

Jingsong Wang

List of Publications by Year in descending order

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88
papers

1,336
citations

430874

18
h-index

414414

32
g-index

99
all docs

99
docs citations

99
times ranked

750
citing authors

#	ARTICLE	IF	CITATIONS
1	The production and application of hydrogen in steel industry. International Journal of Hydrogen Energy, 2021, 46, 10548-10569.	7.1	197
2	Review of green and low-carbon ironmaking technology. Ironmaking and Steelmaking, 2020, 47, 296-306.	2.1	93
3	New Separation Method of Boron and Iron from Ludwigite Based on Carbon Bearing Pellet Reduction and Melting Technology. ISIJ International, 2012, 52, 45-51.	1.4	60
4	Reduction mechanism of titanomagnetite concentrate by hydrogen. International Journal of Mineral Processing, 2013, 125, 122-128.	2.6	59
5	Kinetic analysis of gasification reaction of coke with CO ₂ or H ₂ O. International Journal of Hydrogen Energy, 2015, 40, 13306-13313.	7.1	54
6	Effects of thermal treatment on energy density and hardness of torrefied wood pellets. Fuel Processing Technology, 2015, 129, 168-173.	7.2	49
7	Effects of top gas recycling on in-furnace status, productivity, and energy consumption of oxygen blast furnace. Energy, 2018, 163, 144-150.	8.8	48
8	Innovative Methodology for Separating of Rare Earth and Iron from Bayan Obo Complex Iron Ore. ISIJ International, 2012, 52, 1772-1777.	1.4	46
9	Recovery Behavior of Rare Earth from Bayan Obo Complex Iron Ore. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2013, 44, 28-36.	2.1	36
10	Viscosity and viscosity estimation model of fully liquid slags in TiO ₂ -Al ₂ O ₃ -CaO-SiO ₂ and TiO ₂ -Al ₂ O ₃ -CaO-SiO ₂ -MgO systems with high TiO ₂ concentration and low mass ratio of CaO to SiO ₂ . Ironmaking and Steelmaking, 2014, 41, 99-106.	2.1	31
11	Solid State Reduction of Titanomagnetite Concentrate by Graphite. ISIJ International, 2013, 53, 564-569.	1.4	30
12	A review: research progress of flux pellets and their application in China. Ironmaking and Steelmaking, 2021, 48, 1048-1063.	2.1	28
13	Coal flow and combustion characteristics under oxygen enrichment way of oxygen-coal double lance. Applied Thermal Engineering, 2017, 123, 1096-1105.	6.0	26
14	Analysis of gas-solid flow and shaft-injected gas distribution in an oxygen blast furnace using a discrete element method and computational fluid dynamics coupled model. Particuology, 2017, 32, 63-72.	3.6	25
15	Effect of high alumina iron ore of gibbsite type on sintering performance. Ironmaking and Steelmaking, 2015, 42, 34-40.	2.1	22
16	Carbothermal Reduction of Boron-bearing Iron Concentrate and Melting Separation of the Reduced Pellet. ISIJ International, 2015, 55, 751-757.	1.4	22
17	Softening and melting behavior of ferrous burden under simulated oxygen blast furnace condition. Journal of Iron and Steel Research International, 2015, 22, 297-303.	2.8	22
18	Effect of preheating on coking coal and metallurgical coke properties: A review. Fuel Processing Technology, 2021, 221, 106942.	7.2	21

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19	Phosphorus Migration During Direct Reduction of Coal Composite High-Phosphorus Iron Ore Pellets. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2016, 47, 154-163.	2.1	20
20	Coal Combustion Behavior in New Ironmaking Process of Top Gas Recycling Oxygen Blast Furnace. Jom, 2017, 69, 1790-1794.	1.9	17
21	Preparation of Graphene-Perfluoroalkoxy Composite and Thermal and Mechanical Properties. Polymers, 2018, 10, 700.	4.5	17
22	The mechanism of preparation calcium ferrite from desulfurization gypsum produced in sintering. Journal of Cleaner Production, 2020, 267, 122002.	9.3	15
23	Investigation of viscosity and structure of CaO-SiO ₂ -MgO-Al ₂ O ₃ -BaO-B ₂ O ₃ slag melt. Ceramics International, 2022, 48, 17123-17130.	4.8	15
24	Investigation on the structure and viscosity of BaO-bearing slag melt through molecular dynamics simulation, Raman and ²⁷ Al MAS NMR spectra. Journal of Molecular Liquids, 2022, 359, 119342.	4.9	15
25	Gas-Solid Flow and Shaft Injected Gas Penetration in an Oxygen Blast Furnace Analyzed Using a Three-Dimensional DEM-CFD Coupling Mathematical Model. ISIJ International, 2016, 56, 1588-1597.	1.4	14
26	Phosphorus-Containing Mineral Evolution and Thermodynamics of Phosphorus Vaporization during Carbothermal Reduction of High-Phosphorus Iron Ore. Metals, 2018, 8, 451.	2.3	14
27	Volume shrinkage of ludwigite/coal composite pellet during isothermal and non-isothermal reduction. Thermochimica Acta, 2015, 621, 90-98.	2.7	13
28	Improving the Coke Property through Adding HPC Extracted from the Mixture of Low-Rank Coal and Biomass. Energy & Fuels, 2020, 34, 1802-1810.	5.1	13
29	Effects of CO ₂ and N ₂ Dilution on the Combustion Characteristics of H ₂ /CO Mixture in a Turbulent, Partially Premixed Burner. ACS Omega, 2021, 6, 15651-15662.	3.5	13
30	Reduction Behaviors of Pellets Under Different Reducing Potentials. Journal of Iron and Steel Research International, 2013, 20, 12-18.	2.8	12
31	Dynamic Migration Process and Mechanism of Phosphorus Permeating into Metallic Iron with Carburizing in Coal-based Direct Reduction. ISIJ International, 2015, 55, 2576-2581.	1.4	12
32	Study on the interaction behaviour between lump and sinter under the condition of oxygen blast furnace. Ironmaking and Steelmaking, 2016, 43, 458-464.	2.1	12
33	Increasing the Mixing Rate of Metalized Pellets in Blast Furnace Based on the High-temperature Interactivity of Iron Bearing Materials. ISIJ International, 2014, 54, 2728-2736.	1.4	11
34	Microstructure evolution during softening and melting process in different reduction degrees. Ironmaking and Steelmaking, 2016, 43, 22-30.	2.1	11
35	Gasification and Migration of Phosphorus from High-phosphorus Iron Ore during Carbothermal Reduction. ISIJ International, 2018, 58, 2219-2227.	1.4	11
36	Effect of Local Oxygen-enrichment Ways of Oxygen-coal Double Lance on Coal Combustion. ISIJ International, 2017, 57, 279-285.	1.4	10

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37	Low-temperature treatment of polyethylene plastics and semi-coke mixture and CO ₂ gasification of finely ground products. <i>Fuel</i> , 2021, 285, 119215.	6.4	10
38	Influence of Reducing Gas Injection Methods on Pulverized Coal Combustion in a Medium Oxygen-Enriched Blast Furnace. <i>Jom</i> , 2021, 73, 2929-2937.	1.9	10
39	Effects of CO ₂ and N ₂ dilution on the characteristics and NO _x emission of H ₂ /CH ₄ /CO/air partially premixed flame. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 15909-15921.	7.1	10
40	Investigation on interface resistance between alternating layers in the upper of blast furnace. <i>Powder Technology</i> , 2013, 246, 73-81.	4.2	9
41	Effect of Oxygen-Coal Lance Configurations on Coal Combustion Behavior. <i>Steel Research International</i> , 2017, 88, 1600197.	1.8	9
42	Vertical Section Observation of the Solid Flow in a Blast Furnace with a Cutting Method. <i>Metals</i> , 2019, 9, 127.	2.3	8
43	Effect of electropulsing treatment on the crystallization kinetics of Zr ₅₅ Ni ₅ Al ₁₀ Cu ₃₀ bulk metallic glass. <i>Thermochimica Acta</i> , 2012, 537, 80-85.	2.7	7
44	Recycling Rare-Earth Slag for Enhanced Photoelectro-chemical Efficiency of a Reduced Graphene Oxide-Covered CdSe@ZnO Hetero-Nanostructured Photoanode. <i>ChemElectroChem</i> , 2016, 3, 1890-1898.	3.4	7
45	Comprehensive analysis on material and exergy balances of oxygen blast furnace. <i>Ironmaking and Steelmaking</i> , 2019, 46, 761-770.	2.1	7
46	Efficient utilization of waste plastics as raw material for metallic iron and syngas production by combining heat treatment pulverization and direct reduction. <i>Chemical Engineering Research and Design</i> , 2020, 137, 49-57.	5.6	7
47	Sulfide Capacity of CaO-SiO ₂ -MgO-Al ₂ O ₃ -BaO-Na ₂ O Slag at 1773 K. <i>Journal of Sustainable Metallurgy</i> , 2021, 7, 1169-1177.	2.3	7
48	Structure and crystallization of glassy La ₂ O ₃ -CaO-SiO ₂ -CaF ₂ system rare-earth slag with variable rare-earth content. <i>Ceramics International</i> , 2021, 47, 33805-33814.	4.8	7
49	Desulphurisation mechanism of direct reduction and melting in carbon bearing pellets. <i>Ironmaking and Steelmaking</i> , 2014, 41, 583-590.	2.1	6
50	Raw product of rare-earth ore works as a high-k gate insulator for low-voltage operable organic field-effect transistors. <i>RSC Advances</i> , 2016, 6, 114593-114598.	3.6	6
51	Dynamic dissolution of CO ₂ /H ₂ O(g)-gasified coke by slag containing FeO. <i>Ironmaking and Steelmaking</i> , 2018, 45, 821-827.	2.1	6
52	Precipitation of Rare Earth Slag and the Crystallization Behavior of Rare Earth Phase. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2021, 52, 1095-1105.	2.1	6
53	Reforming of converter gas with coke oven gas for thermochemical energy storage and carbon dioxide emission reduction. <i>Fuel Processing Technology</i> , 2021, 222, 106957.	7.2	6
54	Carbothermal Reduction, Melting Separation, and Structural Analysis of Carbon-bearing Rare Earth Iron Ore Pellets. <i>ISIJ International</i> , 2020, 60, 1141-1148.	1.4	6

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55	Investigation on Carbon-Deposition Behavior from Heating Cycle Gas in Oxygen Blast Furnace Process. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2015, 46, 93-100.	2.1	5
56	Reduction of boron-bearing iron ore concentrate/coal composite pellet and kinetics analysis. Ironmaking and Steelmaking, 2016, 43, 153-162.	2.1	5
57	Effect of Al ₂ O ₃ on the Formation of Calcium Ferrite in the Solid State. Metals, 2019, 9, 681.	2.3	5
58	Determination of void boundary in a packed bed by laser attenuation measurement. Particuology, 2020, 51, 72-79.	3.6	5
59	Evolution and Physical Characteristics of a Raceway Based on a Transient Eulerian Multiphase Flow Model. Processes, 2020, 8, 1315.	2.8	5
60	Crystallization Behavior of Synthesized CaO-SiO ₂ -CaF ₂ -La ₂ O ₃ Rare Earth-containing Slag. ISIJ International, 2020, 60, 832-839.		
61	Strength and high temperature behaviour of carbon composite pellets containing BOF fine dust. Ironmaking and Steelmaking, 2014, 41, 591-597.	2.1	4
62	Reduction-melting behaviors of boron-bearing iron concentrate/carbon composite pellets with addition of CaO. International Journal of Minerals, Metallurgy and Materials, 2015, 22, 926-932.	4.9	4
63	Investigation on Burden Particle Softening and Melting Process under High Reduction Potential Condition. High Temperature Materials and Processes, 2016, 35, 805-812.	1.4	4
64	Static Holdup of Liquid Slag in Simulated Packed Coke Bed Under Oxygen Blast Furnace Ironmaking Conditions. Jom, 2018, 70, 29-33.	1.9	4
65	Research on Reaction Mechanism of Vacuum Carbon Thermal Reduction and Dephosphorization in High Phosphate Iron Ore. Metals, 2018, 8, 1003.	2.3	4
66	Kinetics of the Volume Shrinkage of a Magnetite/Carbon Composite Pellet during Solid-State Carbothermic Reduction. Metals, 2018, 8, 1050.	2.3	4
67	N-doped mixed Co, Ni-oxides with petal structure as effective catalysts for hydrogen and oxygen evolution by water splitting. RSC Advances, 2021, 11, 1022-1029.	3.6	4
68	In-situ catalytic reforming of converter gas in converter flue based on thermochemical energy storage: Kinetics and numerical simulation. Journal of Energy Storage, 2022, 48, 103693.	8.1	4
69	Carburization Degree of the Iron Nugget Produced by High Al ₂ O ₃ Iron Ore. ISIJ International, 2017, 57, 590-592.	1.4	3
70	Experimental Study of H ₂ and/or N ₂ Addition Effects on CO/CO ₂ -Air Flames using a Combustion Diagnostic System. Journal of Thermal Science, 2021, 30, 1268-1277.	1.9	3
71	Influence of Injecting Reducing Gas Through Novel Tuyeres on the Combustion of Pulverized Coal in a 40% Oxygen Blast Furnace. Jom, 2022, 74, 860-868.	1.9	3
72	Effect of Lance Configurations on Coal Flow and Combustion Characteristics. Minerals, Metals and Materials Series, 2017, , 549-557.	0.4	2

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73	A downscaling cold model for solid flow behaviour in a top gas recycling-oxygen blast furnace. High Temperature Materials and Processes, 2020, 39, 447-456.	1.4	2
74	Study of the Deposition Formation Mechanism in the Heat Exchanger System of RHF. Metals, 2019, 9, 443.	2.3	1
75	Optimizing MgO distribution between sinter and pellet based on melting behavior and interaction. Metallurgical Research and Technology, 2021, 118, 318.	0.7	1
76	Effect of Chemical Composition on the Crystallization Behaviour of Rare Earth Phase in Slag. Minerals, Metals and Materials Series, 2019, , 443-451.	0.4	1
77	Extraction and Thermal Dissolution of Low-Rank Coal by N-Methyl-2-Pyrrolidinone. Minerals, Metals and Materials Series, 2018, , 587-597.	0.4	1
78	Influence of reduction degree on the burden microstructure during the softening and melting process. Zhongguo Kexue Jishu Kexue/Scientia Sinica Technologica, 2017, 47, 933-940.	0.5	1
79	Softening–Melting Behaviors of a MgO-SiO ₂ -FeO Slag System on a Coke Bed. Jom, 2022, 74, 2019-2028.	1.9	1
80	Investigation of the Microstructural Evolution between Pellet and Sinter Under the Conditions of an Oxygen Blast Furnace. , 2016, , 27-34.		0
81	High-Temperature Online Reforming of Converter Gas with Coke Oven Gas. Minerals, Metals and Materials Series, 2019, , 57-68.	0.4	0
82	Study on Compressive Strength of Coke after Gasified with CO ₂ and Steam. , 2016, , 707-714.		0
83	Gas-Solid Flow and Injected Gas Distribution in OBF Analyzed by DEM-CFD. Minerals, Metals and Materials Series, 2016, , 229-237.	0.4	0
84	Research on the Flow Behavior of Molten Slag Through Pore. Minerals, Metals and Materials Series, 2017, , 789-798.	0.4	0
85	Fundamental Research on the Iron Nugget Process from Carbon Composite Pellet. Minerals, Metals and Materials Series, 2018, , 735-743.	0.4	0
86	Preparation and Properties of Novel Graphene Composites. Minerals, Metals and Materials Series, 2019, , 173-183.	0.4	0
87	Effect of Plastic-Coal Mixed Carbonization Reducing Agent on Direct Reduction Behavior of Carbon-Bearing Pellets. Minerals, Metals and Materials Series, 2020, , 901-910.	0.4	0
88	Numerical Study of Raceway Shape and Size in a Model Blast Furnace. Minerals, Metals and Materials Series, 2020, , 1071-1081.	0.4	0