

Shen-gen Zhang

List of Publications by Year in descending order

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118
papers

4,077
citations

126907

33
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138484

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all docs

120
docs citations

120
times ranked

3627
citing authors

#	ARTICLE	IF	CITATIONS
1	Using coal fly ash-based geopolymer to immobilize Cd from lead fuming furnace slag. <i>Rare Metals</i> , 2023, 42, 1056-1060.	7.1	7
2	Synergistic effect of cobalt and niobium in Co ₃ -Nb-Ox on performance of selective catalytic reduction of NO with NH ₃ . <i>Rare Metals</i> , 2022, 41, 166-178.	7.1	19
3	Slag design and iron capture mechanism for recovering low-grade Pt, Pd, and Rh from leaching residue of spent auto-exhaust catalysts. <i>Science of the Total Environment</i> , 2022, 802, 149830.	8.0	27
4	Promotion effect of niobium on ceria catalyst for selective catalytic reduction of NO with NH ₃ . <i>Journal of Rare Earths</i> , 2022, 40, 1535-1545.	4.8	9
5	Boosting exciton dissociation and charge transfer in P-doped 2D porous g-C ₃ N ₄ for enhanced H ₂ production and molecular oxygen activation. <i>Ceramics International</i> , 2022, 48, 4031-4046.	4.8	24
6	Porous ceramics with near-zero shrinkage and low thermal conductivity from hazardous secondary aluminum dross. <i>Journal of the American Ceramic Society</i> , 2022, 105, 3197-3210.	3.8	18
7	Phase evolution and properties of glass ceramic foams prepared by bottom ash, fly ash and pickling sludge. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2022, 29, 563-573.	4.9	16
8	Tar induced deactivation and regeneration of a commercial V ₂ O ₅ -MoO ₃ /TiO ₂ catalyst during selective catalytic reduction of NO with NH ₃ . <i>Fuel</i> , 2022, 316, 123324.	6.4	3
9	A novel approach for preparing glass ceramic foams from MSWI fly ash: foaming characteristics and hierarchical pore formation mechanism. <i>Journal of Materials Research and Technology</i> , 2022, 18, 731-744.	5.8	17
10	Phase transition during nucleation process in calcium aluminate glass-ceramics manufactured from secondary aluminum dross. <i>Journal of Alloys and Compounds</i> , 2022, 911, 165010.	5.5	10
11	Microstructure evolution and properties of 7075 aluminum alloy recycled from scrap aircraft aluminum alloys. <i>Journal of Materials Research and Technology</i> , 2022, 19, 354-367.	5.8	28
12	Homogeneous reduction for heavy metals from pickling sludge with aluminum nitride from secondary aluminum dross in aluminosilicate melt "solution" environment. <i>Journal of Cleaner Production</i> , 2022, 362, 132358.	9.3	11
13	Recovery of Fe, Cr and Ni in pickling sludge with aluminum nitride in secondary aluminum dross. <i>Minerals Engineering</i> , 2022, 184, 107659.	4.3	6
14	Hierarchically porous glass-ceramics by alkaline activation and crystallization from municipal solid waste incineration ashes. <i>Journal of Cleaner Production</i> , 2022, 364, 132693.	9.3	10
15	Theoretical and experimental on the thermodynamic, kinetic and phase evolution characteristics of secondary aluminum ash. <i>Journal of Materials Research and Technology</i> , 2022, 19, 3857-3866.	5.8	8
16	Harmless disposal and resource utilization for secondary aluminum dross: A review. <i>Science of the Total Environment</i> , 2021, 760, 143968.	8.0	66
17	Directly growing nanowire-assembled nanofibrous ceramic foams with multi-lamellar structure via freeze-casting process. <i>Journal of the European Ceramic Society</i> , 2021, 41, 1041-1047.	5.7	11
18	Highly porous ceramics production using slags from smelting of spent automotive catalysts. <i>Resources, Conservation and Recycling</i> , 2021, 166, 105373.	10.8	26

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19	Iron oxide and jadeite nucleation in high alumina glass-ceramics prepared from secondary aluminum dross. <i>Ceramics International</i> , 2021, 47, 21744-21750.	4.8	11
20	Separation and purification of platinum group metals from aqueous solution: Recent developments and industrial applications. <i>Resources, Conservation and Recycling</i> , 2021, 167, 105417.	10.8	50
21	Migration, transformation and solidification/stabilization mechanisms of heavy metals in glass-ceramics made from MSWI fly ash and pickling sludge. <i>Ceramics International</i> , 2021, 47, 21599-21609.	4.8	25
22	The Advancement of 7XXX Series Aluminum Alloys for Aircraft Structures: A Review. <i>Metals</i> , 2021, 11, 718.	2.3	96
23	Three-Dimensional Reticulated, Spongelike, Resilient Aerogels Assembled by SiC/Si ₃ N ₄ Nanowires. <i>Nano Letters</i> , 2021, 21, 4167-4175.	9.1	34
24	Preparation of glass-ceramics from high-chlorine MSWI fly ash by one-step process. <i>Rare Metals</i> , 2021, 40, 3316-3328.	7.1	17
25	A review of glass ceramic foams prepared from solid wastes: Processing, heavy-metal solidification and volatilization, applications. <i>Science of the Total Environment</i> , 2021, 781, 146727.	8.0	70
26	Reduction for heavy metals in pickling sludge with aluminum nitride in secondary aluminum dross by pyrometallurgy, followed by glass ceramics manufacture. <i>Journal of Hazardous Materials</i> , 2021, 418, 126331.	12.4	32
27	Microstructure evolution of recycled 7075 aluminum alloy and its mechanical and corrosion properties. <i>Journal of Alloys and Compounds</i> , 2021, 879, 160407.	5.5	40
28	Research progress on C ₃ N ₄ -based photocatalysts for organic pollutants degradation in wastewater: From exciton and carrier perspectives. <i>Ceramics International</i> , 2021, 47, 31005-31030.	4.8	54
29	Highly efficient recovery of platinum, palladium, and rhodium from spent automotive catalysts via iron melting collection. <i>Resources, Conservation and Recycling</i> , 2020, 155, 104644.	10.8	64
30	Degradation technologies and mechanisms of dioxins in municipal solid waste incineration fly ash: A review. <i>Journal of Cleaner Production</i> , 2020, 250, 119507.	9.3	111
31	Study on glass-ceramics made from MSWI fly ash, pickling sludge and waste glass by one-step process. <i>Journal of Cleaner Production</i> , 2020, 271, 122674.	9.3	62
32	SiC-Si ₃ N ₄ composite with multi-laminate nanowires originated from oriented porous structure by freeze-casting. <i>Ceramics International</i> , 2020, 46, 26238-26243.	4.8	13
33	Preparation and characterization of glass ceramic foams based on municipal solid waste incineration ashes using secondary aluminum ash as foaming agent. <i>Construction and Building Materials</i> , 2020, 262, 120781.	7.2	58
34	Emerging pollutants—Part II: Treatment. <i>Water Environment Research</i> , 2020, 92, 1603-1617.	2.7	12
35	Process and mechanism of electrolytic enrichment of PGMs from Fe-PGMs alloy. <i>Journal of Cleaner Production</i> , 2020, 271, 122829.	9.3	10
36	Effect of oxygen vacancies on ceria catalyst for selective catalytic reduction of NO with NH ₃ . <i>Applied Surface Science</i> , 2020, 529, 147068.	6.1	60

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37	Suppression of N_2O formation by H_2O and SO_2 in the selective catalytic reduction of NO with NH_3 over a Mn/Ti-Si catalyst. <i>Catalysis Science and Technology</i> , 2019, 9, 4759-4770.	4.1	37
38	Comparative study on transition element doped Mn-Zr-Ti-oxides catalysts for the low-temperature selective catalytic reduction of NO with NH_3 . <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2019, 127, 637-652.	1.7	5
39	Emerging pollutants—Part II: Treatment. <i>Water Environment Research</i> , 2019, 91, 1390-1401.	2.7	20
40	Integrated utilization of municipal solid waste incineration fly ash and bottom ash for preparation of foam glass-ceramics. <i>Rare Metals</i> , 2019, 38, 914-921.	7.1	32
41	An Efficient Leaching of Palladium from Spent Catalysts through Oxidation with Fe(III). <i>Materials</i> , 2019, 12, 1205.	2.9	39
42	Synthesis and properties of $SrFe_{12}O_{19}$ obtained by solid waste recycling of oily cold rolling mill sludge. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2019, 26, 642-648.	4.9	9
43	Controlling the Composition and Magnetic Properties of Nano- $SrFe_{12}O_{19}$ Powder Synthesized from Oily Cold Mill Sludge by the Citrate Precursor Method. <i>Materials</i> , 2019, 12, 1250.	2.9	9
44	Recovery of Platinum from Spent Petroleum Catalysts: Optimization Using Response Surface Methodology. <i>Metals</i> , 2019, 9, 354.	2.3	33
45	Selective catalytic reduction of NO_x with NH_3 over Mn-Zr-Ti mixed oxide catalysts. <i>Journal of Materials Science</i> , 2019, 54, 6943-6960.	3.7	21
46	Recovery of precious metals from electronic waste and spent catalysts: A review. <i>Resources, Conservation and Recycling</i> , 2019, 141, 284-298.	10.8	275
47	Production of glass-ceramics using Municipal solid waste incineration fly ash. <i>Rare Metals</i> , 2019, 38, 245-251.	7.1	36
48	An alkaline fusion mechanism for aluminate rare earth phosphor: cation-oxoanion synergies theory. <i>Rare Metals</i> , 2019, 38, 299-305.	7.1	9
49	Crystallization mechanism of glass-ceramics prepared from stainless steel slag. <i>Rare Metals</i> , 2018, 37, 413-420.	7.1	28
50	High N_2 selectivity in selective catalytic reduction of NO with NH_3 over Mn/Ti-Zr catalysts. <i>RSC Advances</i> , 2018, 8, 12733-12741.	3.6	28
51	Preparation and formation mechanism of monodisperse micaceous iron oxide from iron chromium grinding waste. <i>Powder Technology</i> , 2018, 329, 401-408.	4.2	6
52	Facile ball-milled synthesis of SnS_2 -carbon nanocomposites with superior lithium storage. <i>Progress in Natural Science: Materials International</i> , 2018, 28, 676-682.	4.4	11
53	Height-related magnetoelectric performance of PZT/Ni layered composites. <i>Rare Metals</i> , 2017, 36, 591-595.	7.1	2
54	The influence of Na_2O on the fast diffusion layer around diopside crystals. <i>RSC Advances</i> , 2017, 7, 9417-9422.	3.6	6

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55	The mechanisms of heavy metal immobilization by cementitious material treatments and thermal treatments: A review. <i>Journal of Environmental Management</i> , 2017, 193, 410-422.	7.8	189
56	Supply and demand of some critical metals and present status of their recycling in WEEE. <i>Waste Management</i> , 2017, 65, 113-127.	7.4	198
57	A review of Mn-containing oxide catalysts for low temperature selective catalytic reduction of NO _x with NH ₃ : reaction mechanism and catalyst deactivation. <i>RSC Advances</i> , 2017, 7, 26226-26242.	3.6	135
58	Immobilization mechanism of Pb in fly ash-based geopolymer. <i>Construction and Building Materials</i> , 2017, 134, 123-130.	7.2	102
59	Integrated process for recycling copper anode slime from electronic waste smelting. <i>Journal of Cleaner Production</i> , 2017, 165, 48-56.	9.3	36
60	Effect of hot-dip galvanizing processes on the microstructure and mechanical properties of 600-MPa hot-dip galvanized dual-phase steel. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2017, 24, 1379-1383.	4.9	11
61	Enhanced magnetoelectric efficiency of the Tb _{1-x} Dy _x Fe ₂ /Pb(Zr,Ti)O ₃ cylinder multi-electrode composites. <i>Materials and Design</i> , 2016, 90, 753-756.	7.0	17
62	Synthesis and Characterization of Micaceous Iron Oxide Pigment from Oily Cold Rolling Mill Sludge. <i>Procedia Environmental Sciences</i> , 2016, 31, 653-661.	1.4	17
63	Polymer content and particle size effects on polymer-bonded Terfenol-D/PZT magnetoelectric composites. <i>Materials Letters</i> , 2016, 175, 93-95.	2.6	3
64	Effects of overaging temperature on the microstructure and properties of 600 MPa cold-rolled dual-phase steel. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2016, 23, 943-948.	4.9	4
65	Glass-ceramics one-step crystallization accomplished by building Ca ²⁺ and Mg ²⁺ fast diffusion layer around diopside crystal. <i>Journal of Alloys and Compounds</i> , 2016, 688, 709-714.	5.5	24
66	Treatment method of hazardous pickling sludge by reusing as glass-ceramics nucleation agent. <i>Rare Metals</i> , 2016, 35, 269-274.	7.1	27
67	Fast-heating for intercritical annealing of cold-rolled quenching and partitioning steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 669, 387-395.	5.6	32
68	Dilatometric study on the recrystallization and austenization behavior of cold-rolled steel with different heating rates. <i>Journal of Alloys and Compounds</i> , 2016, 666, 309-316.	5.5	28
69	SnSb/TiO ₂ /C nanocomposite fabricated by high energy ball milling for high-performance lithium-ion batteries. <i>RSC Advances</i> , 2016, 6, 32462-32466.	3.6	15
70	One-step crystallization kinetic parameters of the glass-ceramics prepared from stainless steel slag and pickling sludge. <i>Journal of Iron and Steel Research International</i> , 2016, 23, 220-224.	2.8	17
71	Antimony recovery from SbCl ₅ acid solution by hydrolysis and aging. <i>Rare Metals</i> , 2015, 34, 436-439.	7.1	6
72	Free oxoanion theory for BaMgAl ₁₀ O ₁₇ :Eu ²⁺ structure decomposition during alkaline fusion process. <i>RSC Advances</i> , 2015, 5, 50105-50112.	3.6	6

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73	Effect of TiO ₂ on Crystallization, Microstructure and Mechanical Properties of Glass-ceramics. Journal of Iron and Steel Research International, 2015, 22, 1113-1117.	2.8	16
74	Effect of Continuous Annealing on Microstructure and Bake Hardening Behavior of Low Carbon Steel. Journal of Iron and Steel Research International, 2015, 22, 163-170.	2.8	9
75	Effect of temper rolling on the bake-hardening behavior of low carbon steel. International Journal of Minerals, Metallurgy and Materials, 2015, 22, 32-36.	4.9	6
76	Mechanism of CeMgAl ₁₁ O ₁₉ : Tb ³⁺ alkaline fusion with sodium hydroxide. Rare Metals, 2015, 34, 189-194.	7.1	19
77	Mechanism and kinetics of the BaMgAl ₁₀ O ₁₇ :Eu ²⁺ alkaline fusion reaction. Journal of Rare Earths, 2015, 33, 664-670.	4.8	13
78	Challenges in legislation, recycling system and technical system of waste electrical and electronic equipment in China. Waste Management, 2015, 45, 361-373.	7.4	64
79	Facile scalable synthesis and superior lithium storage performance of ball-milled MoS ₂ @graphite nanocomposites. Journal of Materials Chemistry A, 2015, 3, 10466-10470.	10.3	34
80	Bonded cylindrical Terfenol-D-epoxy/PZT magnetoelectric composites prepared by the one-step compression molding. AIP Advances, 2015, 5, .	1.3	6
81	Complete recovery of Eu from BaMgAl ₁₀ O ₁₇ :Eu ²⁺ by alkaline fusion and its mechanism. RSC Advances, 2015, 5, 1113-1119.	3.6	18
82	Preparation of BaPbO ₃ functional ceramics from leaded waste. Rare Metals, 2014, 33, 598-603.	7.1	1
83	Preparation of pure SnO ₂ powders from tin slag of printed circuit boards waste. Rare Metals, 2014, 33, 749-753.	7.1	4
84	Phosphorus content effect on the magnetoelectric properties of the Ni ²⁺ /P(Ni)/PZT/Ni ²⁺ /P(Ni) cylindrical layered composites. Materials Letters, 2014, 133, 255-258.	2.6	9
85	Effect of strip entry temperature on the formation of interfacial layer during hot-dip galvanizing of press-hardened steel. Surface and Coatings Technology, 2014, 240, 269-274.	4.8	20
86	Recovery of copper and tin from stripping tin solution by electrodeposition. Rare Metals, 2014, 33, 353-357.	7.1	9
87	Effects of pre-strain and baking parameters on the microstructure and bake-hardening behavior of dual-phase steel. International Journal of Minerals, Metallurgy and Materials, 2014, 21, 766-771.	4.9	16
88	Enhanced magnetoelectric effect in magnetostrictive/piezoelectric laminates through adopting magnetic warm compaction Terfenol-D. Journal of Alloys and Compounds, 2014, 587, 287-289.	5.5	18
89	Rare earth elements recycling from waste phosphor by dual hydrochloric acid dissolution. Journal of Hazardous Materials, 2014, 272, 96-101.	12.4	63
90	Recovery of waste rare earth fluorescent powders by two steps acid leaching. Rare Metals, 2013, 32, 609-615.	7.1	62

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91	Recycle of valuable products from oily cold rolling mill sludge. International Journal of Minerals, Metallurgy and Materials, 2013, 20, 941-946.	4.9	17
92	New technology for recycling materials from oily cold rolling mill sludge. International Journal of Minerals, Metallurgy and Materials, 2013, 20, 1141-1147.	4.9	3
93	Strontium ferrite powders prepared from oily cold rolling mill sludge by solid-state reaction method. Rare Metals, 2013, 32, 518-523.	7.1	13
94	Architecturing high magnetic properties of NdFeB/SmFeN hybrid magnets. Materials Letters, 2013, 105, 87-89.	2.6	15
95	Constructing ZnO nanorod array photoelectrodes for highly efficient quantum dot sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 6770.	10.3	74
96	ZnO/TiO ₂ nanocable structured photoelectrodes for CdS/CdSe quantum dot co-sensitized solar cells. Nanoscale, 2013, 5, 936-943.	5.6	124
97	Architected ZnO photoelectrode for high efficiency quantum dot sensitized solar cells. Energy and Environmental Science, 2013, 6, 3542.	30.8	116
98	Electromagnetic and microwave absorbing properties of FeCoB powder composites. Rare Metals, 2013, 32, 402-407.	7.1	8
99	Enhanced Performance of CdS/CdSe Quantum Dot Cosensitized Solar Cells via Homogeneous Distribution of Quantum Dots in TiO ₂ Film. Journal of Physical Chemistry C, 2012, 116, 18655-18662.	3.1	176
100	Rapid annealing effects on microstructure, texture, and magnetic properties of non-oriented electrical steel. Metals and Materials International, 2012, 18, 531-537.	3.4	18
101	Co-reduction synthesis of uniform ferromagnetic SmCo nanoparticles. Materials Letters, 2012, 68, 212-214.	2.6	20
102	Heat treatment effects on Fe ₃ O ₄ nanoparticles structure and magnetic properties prepared by carbothermal reduction. Journal of Alloys and Compounds, 2011, 509, 2316-2319.	5.5	72
103	Mn-Zn soft magnetic ferrite nanoparticles synthesized from spent alkaline Zn-Mn batteries. Journal of Alloys and Compounds, 2011, 509, 3991-3994.	5.5	40
104	Rapid heating effects on grain-size, texture and magnetic properties of 3% Si non-oriented electrical steel. Bulletin of Materials Science, 2011, 34, 1477-1482.	1.7	9
105	Effect of annealing process of iron powder on magnetic properties and losses of motor cores. Bulletin of Materials Science, 2011, 34, 829-833.	1.7	2
106	Fuel additives and heat treatment effects on nanocrystalline zinc ferrite phase composition. Journal of Magnetism and Magnetic Materials, 2011, 323, 569-573.	2.3	36
107	Resonant modes and magnetoelectric performance of PZT/Ni cylindrical layered composites. Applied Physics A: Materials Science and Processing, 2010, 98, 449-454.	2.3	34
108	Inductance-capacitance resonance effect in the magnetoelectric composites characterization system. Applied Physics A: Materials Science and Processing, 2010, 100, 1069-1072.	2.3	4

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109	Bonded Terfenol-D composites with low eddy current loss and high magnetostriction. Rare Metals, 2010, 29, 579-582.	7.1	5
110	Heat treatment effects on microstructure and magnetic properties of Mn-Zn ferrite powders. Journal of Magnetism and Magnetic Materials, 2010, 322, 173-177.	2.3	203
111	Carbothermal reduction method for Fe ₃ O ₄ powder synthesis. Journal of Alloys and Compounds, 2010, 502, 338-340.	5.5	36
112	Effect of Heating Rate on Microstructure Evolution and Magnetic Properties of Cold Rolled Non-Oriented Electrical Steel. Journal of Iron and Steel Research International, 2010, 17, 54-61.	2.8	22
113	Radial cracks and fracture mechanism of radially oriented ring 2:17 type SmCo magnets. Journal of Alloys and Compounds, 2009, 476, 98-101.	5.5	5
114	2:17-type SmCo magnets prepared by powder injection molding using a water-based binder. Journal of Magnetism and Magnetic Materials, 2008, 320, 2168-2171.	2.3	6
115	Behavior of residual carbon in Sm(Co, Fe, Cu, Zr) _z permanent magnets. Journal of Alloys and Compounds, 2007, 440, 89-93.	5.5	9
116	Influence of heat treatment on fracture and magnetic properties of radially oriented Sm ₂ Co ₁₇ permanent magnets. Transactions of Nonferrous Metals Society of China, 2007, 17, 491-495.	4.2	4
117	Magnetic properties and microstructure of radially oriented Sm(Co,Fe,Cu,Zr) _z ring magnets. Materials Letters, 2007, 61, 5271-5274.	2.6	5
118	Effect of Directional Solidification Rate on Preferred Orientation, Microstructure and Magnetostriction of (Tb _{0.3} Dy _{0.7})Fe _{1.95} Alloys. Japanese Journal of Applied Physics, 2004, 43, 8032-8035.	1.5	4