Mamdouh Omran

List of Publications by Year
in descending order

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71 papers	1,578 citations	304743 22 h-index	345221 36 g-index
71 all docs	71 docs citations	71 times ranked	822 citing authors

#	Article	IF	Citations
1	The productive preparation of synthetic rutile from titanium slag via an improved microwave heating and acid-alkali joint leaching approach. Chemical Engineering and Processing: Process Intensification, 2022, 172, 108773.	3.6	7
2	Investigations on the Thermodynamics Characteristics, Thermal and Dielectric Properties of Calcium-Activated Zinc-Containing Metallurgical Residues. Materials, 2022, 15, 714.	2.9	1
3	Development of Cold-Bonded Briquettes Using By-Product-Based Ettringite Binder from Ladle Slag. Journal of Sustainable Metallurgy, 2022, 8, 468-487.	2.3	6
4	Preparation of nano-sized 6MgOâ€“2Y2O3â€“ZrO2 powders by a combined co-precipitation and high energy ball milling process. Ceramics International, 2022, 48, 19166-19173.	4.8	7
5	Microwave-enhanced reduction of manganese from a low-grade pyrolusite ore using pyrite: process optimization and kinetic studies. Environmental Science and Pollution Research, 2022, 29, 58915-58926.	5.3	4
6	Modeling of process and analysis of drying characteristics for natural TiO2 under microwave heating. Chemical Engineering and Processing: Process Intensification, 2022, 174, 108900.	3.6	12
7	Crystal structure and morphology of CeO2 doped stabilized zirconia ceramics under high-frequency microwave field sintering. Ceramics International, 2022, 48, 10547-10554.	4.8	7
8	Microwave-assisted preparation of nanocluster rutile TiO2 from titanium slag by NaOH-KOH mixture activation. Advanced Powder Technology, 2022, 33, 103549.	4.1	10
9	Co-precipitation of nano Mgâ€“Y/ZrO2 ternary oxide eutectic system: Effects of calcination temperature. Ceramics International, 2022, 48, 23452-23459.	4.8	7
10	Rapid Preparation of Manganese Monoxide by Microwave-Enhanced Selective Carbothermal Reduction. Frontiers in Energy Research, 2022, 10, .	2.3	0
11	Preparation of nano zirconia by binary doping: Effect of controlled sintering on structure and phase transformation. Ceramics International, 2022, 48, 25374-25381.	4.8	5
12	Drying characteristics of ammonium polyvanadate under microwave heating based on a thin-layer drying kinetics fitting model. Journal of Materials Research and Technology, 2022, 19, 1497-1509.	5.8	15
13	Enhancement effects of distiller's dried grains as reducing agents on the kinetics and leaching of pyrolusite from manganese ore. Journal of Materials Research and Technology, 2022, 19, 4270-4281.	5.8	5
14	Study on drying kinetics of calcium oxide doped zirconia by microwave-assisted drying. Ceramics International, 2022, 48, 30430-30440.	4.8	9
15	Comparative Study on the Isothermal Reduction Kinetics of Iron Oxide Pellet Fines with Carbon-Bearing Materials. Sustainability, 2022, 14, 8647.	3.2	0
16	Isothermal and Non-Isothermal Reduction Behaviors of Iron Ore Compacts in Pure Hydrogen Atmosphere and Kinetic Analysis. Mining, Metallurgy and Exploration, 2021, 38, 81-93.	0.8	9
17	Kinetics characteristics and microwave reduction behavior of walnut shell-pyrolusite blends. Bioresource Technology, 2021, 319, 124172.	9.6	64
18	Phase stability and microstructure morphology of microwave-sintered magnesia-partially stabilised zirconia. Ceramics International, 2021, 47, 4076-4082.	4.8	21

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19	Optimisation on the stability of CaO-doped partially stabilised zirconia by microwave heating. Ceramics International, 2021, 47, 8067-8074.	4.8	39
20	Microwave-assisted method investigation for the selective and enhanced leaching of manganese from low-grade pyrolusite using pyrite as the reducing agent. Chemical Engineering and Processing: Process Intensification, 2021, 159, 108209.	3.6	29
21	The adsorption removal of tannic acid by regenerated activated carbon from the spent catalyst of vinyl acetate synthesis. Journal of Materials Research and Technology, 2021, 10, 697-708.	5.8	9
22	Study on thermochemical characteristics properties and pyrolysis kinetics of the mixtures of waste corn stalk and pyrolusite. Bioresource Technology, 2021, 324, 124660.	9.6	36
23	Research on microwave drying technology in the procedure of preparation of V2O5 from ammonium polyvanadate (APV). Advanced Powder Technology, 2021, 32, 2530-2542.	4.1	10
24	Study of an Organic Binder of Cold-Bonded Briquettes with Two Different Iron Bearing Materials. Materials, 2021, 14, 2952.	2.9	7
25	Phase microstructure and morphology evolution of MgO-PSZ ceramics during the microwave sintering process. Ceramics International, 2021, 47, 15849-15858.	4.8	11
26	Research Status and Progress of Microwave Associated Leaching. Current Microwave Chemistry, 2021, 8, 7-11.	0.8	2
27	Non-Isothermal Reduction Kinetics of Iron Ore Fines with Carbon-Bearing Materials. Metals, 2021, 11, 1137.	2.3	9
28	Optimisation on the microwave drying of ammonium polyvanadate (APV)- based on a kinetic study. Journal of Materials Research and Technology, 2021, 13, 1056-1067.	5.8	14
29	A Review of Microwave Synthesis of Zirconia Composite Ceramics. Current Microwave Chemistry, 2021, 8, 17-21.	0.8	0
30	Drying kinetics and microstructure evolution of nano-zirconia under microwave pretreatment. Ceramics International, 2021, 47, 22530-22539.	4.8	15
31	Effect of microwave heating duration on the stability of the partially stabilised zirconia doped with CaO. Ceramics International, 2021, 47, 22447-22460.	4.8	6
32	Controlled sintering and phase transformation of yttria-doped tetragonal zirconia polycrystal material. Ceramics International, 2021, 47, 27188-27194.	4.8	23
33	Stability properties and microstructure properties of microwave-sintered CeO2 doped zirconia ceramics. Ceramics International, 2021, 47, 28210-28217.	4.8	11
34	Dielectric characterisation and reduction properties of the blending mixtures of low-grade pyrolusite and waste corn stalks in the microwave field. Fuel, 2021, 305, 121546.	6.4	16
35	Improving Zinc Recovery from Steelmaking Dust by Switching from Conventional Heating to Microwave Heating. Journal of Sustainable Metallurgy, 2021, 7, 15-26.	2.3	11
36	Enhanced Leaching of Zinc from Zinc-Containing Metallurgical Residues via Microwave Calcium Activation Pretreatment. Metals, 2021, 11, 1922.	2.3	4

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37	Dielectric properties and thermal behavior of electrolytic manganese anode mud in microwave field. Journal of Hazardous Materials, 2020, 384, 121227.	12.4	61
38	One-step preparation of CaO-doped partially stabilized zirconia from fused zirconia. Ceramics International, 2020, 46, 6484-6490.	4.8	34
39	Simultaneous removal of Cr(III) and V(V) and enhanced synthesis of high-grade rutile TiO2 based on sodium carbonate decomposition. Journal of Hazardous Materials, 2020, 388, 122039.	12.4	22
40	The controlled preparation and stability mechanism of partially stabilized zirconia by microwave intensification. Ceramics International, 2020, 46, 7523-7530.	4.8	24
41	Efficiency and sustainable leaching process of manganese from pyrolusite-pyrite mixture in sulfuric acid systems enhanced by microwave heating. Hydrometallurgy, 2020, 198, 105519.	4.3	24
42	Dielectric properties and high temperature thermochemical properties of the pyrolusite-pyrite mixture during reduction roasting. Journal of Materials Research and Technology, 2020, 9, 13128-13136.	5.8	19
43	Thermal and Mass Spectroscopic Analysis of BF and BOF Sludges: Study of Their Behavior under Air and Inert Atmosphere. Metals, 2020, 10, 397.	2.3	3
44	Modeling and kinetics study of microwave heat drying of low grade manganese ore. Advanced Powder Technology, 2020, 31, 2901-2911.	4.1	29
45	Influence of H₂â€“H₂O Content on the Reduction of Acid Iron Ore Pellets in a COâ€“CO₂â€“N₂ Reducing Atmosphere. ISIJ International, 2020, 60, 2206-2217.	1.4	22
46	Microwave catalyzed carbothermic reduction of zinc oxide and zinc ferrite: effect of microwave energy on the reaction activation energy. RSC Advances, 2020, 10, 23959-23968.	3.6	16
47	Highly efficient oxidation of Panzhihua titanium slag for manufacturing welding grade rutile titanium dioxide. Journal of Materials Research and Technology, 2020, 9, 7079-7086.	5.8	21
48	Investigation on microwave carbothermal reduction behavior of low-grade pyrolusite. Journal of Materials Research and Technology, 2020, 9, 7862-7869.	5.8	22
49	Microstructure and enhanced volume density properties of FeMn78C8.0 alloy prepared via a cleaner microwave sintering approach. Journal of Cleaner Production, 2020, 262, 121364.	9.3	22
50	Crystal structure and thermomechanical properties of CaO-PSZ ceramics synthesised from fused ZrO2. Ceramics International, 2020, 46, 15357-15363.	4.8	9
51	Synthesis of rutile TiO2 powder by microwave-enhanced roasting followed by hydrochloric acid leaching. Advanced Powder Technology, 2020, 31, 1140-1147.	4.1	20
52	Investigations on the microwave absorption properties and thermal behavior of vanadium slag: Improvement in microwave oxidation roasting for recycling vanadium and chromium. Journal of Hazardous Materials, 2020, 395, 122698.	12.4	46
53	Efficient improvement for dissociation behavior and thermal decomposition of manganese ore by microwave calcination. Journal of Cleaner Production, 2020, 260, 121074.	9.3	39
54	Stability properties and structural characteristics of CaO-partially stabilized zirconia ceramics synthesized from fused ZrO2 by microwave sintering. Ceramics International, 2020, 46, 16842-16848.	4.8	16

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55	Stability optimisation of CaO-doped partially stabilised zirconia by microwave sintering. Ceramics International, 2019, 45, 23278-23282.	4.8	21
56	High-temperature dielectric properties and pyrolysis reduction characteristics of different biomass-pyrolusite mixtures in microwave field. Bioresource Technology, 2019, 294, 122217.	9.6	75
57	Selective Zinc Removal from Electric Arc Furnace (EAF) Dust by Using Microwave Heating. Journal of Sustainable Metallurgy, 2019, 5, 331-340.	2.3	29
58	Microwave absorption properties of steelmaking dusts: effects of temperature on the dielectric constant (‹i›Îµ‹/i›â€²) and loss factor (‹i›Îµ‹/i›â€²â€²) at 1064 MHz and 2423 MHz. RSC Advances, 2019, 9, 6859-6870.	3.6	8
59	Utilization of blast furnace sludge for the removal of zinc from steelmaking dusts using microwave heating. Separation and Purification Technology, 2019, 210, 867-884.	7.9	56
60	Improved removal of zinc from blast furnace sludge by particle size separation and microwave heating. Minerals Engineering, 2018, 127, 265-276.	4.3	25
61	Effect of steelmaking dust characteristics on suitable recycling process determining: Ferrochrome converter (CRC) and electric arc furnace (EAF) dusts. Powder Technology, 2017, 308, 47-60.	4.2	46
62	Dielectric properties and carbothermic reduction of zinc oxide and zinc ferrite by microwave heating. Royal Society Open Science, 2017, 4, 170710.	2.4	24
63	Treatment of blast furnace sludge (BFS) using a microwave heating technique. Ironmaking and Steelmaking, 2017, 44, 619-629.	2.1	11
64	Mineralogy, geochemistry and the origin of high-phosphorus oolitic iron ores of Aswan, Egypt. Ore Geology Reviews, 2017, 80, 185-199.	2.7	30
65	Effect of Blast Furnace Sludge (BFS) Characteristics on Suitable Recycling Process Determining. Journal of Minerals and Materials Characterization and Engineering, 2017, 05, 185-197.	0.4	8
66	Improvement of phosphorus removal from iron ore using combined microwave pretreatment and ultrasonic treatment. Separation and Purification Technology, 2015, 156, 724-737.	7.9	49
67	XPS and FTIR spectroscopic study on microwave treated high phosphorus iron ore. Applied Surface Science, 2015, 345, 127-140.	6.1	127
68	Thermally assisted liberation of high phosphorus oolitic iron ore: A comparison between microwave and conventional furnaces. Powder Technology, 2015, 269, 7-14.	4.2	102
69	Effect of microwave pre-treatment on the magnetic properties of iron ore and its implications on magnetic separation. Separation and Purification Technology, 2014, 136, 223-232.	7.9	76
70	Effect of Metallurgical Waste Properties on Determining Suitable Recycling Method. Key Engineering Materials, 0, 835, 297-305.	0.4	0
71	Suitability of Selfâ€Reducing and Slagâ€Forming Briquettes for EAF Use based on Laboratory Tests. Steel Research International, 0, , 2100472.	1.8	1