Shigen Zhu

List of Publications by Year in descending order

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39	676	471509 17	580821 25
papers	citations	h-index	g-index

40	40	40	360
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Influence of sintering temperature and holding time on the densification, phase transformation, microstructure and properties of hot pressing WCâ€“40vol.%Al2O3 composites. Ceramics International, 2012, 38, 1371-1380.	4.8	49
2	Influence of Al2O3 whisker concentration on mechanical properties of WCâ€“Al2O3 whisker composite. Ceramics International, 2015, 41, 13685-13691.	4.8	44
3	Two-step hot-pressing sintering of nanocomposite WCâ€“MgO compacts. Journal of the European Ceramic Society, 2011, 31, 1927-1935.	5.7	41
4	Microstructure and mechanical properties of hot-pressing sintered WCâ€“xvol.%Al2O3 composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 543, 96-103.	5.6	40
5	Preparation, mechanical and tribological properties of WC-Al2O3 composite doped with graphene platelets. Ceramics International, 2020, 46, 10457-10468.	4.8	40
6	Two step hot pressing sintering of dense fine grained WCâ€“Al2O3 composites. Ceramics International, 2013, 39, 5415-5425.	4.8	35
7	VC and Cr3C2 doped WCâ€“MgO compacts prepared by hot-pressing sintering. Materials & Design, 2012, 40, 550-555.	5.1	33
8	Influence of VC and Cr3C2 as grain growth inhibitors on WCâ€“Al2O3 composites prepared by hot press sintering. International Journal of Refractory Metals and Hard Materials, 2014, 45, 223-229.	3.8	29
9	Microstructure and mechanical properties of WCâ€“40vol%Al2O3 composites hot pressed with MgO and CeO2 additives. Ceramics International, 2013, 39, 1931-1942.	4.8	26
10	Microstructure and wear behaviors of WCâ€“12%Co coating deposited on ductile iron by electric contact surface strengthening. Applied Surface Science, 2013, 282, 672-679.	6.1	24
11	Influence of MgO whisker addition on microstructures and mechanical properties of WC-MgO composite. Materials Chemistry and Physics, 2019, 238, 121907.	4.0	24
12	Fabrication and properties of hot-pressing sintered WC-Al2O3 composites reinforced by graphene platelets. International Journal of Refractory Metals and Hard Materials, 2019, 82, 81-90.	3.8	23
13	Effect of CeO2 addition on thermal shock resistance of WCâ€“12%Co coating deposited on ductile iron by electric contact surface strengthening. Applied Surface Science, 2015, 349, 792-797.	6.1	22
14	Comparison of the wear behaviors of advanced and conventional cemented tungsten carbides. International Journal of Refractory Metals and Hard Materials, 2019, 79, 18-22.	3.8	20
15	Corrosion and corrosive wear behavior of WCâ€“MgO composites with and without grain-growth inhibitors. Journal of Alloys and Compounds, 2014, 615, 146-155.	5.5	18
16	Effect of the additive VC on tribological properties of WC-Al2O3 composites. International Journal of Refractory Metals and Hard Materials, 2018, 75, 111-117.	3.8	18
17	Comparative study on corrosion behavior of WC-MgO composite and WC-6Co cemented carbide in NaCl solution. Ceramics International, 2021, 47, 7106-7116.	4.8	18
18	Comparative Study of the Thermal Properties of Related Aromatic Polyhydrazides and Poly(1,3,4-oxadiazole)s. Polymers for Advanced Technologies, 1996, 7, 879-887.	3.2	16

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19	Electrical contact strengthening of induction-clad Niâ€“40% WC composite coatings on 40Cr substrates. Surface and Coatings Technology, 2015, 279, 32-38.	4.8	15
20	Preparation of WC/MgO composite nanopowders by high-energy reactive ball milling and their plasma-activated sintering. Powder Metallurgy and Metal Ceramics, 2008, 47, 525-530.	0.8	14
21	Comparison on the immersion corrosion and electrochemical corrosion resistance of WCâ€“Al₂O₃ composites and WCâ€“Co cemented carbide in NaCl solution. RSC Advances, 2021, 11, 22495-22507.	3.6	14
22	Influence of electric contact strengthening on the microstructure and properties of electro brush plating Ni-P/nano-WC composite coatings. International Journal of Refractory Metals and Hard Materials, 2017, 62, 70-77.	3.8	13
23	Preparation and elevated temperature wear behavior of Ni doped WC-Al2O3 composite. International Journal of Refractory Metals and Hard Materials, 2019, 81, 167-172.	3.8	12
24	Electric Contact Strengthening to Improve the Bonding Between WC-Co Coating and 45# Steel Substrate. Journal of Thermal Spray Technology, 2010, 19, 1142-1146.	3.1	11
25	Improved mechanical performance and electrochemical corrosion of WC-Al2O3 composite in NaCl solution by adding the TiC additives. International Journal of Refractory Metals and Hard Materials, 2021, 99, 105566.	3.8	10
26	Microstructure and mechanical properties of hot-pressed WCâ€“MgO composites with Cr3C2 or VC addition. International Journal of Refractory Metals and Hard Materials, 2013, 41, 41-47.	3.8	9
27	High-temperature oxidation behaviour of vacuum hot-pressed WC-15Âwt% Al2O3 composites. Ceramics International, 2022, 48, 12184-12192.	4.8	9
28	Improved electrochemical corrosion resistance of hot-press sintered WCâ€“Al2O3 composites with added TiC in alkaline solutions. Ceramics International, 2021, 47, 32168-32178.	4.8	8
29	Theoretical and experimental analysis of electric contact surface hardening of ductile iron. Applied Surface Science, 2014, 288, 591-598.	6.1	7
30	The effects of graphene platelets fillers on the sliding wear of WC-Al2O3 composites. Ceramics International, 2020, 46, 27809-27821.	4.8	6
31	Electrochemical corrosion behavior of hot-pressing sintered WC-Al2O3 composite in alkaline and acidic solutions. Journal of Materials Science, 2021, 56, 4120-4134.	3.7	6
32	Experimental and Simulation Studies on the Solid-Particle Erosion of WC-MgO Composites. Tribology Letters, 2013, 52, 501-510.	2.6	5
33	Rolling contact fatigue performance of ductile iron improved by electric contact surface strengthening. Tribology International, 2013, 60, 58-63.	5.9	4
34	The study of corrosion behavior of WC-MgO composite in H2SO4 and NaOH solution. Ceramics International, 2021, 47, 1364-1372.	4.8	4
35	Densification during the formation of WC-based coating prepared by electric contact strengthening. Ceramics International, 2021, 47, 16441-16449.	4.8	3
36	Comparison of electrochemical corrosion between coarse-grained and fine-grained WC-Al2O3 composites in acidic and alkaline solutions. Materials Letters, 2021, 305, 130732.	2.6	3

#	Article	IF	Citations
37	Effects of Al₂O₃ platelet and VC additive on sintering and mechanical properties of WC-based composites by hot pressing. Advances in Applied Ceramics, 2021, 120, 17-23.	1.1	1
38	Geometric Influence of Hard Phase on Corrosion Performance between WC-Reinforced Coatings Prepared by High-Velocity Oxygen-Fuel Spray and Electric Contact Strengthening. Coatings, 2021, 11, 694.	2.6	1
39	Characteristic comparison of stacked WC-based coatings prepared by high-velocity oxygen-fuel spray and electric contact strengthening. Surface and Coatings Technology, 2021, 421, 127289.	4.8	1