Shizhong Wei

List of Publications by Year
in descending order

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Version: 2024-02-01

120 papers	2,446 citations	201674 27 h-index	289244 40 g-index
120 all docs	120 docs citations	120 times ranked	1342 citing authors

#	Article	IF	Citations
1	Preparation and wear properties of high-vanadium alloy composite layer. Friction, 2022, 10, 1166-1179.	6.4	4
2	Research on the hot deformation behavior of Cu-20Âwt%W composite under different temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 830, 142326.	5.6	14
3	Achieving an unprecedented strength-ductility balance of molybdenum alloy by homogeneously distributing yttrium-cerium oxide. Journal of Alloys and Compounds, 2022, 897, 163110.	5.5	16
4	Microstructure characterization and properties of YSZ particles doped tungsten alloy prepared by liquid phase method. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 832, 142483.	5.6	14
5	Strengthening mechanism and effect of Al2O3 particle on high-temperature tensile properties and microstructure evolution of Wâ€“Al2O3 alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 835, 142678.	5.6	11
6	The Effect of Vanadium Content Coupling with Heat Treatment Process on the Properties of Low-Vanadium Wear-Resistant Alloy. Materials, 2022, 15, 285.	2.9	2
7	Fabrication of nano-ZrO2 strengthened WMoNbTaV refractory high-entropy alloy by spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 843, 143113.	5.6	9
8	Few-Layered WS₂ Anchored on Co, N-Doped Carbon Hollow Polyhedron for Oxygen Evolution and Hydrogen Evolution. ACS Applied Materials & Interfaces, 2022, 14, 22030-22040.	8.0	25
9	Effect of spark plasma sintering temperature on structure and performance characteristics of Cu-20wt%W composite. Journal of Alloys and Compounds, 2022, 912, 165246.	5.5	19
10	Evaluating low cycle fatigue property of nanoscale ZrO2 particles strengthening molybdenum alloy. Vacuum, 2022, 203, 111170.	3.5	1
11	Shining light on transition metal tungstate-based nanomaterials for electrochemical applications: Structures, progress, and perspectives. Nano Research, 2022, 15, 6924-6960.	10.4	15
12	Microstructure evolution of W-1.0Âm-ZrO2 alloy during high temperature deformation. Journal of Alloys and Compounds, 2022, 921, 166153.	5.5	9
13	Effect of hot-working process on interface structure and ductile-to-brittle transition temperature of tungsten alloy reinforced by Al2O3 particles. International Journal of Refractory Metals and Hard Materials, 2022, 108, 105945.	3.8	2
14	Oxidation behavior of Mo-Si-B alloys at medium-to-high temperatures. Journal of Materials Science and Technology, 2021, 60, 113-127.	10.7	45
15	Effect of slippage rate on frictional wear behaviors of high-speed steel with dual-scale tungsten carbides (M6C) under high-pressure sliding-rolling condition. Tribology International, 2021, 154, 106719.	5.9	38
16	Development of a new high-density iron-tungsten alloy (FWA) reinforced by Fe7W6 and Fe2W particles with high tensile strength and specific strength. Journal of Alloys and Compounds, 2021, 854, 157323.	5.5	12
17	Fabrication and wear property of in-situ micro-nano dual-scale vanadium carbide ceramics strengthened wear-resistant composite layers. Ceramics International, 2021, 47, 953-964.	4.8	21
18	Evaluating compressive property and hot deformation behavior of molybdenum alloy reinforced by nanoscale zirconia particles. Journal of Alloys and Compounds, 2021, 860, 158289.	5.5	17

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19	Solvothermal preparation and characterization of ordered-mesoporous ZrO2/TiO2 composites for photocatalytic degradation of organic dyes. Ceramics International, 2021, 47, 7632-7641.	4.8	22
20	Research on the effect of liquid-liquid doping processes on the doped powders and microstructures of Wâ€“ZrO2(Y) alloys. Journal of Alloys and Compounds, 2021, 855, 157335.	5.5	10
21	Phase analysis and corrosion behavior of brazing Cu/Al dissimilar metal joint with BAl88Si filler metal. Nanotechnology Reviews, 2021, 10, 1318-1328.	5.8	3
22	Effect of blowing parameters on bath mixing efficiency during basic oxygen furnace steelmaking process. Engineering Reports, 2021, 3, e12359.	1.7	3
23	Microstructure and abrasive wear properties of high-vanadium-chromium wear resistant alloy. Materials Research Express, 2021, 8, 026501.	1.6	3
24	Narrow-Bandgap Semiconductors of Perovskite Rare-Earth Orthoferrites (REFeO3). Current Chinese Science, 2021, 1, 438-452.	0.5	0
25	Effect of zirconia on low cycle fatigue and energy absorption of molybdenum alloy. Journal of Alloys and Compounds, 2021, 867, 159118.	5.5	8
26	Studies on Kinetics, Isotherms, Thermodynamics and Adsorption Mechanism of Methylene Blue by N and S Co-Doped Porous Carbon Spheres. Nanomaterials, 2021, 11, 1819.	4.1	7
27	Microstructure and erosion wear properties of high chromium cast iron added nitrogen by high pressure in alkaline sand slurry. Wear, 2021, 476, 203655.	3.1	9
28	Research Progress of Alkali Doped Cu(In,Ga)Se2 Thin Film Solar Cells. Current Chinese Science, 2021, 01, .	0.5	0
29	Effect of rotary swaging and subsequent annealing on microstructure and mechanical properties of W-1.5ZrO2 alloys. Journal of Alloys and Compounds, 2021, 875, 160041.	5.5	9
30	Self-supporting transition metal chalcogenides on metal substrates for catalytic water splitting. Chemical Engineering Journal, 2021, 421, 129645.	12.7	62
31	Extremely uniform nanosized oxide particles dispersion strengthened tungsten alloy with high tensile and compressive strengths fabricated involving liquid-liquid method. Journal of Alloys and Compounds, 2021, 878, 160335.	5.5	14
32	Graphene-based interlayer for high-performance lithiumâ€“sulfur batteries: A review. Materials and Design, 2021, 211, 110171.	7.0	52
33	Effect of cooling conditions on microstructure evolution and wear behavior of high chromium cast iron hardfacing layer. Materials Letters, 2021, 314, 131417.	2.6	0
34	Effect of Al2O3 content and swaging on microstructure and mechanical properties of Al2O3/W alloys. International Journal of Refractory Metals and Hard Materials, 2020, 86, 105082.	3.8	6
35	Phase evolution of hydrothermal synthesis oxide-doped molybdenum powders. International Journal of Refractory Metals and Hard Materials, 2020, 86, 105085.	3.8	12
36	Tribological performance of self-matching pairs of B4C/hBN composite ceramics under different frictional loads. Ceramics International, 2020, 46, 996-1001.	4.8	11

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37	Two-step alcohothermal synthesis and characterization of enhanced visible-light-active WO3-coated TiO2 heterostructure. Ceramics International, 2020, 46, 2102-2109.	4.8	13
38	Modification of the silicon phase and mechanical properties in Al-40Zn-6Si alloy with Eu addition. Materials and Design, 2020, 186, 108268.	7.0	17
39	Hatted 1T/2Hâ€Phase MoS₂ on Ni₃S₂ Nanorods for Efficient Overall Water Splitting in Alkaline Media. Chemistry - A European Journal, 2020, 26, 2034-2040.	3.3	27
40	Study on thermal fatigue performance of the molybdenum plate doped with Al2O3 particles. Journal of Alloys and Compounds, 2020, 823, 153748.	5.5	10
41	Mechanical properties and strengthening mechanism of the hydrothermal synthesis of nano-sized Î±-Al2O3 ceramic particle reinforced molybdenum alloy. Ceramics International, 2020, 46, 10400-10408.	4.8	23
42	Erosionâ€“Wear Behaviors of High-Chromium Cast Iron with High Nitrogen Content in Waterâ€“Sand Slurry and Acidâ€“Sand Slurry. Tribology Transactions, 2020, 63, 325-335.	2.0	12
43	Interface microstructure and growth mechanism of brazing Cu/Al joint with BAl88Si filler metal. Vacuum, 2020, 181, 109641.	3.5	16
44	Effects of CeO2 on the Si Precipitation Mechanism of SiCp/Al-Si Composite Prepared by Powder Metallurgy. Materials, 2020, 13, 4365.	2.9	1
45	Application of Co3O4-based materials in electrocatalytic hydrogen evolution reaction: A review. International Journal of Hydrogen Energy, 2020, 45, 21205-21220.	7.1	91
46	Convenient fabrication of a coreâ€“shell Sn@TiO₂ anode for lithium storage from tinplate electroplating sludge. Chemical Communications, 2020, 56, 10187-10190.	4.1	16
47	Effects of CeO2 Content on Friction and Wear Properties of SiCp/Al-Si Composite Prepared by Powder Metallurgy. Materials, 2020, 13, 4547.	2.9	3
48	Application of Manganese-Based Materials in Aqueous Rechargeable Zinc-Ion Batteries. Frontiers in Energy Research, 2020, 8, .	2.3	21
49	Cracking Behavior of RenÃ© 104 Nickel-Based Superalloy Prepared by Selective Laser Melting Using Different Scanning Strategies. Materials, 2020, 13, 2149.	2.9	12
50	WO3-Based Materials as Electrocatalysts for Hydrogen Evolution Reaction. Frontiers in Materials, 2020, 7, .	2.4	44
51	Research on preparation process for the in situ nanosized Zr(Y)O2 particles dispersion-strengthened tungsten alloy through synthesizing doped hexagonal (NH4)0.33Â·WO3. Journal of Alloys and Compounds, 2020, 843, 156059.	5.5	10
52	Establishment of processing map, microstructure and high-temperature tensile properties of W-0.25Âwt% Al2O3 alloys. Journal of Alloys and Compounds, 2020, 831, 154751.	5.5	14
53	Uniform nanosized oxide particles dispersion strengthened tungsten alloy fabricated involving hydrothermal method and hot isostatic pressing. Journal of Alloys and Compounds, 2020, 824, 153894.	5.5	22
54	Thermodynamic evaluation and investigation of solidification microstructure in the Feâ€“Crâ€“Niâ€“C system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2020, 69, 101763.	1.6	9

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55	Low-temperature solution synthesis and characterization of enhanced titanium dioxide photocatalyst on tailored mesoporous Î³-Al2O3 support. Composites Communications, 2020, 19, 82-89.	6.3	24
56	Lead-Free Perovskite Narrow-Bandgap Oxide Semiconductors of Rare-Earth Manganates. ACS Omega, 2020, 5, 8766-8776.	3.5	31
57	Graphene induced growth of Sb2WO6 nanosheets for high-performance pseudocapacitive lithium-ion storage. Journal of Alloys and Compounds, 2020, 839, 155614.	5.5	23
58	A review of end-point carbon prediction for BOF steelmaking process. High Temperature Materials and Processes, 2020, 39, 653-662.	1.4	12
59	Microstructure and mechanical properties of brazing joint of silver-based composite filler metal. Nanotechnology Reviews, 2020, 9, 1034-1043.	5.8	10
60	Development of tungsten heavy alloy reinforced by cubic zirconia through liquid-liquid doping and mechanical alloying methods. International Journal of Refractory Metals and Hard Materials, 2019, 78, 1-8.	3.8	20
61	Investigation on erosion-wear behaviors of high-chromium cast iron with high nitrogen content in saltâ€“sand slurry. Materials Research Express, 2019, 6, 106558.	1.6	8
62	Effect of Tempering Temperature on Impact Wear Behavior of 30Cr3Mo2WNi Hot-Working Die Steel. Frontiers in Materials, 2019, 6, .	2.4	5
63	Flow behavior and processing map for hot deformation of W-1.5ZrO2 alloy. Journal of Alloys and Compounds, 2019, 802, 118-128.	5.5	26
64	Enhanced photocatalytic performance of WO3-x with oxygen vacancies via heterostructuring. Composites Communications, 2019, 16, 106-110.	6.3	18
65	Effect of Carbon Content on Abrasive Impact Wear Behavior of Cr-Si-Mn Low Alloy Wear Resistant Cast Steels. Frontiers in Materials, 2019, 6, .	2.4	11
66	Microproperties and interface behavior of the BAg25TS brazed joint. Vacuum, 2019, 169, 108928.	3.5	9
67	The application of CeO₂-based materials in electrocatalysis. Journal of Materials Chemistry A, 2019, 7, 17675-17702.	10.3	128
68	Effect of sintering temperature on fine-grained Cu W composites with high copper. Materials Characterization, 2019, 153, 121-127.	4.4	26
69	Hydrothermal synthesis and adsorption property of porous spherical Al2O3 nanoparticles. Materials Research Express, 2019, 6, 075023.	1.6	2
70	A novel high density W-30Cu alloy prepared via hydrothermal synthesis-co-reduction and canned hot extrusion methods. Metallurgical Research and Technology, 2019, 116, 113.	0.7	1
71	Different Influences of Rare Earth Eu Addition on Primary Si Refinement in Hypereutectic Alâ€“Si Alloys with Varied Purity. Materials, 2019, 12, 3505.	2.9	5
72	Facile Synthesis of Antimony Tungstate Nanosheets as Anodes for Lithium-Ion Batteries. Nanomaterials, 2019, 9, 1689.	4.1	28

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73	Effect of Graphene Oxide Concentration in Electrolyte on Corrosion Behavior of Electrodeposited Znâ€“Electrochemical Reduction Graphene Composite Coatings. Coatings, 2019, 9, 758.	2.6	13
74	Effect of ZrO2 content on microstructure and mechanical properties of W alloys fabricated by spark plasma sintering. International Journal of Refractory Metals and Hard Materials, 2019, 79, 79-89.	3.8	17
75	Preparation, microstructure, and constitutive equation of W-0.25â€¯wt% Al2O3 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 744, 79-85.	5.6	29
76	Microstructure and mechanical properties of W-ZrO2 alloys by different preparation techniques. Journal of Alloys and Compounds, 2019, 774, 210-221.	5.5	26
77	Preparation of wâ€“cu nano-composite powders with high copper content using a chemical co-deposition technique. Advanced Powder Technology, 2018, 29, 1323-1330.	4.1	24
78	Template-free hydrothermal synthesis of 3D hollow aggregate spherical structure WO3 nano-plates and photocatalytic properties. Materials Research Bulletin, 2018, 101, 280-286.	5.2	19
79	A New Predicting Method of Build-up Rate of Steering Tools Based on Kriging Surrogate Model. Arabian Journal for Science and Engineering, 2018, 43, 4949-4956.	3.0	4
80	Microstructure and preparation of an ultra-fine-grained W-Al 2 O 3 composite via hydrothermal synthesis and spark plasma sintering. International Journal of Refractory Metals and Hard Materials, 2018, 72, 149-156.	3.8	20
81	Influences of hBN content and test mode on dry sliding tribological characteristics of B4C-hBN ceramics against bearing steel. Ceramics International, 2018, 44, 6443-6450.	4.8	25
82	Microstructure and properties characterization of W-25Cu composite materials liquid-liquid doped with La2O3. International Journal of Refractory Metals and Hard Materials, 2018, 71, 115-121.	3.8	13
83	Preparation and characterization of Mo/ZrO2â€“Y2O3 composites. International Journal of Refractory Metals and Hard Materials, 2018, 75, 202-210.	3.8	40
84	Synthesis, densification and characterization of ultra-fine W-Al2O3 composite powder. Materials Characterization, 2018, 142, 245-251.	4.4	4
85	Hydrothermal synthesis of nanoplates assembled hierarchical h-WO3 microspheres and phase evolution in preparing cubic Zr(Y)O2-doped tungsten powders. Advanced Powder Technology, 2018, 29, 2633-2643.	4.1	17
86	Fabrication and mechanical properties of tungsten alloys reinforced with c-ZrO2 particles. Journal of Alloys and Compounds, 2018, 769, 694-705.	5.5	35
87	Study on the Reblow Model for Medium-High Carbon Steel Melting by Converter. High Temperature Materials and Processes, 2018, 37, 973-979.	1.4	0
88	Effect of nano-sized ZrO2 on high temperature performance of Mo-ZrO2 alloy. Journal of Alloys and Compounds, 2018, 768, 81-87.	5.5	36
89	Research on high-temperature properties of the molybdenum sheet doped with 1.0â€¯wt%Al2O3 particles. Journal of Alloys and Compounds, 2018, 769, 340-346.	5.5	15
90	Preparation and Properties of ZrO₂/Mo Alloys. High Temperature Materials and Processes, 2017, 36, 163-166.	1.4	10

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91	Preparation, microstructure, and properties of tungsten alloys reinforced by ZrO2 particles. International Journal of Refractory Metals and Hard Materials, 2017, 64, 40-46.	3.8	18
92	A hybrid microstructure design strategy achieving W-ZrO2(Y) alloy with high compressive strength and critical failure strain. Journal of Alloys and Compounds, 2017, 708, 202-212.	5.5	29
93	Effects of carbides on abrasive wear properties and failure behaviours of high speed steels with different alloy element content. Wear, 2017, 376-377, 968-974.	3.1	89
94	Microstructure and high temperature deformation behavior of the Mo-ZrO 2 alloys. Journal of Alloys and Compounds, 2017, 716, 321-329.	5.5	42
95	Microstructure and wear properties of high-speed steel with high molybdenum content under rolling-sliding wear. Tribology International, 2017, 116, 39-46.	5.9	40
96	The Mechanical Properties of the Mo-0.5Ti and Mo-0.1Zr Alloys at Room Temperature and High Temperature Annealing. High Temperature Materials and Processes, 2017, 36, 167-173.	1.4	11
97	Tribological behaviors of B 4 C-hBN ceramic composites used as pins or discs coupled with B 4 C ceramic under dry sliding condition. Ceramics International, 2017, 43, 1578-1583.	4.8	36
98	Dry sliding tribological properties of self-mated couples of B4C-hBN ceramic composites. Ceramics International, 2017, 43, 162-166.	4.8	30
99	Characteristic of Cuâ€“Al₂O₃ composites prepared by internal oxidationâ€“remelting solidification. Emerging Materials Research, 2017, 6, 270-275.	0.7	1
100	Characterization of Al₂O₃ in High-Strength Mo Alloy Sheets by High-Resolution Transmission Electron Microscopy. Microscopy and Microanalysis, 2016, 22, 122-130.	0.4	10
101	Research on Hydro-oscillator for petroleum drilling engineering. , 2016, , .		0
102	Dislocation climb in Mo 5 SiB 2 during high-temperature deformation. International Journal of Refractory Metals and Hard Materials, 2016, 61, 115-120.	3.8	5
103	Study on preparation and properties of molybdenum alloys reinforced by nano-sized ZrO2 particles. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	29
104	Constitutive Modeling of High-Temperature Flow Behavior of an Nb Micro-alloyed Hot Stamping Steel. Journal of Materials Engineering and Performance, 2016, 25, 948-959.	2.5	7
105	Preparation and characterization of Mo/Al2O3 composites. International Journal of Refractory Metals and Hard Materials, 2016, 54, 186-195.	3.8	48
106	Deformation behavior of Mo5SiB2 at elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 623, 124-132.	5.6	12
107	Numerical Calculation of the Tee Local Resistance Coefficient. The Open Mechanical Engineering Journal, 2015, 9, 876-881.	0.3	2
108	Effect of Carbides on Wear Characterization of High-Alloy Steels under High-Stress Rollingâ€“Sliding Condition. Tribology Transactions, 2014, 57, 631-636.	2.0	13

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109	Effects of carbon content and sliding ratio on wear behavior of high-vanadium high-speed steel (HVHSS) under high-stress rollingâ€“sliding contact. Tribology International, 2014, 70, 34-41.	5.9	37
110	Load-Carrying Capacity Analysis on Derrick of Offshore Module Drilling Rig. Open Petroleum Engineering Journal, 2014, 7, 29-40.	0.6	3
111	Fine structure and interface characteristic of Î±-Al2O3 in molybdenum alloy. International Journal of Refractory Metals and Hard Materials, 2013, 41, 483-488.	3.8	18
112	Microstructure and High-Temperature Frictional Wear Property of Mo-Based Composites Reinforced by Aluminum and Lanthanum Oxides. Tribology Transactions, 2013, 56, 833-840.	2.0	14
113	Preparation, microstructure and properties of molybdenum alloys reinforced by in-situ Al2O3 particles. International Journal of Refractory Metals and Hard Materials, 2012, 30, 208-212.	3.8	31
114	Study on relative wear resistance and wear stability of high-speed steel with high vanadium content. Wear, 2007, 262, 253-261.	3.1	46
115	Optimization of heat treatment technique of high-vanadium high-speed steel based on back-propagation neural networks. Materials & Design, 2007, 28, 1425-1432.	5.1	32
116	Effects of carbon on microstructures and properties of high vanadium high-speed steel. Materials & Design, 2006, 27, 58-63.	5.1	55
117	Artificial neural network prediction of retained austenite content and impact toughness of high-vanadium high-speed steel (HVHSS). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 433, 251-256.	5.6	23
118	Effects of vanadium and carbon on microstructures and abrasive wear resistance of high speed steel. Tribology International, 2006, 39, 641-648.	5.9	76
119	A study of Tiâ€“Niâ€“Si coatings by reactive braze coating process. Materials Letters, 2006, 60, 2240-2242.	2.6	1
120	Research on wear resistance of high speed steel with high vanadium content. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 404, 138-145.	5.6	88