Genlian Fan

List of Publications by Year
in descending order

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85 papers	6,028 citations	61984 43 h-index	71685 76 g-index
85 all docs	85 docs citations	85 times ranked	2975 citing authors

#	Article	IF	Citations
1	Enhanced Mechanical Properties of Graphene (Reduced Graphene Oxide)/Aluminum Composites with a Bioinspired Nanolaminated Structure. Nano Letters, 2015, 15, 8077-8083.	9.1	366
2	The use of flake powder metallurgy to produce carbon nanotube (CNT)/aluminum composites with a homogenous CNT distribution. Carbon, 2012, 50, 1993-1998.	10.3	343
3	Origin of abnormal multi-stage martensitic transformation behavior in aged Ni-rich Tiâ€“Ni shape memory alloys. Acta Materialia, 2004, 52, 4351-4362.	7.9	233
4	Graphene-and-Copper Artificial Nacre Fabricated by a Preform Impregnation Process: Bioinspired Strategy for Strengthening-Toughening of Metal Matrix Composite. ACS Nano, 2015, 9, 6934-6943.	14.6	230
5	Aligning graphene in bulk copper: Nacre-inspired nanolaminated architecture coupled with in-situ processing for enhanced mechanical properties and high electrical conductivity. Carbon, 2017, 117, 65-74.	10.3	230
6	Balanced strength and ductility in CNT/Al composites achieved by flake powder metallurgy via shift-speed ball milling. Composites Part A: Applied Science and Manufacturing, 2017, 96, 57-66.	7.6	192
7	An approach to the uniform dispersion of a high volume fraction of carbon nanotubes in aluminum powder. Carbon, 2011, 49, 1965-1971.	10.3	173
8	Strengthening and toughening mechanisms in graphene-Al nanolaminated composite micro-pillars. Acta Materialia, 2017, 125, 98-108.	7.9	156
9	Synergistic strengthening effect of graphene-carbon nanotube hybrid structure in aluminum matrix composites. Carbon, 2015, 95, 419-427.	10.3	154
10	Uniform dispersion of graphene oxide in aluminum powder by direct electrostatic adsorption for fabrication of graphene/aluminum composites. Nanotechnology, 2014, 25, 325601.	2.6	141
11	Composite structure modeling and mechanical behavior of particle reinforced metal matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 597, 359-369.	5.6	131
12	Strong and ductile carbon nanotube/aluminum bulk nanolaminated composites with two-dimensional alignment of carbon nanotubes. Scripta Materialia, 2012, 66, 331-334.	5.2	129
13	Enhanced interfacial bonding and mechanical properties in CNT/Al composites fabricated by flake powder metallurgy. Carbon, 2018, 130, 333-339.	10.3	129
14	Tailoring the structure and mechanical properties of graphene nanosheet/aluminum composites by flake powder metallurgy via shift-speed ball milling. Composites Part A: Applied Science and Manufacturing, 2018, 111, 73-82.	7.6	128
15	Enhanced thermal conductivity in diamond/aluminum composites with a tungsten interface nanolayer. Materials & Design, 2013, 47, 160-166.	5.1	127
16	Lateral size effect of graphene on mechanical properties of aluminum matrix nanolaminated composites. Scripta Materialia, 2017, 139, 44-48.	5.2	113
17	Interface-induced strain hardening of graphene nanosheet/aluminum composites. Carbon, 2019, 146, 17-27.	10.3	113
18	3D Microstructure-based finite element modeling of deformation and fracture of SiCp/Al composites. Composites Science and Technology, 2016, 123, 1-9.	7.8	111

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19	A flake powder metallurgy approach to Al2O3/Al biomimetic nanolaminated composites with enhanced ductility. Scripta Materialia, 2011, 65, 412-415.	5.2	110
20	Highâ€Density Hotspots Engineered by Naturally Piledâ€Up Subwavelength Structures in Threeâ€Dimensional Copper Butterfly Wing Scales for Surfaceâ€Enhanced Raman Scattering Detection. Advanced Functional Materials, 2012, 22, 1578-1585.	14.9	109
21	Origin of 2-stage R-phase transformation in low-temperature aged Ni-rich Tiâ€“Ni alloys. Acta Materialia, 2005, 53, 5365-5377.	7.9	101
22	Strain-rate dependent deformation mechanism of graphene-Al nanolaminated composites studied using micro-pillar compression. International Journal of Plasticity, 2018, 105, 128-140.	8.8	95
23	Particle size effect on the interfacial properties of SiC particle-reinforced Al-Cu-Mg composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 711, 643-649.	5.6	89
24	Fabrication of diamond/aluminum composites by vacuum hot pressing: Process optimization and thermal properties. Composites Part B: Engineering, 2013, 47, 173-180.	12.0	87
25	Strong and ductile particulate reinforced ultrafine-grained metallic composites fabricated by flake powder metallurgy. Scripta Materialia, 2013, 68, 555-558.	5.2	82
26	Design of an efficient flake powder metallurgy route to fabricate CNT/6061Al composites. Materials and Design, 2018, 142, 288-296.	7.0	81
27	A predictive model for interfacial thermal conductance in surface metallized diamond aluminum matrix composites. Materials & Design, 2014, 55, 257-262.	5.1	78
28	Back stress in strain hardening of carbon nanotube/aluminum composites. Materials Research Letters, 2018, 6, 113-120.	8.7	74
29	Enhanced load transfer by designing mechanical interfacial bonding in carbon nanotube reinforced aluminum composites. Carbon, 2019, 146, 155-161.	10.3	69
30	Thermal properties of in situ grown graphene reinforced copper matrix laminated composites. Journal of Alloys and Compounds, 2019, 771, 228-237.	5.5	69
31	Enhanced dislocation obstruction in nanolaminated graphene/Cu composite as revealed by stress relaxation experiments. Scripta Materialia, 2017, 131, 67-71.	5.2	68
32	Reaction-free interface promoting strength-ductility balance in graphene nanosheet/Al composites. Carbon, 2020, 158, 449-455.	10.3	65
33	Theoretical modelling for interface design and thermal conductivity prediction in diamond/Cu composites. Diamond and Related Materials, 2018, 81, 38-44.	3.9	63
34	Twofold role of dislocations in the relaxation behavior of Tiâ€“Ni martensite. Acta Materialia, 2008, 56, 632-641.	7.9	59
35	Nucleation and growth mechanisms of interfacial carbide in graphene nanosheet/Al composites. Carbon, 2020, 161, 17-24.	10.3	59
36	High-strength CNT/Al-Zn-Mg-Cu composites with improved ductility achieved by flake powder metallurgy via elemental alloying. Composites Part A: Applied Science and Manufacturing, 2018, 111, 1-11.	7.6	58

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37	Enhanced corrosion resistance in metal matrix composites assembled from graphene encapsulated copper nanoflakes. Carbon, 2019, 142, 482-490.	10.3	58
38	A quantitative method to characterize the Al 4 C 3 -formed interfacial reaction: The case study of MWCNT/Al composites. Materials Characterization, 2016, 112, 213-218.	4.4	54
39	Reinforcement with intragranular dispersion of carbon nanotubes in aluminum matrix composites. Composites Part B: Engineering, 2021, 217, 108915.	12.0	54
40	Development of Flake Powder Metallurgy in Fabricating Metal Matrix Composites: A Review. Acta Metallurgica Sinica (English Letters), 2014, 27, 806-815.	2.9	53
41	Diamond/aluminum composites processed by vacuum hot pressing: Microstructure characteristics and thermal properties. Diamond and Related Materials, 2013, 31, 1-5.	3.9	50
42	Graphene quality dominated interface deformation behavior of graphene-metal composite: The defective is better. International Journal of Plasticity, 2018, 111, 253-265.	8.8	50
43	Microstructure-based modeling on structure-mechanical property relationships in carbon nanotube/aluminum composites. International Journal of Plasticity, 2019, 120, 278-295.	8.8	46
44	The growth of carbon nanotubes in aluminum powders by the catalytic pyrolysis of polyethylene glycol. Carbon, 2012, 50, 1057-1062.	10.3	44
45	Enhanced mechanical properties and high electrical conductivity in multiwalled carbon nanotubes reinforced copper matrix nanolaminated composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 729, 452-457.	5.6	43
46	Ultrahigh damping in R-phase state of Tiâ€“Niâ€“Fe alloy. Applied Physics Letters, 2006, 89, 161902.	3.3	42
47	Bioinspired hierarchical Al2O3/Al laminated composite fabricated by flake powder metallurgy. Composites Part A: Applied Science and Manufacturing, 2021, 140, 106187.	7.6	41
48	The Influence of Interface Structure on the Electrical Conductivity of Graphene Embedded in Aluminum Matrix. Advanced Materials Interfaces, 2019, 6, 1900468.	3.7	38
49	Trimodal grain structure enables high-strength CNT/Al-Cu-Mg composites higher ductility by powder assembly & alloying. Materials Research Letters, 2021, 9, 50-57.	8.7	38
50	Precipitation of Al3Zr by two-step homogenization and its effect on the recrystallization and mechanical property in 2195 Alâ€“Cuâ€“Li alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 821, 141637.	5.6	38
51	Bioinspired multiscale Al2O3-rGO/Al laminated composites with superior mechanical properties. Composites Part B: Engineering, 2021, 217, 108916.	12.0	37
52	Micro/nano-reinforcements in bimodal-grained matrix: A heterostructure strategy for toughening particulate reinforced metal matrix composites. Scripta Materialia, 2022, 217, 114774.	5.2	37
53	Synthesis of carbon nanotube/aluminium composite powders by polymer pyrolysis chemical vapor deposition. Carbon, 2013, 55, 202-208.	10.3	35
54	Enhanced strain hardening by bimodal grain structure in carbon nanotube reinforced Alâ€“Mg composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 803, 140726.	5.6	35

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55	Mechanical properties and failure mechanisms at high temperature in carbon nanotube reinforced copper matrix nanolaminated composite. Composites Part A: Applied Science and Manufacturing, 2019, 116, 54-61.	7.6	34
56	Enhanced mechanical properties of CNT/Al composite through tailoring grain interior/grain boundary affected zones. Composites Part B: Engineering, 2021, 223, 109133.	12.0	32
57	Heat treatment behavior and strengthening mechanisms of CNT/6061Al composites fabricated by flake powder metallurgy. Materials Characterization, 2019, 153, 261-270.	4.4	31
58	Tailoring and characterization of carbon nanotube dispersity in CNT/6061Al composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 757, 172-181.	5.6	30
59	Computational structural modeling and mechanical behavior of carbon nanotube reinforced aluminum matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 614, 273-283.	5.6	28
60	Powder assembly & alloying to CNT/Alâ€“Cuâ€“Mg composites with trimodal grain structure and strength-ductility synergy. Composites Part B: Engineering, 2021, 225, 109271.	12.0	28
61	Grain boundary-assisted deformation in grapheneâ€“Al nanolaminated composite micro-pillars. Materials Research Letters, 2018, 6, 41-48.	8.7	27
62	Towards the strength-ductility synergy of Al2O3/Al composite through the design of roughened interface. Composites Part B: Engineering, 2021, 224, 109251.	12.0	27
63	A Versatile Method for Uniform Dispersion of Nanocarbons in Metal Matrix Based on Electrostatic Interactions. Nano-Micro Letters, 2016, 8, 54-60.	27.0	26
64	Superplastic behavior of carbon nanotube reinforced aluminum composites fabricated by flake powder metallurgy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 699, 55-61.	5.6	26
65	Grain refinement and superplastic behavior of carbon nanotube reinforced aluminum alloy composite processed by cold rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 708, 537-543.	5.6	25
66	Effect of interfacial reaction on Young's modulus in CNT/Al nanocomposite: A quantitative analysis. Materials Characterization, 2018, 137, 84-90.	4.4	25
67	Flake thickness effect of Al2O3/Al biomimetic nanolaminated composites fabricated by flake powder metallurgy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 594, 324-329.	5.6	24
68	Fabrication and mechanical properties of CNT/Al composites via shift-speed ball milling and hot-rolling. Journal of Materials Research, 2019, 34, 2609-2619.	2.6	24
69	Effect of Interface Evolution on Thermal Conductivity of Vacuum Hot Pressed SiC/Al Composites. Advanced Engineering Materials, 2015, 17, 1076-1084.	3.5	20
70	Effect of thermomechanical treatment and length-scales on spatial distribution of CNTs in Al matrix. Carbon, 2022, 190, 384-394.	10.3	19
71	Does orderâ€“disorder transition exist in near-stoichiometric Tiâ€“Ni shape memory alloys?. Acta Materialia, 2007, 55, 2897-2905.	7.9	18
72	Strain glassy behavior and premartensitic transition in Au<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>7</mml:mn></mml:msub></mml:math>Cu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>5</mml:mn></mml:msub></mml:math>Al<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:	3.2	17

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73	Reinforcement with in-situ synthesized carbon nano-onions in aluminum composites fabricated by flake powder metallurgy. Journal of Alloys and Compounds, 2015, 650, 217-223.	5.5	17
74	Strain Rate Sensitivity and Deformation Mechanism of Carbon Nanotubes Reinforced Aluminum Composites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 3544-3554.	2.2	17
75	Simultaneous enhancement of strength and ductility with nano dispersoids in nano and ultrafine grain metals: a brief review. Reviews on Advanced Materials Science, 2020, 59, 352-360.	3.3	17
76	Enhanced thermal conductivity of diamond/aluminum composites through tuning diamond particle dispersion. Journal of Materials Science, 2018, 53, 6602-6612.	3.7	16
77	Two-dimensional distribution of carbon nanotubes in copper flake powders. Nanotechnology, 2011, 22, 225603.	2.6	15
78	High damping capacity of a Ni-Cu-Mn-Ga alloy in wide ambient-temperature range. Journal of Alloys and Compounds, 2017, 695, 2400-2405.	5.5	15
79	Evolution, Control, and Effects of Interface in CNT/Al Composites: a Review. Acta Metallurgica Sinica (English Letters), 2014, 27, 839-843.	2.9	13
80	High volume fraction and uniform dispersion of carbon nanotubes in aluminium powders. Micro and Nano Letters, 2010, 5, 379.	1.3	12
81	Smart Mechanical Powder Processing for Producing Carbon Nanotube Reinforced Aluminum Matrix Composites. KONA Powder and Particle Journal, 2022, 39, 219-229.	1.7	11
82	Thermal relaxation of residual stress in shot-peened CNT/Alâ€“Mgâ€“Si alloy composites. Journal of Materials Research and Technology, 2019, 8, 2201-2208.	5.8	9
83	Enhanced ductility by Mg addition in the CNT/Al-Cu composites via flake powder metallurgy. Materials Today Communications, 2021, 26, 101854.	1.9	9
84	Influence of aging treatment on mechanical properties of CNT/Alâ€“Cuâ€“Mg rolled composites. MRS Communications, 2021, 11, 249-255.	1.8	7
85	Biological Templates: High-Density Hotspots Engineered by Naturally Piled-Up Subwavelength Structures in Three-Dimensional Copper Butterfly Wing Scales for Surface-Enhanced Raman Scattering Detection (Adv. Funct. Mater. 8/2012). Advanced Functional Materials, 2012, 22, 1542-1542.	14.9	1