

M Akbar Rhamdhani

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.

123
papers

1,694
citations

20
h-index

36
g-index

126
ext. papers

2,016
ext. citations

3
avg, IF

5.19
L-index

#	Paper	IF	Citations
123	Metals Production and Metal Oxides Reduction Using Hydrogen: A Review. <i>Journal of Sustainable Metallurgy</i> , 2022 , 8, 1	2.7	3
122	Contribution of CO ₂ Emissions from Basic Oxygen Steelmaking Process. <i>Metals</i> , 2022 , 12, 797	2.3	0
121	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
120	Mechanism and microstructure evolution of high temperature oxidation of end-of-life NdFeB rare earth permanent magnets. <i>Corrosion Science</i> , 2021 , 182, 109290	6.8	8
119	Electronic waste generation, economic values, distribution map, and possible recycling system in Indonesia. <i>Journal of Cleaner Production</i> , 2021 , 293, 126096	10.3	15
118	Computational Modeling in Pyrometallurgy: Part I. <i>Jom</i> , 2021 , 73, 2658-2659	2.1	3
117	Effect of impurity oxides on CWF (CaFe ₃ O ₅) formation in lime magnetite pellets [part I: thermodynamic assessments and experimental investigations. <i>Ironmaking and Steelmaking</i> , 2021 , 48, 299-312	1.3	1
116	Effect of impurity oxides on CWF (CaFe ₃ O ₅) formation in lime magnetite pellets [part II: microstructural analysis and physical and mechanical testing. <i>Ironmaking and Steelmaking</i> , 2021 , 48, 313-323	1.3	1
115	Techno-economic analysis for biomass supply chain: A state-of-the-art review. <i>Renewable and Sustainable Energy Reviews</i> , 2021 , 135, 110164	16.2	34
114	General heat balance for oxygen steelmaking. <i>Journal of Iron and Steel Research International</i> , 2021 , 28, 538-551	1.2	3
113	Small scale recycling process for spent alkaline batteries: Technoeconomic analysis and potential use of solar energy. <i>Resources, Conservation and Recycling</i> , 2021 , 166, 105367	11.9	2
112	Kinetics of high temperature oxidation of end-of-life Ni/Cu/Ni coated NdFeB rare earth permanent magnets. <i>Corrosion Science</i> , 2021 , 189, 109560	6.8	4
111	Thermodynamic modelling of ultra-high vacuum thermal decomposition for lunar resource processing. <i>Planetary and Space Science</i> , 2021 , 204, 105272	2	2
110	Evaluation of concentrated solar thermal energy for iron ore agglomeration. <i>Journal of Cleaner Production</i> , 2021 , 317, 128313	10.3	4
109	Stochastic techno-economic evaluation model for biomass supply chain: A biomass gasification case study with supply chain uncertainties. <i>Renewable and Sustainable Energy Reviews</i> , 2021 , 152, 111644	16.2	2
108	General mass balance for oxygen steelmaking. <i>Ironmaking and Steelmaking</i> , 2020 , 1-15	1.3	4
107	Structure-thermodynamics Interrelation for the GeO ₂ 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	

106	Reduction of Lead-Rich Slags with Coke in the Lead Blast Furnace. <i>Minerals, Metals and Materials Series, 2020</i> , 173-185	0.3	3
105	Study of the Structure of FeOx-CaO-SiO2-MgO and FeOx-CaO-SiO2-MgO-Cu2O-PdO Slags Relevant to Urban Ores Processing through Cu Smelting. <i>Metals, 2020</i> , 10, 78	2.3	5
104	Application of mass and energy balance in oxygen steelmaking. <i>Ironmaking and Steelmaking, 2020</i> , 1-6	1.3	2
103	Solar Carbothermic Reduction of Ilmenite Using Palm Kernel Shell Biomass. <i>Jom, 2020</i> , 72, 3410-3421	2.1	3
102	Alternative route for magnetite processing for lower carbon footprint iron-making through lime-magnetite pellets containing CaFe3O5. <i>Ironmaking and Steelmaking, 2020</i> , 47, 674-685	1.3	4
101	Analyses of CWF (CaFe3O5) phase formation in lime-magnetite pellets. <i>Ironmaking and Steelmaking, 2020</i> , 47, 852-864	1.3	4
100	Monitoring of less-common residual elements in scrap feeds for EAF steelmaking. <i>Ironmaking and Steelmaking, 2019</i> , 46, 598-608	1.3	8
99	Estimating flows and metal recovery values of waste printed circuit boards in Australian e-waste. <i>Minerals Engineering, 2019</i> , 137, 171-176	4.9	19
98	Thermodynamic-Based Exergy Analysis of Precious Metal Recovery out of Waste Printed Circuit Board through Black Copper Smelting Process. <i>Energies, 2019</i> , 12, 1313	3.1	4
97	Dissolution of Sapphire and Alumina-Magnesia Particles in CaO-SiO2-Al2O3 Liquid Slags. <i>Minerals, Metals and Materials Series, 2019</i> , 61-73	0.3	2
96	Sulfides Formation in Carbothermic Reduction of Saprolitic Nickel Laterite Ore Using Low-Rank Coals and Additives: A Thermodynamic Simulation Analysis. <i>Minerals (Basel, Switzerland), 2019</i> , 9, 631	2.4	2
95	Slag Basicity: What Does It Mean?. <i>Minerals, Metals and Materials Series, 2019</i> , 297-308	0.3	4
94	High temperature oxidation of rare earth permanent magnets. Part 2 Kinetics. <i>Corrosion Science, 2018</i> , 133, 318-326	6.8	7
93	Premelting, Melting, and Degradation Properties of Molten Alkali Nitrates: LiNO3, NaNO3, KNO3, and Binary NaNO3-KNO3. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018</i> , 49, 1482-1498	2.5	10
92	High temperature oxidation of rare earth permanent magnets. Part 1 Microstructure evolution and general mechanism. <i>Corrosion Science, 2018</i> , 133, 374-385	6.8	18
91	Mass and energy analysis of composite pellet process. <i>Ironmaking and Steelmaking, 2018</i> , 45, 978-983	1.3	1
90	Dynamic Model of Basic Oxygen Steelmaking Process Based on Multi-zone Reaction Kinetics: Model Derivation and Validation. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018</i> , 49, 537-557	2.5	25
89	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, 2018</i> , 49, 1022-1033	2.5	14

88	Selective sulphidation of impurities in weathered ilmenite. Part 1 [Applicability to different ilmenite deposits and simulated Becher kiln conditions. <i>Minerals Engineering</i> , 2018 , 121, 55-65	4.9	3
87	Novel multi-stage aluminium production: part 1 [Thermodynamic assessment of carbosulphidation of Al ₂ O ₃ /bauxite using H ₂ S and sodiothermic reduction of Al ₂ S ₃ . <i>Mineral Processing and Extractive Metallurgy: Transactions of the Institute of Mining and Metallurgy</i> , 2018 , 127, 91-102	0.8	1
86	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
85	High Temperature Recovery of Rare Earth Ortho-Ferrites from Permanent Magnets. <i>Minerals, Metals and Materials Series</i> , 2018 , 805-813	0.3	1
84	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
83	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
82	Tensile Properties of Vacuum Heat-treated Ti6Al4V Alloy Processed by Selective Laser Melting. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018 , 377, 012138	0.4	1
81	Blowing and Narrowing the Flow of Metals for Consumer Goods: Evaluating Opportunities and Barriers. <i>Sustainability</i> , 2018 , 10, 1096	3.6	20
80	Exploring Possibility of the Chromium (Cr) Removal from Molten Aluminum by adding Boron Bearing Additive (Aluminum-Boron Master Alloy). <i>Microscopy and Microanalysis</i> , 2018 , 24, 2272-2273	0.5	
79	Solar processing of composite iron ore pellets: Preliminary assessments. <i>Journal of Cleaner Production</i> , 2018 , 205, 1017-1028	10.3	7
78	Kinetics Analysis of Boron Removal from Silicon through Reactions with CaO-SiO ₂ and CaO-SiO ₂ -Al ₂ O ₃ Slags. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 3171-3185	2.5	6
77	The Binary Alkali Nitrate and Chloride Phase Diagrams: NaNO ₃ -KNO ₃ , LiNO ₃ -NaNO ₃ , LiNO ₃ -KNO ₃ , and NaCl-KCl. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 3580-3593	2.5	5
76	Novel multi-stage aluminium production: part 2 [Experimental investigation on carbosulphidation of Al ₂ O ₃ using H ₂ S and sodiothermic reduction of Al ₂ S ₃ . <i>Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy</i> , 2017 , 126, 245-258		2
75	Thermal analysis of molten ternary lithium-sodium-potassium nitrates. <i>Renewable Energy</i> , 2017 , 104, 76-87	8.1	17
74	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
73	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
72	A Comparative Life Cycle Assessment of Recycling the Platinum Group Metals from Automobile Catalytic Converter: An Australian Perspective. <i>Metallurgical and Materials Transactions E</i> , 2017 , 4, 77-88		3
71	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

70	Interfacial Tension in the CaO-Al ₂ O ₃ -SiO ₂ -(MgO) Liquid Slag/Solid Oxide Systems. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2017 , 48, 1970-1980	2.5	1
69	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
68	Microstructure Observation of Oxidation of Nd-Magnet at High Temperatures. <i>Minerals, Metals and Materials Series</i> , 2017 , 65-74	0.3	1
67	Reactivity of Selected Oxide Inclusions with CaO-Al ₂ O ₃ -SiO ₂ -(MgO) Slags 2016 , 135-143		
66	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
65	Oxidation of Commercial Purity Aluminum Melts: An Experimental Study. <i>Minerals, Metals and Materials Series</i> , 2016 , 993-997	0.3	2
64	Selective sulfidising roasting for the removal of chrome spinel impurities from weathered ilmenite ore. <i>International Journal of Mineral Processing</i> , 2016 , 146, 29-37		7
63	Understanding of Bath Surface Wave in Bottom Blown Copper Smelting Furnace. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016 , 47, 135-144	2.5	20
62	Review of High-Temperature Recovery of Rare Earth (Nd/Dy) from Magnet Waste. <i>Journal of Sustainable Metallurgy</i> , 2016 , 2, 276-295	2.7	59
61	Mechanism of ZrB ₂ Formation in Molten Al-V-Zr Alloy During Boron Treatment. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016 , 47, 595-607	2.5	4
60	Reactivity of Selected Oxide Inclusions with CaO-Al ₂ O ₃ -SiO ₂ -(MgO) Slags 2016 , 135-143		
59	Management of Impurities in Cast House with Particular Reference to Ni and V. <i>Minerals, Metals and Materials Series</i> , 2016 , 33-38	0.3	
58	Production of Aluminum Sulfide through Carbosulfidation Utilising H ₂ S. <i>Minerals, Metals and Materials Series</i> , 2016 , 1299-1304	0.3	
57	Thermodynamics and kinetics analyses of ZrB ₂ formation in molten aluminium alloys. <i>Canadian Metallurgical Quarterly</i> , 2016 , 55, 161-172	0.9	4
56	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
55	Thermodynamics data of valuable elements relevant to e-waste processing through primary and secondary copper production: a review. <i>Journal of Cleaner Production</i> , 2016 , 131, 795-809	10.3	55
54	Modeling of Droplet Generation in a Top Blowing Steelmaking Process. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016 , 47, 3350-3361	2.5	28
53	Sulfidation Kinetics of Natural Chromite Ore Using H ₂ S Gas. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015 , 46, 557-567	2.5	6

52	Dynamic Wetting of CaO-Al ₂ O ₃ -SiO ₂ -MgO Liquid Oxide on MgAl ₂ O ₄ Spinel. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015 , 46, 208-219	2.5	21
51	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
50	Mixing Phenomena in a Bottom Blown Copper Smelter: A Water Model Study. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015 , 46, 1218-1225	2.5	35
49	Effect of Slag Composition on Wettability of Oxide Inclusions. <i>ISIJ International</i> , 2015 , 55, 1834-1840	1.7	16
48	Wetting behaviour of Cu based alloys on spinel substrates in pyrometallurgical context. <i>Materials Science and Technology</i> , 2015 , 31, 1925-1933	1.5	17
47	Development of High Flux Solar Simulators for Solar Thermal Research 2015 , 149-159		1
46	Removal of Vanadium from Molten Aluminum Part II. Kinetic Analysis and Mechanism of VB ₂ Formation. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014 , 45, 769-783	2.5	20
45	Removal of Vanadium from Molten Aluminum-Part I. Analysis of VB ₂ Formation. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014 , 45, 752-768	2.5	20
44	A Review: Solar Thermal Reactors for Materials Production 2014 , 1-14		4
43	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
42	Electrically Enhanced Metal Purification Using Slag 2014 , 587-595		0
41	Wetting Characteristics of Cryolite-Based Melts on Spinel Substrate 2014 , 609-614		
40	Analysis of Boron Treatment for V Removal Using AlB ₂ and AlB ₁₂ Based Master Alloys 2014 , 963-968		1
39	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
38	Electrically Enhanced Metal Purification Using Slag 2014 , 587-595		
37	Kinetic analysis of silicothermic process under flowing argon atmosphere. <i>Canadian Metallurgical Quarterly</i> , 2014 , 53, 17-25	0.9	13
36	Thermodynamic assessment and experimental study of sulphidation of ilmenite and chromite. <i>Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy</i> , 2014 , 123, 165-177		5
35	Removal of Vanadium from Molten Aluminum Part III. Analysis of Industrial Boron Treatment Practice. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014 , 45, 784-794	2.5	20

34	Wetting Characteristics of Cryolite-Based Melts on Spinel Substrate 2014 , 609-614		
33	Analysis of Boron Treatment for V Removal Using ALB 2 and ALB 12 Based Master Alloys 2014 , 963-968		1
32	Alternative Al production methods. <i>Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy</i> , 2013 , 122, 87-104		13
31	Alternative Al production methods. <i>Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy</i> , 2013 , 122, 113-121		6
30	Study of Ni-Impurity Removal from Al Melt 2012 , 1091-1097		
29	Comprehensive Model of Oxygen Steelmaking Part 2: Application of Bloated Droplet Theory for Decarburization in Emulsion Zone. <i>ISIJ International</i> , 2011 , 51, 1093-1101	1.7	45
28	Comprehensive Model of Oxygen Steelmaking Part 3: Decarburization in Impact Zone. <i>ISIJ International</i> , 2011 , 51, 1102-1109	1.7	36
27	Thermodynamic Analysis of Ti, Zr, V and Cr Impurities in Aluminium Melt 2011 , 751-756		10
26	Study of Early Stage Interaction of Oxygen with Al; Methods, Challenges and Difficulties 2011 , 725-730		1
25	Comprehensive Model of Oxygen Steelmaking Part 1: Model Development and Validation. <i>ISIJ International</i> , 2011 , 51, 1086-1092	1.7	58
24	Aluminate Spinel Linings for Aluminum Smelters 2011 , 1085-1090		4
23	Control and Removal of Impurities from Al Melts: A Review. <i>Materials Science Forum</i> , 2011 , 693, 149-160	0.4	17
22	Thermodynamic Analysis of Ti, Zr, V and Cr Impurities in Aluminum Melt 2011 , 751-756		2
21	Kinetics of Flux Dissolution in Oxygen Steelmaking. <i>ISIJ International</i> , 2009 , 49, 1474-1482	1.7	29
20	Nickel laterite Part 1 Microstructure and phase characterisations during reduction roasting and leaching. <i>Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy</i> , 2009 , 118, 129-145		24
19	Nickel laterite Part 2 Thermodynamic analysis of phase transformations occurring during reduction roasting. <i>Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy</i> , 2009 , 118, 146-155		27
18	Transient Kinetics of Slag Metal Reactions. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2009 , 40, 353-362	2.5	17
17	The Kinetics of Reduction of Dense Synthetic Nickel Oxide in H ₂ -N ₂ and H ₂ -H ₂ O Atmospheres. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2009 , 40, 1-16	2.5	19

16	Subsolidus Phase Equilibria of Fe-Ni-X-O (X = Mg, Al) Systems in Air. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2009 , 40, 25-38	2.5	18
15	On the Relationships between the Kinetics and Mechanisms of Gaseous Hydrogen Reduction of Solid Nickel Oxide. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2009 , 40, 474-489	2.5	17
14	Investigation of Nickel Product Structures Developed during the Gaseous Reduction of Solid Nickel Oxide. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2009 , 40, 462-473	2.5	16
13	Analysis of Droplet Generation in Oxygen Steelmaking. <i>ISIJ International</i> , 2009 , 49, 24-28	1.7	19
12	The characterization of nickel metal pore structures and the measurement of intrinsic reaction rate during the reduction of nickel oxide in H ₂ and H ₂ O atmospheres. <i>Minerals Engineering</i> , 2008 , 21, 157-166	4.9	11
11	Basic Nickel Carbonate: Part I. Microstructure and Phase Changes during Oxidation and Reduction Processes. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2008 , 39, 218-233	2.5	17
10	Basic Nickel Carbonate: Part II. Microstructure Evolution during Industrial Nickel Production from Basic Nickel Carbonate. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2008 , 39, 234-245	2.5	7
9	Subsolidus Phase Equilibria of the Fe-Ni-O System. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2008 , 39, 690-701	2.5	43
8	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
7	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
6	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
5	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
4	Kinetics and Mechanisms of Carbothermic Reduction of Weathered Ilmenite Using Palm Kernel Shell Biomass. <i>Journal of Sustainable Metallurgy</i> , 1	2.7	1
3	Development of High Flux Solar Simulators for Solar Thermal Research 147-159		
2	Oxidation of Commercial Purity Aluminium Melts: An Experimental Study 993-997		
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