

Chi Zhang

List of Publications by Year in descending order

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92
papers

1,299
citations

448610

19
h-index

536525

29
g-index

93
all docs

93
docs citations

93
times ranked

1166
citing authors

#	ARTICLE	IF	CITATIONS
1	Low Thermal Conductivity in Heteroanionic Materials with Layers of Homoleptic Polyhedra. Journal of the American Chemical Society, 2022, 144, 2569-2579.	6.6	13
2	Effects of the Encapsulation Membrane in Operando Scanning Transmission Electron Microscopy. Nano Letters, 2022, 22, 4137-4144.	4.5	8
3	2D Homologous Series SrFM _n BiS _{n+2} (M = Pb, Tl) ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 Sr ₂ F ₂ Bi _{2/3} S ₂ . Inorganic Chemistry, 2022, 61, 8233-8240.	1.9	2
4	Spalling resistance of thermally grown oxide based on NiCoCrAlY(Ti) with different oxide peg sizes. Rare Metals, 2021, 40, 663-670.	3.6	5
5	Effect of thermal cycles on microstructure of reduced activation steel fabricated using laser melting deposition. Journal of Iron and Steel Research International, 2021, 28, 316-326.	1.4	9
6	Characteristics of oxide pegs in Ti- and Y-doped CoNiCrAl alloys at 1150°C. Rare Metals, 2021, 40, 2059-2064.	3.6	9
7	Experimental and theoretical analysis of equilibrium segregation and radiation-induced segregation of Cr at grain boundaries in a reduced activation ferritic/martensitic (RAFM) steel. Journal of Iron and Steel Research International, 2021, 28, 445-452.	1.4	2
8	Fluoridation of HfO ₂ . Inorganic Chemistry, 2021, 60, 4463-4474.	1.9	7
9	First-Principles Hydrothermal Synthesis Design to Optimize Conditions and Increase the Yield of Quaternary Heteroanionic Oxychalcogenides. Chemistry of Materials, 2021, 33, 2726-2741.	3.2	15
10	On the Decarburization of Surface Pearlite. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 3198.	1.1	0
11	Phase-Field Modeling of Hydrogen Diffusion and Trapping in Steels. Acta Metallurgica Sinica (English) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	1.5	7
12	Soft oxidative coupling of methane to ethylene: Mechanistic insights from combined experiment and theory. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	9
13	Hidden Complexity in the Chemistry of Ammonolysis-Derived ¹³⁷ Mo ₂ N ₄ : An Overlooked Oxytrifluoride Hydride. Chemistry of Materials, 2021, 33, 6671-6684.	3.2	8
14	Influence of austenitizing temperature on the mechanical properties and microstructure of reduced activation ferritic/martensitic steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 826, 141934.	2.6	10
15	Perovskite-like K ₃ TiOF ₅ Exhibits (3 + 1)-Dimensional Commensurate Structure Induced by Octahedrally Coordinated Potassium Ions. Journal of the American Chemical Society, 2021, 143, 18907-18916.	6.6	4
16	Very High Cycle Fatigue Properties of 18CrNiMo7-6 Carburized Steel with Gradient Hardness Distribution. Coatings, 2021, 11, 1482.	1.2	5
17	Predicting excellent anisotropic thermoelectric performance of the layered oxychalcogenides BiAgOCh (Ch = S, Se, and Te). Computational Materials Science, 2020, 171, 109273.	1.4	12
18	Design of comprehensive mechanical properties by machine learning and high-throughput optimization algorithm in RAFM steels. Nuclear Engineering and Technology, 2020, 52, 1008-1012.	1.1	15

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19	Understanding microstructure-evolution-dependent fracture behaviors in pearlitic steels. Journal of Iron and Steel Research International, 2020, 27, 334-341.	1.4	2
20	Tensile property prediction by feature engineering guided machine learning in reduced activation ferritic/martensitic steels. Journal of Nuclear Materials, 2020, 529, 151823.	1.3	27
21	Large-area optoelectronic-grade InSe thin films via controlled phase evolution. Applied Physics Reviews, 2020, 7, .	5.5	17
22	Capillary-Bridge Controlled Patterning of Stable Double-Perovskite Microwire Arrays for Non-toxic Photodetectors. Frontiers in Chemistry, 2020, 8, 632.	1.8	9
23	Multimodal Structure Solution with ^{19}F NMR Crystallography of Spin Singlet Molybdenum Oxyfluorides. Journal of the American Chemical Society, 2020, 142, 12288-12298.	6.6	11
24	Frequency-Agile Low-Temperature Solution-Processed Alumina Dielectrics for Inorganic and Organic Electronics Enhanced by Fluoride Doping. Journal of the American Chemical Society, 2020, 142, 12440-12452.	6.6	27
25	First-Principles Calculated Structures and Carbon Binding Energies of $\{10\bar{1}1\}$ Tilt Grain Boundaries in Corundum Structured Metal Oxides. Oxidation of Metals, 2020, 94, 37-49.	1.0	0
26	Chemical boundary engineering: A new route toward lean, ultrastrong yet ductile steels. Science Advances, 2020, 6, eaay1430.	4.7	120
27	Microstructural Instability and Precipitation Behaviors of Intermetallic Phases in a Nb-Containing CoNi-Based Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 2495-2508.	1.1	3
28	Correlation of creep fracture lifetime with microstructure evolution and cavity behaviors in G115 martensitic heat-resistant steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 788, 139468.	2.6	25
29	A New Kinetic Mode During the Austenite-to-Ferrite Transformation in Fe-Mn and Fe-Mn-Mo Alloys. Acta Metallurgica Sinica (English Letters), 2020, 33, 975-980.	1.5	3
30	Identification of Anion Sites in BiCuXO (X= Se, S) Heteroanionic Materials. Microscopy and Microanalysis, 2019, 25, 2106-2107.	0.2	0
31	Design of Reduced Activation Ferritic/Martensitic Steels by Multiphase Optimization during the Entire Processing. ISIJ International, 2019, 59, 1715-1722.	0.6	7
32	Antiferromagnetic Semiconductor BaFMn _{0.5} Te with Unique Mn Ordering and Red Photoluminescence. Journal of the American Chemical Society, 2019, 141, 17421-17430.	6.6	10
33	A two-set order parameters phase-field modeling of crack deflection/penetration in a heterogeneous microstructure. Computer Methods in Applied Mechanics and Engineering, 2019, 347, 1085-1104.	3.4	26
34	Oxidation behavior and lifetime prediction of three commercial alloys used in power plants at 550°C in CO ₂ environment. Journal of Iron and Steel Research International, 2019, 26, 898-908.	1.4	8
35	Coordination of Pre-oxidation Time and Temperature for a Better Corrosion Resistance to CO ₂ at 550°C. Oxidation of Metals, 2019, 91, 657-675.	1.0	4
36	Plastic deformation behaviors and mechanical properties of advanced single crystalline CoNi-base superalloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 748, 267-274.	2.6	16

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37	Comparative cyclic oxidation behaviour and effect of oxides on hardness of wear resistance coating alloys T-401 and T-900. <i>Journal of Iron and Steel Research International</i> , 2019, 26, 1069-1079.	1.4	3
38	Study of hemiwicking with lattice Boltzmann simulations: A wetting state is dynamically trapped by pinning of imbibition front. <i>AIP Advances</i> , 2019, 9, .	0.6	5
39	Simulation of impact toughness with the effect of temperature and irradiation in steels. <i>Nuclear Engineering and Technology</i> , 2019, 51, 221-227.	1.1	4
40	Comparison of Microstructural Evolution of Oxides Formed on F91 Martensitic Steel Upon Breakaway Oxidation at 700°C in Air and CO ₂ . <i>Oxidation of Metals</i> , 2019, 91, 463-482.	1.0	1
41	Abnormal Anisotropic Dilatation During Bainitic Transformation of Ausformed Austenite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 540-546.	1.1	10
42	Crystallographic analysis of lath martensite in a 13Cr-5Ni steel by electron backscattering diffraction. <i>Journal of Iron and Steel Research International</i> , 2018, 25, 213-220.	1.4	2
43	Effect of strain on the intrinsic stacking fault energy of fcc Co: a first-principles study. <i>Journal of Materials Science</i> , 2018, 53, 10217-10230.	1.7	9
44	Pre-oxidation Effect on Oxidation Behavior of F91 in Carbon Dioxide at 550°C. <i>Oxidation of Metals</i> , 2018, 90, 317-335.	1.0	8
45	Carbide precipitation and element distribution in high Co-Ni secondary hardening steel. <i>Journal of Iron and Steel Research International</i> , 2018, 25, 340-346.	1.4	15
46	Effect of solute segregation on the intrinsic stacking fault energy of Co-based binary alloys: A first-principles study. <i>Journal of Alloys and Compounds</i> , 2018, 748, 328-337.	2.8	19
47	High-Temperature Oxidation Behavior of CrMoV, F91 and Mar-M247 Superalloys Exposed to Laboratory Air at 550°C. <i>Oxidation of Metals</i> , 2018, 90, 401-419.	1.0	5
48	Solubility and Anisotropic Migration Behaviors of Helium in bcc Iron Under Strain. <i>Acta Metallurgica Sinica (English Letters)</i> , 2018, 31, 199-207.	1.5	2
49	Patterning well-controlled cross section of ordered 3D architecture via capillary bridge route. <i>AIP Advances</i> , 2018, 8, .	0.6	1
50	Microstructural evolution and hardness of a heat resistant alloy during long term aging at 700°C. <i>Journal of Alloys and Compounds</i> , 2018, 765, 1267-1274.	2.8	15
51	The temperature dependence of high-temperature strength and deformation mechanism in a single crystal CoNi-base superalloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 735, 114-120.	2.6	21
52	Microstructure evolution and yield strength of CLAM steel in low irradiation condition. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 682, 563-568.	2.6	19
53	Multiscale Simulation of Yield Strength in Reduced-Activation Ferritic/Martensitic Steel. <i>Nuclear Engineering and Technology</i> , 2017, 49, 569-575.	1.1	13
54	Effects of Ni on austenite stability and fracture toughness in high Co-Ni secondary hardening steel. <i>Journal of Iron and Steel Research International</i> , 2017, 24, 177-183.	1.4	11

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55	Effect of Interfacial Mn Partitioning on Carbon Partitioning and Interface Migration During the Quenching and Partitioning Process. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 3168-3174.	1.1	16
56	Application of insulation padding in a heavy turbine guide vane casting. <i>Journal of Iron and Steel Research International</i> , 2017, 24, 495-500.	1.4	1
57	Hydrogen's influence on reduced activation ferritic/martensitic steels' elastic properties: density functional theory combined with experiment. <i>Nuclear Engineering and Technology</i> , 2017, 49, 1748-1751.	1.1	16
58	Understanding cementite dissolution in pearlitic steels subjected to rolling-sliding contact loading: A combined experimental and theoretical study. <i>Acta Materialia</i> , 2017, 141, 193-205.	3.8	23
59	Prediction of Ar ₃ during Very Slow Cooling in Low Alloy Steels. <i>ISIJ International</i> , 2016, 56, 678-684.	0.6	2
60	Reversed Austenite Growth Behavior of a 13%Cr-5%Ni Stainless Steel during Intercritical Annealing. <i>ISIJ International</i> , 2016, 56, 148-153.	0.6	32
61	Irradiation Induced Microstructure Evolution in Nanostructured Materials: A Review. <i>Materials</i> , 2016, 9, 105.	1.3	32
62	BabyTalk. , 2016, , .		0
63	Effect of Mo Addition on the Transformation Stasis Phenomenon During the Isothermal Formation of Bainitic Ferrite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 5670-5674.	1.1	4
64	Microstructural Evolution of a Hypoeutectoid Pearlite Steel under Rolling-sliding Contact Loading. <i>Journal of Iron and Steel Research International</i> , 2016, 23, 1054-1060.	1.4	21
65	Microstructure analysis and yield strength simulation in high Co-Ni secondary hardening steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 669, 312-317.	2.6	30
66	Interatomic potential for Fe-Cr-Ni-N system based on the second nearest-neighbor modified embedded-atom method. <i>Molecular Simulation</i> , 2016, 42, 1256-1262.	0.9	7
67	Variation in retained austenite content and mechanical properties of 0.2C-7Mn steel after intercritical annealing. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2016, 23, 161-167.	2.4	9
68	Microstructure evolution of a hypereutectoid pearlite steel under rolling-sliding contact loading. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 655, 50-59.	2.6	47
69	Precipitate Behavior in Fe-20Cr-30Ni-2Nb Austenitic Heat-Resistant Steel. <i>Acta Metallurgica Sinica (English Letters)</i> , 2015, 28, 424-429.	1.5	4
70	Carbon Enrichment in Austenite During Bainite Transformation in Fe-3Mn-C Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 1544-1549.	1.1	19
71	Effects of Mo on Carbon Enrichment During Proeutectoid Ferrite Transformation in Hypoeutectoid Fe-C-Mn Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 2347-2351.	1.1	13
72	Observation on Formation of Fresh Martensite from the Reversed Austenite During Water-Quenching Process in Fe-0.2C-5Mn Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 3789-3792.	1.1	16

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73	Analysis of fracture toughness in high Co-Ni secondary hardening steel using FEM. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 646, 1-7.	2.6	27
74	Multi-scale simulation of hydrogen influenced critical stress intensity in high Co-Ni secondary hardening steel. <i>Materials and Design</i> , 2015, 87, 501-506.	3.3	18
75	Austenite Thermal Stabilization through the Concentration of Manganese and Carbon in the 0.2C-5Mn Steel. <i>ISIJ International</i> , 2014, 54, 2875-2880.	0.6	16
76	Effect of Surface Mechanical Attrition Treatment on Microstructure and Oxidation Behavior in T91 Steel at High Temperature. <i>ISIJ International</i> , 2014, 54, 1935-1942.	0.6	9
77	Effects of Pre-tempering on Intercritical Annealing in Fe-2Mn-0.3C Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 5290-5294.	1.1	14
78	Austenite layer and precipitation in high Co-Ni maraging steel. <i>Micron</i> , 2014, 67, 112-116.	1.1	33
79	Antibacterial Property and Precipitation Behavior of Ag-Added 304 Austenitic Stainless Steel. <i>Acta Metallurgica Sinica (English Letters)</i> , 2014, 27, 539-545.	1.5	7
80	Growing process and reaction mechanism of electroless Ni-Mo-P film on SiO ₂ substrate. <i>Transactions of Nonferrous Metals Society of China</i> , 2013, 23, 3629-3633.	1.7	13
81	Improvement of Impact Toughness and Creep Properties in Reduced Activation Ferritic Steels by Consumable Electrode Remelting. <i>Journal of Iron and Steel Research International</i> , 2013, 20, 45-51.	1.4	0
82	Carbide precipitation in austenite of a Ti-Mo-containing low-carbon steel during stress relaxation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 573, 84-91.	2.6	62
83	Effects of alloying elements on the kinetics of austenitization from pearlite in Fe-C-M alloys. <i>Philosophical Magazine</i> , 2013, 93, 1095-1109.	0.7	32
84	An Analytical Model for the Kinetics of Strain-induced Precipitation in Titanium Micro-alloyed Steels. <i>ISIJ International</i> , 2012, 52, 1661-1669.	0.6	20
85	Transformation character of ferrite formation by a ledge mechanism under a mixed-control model. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2012, 19, 428-433.	2.4	1
86	Effect of TaC Particles Dissolution on Grain Coarsening in Reduced Activation Steels. <i>Journal of Iron and Steel Research International</i> , 2011, 18, 47-52.	1.4	38
87	Influence of austenite deformation on ferrite growth in a Fe-C-Mn alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 4406-4411.	2.6	39
88	Evolution and coarsening of carbides in 2.25Cr-1Mo steel weld metal during high temperature tempering. <i>Journal of Iron and Steel Research International</i> , 2010, 17, 74-78.	1.4	43
89	Influence of Prior Austenite Deformation and Non-Metallic Inclusions on Ferrite Formation in Low-Carbon Steels. <i>Journal of Iron and Steel Research International</i> , 2010, 17, 36-42.	1.4	9
90	Comparison of seismic performance between typical structural steel buildings designed following the Chinese and United States codes. <i>Advances in Structural Engineering</i> , 0, , 136943322098663.	1.2	4

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91	Effect of annealing and cooling rate on toughness of G115 heat-resistant steels. Journal of Iron and Steel Research International, 0, , 1.	1.4	3
92	Fluoride Doping in Crystalline and Amorphous Indium Oxide Semiconductors. Chemistry of Materials, 0, , .	3.2	1