Yuntian T Zhu

List of Publications by Year
in descending order

394 papers	43,356 citations	1294 109 h-index	2500 196 g-index
414 all docs	414 docs citations	414 times ranked	17373 citing authors

#	Article	IF	Citations
1	Producing bulk ultrafine-grained materials by severe plastic deformation. Jom, 2006, 58, 33-39.	0.9	1,350
2	Heterogeneous lamella structure unites ultrafine-grain strength with coarse-grain ductility. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14501-14505.	3.3	1,202
3	Deformation twinning in nanocrystalline materials. Progress in Materials Science, 2012, 57, 1-62.	16.0	1,065
4	Paradox of Strength and Ductility in Metals Processed Bysevere Plastic Deformation. Journal of Materials Research, 2002, 17, 5-8.	1.2	1,062
5	Extraordinary strain hardening by gradient structure. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7197-7201.	3.3	912
6	Microstructures and mechanical properties of ultrafine grained 7075 Al alloy processed by ECAP and their evolutions during annealing. Acta Materialia, 2004, 52, 4589-4599.	3.8	820
7	Heterogeneous materials: a new class of materials with unprecedented mechanical properties. Materials Research Letters, 2017, 5, 527-532.	4.1	818
8	Back stress strengthening and strain hardening in gradient structure. Materials Research Letters, 2016, 4, 145-151.	4.1	766
9	Simultaneously Increasing the Ductility and Strength of Nanostructured Alloys. Advanced Materials, 2006, 18, 2280-2283.	11.1	735
10	Perspective on hetero-deformation induced (HDI) hardening and back stress. Materials Research Letters, 2019, 7, 393-398.	4.1	638
11	Review on superior strength and enhanced ductility of metallic nanomaterials. Progress in Materials Science, 2018, 94, 462-540.	16.0	634
12	Nanostructural hierarchy increases the strength of aluminium alloys. Nature Communications, 2010, 1, 63.	5.8	552
13	Ultralong single-wall carbon nanotubes. Nature Materials, 2004, 3, 673-676.	13.3	513
14	Microstructures and dislocation configurations in nanostructured Cu processed by repetitive corrugation and straightening. Acta Materialia, 2001, 49, 1497-1505.	3.8	512
15	Mechanical properties of copper/bronze laminates: Role of interfaces. Acta Materialia, 2016, 116, 43-52.	3.8	507
16	Heterostructured materials: superior properties from hetero-zone interaction. Materials Research Letters, 2021, 9, 1-31.	4.1	505
17	Retaining ductility. Nature Materials, 2004, 3, 351-352.	13.3	484
18	Synergetic Strengthening by Gradient Structure. Materials Research Letters, 2014, 2, 185-191.	4.1	442

#	Article	IF	Citations
19	Influence of ECAP routes on the microstructure and properties of pure Ti. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 299, 59-67.	2.6	424
20	Ultrastrong, Stiff, and Lightweight Carbonâ€Nanotube Fibers. Advanced Materials, 2007, 19, 4198-4201.	11.1	419
21	Deformation twinning in nanocrystalline copper at room temperature and low strain rate. Applied Physics Letters, 2004, 84, 592-594.	1.5	414
22	Optimizing the strength and ductility of fine structured 2024 Al alloy by nano-precipitation. Acta Materialia, 2007, 55, 5822-5832.	3.8	414
23	Deformation behavior and plastic instabilities of ultrafine-grained titanium. Applied Physics Letters, 2001, 79, 611-613.	1.5	413
24	Structural evolutions of metallic materials processed by severe plastic deformation. Materials Science and Engineering Reports, 2018, 133, 1-59.	14.8	401
25	Structureâ€Dependent Electrical Properties of Carbon Nanotube Fibers. Advanced Materials, 2007, 19, 3358-3363.	11.1	393
26	Deformation mechanism in nanocrystalline Al: Partial dislocation slip. Applied Physics Letters, 2003, 83, 632-634.	1.5	382
27	Continuous processing of ultrafine grained Al by ECAPâ€“Conform. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 382, 30-34.	2.6	376
28	Strong Carbon-Nanotube Fibers Spun from Long Carbon-Nanotube Arrays. Small, 2007, 3, 244-248.	5.2	370
29	Simultaneously Increasing the Ductility and Strength of Ultra-Fine-Grained Pure Copper. Advanced Materials, 2006, 18, 2949-2953.	11.1	359
30	Interface affected zone for optimal strength and ductility in heterogeneous laminate. Materials Today, 2018, 21, 713-719.	8.3	357
31	Observations and issues on mechanisms of grain refinement during ECAP process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 291, 46-53.	2.6	353
32	Producing Bulk Ultrafine-Grained Materials by Severe Plastic Deformation: Ten Years Later. Jom, 2016, 68, 1216-1226.	0.9	346
33	Grain refinement and properties of pure Ti processed by warm ECAP and cold rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 343, 43-50.	2.6	336
34	Sustained Growth of Ultralong Carbon Nanotube Arrays for Fiber Spinning. Advanced Materials, 2006, 18, 3160-3163.	11.1	332
35	Dislocationâ€“twin interactions in nanocrystalline fcc metals. Acta Materialia, 2011, 59, 812-821.	3.8	327
36	Deformation twins in nanocrystalline Al. Applied Physics Letters, 2003, 83, 5062-5064.	1.5	323

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37	Electrochromatic carbon nanotube/polydiacetylene nanocomposite fibres. Nature Nanotechnology, 2009, 4, 738-741.	15.6	321
38	High Tensile Ductility and Strength in Bulk Nanostructured Nickel. Advanced Materials, 2008, 20, 3028-3033.	11.1	316
39	Microstructural evolution, microhardness and thermal stability of HPT-processed Cu. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 290, 128-138.	2.6	309
40	Tailoring stacking fault energy for high ductility and high strength in ultrafine grained Cu and its alloy. Applied Physics Letters, 2006, 89, 121906.	1.5	295
41	Performance and applications of nanostructured materials produced by severe plastic deformation. Scripta Materialia, 2004, 51, 825-830.	2.6	284
42	Fundamentals of Superior Properties in Bulk NanoSPD Materials. Materials Research Letters, 2016, 4, 1-21.	4.1	280
43	Microstructure and properties of pure Ti processed by ECAP and cold extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 303, 82-89.	2.6	277
44	Polymerâ€Embedded Carbon Nanotube Ribbons for Stretchable Conductors. Advanced Materials, 2010, 22, 3027-3031.	11.1	277
45	Combining gradient structure and TRIP effect to produce austenite stainless steel with high strength and ductility. Acta Materialia, 2016, 112, 337-346.	3.8	265
46	Influence of stacking-fault energy on microstructural characteristics of ultrafine-grain copper and copperâ€“zinc alloys. Acta Materialia, 2008, 56, 809-820.	3.8	251
47	Microstructure of cryogenic treated M2 tool steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 339, 241-244.	2.6	250
48	Influence of specimen dimensions on the tensile behavior of ultrafine-grained Cu. Scripta Materialia, 2008, 59, 627-630.	2.6	241
49	Temperature-mediated growth of single-walled carbon-nanotube intramolecular junctions. Nature Materials, 2007, 6, 283-286.	13.3	238
50	Microstructural evolution during recovery and recrystallization of a nanocrystalline Al-Mg alloy prepared by cryogenic ball milling. Acta Materialia, 2003, 51, 2777-2791.	3.8	227
51	Nanostructures in Ti processed by severe plastic deformation. Journal of Materials Research, 2003, 18, 1908-1917.	1.2	225
52	Superhard Bâ€“Câ€“N materials synthesized in nanostructured bulks. Journal of Materials Research, 2002, 17, 3139-3145.	1.2	222
53	Wavy Ribbons of Carbon Nanotubes for Stretchable Conductors. Advanced Functional Materials, 2012, 22, 1279-1283.	7.8	221
54	A two step SPD processing of ultrafine-grained titanium. Scripta Materialia, 1999, 11, 947-954.	0.5	204

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55	Nucleation and growth of deformation twins in nanocrystalline aluminum. Applied Physics Letters, 2004, 85, 5049-5051.	1.5	202
56	Carbon nanotube yarn strain sensors. Nanotechnology, 2010, 21, 305502.	1.3	201
57	Simultaneously enhancing strength and ductility of a high-entropy alloy via gradient hierarchical microstructures. International Journal of Plasticity, 2019, 123, 178-195.	4.1	201
58	Mechanical, electrical and thermal properties of aligned carbon nanotube/polyimide composites. Composites Part B: Engineering, 2014, 56, 408-412.	5.9	200
59	Influence of specimen dimensions and strain measurement methods on tensile stressâ€"strain curves. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 525, 68-77.	2.6	198
60	Multistage work hardening assisted by multi-type twinning in ultrafine-grained heterostructural eutectic high-entropy alloys. Materials Today, 2020, 41, 62-71.	8.3	197
61	Strain hardening and ductility in a coarse-grain/nanostructure laminate material. Scripta Materialia, 2015, 103, 57-60.	2.6	195
62	Inverse Grain-Size Effect on Twinning in Nanocrystalline Ni. Physical Review Letters, 2008, 101, 025503.	2.9	190
63	Formation mechanism of wide stacking faults in nanocrystalline Al. Applied Physics Letters, 2004, 84, 3564-3566.	1.5	183
64	Influence of stacking fault energy on nanostructure formation under high pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 410-411, 188-193.	2.6	179
65	A novel approach to fabricate high volume fraction nanocomposites with long aligned carbon nanotubes. Composites Science and Technology, 2010, 70, 1980-1985.	3.8	179
66	The fundamentals of nanostructured materials processed by severe plastic deformation. Jom, 2004, 56, 58-63.	0.9	176
67	Superior strength and ductility of 316L stainless steel with heterogeneous lamella structure. Journal of Materials Science, 2018, 53, 10442-10456.	1.7	175
68	Strong Strain Hardening in Nanocrystalline Nickel. Physical Review Letters, 2009, 103, 205504.	2.9	174
69	Grain-size effect on the deformation mechanisms of nanostructured copper processed by high-pressure torsion. Journal of Applied Physics, 2004, 96, 636-640.	1.1	169
70	Effect of carbon nanotube length on thermal, electrical and mechanical properties of CNT/bismaleimide composites. Carbon, 2013, 53, 145-152.	5.4	166
71	New Deformation Twinning Mechanism Generates Zero Macroscopic Strain in Nanocrystalline Metals. Physical Review Letters, 2008, 100, 095701.	2.9	163
72	Formation of single and multiple deformation twins in nanocrystalline fcc metals. Acta Materialia, 2009, 57, 3763-3770.	3.8	163

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73	Tougher ultrafine grain Cu via high-angle grain boundaries and low dislocation density. Applied Physics Letters, 2008, 92, .	1.5	158
74	Determining the optimal stacking fault energy for achieving high ductility in ultrafine-grained Cuâ€"Zn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 493, 123-129.	2.6	157
75	Strategies for Improving Tensile Ductility of Bulk Nanostructured Materials. Advanced Engineering Materials, 2010, 12, 769-778.	1.6	156
76	A quenchable superhard carbon phase synthesized by cold compression of carbon nanotubes. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13699-13702.	3.3	153
77	Ultrastrong, Foldable, and Highly Conductive Carbon Nanotube Film. ACS Nano, 2012, 6, 5457-5464.	7.3	153
78	Significant hardening due to the formation of a sigma phase matrix in a high entropy alloy. Intermetallics, 2013, 33, 81-86.	1.8	153
79	Critical microstructures and defects in heterostructured materials and their effects on mechanical properties. Acta Materialia, 2020, 189, 129-144.	3.8	150
80	Role of stacking fault energy in strengthening due to cryo-deformation of FCC metals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7624-7630.	2.6	147
81	Effect of heterostructure and hetero-deformation induced hardening on the strength and ductility of brass. Acta Materialia, 2020, 186, 644-655.	3.8	146
82	Evolution of defect structures during cold rolling of ultrafine-grained Cu and Cuâ€"Zn alloys: Influence of stacking fault energy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 474, 342-347.	2.6	144
83	Tough Nanostructured Metals at Cryogenic Temperatures. Advanced Materials, 2004, 16, 328-331.	11.1	142
84	Development of repetitive corrugation and straightening. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 371, 35-39.	2.6	141
85	The role of stacking faults and twin boundaries in grain refinement of a Cuâ€"Zn alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 4959-4966.	2.6	141
86	Extra strengthening in a coarse/ultrafine grained laminate: Role of gradient interfaces. International Journal of Plasticity, 2019, 123, 196-207.	4.1	139
87	Hot isostatic pressing of powder in tube MgB2 wires. Applied Physics Letters, 2003, 82, 2847-2849.	1.5	137
88	Amorphization of TiNi induced by high-pressure torsion. Philosophical Magazine Letters, 2004, 84, 183-190.	0.5	137
89	Effect of lattice strain and defects on the superconductivity of MgB2. Applied Physics Letters, 2001, 79, 4399-4401.	1.5	136
90	The effect of dislocation density on the interactions between dislocations and twin boundaries in nanocrystalline materials. Acta Materialia, 2012, 60, 3181-3189.	3.8	134

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91	Influence of stacking fault energy on deformation mechanism and dislocation storage capacity in ultrafine-grained materials. Scripta Materialia, 2009, 60, 52-55.	2.6	133
92	Twinning and stacking fault formation during tensile deformation of nanocrystalline Ni. Scripta Materialia, 2006, 54, 1685-1690.	2.6	130
93	Basal-plane stacking-fault energies of Mg: A first-principles study of Li- and Al-alloying effects. Scripta Materialia, 2011, 64, 693-696.	2.6	130
94	Ultrastrong, Stiff and Multifunctional Carbon Nanotube Composites. Materials Research Letters, 2013, 1, 19-25.	4.1	130
95	Dry-sliding tribological properties of ultrafine-grained Ti prepared by severe plastic deformation. Acta Materialia, 2005, 53, 5167-5173.	3.8	128
96	Influence of gradient structure volume fraction on the mechanical properties of pure copper. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 645, 280-285.	2.6	128
97	Grain size effect on tensile properties and slip systems of pure magnesium. Acta Materialia, 2021, 206, 116604.	3.8	127
98	Carbon Nanotube Yarn Electrodes for Enhanced Detection of Neurotransmitter Dynamics in Live Brain Tissue. ACS Nano, 2013, 7, 7864-7873.	7.3	125
99	Strain rate dependence of properties of cryomilled bimodal 5083 Al alloys. Acta Materialia, 2006, 54, 3015-3024.	3.8	124
100	Processing nanocrystalline Ti and its nanocomposites from micrometer-sized Ti powder using high pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 282, 78-85.	2.6	123
101	Ductility and plasticity of nanostructured metals: differences and issues. Materials Today Nano, 2018, 2, 15-20.	2.3	122
102	Mechanical and electrical property improvement in CNT/Nylon composites through drawing and stretching. Composites Science and Technology, 2011, 71, 1677-1683.	3.8	121
103	Formation mechanism of fivefold deformation twins in nanocrystalline face-centered-cubic metals. Applied Physics Letters, 2005, 86, 103112.	1.5	120
104	Influence of stacking fault energy on the minimum grain size achieved in severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 463, 22-26.	2.6	119
105	The effective interfacial shear strength of carbon nanotube fibers in an epoxy matrix characterized by a microdroplet test. Carbon, 2012, 50, 1271-1279.	5.4	119
106	A new route to bulk nanostructured metals. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1559-1562.	1.1	118
107	Deformation twinning in a nanocrystalline hcp Mg alloy. Scripta Materialia, 2011, 64, 213-216.	2.6	116
108	Producing superior composites by winding carbon nanotubes onto a mandrel under a poly(vinyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6	5.4	114

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109	Self-Organization of Carbon Nanotubes in Evaporating Droplets. Journal of Physical Chemistry B, 2006, 110, 13926-13930.	1.2	113
110	Hetero-deformation induced (HDI) hardening does not increase linearly with strain gradient. Scripta Materialia, 2020, 174, 19-23.	2.6	111
111	Nanostructured TiNi-based shape memory alloys processed by severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 410-411, 386-389.	2.6	110
112	Ductility and strain hardening in gradient and lamellar structured materials. Scripta Materialia, 2020, 186, 321-325.	2.6	110
113	Influence of grain size on deformation mechanisms: An extension to nanocrystalline materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 409, 234-242.	2.6	106
114	Gradient Structured Copper by Rotationally Accelerated Shot Peening. Journal of Materials Science and Technology, 2017, 33, 758-761.	5.6	105
115	An Ideal Ultrafine-Grained Structure for High Strength and High Ductility. Materials Research Letters, 2015, 3, 88-94.	4.1	100
116	<i>In-situ</i>observation of dislocation dynamics near heterostructured interfaces. Materials Research Letters, 2019, 7, 376-382.	4.1	100
117	Three-dimensional shear-strain patterns induced by high-pressure torsion and their impact on hardness evolution. Acta Materialia, 2011, 59, 3903-3914.	3.8	98
118	In-situ atomic-scale observation of irradiation-induced void formation. Nature Communications, 2013, 4, 2288.	5.8	98
119	Strength and ductility of gradient structured copper obtained by surface mechanical attrition treatment. Materials and Design, 2016, 105, 89-95.	3.3	97
120	Tailoring the Morphology of Carbon Nanotube Arrays: From Spinnable Forests to Undulating Foams. ACS Nano, 2009, 3, 2157-2162.	7.3	96
121	Effect of Ag on interfacial segregation in Mgâ€"Gdâ€"Yâ€"(Ag)â€"Zr alloy. Acta Materialia, 2015, 95, 20-29.	3.8	95
122	Reduction of friction coefficient of ultrafine-grained CP titanium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 371, 313-317.	2.6	94
123	Quantifying the synergetic strengthening in gradient material. Scripta Materialia, 2018, 150, 22-25.	2.6	94
124	Ductility by shear band delocalization in the nano-layer of gradient structure. Materials Research Letters, 2019, 7, 12-17.	4.1	94
125	Grain growth and dislocation density evolution in a nanocrystalline Niâ€"Fe alloy induced by high-pressure torsion. Scripta Materialia, 2011, 64, 327-330.	2.6	93
126	Tuning the compressive mechanical properties of carbon nanotube foam. Carbon, 2011, 49, 2834-2841.	5.4	93

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127	Consolidation of nanometer sized powders using severe plastic torsional straining. Scripta Materialia, 1998, 10, 45-54.	0.5	91
128	Concurrent microstructural evolution of ferrite and austenite in a duplex stainless steel processed by high-pressure torsion. Acta Materialia, 2014, 63, 16-29.	3.8	90
129	Synergetic strengthening far beyond rule of mixtures in gradient structured aluminum rod. Scripta Materialia, 2016, 122, 106-109.	2.6	89
130	Multi-heterostructure and mechanical properties of N-doped FeMnCoCr high entropy alloy. International Journal of Plasticity, 2021, 139, 102965.	4.1	88
131	Mechanism of grain growth during severe plastic deformation of a nanocrystalline Niâ€“Fe alloy. Applied Physics Letters, 2009, 94, .	1.5	87
132	Optimizing the strength, ductility and electrical conductivity of a Cu-Cr-Zr alloy by rotary swaging and aging treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 746, 211-216.	2.6	87
133	Length-dependent thermal conductivity of an individual single-wall carbon nanotube. Applied Physics Letters, 2007, 91, 123119.	1.5	86
134	Processing and characterization of nanostructured Cu-carbon nanotube composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 523, 60-64.	2.6	86
135	Vertically Aligned Pearl-like Carbon Nanotube Arrays for Fiber Spinning. Journal of the American Chemical Society, 2008, 130, 1130-1131.	6.6	84
136	Processing of nanostructured metals and alloys via plastic deformation. MRS Bulletin, 2010, 35, 977-981.	1.7	82
137	Morphology, structure and composition of precipitates in Al0.3CoCrCu0.5FeNi high-entropy alloy. Intermetallics, 2013, 32, 329-336.	1.8	82
138	Origins and dissociation of pyramidal <cÂ+Âa> dislocations in magnesium and its alloys. Acta Materialia, 2018, 146, 265-272.	3.8	82
139	Deformation twins in pure titanium processed by equal channel angular pressing. Scripta Materialia, 2003, 48, 813-817.	2.6	80
140	Partial-dislocation-mediated processes in nanocrystalline Ni with nonequilibrium grain boundaries. Applied Physics Letters, 2006, 89, 031922.	1.5	78
141	Grain Size Effect on Deformation Mechanisms of Nanocrystalline bcc Metals. Materials Research Letters, 2013, 1, 26-31.	4.1	78
142	Dense dispersed shear bands in gradient-structured Ni. International Journal of Plasticity, 2020, 124, 186-198.	4.1	77
143	Negative Strain-rate Sensitivity in a Nanostructured Aluminum Alloy. Advanced Engineering Materials, 2006, 8, 945-947.	1.6	76
144	Raman Spectroscopy and Imaging of Ultralong Carbon Nanotubes. Journal of Physical Chemistry B, 2005, 109, 3751-3758.	1.2	75

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145	Effect of stacking fault energy on strength and ductility of nanostructured alloys: An evaluation with minimum solution hardening. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 525, 83-86.	2.6	75
146	Grain size and reversible beta-to-omega phase transformation in a Ti alloy. Scripta Materialia, 2010, 63, 613-616.	2.6	75
147	Ultrastrong low-carbon nanosteel produced by heterostructure and interstitial mediated warm rolling. Science Advances, 2020, 6, .	4.7	75
148	Residual stress provides significant strengthening and ductility in gradient structured materials. Materials Research Letters, 2019, 7, 433-438.	4.1	74
149	The formation mechanism of a novel interfacial phase with high thermal stability in a Mg-Gd-Y-Ag-Zr alloy. Acta Materialia, 2019, 162, 214-225.	3.8	74
150	The properties of dry-spun carbon nanotube fibers and their interfacial shear strength in an epoxy composite. Carbon, 2011, 49, 1752-1757.	5.4	73
151	A multiscale architectured CuCrZr alloy with high strength, electrical conductivity and thermal stability. Journal of Alloys and Compounds, 2018, 735, 1389-1394.	2.8	73
152	Composite Carbon Nanotube/Silica Fibers with Improved Mechanical Strengths and Electrical Conductivities. Small, 2008, 4, 1964-1967.	5.2	72
153	Raman Spectral Imaging of a Carbon Nanotube Intramolecular Junction. Physical Review Letters, 2005, 94, 016802.	2.9	71
154	Extraordinary Bauschinger effect in gradient structured copper. Scripta Materialia, 2018, 150, 57-60.	2.6	69
155	Nanostructuring of TiNi Alloy by SPD Processing for Advanced Properties. Materials Transactions, 2008, 49, 97-101.	0.4	68
156	Remarkably enhanced thermal transport based on a flexible horizontally-aligned carbon nanotube array film. Scientific Reports, 2016, 6, 21014.	1.6	68
157	Heterostructure induced dispersive shear bands in heterostructured Cu. Scripta Materialia, 2019, 170, 76-80.	2.6	68
158	Formation mechanisms of nanostructures in stainless steel during high-strain-rate severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 410-411, 252-256.	2.6	66
159	Effect of processing conditions on the properties of high molecular weight conductive polyaniline fiber. , 2000, 38, 194-204.		65
160	Strong and ductile nanostructured Cu-carbon nanotube composite. Applied Physics Letters, 2009, 95, 071907.	1.5	65
161	Optimizing the strength and ductility of AZ91 Mg alloy by ECAP and subsequent aging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 588, 329-334.	2.6	65
162	Heterostructured stainless steel: Properties, current trends, and future perspectives. Materials Science and Engineering Reports, 2022, 150, 100691.	14.8	65

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163	Carbonâ€Nanotube Cotton for Largeâ€Scale Fibers. Advanced Materials, 2007, 19, 2567-2570.	11.1	64
164	Effect of grain size on the competition between twinning and detwinning in nanocrystalline metals. Physical Review B, 2011, 84, .	1.1	62
165	Microstructure evolution and strengthening mechanisms of pure titanium with nano-structured surface obtained by high energy shot peening. Vacuum, 2016, 125, 215-221.	1.6	62
166	Predictions for partial-dislocation-mediated processes in nanocrystalline Ni by generalized planar fault energy curves: An experimental evaluation. Applied Physics Letters, 2006, 88, 121905.	1.5	61
167	Twin stability in highly nanotwinned Cu under compression, torsion and tension. Scripta Materialia, 2012, 66, 872-877.	2.6	61
168	Dryâ€Processable Carbon Nanotubes for Functional Devices and Composites. Small, 2014, 10, 4606-4625.	5.2	61
169	Enhanced strength and ductility of AZ80 Mg alloys by spray forming and ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 670, 280-291.	2.6	61
170	Gradient and lamellar heterostructures for superior mechanical properties. MRS Bulletin, 2021, 46, 244-249.	1.7	61
171	The role of shear strain on texture and microstructural gradients in low carbon steel processed by Surface Mechanical Attrition Treatment. Scripta Materialia, 2015, 108, 100-103.	2.6	60
172	Grain size effect on radiation tolerance of nanocrystalline Mo. Scripta Materialia, 2016, 123, 90-94.	2.6	60
173	Enhanced mechanical properties in ultrafine grained 7075 Al alloy. Journal of Materials Research, 2005, 20, 288-291.	1.2	59
174	Grain boundary formation by remnant dislocations from the de-twinning of thin nano-twins. Scripta Materialia, 2015, 100, 98-101.	2.6	58
175	Microstructural evolution and phase transformation in twinning-induced plasticity steel induced by high-pressure torsion. Acta Materialia, 2016, 109, 300-313.	3.8	58
176	Using X-ray microdiffraction to determine grain sizes at selected positions in disks processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 444, 153-156.	2.6	57
177	Strong and Conductive Dry Carbon Nanotube Films by Microcombing. Small, 2015, 11, 3830-3836.	5.2	56
178	Grain refining and mechanical properties of AZ31 alloy processed by accumulated extrusion bonding. Journal of Alloys and Compounds, 2018, 745, 599-608.	2.8	56
179	Superior mechanical properties of ZK60 mg alloy processed by equal channel angular pressing and rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 630, 45-50.	2.6	55
180	Thermal Oxidation Kinetics of MoSi₂â€Based Powders. Journal of the American Ceramic Society, 1999, 82, 2785-2790.	1.9	54

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181	Effect of strain rate on the ductility of a nanostructured aluminum alloy. Scripta Materialia, 2006, 54, 1175-1180.	2.6	54
182	Length-dependent thermal conductivity of single-wall carbon nanotubes: prediction and measurements. Nanotechnology, 2007, 18, 475714.	1.3	54
183	Microstructure and thermal stability of nanocrystalline Mg-Gd-Y-Zr alloy processed by high pressure torsion. Journal of Alloys and Compounds, 2017, 721, 577-585.	2.8	54
184	Evolution of twinning systems and variants during sequential twinning in cryo-rolled titanium. International Journal of Plasticity, 2019, 112, 52-67.	4.1	54
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