Biao Chen

List of Publications by Year
in descending order

81 papers	3,955 citations	147801 31 h-index	123424 61 g-index
81 all docs	81 docs citations	81 times ranked	2109 citing authors

#	Article	IF	Citations
1	Improved mechanical properties in titanium matrix composites reinforced with quasi-continuously networked graphene nanosheets and in-situ formed carbides. Journal of Materials Science and Technology, 2022, 96, 85-93.	10.7	59
2	Roomâ€/Highâ€Temperature Mechanical Properties of Titanium Matrix Composites Reinforced with Discontinuous Carbon Fibers. Advanced Engineering Materials, 2022, 24, 2101026.	3.5	2
3	Inhibiting the interfacial reaction between few-layered graphene and titanium via SiC nanoparticle decoration. Journal of Alloys and Compounds, 2022, 893, 162183.	5.5	9
4	Strengthening efficiency competition between carbon nanotubes (CNTs) and in-situ Al4C3 nanorods in CNTs/Al composites influenced by alumina characteristics. Composites Part A: Applied Science and Manufacturing, 2022, 152, 106704.	7.6	16
5	ASB induced phase transformation in high oxygen doped commercial purity Ti. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 830, 142321.	5.6	20
6	Enhanced strength and ductility of nano-TiBw-reinforced titanium matrix composites fabricated by electron beam powder bed fusion using Ti6Al4Vâ€"TiBw composite powder. Additive Manufacturing, 2022, 50, 102519.	3.0	3
7	Advanced tensile properties and strain rate sensitivity of titanium matrix composites reinforced with CaTiO3 particles. Journal of Alloys and Compounds, 2022, 897, 163229.	5.5	8
8	Micro-compression of high oxygen doped single-crystal titanium along different orientations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 832, 142449.	5.6	4
9	Superior high-temperature tensile properties of aluminum matrix composites reinforced with carbon nanotubes. Carbon, 2022, 191, 403-414.	10.3	42
10	Developing dual-textured titanium (Ti) extrudates via utilizing the Î² transus in commercially pure Ti. Materials and Design, 2022, 215, 110459.	7.0	1
11	Compressive behavior of CNT-reinforced aluminum matrix composites under various strain rates and temperatures. Ceramics International, 2022, 48, 10299-10310.	4.8	11
12	Extraordinary Antiwear Properties of Graphene-Reinforced Ti Composites Induced by Interfacial Decoration. ACS Applied Materials & Interfaces, 2022, 14, 27118-27129.	8.0	8
13	Microstructure and mechanical characterizations of additively manufactured high oxygen-doped titanium. Materials Characterization, 2022, 189, 112008.	4.4	6
14	Sintering-free fabrication of high-strength titanium matrix composites reinforced with carbon nanotubes. Carbon, 2022, 197, 412-424.	10.3	11
15	Enhanced adiabatic shear band susceptibility in Ti composites reinforced with quasi-continuous network of graphene nanosheets. Composites Part A: Applied Science and Manufacturing, 2022, 160, 107055.	7.6	5
16	Room temperature and high-temperature properties of extruded Ti-4Fe-3W/2TiC composites in Î±+Î² and Î² phases. Materials and Design, 2022, 220, 110901.	7.0	8
17	TiB nano-whiskers reinforced titanium matrix composites with novel nano-reticulated microstructure and high performance via composite powder by selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 799, 140137.	5.6	35
18	Super-high-strength graphene/titanium composites fabricated by selective laser melting. Carbon, 2021, 174, 451-462.	10.3	78

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19	Effect of Metal Powder Characteristics on Structural Defects of Graphene Nanosheets in Metal Composite Powders Dispersed by Ball Milling. Crystals, 2021, 11, 260.	2.2	2
20	The rate-dependent mechanical behavior of CNT-reinforced aluminum matrix composites under tensile loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 808, 140893.	5.6	27
21	Precipitation and Distribution Behavior of In Situ-Formed TiB Whiskers in Ti64 Composites Fabricated by Selective Laser Melting. Crystals, 2021, 11, 374.	2.2	4
22	Exploiting the synergic strengthening effects of stacking faults in carbon nanotubes reinforced aluminum matrix composites for enhanced mechanical properties. Composites Part B: Engineering, 2021, 211, 108646.	12.0	65
23	Regulating the interfacial reaction between carbon nanotubes and aluminum via copper nano decoration. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 820, 141576.	5.6	12
24	Syntheses, microstructure evolution and performance of strength-ductility matched aluminum matrix composites reinforced by nano SiC-cladded CNTs. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 824, 141784.	5.6	18
25	Effects of heat treatment on interfacial characteristics and mechanical properties of titanium matrix composites reinforced with discontinuous carbon fibers. Journal of Alloys and Compounds, 2021, 877, 160313.	5.5	7
26	Extraordinary reinforcing effect of carbon nanotubes in aluminium matrix composites assisted by in-situ alumina nanoparticles. Composites Part B: Engineering, 2020, 183, 107691.	12.0	93
27	Achieving high combination of strength and ductility of Al matrix composite via in-situ formed Ti-Al3Ti core-shell particle. Materials Characterization, 2020, 170, 110666.	4.4	17
28	Obvious yielding phenomenon and selective fracture behavior in powder metallurgy (TiCp+TiBw)/Ti composites. Journal of Materials Research and Technology, 2020, 9, 10184-10188.	5.8	7
29	Microstructure, tensile properties and deformation behaviors of aluminium metal matrix composites co-reinforced by ex-situ carbon nanotubes and in-situ alumina nanoparticles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 795, 139930.	5.6	42
30	Tensile property enhancement by oxygen solutes in selectively laser melted titanium materials fabricated from pre-mixed pure Ti and TiO2 powder. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 795, 139983.	5.6	31
31	Comparison study on microstructure and mechanical properties of Ti-6Al-4V alloys fabricated by powder-based selective-laser-melting and sintering methods. Materials Characterization, 2020, 164, 110358.	4.4	46
32	An in-situ study on deformation and cracking initiation in oxygen-doped commercial purity titanium. Mechanics of Materials, 2020, 148, 103519.	3.2	22
33	Designable interfacial structure and its influence on interface reaction and performance of MWCNTs reinforced aluminum matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 793, 139783.	5.6	21
34	In-situ observation of interaction between dislocations and carbon nanotubes in aluminum at elevated temperatures. Materials Letters, 2020, 264, 127323.	2.6	7
35	Mechanical properties and strain hardening behavior of aluminum matrix composites reinforced with few-walled carbon nanotubes. Journal of Alloys and Compounds, 2020, 826, 154075.	5.5	23
36	Fabrication of aluminum matrix composites reinforced with Ni-coated graphene nanosheets. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 754, 437-446.	5.6	57

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37	Interfacial in-situ Al2O3 nanoparticles enhance load transfer in carbon nanotube (CNT)-reinforced aluminum matrix composites. Journal of Alloys and Compounds, 2019, 789, 25-29.	5.5	57
38	Hybrid effect of TiCp and TiBw co-strengthening Ti matrix composites prepared by spark plasma sintering and hot extrusion. Materials Characterization, 2019, 151, 6-14.	4.4	32
39	Rate sensitivity and work-hardening behavior of an advanced Ti-Al-N alloy under uniaxial tensile loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 744, 630-637.	5.6	11
40	Comparison Study on Additive Manufacturing (AM) and Powder Metallurgy (PM) AlSi10Mg Alloys. Jom, 2018, 70, 644-649.	1.9	19
41	Exploring the size effects of Al4C3 on the mechanical properties and thermal behaviors of Al-based composites reinforced by SiC and carbon nanotubes. Carbon, 2018, 135, 224-235.	10.3	147
42	Advanced Mechanical Properties of a Powder Metallurgy Ti-Al-N Alloy Doped with Ultrahigh Nitrogen Concentration. Jom, 2018, 70, 626-631.	1.9	11
43	Microstructure and mechanical properties of CP-Ti fabricated via powder metallurgy with non-uniformly dispersed impurity solutes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 716, 1-10.	5.6	35
44	Study on Aluminum Matrix Composites Reinforced with Singly Dispersed Carbon Nanotubes. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2018, 65, 139-144.	0.2	3
45	Enhanced mechanical properties of aluminum based composites reinforced by chemically oxidized carbon nanotubes. Carbon, 2018, 139, 459-471.	10.3	82
46	Effect of Spark-Plasma-Sintering Conditions on Tensile Properties of Aluminum Matrix Composites Reinforced with Multiwalled Carbon Nanotubes (MWCNTs). Jom, 2017, 69, 669-675.	1.9	19
47	The formation of bimodal multilayered grain structure and its effect on the mechanical properties of powder metallurgy pure titanium. Materials and Design, 2017, 116, 99-108.	7.0	25
48	Microstructure and strengthening mechanism of ultrastrong and ductile Ti-xSn alloy processed by powder metallurgy. Journal of Alloys and Compounds, 2017, 709, 381-393.	5.5	47
49	Solid-state interfacial reaction and load transfer efficiency in carbon nanotubes (CNTs)-reinforced aluminum matrix composites. Carbon, 2017, 114, 198-208.	10.3	302
50	Dynamic recrystallization behavior and strengthening-toughening effects in a near-Î± Ti-xSi alloy processed by hot extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 684, 165-177.	5.6	20
51	Advanced mechanical properties of powder metallurgy commercially pure titanium with a high oxygen concentration. Journal of Materials Research, 2017, 32, 3769-3776.	2.6	51
52	Length effect of carbon nanotubes on the strengthening mechanisms in metal matrix composites. Acta Materialia, 2017, 140, 317-325.	7.9	352
53	Strength and strain hardening of a selective laser melted AlSi10Mg alloy. Scripta Materialia, 2017, 141, 45-49.	5.2	312
54	Highly Thermally Stable Microstructure in Mg Fabricated Via Powder Rolling. Jom, 2017, 69, 657-662.	1.9	0

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55	Strengthening-toughening mechanism study of powder metallurgy Ti-Si alloy by interrupted in-situ tensile tests. Journal of Alloys and Compounds, 2017, 694, 82-92.	5.5	25
56	Study of twinning behavior of powder metallurgy Ti-Si alloy by interrupted in-situ tensile tests. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 679, 543-553.	5.6	11
57	Metallurgical Challenges in Carbon Nanotube-Reinforced Metal Matrix Nanocomposites. Metals, 2017, 7, 384.	2.3	55
58	Sintering Behaviors of Carbon Nanotubesâ€”Aluminum Composite Powders. Metals, 2016, 6, 213.	2.3	24
59	Effect of initial state on dispersion evolution of carbon nanotubes in aluminium matrix composites during a high-energy ball milling process. Powder Metallurgy, 2016, 59, 216-222.	1.7	11
60	Microstructural evolution and competitive reaction behavior of Ti-B4C system under solid-state sintering. Journal of Alloys and Compounds, 2016, 687, 1004-1011.	5.5	32
61	Preparation of hierarchical porous metallic materials via deposition of microporous particles. Materials Letters, 2016, 176, 237-240.	2.6	8
62	The influence of CNTs on the microstructure and ductility of CNT/Mg composites. Materials Letters, 2016, 181, 300-304.	2.6	59
63	Simultaneously enhancing strength and ductility of carbon nanotube/aluminum composites by improving bonding conditions. Scripta Materialia, 2016, 113, 158-162.	5.2	183
64	Strengthening behavior of in situ -synthesized (TiCâ€“TiB)/Ti composites by powder metallurgy and hot extrusion. Materials and Design, 2016, 95, 127-132.	7.0	181
65	Deformation mechanisms of pure Mg materials fabricated by using pre-rolled powders. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 658, 309-320.	5.6	15
66	Pinning Effect of In-Situ TiC_p and TiB_w on the Grain Size and Room Temperature Strength of (TiC + TiB)/Ti Composites. KONA Powder and Particle Journal, 2015, 32, 264-269.	1.7	5
67	An approach for homogeneous carbon nanotube dispersion in Al matrix composites. Materials & Design, 2015, 72, 1-8.	5.1	159
68	Microstructure and mechanical properties of P/M titanium matrix composites reinforced by in-situ synthesized TiCâ€“TiB. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 628, 75-83.	5.6	113
69	Nano-scale AlN powders and AlN/Al composites by full and partial direct nitridation of aluminum in solid-state. Journal of Alloys and Compounds, 2015, 629, 184-187.	5.5	34
70	Crack Formation in Powder Metallurgy Carbon Nanotube (CNT)/Al Composites During Post Heat-Treatment. Jom, 2015, 67, 2887-2891.	1.9	8
71	Load transfer strengthening in carbon nanotubes reinforced metal matrix composites via in-situ tensile tests. Composites Science and Technology, 2015, 113, 1-8.	7.8	236
72	Carbon nanotube induced microstructural characteristics in powder metallurgy Al matrix composites and their effects on mechanical and conductive properties. Journal of Alloys and Compounds, 2015, 651, 608-615.	5.5	60

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73	Relationships between the properties and microstructure of Moâ€“Cu composites prepared by infiltrating copper into flame-sprayed porous Mo skeleton. Materials and Design, 2015, 88, 774-780.	7.0	31
74	Inter-wall bridging induced peeling of multi-walled carbon nanotubes during tensile failure in aluminum matrix composites. Micron, 2015, 69, 1-5.	2.2	26
75	103 High-Strength Powder Metallurgy Al Matrix Composites Reinforced with in-Situ Al_4C_3 Nanorods. The Proceedings of the Materials and Processing Conference, 2015, 2015.23, _103-1_-_103-4_.	0.0	0
76	104 Fracturing mechanism of carbon nanotubes reinforced PM aluminum composite materials. The Proceedings of the Materials and Processing Conference, 2015, 2015.23, _104-1_-_104-4_.	0.0	0
77	In Situ Synthesized Al₄C₃ Nanorods with Excellent Strengthening Effect in Aluminum Matrix Composites. Advanced Engineering Materials, 2014, 16, 972-975.	3.5	106
78	Stability of strengthening effect of in situ formed TiCp and TiBw on the elevated temperature strength of (TiCp+TiBw)/Ti composites. Journal of Alloys and Compounds, 2014, 614, 29-34.	5.5	33
79	Size effect of B4C powders on metallurgical reaction and resulting tensile properties of Ti matrix composites by in-situ reaction from Tiâ€“B4C system under a relatively low temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 614, 129-135.	5.6	53
80	Fabrication of Porous Molybdenum by Controlling Spray Particle State. Journal of Thermal Spray Technology, 2012, 21, 1032-1045.	3.1	12
81	Evolution of microstructure and phases in<i>in situ</i>processed Tiâ€“TiB composites containing high volume fractions of TiB whiskers. Journal of Materials Research, 1999, 14, 4214-4223.	2.6	123