

# Zuotai Zhang

## List of Publications by Year in descending order

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Version: 2024-02-01

167  
papers

6,943  
citations

44042

48  
h-index

79644

73  
g-index

172  
all docs

172  
docs citations

172  
times ranked

5337  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Enhanced catalytic performance by multi-field coupling in KNbO <sub>3</sub> nanostructures: Piezo-photocatalytic and ferro-photoelectrochemical effects. <i>Nano Energy</i> , 2019, 58, 695-705.   | 8.2 | 240       |
| 2  | Preparation of glass ceramic foams for thermal insulation applications from coal fly ash and waste glass. <i>Construction and Building Materials</i> , 2016, 112, 398-405.   | 3.2 | 211       |
| 3  | Recent Advances of Ferro-, Piezo-, and Pyroelectric Nanomaterials for Catalytic Applications. <i>ACS Applied Nano Materials</i> , 2020, 3, 1063-1079.  | 2.4 | 205       |
| 4  | Few-layer transition metal dichalcogenides (MoS <sub>2</sub> , WS <sub>2</sub> , and WSe <sub>2</sub> ) for water splitting and degradation of organic pollutants: Understanding the piezocatalytic effect. <i>Nano Energy</i> , 2019, 66, 104083.                     | 8.2 | 181       |
| 5  | A novel method for screening deep eutectic solvent to recycle the cathode of Li-ion batteries. <i>Green Chemistry</i> , 2020, 22, 4473-4482.   | 4.6 | 158       |
| 6  | Calcium-looping reforming of methane realizes in situ CO <sub>2</sub> utilization with improved energy efficiency. <i>Science Advances</i> , 2019, 5, eaav5077.  | 4.7 | 153       |
| 7  | Atomically Dispersed Cobalt Sites on Graphene as Efficient Periodate Activators for Selective Organic Pollutant Degradation. <i>Environmental Science &amp; Technology</i> , 2021, 55, 5357-5370.  | 4.6 | 149       |
| 8  | In situ DRIFTS investigation on the SCR of NO with NH <sub>3</sub> over V <sub>2</sub> O <sub>5</sub> catalyst supported by activated semi-coke. <i>Applied Surface Science</i> , 2014, 313, 660-669.  | 3.1 | 145       |
| 9  | COVID-19 waste management: Effective and successful measures in Wuhan, China. <i>Resources, Conservation and Recycling</i> , 2020, 163, 105071.  | 5.3 | 132       |
| 10 | Environmental investigation on co-combustion of sewage sludge and coal gangue: SO <sub>2</sub> , NO <sub>x</sub> and trace elements emissions. <i>Waste Management</i> , 2016, 50, 213-221.  | 3.7 | 108       |
| 11 | Promoting effect of Nd on the reduction of NO with NH <sub>3</sub> over CeO <sub>2</sub> supported by activated semi-coke: an in situ DRIFTS study. <i>Catalysis Science and Technology</i> , 2015, 5, 2251-2259.  | 2.1 | 105       |
| 12 | FTIR, Raman and NMR investigation of CaO-SiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> and CaO-SiO <sub>2</sub> -TiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> glasses. <i>Journal of Non-Crystalline Solids</i> , 2015, 420, 26-33.                               | 1.5 | 102       |
| 13 | MOF-Derived Porous ZnO Nanocages/rGO/Carbon Sponge-Based Photocatalytic Microreactor for Efficient Degradation of Water Pollutants and Hydrogen Evolution. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 11989-11998.                                    | 3.2 | 101       |
| 14 | Investigation of the Viscosity and Structural Properties of CaO-SiO <sub>2</sub> -TiO <sub>2</sub> Slags. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014, 45, 1389-1397.                                | 1.0 | 99        |
| 15 | Hierarchically Structured Calcium Silicate Hydrate-Based Nanocomposites Derived from Steel Slag for Highly Efficient Heavy Metal Removal from Wastewater. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 14926-14935.                                     | 3.2 | 94        |
| 16 | Exclusive enhancement of catalytic activity in Bi <sub>0.5</sub> Na <sub>0.5</sub> TiO <sub>3</sub> nanostructures: new insights into the design of efficient piezocatalysts and piezo-photocatalysts. <i>Journal of Materials Chemistry A</i> , 2020, 8, 16238-16245. | 5.2 | 93        |
| 17 | Molecular Dynamics Study of the Structural Properties of Calcium Aluminosilicate Slags with Varying Al <sub>2</sub> O <sub>3</sub> /SiO <sub>2</sub> Ratios. <i>ISIJ International</i> , 2012, 52, 342-349.  | 0.6 | 92        |
| 18 | Effect of Al <sub>2</sub> O <sub>3</sub> /SiO <sub>2</sub> Ratio on the Viscosity and Structure of Slags. <i>ISIJ International</i> , 2012, 52, 753-758.   | 0.6 | 90        |

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|----|---|-----|-----------|
| 19 | Recycling of municipal solid waste incineration by-product for cement composites preparation. <i>Construction and Building Materials</i> , 2018, 162, 794-801.  | 3.2 | 84        |
| 20 | The Influence of Al <sub>2</sub> O <sub>3</sub> /SiO <sub>2</sub> Ratio on the Viscosity of Mold Fluxes. <i>ISIJ International</i> , 2008, 48, 739-746.   | 0.6 | 83        |
| 21 | Heat Recovery from High Temperature Slags: A Review of Chemical Methods. <i>Energies</i> , 2015, 8, 1917-1935.  | 1.6 | 83        |
| 22 | Raman spectroscopic study of the structural properties of CaO-MgO-SiO <sub>2</sub> -TiO <sub>2</sub> slags. <i>Journal of Non-Crystalline Solids</i> , 2013, 376, 209-215.  | 1.5 | 79        |
| 23 | Activated Semi-coke in SO <sub>2</sub> Removal from Flue Gas: Selection of Activation Methodology and Desulfurization Mechanism Study. <i>Energy &amp; Fuels</i> , 2013, 27, 3080-3089.   | 2.5 | 78        |
| 24 | Inherent potential of steelmaking to contribute to decarbonisation targets via industrial carbon capture and storage. <i>Nature Communications</i> , 2018, 9, 4422.   | 5.8 | 78        |
| 25 | Sulfur-containing iron nanocomposites confined in S/N co-doped carbon for catalytic peroxydisulfate oxidation of organic pollutants: Low iron leaching, degradation mechanism and intermediates. <i>Chemical Engineering Journal</i> , 2021, 404, 126499.                   | 6.6 | 77        |
| 26 | An all-in-one strategy for the adsorption of heavy metal ions and photodegradation of organic pollutants using steel slag-derived calcium silicate hydrate. <i>Journal of Hazardous Materials</i> , 2020, 382, 121120.  | 6.5 | 75        |
| 27 | Amino-functionalized sewage sludge-derived biochar as sustainable efficient adsorbent for Cu(II) removal. <i>Waste Management</i> , 2019, 90, 17-28.  | 3.7 | 72        |
| 28 | Low-temperature SCR of NO with NH <sub>3</sub> over activated semi-coke composite-supported rare earth oxides. <i>Applied Surface Science</i> , 2014, 309, 1-10.  | 3.1 | 71        |
| 29 | In situ DRIFTS studies on MnO nanowires supported by activated semi-coke for low temperature selective catalytic reduction of NO with NH <sub>3</sub> . <i>Applied Surface Science</i> , 2016, 366, 139-147.  | 3.1 | 71        |
| 30 | Preparation of novel ceramic tiles with high Al <sub>2</sub> O <sub>3</sub> content derived from coal fly ash. <i>Construction and Building Materials</i> , 2016, 114, 888-895.   | 3.2 | 69        |
| 31 | Phosphorus speciation in sewage sludge and the sludge-derived biochar by a combination of experimental methods and theoretical simulation. <i>Water Research</i> , 2018, 140, 90-99.  | 5.3 | 69        |
| 32 | Role of SnS <sub>2</sub> in 2D SnS <sub>2</sub> /TiO <sub>2</sub> Nanosheet Heterojunctions for Photocatalytic Hydrogen Evolution. <i>ACS Applied Nano Materials</i> , 2019, 2, 2144-2151.  | 2.4 | 69        |
| 33 | Effect of Al <sub>2</sub> O <sub>3</sub> on the Viscosity and Structure of CaO-SiO <sub>2</sub> -MgO-Al <sub>2</sub> O <sub>3</sub> -FeO Slags. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015, 46, 537-541. | 1.0 | 65        |
| 34 | Reduction-ammoniacal leaching to recycle lithium, cobalt, and nickel from spent lithium-ion batteries with a hydrothermal method: Effect of reductants and ammonium salts. <i>Waste Management</i> , 2020, 102, 122-130.  | 3.7 | 64        |
| 35 | Synthesis, characterization and modeling of new building insulation material using ceramic polishing waste residue. <i>Construction and Building Materials</i> , 2015, 85, 119-126.   | 3.2 | 63        |
| 36 | Effect of mineral constituents on temperature-dependent structural characterization of carbon fractions in sewage sludge-derived biochar. <i>Journal of Cleaner Production</i> , 2018, 172, 3342-3350.  | 4.6 | 63        |

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|----|--|-----|-----------|
| 37 | Structural Roles of Boron and Silicon in the CaO-SiO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> Glasses Using FTIR, Raman, and NMR Spectroscopy. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015, 46, 1549-1554.      | 1.0 | 62        |
| 38 | Effect of water-washing on the co-removal of chlorine and heavy metals in air pollution control residue from MSW incineration. <i>Waste Management</i> , 2017, 68, 221-231.  | 3.7 | 62        |
| 39 | Experimental investigation and modeling of cooling processes of high temperature slags. <i>Energy</i> , 2014, 76, 761-767.   | 4.5 | 61        |
| 40 | Crystallization Behavior of Rutile in the Synthesized Ti-bearing Blast Furnace Slag Using Single Hot Thermocouple Technique. <i>ISIJ International</i> , 2011, 51, 1396-1402.  | 0.6 | 58        |
| 41 | The Influence of SiO <sub>2</sub> on the Extraction of Ti Element from Ti-bearing Blast Furnace Slag. <i>Steel Research International</i> , 2011, 82, 607-614.   | 1.0 | 55        |
| 42 | Effect of B <sub>2</sub> O <sub>3</sub> on the Structure and Viscous Behavior of Ti-Bearing Blast Furnace Slags. <i>Jom</i> , 2014, 66, 2168-2175.   | 0.9 | 55        |
| 43 | Recycling of spent lithium-ion batteries: Selective ammonia leaching of valuable metals and simultaneous synthesis of high-purity manganese carbonate. <i>Waste Management</i> , 2020, 114, 253-262.   | 3.7 | 54        |
| 44 | Microwave-assisted hydrothermal assembly of 2D copper-porphyrin metal-organic frameworks for the removal of dyes and antibiotics from water. <i>Environmental Science and Pollution Research</i> , 2020, 27, 39186-39197.  | 2.7 | 54        |
| 45 | Integrated carbon dioxide/sludge gasification using waste heat from hot slags: Syngas production and sulfur dioxide fixation. <i>Bioresource Technology</i> , 2015, 181, 174-182.  | 4.8 | 53        |
| 46 | Effect of inherent minerals on sewage sludge pyrolysis: Product characteristics, kinetics and thermodynamics. <i>Waste Management</i> , 2018, 80, 175-185.   | 3.7 | 53        |
| 47 | Understanding the Relationship Between Structure and Thermophysical Properties of CaO-SiO <sub>2</sub> -MgO-Al <sub>2</sub> O <sub>3</sub> Molten Slags. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018, 49, 677-687. | 1.0 | 51        |
| 48 | Product characteristics and kinetics of sewage sludge pyrolysis driven by alkaline earth metals. <i>Energy</i> , 2018, 153, 921-932.   | 4.5 | 51        |
| 49 | Remarkably enhanced photocatalytic performance of Au/AgNbO <sub>3</sub> heterostructures by coupling piezotronic with plasmonic effects. <i>Nano Energy</i> , 2022, 95, 107031.  | 8.2 | 51        |
| 50 | Influence of Basicity and TiO <sub>2</sub> Content on the Precipitation Behavior of the Ti-bearing Blast Furnace Slags. <i>ISIJ International</i> , 2013, 53, 1696-1703.   | 0.6 | 50        |
| 51 | Effects of chemistry and mineral on structural evolution and chemical reactivity of coal gangue during calcination: towards efficient utilization. <i>Materials and Structures/Materiaux Et Constructions</i> , 2015, 48, 2779-2793.   | 1.3 | 48        |
| 52 | PAHs and heavy metals in the surrounding soil of a cement plant Co-Processing hazardous waste. <i>Chemosphere</i> , 2018, 210, 247-256.  | 4.2 | 47        |
| 53 | Recycling ground MSWI bottom ash in cement composites: Long-term environmental impacts. <i>Waste Management</i> , 2018, 78, 841-848.   | 3.7 | 46        |
| 54 | Efficient recovery of phosphorus in sewage sludge through hydroxylapatite enhancement formation aided by calcium-based additives. <i>Water Research</i> , 2020, 171, 115450.   | 5.3 | 46        |

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|----|---|-----|-----------|
| 55 | Hydrothermal Synthesis of CeO <sub>2</sub> Nanoparticles on Activated Carbon with Enhanced Desulfurization Activity. <i>Energy &amp; Fuels</i> , 2012, 26, 5879-5886.   | 2.5 | 45        |
| 56 | Two-stage high temperature sludge gasification using the waste heat from hot blast furnace slags. <i>Bioresource Technology</i> , 2015, 198, 364-371.   | 4.8 | 45        |
| 57 | Enhanced Piezocatalytic Activity of Sr <sub>0.5</sub> Ba <sub>0.5</sub> Nb <sub>2</sub> O <sub>6</sub> Nanostructures by Engineering Surface Oxygen Vacancies and Self-Generated Heterojunctions. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 7259-7267.                | 4.0 | 45        |
| 58 | Template-Free Synthesis of Oxygen-Doped Bundlelike Porous Boron Nitride for Highly Efficient Removal of Heavy Metals from Wastewater. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 16011-16020.  | 3.2 | 43        |
| 59 | Enhanced and environment-friendly chemical looping gasification of crop straw using red mud as a sinter-resistant oxygen carrier. <i>Waste Management</i> , 2021, 121, 354-364.   | 3.7 | 43        |
| 60 | Multi-Stage Control of Waste Heat Recovery from High Temperature Slags Based on Time Temperature Transformation Curves. <i>Energies</i> , 2014, 7, 1673-1684.   | 1.6 | 42        |
| 61 | Biogas Upgrading via Cyclic CO <sub>2</sub> Adsorption: Application of Highly Regenerable PEI@nano-Al <sub>2</sub> O <sub>3</sub> Adsorbents with Anti-Urea Properties. <i>Environmental Science &amp; Technology</i> , 2021, 55, 5236-5247.  | 4.6 | 42        |
| 62 | Novel Calcium Oxide-Enhancement Phosphorus Recycling Technique through Sewage Sludge Pyrolysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 9167-9177.  | 3.2 | 41        |
| 63 | PCDD/F levels and phase distributions in a full-scale municipal solid waste incinerator with co-incinerating sewage sludge. <i>Waste Management</i> , 2020, 106, 110-119.   | 3.7 | 41        |
| 64 | Mechanical properties and microstructures of hot-pressed MgAlON-BN composites. <i>Journal of the European Ceramic Society</i> , 2007, 27, 319-326.  | 2.8 | 40        |
| 65 | Preparation of Slag Wool by Integrated Waste-Heat Recovery and Resource Recycling of Molten Blast Furnace Slags: From Fundamental to Industrial Application. <i>Energies</i> , 2014, 7, 3121-3135.  | 1.6 | 40        |
| 66 | The Effect of P <sub>2</sub> O <sub>5</sub> on the Crystallization Behaviors of Ti-Bearing Blast Furnace Slags Using Single Hot Thermocouple Technique. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014, 45, 1446-1455. | 1.0 | 40        |
| 67 | A field study of polychlorinated dibenzo-p-dioxins and dibenzofurans formation mechanism in a hazardous waste incinerator: Emission reduction strategies. <i>Journal of Cleaner Production</i> , 2019, 232, 1018-1027.  | 4.6 | 38        |
| 68 | Metal-organic framework-derived magnetic carbon for efficient decontamination of organic pollutants via periodate activation: Surface atomic structure and mechanistic considerations. <i>Journal of Hazardous Materials</i> , 2022, 424, 126786.                                     | 6.5 | 38        |
| 69 | Ionization potential-based design of deep eutectic solvent for recycling of spent lithium ion batteries. <i>Chemical Engineering Journal</i> , 2022, 436, 133200.   | 6.6 | 38        |
| 70 | TiO <sub>2</sub> /CuS heterostructure nanowire array photoanodes toward water oxidation: The role of CuS. <i>Applied Surface Science</i> , 2019, 463, 829-837.  | 3.1 | 37        |
| 71 | Characteristics of low temperature biomass gasification and syngas release behavior using hot slag. <i>RSC Advances</i> , 2014, 4, 62105-62114.   | 1.7 | 36        |
| 72 | Alkali metal-driven release behaviors of volatiles during sewage sludge pyrolysis. <i>Journal of Cleaner Production</i> , 2018, 203, 860-872.   | 4.6 | 34        |

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|----|---|-----|-----------|
| 73 | Defective analcime/geopolymer composite membrane derived from fly ash for ultrafast and highly efficient filtration of organic pollutants. <i>Journal of Hazardous Materials</i> , 2020, 388, 121736.   | 6.5 | 34        |
| 74 | Selective Crystallization Behavior of CaO-SiO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> -MgO-FeO-P <sub>2</sub> O <sub>5</sub> Steelmaking Slags Modified through P <sub>2</sub> O <sub>5</sub> and Al <sub>2</sub> O <sub>3</sub> . <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015, 46, 2246-2254. | 1.0 | 33        |
| 75 | Short-range and Medium-range Structural Order in CaO-SiO <sub>2</sub> -TiO <sub>2</sub> -B <sub>2</sub> O <sub>3</sub> Glasses. <i>ISIJ International</i> , 2016, 56, 752-758.  |     |           |
| 76 | Co-combustion and emission characteristics of coal gangue and low-quality coal. <i>Journal of Thermal Analysis and Calorimetry</i> , 2015, 120, 1883-1892.  | 2.0 | 31        |
| 77 | Effect of Calcium Hydroxide on the Pyrolysis Behavior of Sewage Sludge: Reaction Characteristics and Kinetics. <i>Energy &amp; Fuels</i> , 2017, 31, 5079-5087.   | 2.5 | 30        |
| 78 | Ce-based heterogeneous catalysts by partial thermal decomposition of Ce-MOFs in activation of peroxymonosulfate for the removal of organic pollutants under visible light. <i>Chemosphere</i> , 2021, 280, 130637.  | 4.2 | 30        |
| 79 | Trace element partitioning behavior of coal gangue-fired CFB plant: experimental and equilibrium calculation. <i>Environmental Science and Pollution Research</i> , 2015, 22, 15469-15478.  | 2.7 | 29        |
| 80 | Application of washed MSWI fly ash in cement composites: long-term environmental impacts. <i>Environmental Science and Pollution Research</i> , 2018, 25, 12127-12138.  | 2.7 | 29        |
| 81 | General roles of sludge ash, CaO and Al <sub>2</sub> O <sub>3</sub> on the sludge pyrolysis toward clean utilizations. <i>Applied Energy</i> , 2019, 233-234, 412-423.  | 5.1 | 29        |
| 82 | Investigation on Viscosity and Nonisothermal Crystallization Behavior of P-Bearing Steelmaking Slags with Varying TiO <sub>2</sub> Content. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2017, 48, 527-537.   | 1.0 | 28        |
| 83 | Biomass gasification using the waste heat from high temperature slags in a mixture of CO <sub>2</sub> and H <sub>2</sub> O. <i>Energy</i> , 2019, 167, 688-697.   | 4.5 | 28        |
| 84 | Cobalt-Enhanced Mass Transfer and Catalytic Production of Sulfate Radicals in MOF-Derived CeO <sub>2</sub> -Co <sub>3</sub> O <sub>4</sub> Nanoflowers for Efficient Degradation of Antibiotics. <i>Small</i> , 2021, 17, e2101393.   | 5.2 | 28        |
| 85 | Pyrite transformation and sulfur dioxide release during calcination of coal gangue. <i>RSC Advances</i> , 2014, 4, 42506-42513.   | 1.7 | 27        |
| 86 | Achieving waste to energy through sewage sludge gasification using hot slags: syngas production. <i>Scientific Reports</i> , 2015, 5, 11436.  | 1.6 | 27        |
| 87 | Enhancement of Scattering and Near Field of TiO <sub>2</sub> -Au Nanohybrids Using a Silver Resonator for Efficient Plasmonic Photocatalysis. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 34714-34723.  | 4.0 | 27        |
| 88 | Luffa sponge-derived hierarchical meso/macroporous boron nitride fibers as superior sorbents for heavy metal sequestration. <i>Journal of Hazardous Materials</i> , 2019, 378, 120669.  | 6.5 | 26        |
| 89 | Decarbonising the iron and steel sector for a 2°C target using inherent waste streams. <i>Nature Communications</i> , 2022, 13, 297.  | 5.8 | 26        |
| 90 | Co-modification and Crystalline-control of Ti-bearing Blast Furnace Slags. <i>ISIJ International</i> , 2015, 55, 158-165.   | 0.6 | 25        |

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|-----|---|-----|-----------|
| 91  | Self-templated microwave-assisted hydrothermal synthesis of two-dimensional holey hydroxyapatite nanosheets for efficient heavy metal removal. <i>Environmental Science and Pollution Research</i> , 2019, 26, 30076-30086.   | 2.7 | 25        |
| 92  | Evolution of trace elements and polluting gases toward clean co-combustion of coal and sewage sludge. <i>Fuel</i> , 2020, 280, 118685.  | 3.4 | 25        |
| 93  | Integration of biomass/steam gasification with heat recovery from hot slags: Thermodynamic characteristics. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 5916-5926.  | 3.8 | 24        |
| 94  | Highly efficient and stable PEI@Al <sub>2</sub> O <sub>3</sub> adsorbents derived from coal fly ash for biogas upgrading. <i>Chemical Engineering Journal</i> , 2021, 409, 128117.  | 6.6 | 24        |
| 95  | Effect of P <sub>2</sub> O <sub>5</sub> Addition on the Viscosity and Structure of Titanium Bearing Blast Furnace Slags. <i>ISIJ International</i> , 2014, 54, 1491-1497.   | 0.6 | 23        |
| 96  | Fuel nitrogen conversion and release of nitrogen oxides during coal gangue calcination. <i>Environmental Science and Pollution Research</i> , 2015, 22, 7139-7146.  | 2.7 | 23        |
| 97  | Simulating the effects of anchors on the thermal performance of building insulation systems. <i>Energy and Buildings</i> , 2017, 140, 501-507.  | 3.1 | 23        |
| 98  | Integrating biomass pyrolysis with waste heat recovery from hot slags via extending the C-loops: Product yields and roles of slags. <i>Energy</i> , 2018, 149, 792-803.   | 4.5 | 23        |
| 99  | Pollution emission characteristics, distribution of heavy metals, and particle morphologies in a hazardous waste incinerator processing phenolic waste. <i>Journal of Hazardous Materials</i> , 2020, 388, 121751.  | 6.5 | 23        |
| 100 | Synergic removal of tetracycline using hydrophilic three-dimensional nitrogen-doped porous carbon embedded with copper oxide nanoparticles by coupling adsorption and photocatalytic oxidation processes. <i>Journal of Colloid and Interface Science</i> , 2021, 581, 350-361. | 5.0 | 23        |
| 101 | Development of the random simulation model for estimating the effective thermal conductivity of insulation materials. <i>Building and Environment</i> , 2014, 80, 221-227.  | 3.0 | 21        |
| 102 | Effect of Al <sub>2</sub> O <sub>3</sub> Addition on the Precipitated Phase Transformation in Ti-Bearing Blast Furnace Slags. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016, 47, 1390-1399.                     | 1.0 | 21        |
| 103 | Structural Investigation of Phosphorus in CaO-SiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> Ternary Glass. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2017, 48, 1139-1148.                                      | 1.0 | 21        |
| 104 | Role of steel slags on biomass/carbon dioxide gasification integrated with recovery of high temperature heat. <i>Bioresource Technology</i> , 2017, 223, 1-9.   | 4.8 | 21        |
| 105 | Rational design of a novel quaternary ZnO@ZnS/Ag@Ag <sub>2</sub> S nanojunction system for enhanced photocatalytic H <sub>2</sub> production. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 3074-3081.  | 3.0 | 21        |
| 106 | Novel Recovered Compound Phosphate Fertilizer Produced from Sewage Sludge and Its Incinerated Ash. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 6611-6621.   | 3.2 | 21        |
| 107 | Investigation on slag fiber characteristics: Mechanical property and anti-corrosion performance. <i>Ceramics International</i> , 2015, 41, 5677-5687.   | 2.3 | 20        |
| 108 | Performance and mechanism of mold-pressing alkali-activated material from MSWI fly ash for its heavy metals solidification. <i>Waste Management</i> , 2021, 126, 747-753.   | 3.7 | 20        |

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|-----|---|-----|-----------|
| 109 | Regulation of electronic structures of MOF-derived carbon via ligand adjustment for enhanced Fenton-like reactions. <i>Science of the Total Environment</i> , 2021, 799, 149497.  | 3.9 | 20        |
| 110 | Bowknot-like Zr/La bimetallic organic frameworks for enhanced arsenate and phosphate removal: Combined experimental and DFT studies. <i>Journal of Colloid and Interface Science</i> , 2022, 614, 47-57.                                | 5.0 | 20        |
| 111 | Harvesting mechanical energy for hydrogen generation by piezoelectric metal-organic frameworks. <i>Materials Horizons</i> , 2022, 9, 1978-1983.   | 6.4 | 20        |
| 112 | Integration of coal gasification and waste heat recovery from high temperature steel slags: an emerging strategy to emission reduction. <i>Scientific Reports</i> , 2015, 5, 16591.   | 1.6 | 19        |
| 113 | Surface-disorder-engineered Zn <sub>2</sub> SnO <sub>4</sub> /SnO <sub>2</sub> hollow microboxes with enhanced solar-driven photocatalytic activity. <i>Applied Surface Science</i> , 2019, 463, 474-480.                               | 3.1 | 19        |
| 114 | Characterization of PM <sub>10</sub> surrounding a cement plant with integrated facilities for co-processing of hazardous wastes. <i>Journal of Cleaner Production</i> , 2018, 186, 831-839.  | 4.6 | 18        |
| 115 | All-inorganic dual-phase halide perovskite nanorings. <i>Nano Research</i> , 2020, 13, 2994-3000.   | 5.8 | 18        |
| 116 | Amine-functionalized nano-Al <sub>2</sub> O <sub>3</sub> adsorbent for CO <sub>2</sub> separation from biogas: Efficient CO <sub>2</sub> uptake and high anti-urea stability. <i>Journal of Cleaner Production</i> , 2022, 332, 130078. | 4.6 | 18        |
| 117 | Facile and economical synthesis of porous activated semi-cokes for highly efficient and fast removal of microcystin-LR. <i>Journal of Hazardous Materials</i> , 2015, 299, 325-332.   | 6.5 | 17        |
| 118 | Integrated Utilization of Sewage Sludge and Coal Gangue for Cement Clinker Products: Promoting Tricalcium Silicate Formation and Trace Elements Immobilization. <i>Materials</i> , 2016, 9, 275.  | 1.3 | 17        |
| 119 | Integrated biomass gasification using the waste heat from hot slags: Control of syngas and polluting gas releases. <i>Energy</i> , 2016, 114, 165-176.  | 4.5 | 17        |
| 120 | Investigation of formation mechanism of particulate matter in a laboratory-scale simulated cement kiln co-processing municipal sewage sludge. <i>Journal of Cleaner Production</i> , 2019, 234, 822-831.                                | 4.6 | 15        |
| 121 | Levels, spatial distribution, and source identification of airborne environmentally persistent free radicals from tree leaves. <i>Environmental Pollution</i> , 2020, 257, 113353.  | 3.7 | 15        |
| 122 | Colloidal Co single-atom catalyst: a facile synthesis strategy and high catalytic activity for hydrogen generation. <i>Green Chemistry</i> , 2020, 22, 1269-1274.   | 4.6 | 15        |
| 123 | Emission levels and phase distributions of PCDD/Fs in a full-scale municipal solid waste incinerator: The impact of wet scrubber system. <i>Journal of Cleaner Production</i> , 2022, 337, 130468.                                      | 4.6 | 14        |
| 124 | Morphology-tunable tellurium nanomaterials produced by the tellurite-reducing bacterium <i>Lysinibacillus</i> sp. ZYM-1. <i>Environmental Science and Pollution Research</i> , 2018, 25, 20756-20768.                                   | 2.7 | 13        |
| 125 | Environmental mitigation of sludge combustion via two opposite modifying strategies: Kinetics and stabilization effect. <i>Fuel</i> , 2018, 227, 346-354.   | 3.4 | 13        |
| 126 | A green synthesis of PEI@nano-SiO <sub>2</sub> adsorbent from coal fly ash: selective and efficient CO <sub>2</sub> adsorption from biogas. <i>Sustainable Energy and Fuels</i> , 2021, 5, 1014-1025.                                   | 2.5 | 13        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 127 | Future trend of terminal energy conservation in steelmaking plant: Integration of molten slag heat recovery-combustible gas preparation from waste plastics and CO <sub>2</sub> emission reduction. <i>Energy</i> , 2022, 239, 122543.          | 4.5 | 13        |
| 128 | Kinetic studies of oxidation of $\hat{3}$ -AlON $\hat{e}$ TiN composites. <i>Journal of Alloys and Compounds</i> , 2005, 387, 74-81.  | 2.8 | 12        |
| 129 | A Novel Kinematic Model for Molten Slag Fiberization: Prediction of Slag Fiber Properties. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015, 46, 993-1001.                         | 1.0 | 12        |
| 130 | Viscous Flow and Crystallization Behaviors of P-bearing Steelmaking Slags with Varying Fluorine Content. <i>ISIJ International</i> , 2016, 56, 546-553.   | 0.6 | 12        |
| 131 | Oxidation behavior of $\hat{2}$ -SiAlON powders fabricated by combustion synthesis. <i>Ceramics International</i> , 2016, 42, 7290-7299.  | 2.3 | 12        |
| 132 | Efficient conversion of carbohydrates and biomass into furan compounds by chitin/Ag co-modified H3PW12O40 catalysts. <i>Journal of Cleaner Production</i> , 2021, 316, 128243.  | 4.6 | 12        |
| 133 | Fabrication of Pd/CeO <sub>2</sub> nanocubes as highly efficient catalysts for degradation of formaldehyde at room temperature. <i>Catalysis Science and Technology</i> , 2021, 11, 6732-6741.  | 2.1 | 12        |
| 134 | In situ synthesis of Tree-branch-like Copper-manganese oxides nanoarrays supported on copper foam as a superior efficiency Fenton-like catalyst for enhanced degradation of 4-chlorophenol. <i>Applied Surface Science</i> , 2022, 593, 153241. | 3.1 | 12        |
| 135 | Cellular and compositional insight into the sludge dewatering process using enzyme treatment. <i>Environmental Science and Pollution Research</i> , 2018, 25, 28942-28953.  | 2.7 | 11        |
| 136 | Remediation of Cu-polluted soil with analcime synthesized from engineering abandoned soils through green chemistry approaches. <i>Journal of Hazardous Materials</i> , 2021, 406, 124673.   | 6.5 | 11        |
| 137 | Preparation and modeling of energy-saving building materials by using industrial solid waste. <i>Energy and Buildings</i> , 2015, 97, 6-12.   | 3.1 | 10        |
| 138 | Distributional and compositional insight into the polluting materials during sludge combustion: Roles of ash. <i>Fuel</i> , 2018, 220, 318-329.   | 3.4 | 10        |
| 139 | Electric potential-determined redox intermediates for effective recycling of spent lithium-ion batteries. <i>Green Chemistry</i> , 2022, 24, 3723-3735.   | 4.6 | 10        |
| 140 | Facile and Economical Preparation of SiAlON-Based Composites Using Coal Gangue: From Fundamental to Industrial Application. <i>Energies</i> , 2015, 8, 7428-7440.   | 1.6 | 9         |
| 141 | Efficient one-pot synthesis of ethyl levulinate from carbohydrates catalyzed by Wells-Dawson heteropolyacid supported on Ce $\hat{e}$ Si pillared montmorillonite. <i>Journal of Cleaner Production</i> , 2021, 324, 129276.                    | 4.6 | 9         |
| 142 | The effect of soil amendment derived from P-enhanced sludge pyrochar on ryegrass growth and soil microbial diversity. <i>Science of the Total Environment</i> , 2022, 813, 152526.  | 3.9 | 9         |
| 143 | Feasibility Evaluation of the Terminated Waste Energy In Situ Conversion Strategy toward Carbon Neutralization in Metallurgical Processes. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 14079-14089.                             | 3.2 | 8         |
| 144 | Enhancement of Rutile Formation by ZrO <sub>2</sub> Addition in Ti-bearing Blast Furnace Slags. <i>ISIJ International</i> , 2015, 55, 1384-1389.  | 0.6 | 7         |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 145 | The partitioning behavior of trace element and its distribution in the surrounding soil of a cement plant integrated utilization of hazardous wastes. <i>Environmental Science and Pollution Research</i> , 2016, 23, 13943-13953. | 2.7 | 7         |
| 146 | A Fe-C-Ca big cycle in modern carbon-intensive industries: toward emission reduction and resource utilization. <i>Scientific Reports</i> , 2016, 6, 22323.   | 1.6 | 6         |
| 147 | Utilization of High-Temperature Slags From Metallurgy Based on Crystallization Behaviors. <i>Jom</i> , 2018, 70, 1274-1281.  | 0.9 | 6         |
| 148 | Epitaxial patterned Bi <sub>2</sub> FeCrO <sub>6</sub> nanoisland arrays with room temperature multiferroic properties. <i>Nanoscale Advances</i> , 2019, 1, 2139-2145.  | 2.2 | 6         |
| 149 | Copper-nanoparticle-dispersed amorphous BaTiO <sub>3</sub> thin films as hole-trapping centers: enhanced photocatalytic activity and stability. <i>RSC Advances</i> , 2019, 9, 5045-5052.  | 1.7 | 6         |
| 150 | Thermodynamic modeling of electrolyte solutions by a hybrid ion-interaction and solvation (HIS) model. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2015, 48, 79-88.                                  | 0.7 | 5         |
| 151 | Data processing to support explication about effect of mineral constituents on temperature-dependent structural characterization of carbon fractions in sewage sludge-derived biochar. <i>Data in Brief</i> , 2018, 17, 1304-1306. | 0.5 | 5         |
| 152 | Long-term leaching behaviours of cement composites prepared by hazardous wastes. <i>RSC Advances</i> , 2018, 8, 27602-27609.   | 1.7 | 5         |
| 153 | Coordination-Directed Assembly of Luminescent Semiconducting Oligomers and Weak Interaction-Induced Morphology Transformation. <i>ACS Omega</i> , 2019, 4, 14294-14300.  | 1.6 | 5         |
| 154 | Modification of the Structure of Ti-Bearing Mold Flux by the Simultaneous Addition of B <sub>2</sub> O <sub>3</sub> and Na <sub>2</sub> O. <i>Metallurgical and Materials Transactions E</i> , 2016, 3, 28-36.                     | 0.5 | 4         |
| 155 | Cross-sectoral synergy between municipal wastewater treatment, cement manufacture and petrochemical synthesis via clean transformation of sewage sludge. <i>Sustainable Energy and Fuels</i> , 2020, 4, 6274-6282.                 | 2.5 | 4         |
| 156 | Synthesis and characterization of MgAlON-BN composites. <i>International Journal of Materials Research</i> , 2007, 98, 64-71.  | 0.1 | 3         |
| 157 | Disposal of High-Temperature Slags: A Review of Integration of Heat Recovery and Material Recycling. <i>Metallurgical and Materials Transactions E</i> , 2016, 3, 114-122.   | 0.5 | 3         |
| 158 | Thermal Expansion of Magnesium Aluminum Oxynitride (Mg <sub>0.1</sub> Al <sub>1.6</sub> O <sub>2.2</sub> N <sub>0.2</sub> ). <i>High Temperature Materials and Processes</i> , 2008, 27, .   | 0.6 | 2         |
| 159 | Oxidation of Ca- $\hat{\pm}$ -SiAlON Powders Prepared by Combustion Synthesis. <i>Materials</i> , 2015, 8, 7549-7562.  | 1.3 | 2         |
| 160 | Heat Recovery from High Temperature Slags: Chemical Methods. , 2016, , 41-48.  |     | 2         |
| 161 | Integrated Utilization of Sewage Sludge for the Cement Clinker Production. <i>Minerals, Metals and Materials Series</i> , 2017, , 95-102.  | 0.3 | 1         |
| 162 | Energy Saving and Emission Reduction from the Steel Industry: Heat Recovery from High Temperature Slags. <i>Lecture Notes in Energy</i> , 2017, , 249-280.   | 0.2 | 1         |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 163 | Effect of TiO <sub>2</sub> on Thermophysical Properties and Structure of P-Bearing Steelmaking Slags. Minerals, Metals and Materials Series, 2017, , 411-418.   | 0.3 | 1         |
| 164 | Oxidation kinetics of magnesium aluminum oxynitrideâ€“boron nitride (MgAlONâ€“BN) composites. Journal of the Ceramic Society of Japan, 2014, 122, 829-834.  | 0.5 | 0         |
| 165 | In Situ Study on the Transformation Behavior of Ti-Bearing Slags in the Oxidation Atmosphere. Minerals, Metals and Materials Series, 2019, , 51-59.   | 0.3 | 0         |
| 166 | Thermophysical Properties of Modified Ti-bearing Blast Furnace Slags. , 2015, , 703-709.  |     | 0         |
| 167 | Viscous and Crystallization Characteristics of CaO-SiO <sub>2</sub> -MgO-Al <sub>2</sub> O <sub>3</sub> -FeO-P <sub>2</sub> O <sub>5</sub> -(CaF <sub>2</sub> ) Steelmaking Slags. , 2016, , 495-500. |     | 0         |