

Farid Akhtar

List of Publications by Year in descending order

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123
papers

3,643
citations

159585

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54
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all docs

125
docs citations

125
times ranked

3678
citing authors

#	ARTICLE	IF	CITATIONS
1	Ab initio aided design of novel quaternary, quinary and senary high-entropy borocarbides. Journal of Materials Science, 2022, 57, 422-443.	3.7	4
2	Bibliometric Mapping of Literature on High-Entropy/Multicomponent Alloys and Systematic Review of Emerging Applications. Entropy, 2022, 24, 329.	2.2	8
3	Fabrication of MoSi ₂ coatings on molybdenum and its high-temperature anti-oxidation properties. Transactions of Nonferrous Metals Society of China, 2022, 32, 935-946.	4.2	11
4	Enhanced Mechanical, Thermal and Electrical Properties of High-Entropy HfMoNbTaTiVWZr Thin Film Metallic Glass and its Nitrides. Advanced Engineering Materials, 2022, 24, .	3.5	16
5	Tribological performance of Ti6Al4V at elevated temperatures fabricated by electron beam powder bed fusion. Tribology International, 2021, 153, 106658.	5.9	14
6	Porous Ceramics for Energy Applications. , 2021, , 380-392.		0
7	Preparation and high-temperature oxidation resistance of multilayer MoSi ₂ /MoB coating by spent MoSi ₂ -based materials. Journal of the American Ceramic Society, 2021, 104, 3682-3694.	3.8	13
8	Porous Strontium Chloride Scaffolded by Graphene Networks as Ammonia Carriers. Advanced Functional Materials, 2021, 31, 2008505.	14.9	6
9	Graphene Networks: Porous Strontium Chloride Scaffolded by Graphene Networks as Ammonia Carriers (Adv. Funct. Mater. 30/2021). Advanced Functional Materials, 2021, 31, 2170220.	14.9	0
10	Processing, microstructure and high temperature dry sliding wear of a Cr-Fe-Hf-Mn-Ti-Ta-V high-entropy alloy based composite. Materials Today Communications, 2021, 28, 102657.	1.9	11
11	Preparation, properties and high-temperature oxidation resistance of MoSi ₂ -HfO ₂ composite coating to protect niobium using spent MoSi ₂ -based materials. Ceramics International, 2021, 47, 27091-27099.	4.8	11
12	Refractory multicomponent boron-carbide high entropy oxidation-protective coating for carbon-carbon composites. Surface and Coatings Technology, 2021, 425, 127697.	4.8	6
13	Preparation of Porous NiAl Intermetallic with Controllable Shape and Pore Structure by Rapid Thermal Explosion with Space Holder. Metals and Materials International, 2021, 27, 4216-4224.	3.4	7
14	Transformation of metastable dual-phase (Ti _{0.25} V _{0.25} Zr _{0.25} Hf _{0.25})B ₂ to stable high-entropy single-phase boride by thermal annealing. Applied Physics Letters, 2021, 119, .	3.3	9
15	A phase conversion method to anchor ZIF-8 onto a PAN nanofiber surface for CO ₂ capture. RSC Advances, 2021, 12, 664-670.	3.6	12
16	A scalable metal-organic framework as a durable physisorbent for carbon dioxide capture. Science, 2021, 374, 1464-1469.	12.6	308
17	Highly Structured Nanofiber Zeolite Materials for Biogas Upgrading. Energy Technology, 2020, 8, 1900781.	3.8	13
18	Carbon-reinforced MgCl ₂ composites with high structural stability as robust ammonia carriers for selective catalytic reduction system. Journal of Environmental Chemical Engineering, 2020, 8, 103584.	6.7	8

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19	Effect of SiC on Microstructure, Phase Evolution, and Mechanical Properties of Spark-Plasma-Sintered High-Entropy Ceramic Composite. <i>Ceramics</i> , 2020, 3, 359-371.	2.6	15
20	High Temperature Performance of Spark Plasma Sintered W _{0.5} (TaTiVCr) _{0.5} Alloy. <i>Metals</i> , 2020, 10, 1512.	2.3	14
21	Rapid Ammonia Carriers for SCR Systems Using MOFs [M ₂ (adc) ₂ (dabco)] (M = Co, Ni, Cu, Zn). <i>Catalysts</i> , 2020, 10, 1444.	3.5	3
22	Freeze Granulated Zeolites X and A for Biogas Upgrading. <i>Molecules</i> , 2020, 25, 1378.	3.8	13
23	High-Entropy Ceramics. , 2020, , .		1
24	High temperature tribology and wear of selective laser melted (SLM) 316L stainless steel. <i>Wear</i> , 2020, 448-449, 203228.	3.1	34
25	Synthesis and Mechanical Characterization of a CuMoTaWV High-Entropy Film by Magnetron Sputtering. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 21070-21079.	8.0	62
26	Porous alumina ceramics by gel casting: Effect of type of sacrificial template on the properties. <i>International Journal of Ceramic Engineering & Science</i> , 2019, 1, 77-84.	1.2	17
27	Ultra-high strength martensitic 420 stainless steel with high ductility. <i>Additive Manufacturing</i> , 2019, 29, 100803.	3.0	39
28	Adaptive nanolaminate coating by atomic layer deposition. <i>Thin Solid Films</i> , 2019, 692, 137631.	1.8	1
29	Exothermic behavior and thermodynamic analysis for the formation of porous TiAl ₃ intermetallics sintering with different heating rates. <i>Journal of Alloys and Compounds</i> , 2019, 811, 152056.	5.5	18
30	Microstructure-Tailored Stainless Steels with High Mechanical Performance at Elevated Temperature. , 2019, , .		4
31	Processing and Characterization of Refractory Quaternary and Quinary High-Entropy Carbide Composite. <i>Entropy</i> , 2019, 21, 474.	2.2	26
32	Advanced Mechanical Strength in Post Heat Treated SLM 2507 at Room and High Temperature Promoted by Hard/Ductile Sigma Precipitates. <i>Metals</i> , 2019, 9, 199.	2.3	34
33	Recycling Molybdenum Oxides from Waste Molybdenum Disilicides: Oxidation Experimental Study and Photocatalytic Properties. <i>Oxidation of Metals</i> , 2019, 92, 1-12.	2.1	6
34	High temperature tribology of CuMoTaWV high entropy alloy. <i>Wear</i> , 2019, 426-427, 412-419.	3.1	68
35	A high-entropy B ₄ (HfMo ₂ TaTi)C and SiC ceramic composite. <i>Dalton Transactions</i> , 2019, 48, 5161-5167.	3.3	47
36	Mechanical Properties of a Metal-Organic Framework formed by Covalent Cross-Linking of Metal-Organic Polyhedra. <i>Journal of the American Chemical Society</i> , 2019, 141, 1045-1053.	13.7	89

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37	Fabrication and Characterization of Highly Porous FeAl-Based Intermetallics by Thermal Explosion Reaction. <i>Advanced Engineering Materials</i> , 2019, 21, 1801110.	3.5	12
38	Laminated porous diatomite monoliths for adsorption of dyes from water. <i>Environmental Progress and Sustainable Energy</i> , 2019, 38, S377.	2.3	8
39	Microstructure Evolution and Pore Formation Mechanism of Porous TiAl ₃ Intermetallics via Reactive Sintering. <i>Acta Metallurgica Sinica (English Letters)</i> , 2018, 31, 440-448.	2.9	18
40	Solution-mediated growth of NBA-ZSM-5 crystals retarded by gel entrapment. <i>Journal of Crystal Growth</i> , 2018, 487, 57-64.	1.5	4
41	A novel fabrication strategy for highly porous FeAl/Al ₂ O ₃ composite by thermal explosion in vacuum. <i>Vacuum</i> , 2018, 149, 225-230.	3.5	24
42	Microsphere Assemblies via Phosphonate Monoester Coordination Chemistry. <i>Chemistry - A European Journal</i> , 2018, 24, 1533-1538.	3.3	7
43	In situ fabrication and properties of 0.4MoB-0.1SiC-xMoSi ₂ composites by self-propagating synthesis and hot-press sintering. <i>Ceramics International</i> , 2018, 44, 51-56.	4.8	4
44	Processing of Macroporous Alumina Ceramics Using Pre-Expanded Polymer Microspheres as Sacrificial Template. <i>Ceramics</i> , 2018, 1, 329-342.	2.6	11
45	Optimized cesium and potassium ion-exchanged zeolites A and X granules for biogas upgrading. <i>RSC Advances</i> , 2018, 8, 37277-37285.	3.6	12
46	High temperature tribology of polymer derived ceramic composite coatings. <i>Scientific Reports</i> , 2018, 8, 15105.	3.3	15
47	Fabrication of Highly Porous CuAl Intermetallic by Thermal Explosion Using NaCl Space Holder. <i>Jom</i> , 2018, 70, 2173-2178.	1.9	6
48	Subgrain-controlled grain growth in the laser-melted 316L promoting strength at high temperatures. <i>Royal Society Open Science</i> , 2018, 5, 172394.	2.4	31
49	Oxidation Resistance of Highly Porous Fe-Al Foams Prepared by Thermal Explosion. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 3683-3691.	2.2	10
50	Effect of 10Åwt% VC on the Friction and Sliding Wear of Spark Plasma-Sintered WC-12Åwt% Co Cemented Carbides. <i>Tribology Transactions</i> , 2017, 60, 276-283.	2.0	6
51	Porous mullite thermal insulators from coal gangue fabricated by a starch-based foam gel-casting method. <i>Journal of the Australian Ceramic Society</i> , 2017, 53, 287-291.	1.9	31
52	Novel Fabrication and Enhanced Photocatalytic MB Degradation of Hierarchical Porous Monoliths of MoO ₃ Nanoplates. <i>Scientific Reports</i> , 2017, 7, 1845.	3.3	64
53	Structured emulsion-templated porous copolymer based on photopolymerization for carbon capture. <i>Journal of CO₂ Utilization</i> , 2017, 21, 473-479.	6.8	12
54	Aluminium matrix tungsten aluminide and tungsten reinforced composites by solid-state diffusion mechanism. <i>Scientific Reports</i> , 2017, 7, 12391.	3.3	30

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55	Thin zeolite laminates for rapid and energy-efficient carbon capture. <i>Scientific Reports</i> , 2017, 7, 10988.	3.3	12
56	Effect of heating rate on porous TiAl-based intermetallics synthesized by thermal explosion. <i>Materials and Manufacturing Processes</i> , 2017, 32, 489-494.	4.7	19
57	Solid-state ^{13}C , ^{15}N and ^{29}Si NMR characterization of block copolymers with CO_2 capture properties. <i>Magnetic Resonance in Chemistry</i> , 2016, 54, 734-739.	1.9	6
58	Processing, microstructure and properties of hierarchically porous Cu. <i>Materials Express</i> , 2016, 6, 271-276.	0.5	3
59	Fabrication and properties of freeze-cast mullite foams derived from coal-series kaolin. <i>Ceramics International</i> , 2016, 42, 12414-12421.	4.8	43
60	Hierarchical porous TiAl ₃ intermetallics synthesized by thermal explosion with a leachable space-holder material. <i>Materials Letters</i> , 2016, 181, 261-264.	2.6	26
61	Surface microstructural changes of spark plasma sintered zirconia after grinding and annealing. <i>Ceramics International</i> , 2016, 42, 15610-15617.	4.8	6
62	Synthesis, microstructure and mechanical properties of (Mo,Ti)Si ₂ /Al ₂ O ₃ composites prepared by thermite-reaction-assisted combustion synthesis. <i>Journal of Alloys and Compounds</i> , 2016, 688, 870-877.	5.5	10
63	Synthesis and Properties of MoSi ₂ -MoB-SiC Ceramics. <i>Journal of the American Ceramic Society</i> , 2016, 99, 1147-1150.	3.8	27
64	Mixed anionic surfactant-templated mesoporous silica nanoparticles for fluorescence detection of Fe ³⁺ . <i>Dalton Transactions</i> , 2016, 45, 508-514.	3.3	25
65	Highly porous open cellular TiAl-based intermetallics fabricated by thermal explosion with space holder process. <i>Intermetallics</i> , 2016, 68, 95-100.	3.9	51
66	Formation of Mo [~] Si [~] Ti Alloys by Self [~] propagating Combustion Synthesis. <i>Materials Research</i> , 2015, 18, 806-812.	1.3	8
67	Nanocellulose-Zeolite Composite Films for Odor Elimination. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 14254-14262.	8.0	44
68	Mechanical performance and CO ₂ uptake of ion-exchanged zeolite A structured by freeze-casting. <i>Journal of the European Ceramic Society</i> , 2015, 35, 2607-2618.	5.7	51
69	Effect of annealing environment on the crack healing and mechanical properties of (Mo _{0.97} Nb _{0.03})(Si _{0.97} Al _{0.03}) ₂ . <i>Journal of Alloys and Compounds</i> , 2015, 634, 109-114.	5.5	9
70	Preparation of graded silicalite-1 substrates for all-zeolite membranes with excellent CO ₂ /H ₂ separation performance. <i>Journal of Membrane Science</i> , 2015, 493, 206-211.	8.2	20
71	Methylcellulose-Directed Synthesis of Nanocrystalline Zeolite NaA with High CO ₂ Uptake. <i>Materials</i> , 2014, 7, 5507-5519.	2.9	24
72	Aluminophosphate monoliths with high CO ₂ -over-N ₂ selectivity and CO ₂ capture capacity. <i>RSC Advances</i> , 2014, 4, 55877-55883.	3.6	19

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73	Studies on the adsorption of chromium(VI) onto 3-Mercaptopropionic acid coated superparamagnetic iron oxide nanoparticles. <i>Journal of Colloid and Interface Science</i> , 2014, 425, 36-43.	9.4	87
74	Structuring adsorbents and catalysts by processing of porous powders. <i>Journal of the European Ceramic Society</i> , 2014, 34, 1643-1666.	5.7	264
75	Synthesis, microstructure and properties of MoSi ₂ -5 vol%Al ₂ O ₃ composites. <i>Ceramics International</i> , 2014, 40, 16381-16387.	4.8	27
76	Ceramic reinforced high modulus steel composites: processing, microstructure and properties. <i>Canadian Metallurgical Quarterly</i> , 2014, 53, 253-263.	1.2	43
77	Oxidation properties of self-propagating high temperature synthesized niobium disilicide. <i>Corrosion Science</i> , 2014, 85, 311-317.	6.6	28
78	Microstructure and properties of Ti ₅ Si ₃ -based porous intermetallic compounds fabricated via combustion synthesis. <i>Journal of Alloys and Compounds</i> , 2014, 612, 337-342.	5.5	29
79	Laminated Adsorbents with Very Rapid CO ₂ Uptake by Freeze-Casting of Zeolites. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 2669-2676.	8.0	61
80	Chemical durability of hierarchically porous silicalite-I membrane substrates in aqueous media. <i>Journal of Materials Research</i> , 2013, 28, 2253-2259.	2.6	3
81	Colloidal processing and CO ₂ capture performance of sacrificially templated zeolite monoliths. <i>Applied Energy</i> , 2012, 97, 289-296.	10.1	55
82	Strong and binder free structured zeolite sorbents with very high CO ₂ -over-N ₂ selectivities and high capacities to adsorb CO ₂ rapidly. <i>Energy and Environmental Science</i> , 2012, 5, 7664.	30.8	144
83	Combustion synthesis of (Mo _{1-x} Cr _x)Si ₂ (x=0.00-0.30) alloys in SHS mode. <i>Advanced Powder Technology</i> , 2012, 23, 133-138.	4.1	20
84	Hierarchically porous binder-free silicalite-1 discs: a novel support for all-zeolite membranes. <i>Journal of Materials Chemistry</i> , 2011, 21, 8822.	6.7	24
85	Enhanced sintering, microstructure evolution and mechanical properties of 316L stainless steel with MoSi ₂ addition. <i>Journal of Alloys and Compounds</i> , 2011, 509, 8794-8797.	5.5	18
86	Colloidal Processing and Thermal Treatment of Binderless Hierarchically Porous Zeolite 13X Monoliths for CO ₂ Capture. <i>Journal of the American Ceramic Society</i> , 2011, 94, 92-98.	3.8	49
87	A study of the sintering of diatomaceous earth to produce porous ceramic monoliths with bimodal porosity and high strength. <i>Powder Technology</i> , 2010, 201, 253-257.	4.2	98
88	Strong Hierarchically Porous Monoliths by Pulsed Current Processing of Zeolite Powder Assemblies. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 732-737.	8.0	52
89	Effects of tungsten and aluminum additions on the formation of molybdenum disilicide by mechanically-induced self-propagating reaction. <i>Journal of Alloys and Compounds</i> , 2010, 490, 388-392.	5.5	9
90	Effect of diluent on the synthesis of molybdenum disilicide by mechanically-induced self-propagating reaction. <i>Journal of Alloys and Compounds</i> , 2010, 494, 301-304.	5.5	7

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91	Microstructure, mechanical properties, electrical conductivity and wear behavior of high volume TiC reinforced Cu-matrix composites. <i>Materials Characterization</i> , 2009, 60, 327-336.	4.4	147
92	Hierarchically Porous Ceramics from Diatomite Powders by Pulsed Current Processing. <i>Journal of the American Ceramic Society</i> , 2009, 92, 338-343.	3.8	70
93	Synthesis, microstructure and mechanical properties of Al ₂ O ₃ reinforced Ni ₃ Al matrix composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 499, 415-420.	5.6	8
94	Microstructure and property evolution during the sintering of stainless steel alloy with Si ₃ N ₄ . <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 472, 324-331.	5.6	13
95	Mechanically activated reactive synthesis of refractory molybdenum and tungsten silicides. <i>International Journal of Refractory Metals and Hard Materials</i> , 2008, 26, 173-178.	3.8	17
96	An investigation on the solid state sintering of mechanically alloyed nano-structured 90W-10Fe tungsten heavy alloy. <i>International Journal of Refractory Metals and Hard Materials</i> , 2008, 26, 145-151.	3.8	39
97	Microstructure, mechanical and fretting wear properties of TiC-stainless steel composites. <i>Materials Characterization</i> , 2008, 59, 84-90.	4.4	85
98	Reactive sintering and properties of TiB ₂ and TiC porous cermets. <i>Materials Letters</i> , 2008, 62, 1242-1245.	2.6	17
99	Adherent and low friction nano-crystalline diamond film grown on titanium using microwave CVD plasma. <i>Diamond and Related Materials</i> , 2008, 17, 294-299.	3.9	35
100	Effect of the composition of starting materials of Mo-Si on the mechanically induced self-propagating reaction. <i>Journal of Alloys and Compounds</i> , 2008, 456, 304-307.	5.5	9
101	Microstructure evolution and wear properties of in situ synthesized TiB ₂ and TiC reinforced steel matrix composites. <i>Journal of Alloys and Compounds</i> , 2008, 459, 491-497.	5.5	137
102	Effects of heat treatment on the properties of powder injection molded AlN ceramics. <i>Rare Metals</i> , 2008, 27, 70-73.	7.1	1
103	A new kind of age hardenable martensitic stainless steel with high strength and toughness. <i>Ironmaking and Steelmaking</i> , 2007, 34, 285-289.	2.1	4
104	A new method to process high strength TiCN stainless steel matrix composites. <i>Powder Metallurgy</i> , 2007, 50, 250-254.	1.7	4
105	Behavior of residual carbon in Sm(Co, Fe, Cu, Zr) _z permanent magnets. <i>Journal of Alloys and Compounds</i> , 2007, 440, 89-93.	5.5	9
106	Influence of heat treatment on fracture and magnetic properties of radially oriented Sm ₂ Co ₁₇ permanent magnets. <i>Transactions of Nonferrous Metals Society of China</i> , 2007, 17, 491-495.	4.2	4
107	Sintering behavior, microstructure and properties of TiC-FeCr hard alloy. <i>International Journal of Minerals, Metallurgy, and Materials</i> , 2007, 14, 89-93.	0.2	7
108	Effect of Additive Cu-10Sn Alloy on Sintering Behavior of Elemental Powders in Composition of 465 Stainless Steel. <i>Journal of Iron and Steel Research International</i> , 2007, 14, 61-64.	2.8	6

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109	Processing, microstructure, properties and wear behavior of in situ synthesized TiB ₂ and TiC thick films on steel substrates. <i>Surface and Coatings Technology</i> , 2007, 201, 9603-9609.	4.8	10
110	Two-step growth of high-quality nano-diamond films using CH ₄ /H ₂ gas mixture. <i>Vacuum</i> , 2007, 81, 713-717.	3.5	12
111	On the processing, microstructure, mechanical and wear properties of cermet/stainless steel layer composites. <i>Acta Materialia</i> , 2007, 55, 1467-1477.	7.9	44
112	Effect of WC particle size on the microstructure, mechanical properties and fracture behavior of WC(W, Ti, Ta) C 6wt% Co cemented carbides. <i>International Journal of Refractory Metals and Hard Materials</i> , 2007, 25, 405-410.	3.8	32
113	Tensile behavior change depending on the varying tungsten content of W-Ni-Fe alloys. <i>International Journal of Refractory Metals and Hard Materials</i> , 2007, 25, 380-385.	3.8	78
114	TiB ₂ and TiC stainless steel matrix composites. <i>Materials Letters</i> , 2007, 61, 189-191.	2.6	73
115	Synthesis and characterization of nano-crystalline CVD diamond film on pure titanium using Ar/CH ₄ /H ₂ gas mixture. <i>Materials Letters</i> , 2007, 61, 2139-2142.	2.6	28
116	Magnetic properties and microstructure of radially oriented Sm(Co,Fe,Cu,Zr) _z ring magnets. <i>Materials Letters</i> , 2007, 61, 5271-5274.	2.6	5
117	Sintering Behavior of Elemental Powders with FeB Addition in the Composition of Martensitic Stainless steel. <i>Journal of Materials Engineering and Performance</i> , 2007, 16, 726-729.	2.5	6
118	Effect of inner oxidant on self-propagating high-temperature synthesis of MnZn-ferrite powder. <i>Rare Metals</i> , 2006, 25, 553-556.	7.1	1
119	Development of Si ₃ N ₄ /Al composite by pressureless melt infiltration. <i>Transactions of Nonferrous Metals Society of China</i> , 2006, 16, 629-632.	4.2	24
120	Lubrication effectiveness of composite lubricants during P/M electrostatic die wall lubrication and warm compaction. <i>International Journal of Minerals, Metallurgy, and Materials</i> , 2006, 13, 528-531.	0.2	2
121	Self-propagating high temperature synthesis of MoSi ₂ matrix composites. <i>Rare Metals</i> , 2006, 25, 225-230.	7.1	14
122	TiC-maraging stainless steel composite: microstructure, mechanical and wear properties. <i>Rare Metals</i> , 2006, 25, 630-635.	7.1	9
123	Effect of Cu ₃ P addition on sintering behaviour of elemental powders in the composition of 465 stainless steel. <i>Powder Metallurgy</i> , 2006, 49, 28-33.	1.7	9