Hyoung Seop Kim

List of Publications by Year
in descending order

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753	23,856	12330 69	24982 109
papers	citations	h-index	g-index

769	769	769	11526
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Heterostructured materials: superior properties from hetero-zone interaction. Materials Research Letters, 2021, 9, 1-31.	8.7	505
2	Fast and fully-scalable synthesis of reduced graphene oxide. Scientific Reports, 2015, 5, 10160.	3.3	486
3	Plastic deformation behaviour of fine-grained materials. Acta Materialia, 2000, 48, 493-504.	7.9	307
4	Cryogenic strength improvement by utilizing room-temperature deformation twinning in a partially recrystallized VCrMnFeCoNi high-entropy alloy. Nature Communications, 2017, 8, 15719.	12.8	278
5	Highâ€Entropy Alloys: Potential Candidates for Highâ€Temperature Applications â€“ An Overview. Advanced Engineering Materials, 2018, 20, 1700645.	3.5	270
6	High-entropy alloys with heterogeneous microstructure: Processing and mechanical properties. Progress in Materials Science, 2022, 123, 100709.	32.8	270
7	On the rule of mixtures for the hardness of particle reinforced composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 289, 30-33.	5.6	261
8	On the die corner gap formation in equal channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 291, 86-90.	5.6	247
9	Boron doped ultrastrong and ductile high-entropy alloys. Acta Materialia, 2018, 151, 366-376.	7.9	230
10	Dislocation density-based modeling of deformation behavior of aluminium under equal channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 351, 86-97.	5.6	207
11	Novel Co-rich high performance twinning-induced plasticity (TWIP) and transformation-induced plasticity (TRIP) high-entropy alloys. Scripta Materialia, 2019, 165, 39-43.	5.2	200
12	The effects of grain size and porosity on the elastic modulus of nanocrystalline materials. Scripta Materialia, 1999, 11, 361-367.	0.5	190
13	Strain partitioning and mechanical stability of retained austenite. Scripta Materialia, 2010, 63, 297-299.	5.2	180
14	Additional hardening in harmonic structured materials by strain partitioning and back stress. Materials Research Letters, 2018, 6, 261-267.	8.7	179
15	Exceptional phase-transformation strengthening of ferrous medium-entropy alloys at cryogenic temperatures. Acta Materialia, 2018, 161, 388-399.	7.9	174
16	Tensile deformation behavior and deformation twinning of an equimolar CoCrFeMnNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 689, 122-133.	5.6	166
17	Micromechanical finite element analysis of strain partitioning in multiphase medium manganese TWIP+TRIP steel. Acta Materialia, 2016, 108, 219-228.	7.9	165
18	Structure and properties of ultrafine-grained CoCrFeMnNi high-entropy alloys produced by mechanical alloying and spark plasma sintering. Journal of Alloys and Compounds, 2017, 698, 591-604.	5.5	165

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19	Strain rate effects of dynamic compressive deformation on mechanical properties and microstructure of CoCrFeMnNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 719, 155-163.	5.6	163
20	High-pressure torsion for enhanced atomic diffusion and promoting solid-state reactions in the aluminumâ€“copper system. Acta Materialia, 2013, 61, 3482-3489.	7.9	159
21	Effects of Al addition on deformation and fracture mechanisms in two high manganese TWIP steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 2922-2928.	5.6	157
22	Tubular channel angular pressing (TCAP) as a novel severe plastic deformation method for cylindrical tubes. Materials Letters, 2011, 65, 3009-3012.	2.6	153
23	Finite element analysis of equal channel angular pressing using a round corner die. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 315, 122-128.	5.6	145
24	Novel Co-rich high entropy alloys with superior tensile properties. Materials Research Letters, 2019, 7, 82-88.	8.7	139
25	Microstructure and corrosion properties of ultrafine-grained interstitial free steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 462, 243-247.	5.6	136
26	Superior tensile properties of 1%C-CoCrFeMnNi high-entropy alloy additively manufactured by selective laser melting. Materials Research Letters, 2020, 8, 1-7.	8.7	135
27	Development of strong and ductile metastable face-centered cubic single-phase high-entropy alloys. Acta Materialia, 2019, 181, 318-330.	7.9	134
28	On the rule of mixtures for predicting the mechanical properties of composites with homogeneously distributed soft and hard particles. Journal of Materials Processing Technology, 2001, 112, 109-113.	6.3	130
29	Gas tungsten arc welding of as-rolled CrMnFeCoNi high entropy alloy. Materials and Design, 2020, 189, 108505.	7.0	125
30	High temperature oxidation behavior of Cr-Mn-Fe-Co-Ni high entropy alloy. Intermetallics, 2018, 98, 45-53.	3.9	120
31	Fabrication and mechanical properties of TiC reinforced CoCrFeMnNi high-entropy alloy composite by water atomization and spark plasma sintering. Journal of Alloys and Compounds, 2019, 781, 389-396.	5.5	120
32	Heterogeneous Aspects of Additive Manufactured Metallic Parts: A Review. Metals and Materials International, 2021, 27, 1-39.	3.4	119
33	Short-range order strengthening in boron-doped high-entropy alloys for cryogenic applications. Acta Materialia, 2020, 194, 366-377.	7.9	117
34	Ultrahigh high-strain-rate superplasticity in a nanostructured high-entropy alloy. Nature Communications, 2020, 11, 2736.	12.8	116
35	Dislocation density-based finite element analysis of large strain deformation behavior of copper under high-pressure torsion. Acta Materialia, 2014, 76, 281-293.	7.9	113
36	Finite element analysis of deformation behaviour of metals during equal channel multi-angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 328, 317-323.	5.6	111

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37	Plastic Yield Behaviour of Porous Metals. Powder Metallurgy, 1992, 35, 275-280.	1.7	109
38	Phase mixture modeling of the strain rate dependent mechanical behavior of nanostructured materials. Acta Materialia, 2005, 53, 765-772.	7.9	108
39	Plastic deformation analysis of metals during equal channel angular pressing. Journal of Materials Processing Technology, 2001, 113, 622-626.	6.3	107
40	Enhanced plasticity in a bulk amorphous matrix composite: macroscopic and microscopic viewpoint studies. Acta Materialia, 2005, 53, 129-139.	7.9	102
41	Wear properties of ECAP-processed ultrafine grained Alâ€“Cu alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 3726-3732.	5.6	102
42	Superior cryogenic tensile properties of ultrafine-grained CoCrNi medium-entropy alloy produced by high-pressure torsion and annealing. Scripta Materialia, 2019, 163, 152-156.	5.2	102
43	Mechanical properties and deformation twinning behavior of as-cast CoCrFeMnNi high-entropy alloy at low and high temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 712, 108-113.	5.6	98
44	Dissimilar laser welding of a CoCrFeMnNi high entropy alloy to 316 stainless steel. Scripta Materialia, 2022, 206, 114219.	5.2	98
45	Thermally activated deformation and the rate controlling mechanism in CoCrFeMnNi high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 682, 569-576.	5.6	96
46	Development of TiNbTaZrMo bio-high entropy alloy (BioHEA) super-solid solution by selective laser melting, and its improved mechanical property and biocompatibility. Scripta Materialia, 2021, 194, 113658.	5.2	95
47	Review of principles and methods of severe plastic deformation for producing ultrafine-grained tubes. Materials Science and Technology, 2017, 33, 905-923.	1.6	93
48	Austenite stability and heterogeneous deformation in fine-grained transformation-induced plasticity-assisted steel. Scripta Materialia, 2013, 68, 933-936.	5.2	91
49	Effect of nanoparticle content on the microstructural and mechanical properties of nano-SiC dispersed bulk ultrafine-grained Cu matrix composites. Materials & Design, 2013, 52, 881-887.	5.1	91
50	Effects of strain hardenability and strain-rate sensitivity on the plastic flow and deformation homogeneity during equal channel angular pressing. Journal of Materials Research, 2001, 16, 856-864.	2.6	90
51	Deformation-induced nanocrystallization and its influence on work hardening in a bulk amorphous matrix composite. Acta Materialia, 2004, 52, 1525-1533.	7.9	90
52	Effect of Î¼-precipitates on the microstructure and mechanical properties of non-equiatomic CoCrFeNiMo medium-entropy alloys. Journal of Alloys and Compounds, 2019, 781, 75-83.	5.5	90
53	Deep learning-based phase prediction of high-entropy alloys: Optimization, generation, and explanation. Materials and Design, 2021, 197, 109260.	7.0	90
54	Ultra-high tensile strength nanocrystalline CoCrNi equi-atomic medium entropy alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 735, 394-397.	5.6	89

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55	Phosphorus doped ZnO light emitting diodes fabricated via pulsed laser deposition. Applied Physics Letters, 2008, 92, .	3.3	85
56	Trade-off between tensile property and formability by partial recrystallization of CrMnFeCoNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 703, 324-330.	5.6	85
57	Wear properties of high pressure torsion processed ultrafine grained Alâ€“7%Si alloy. Materials & Design, 2014, 53, 373-382.	5.1	82
58	Surface Modification of Multipass Caliber-Rolled Ti Alloy with Dexamethasone-Loaded Graphene for Dental Applications. ACS Applied Materials & Interfaces, 2015, 7, 9598-9607.	8.0	82
59	Improving the ductility in laser welded joints of CoCrFeMnNi high entropy alloy to 316 stainless steel. Materials and Design, 2022, 219, 110717.	7.0	81
60	Work-Hardening Induced Tensile Ductility of Bulk Metallic Glasses via High-Pressure Torsion. Scientific Reports, 2015, 5, 9660.	3.3	80
61	A new strategy for designing immiscible medium-entropy alloys with excellent tensile properties. Acta Materialia, 2020, 193, 71-82.	7.9	80
62	On the strain rate-dependent deformation mechanism of CoCrFeMnNi high-entropy alloy at liquid nitrogen temperature. Materials Research Letters, 2017, 5, 472-477.	8.7	78
63	Architecturing of Metalâ€Based Composites with Concurrent Nanostructuring: A New Paradigm of Materials Design. Advanced Engineering Materials, 2013, 15, 336-340.	3.5	76
64	Ultrastrong duplex high-entropy alloy with 2â€¯GPa cryogenic strength enabled by an accelerated martensitic transformation. Scripta Materialia, 2019, 171, 67-72.	5.2	76
65	Annealing-induced hardening in high-pressure torsion processed CoCrNi medium entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 734, 338-340.	5.6	75
66	High-temperature tensile deformation behavior of hot rolled CrMnFeCoNi high-entropy alloy. Journal of Alloys and Compounds, 2018, 730, 242-248.	5.5	74
67	Finite element analysis of plastic deformation behavior during high pressure torsion processing. Journal of Materials Processing Technology, 2008, 201, 32-36.	6.3	73
68	Fabrication, characterization and mechanical properties of hybrid composites of copper using the nanoparticulates of SiC and carbon nanotubes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 572, 83-90.	5.6	73
69	Effects of microstructure and internal defects on mechanical anisotropy and asymmetry of selective laser-melted 316L austenitic stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 763, 138152.	5.6	73
70	Microstructure and hardness of copperâ€“carbon nanotube composites consolidated by High Pressure Torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 4690-4695.	5.6	72
71	Consolidation of 1vol.% carbon nanotube reinforced metal matrix nanocomposites via equal channel angular pressing. Journal of Materials Processing Technology, 2007, 187-188, 318-320.	6.3	71
72	FCC to BCC transformation-induced plasticity based on thermodynamic phase stability in novel V10Cr10Fe45CoxNi35â^'x medium-entropy alloys. Scientific Reports, 2019, 9, 2948.	3.3	71

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73	A model of the ductileâ€“brittle transition of partially crystallized amorphous Alâ€“Niâ€“Y alloys. Acta Materialia, 1999, 47, 2059-2066.	7.9	70
74	Structural characterization of ultrafine-grained interstitial-free steel prepared by severe plastic deformation. Acta Materialia, 2016, 105, 258-272.	7.9	70
75	High-cycle fatigue and tensile deformation behaviors of coarse-grained equiatomic CoCrFeMnNi high entropy alloy and unexpected hardening behavior during cyclic loading. Intermetallics, 2019, 111, 106486.	3.9	70
76	Evaluation of Strain Rate During Equal-channel Angular Pressing. Journal of Materials Research, 2002, 17, 172-179.	2.6	69
77	Hygroscopic Auxetic On-Skin Sensors for Easy-to-Handle Repeated Daily Use. ACS Applied Materials & Interfaces, 2018, 10, 40141-40148.	8.0	69
78	A composite model for mechanical properties of nanocrystalline materials. Scripta Materialia, 1998, 39, 1057-1061.	5.2	68
79	Finite element analysis of equal channel angular pressing of strain rate sensitive metals. Journal of Materials Processing Technology, 2002, 130-131, 497-503.	6.3	68
80	Severe plastic deformation and strain localization in groove pressing. Computational Materials Science, 2008, 43, 641-645.	3.0	68
81	Microstructure inhomogeneity in ultra-fine grained bulk AZ91 produced by accumulative back extrusion (ABE). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 4312-4317.	5.6	67
82	Unique microstructure and simultaneous enhancements of strength and ductility in gradient-microstructured Cu sheet produced by single-roll angular-rolling. Acta Materialia, 2019, 166, 638-649.	7.9	67
83	Utilization of brittle Ïƒ phase for strengthening and strain hardening in ductile VCrFeNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 743, 665-674.	5.6	67
84	A perspective on precipitation-hardening high-entropy alloys fabricated by additive manufacturing. Materials and Design, 2021, 211, 110161.	7.0	67
85	Correlation between fracture toughness and stretch-flangeability of advanced high strength steels. Materials Letters, 2016, 180, 322-326.	2.6	66
86	Wear and friction behavior of self-lubricating hybrid Cu-(SiC + x CNT) composites. Composites Part B: Engineering, 2019, 158, 92-101.	12.0	66
87	Towards ferrous medium-entropy alloys with low-cost and high-performance. Scripta Materialia, 2020, 186, 169-173.	5.2	66
88	Effect of the gap distance on the cooling behavior and the microstructure of indirect squeeze cast and gravity die cast 5083 wrought Al alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 338, 182-190.	5.6	65
89	Finite element analysis of high pressure torsion processing. Journal of Materials Processing Technology, 2001, 113, 617-621.	6.3	64
90	Microstructural features, texture and strengthening mechanisms of nanostructured AA6063 alloy processed by powder metallurgy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 3981-3989.	5.6	64

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91	Finite element analysis of plastic deformation in twist extrusion. Computational Materials Science, 2012, 60, 194-200.	3.0	64
92	Space-holder effect on designing pore structure and determining mechanical properties in porous titanium. Materials & Design, 2014, 57, 712-718.	5.1	64
93	Evolution of microstructure and hardness in AZ31 alloy processed by high pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 625, 98-106.	5.6	64
94	Twist Extrusion as a Potent Tool for Obtaining Advanced Engineering Materials: A Review. Advanced Engineering Materials, 2017, 19, 1600873.	3.5	64
95	Metalloid substitution elevates simultaneously the strength and ductility of face-centered-cubic high-entropy alloys. Acta Materialia, 2022, 225, 117571.	7.9	64
96	Plastic flow and deformation homogeneity of 6061 Al during equal channel angular pressing. Scripta Materialia, 2002, 46, 131-136.	5.2	63
97	3D FEM simulations for the homogeneity of plastic deformation in Alâ€“Cu alloys during ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 1404-1410.	5.6	62
98	High temperature thermal stability of pure copper and copperâ€“carbon nanotube composites consolidated by High Pressure Torsion. Composites Part A: Applied Science and Manufacturing, 2013, 51, 71-79.	7.6	62
99	An efficient machine learning approach to establish structure-property linkages. Computational Materials Science, 2019, 156, 17-25.	3.0	62
100	Effect of Equal Channel Angular Pressing on Microstructure and Mechanical Properties of IF Steel. Advanced Engineering Materials, 2005, 7, 43-46.	3.5	61
101	Method for measuring nanoscale local strain in a dual phase steel using digital image correlation with nanodot patterns. Scripta Materialia, 2013, 68, 245-248.	5.2	61
102	Effect of annealing heat treatment on microstructural evolution and tensile behavior of Al0.5CoCrFeMnNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 728, 251-258.	5.6	61
103	Beating Thermal Coarsening in Nanoporous Materials via Highâ€Entropy Design. Advanced Materials, 2020, 32, e1906160.	21.0	61
104	Effects of residual stress on the mechanical properties of copper processed using ultrasonic-nanocrystalline surface modification. Materials Research Letters, 2019, 7, 97-102.	8.7	60
105	Ductility of ultrafine grained copper. Applied Physics Letters, 2001, 79, 4115-4117.	3.3	59
106	Compressive deformation behavior of CrMnFeCoNi high-entropy alloy. Metals and Materials International, 2016, 22, 982-986.	3.4	59
107	Quasi-static and dynamic deformation mechanisms interpreted by microstructural evolution in TWinning Induced Plasticity (TWIP) steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 684, 54-63.	5.6	59
108	Role of BCC phase on tensile behavior of dual-phase Al0.5CoCrFeMnNi high-entropy alloy at cryogenic temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 746, 443-447.	5.6	59

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109	Precipitation-driven metastability engineering of carbon-doped CoCrFeNiMo medium-entropy alloys at cryogenic temperature. Scripta Materialia, 2020, 188, 140-145.	5.2	59
110	Laser weldability of cast and rolled high-entropy alloys for cryogenic applications. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 742, 224-230.	5.6	59
111	High tensile ductility of Ti-based amorphous matrix composites modified from conventional Tiâ€“6Alâ€“4V titanium alloy. Acta Materialia, 2013, 61, 3012-3026.	7.9	58
112	Nano-scale heterogeneity-driven metastability engineering in ferrous medium-entropy alloy induced by additive manufacturing. Acta Materialia, 2021, 221, 117426.	7.9	58
113	Microstructural development and mechanical properties of nanostructured copper reinforced with SiC nanoparticles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 568, 33-39.	5.6	57
114	Effect of post weld heat treatment on weldability of high entropy alloy welds. Science and Technology of Welding and Joining, 2018, 23, 420-427.	3.1	57
115	Cryogenic-temperature fracture toughness analysis of non-equi-atomic V10Cr10Fe45Co20Ni15 high-entropy alloy. Journal of Alloys and Compounds, 2019, 809, 151864.	5.5	57
116	Constitutive modelling of strength and plasticity of nanocrystalline metallic materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 316, 195-199.	5.6	56
117	Effect of strain rate on compressive behavior of Ti45Zr16Ni9Cu10Be20 bulk metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 449-451, 290-294.	5.6	56
118	Mechanical properties of copper after compression stage of high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 4840-4844.	5.6	56
119	Mechanical properties and microstructural evaluation of AA1100 to AZ31 dissimilar friction stir welds. Materials Chemistry and Physics, 2016, 170, 251-260.	4.0	56
120	The dead metal zone in high-pressure torsion. Scripta Materialia, 2012, 67, 384-387.	5.2	55
121	Deformation-induced phase transformation of Co20Cr26Fe20Mn20Ni14 high-entropy alloy during high-pressure torsion at 77 K. Materials Letters, 2017, 202, 86-88.	2.6	55
122	Wear properties of brass samples subjected to constrained groove pressing process. Materials & Design, 2014, 63, 531-537.	5.1	54
123	Mechanical, tribological and electrical properties of Cu-CNT composites fabricated by flake powder metallurgy method. Archives of Civil and Mechanical Engineering, 2019, 19, 694-706.	3.8	54
124	Microstructural evolution of liquid metal embrittlement in resistance-spot-welded galvanized TWinning-Induced Plasticity (TWIP) steel sheets. Materials Characterization, 2019, 147, 233-241.	4.4	54
125	In-situ carbide-reinforced CoCrFeMnNi high-entropy alloy matrix nanocomposites manufactured by selective laser melting: Carbon content effects on microstructure, mechanical properties, and deformation mechanism. Composites Part B: Engineering, 2021, 210, 108638.	12.0	54
126	A phase mixture model of a particle reinforced composite with fine microstructure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 276, 175-185.	5.6	53

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127	Twinning Engineering of a CoCrFeMnNi High-Entropy Alloy. Scripta Materialia, 2021, 197, 113808.	5.2	53
128	Numerical and experimental investigation of the deformation behavior during the accumulative back extrusion of an AZ91 magnesium alloy. Materials & Design, 2012, 35, 251-258.	5.1	52
129	Mechanical behavior and solid solution strengthening model for face-centered cubic single crystalline and polycrystalline high-entropy alloys. Intermetallics, 2018, 98, 89-94.	3.9	52
130	Dynamic strain aging of twinning-induced plasticity (TWIP) steel in tensile testing and deep drawing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 633, 136-143.	5.6	51
131	Factors governing hole expansion ratio of steel sheets with smooth sheared edge. Metals and Materials International, 2016, 22, 1009-1014.	3.4	51
132	Effect of grain size on the tensile behavior of V10Cr15Mn5Fe35Co10Ni25 high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 744, 610-617.	5.6	51
133	Deformation behavior of a Co-Cr-Fe-Ni-Mo medium-entropy alloy at extremely low temperatures. Materials Today, 2021, 50, 55-68.	14.2	51
134	Mechanical properties of partially crystallized aluminum based amorphous alloys. Scripta Materialia, 1999, 11, 241-247.	0.5	50
135	Heavily drawn Cuâ€“Feâ€“Ag and Cuâ€“Feâ€“Cr microcomposites. Journal of Materials Processing Technology, 2001, 113, 610-616.	6.3	50
136	Microstructure and compressibility of SiC nanoparticles reinforced Cu nanocomposite powders processed by high energy mechanical milling. Ceramics International, 2014, 40, 951-960.	4.8	50
137	Effects of (W, Cr) carbide on grain refinement and mechanical properties for CoCrFeMnNi high entropy alloys. Journal of Alloys and Compounds, 2019, 770, 222-228.	5.5	50
138	Exceptional cryogenic strength-ductility synergy in Al0.3CoCrNi medium-entropy alloy through heterogeneous grain structure and nano-scale precipitates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 766, 138372.	5.6	50
139	Nano-scale solute heterogeneities in the ultrastrong selectively laser melted carbon-doped CoCrFeMnNi alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138726.	5.6	50
140	A powder-metallurgy-based fabrication route towards achieving high tensile strength with ultra-high ductility in high-entropy alloy. Scripta Materialia, 2021, 190, 69-74.	5.2	50
141	Die design for homogeneous plastic deformation during equal channel angular pressing. Journal of Materials Processing Technology, 2007, 187-188, 46-50.	6.3	49
142	Role of brittle sigma phase in cryogenic-temperature-strength improvement of non-equi-atomic Fe-rich VCrMnFeCoNi high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 724, 403-410.	5.6	49
143	Fine tuning of tensile properties in CrCoNi medium entropy alloy through cold rolling and annealing. Intermetallics, 2019, 113, 106578.	3.9	49
144	Microstructural modelling of equal channel angular pressing for producing ultrafine grained materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 410-411, 285-289.	5.6	48

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145	Constitutive modeling of deformation behavior of high-entropy alloys with face-centered cubic crystal structure. Materials Research Letters, 2017, 5, 350-356.	8.7	48
146	Novel 1.5â€‰GPa-strength with 50%-ductility by transformation-induced plasticity of non-recrystallized austenite in duplex steels. Scientific Reports, 2017, 7, 1255.	3.3	48
147	Superior Strength and Multiple Strengthening Mechanisms in Nanocrystalline TWIP Steel. Scientific Reports, 2018, 8, 11200.	3.3	48
148	Strength enhancement of high entropy alloy HfNbTaTiZr by severe plastic deformation. Journal of Alloys and Compounds, 2018, 768, 924-937.	5.5	48
149	High-Output and Bending-Tolerant Triboelectric Nanogenerator Based on an Interlocked Array of Surface-Functionalized Indium Tin Oxide Nanohelixes. ACS Energy Letters, 2019, 4, 1748-1754.	17.4	48
150	Evidence of FCC to HCP and BCC-martensitic transformations in a CoCrFeNiMn high-entropy alloy by severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 807, 140875.	5.6	48
151	Achieving high strength and high ductility in Al0.3CoCrNi medium-entropy alloy through multi-phase hierarchical microstructure. Materialia, 2019, 8, 100442.	2.7	47
152	Calculation of Deformation Behavior and Texture Evolution during Equal Channel Angular Pressing of IF Steel Using Dislocation Based Modeling of Strain Hardening. Materials Science Forum, 2002, 408-412, 697-702.	0.3	46
153	Deformation behavior of copper during a high pressure torsion process. Journal of Materials Processing Technology, 2003, 142, 334-337.	6.3	46
154	A comment on the role of Frankâ€“Read sources in plasticity of nanomaterials. Acta Materialia, 2007, 55, 6401-6407.	7.9	46
155	Microstructure and mechanical properties of a Mgâ€“Znâ€“Y alloy produced by a powder metallurgy route. Journal of Alloys and Compounds, 2014, 586, S95-S100.	5.5	46
156	Shape memory effect in nanocrystalline NiTi alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 626, 203-206.	5.6	46
157	Effects of deformationâ€“induced BCC martensitic transformation and twinning on impact toughness and dynamic tensile response in metastable VCrFeCoNi highâ€“entropy alloy. Journal of Alloys and Compounds, 2019, 785, 1056-1067.	5.5	46
158	Plastic Deformation Behavior of 40Feâ€“25Niâ€“15Crâ€“10Coâ€“10V High-Entropy Alloy for Cryogenic Applications. Metals and Materials International, 2019, 25, 277-284.	3.4	46
159	Enhanced tensile properties and electrical conductivity of Cu-CNT nanocomposites processed via the combination of flake powder metallurgy and high pressure torsion methods. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138888.	5.6	46
160	Influence of nanoprecipitation on strength of Cu60Zr30Ti10 glass containing Î¼m-ZrC particle reinforcements. Scripta Materialia, 2004, 51, 577-581.	5.2	45
161	Microstructure, texture and mechanical properties of the magnesium alloy AZ31 processed by ECAP. International Journal of Materials Research, 2008, 99, 50-55.	0.3	45
162	Effects of the spin line temperature profile and melt index of poly(propylene) on meltâ€electrospinning. Polymer Engineering and Science, 2009, 49, 391-396.	3.1	45

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163	Grain refinement under high strain rate impact: A numerical approach. Computational Materials Science, 2010, 48, 124-132.	3.0	45
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