded Supersonic Jet Impingement on a Water Surface. <i>ISIJ International</i> , 2012 , 52, 1026-1035	1.7	53
28	Neural-NetBased Predictive Modeling of Spout Eye Size in Steelmaking. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2012 , 43, 571-577	2.5	3
27	Study of Ni-Impurity Removal from Al Melt 2012 , 1091-1097		
26	Experimental Investigation of Single Bubble Characteristics in a Cold Model of a Hall-Heroult Electrolytic Cell 2011 , 575-580		3
25	Inclined Jetting and Splashing in Electric Arc Furnace Steelmaking. <i>ISIJ International</i> , 2011 , 51, 1439-1447	1.7	33
24	Theoretical Investigation of the Inclined Sidewall Design on Magnetohydrodynamic (MHD) Forces in an Aluminum Electrolytic Cell. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2011 , 42, 243-253	2.5	23
23	Aluminate Spinel as Sidewall Linings for Aluminum Smelters 2011 , 1085-1090		4
22	Control and Removal of Impurities from Al Melts: A Review. <i>Materials Science Forum</i> , 2011 , 693, 149-160	0.4	17
21	Computational Fluid Dynamics Simulation of Supersonic Oxygen Jet Behavior at Steelmaking Temperature. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2010 , 41, 636-645	2.5	79
20	Computational Fluid Dynamics Modeling of Supersonic Coherent Jets for Electric Arc Furnace Steelmaking Process. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2010 , 41, 1354-1367	2.5	52
19	Analysis of Droplet Generation in Oxygen Steelmaking. <i>ISIJ International</i> , 2009 , 49, 24-28	1.7	19
18	Density segregation of granular material in a rotating cylindrical tumbler 2008 ,		5
17	The carbothermic route to magnesium. <i>Jom</i> , 2006 , 58, 51-55	2.1	63
16	Analysis of interfacial area changes during spontaneous emulsification of metal droplets in slag. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2006 , 37, 1087-1091	2.5	19
15	Kinetics of metal/slag reactions during spontaneous emulsification. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2005 , 36, 219-227	2.5	54
14	Degradation of MgO refractory in CaO-SiO ₂ -MgO-FeO x and CaO-SiO ₂ -Al ₂ O ₃ -MgO-FeO x slags under forced convection. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2005 , 36, 453-461	2.5	33

13	Modeling of trajectory and residence time of metal droplets in slag-metal-gas emulsions in oxygen steelmaking. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2005 , 36, 525-535	2.5	64
12	Analysis of the source of dynamic interfacial phenomena during reaction between metal droplets and slag. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2005 , 36, 591-604	2.5	35
11	Spout Eyes Area Correlation in Ladle Metallurgy.. <i>ISIJ International</i> , 2003 , 43, 262-263	1.7	38
10	Generation of Droplets in Slag-Metal Emulsions through Top Gas Blowing. <i>ISIJ International</i> , 2003 , 43, 983-989	1.7	89
9	The use of secondary ion mass spectrometry for investigating oxygen in pyrometallurgical reactions. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2003 , 34, 355-358	2.5	3
8	Online Monitoring of Dynamic Slag Behavior in Ladle Metallurgy. <i>ISIJ International</i> , 2003 , 43, 1286-1288	1.7	8
7	An Improved Correlation for Predicting Terminal Velocity of Droplets and Bubbles in Slag-Metal-Gas Emulsion.. <i>ISIJ International</i> , 2002 , 42, 1182-1184	1.7	13
6	Heat-transfer considerations in the bath smelting of composite organic and ferrous wastes. <i>Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy</i> , 2002 , 111, 18-24		
5	Recent Developments in the Environment Process. <i>Canadian Metallurgical Quarterly</i> , 1997 , 36, 333-340	0.9	4
4	Solid-solution formation between arsenic and antimony oxides. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 1994 , 25, 865-871	2.5	12
3	Thermal separation of arsenic and antimony oxides. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 1994 , 25, 873-884	2.5	19
2	Development of High Flux Solar Simulators for Solar Thermal Research		147-159
1	Mineral Processing and Metal Extraction on the Lunar Surface - Challenges and Opportunities. <i>Mineral Processing and Extractive Metallurgy Review</i> , 1-27	3.1	0