Rong Zhu

List of Publications by Year
in descending order

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89	1,080	430754	501076
papers	citations	18 h-index	28 g-index

91	91	91	327
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Experimental Research on Reducing the Dust of BOF in CO2 and O2 Mixed Blowing Steelmaking Process. ISIJ International, 2009, 49, 1694-1699.	0.6	65
2	Research on Top and Bottom Mixed Blowing CO₂ in Converter Steelmaking Process. Steel Research International, 2012, 83, 11-15.	1.0	62
3	Research and Analysis on the Physical and Chemical Properties of Molten Bath with Bottom-Blowing in EAF Steelmaking Process. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2016, 47, 3066-3079.	1.0	51
4	Technological Innovations of Carbon Dioxide Injection in EAF-LF Steelmaking. Jom, 2018, 70, 969-976.	0.9	40
5	Utilization of carbon dioxide injection in BOFâ€“RH steelmaking process. Journal of CO2 Utilization, 2019, 34, 53-62.	3.3	38
6	Study on Experiment and Mechanism of Bottom Blowing CO₂ During the LF Refining Process. Steel Research International, 2014, 85, 589-598.	1.0	36
7	Simulation and Application of Bottom-Blowing in Electrical Arc Furnace Steelmaking Process. ISIJ International, 2015, 55, 2365-2373.	0.6	36
8	Study on the Fluid Flow Characteristics of Coherent Jets with CO2 and O2 Mixed Injection in Electric Arc Furnace Steelmaking Processes. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 1405-1420.	1.0	35
9	Premixed MILD Combustion of Propane in a Cylindrical Furnace with a Single Jet Burner: Combustion and Emission Characteristics. Energy & Fuels, 2018, 32, 8817-8829.	2.5	34
10	Influences of Technological Parameters on Smelting-separation Process for Metallized Pellets of Vanadium-bearing Titanomagnetite Concentrates. Journal of Iron and Steel Research International, 2016, 23, 655-660.	1.4	33
11	High Efficiency Dephosphorization by Mixed Injection during Steelmaking Process. Steel Research International, 2019, 90, 1800454.	1.0	32
12	A process model for BOF process based on bath mixing degree. International Journal of Minerals, Metallurgy and Materials, 2010, 17, 715-722.	2.4	28
13	Research on Selective Oxidation of Carbon and Aluminum with Introduction of CO2 in RH Refining of Low-Carbon Steel Process. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 3544-3551.	1.0	24
14	Influence of the non-uniform bottom blowing gas supply mode on the dynamic conditions of molten pool during the converter steelmaking process. Ironmaking and Steelmaking, 2021, 48, 180-190.	1.1	24
15	Simulation and Application of Swirlâ€Type Oxygen Lance in Vanadium Extraction Converter. Steel Research International, 2013, 84, 304-312.	1.0	22
16	Numerical Simulation of Jet Behavior and Impingement Characteristics of Preheating Shrouded Supersonic Jets. Journal of Iron and Steel Research International, 2016, 23, 997-1006.	1.4	21
17	Utilization of CO₂ in metallurgical processes in China. Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy, 2017, 126, 47-53.	0.6	20
18	A review of carbon dioxide disposal technology in the converter steelmaking process. International Journal of Minerals, Metallurgy and Materials, 2020, 27, 1421-1429.	2.4	20

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19	Study on the melting characteristics of steel scrap in molten steel. Ironmaking and Steelmaking, 2019, 46, 609-617.	1.1	18
20	Modeling of an Impinging Oxygen Jet on Molten Bath Surface in 150 t EAF. Journal of Iron and Steel Research International, 2011, 18, 13-20.	1.4	17
21	Effect of Shrouding Gas Parameters on Characteristics of Supersonic Coherent Jet. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2017, 48, 1807-1816.	1.0	17
22	Recovery of Fe, Ni, Co, and Cu from Nickel Converter Slag through Oxidation and Reduction. ISIJ International, 2018, 58, 2191-2199.	0.6	17
23	Effects of elemental Sn on the properties and inclusions of the free-cutting steel. International Journal of Minerals, Metallurgy and Materials, 2015, 22, 141-148.	2.4	15
24	Influence of bottom-blowing gas species on the nitrogen content in molten steel during the EAF steelmaking process. Ironmaking and Steelmaking, 2018, 45, 839-846.	1.1	15
25	Study on the Impact Characteristics of Coherent Supersonic Jet and Conventional Supersonic Jet in EAF Steelmaking Process. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 361-374.	1.0	14
26	Simulation and Application of Top Lance with Various Tilt Angles in Dephosphorization Ladle Furnace. ISIJ International, 2015, 55, 1633-1641.	0.6	13
27	Study on the Impact Characteristics of Submerged CO2 and O2 Mixed Injection (S-COMI) in EAF Steelmaking. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 1077-1090.	1.0	13
28	Effect of Furnace Gas Composition on Characteristics of Supersonic Oxygen Jets in the Converter Steelmaking Process. Materials, 2020, 13, 3353.	1.3	13
29	Flow Field Characteristics of Coherent Jet with Preheating Oxygen under Various Ambient Temperatures. ISIJ International, 2016, 56, 1519-1528.	0.6	12
30	Simulation and application of pulsating bottom-blowing in EAF steelmaking. Ironmaking and Steelmaking, 2018, 45, 847-856.	1.1	11
31	Effect of Nozzle Exit Wear on the Fluid Flow Characteristics of Supersonic Oxygen Lance. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 187-199.	1.0	11
32	Effects of Multiple-Hole Baffle Arrangements on Flow Fields in a Five-Strand Asymmetric Tundish. Materials, 2020, 13, 5129.	1.3	11
33	Carbon Powder Mixed Injection with a Shrouding Supersonic Oxygen Jet in Electric Arc Furnace Steelmaking. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 2298-2308.	1.0	10
34	Simulation of three-phase flow and lance height effect on the cavity shape. International Journal of Minerals, Metallurgy and Materials, 2014, 21, 523-530.	2.4	9
35	EAF Gas Waste Heat Utilization and Discussion of the Energy Conservation and CO2 Emissions Reduction. High Temperature Materials and Processes, 2016, 35, 195-200.	0.6	9
36	Modelling on the penetration depth of the coherent supersonic jet in EAF steelmaking. Ironmaking and Steelmaking, 2018, 45, 828-838.	1.1	9

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37	Technological innovations of electric arc furnace bottom-blowing in China. Journal of Iron and Steel Research International, 2019, 26, 909-916.	1.4	9
38	Reaction between CO₂â€“O₂ Mixture Gas and Feâ€“C Melts by Isotope Tracing Method. ISIJ International, 2020, 60, 848-855.	0.6	9
39	Characteristics of the Supersonic Combustion Coherent Jet for Electric Arc Furnace Steelmaking. Materials, 2019, 12, 3504.	1.3	8
40	Competitive Oxidation of O 2 and CO 2 in Feâ€“C Melts Using Isotope Tracing Method. Steel Research International, 2020, 91, 2000127.	1.0	8
41	Study on metallurgical characteristics of the bottom-blown O₂â€“CaO converter. Ironmaking and Steelmaking, 2021, 48, 142-148.	1.1	8
42	Effects of Nozzle Layout and Parameters on the Jet Characteristics of a CO2 + O2 Mixed Oxygen Lance. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2021, 52, 425-439.	1.0	8
43	Simulation and application of submerged CO₂â€“O₂ injection in EAF steelmaking: combined blowing equipment arrangement and industrial application. Ironmaking and Steelmaking, 2021, 48, 703-711.	1.1	8
44	Simulation and Application of Ruhrstahlâ€“Heraeus (RH) Reactor with Bottom-Blowing. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2021, 52, 2127-2138.	1.0	8
45	Influence of the Carrier Gas Species on CaO-Gas Mixed Injection in the EAF Steelmaking Process. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 2389-2402.	1.0	7
46	Behaviours of supersonic oxygen jet with various Laval nozzle structures in steelmaking process. Canadian Metallurgical Quarterly, 2019, 58, 285-298.	0.4	7
47	Characteristics of a coherent jet enshrouded in a supersonic fuel gas. International Journal of Minerals, Metallurgy and Materials, 2020, 27, 173-180.	2.4	7
48	Influence of bottom blowing oxygen on dust emission in converter steelmaking. Journal of Iron and Steel Research International, 2021, 28, 1105-1113.	1.4	7
49	Formation of persistent chlorinated aromatic compounds in simulated and real fly ash from iron ore sintering. Journal of Material Cycles and Waste Management, 2017, 19, 1437-1445.	1.6	6
50	Effect of various components on the distribution of phosphorus in CaOâ€“FeOâ€“MgOâ€“SiO₂â€“MnOâ€“TiO₂â€“V₂O₅â€“P₂O₅ slag based on IMCT. Ironmaking and Steelmaking, 2021, 48, 570-578.	1.1	6
51	Effect of smelting temperature and CO2 gas flow rate on decarburization kinetics between CO2 gas and liquid Fe-C alloy. Ironmaking and Steelmaking, 2021, 48, 852-859.	1.1	6
52	Reaction mechanism of CO/CO2 with low-carbon aluminium-killed molten steel during the ladle furnace (LF) refining process. Ironmaking and Steelmaking, 0, , 1-13.	1.1	6
53	Effect of CO₂ injection into blast furnace tuyeres on the pulverized coal combustion. High Temperature Materials and Processes, 2021, 40, 131-140.	0.6	6
54	Fluidâ€“Solid Coupling Simulation on the Temperature Distribution of Tuyere Used for Oxygen Bottom Blowing Converter. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 3317-3329.	1.0	5

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55	Numerical Simulation and Industrial Experimental Research on the Coherent Jet with â€œCH4Â+ÂN2â€•Mixed Fuel Gas. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 2584-2598.	1.0	5
56	Industrial Application of Bottomâ€“Blown CO‹sub›2‹/sub› in Basic Oxygen Furnace Steelmaking Process. Steel Research International, 2021, 92, 2000704.	1.0	5
57	Research on the Gasâ€“Solid Jet Flow and Erosion Wear Characteristics in Bottom Injecting Lance Used for Oxygenâ€“Lime Powder Bottom Blowing Converter. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2021, 52, 3875-3887.	1.0	5
58	Effect of oxygen flow rate and temperature on supersonic jet characteristics and fluid flow in an EAF molten bath. Canadian Metallurgical Quarterly, 2018, 57, 219-234.	0.4	5
59	Desulfurization of CaOâ€“Al2O3â€“SiO2â€“TiO2 Slag System. ISIJ International, 2014, 54, 2248-2254.	0.6	4
60	Simplified Calculation Kinetic Model for Solid Metal Melting and Decarburization Process. High Temperature Materials and Processes, 2015, 34, .	0.6	4
61	Effect of methane-hydrogen mixtures on flow and combustion of coherent jets. Journal of Iron and Steel Research International, 2017, 24, 1143-1151.	1.4	4
62	Multi-index analysis of the melting process of laterite metallized pellet. International Journal of Minerals, Metallurgy and Materials, 2018, 25, 1423-1430.	2.4	4
63	Modeling on impact zone volume generated by coherent supersonic jet and conventional supersonic jet. Journal of Iron and Steel Research International, 2018, 25, 681-691.	1.4	4
64	Exploring the Behavior of a Coherent Flow Field Produced by a Shrouding Laval Nozzle Structure. ISIJ International, 2020, 60, 682-690.	0.6	4
65	Effect of powder injection rate on the flow field of coherent lime powder injection (C-LPI) for EAF steelmaking. Ironmaking and Steelmaking, 2021, 48, 534-546.	1.1	4
66	Influence of Preheating Temperature on the Characteristics of O2â€‰+â€‰CO2 Jet by Mixed Injection with a Swirling Oxygen Nozzle. Jom, 2021, 73, 2985-2994.	0.9	4
67	The Behavior of Supersonic Jets Generated by Combination Gas in the Steelmaking Process. Materials, 2021, 14, 5034.	1.3	4
68	Study on Final Equilibrium State and Process of CO2 Reacting with Feâ€“C Melt. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2022, 53, 1396-1410.	1.0	4
69	Experimental Study on Oxidative Desulfurization of Molten Copper Slag by Different Oxidants. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 543-557.	1.0	3
70	CO2 conversion and decarburization kinetics of CO2 gas and liquid Feâ€“C alloy at 1873ÂK. Journal of Iron and Steel Research International, 2022, 29, 425-433.	1.4	3
71	Supersonic jet characteristics of two parameter oxygen lance nozzle. Ironmaking and Steelmaking, 2022, 49, 109-121.	1.1	3
72	CO2 Emission of CO2 Injection into Blast Furnace. Transactions of the Indian Institute of Metals, 2022, 75, 1233-1244.	0.7	3

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73	Study on the Characteristics of Coherent Supersonic Jet with Superheated Steam. Metals, 2022, 12, 835.	1.0	3
74	Simulation and analysis of O2â€“CaO jet behavior with different shrouding fuel mediums in electric arc furnace steelmaking. Journal of Iron and Steel Research International, 2020, 27, 1259-1269.	1.4	2
75	Influence of Carrier Gas of Converter Oxygen Lance on Smooth Distribution of O2â^'CO2â^'CaO Mixed Jet. Transactions of the Indian Institute of Metals, 2020, 73, 3027-3035.	0.7	2
76	Influence of Desulfurization with Fe2O3 on the Reduction of Nickel Converter Slag. Materials, 2020, 13, 2423.	1.3	2
77	Real-Time Analysis of 18O2-13CO2 Mixed Gas Decarburization Mechanism by Online Mass Spectrometry. Jom, 2022, 74, 869.	0.9	2
78	Pattern Optimization of O2â€“CO2 Mixed Injection for Decarburization Reactions During Steelmaking Process. Journal of Sustainable Metallurgy, 2022, 8, 582-594.	1.1	2
79	Numerical Modeling of Transient Two-Phase Flow and the Coalescence and Breakup of Bubbles in a Continuous Casting Mold. Materials, 2022, 15, 2810.	1.3	2
80	Study on Indirect Measuring Technology of EAF Steelmaking Decarburization Rate by Off-gas Analysis Technique in Hot State Experiment. High Temperature Materials and Processes, 2015, 34, .	0.6	1
81	Numerical simulation and experimental measurement of transport phenomena for coherent jet with CH4Â+ÂN2 mixed fuel gas. Journal of Iron and Steel Research International, 2018, 25, 28-36.	1.4	1
82	Simulation and application of tapping online refining in EAF steelmaking process. Ironmaking and Steelmaking, 2021, 48, 628-636.	1.1	1
83	Experimental validation of the reaction mechanism models of dechlorination and [Zn] reclaiming in the roasting steelmaking zinc-rich dust process. High Temperature Materials and Processes, 2020, 39, 107-116.	0.6	1
84	Jet characteristics of CO₂â€“O₂ mixed injection using a dual-parameter oxygen lance nozzle for different smelting periods. High Temperature Materials and Processes, 2021, 40, 345-360.	0.6	1
85	A Static Balance Model and Analysis of 430 Stainless Steel Produced by basic oxygen furnaceâ€argon oxygen decarburization furnace Process. Steel Research International, 0, , .	1.0	1
86	Influence of different central nozzle diameters and powder injection rates on carbon powder mixed injection with shrouding supersonic oxygen jet (CMISSO) lance. Ironmaking and Steelmaking, 2022, 49, 760-770.	1.1	1
87	Experimental Study on Decarburization and Chromium Retention in Stainless Steel Smelting with CO ₂ as Alternative to N ₂. Steel Research International, 0, , .	1.0	1
88	Formation of persistent chlorinated aromatic compounds in simulated and real fly ash from iron ore sintering. Journal of Material Cycles and Waste Management, 2017, 19, 1437.	1.6	0
89	Energy balance and deoxidation status of electric arc furnace tapping processes. Ironmaking and Steelmaking, 0, , 1-8.	1.1	0