Jae Wung Bae

List of Publications by Citations

54 papers	1,480 citations	23 h-index	37 g-index
54 ext. papers	2,166 ext. citations	6.2 avg, IF	5.33 L-index

#	Paper	IF	Citations
54	Boron doped ultrastrong and ductile high-entropy alloys. *Acta Materialia*, **2018**, 151, 366-376	8.4	139
53	Exceptional phase-transformation strengthening of ferrous medium-entropy alloys at cryogenic temperatures. *Acta Materialia*, **2018**, 161, 388-399	8.4	100
52	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	5.3	84
51	Superior tensile properties of 1%C-CoCrFeMnNi high-entropy alloy additively manufactured by selective laser melting. *Materials Research Letters*, **2020**, 8, 1-7	7.4	76
50	Superior cryogenic tensile properties of ultrafine-grained CoCrNi medium-entropy alloy produced by high-pressure torsion and annealing. *Scripta Materialia*, **2019**, 163, 152-156	5.6	60
49	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	5.3	59
48	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	5.3	55
47	On the strain rate-dependent deformation mechanism of CoCrFeMnNi high-entropy alloy at liquid nitrogen temperature. *Materials Research Letters*, **2017**, 5, 472-477	7.4	54
46	Effect of □precipitates on the microstructure and mechanical properties of non-equiatomic CoCrFeNiMo medium-entropy alloys. *Journal of Alloys and Compounds*, **2019**, 781, 75-83	5.7	49
45	High-temperature tensile deformation behavior of hot rolled CrMnFeCoNi high-entropy alloy. *Journal of Alloys and Compounds*, **2018**, 730, 242-248	5.7	44
44	Short-range order strengthening in boron-doped high-entropy alloys for cryogenic applications. *Acta Materialia*, **2020**, 194, 366-377	8.4	43
43	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	5.3	43
42	A new strategy for designing immiscible medium-entropy alloys with excellent tensile properties. *Acta Materialia*, **2020**, 193, 71-82	8.4	38
41	Beating Thermal Coarsening in Nanoporous Materials via High-Entropy Design. *Advanced Materials*, **2020**, 32, e1906160	24	36
40	Precipitation-driven metastability engineering of carbon-doped CoCrFeNiMo medium-entropy alloys at cryogenic temperature. *Scripta Materialia*, **2020**, 188, 140-145	5.6	36
39	Constitutive modeling of deformation behavior of high-entropy alloys with face-centered cubic crystal structure. *Materials Research Letters*, **2017**, 5, 350-356	7.4	35
38	Mechanical behavior and solid solution strengthening model for face-centered cubic single crystalline and polycrystalline high-entropy alloys. *Intermetallics*, **2018**, 98, 89-94	3.5	35

37	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	5.3	32
36	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	5.3	32
35	Towards ferrous medium-entropy alloys with low-cost and high-performance. *Scripta Materialia*, **2020**, 186, 169-173	5.6	28
34	Effect of Annealing on Microstructure and Tensile Behavior of CoCrNi Medium Entropy Alloy Processed by High-Pressure Torsion. *Entropy*, **2018**, 20,	2.8	27
33	Shock wave compaction and sintering of mechanically alloyed CoCrFeMnNi high-entropy alloy powders. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 708, 291-300	5.3	26
32	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	5.3	26
31	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	5.3	23
30	Strain-rate sensitivity of high-entropy alloys and its significance in deformation. *Materials Research Letters*, **2019**, 7, 503-509	7.4	23
29	Achieving high strength and high ductility in Al0.3CoCrNi medium-entropy alloy through multi-phase hierarchical microstructure. *Materialia*, **2019**, 8, 100442	3.2	23
28	Fine tuning of tensile properties in CrCoNi medium entropy alloy through cold rolling and annealing. *Intermetallics*, **2019**, 113, 106578	3.5	23
27	Compaction behavior of water-atomized CoCrFeMnNi high-entropy alloy powders. *Materials Chemistry and Physics*, **2018**, 210, 95-102	4.4	22
26	Fine-tuning of mechanical properties in V10Cr15Mn5Fe35Co10Ni25 high-entropy alloy through high-pressure torsion and annealing. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 771, 138604	5.3	22
25	Effect of Initial Grain Size on Deformation Mechanism during High-Pressure Torsion in V10Cr15Mn5Fe35Co10Ni25 High-Entropy Alloy. *Advanced Engineering Materials*, **2020**, 22, 1900587	3.5	19
24	Low-cycle fatigue properties of CoCrFeMnNi high-entropy alloy compared with its conventional counterparts. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 792, 139661	5.3	18
23	Hetero-deformation-induced strengthening by twin-mediated martensitic transformation in an immiscible medium-entropy alloy. *Scripta Materialia*, **2020**, 186, 24-28	5.6	15
22	Nano-scale heterogeneity-driven metastability engineering in ferrous medium-entropy alloy induced by additive manufacturing. *Acta Materialia*, **2021**, 221, 117426	8.4	14
21	In situ neutron diffraction study of phase stress evolution in a ferrous medium-entropy alloy under low-temperature tensile loading. *Scripta Materialia*, **2019**, 165, 60-63	5.6	13
20	Effects of homogenization temperature on cracking during cold-rolling of Al0.5CoCrFeMnNi high-entropy alloy. *Materials Chemistry and Physics*, **2018**, 210, 187-191	4.4	12

19	Deep Drawing Behavior of CoCrFeMnNi High-Entropy Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2017**, 48, 4111-4120	2.3	12
18	On the phase transformation and dynamic stress–strain partitioning of ferrous medium-entropy alloy using experimentation and finite element method. *Materialia*, **2020**, 9, 100619	3.2	11
17	Enhanced cryogenic tensile properties with multi-stage strain hardening through partial recrystallization in a ferrous medium-entropy alloy. *Scripta Materialia*, **2021**, 194, 113653	5.6	10
16	Deformation behavior of a Co-Cr-Fe-Ni-Mo medium-entropy alloy at extremely low temperatures. *Materials Today*, **2021**, 50, 55-55	21.8	10
15	Synergetic strengthening of layered steel sheet investigated using an in situ neutron diffraction tensile test. *Scientific Reports*, **2019**, 9, 6829	4.9	9
14	Synergetic strengthening from grain refinement and nano-scale precipitates in non-equiatomic CoCrFeNiMo medium-entropy alloy. *Intermetallics*, **2021**, 135, 107212	3.5	8
13	Metalloid substitution elevates simultaneously the strength and ductility of face-centered-cubic high-entropy alloys. *Acta Materialia*, **2022**, 225, 117571	8.4	7
12	Surface-Tailored Medium Entropy Alloys as Radically Low Overpotential Oxygen Evolution Electrocatalysts.. *Small*, **2022**, e2105611	11	6
11	Temperature- and strain-dependent thermally-activated deformation mechanism of a ferrous medium-entropy alloy. *Intermetallics*, **2021**, 134, 107202	3.5	5
10	Finite Element and Experimental Analyses on the Formability of Steel Sheets Produced by Compact Endless Cast and Rolling. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2017**, 48, 1021-1032	2.3	3
9	Metastability engineering of partially recrystallized C-doped non-equiatomic CoCrFeNiMo medium-entropy alloy. *Applied Physics Letters*, **2021**, 119, 141901	3.4	3
8	Effect of the Difference in Strength of Hard and Soft Components on the Synergetic Strengthening of Layered Materials. *Metals and Materials International*, **2021**, 27, 376-383	2.4	3
7	Gradient-structured ferrous medium-entropy alloys with enhanced strength-ductility synergy by ultrasonic nanocrystalline surface modification. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 826, 141966	5.3	3
6	Stretch-flangeability of CoCrFeMnNi high-entropy alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 814, 141241	5.3	2
5	Superplastic Behavior in High-Pressure Torsion-Processed Mo7.5Fe55Co18Cr12.5Ni7 Medium-Entropy Alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2021**, 52, 1-7	2.3	2
4	Double-humped strain hardening in a metastable ferrous medium-entropy alloy by cryogenic pre-straining and subsequent heat treatment. *Scripta Materialia*, **2022**, 211, 114511	5.6	1
3	Fe55Co17.5Ni10Cr12.5Mo5 High-Entropy Alloy with Outstanding Cryogenic Mechanical Properties Driven by Deformation-Induced Phase Transformation Behavior. *Metals and Materials International*,1	2.4	1
2	Effect of Initial Grain Size on Deformation Mechanism during High-Pressure Torsion in V10Cr15Mn5Fe35Co10Ni25 High-Entropy Alloy. *Advanced Engineering Materials*, **2020**, 22, 2070002	3.5	