

Rong Zhu

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.

86
papers

649
citations

15
h-index

21
g-index

91
ext. papers

837
ext. citations

2
avg, IF

4.38
L-index

#	Paper	IF	Citations
86	Real-Time Analysis of 18O ₂ -13CO ₂ Mixed Gas Decarburization Mechanism by Online Mass Spectrometry. <i>Jom</i> , 2022 , 74, 869	2.1	0
85	Pattern Optimization of O ₂ /CO ₂ Mixed Injection for Decarburization Reactions During Steelmaking Process. <i>Journal of Sustainable Metallurgy</i> , 2022 , 8, 582-594	2.7	0
84	Study on the Characteristics of Coherent Supersonic Jet with Superheated Steam. <i>Metals</i> , 2022 , 12, 835	2.3	0
83	Jet characteristics of CO ₂ /O ₂ mixed injection using a dual-parameter oxygen lance nozzle for different smelting periods. <i>High Temperature Materials and Processes</i> , 2021 , 40, 345-360	0.9	0
82	Simulation and Application of Ruhrstahl-Heraeus (RH) Reactor with Bottom-Blowing. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2021 , 52, 2127-2138	2.5	1
81	Industrial Application of Bottom-Blown CO ₂ in Basic Oxygen Furnace Steelmaking Process. <i>Steel Research International</i> , 2021 , 92, 2000704	1.6	0
80	Study on metallurgical characteristics of the bottom-blown O ₂ /CaO converter. <i>Ironmaking and Steelmaking</i> , 2021 , 48, 142-148	1.3	1
79	Influence of the non-uniform bottom blowing gas supply mode on the dynamic conditions of molten pool during the converter steelmaking process. <i>Ironmaking and Steelmaking</i> , 2021 , 48, 180-190	1.3	5
78	Effect of various components on the distribution of phosphorus in CaO-FeO-MgO-SiO ₂ -MnO-TiO ₂ -V ₂ O ₅ -P ₂ O ₅ slag based on IMCT. <i>Ironmaking and Steelmaking</i> , 2021 , 48, 570-578	1.3	2
77	Simulation and application of tapping online refining in EAF steelmaking process. <i>Ironmaking and Steelmaking</i> , 2021 , 48, 628-636	1.3	1
76	Effect of powder injection rate on the flow field of coherent lime powder injection (C-LPI) for EAF steelmaking. <i>Ironmaking and Steelmaking</i> , 2021 , 48, 534-546	1.3	2
75	Effects of Nozzle Layout and Parameters on the Jet Characteristics of a CO ₂ + O ₂ Mixed Oxygen Lance. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2021 , 52, 425-439	2.5	2
74	Effect of smelting temperature and CO ₂ gas flow rate on decarburization kinetics between CO ₂ gas and liquid Fe-C alloy. <i>Ironmaking and Steelmaking</i> , 2021 , 48, 852-859	1.3	0
73	Influence of bottom blowing oxygen on dust emission in converter steelmaking. <i>Journal of Iron and Steel Research International</i> , 2021 , 28, 1105-1113	1.2	0
72	Simulation and application of submerged CO ₂ /O ₂ injection in EAF steelmaking: combined blowing equipment arrangement and industrial application. <i>Ironmaking and Steelmaking</i> , 2021 , 48, 703-711	1.3	1
71	Influence of Preheating Temperature on the Characteristics of O ₂ + CO ₂ Jet by Mixed Injection with a Swirling Oxygen Nozzle. <i>Jom</i> , 2021 , 73, 2985-2994	2.1	2
70	The Behavior of Supersonic Jets Generated by Combination Gas in the Steelmaking Process. <i>Materials</i> , 2021 , 14,	3.5	1

69	Effect of CO ₂ injection into blast furnace tuyeres on the pulverized coal combustion. <i>High Temperature Materials and Processes</i> , 2021 , 40, 131-140	0.9	2
68	A review of carbon dioxide disposal technology in the converter steelmaking process. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2020 , 27, 1421-1429	3.1	7
67	Influence of Carrier Gas of Converter Oxygen Lance on Smooth Distribution of O ₂ and CO Mixed Jet. <i>Transactions of the Indian Institute of Metals</i> , 2020 , 73, 3027-3035	1.2	2
66	Exploring the Behavior of a Coherent Flow Field Produced by a Shrouding Laval Nozzle Structure. <i>ISIJ International</i> , 2020 , 60, 682-690	1.7	2
65	Competitive Oxidation of O ₂ and CO ₂ in Fe Melts Using Isotope Tracing Method. <i>Steel Research International</i> , 2020 , 91, 2000127	1.6	5
64	Characteristics of a coherent jet enshrouded in a supersonic fuel gas. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2020 , 27, 173-180	3.1	1
63	Reaction between CO ₂ and O ₂ Mixture Gas and Fe Melts by Isotope Tracing Method. <i>ISIJ International</i> , 2020 , 60, 848-855	1.7	6
62	Experimental Study on Oxidative Desulfurization of Molten Copper Slag by Different Oxidants. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2020 , 51, 543-557	2.5	2
61	Experimental validation of the reaction mechanism models of dechlorination and [Zn] reclaiming in the roasting steelmaking zinc-rich dust process. <i>High Temperature Materials and Processes</i> , 2020 , 39, 107-116	0.9	0
60	Effect of Nozzle Exit Wear on the Fluid Flow Characteristics of Supersonic Oxygen Lance. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2020 , 51, 187-199	2.5	3
59	Effects of Multiple-Hole Baffle Arrangements on Flow Fields in a Five-Strand Asymmetric Tundish. <i>Materials</i> , 2020 , 13,	3.5	3
58	Carbon Powder Mixed Injection with a Shrouding Supersonic Oxygen Jet in Electric Arc Furnace Steelmaking. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2020 , 51, 2298-2308	2.5	2
57	Effect of Furnace Gas Composition on Characteristics of Supersonic Oxygen Jets in the Converter Steelmaking Process. <i>Materials</i> , 2020 , 13,	3.5	9
56	Simulation and analysis of O ₂ and CO jet behavior with different shrouding fuel mediums in electric arc furnace steelmaking. <i>Journal of Iron and Steel Research International</i> , 2020 , 27, 1259-1269	1.2	2
55	Study on the Impact Characteristics of Submerged CO ₂ and O ₂ Mixed Injection (S-COMI) in EAF Steelmaking. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2019 , 50, 1077-1090	2.5	7
54	Behaviours of supersonic oxygen jet with various Laval nozzle structures in steelmaking process. <i>Canadian Metallurgical Quarterly</i> , 2019 , 58, 285-298	0.9	3
53	Utilization of carbon dioxide injection in BOF-BH steelmaking process. <i>Journal of CO₂ Utilization</i> , 2019 , 34, 53-62	7.6	24
52	Study on the melting characteristics of steel scrap in molten steel. <i>Ironmaking and Steelmaking</i> , 2019 , 46, 609-617	1.3	11

51	Influence of the Carrier Gas Species on CaO-Gas Mixed Injection in the EAF Steelmaking Process. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2019 , 50, 2389-2402	2.5	6
50	Characteristics of the Supersonic Combustion Coherent Jet for Electric Arc Furnace Steelmaking. <i>Materials</i> , 2019 , 12,	3.5	2
49	High Efficiency Dephosphorization by Mixed Injection during Steelmaking Process. <i>Steel Research International</i> , 2019 , 90, 1800454	1.6	17
48	Technological innovations of electric arc furnace bottom-blowing in China. <i>Journal of Iron and Steel Research International</i> , 2019 , 26, 909-916	1.2	4
47	Influence of bottom-blowing gas species on the nitrogen content in molten steel during the EAF steelmaking process. <i>Ironmaking and Steelmaking</i> , 2018 , 45, 839-846	1.3	9
46	Numerical simulation and experimental measurement of transport phenomena for coherent jet with CH ₄ + N ₂ mixed fuel gas. <i>Journal of Iron and Steel Research International</i> , 2018 , 25, 28-36	1.2	1
45	Study on the Fluid Flow Characteristics of Coherent Jets with CO ₂ and O ₂ Mixed Injection in Electric Arc Furnace Steelmaking Processes. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 1405-1420	2.5	29
44	Study on the Impact Characteristics of Coherent Supersonic Jet and Conventional Supersonic Jet in EAF Steelmaking Process. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 361-374	2.5	13
43	Technological Innovations of Carbon Dioxide Injection in EAF-LF Steelmaking. <i>Jom</i> , 2018 , 70, 969-976	2.1	27
42	FluidSolid Coupling Simulation on the Temperature Distribution of Tuyere Used for Oxygen Bottom Blowing Converter. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 3317-3329	2.5	1
41	Simulation and application of pulsating bottom-blowing in EAF steelmaking. <i>Ironmaking and Steelmaking</i> , 2018 , 45, 847-856	1.3	5
40	Numerical Simulation and Industrial Experimental Research on the Coherent Jet with CH ₄ + N ₂ Mixed Fuel Gas. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 2584-2598	2.5	1
39	Effect of oxygen flow rate and temperature on supersonic jet characteristics and fluid flow in an EAF molten bath. <i>Canadian Metallurgical Quarterly</i> , 2018 , 57, 219-234	0.9	4
38	Modelling on the penetration depth of the coherent supersonic jet in EAF steelmaking. <i>Ironmaking and Steelmaking</i> , 2018 , 45, 828-838	1.3	7
37	Multi-index analysis of the melting process of laterite metallized pellet. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2018 , 25, 1423-1430	3.1	3
36	Research on Selective Oxidation of Carbon and Aluminum with Introduction of CO ₂ in RH Refining of Low-Carbon Steel Process. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 3544-3551	2.5	19
35	Recovery of Fe, Ni, Co, and Cu from Nickel Converter Slag through Oxidation and Reduction. <i>ISIJ International</i> , 2018 , 58, 2191-2199	1.7	11
34	Modeling on impact zone volume generated by coherent supersonic jet and conventional supersonic jet. <i>Journal of Iron and Steel Research International</i> , 2018 , 25, 681-691	1.2	3

33	Premixed MILD Combustion of Propane in a Cylindrical Furnace with a Single Jet Burner: Combustion and Emission Characteristics. <i>Energy & Fuels</i> , 2018 , 32, 8817-8829	4.1	21
32	Utilization of CO ₂ in metallurgical processes in China. <i>Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy</i> , 2017 , 126, 47-53		15
31	Effect of Shrouding Gas Parameters on Characteristics of Supersonic Coherent Jet. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2017 , 48, 1807-1816	2.5	11
30	Formation of persistent chlorinated aromatic compounds in simulated and real fly ash from iron ore sintering. <i>Journal of Material Cycles and Waste Management</i> , 2017 , 19, 1437-1445	3.4	4
29	Effect of methane-hydrogen mixtures on flow and combustion of coherent jets. <i>Journal of Iron and Steel Research International</i> , 2017 , 24, 1143-1151	1.2	2
28	Formation of persistent chlorinated aromatic compounds in simulated and real fly ash from iron ore sintering. <i>Journal of Material Cycles and Waste Management</i> , 2017 , 19, 1437	3.4	
27	EAF Gas Waste Heat Utilization and Discussion of the Energy Conservation and CO ₂ Emissions Reduction. <i>High Temperature Materials and Processes</i> , 2016 , 35, 195-200	0.9	6
26	Flow Field Characteristics of Coherent Jet with Preheating Oxygen under Various Ambient Temperatures. <i>ISIJ International</i> , 2016 , 56, 1519-1528	1.7	11
25	Numerical Simulation of Jet Behavior and Impingement Characteristics of Preheating Shrouded Supersonic Jets. <i>Journal of Iron and Steel Research International</i> , 2016 , 23, 997-1006	1.2	20
24	Influences of Technological Parameters on Smelting-separation Process for Metallized Pellets of Vanadium-bearing Titanomagnetite Concentrates. <i>Journal of Iron and Steel Research International</i> , 2016 , 23, 655-660	1.2	23
23	Research and Analysis on the Physical and Chemical Properties of Molten Bath with Bottom-Blowing in EAF Steelmaking Process. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016 , 47, 3066-3079	2.5	37
22	Effects of elemental Sn on the properties and inclusions of the free-cutting steel. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2015 , 22, 141-148	3.1	11
21	Simulation and Application of Top Lance with Various Tilt Angles in Dephosphorization Ladle Furnace. <i>ISIJ International</i> , 2015 , 55, 1633-1641	1.7	10
20	Simulation and Application of Bottom-Blowing in Electrical Arc Furnace Steelmaking Process. <i>ISIJ International</i> , 2015 , 55, 2365-2373	1.7	26
19	Study on Indirect Measuring Technology of EAF Steelmaking Decarburization Rate by Off-gas Analysis Technique in Hot State Experiment. <i>High Temperature Materials and Processes</i> , 2015 , 34,	0.9	1
18	Simplified Calculation Kinetic Model for Solid Metal Melting and Decarburization Process. <i>High Temperature Materials and Processes</i> , 2015 , 34,	0.9	4
17	Simulation of three-phase flow and lance height effect on the cavity shape. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2014 , 21, 523-530	3.1	7
16	Desulfurization of CaO-Al ₂ O ₃ -SiO ₂ -TiO ₂ Slag System. <i>ISIJ International</i> , 2014 , 54, 2248-2254	1.7	3

15	Study on Experiment and Mechanism of Bottom Blowing CO ₂ During the LF Refining Process. <i>Steel Research International</i> , 2014 , 85, 589-598	1.6	24
14	Simulation and Application of Swirl-Type Oxygen Lance in Vanadium Extraction Converter. <i>Steel Research International</i> , 2013 , 84, 304-312	1.6	20
13	Research on Top and Bottom Mixed Blowing CO ₂ in Converter Steelmaking Process. <i>Steel Research International</i> , 2012 , 83, 11-15	1.6	42
12	Modeling of an Impinging Oxygen Jet on Molten Bath Surface in 150 t EAF. <i>Journal of Iron and Steel Research International</i> , 2011 , 18, 13-20	1.2	9
11	A process model for BOF process based on bath mixing degree. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2010 , 17, 715-722	3.1	20
10	Experimental Research on Reducing the Dust of BOF in CO ₂ and O ₂ Mixed Blowing Steelmaking Process. <i>ISIJ International</i> , 2009 , 49, 1694-1699	1.7	49
9	CO ₂ Emission of CO ₂ Injection into Blast Furnace. <i>Transactions of the Indian Institute of Metals</i> , 1	1.2	
8	Numerical Simulation for the Mixing Process of Converter with Preheating Oxygen 743-750		
7	CO ₂ conversion and decarburization kinetics of CO ₂ gas and liquid Fe-C alloy at 1873 K. <i>Journal of Iron and Steel Research International</i> , 1	1.2	1
6	Supersonic jet characteristics of two parameter oxygen lance nozzle. <i>Ironmaking and Steelmaking</i> , 1-13	1.3	0
5	Reaction mechanism of CO/CO ₂ with low-carbon aluminium-killed molten steel during the ladle furnace (LF) refining process. <i>Ironmaking and Steelmaking</i> , 1-13	1.3	0
4	Research on the Gas-Solid Jet Flow and Erosion Wear Characteristics in Bottom Injecting Lance Used for Oxygen-Lime Powder Bottom Blowing Converter. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 1	2.5	1
3	Energy balance and deoxidation status of electric arc furnace tapping processes. <i>Ironmaking and Steelmaking</i> , 1-8	1.3	
2	Study on Final Equilibrium State and Process of CO ₂ Reacting with Fe-C Melt. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 1	2.5	0
1	Influence of different central nozzle diameters and powder injection rates on carbon powder mixed injection with shrouding supersonic oxygen jet (CMISSO) lance. <i>Ironmaking and Steelmaking</i> , 1-11	1.3	