

Jae Wung Bae

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Surface-Tailored Medium Entropy Alloys as Radically Low Overpotential Oxygen Evolution Electrocatalysts.. <i>Small</i> , 2022 , e2105611	11	6
53	Double-humped strain hardening in a metastable ferrous medium-entropy alloy by cryogenic pre-straining and subsequent heat treatment. <i>Scripta Materialia</i> , 2022 , 211, 114511	5.6	1
52	Metalloid substitution elevates simultaneously the strength and ductility of face-centered-cubic high-entropy alloys. <i>Acta Materialia</i> , 2022 , 225, 117571	8.4	7
51	Nano-scale heterogeneity-driven metastability engineering in ferrous medium-entropy alloy induced by additive manufacturing. <i>Acta Materialia</i> , 2021 , 221, 117426	8.4	14
50	Metastability engineering of partially recrystallized C-doped non-equiatomic CoCrFeNiMo medium-entropy alloy. <i>Applied Physics Letters</i> , 2021 , 119, 141901	3.4	3
49	Stretch-flangeability of CoCrFeMnNi high-entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 814, 141241	5.3	2
48	Temperature- and strain-dependent thermally-activated deformation mechanism of a ferrous medium-entropy alloy. <i>Intermetallics</i> , 2021 , 134, 107202	3.5	5
47	Effect of the Difference in Strength of Hard and Soft Components on the Synergetic Strengthening of Layered Materials. <i>Metals and Materials International</i> , 2021 , 27, 376-383	2.4	3
46	Enhanced cryogenic tensile properties with multi-stage strain hardening through partial recrystallization in a ferrous medium-entropy alloy. <i>Scripta Materialia</i> , 2021 , 194, 113653	5.6	10
45	Superplastic Behavior in High-Pressure Torsion-Processed Mo _{7.5} Fe ₅₅ Co ₁₈ Cr _{12.5} Ni ₇ Medium-Entropy Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021 , 52, 1-7	2.3	2
44	Synergetic strengthening from grain refinement and nano-scale precipitates in non-equiatomic CoCrFeNiMo medium-entropy alloy. <i>Intermetallics</i> , 2021 , 135, 107212	3.5	8
43	Deformation behavior of a Co-Cr-Fe-Ni-Mo medium-entropy alloy at extremely low temperatures. <i>Materials Today</i> , 2021 , 50, 55-55	21.8	10
42	Gradient-structured ferrous medium-entropy alloys with enhanced strength-ductility synergy by ultrasonic nanocrystalline surface modification. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 826, 141966	5.3	3
41	Towards ferrous medium-entropy alloys with low-cost and high-performance. <i>Scripta Materialia</i> , 2020 , 186, 169-173	5.6	28
40	Short-range order strengthening in boron-doped high-entropy alloys for cryogenic applications. <i>Acta Materialia</i> , 2020 , 194, 366-377	8.4	43
39	Low-cycle fatigue properties of CoCrFeMnNi high-entropy alloy compared with its conventional counterparts. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 792, 139661	5.3	18
38	On the phase transformation and dynamic stress-strain partitioning of ferrous medium-entropy alloy using experimentation and finite element method. <i>Materialia</i> , 2020 , 9, 100619	3.2	11

37	Effect of Initial Grain Size on Deformation Mechanism during High-Pressure Torsion in V10Cr15Mn5Fe35Co10Ni25 High-Entropy Alloy. <i>Advanced Engineering Materials</i> , 2020 , 22, 2070002	3.5	
36	A new strategy for designing immiscible medium-entropy alloys with excellent tensile properties. <i>Acta Materialia</i> , 2020 , 193, 71-82	8.4	38
35	Nanoporous Materials: Beating Thermal Coarsening in Nanoporous Materials via High-Entropy Design (Adv. Mater. 6/2020). <i>Advanced Materials</i> , 2020 , 32, 2070044	24	
34	Hetero-deformation-induced strengthening by twin-mediated martensitic transformation in an immiscible medium-entropy alloy. <i>Scripta Materialia</i> , 2020 , 186, 24-28	5.6	15
33	Fine-tuning of mechanical properties in V10Cr15Mn5Fe35Co10Ni25 high-entropy alloy through high-pressure torsion and annealing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 771, 138604	5.3	22
32	Beating Thermal Coarsening in Nanoporous Materials via High-Entropy Design. <i>Advanced Materials</i> , 2020 , 32, e1906160	24	36
31	Precipitation-driven metastability engineering of carbon-doped CoCrFeNiMo medium-entropy alloys at cryogenic temperature. <i>Scripta Materialia</i> , 2020 , 188, 140-145	5.6	36
30	Superior tensile properties of 1%C-CoCrFeMnNi high-entropy alloy additively manufactured by selective laser melting. <i>Materials Research Letters</i> , 2020 , 8, 1-7	7.4	76
29	Effect of Initial Grain Size on Deformation Mechanism during High-Pressure Torsion in V10Cr15Mn5Fe35Co10Ni25 High-Entropy Alloy. <i>Advanced Engineering Materials</i> , 2020 , 22, 1900587	3.5	19
28	Exceptional cryogenic strength-ductility synergy in Al0.3CoCrNi medium-entropy alloy through heterogeneous grain structure and nano-scale precipitates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 766, 138372	5.3	23
27	Strain-rate sensitivity of high-entropy alloys and its significance in deformation. <i>Materials Research Letters</i> , 2019 , 7, 503-509	7.4	23
26	Achieving high strength and high ductility in Al0.3CoCrNi medium-entropy alloy through multi-phase hierarchical microstructure. <i>Materialia</i> , 2019 , 8, 100442	3.2	23
25	Superior cryogenic tensile properties of ultrafine-grained CoCrNi medium-entropy alloy produced by high-pressure torsion and annealing. <i>Scripta Materialia</i> , 2019 , 163, 152-156	5.6	60
24	Synergetic strengthening of layered steel sheet investigated using an in situ neutron diffraction tensile test. <i>Scientific Reports</i> , 2019 , 9, 6829	4.9	9
23	In situ neutron diffraction study of phase stress evolution in a ferrous medium-entropy alloy under low-temperature tensile loading. <i>Scripta Materialia</i> , 2019 , 165, 60-63	5.6	13
22	Fine tuning of tensile properties in CrCoNi medium entropy alloy through cold rolling and annealing. <i>Intermetallics</i> , 2019 , 113, 106578	3.5	23
21	Effect of grain size on the tensile behavior of V10Cr15Mn5Fe35Co10Ni25 high entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 744, 610-617	5.3	32
20	Role of BCC phase on tensile behavior of dual-phase Al0.5CoCrFeMnNi high-entropy alloy at cryogenic temperature. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 746, 443-447	5.3	26

19	Effect of ϵ -precipitates on the microstructure and mechanical properties of non-equiatomic CoCrFeNiMo medium-entropy alloys. <i>Journal of Alloys and Compounds</i> , 2019 , 781, 75-83	5.7	49
18	Boron doped ultrastrong and ductile high-entropy alloys. <i>Acta Materialia</i> , 2018 , 151, 366-376	8.4	139
17	Strain rate effects of dynamic compressive deformation on mechanical properties and microstructure of CoCrFeMnNi high-entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 719, 155-163	5.3	84
16	Mechanical behavior and solid solution strengthening model for face-centered cubic single crystalline and polycrystalline high-entropy alloys. <i>Intermetallics</i> , 2018 , 98, 89-94	3.5	35
15	Effects of homogenization temperature on cracking during cold-rolling of Al _{0.5} CoCrFeMnNi high-entropy alloy. <i>Materials Chemistry and Physics</i> , 2018 , 210, 187-191	4.4	12
14	High-temperature tensile deformation behavior of hot rolled CrMnFeCoNi high-entropy alloy. <i>Journal of Alloys and Compounds</i> , 2018 , 730, 242-248	5.7	44
13	Annealing-induced hardening in high-pressure torsion processed CoCrNi medium entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 734, 338-340	5.3	43
12	Ultra-high tensile strength nanocrystalline CoCrNi equi-atomic medium entropy alloy processed by high-pressure torsion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 735, 394-397	5.3	55
11	Compaction behavior of water-atomized CoCrFeMnNi high-entropy alloy powders. <i>Materials Chemistry and Physics</i> , 2018 , 210, 95-102	4.4	22
10	Effect of Annealing on Microstructure and Tensile Behavior of CoCrNi Medium Entropy Alloy Processed by High-Pressure Torsion. <i>Entropy</i> , 2018 , 20,	2.8	27
9	Exceptional phase-transformation strengthening of ferrous medium-entropy alloys at cryogenic temperatures. <i>Acta Materialia</i> , 2018 , 161, 388-399	8.4	100
8	Effect of annealing heat treatment on microstructural evolution and tensile behavior of Al _{0.5} CoCrFeMnNi high-entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 728, 251-258	5.3	32
7	Finite Element and Experimental Analyses on the Formability of Steel Sheets Produced by Compact Endless Cast and Rolling. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017 , 48, 1021-1032	2.3	3
6	Constitutive modeling of deformation behavior of high-entropy alloys with face-centered cubic crystal structure. <i>Materials Research Letters</i> , 2017 , 5, 350-356	7.4	35
5	On the strain rate-dependent deformation mechanism of CoCrFeMnNi high-entropy alloy at liquid nitrogen temperature. <i>Materials Research Letters</i> , 2017 , 5, 472-477	7.4	54
4	Shock wave compaction and sintering of mechanically alloyed CoCrFeMnNi high-entropy alloy powders. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 708, 291-300	5.3	26
3	Trade-off between tensile property and formability by partial recrystallization of CrMnFeCoNi high-entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 703, 324-330	5.3	59
2	Deep Drawing Behavior of CoCrFeMnNi High-Entropy Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017 , 48, 4111-4120	2.3	12

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Fe55Co17.5Ni10Cr12.5Mo5 High-Entropy Alloy with Outstanding Cryogenic Mechanical Properties Driven by Deformation-Induced Phase Transformation Behavior. *Metals and Materials International*,1

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