

# High-entropy alloys: a critical assessment of their found prospects

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Weldability of a high entropy CrMnFeCoNi alloy. Scripta Materialia, 2016, 124, 81-85.	2.6	130
2	The configurational entropy of mixing of metastable random solid solution in complex multicomponent alloys. Journal of Applied Physics, 2016, 120, .	1.1	36
3	Atomic displacement in the CrMnFeCoNi high-entropy alloy " A scaling factor to predict solid solution strengthening. AIP Advances, 2016, 6, .	0.6	183
4	Microstructure evolution and critical stress for twinning in the CrMnFeCoNi high-entropy alloy. Acta Materialia, 2016, 118, 152-163.	3.8	823
5	Cold-rolling and recrystallization textures of a nano-lamellar AlCoCrFeNi <sub>2.1</sub> eutectic high entropy alloy. Intermetallics, 2017, 84, 42-51.	1.8	102
6	The effect of carbon on the microstructures, mechanical properties, and deformation mechanisms of thermo-mechanically treated Fe <sub>40.4</sub> Ni <sub>11.3</sub> Mn <sub>34.8</sub> Al <sub>7.5</sub> Cr <sub>6</sub> high entropy alloys. Acta Materialia, 2017, 126, 346-360.	3.8	200
7	Phase formation criteria assessment on the microstructure of a new refractory high entropy alloy. Scripta Materialia, 2017, 131, 51-54.	2.6	15
8	Novel Fe <sub>36</sub> Mn <sub>21</sub> Cr <sub>18</sub> Ni <sub>15</sub> Al <sub>10</sub> high entropy alloy with bcc/B2 dual-phase structure. Journal of Alloys and Compounds, 2017, 705, 756-763.	2.8	114
9	From diluted solid solutions to high entropy alloys: On the evolution of properties with composition of multi-components alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 696, 228-235.	2.6	41
10	Investigating phase formations in cast AlFeCoNiCu high entropy alloys by combination of computational modeling and experiments. Materials and Design, 2017, 127, 224-232.	3.3	35
11	Effect of temperature on the fatigue-crack growth behavior of the high-entropy alloy CrMnFeCoNi. Intermetallics, 2017, 88, 65-72.	1.8	160
12	Predicting solid solubility in CoCrFeNiM <sub>x</sub> (M = 4d transition metal) high-entropy alloys. Journal of Applied Physics, 2017, 121, .	1.1	38
13	Twinning-mediated work hardening and texture evolution in CrCoFeMnNi high entropy alloys at cryogenic temperature. Materials and Design, 2017, 131, 419-427.	3.3	54
14	Combinatorial exploration of the High Entropy Alloy System Co-Cr-Fe-Mn-Ni. Surface and Coatings Technology, 2017, 325, 174-180.	2.2	43
15	Strengthening of high entropy alloys by dilute solute additions: CoCrFeNiAl and CoCrFeNiMnAl alloys. Scripta Materialia, 2017, 138, 92-95.	2.6	73
16	Formation of Random Solid Solution in Multicomponent Alloys: from Hume-Rothery Rules to Entropic Stabilization. Journal of Phase Equilibria and Diffusion, 2017, 38, 416-425.	0.5	43
17	Superplastic-like flow in a fine-grained equiatomic CoCrFeMnNi high-entropy alloy. Materials Research Letters, 2017, 5, 408-414.	4.1	67
18	Phase Decomposition of a Single-Phase AlTiVNb High-Entropy Alloy after Severe Plastic Deformation and Annealing. Advanced Engineering Materials, 2017, 19, 1600674.	1.6	36

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19	Impacts of atomic scale lattice distortion on dislocation activity in high-entropy alloys. <i>Extreme Mechanics Letters</i> , 2017, 17, 38-42.	2.0	52
20	Phase selection rule for Al-doped CrMnFeCoNi high-entropy alloys from first-principles. <i>Acta Materialia</i> , 2017, 140, 366-374.	3.8	69
21	High-Entropy Alloys: A Current Evaluation of Founding Ideas and Core Effects and Exploring <i>Nonlinear Alloys</i> . <i>Jom</i> , 2017, 69, 2130-2136.	0.9	94
22	Local segregation versus irradiation effects in high-entropy alloys: Steady-state conditions in a driven system. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	61
23	Direct versus indirect particle strengthening in a strong, ductile FeNiMnAlTi high entropy alloy. <i>Materials Characterization</i> , 2017, 132, 156-161.	1.9	27
24	Topologically Close-packed Phase Formation in High Entropy Alloys: A Review of Calphad and Experimental Results. <i>Jom</i> , 2017, 69, 2113-2124.	0.9	24
25	Trade-off between tensile property and formability by partial recrystallization of CrMnFeCoNi high-entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 703, 324-330.	2.6	85
26	Heterogeneous precipitation behavior and stacking-fault-mediated deformation in a CoCrNi-based medium-entropy alloy. <i>Acta Materialia</i> , 2017, 138, 72-82.	3.8	553
27	Recent Progress in High Entropy Alloy Research. <i>Jom</i> , 2017, 69, 2024-2031.	0.9	100
28	Short-Range Order in High Entropy Alloys: Theoretical Formulation and Application to Mo-Nb-Ta-V-W System. <i>Journal of Phase Equilibria and Diffusion</i> , 2017, 38, 391-403.	0.5	102
29	Processing of High-Entropy AlCoCr0.75Cu0.5FeNi Alloy by Spray Forming. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 5906-5920.	1.2	10
30	Design of High-Entropy Alloy: A Perspective from Nonideal Mixing. <i>Jom</i> , 2017, 69, 2092-2098.	0.9	66
31	Structural stability of high entropy alloys under pressure and temperature. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	44
32	Electronic structure and properties of (TiZrNbCu) <sub>1-x</sub> Nix high entropy amorphous alloys. <i>Journal of Alloys and Compounds</i> , 2017, 695, 2661-2668.	2.8	17
33	Precipitation-strengthened refractory Al 0.5 CrNbTi 2 V 0.5 high entropy alloy. <i>Materials Letters</i> , 2017, 188, 162-164.	1.3	94
34	A critical review of high entropy alloys and related concepts. <i>Acta Materialia</i> , 2017, 122, 448-511.	3.8	5,208
35	An assessment of the lattice strain in the CrMnFeCoNi high-entropy alloy. <i>Acta Materialia</i> , 2017, 122, 11-18.	3.8	229
36	On The Superior High Temperature Hardness of Precipitation Strengthened High Entropy Ni-Based Alloys. <i>Advanced Engineering Materials</i> , 2017, 19, 1600475.	1.6	42

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37	Structural Evolution and Performance Changes in FeCoCrNiAlNb <sub>x</sub> High-Entropy Alloy Coatings Cladded by Laser. <i>Journal of Thermal Spray Technology</i> , 2017, 26, 2005-2012.	1.6	22
38	Multi-Scale Low-Entropy Method for Optimizing the Processing Parameters during Automated Fiber Placement. <i>Materials</i> , 2017, 10, 1024.	1.3	12
39	Face Centred Cubic Multi-Component Equiatomic Solid Solutions in the Au-Cu-Ni-Pd-Pt System. <i>Metals</i> , 2017, 7, 135.	1.0	25
40	Simultaneous Strength-Ductility Enhancement of a Nano-Lamellar AlCoCrFeNi <sub>2.1</sub> Eutectic High Entropy Alloy by Cryo-Rolling and Annealing. <i>Scientific Reports</i> , 2018, 8, 3276.	1.6	209
41	Microstructures and properties of high-entropy alloy films and coatings: a review. <i>Materials Research Letters</i> , 2018, 6, 199-229.	4.1	345
42	Printability and microstructure of the CoCrFeMnNi high-entropy alloy fabricated by laser powder bed fusion. <i>Materials Letters</i> , 2018, 224, 22-25.	1.3	135
43	Structure and properties of lightweight high entropy alloys: a brief review. <i>Materials Research Express</i> , 2018, 5, 052001.	0.8	82
44	Mechanical Enhancement of Core-Shell Microlattices through High-Entropy Alloy Coating. <i>Scientific Reports</i> , 2018, 8, 5442.	1.6	30
45	Properties of (TiZrNbCu) <sub>1-x</sub> Ni <sub>x</sub> metallic glasses. <i>Journal of Alloys and Compounds</i> , 2018, 745, 455-459.	2.8	8
46	Design of high-entropy alloys with a single solid-solution phase: Average properties vs. their variances. <i>Journal of Alloys and Compounds</i> , 2018, 742, 430-441.	2.8	30
47	Evolutionary design of strong and stable high entropy alloys using multi-objective optimisation based on physical models, statistics and thermodynamics. <i>Materials and Design</i> , 2018, 143, 185-195.	3.3	43
48	Determination of latent hardening response for FeNiCoCrMn for twin-twin interactions. <i>Acta Materialia</i> , 2018, 147, 149-164.	3.8	43
49	Microstructure and mechanical properties of friction stir welded and laser welded high entropy alloy CrMnFeCoNi. <i>Metals and Materials International</i> , 2018, 24, 73-83.	1.8	84
50	Science and technology in high-entropy alloys. <i>Science China Materials</i> , 2018, 61, 2-22.	3.5	679
51	Novel high-entropy and medium-entropy stainless steels with enhanced mechanical and anti-corrosion properties. <i>Materials Science and Technology</i> , 2018, 34, 572-579.	0.8	9
52	Structure and hardness of B2 ordered refractory AlNbTiVZr <sub>0.5</sub> high entropy alloy after high-pressure torsion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 716, 308-315.	2.6	36
53	Microstructures and properties of CoCrCuFeNiMox high-entropy alloys fabricated by mechanical alloying and spark plasma sintering. <i>Powder Metallurgy</i> , 2018, 61, 115-122.	0.9	27
54	Influence of strain on the formation of cold-rolling and grain growth textures of an equiatomic HfZrTiTaNb refractory high entropy alloy. <i>Materials Characterization</i> , 2018, 136, 286-292.	1.9	28

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55	Effect of annealing conditions and temperatures on phase formation and magnetic behaviour of CrFeMnNiTi high entropy alloy. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 465, 169-175.	1.0	22
56	Phase stability and temperature-dependent compressive strength of a low-density Fe <sub>32.3</sub> Al <sub>29.3</sub> Cu <sub>11.7</sub> Ni <sub>10.8</sub> Ti <sub>15.9</sub> alloy. <i>Scripta Materialia</i> , 2018, 150, 54-56.	2.6	2
57	Microband induced plasticity and the temperature dependence of the mechanical properties of a carbon-doped FeNiMnAlCr high entropy alloy. <i>Materials Characterization</i> , 2018, 139, 373-381.	1.9	44
58	Laser beam welding of a CoCrFeNiMn-type high entropy alloy produced by self-propagating high-temperature synthesis. <i>Intermetallics</i> , 2018, 96, 63-71.	1.8	83
59	Hot deformation behavior of CoCrFeMnNi FCC high entropy alloy. <i>Materials Chemistry and Physics</i> , 2018, 210, 176-186.	2.0	119
60	On the influence of Mn on the phase stability of the CrMn <sub>x</sub> FeCoNi high entropy alloys. <i>Intermetallics</i> , 2018, 92, 84-92.	1.8	68
61	Phase segregation discussion in a Hf <sub>25</sub> Zr <sub>30</sub> Ti <sub>20</sub> Nb <sub>15</sub> V <sub>10</sub> high entropy alloy: The effect of the high melting point element. <i>Materials Chemistry and Physics</i> , 2018, 210, 251-258.	2.0	16
62	High-Entropy Alloys: Potential Candidates for High-Temperature Applications – An Overview. <i>Advanced Engineering Materials</i> , 2018, 20, 1700645.	1.6	270
63	Studies of sluggish diffusion-effect in Co-Cr-Fe-Mn-Ni, Co-Cr-Fe-Ni and Co-Fe-Mn-Ni high entropy alloys; determination of tracer diffusivities by combinatorial approach. <i>Journal of Alloys and Compounds</i> , 2018, 731, 920-928.	2.8	109
64	Thermal activation parameters of plastic flow reveal deformation mechanisms in the CrMnFeCoNi high-entropy alloy. <i>Acta Materialia</i> , 2018, 143, 257-264.	3.8	132
65	Microstructure characterization of CoCrFeNiMnPd eutectic high-entropy alloys. <i>Journal of Alloys and Compounds</i> , 2018, 731, 600-611.	2.8	49
66	Microstructures and thermodynamic properties of high-entropy alloys CoCrCuFeNi. <i>Intermetallics</i> , 2018, 93, 40-46.	1.8	53
67	Local mechanical properties of Al CoCrCuFeNi high entropy alloy characterized using nanoindentation. <i>Intermetallics</i> , 2018, 93, 85-88.	1.8	54
68	Comparative study on sintering kinetics of as-milled and annealed CoCrFeNi high entropy alloy powders. <i>Materials Chemistry and Physics</i> , 2018, 210, 49-56.	2.0	11
69	Elastic properties of high entropy alloys by MaxEnt approach. <i>Computational Materials Science</i> , 2018, 142, 332-337.	1.4	39
70	Microstructural features and dry - Sliding wear response of MoTaNbZrTi high entropy alloy. <i>Materials Chemistry and Physics</i> , 2018, 210, 126-135.	2.0	50
71	Formation of defect structure at the atomic level under mechanical loading of CoCrFeMnNi high-entropy alloys. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	3
72	Strengthening of a CoCrFeNiMn-Type High Entropy Alloy by Regular Arrays of Nanoprecipitates. <i>Materials Science Forum</i> , 2018, 941, 772-777.	0.3	3

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73	Liquid Phase Separation in High-Entropy Alloys—A Review. <i>Entropy</i> , 2018, 20, 890.	1.1	33
74	A Novel Low-Activation VCrFeTaW <sub>x</sub> (x = 0.1, 0.2, 0.3, 0.4, and 1) High-Entropy Alloys with Excellent Heat-Softening Resistance. <i>Entropy</i> , 2018, 20, 951.	1.1	52
75	Cu <sub>x</sub> CrFeMoTi (x = 0.21, 0.44, 1) high entropy alloys as novel materials for fusion applications. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2018, 238-239, 18-25.	1.7	8
76	Structure and high temperature mechanical properties of novel non-equiatomic Fe-(Co, Ti) high entropy alloys. <i>Journal of Materials Research</i> , 2018, 33, 2954-2969.	1.8	56
77	High-content ductile coherent nanoprecipitates achieve ultrastrong high-entropy alloys. <i>Nature Communications</i> , 2018, 9, 4063.	5.8	399
78	Lattice distortions in high-entropy alloys. <i>Journal of Materials Research</i> , 2018, 33, 2954-2969.	1.2	81
79	Spark plasma sintering of gas atomized high-entropy alloy HfNbTaTiZr. <i>Journal of Materials Research</i> , 2018, 33, 3247-3257.	1.2	26
80	Deformation and annealing behaviors of as-cast non-equiatomic high entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 737, 9-17.	2.6	9
81	Preparation of nanocrystalline high-entropy alloys via cryomilling of cast ingots. <i>Journal of Materials Science</i> , 2018, 53, 13411-13423.	1.7	55
82	A superfine eutectic microstructure and the mechanical properties of CoCrFeNiMo <sub>2</sub> high-entropy alloys. <i>Journal of Materials Research</i> , 2018, 33, 3258-3265.	1.2	79
83	Effect of cold-rolling on microstructure, texture and mechanical properties of an equiatomic FeCrCuMnNi high entropy alloy. <i>Materialia</i> , 2018, 1, 175-184.	1.3	49
84	Effect of Molybdenum on the Corrosion Behavior of High-Entropy Alloys CoCrFeNi <sub>2</sub> and CoCrFeNi <sub>2</sub> Mo <sub>0.25</sub> under Sodium Chloride Aqueous Conditions. <i>Advances in Materials Science and Engineering</i> , 2018, 2018, 1-11.	1.0	67
85	Structure property relationship in (TiZrNbCu) <sub>1-x</sub> Ni <sub>x</sub> metallic glasses. <i>Journal of Materials Research</i> , 2018, 33, 3170-3183.	1.2	7
86	Peculiarities of deformation of CoCrFeMnNi at cryogenic temperatures. <i>Journal of Materials Research</i> , 2018, 33, 3287-3300.	1.2	56
87	Elasticity of high-entropy alloys from ab initio theory. <i>Journal of Materials Research</i> , 2018, 33, 2938-2953.	1.2	38
88	Modeling the structure and thermodynamics of high-entropy alloys. <i>Journal of Materials Research</i> , 2018, 33, 2881-2898.	1.2	78
89	Phase formation, microstructure and deformation behavior of heavily alloyed TiNb- and TiV-based titanium alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 733, 80-86.	2.6	32
90	Mechanical properties of a new high entropy alloy with a duplex ultra-fine grained structure. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 728, 54-62.	2.6	55

#	ARTICLE	IF	CITATIONS
91	Microstructure of (Hf-Ta-Zr-Nb)C high-entropy carbide at micro and nano/atomic level. Journal of the European Ceramic Society, 2018, 38, 4303-4307.	2.8	167
92	Microstructure and Mechanical Properties Evolution of the Al, C-Containing CoCrFeNiMn-Type High-Entropy Alloy during Cold Rolling. Materials, 2018, 11, 53.	1.3	75
93	Fundamental understanding of mechanical behavior of high-entropy alloys at low temperatures: A review. Journal of Materials Research, 2018, 33, 2998-3010.	1.2	63
94	Size effects on plasticity in high-entropy alloys. Journal of Materials Research, 2018, 33, 3055-3076.	1.2	37
95	On Lattice Distortion in High Entropy Alloys. Frontiers in Materials, 2018, 5, .	1.2	103
96	Corrosion, Erosion and Wear Behavior of Complex Concentrated Alloys: A Review. Metals, 2018, 8, 603.	1.0	71
97	Tunable stacking fault energies by tailoring local chemical order in CrCoNi medium-entropy alloys. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8919-8924.	3.3	495
98	Characterization of non-metallic inclusions and their influence on the mechanical properties of a FCC single-phase high-entropy alloy. Journal of Alloys and Compounds, 2018, 763, 546-557.	2.8	59
99	Processing and Properties of High-Entropy Ultra-High Temperature Carbides. Scientific Reports, 2018, 8, 8609.	1.6	506
100	Current and emerging practices of CALPHAD toward the development of high entropy alloys and complex concentrated alloys. Journal of Materials Research, 2018, 33, 2899-2923.	1.2	51
101	High-entropy alloys and metallic nanocomposites: Processing challenges, microstructure development and property enhancement. Materials Science and Engineering Reports, 2018, 131, 1-42.	14.8	126
102	Tracer diffusion in single crystalline CoCrFeNi and CoCrFeMnNi high entropy alloys. Journal of Materials Research, 2018, 33, 3184-3191.	1.2	54
103	On the prediction and the formation of the sigma phase in CrMnCoFeNi high entropy alloys. Journal of Alloys and Compounds, 2019, 770, 285-293.	2.8	57
104	Ab initio phase stabilities and mechanical properties of multicomponent alloys: A comprehensive review for high entropy alloys and compositionally complex alloys. Materials Characterization, 2019, 147, 464-511.	1.9	231
105	Concurrence of spinodal decomposition and nano-phase precipitation in a multi-component AlCoCrCuFeNi high-entropy alloy. Journal of Materials Research and Technology, 2019, 8, 726-736.	2.6	62
106	Short communication: "Low activation, refractory, high entropy alloys for nuclear applications"™. Journal of Nuclear Materials, 2019, 526, 151744.	1.3	87
107	Strengthening in multi-principal element alloys with local-chemical-order roughened dislocation pathways. Nature Communications, 2019, 10, 3563.	5.8	330
108	Nanostructuring with Structural-Compositional Dual Heterogeneities Enhances Strength-Ductility Synergy in Eutectic High Entropy Alloy. Scientific Reports, 2019, 9, 11505.	1.6	67

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109	Galvanic corrosion in a eutectic high entropy alloy. <i>Journal of Electroanalytical Chemistry</i> , 2019, 848, 113331.	1.9	40
110	Combining tensile tests and nanoindentation to explore the strengthening of high and medium entropy alloys. <i>Materialia</i> , 2019, 7, 100404.	1.3	17
111	CoCrFeMnNi high-entropy alloy powder with excellent corrosion resistance and soft magnetic property prepared by gas atomization method. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2019, 50, 837-843.	0.5	18
112	A fractal approach to predict the oxidation and corrosion behavior of a grain boundary engineered low SFE high entropy alloy. <i>Materialia</i> , 2019, 7, 100398.	1.3	10
113	Microstructure-corrosion property correlation in electrodeposited AlCrFeCoNiCu high entropy alloys-graphene oxide composite coatings. <i>Thin Solid Films</i> , 2019, 686, 137434.	0.8	46
114	Heterogeneous banded precipitation of (CoCrNi) <sub>93</sub> Mo <sub>7</sub> medium entropy alloys towards strength-ductility synergy utilizing compositional inhomogeneity. <i>Scripta Materialia</i> , 2019, 172, 144-148.	2.6	69
115	Effect of Al content on high temperature oxidation resistance of Al <sub>x</sub> CoCrCuFeNi high entropy alloys (x=0, 0.5, 1, 1.5, 2). <i>Vacuum</i> , 2019, 169, 108837.	1.6	74
116	Multi-axial and multi-energy channeling study of disorder evolution in ion-irradiated nickel. <i>Journal of Nuclear Materials</i> , 2019, 525, 92-101.	1.3	8
117	Engineering heterogeneous microstructure by severe warm-rolling for enhancing strength-ductility synergy in eutectic high entropy alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 764, 138226.	2.6	67
118	Effect of Strain Rate on the Tensile Behavior of CoCrFeNi and CoCrFeMnNi High-Entropy Alloys. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 4348-4356.	1.2	31
119	Characterization of as-cast microstructural heterogeneities and damage mechanisms in eutectic AlCoCrFeNi <sub>2.1</sub> high entropy alloy. <i>Materials Characterization</i> , 2019, 158, 109955.	1.9	26
120	Dissimilar Infrared Brazing of CoCrFe(Mn)Ni Equiatomic High Entropy Alloys and 316 Stainless Steel. <i>Crystals</i> , 2019, 9, 518.	1.0	13
121	Transition from high-entropy to Cu-based (TiZrNbNi) <sub>1-x</sub> Cu <sub>x</sub> metallic glasses. <i>Journal of Applied Physics</i> , 2019, 126, 154105.	1.1	6
122	Cryogenic Treatment of CoCrFeMnNi(NbC) High-Entropy Alloys. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 6779-6788.	1.2	4
123	Phase stability of an high-entropy Al-Cr-Fe-Ni-V alloy with exceptional mechanical properties: First-principles and APT investigations. <i>Computational Materials Science</i> , 2019, 170, 109161.	1.4	15
124	Effect of Co on the phase stability of CrMnFeCo <sub>x</sub> Ni high entropy alloys following long-duration exposures at intermediate temperatures. <i>Intermetallics</i> , 2019, 114, 106582.	1.8	33
125	Influence of phase decomposition on mechanical behavior of an equiatomic CoCuFeMnNi high entropy alloy. <i>Acta Materialia</i> , 2019, 181, 25-35.	3.8	52
126	Effects of Al and Ti additions on precipitation behavior and mechanical properties of Co <sub>35</sub> Cr <sub>25</sub> Fe <sub>40-x</sub> Ni <sub>x</sub> TRIP high entropy alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 767, 138403.	2.6	21



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127	Fatigue behaviour of a laser beam welded CoCrFeNiMn-type high entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 766, 138358.	2.6	59
128	High-temperature flexural strength performance of ternary high-entropy carbide consolidated via spark plasma sintering of TaC, ZrC and NbC. <i>Scripta Materialia</i> , 2019, 164, 12-16.	2.6	109
129	Elastic properties of the TiZrNbTaMo multi-principal element alloy studied from first principles. <i>Intermetallics</i> , 2019, 106, 130-140.	1.8	29
130	Development and homogeneity of microstructure and texture in a lamellar AlCoCrFeNi <sub>2.1</sub> eutectic high-entropy alloy severely strained in the warm-deformation regime. <i>Journal of Materials Research</i> , 2019, 34, 687-699.	1.2	21
131	Hexagonal close-packed high-entropy alloy formation under extreme processing conditions. <i>Journal of Materials Research</i> , 2019, 34, 709-719.	1.2	7
132	Local order in Cr-Fe-Co-Ni: Experiment and electronic structure calculations. <i>Physical Review B</i> , 2019, 99, .	1.1	40
133	High-entropy alloys. <i>Nature Reviews Materials</i> , 2019, 4, 515-534.	23.3	2,188
134	Sublattice formation in CoCrFeNi high-entropy alloy. <i>Intermetallics</i> , 2019, 112, 106542.	1.8	20
135	Annealing Effects on the Microstructure and Properties of Vanadium and Molybdenum Rich FCC High Entropy Alloy. <i>Key Engineering Materials</i> , 0, 799, 109-115.	0.4	0
136	A quick screening approach for design of multi-principal element alloy with solid solution phase. <i>Materials and Design</i> , 2019, 179, 107882.	3.3	14
137	Materials informatics for the screening of multi-principal elements and high-entropy alloys. <i>Nature Communications</i> , 2019, 10, 2618.	5.8	134
138	Electrosynthesis of high-entropy metallic glass nanoparticles for designer, multi-functional electrocatalysis. <i>Nature Communications</i> , 2019, 10, 2650.	5.8	286
139	Investigating sluggish diffusion in a concentrated solid solution alloy using ion irradiation with in situ TEM. <i>Intermetallics</i> , 2019, 110, 106461.	1.8	22
140	Temperature and load-ratio dependent fatigue-crack growth in the CrMnFeCoNi high-entropy alloy. <i>Journal of Alloys and Compounds</i> , 2019, 794, 525-533.	2.8	74
141	Toward a Paradigm Shift in Electrocatalysis Using Complex Solid Solution Nanoparticles. <i>ACS Energy Letters</i> , 2019, 4, 1206-1214.	8.8	140
142	Effects of tungsten additions on the microstructure and mechanical properties of CoCrNi medium entropy alloys. <i>Journal of Alloys and Compounds</i> , 2019, 790, 732-743.	2.8	86
143	High-entropy alloys fabricated via powder metallurgy. A critical review. <i>Powder Metallurgy</i> , 2019, 62, 84-114.	0.9	141
144	A comparison study of dislocation density, recrystallization and grain growth among nickel, FeNiCo ternary alloy and FeNiCoCrMn high entropy alloy. <i>Journal of Alloys and Compounds</i> , 2019, 790, 266-273.	2.8	25

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145	Effect of Mn Addition on the Microstructures and Mechanical Properties of CoCrFeNiPd High Entropy Alloy. <i>Entropy</i> , 2019, 21, 288.	1.1	4
146	Development of spark plasma sintered TiAlSiMoW multicomponent alloy: Microstructural evolution, corrosion and oxidation resistance. <i>Results in Physics</i> , 2019, 12, 1754-1761.	2.0	18
147	Materials-structure-property correlation study of spark plasma sintered AlCuCrFeMnW <sub>x</sub> (x = 0, 0.05,) T <sub>j</sub> ETQq0 0 0 rgBT /Overlock 10 Tf	1.2	12
148	Significant reduction in intrinsic coercivity of high-entropy alloy FeCoNiAl <sub>0.375</sub> Si <sub>0.375</sub> comprised of supersaturated f.c.c. phase. <i>Materialia</i> , 2019, 6, 100293.	1.3	8
149	High-entropy alloys by mechanical alloying: A review. <i>Journal of Materials Research</i> , 2019, 34, 664-686.	1.2	258
150	Machine-learning phase prediction of high-entropy alloys. <i>Acta Materialia</i> , 2019, 169, 225-236.	3.8	297
151	Large relrod extension induced by lattice distortion in high entropy alloy. <i>Materials Research Express</i> , 2019, 6, 066558.	0.8	4
152	Atomic-scale mechanisms of single crystal plasticity in CoCrFeMnNi high-entropy alloys. <i>Journal of Physics: Conference Series</i> , 2019, 1147, 012013.	0.3	3
153	High-entropy oxide phases with magnetoplumbite structure. <i>Ceramics International</i> , 2019, 45, 12942-12948.	2.3	64
154	A Review of Multi-Scale Computational Modeling Tools for Predicting Structures and Properties of Multi-Principal Element Alloys. <i>Metals</i> , 2019, 9, 254.	1.0	11
155	FCC-L12 ordering transformation in equimolar FeCoNiV multi-principal element alloy. <i>Materials and Design</i> , 2019, 168, 107648.	3.3	21
156	Mechanical and electrical properties of NbMoTaW refractory high-entropy alloy thin films. <i>International Journal of Refractory Metals and Hard Materials</i> , 2019, 80, 286-291.	1.7	96
157	Microstructure and corrosion properties of MnCrFeCoNi high entropy alloy-graphene oxide composite coatings. <i>Materialia</i> , 2019, 5, 100249.	1.3	37
158	Designing High Entropy Alloys with Dual fcc and bcc Solid-Solution Phases: Structures and Mechanical Properties. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 1888-1901.	1.1	33
159	Development of advanced materials via entropy engineering. <i>Scripta Materialia</i> , 2019, 165, 164-169.	2.6	74
160	Structure prediction of multi-principal element alloys using ensemble learning. <i>Engineering Computations</i> , 2019, 37, 1003-1022.	0.7	21
161	Combination of pulsed laser ablation and inert gas condensation for the synthesis of nanostructured nanocrystalline, amorphous and composite materials. <i>Nanoscale Advances</i> , 2019, 1, 4513-4521.	2.2	18
162	Review of high entropy ceramics: design, synthesis, structure and properties. <i>Journal of Materials Chemistry A</i> , 2019, 7, 22148-22162.	5.2	373

#	ARTICLE	IF	CITATIONS
163	Eutectic/eutectoid multi-principle component alloys: A review. <i>Materials Characterization</i> , 2019, 147, 545-557.	1.9	76
164	On the mechanism of extraordinary strain hardening in an interstitial high-entropy alloy under cryogenic conditions. <i>Journal of Alloys and Compounds</i> , 2019, 781, 734-743.	2.8	80
165	Phase prediction and microstructure of centrifugally cast non-equiatomic Co-Cr-Fe-Mn-Ni(Nb,C) high entropy alloys. <i>Journal of Alloys and Compounds</i> , 2019, 783, 292-299.	2.8	32
166	Annealing effect for the Al <sub>0.3</sub> CoCrFeNi high-entropy alloy fibers. <i>Journal of Alloys and Compounds</i> , 2019, 778, 23-29.	2.8	29
167	Demystifying the sluggish diffusion effect in high entropy alloys. <i>Journal of Alloys and Compounds</i> , 2019, 783, 193-207.	2.8	153
168	Effects of carbon on the microstructures and mechanical properties of FeCoCrNiMn high entropy alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 746, 356-362.	2.6	102
169	Diffusion-controlled alloying of single-phase multi-principal transition metal carbides with high toughness and low thermal diffusivity. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	48
170	Effects of Constituent Elements and Fabrication Methods on Mechanical Behavior of High-Entropy Alloys: A Review. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 1-28.	1.1	50
171	Laser metal deposition of compositionally graded TiZrNbTa refractory high-entropy alloys using elemental powder blends. <i>Additive Manufacturing</i> , 2019, 25, 252-262.	1.7	62
172	The effect of Al content on microstructures and comprehensive properties in Al <sub>x</sub> CoCrCuFeNi high entropy alloys. <i>Vacuum</i> , 2019, 161, 143-149.	1.6	76
173	Tracer diffusion in the Ni-CoCrFeMn system: Transition from a dilute solid solution to a high entropy alloy. <i>Scripta Materialia</i> , 2019, 159, 94-98.	2.6	54
174	Modified criteria for phase prediction in the multi-component laser-clad coatings and investigations into microstructural evolution/wear resistance of FeCrCoNiAlMox laser-clad coatings. <i>Applied Surface Science</i> , 2019, 465, 700-714.	3.1	101
175	Brazing filler metals. <i>International Materials Reviews</i> , 2020, 65, 257-285.	9.4	83
176	Microstructural characterization of medium entropy alloy thin films. <i>Scripta Materialia</i> , 2020, 177, 22-26.	2.6	28
177	Anomalous Evolution of Strength and Microstructure of High-Entropy Alloy CoCrFeNiMn after High-Pressure Torsion at 300 and 770K. <i>Advanced Engineering Materials</i> , 2020, 22, 1900752.	1.6	23
178	Tuning nanostructure using thermo-mechanical processing for enhancing mechanical properties of complex intermetallic containing CoCrFeNi <sub>2</sub> .1Nb <sub>x</sub> high entropy alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 769, 138489.	2.6	34
179	AlNiCrFeMn Equiatomic High Entropy Alloy: A Further Insight in Its Microstructural Evolution, Mechanical and Surface Degradation Response. <i>Metals and Materials International</i> , 2020, 26, 793-811.	1.8	13
180	Fine-tuning of mechanical properties in V <sub>10</sub> Cr <sub>15</sub> Mn <sub>5</sub> Fe <sub>35</sub> Co <sub>10</sub> Ni <sub>25</sub> high-entropy alloy through high-pressure torsion and annealing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 771, 138604.	2.6	38

#	ARTICLE	IF	CITATIONS
181	Change of electronic properties on transition from high-entropy to Ni-rich (TiZrNbCu) alloys. Journal of Non-Crystalline Solids, 2020, 531, 119865.	1.5	4
182	A new method for preparing high entropy alloys: Electromagnetic pulse treatment and its effects on mechanical and corrosion properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 774, 138916.	2.6	11
183	Differences in texture evolution from low-entropy to high-entropy face-centered cubic alloys during tension test. Intermetallics, 2020, 118, 106635.	1.8	5
184	A study on slip activation for a coarse-grained and single crystalline CoCrNi medium entropy alloy. Intermetallics, 2020, 117, 106682.	1.8	17
185	Influence of reduction ratio on the microstructural evolution and subsequent mechanical properties of cold-drawn Co <sub>10</sub> Cr <sub>15</sub> Fe <sub>25</sub> Mn <sub>10</sub> Ni <sub>30</sub> V <sub>10</sub> high entropy alloy wires. Journal of Alloys and Compounds, 2020, 821, 153526.	2.8	12
186	Effect of phase transformation on densification kinetics and properties of spark plasma sintered Al <sub>0.7</sub> CoCrFeNi high-entropy alloy. Materials Characterization, 2020, 160, 110098.	1.9	9
187	Grain size and temperature effect on the tensile behavior and deformation mechanisms of non-equiatomic Fe <sub>41</sub> Mn <sub>25</sub> Ni <sub>24</sub> Co <sub>8</sub> Cr <sub>2</sub> high entropy alloy. Journal of Materials Science and Technology, 2020, 42, 190-202.	5.6	16
188	Interfacial reaction between ZrNbHfTa foil and graphite: Formation of high-entropy carbide and the effect of heating rate on its microstructure. Journal of the European Ceramic Society, 2020, 40, 2699-2708.	2.8	21
189	Hot tensile properties of CoCrFeMnNi(NbC) compositionally complex alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 772, 138771.	2.6	14
190	Effect of carbon fiber on microstructure evolution and surface properties of FeCoCrNiCu high-entropy alloy coatings. Materials and Corrosion - Werkstoffe Und Korrosion, 2020, 71, 430-439.	0.8	11
191	Elucidating the microstructural development of refractory metal high entropy superalloys via the Ti-Ta-Zr constituent system. Journal of Alloys and Compounds, 2020, 818, 152935.	2.8	33
192	Effects of lattice distortion and chemical short-range order on the mechanisms of deformation in medium entropy alloy CoCrNi. Acta Materialia, 2020, 199, 352-369.	3.8	213
193	Compositional complexity dependence of dislocation density and mechanical properties in high entropy alloy systems. Progress in Natural Science: Materials International, 2020, 30, 545-551.	1.8	52
194	Chemical short-range order in derivative Cr-Ta-Ti-V-W high entropy alloys from the first-principles thermodynamic study. Physical Chemistry Chemical Physics, 2020, 22, 23929-23951.	1.3	45
195	A novel ceramic derived processing route for Multi-Principal Element Alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 793, 139892.	2.6	11
196	Radiation damage tolerance of a novel metastable refractory high entropy alloy V <sub>2.5</sub> Cr <sub>1.2</sub> W <sub>Mo</sub> Co <sub>0.04</sub> . Journal of Nuclear Materials, 2020, 531, 152005.	1.3	48
197	Eutectic modification of Fe-enriched high-entropy alloys through minor addition of boron. Journal of Materials Science, 2020, 55, 14571-14587.	1.7	14
198	Development of a TiNbTaMoZr-Based High Entropy Alloy with Low Young's Modulus by Mechanical Alloying Route. Metals, 2020, 10, 1463.	1.0	11

#	ARTICLE	IF	CITATIONS
199	Corrosion of Al(Co)CrFeNi High-Entropy Alloys. <i>Frontiers in Materials</i> , 2020, 7, .	1.2	19
200	Effect of nitrogen on mechanical properties of CoCrFeMnNi high entropy alloy at room and cryogenic temperatures. <i>Journal of Alloys and Compounds</i> , 2020, 849, 156633.	2.8	71
201	Structure and mechanical properties of a low-density AlCrFeTi medium entropy alloy produced by spark plasma sintering. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 795, 140018.	2.6	5
202	Spark Plasma Sintered High-Entropy Alloys: An Advanced Material for Aerospace Applications. , 0, , .		0
203	Effect of irradiation on randomness of element distribution in CoCrFeMnNi equiatomic high-entropy alloy. <i>Intermetallics</i> , 2020, 126, 106942.	1.8	22
204	Influence of modern machining processes on the surface integrity of high-entropy alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 882, 012016.	0.3	9
205	NiAl-Cr-Mo Medium Entropy Alloys: Microstructural Verification, Solidification Considerations, and Sliding Wear Response. <i>Materials</i> , 2020, 13, 3445.	1.3	4
206	A Review of the Serrated-Flow Phenomenon and Its Role in the Deformation Behavior of High-Entropy Alloys. <i>Metals</i> , 2020, 10, 1101.	1.0	65
207	Accelerated kinetic Monte Carlo: A case study; vacancy and dumbbell interstitial diffusion traps in concentrated solid solution alloys. <i>Journal of Chemical Physics</i> , 2020, 153, 074109.	1.2	20
208	Bulk and element-specific magnetism of medium-entropy and high-entropy Cantor-Wu alloys. <i>Physical Review B</i> , 2020, 102, .	1.1	18
209	Machine learning strategies for high-entropy alloys. <i>Journal of Applied Physics</i> , 2020, 128, .	1.1	36
210	Local order in high-entropy alloys and associated deuterides â€” a total scattering and Reverse Monte Carlo study. <i>Acta Materialia</i> , 2020, 199, 504-513.	3.8	40
211	Experimental and Theoretical Study of the Atomic Structure Evolution of High-Entropy Alloys Based on Fe, Cr, Ni, Mn, and Co upon Thermal and Radiation Aging. <i>Physics of the Solid State</i> , 2020, 62, 389-400.	0.2	6
212	Formation and Properties of Amorphous Multi-Component (CrFeMoNbZr)Ox Thin Films. <i>Metals</i> , 2020, 10, 599.	1.0	3
213	Interdiffusion, Solubility Limit, and Role of Entropy in FCC Al-Co-Cr-Fe-Ni Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 3142-3153.	1.1	19
214	Metastability in high entropy alloys. <i>Scripta Materialia</i> , 2020, 186, 392-400.	2.6	58
215	Strengthening mechanisms in high entropy alloys: Fundamental issues. <i>Scripta Materialia</i> , 2020, 187, 148-156.	2.6	131
216	Comparing CALPHAD predictions with high energy synchrotron radiation X-ray diffraction measurements during in situ annealing of Al <sub>0.3</sub> CoCrFeNi high entropy alloy. <i>Materialia</i> , 2020, 12, 100784.	1.3	11

#	ARTICLE	IF	CITATIONS
217	Soft-Magnetic High-Entropy AlCoFeMnNi Alloys with Dual-Phase Microstructures Induced by Annealing. <i>Acta Metallurgica Sinica (English Letters)</i> , 2020, 33, 1124-1134.	1.5	18
218	Comparative corrosion behavior of Fe <sub>50</sub> Mn <sub>30</sub> Co <sub>10</sub> Cr <sub>10</sub> dual-phase high-entropy alloy and CoCrFeMnNi high-entropy alloy in 3.5Åwt% NaCl solution. <i>Journal of Alloys and Compounds</i> , 2020, 842, 155824.	2.8	63
219	Temperature effects on microstructure and mechanical properties of sintered high-entropy equiatomic Ti <sub>20</sub> V <sub>20</sub> Al <sub>20</sub> Fe <sub>20</sub> Cr <sub>20</sub> alloy for aero-gear application. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 108, 3563-3570.	1.5	9
220	Nano-precipitates strengthened non-equiatomic medium-entropy alloy with outstanding tensile properties. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 780, 139218.	2.6	38
221	State-of-the-Art Diffusion Studies in the High Entropy Alloys. <i>Metals</i> , 2020, 10, 347.	1.0	51
222	Refining As-Cast Structures of Novel SixTiVCrZr High-Entropy Alloys Using Estimated Effective Solidification Temperature Obtained Using Chvorinovâ€™s Rule. <i>Metals</i> , 2020, 10, 317.	1.0	2
223	Phase Selection, Lattice Distortions, and Mechanical Properties in High-Entropy Alloys. <i>Advanced Engineering Materials</i> , 2020, 22, 2000466.	1.6	59
224	Effect of niobium alloying on the microstructure, phase stability and mechanical properties of CoCrFeNi <sub>2.1</sub> Nbx high entropy alloys: Experimentation and thermodynamic modeling. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 793, 139897.	2.6	31
225	Quantifying local lattice distortions in alloys. <i>Scripta Materialia</i> , 2020, 187, 428-433.	2.6	30
226	Insights into micro-mechanical response and texture of the additively manufactured eutectic high entropy alloy AlCoCrFeNi <sub>2.1</sub> . <i>Journal of Alloys and Compounds</i> , 2020, 827, 154034.	2.8	59
227	High-entropy alloys with heterogeneous microstructure: Processing and mechanical properties. <i>Progress in Materials Science</i> , 2022, 123, 100709.	16.0	270
228	Synthesis of rare earth containing single-phase multicomponent metal carbides via liquid polymer precursor route. <i>Journal of the American Ceramic Society</i> , 2020, 103, 6081-6087.	1.9	32
229	Phase Engineering of High-Entropy Alloys. <i>Advanced Materials</i> , 2020, 32, e1907226.	11.1	154
230	Phase Evolution and Thermal Stability of Mechanically Alloyed AlCrFeCoNiZn High-Entropy Alloy. <i>Transactions of the Indian Institute of Metals</i> , 2020, 73, 821-830.	0.7	24
231	High Entropy Alloys: Ready to Set Sail?. <i>Metals</i> , 2020, 10, 194.	1.0	16
232	Improvement in oxidation behavior of Al <sub>0.2</sub> Co <sub>1.5</sub> CrFeNi <sub>1.5</sub> Ti <sub>0.3</sub> high-entropy superalloys by minor Nb addition. <i>Journal of Alloys and Compounds</i> , 2020, 825, 153983.	2.8	32
233	Observation of a refractory metal matrix containing Zr-Ti-rich precipitates in a Mo <sub>0.5</sub> NbTa <sub>0.5</sub> TiZr high entropy alloy. <i>Scripta Materialia</i> , 2020, 180, 71-76.	2.6	22
234	Nanostructured AlNiCoFeCrTi high-entropy coating performed by cold spray. <i>Applied Nanoscience (Switzerland)</i> , 2020, 10, 4879-4890.	1.6	14

#	ARTICLE	IF	CITATIONS
235	Co-free non-equilibrium medium-entropy alloy with outstanding tensile properties. <i>Journal of Alloys and Compounds</i> , 2020, 833, 155074.	2.8	33
236	Structure and properties of CoCrFeNiX multi-principal element alloys from <i>ab initio</i> calculations. <i>Journal of Applied Physics</i> , 2020, 127, .	1.1	19
237	Synthesis of high-entropy alloy nanoparticles on supports by the fast moving bed pyrolysis. <i>Nature Communications</i> , 2020, 11, 2016.	5.8	195
238	Designing Rules of Laser-Clad High-Entropy Alloy Coatings with Simple Solid Solution Phases. <i>Acta Metallurgica Sinica (English Letters)</i> , 2020, 33, 1064-1076.	1.5	17
239	A further examination of Mo <sub>x</sub> NbVTi (x = 0.25, 0.50, 0.75 and 1.00 at.%) high-entropy alloy system: microstructure, mechanical behavior and surface degradation phenomena. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	1.1	10
240	Microstructure Evolution and Phase Formation of Fe <sub>25</sub> Ni <sub>25</sub> Co <sub>x</sub> Mo <sub>y</sub> Multi-principal-Component Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 2990-2997.	1.1	10
241	On the tensile strength of medium entropy Fe <sub>30</sub> Ni <sub>30</sub> Cr <sub>20</sub> Co <sub>17</sub> Mo <sub>2</sub> W <sub>1</sub> alloy with high microstructural stability. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 781, 139239.	2.6	7
242	Microstructure and mechanical properties of CoCrNi-Mo medium entropy alloys: Experiments and first-principle calculations. <i>Journal of Materials Science and Technology</i> , 2021, 62, 25-33.	5.6	64
243	Synthesis and hydrogen storage behavior of Mg <sub>1-x</sub> V <sub>x</sub> Al <sub>1-x</sub> Cr <sub>1-x</sub> Ni high entropy alloys. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 2351-2361.	3.8	69
244	High-entropy alloys: emerging materials for advanced functional applications. <i>Journal of Materials Chemistry A</i> , 2021, 9, 663-701.	5.2	196
245	Novel reduced-activation TiVCrFe based high entropy alloys. <i>Journal of Alloys and Compounds</i> , 2021, 856, 157399.	2.8	20
246	Composite of medium entropy alloys synthesized using spark plasma sintering. <i>Scripta Materialia</i> , 2021, 191, 46-51.	2.6	16
247	Multi-principal-element products enhancing Au-Sn-bonded joints. <i>Journal of Alloys and Compounds</i> , 2021, 852, 157015.	2.8	8
248	The Role of Machine Learning Algorithms in Materials Science: A State of Art Review on Industry 4.0. <i>Archives of Computational Methods in Engineering</i> , 2021, 28, 3361-3381.	6.0	16
249	Heterogeneous precipitates facilitate excellent mechanical properties in non-equiatomic medium-entropy alloy. <i>Intermetallics</i> , 2021, 129, 107036.	1.8	15
250	A high-throughput approach to explore the multi-component alloy space: A case study of nickel-based superalloys. <i>Journal of Alloys and Compounds</i> , 2021, 858, 158100.	2.8	12
251	Columnar to equiaxed transition in additively manufactured CoCrFeMnNi high entropy alloy. <i>Materials and Design</i> , 2021, 197, 109262.	3.3	62
252	Severe warm-rolling mediated microstructure and texture of equiatomic CoCrFeMnNi high entropy alloy: A comparison with cold-rolling. <i>Intermetallics</i> , 2021, 129, 107029.	1.8	15





#	ARTICLE	IF	CITATIONS
272	Fundamental Core Effects in Transition Metal High-Entropy Alloys: "High-Entropy" and "Sluggish Diffusion" Effects. , 0, 29, 75-93.		15
273	Oxidation and Corrosion properties of a Novel Al15Ti30Si30Mo15Ni10 High Entropy Alloy fabricated by Spark Plasma Sintering Technology. IOP Conference Series: Materials Science and Engineering, 2021, 1107, 012233.	0.3	4
274	The influence of Fe variations on the phase stability of CrMnFexCoNi alloys following long-duration exposures at intermediate temperatures. Intermetallics, 2021, 131, 107108.	1.8	10
275	The effects of irradiation on CrMnFeCoNi high-entropy alloy and its derivatives. Progress in Materials Science, 2022, 123, 100807.	16.0	56
276	Chemical fluctuation enabling strength-plasticity synergy in metastable single-phase high entropy alloy film with gigapascal yield strength. International Journal of Plasticity, 2021, 139, 102951.	4.1	31
277	Prospect of high entropy alloys (HETAs) for advance application. IOP Conference Series: Materials Science and Engineering, 2021, 1107, 012162.	0.3	0
278	HIGH-ENTROPY ALLOYS AS A PROSPECTIVE CLASS OF NEW RADIATION-TOLERANT MATERIALS RESEARCH DEVELOPMENT ANALYSIS BASED ON THE INFORMATION DATABASES. , 2021, , 3-15.		3
279	Search for More Efficient Automatic Feed of the Mold Flux to the Continuous Casting Machine Crystallizer. , 2021, , .		2
280	Optimization of High-Entropy Alloy Catalyst for Ammonia Decomposition and Ammonia Synthesis. Journal of Physical Chemistry Letters, 2021, 12, 5185-5192.	2.1	46
281	Effect of Cr content on precipitation behavior of (CoCrNi) <sub>94</sub> Ti <sub>3</sub> Al <sub>3</sub> medium entropy alloys. Intermetallics, 2021, 132, 107125.	1.8	10
282	Recent progress of tungsten-based high-entropy alloys in nuclear fusion. Tungsten, 2021, 3, 143-160.	2.0	18
283	Nanostructured AlCoFeCrVNi and AlCoFeCrVTi high-entropy alloys resulted from mechanical alloying and sintering. Applied Nanoscience (Switzerland), 2022, 12, 849-860.	1.6	7
284	Ultralow thermal conductivity and improved ZT of CuInTe <sub>2</sub> by high-entropy structure design. Materials Today Physics, 2021, 18, 100394.	2.9	21
285	Cross-kinks control screw dislocation strength in equiatomic bcc refractory alloys. Acta Materialia, 2021, 211, 116875.	3.8	26
286	Modeling solid solution strengthening in high entropy alloys using machine learning. Acta Materialia, 2021, 212, 116917.	3.8	87
287	Influencing factors and mechanism of high-temperature oxidation of high-entropy alloys: A review. International Journal of Minerals, Metallurgy and Materials, 2021, 28, 915-930.	2.4	28
288	Arc erosion resistance of CuCrMo films deposited via magnetron sputtering. Materials Research Express, 2021, 8, 066402.	0.8	2
289	Accelerated and conventional development of magnetic high entropy alloys. Materials Today, 2021, 49, 231-252.	8.3	95

#	ARTICLE	IF	CITATIONS
290	Enhanced strength-ductility synergy in a novel V-containing $\gamma$ -strengthened CoCrNi-based multi-component alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 816, 141289.	2.6	20
291	Toughening materials: enhancing resistance to fracture. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021, 379, 20200437.	1.6	32
292	Measurement of Interdiffusion and Tracer Diffusion Coefficients in FCC Co-Cr-Fe-Ni Multi-Principal Element Alloy. <i>Journal of Phase Equilibria and Diffusion</i> , 2021, 42, 696-707.	0.5	8
293	Novel high-entropy alloys with high-density $\mu$ -D019 and abnormal phase transformation. <i>Scripta Materialia</i> , 2021, 199, 113893.	2.6	14
294	Application of atom probe tomography in understanding high entropy alloys: 3D local chemical compositions in atomic scale analysis. <i>Progress in Materials Science</i> , 2022, 123, 100854.	16.0	21
295	Diffusion Multiples as a Tool to Efficiently Explore the Composition Space of High Entropy Alloys. <i>Journal of Phase Equilibria and Diffusion</i> , 2021, 42, 708-719.	0.5	3
296	Synthesis and characterizations of (Mg, Co, Ni, Cu, Zn)O high-entropy oxides. <i>SN Applied Sciences</i> , 2021, 3, 1.	1.5	7
297	Emergence of machine learning in the development of high entropy alloy and their prospects in advanced engineering applications. <i>Emergent Materials</i> , 2021, 4, 1635-1648.	3.2	21
298	Was macht Hochentropie-Legierungen zu auÅergewÃhnlichen Elektrokatalysateuren?. <i>Angewandte Chemie</i> , 2021, 133, 27098-27108.	1.6	8
299	What Makes High-Entropy Alloys Exceptional Electrocatalysts?. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 26894-26903.	7.2	145
300	Progress In Lead Free- Relaxor Ferroelectrics For Energy Storage Applications.. <i>Journal of Physics: Conference Series</i> , 2021, 1973, 012117.	0.3	4
301	Influences of Thermomechanical Processing by Severe Cold and Warm Rolling on the Microstructure, Texture, and Mechanical Properties of an Equiatomic CoCrNi Medium-Entropy Alloy. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 8956-8971.	1.2	11
302	Review of Recent Research on AlCoCrFeNi High-Entropy Alloy. <i>Metals</i> , 2021, 11, 1302.	1.0	46
303	Effect of Cooling Rate on the Phase Formation of AlCoCrFeNi High-Entropy Alloy. <i>Journal of Phase Equilibria and Diffusion</i> , 2021, 42, 772-780.	0.5	23
304	Compositional complexity dependence of lattice distortion in FeNiCoCrMn high entropy alloy system. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 823, 141775.	2.6	13
305	A review on laser cladding of high-entropy alloys, their recent trends and potential applications. <i>Journal of Manufacturing Processes</i> , 2021, 68, 225-273.	2.8	105
306	Investigation of (CrAlTiNbV) <sub>x</sub> high-entropy nitride coatings via tailoring nitrogen flow rate for anti-wear applications in aviation lubricant. <i>Applied Surface Science</i> , 2021, 557, 149813.	3.1	42
307	Electrolyte/Structure-Dependent Cocktail Mediation Enabling High-Rate/Low-Plateau Metal Sulfide Anodes for Sodium Storage. <i>Nano-Micro Letters</i> , 2021, 13, 178.	14.4	19

#	ARTICLE	IF	CITATIONS
308	Laser-generated high entropy metallic glass nanoparticles as bifunctional electrocatalysts. Nano Research, 2022, 15, 4807-4819.	5.8	36
309	Role of local chemical fluctuations in the melting of medium entropy alloy CoCrNi. Applied Physics Letters, 2021, 119, .	1.5	13
310	Improvement on Mechanical Properties of a bcc Matrix Al <sub>8</sub> (FeCuCrMn) <sub>92</sub> High-Entropy Alloy by Phase Modulation of Interstitial Carbon Element. Metals and Materials International, 2022, 28, 523-533.	1.8	12
311	Atomic scale modeling of structural phase transformations in AlCrFeMnMo high-entropy alloys during thermal treatments. Journal of Alloys and Compounds, 2021, 876, 160201.	2.8	5
312	Insight into the structure and tribological and corrosion performance of high entropy (CrNbSiTiZr)C films: First-principles and experimental study. Surface and Coatings Technology, 2021, 421, 127468.	2.2	10
313	Design of a new cobalt base nano-lamellar eutectic high entropy alloy. Scripta Materialia, 2021, 202, 113993.	2.6	28
314	Understanding chemical short-range ordering/demixing coupled with lattice distortion in solid solution high entropy alloys. Acta Materialia, 2021, 216, 117140.	3.8	52
315	High-dose ion irradiation damage in Fe <sub>28</sub> Ni <sub>28</sub> Mn <sub>26</sub> Cr <sub>18</sub> characterised by TEM and depth-sensing nanoindentation. Nuclear Materials and Energy, 2021, 28, 101028.	0.6	3
316	Microstructure control and strength improvement of La <sub>0.005</sub> Al <sub>0.17</sub> FeCoCrNiMn high entropy alloy by rapid solidification and aging treatment. Journal of Alloys and Compounds, 2021, 874, 159960.	2.8	5
317	Structural stability and thermal expansion of TiTaNbMoZr refractory high entropy alloy. Journal of Alloys and Compounds, 2022, 892, 162154.	2.8	10
318	Influence of 5 at.%Al-Additions on the FCC to BCC Phase Transformation in CrFeNi Concentrated Alloys. Journal of Phase Equilibria and Diffusion, 0, , 1.	0.5	5
319	Applications of Rare Earth Metals in Al-Si Cast Alloys. , 0, , .		2
320	Corrosion performance and mechanical properties of FeCrSiNb amorphous equiatomic HEA thin film. Surface and Coatings Technology, 2021, 422, 127486.	2.2	19
321	Effect of rolling and annealing temperature on the mechanical properties of CrMnFeCoNi high-entropy alloy. Materials Chemistry and Physics, 2021, 270, 124830.	2.0	12
322	Martensitic transformation in CrCoNi medium-entropy alloy at cryogenic temperature. Applied Physics Letters, 2021, 119, .	1.5	10
323	Enhanced recombination suppresses the void swelling in bcc multi-component alloys. Materialia, 2021, 20, 101234.	1.3	6
324	Achieving high strength and ductility in equimolar FeMnNi medium entropy alloy by tuning microstructural entropy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 826, 141965.	2.6	5
325	Microstructure and texture of CoCrNi medium entropy alloy (MEA) processed by severe cryo-rolling: A study vis-a-vis cold-rolling. Intermetallics, 2021, 138, 107345.	1.8	15

#	ARTICLE	IF	CITATIONS
326	Pseudoelastic deformation in Mo-based refractory multi-principal element alloys. <i>Acta Materialia</i> , 2021, 220, 117299.	3.8	11
327	Inclusion engineering in Co-based duplex entropic alloys. <i>Materials and Design</i> , 2021, 210, 110097.	3.3	14
328	High entropy stabilization and band engineering driven high figure of merit in nanostructured PbSn <sub>0.875</sub> TeSeBi <sub>0.125</sub> alloy. <i>Journal of Solid State Chemistry</i> , 2021, 303, 122531.	1.4	4
329	Method to identify the phase structures of high entropy alloys with modified lattice distortion enthalpy. <i>Materials Today Communications</i> , 2021, 29, 102760.	0.9	2
330	Sluggish, chemical bias and percolation phenomena in atomic transport by vacancy and interstitial diffusion in Ni Fe alloys. <i>Current Opinion in Solid State and Materials Science</i> , 2021, 25, 100961.	5.6	23
331	Thermoelectric performance of nanostructured PbSnTeSe high entropy thermoelectric alloy synthesized via spark plasma sintering. <i>Physica B: Condensed Matter</i> , 2021, 622, 413319.	1.3	11
332	Novel method for automatic search for stable ordered phases in multicomponent systems. <i>Computational Materials Science</i> , 2021, 200, 110796.	1.4	3
333	Investigation of irradiation resistance characteristics of precipitation strengthened high-entropy alloy (CoCrFeNi) <sub>95</sub> Ti <sub>1</sub> Nb <sub>1</sub> Al <sub>3</sub> using slow positron beam. <i>Journal of Alloys and Compounds</i> , 2021, 888, 161518.	2.8	6
334	Laser deposition of high-entropy alloys: A comprehensive review. <i>Optics and Laser Technology</i> , 2022, 145, 107447.	2.2	59
335	Multi-Principal-Element Approach to High-Performance Thermoelectric Materials. , 2022, , 491-499.		1
336	The additive manufacture processing and machinability of CrMnFeCoNi high entropy alloy. <i>Materials and Design</i> , 2021, 198, 109380.	3.3	26
337	Effect of Various Aspects on Mechanical Properties of High Entropy Alloys: A Review. <i>Lecture Notes in Mechanical Engineering</i> , 2021, , 297-303.	0.3	0
338	Tensile deformation behavior of twist grain boundaries in CoCrFeMnNi high entropy alloy bicrystals. <i>Scientific Reports</i> , 2021, 11, 428.	1.6	8
339	Parametric investigation of laser assisted cladding process: A review. <i>Materials Today: Proceedings</i> , 2021, 44, 1828-1832.	0.9	4
340	Thermal Spray High-Entropy Alloy Coatings: A Review. <i>Journal of Thermal Spray Technology</i> , 2020, 29, 857-893.	1.6	162
341	Experimental and theoretical study of tracer diffusion in a series of (CoCrFeMn) <sub>100-x</sub> Ni <sub>x</sub> alloys. <i>Acta Materialia</i> , 2020, 194, 236-248.	3.8	28
342	The corrosion behaviour of CoCrFeNi-x (x = Cu, Al, Sn) high entropy alloy systems in chloride solution. <i>Corrosion Science</i> , 2020, 172, 108740.	3.0	127
343	Local lattice distortion in high-entropy alloys. <i>Physical Review Materials</i> , 2017, 1, .	0.9	144

#	ARTICLE	IF	CITATIONS
344	Role of magnetism in the stability of the high-entropy alloy CoCrFeMnNi and its derivatives. <i>Physical Review Materials</i> , 2019, 3, .	0.9	9
345	Microscopic phase-field simulation for precipitation process of Ni <sub>60</sub> Al <sub>20</sub> V <sub>20</sub> medium entropy alloy. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2020, 69, 140201.	0.2	6
346	High-entropy ceramics: Review of principles, production and applications. <i>Materials Science and Engineering Reports</i> , 2021, 146, 100644.	14.8	294
347	Tunable Chemical Disorder in Concentrated Alloys: Defect Physics and Radiation Performance. <i>Chemical Reviews</i> , 2022, 122, 789-829.	23.0	47
348	Different lattice distortion effects on the tensile properties of Ni-W dilute solutions and CrFeNi and CoCrFeMnNi concentrated solutions. <i>Acta Materialia</i> , 2021, 221, 117399.	3.8	16
349	Transition from High-Entropy to Conventional Alloys: Which Are Better?. <i>Materials</i> , 2021, 14, 5824.	1.3	7
350	Behavior of high-entropy W-rich alloys W <sub>x</sub> (TaVCrTi) <sub>y</sub> under He <sup>+</sup> irradiation. <i>Fusion Engineering and Design</i> , 2021, 172, 112904.	1.0	10
351	Diseño y caracterización de tres aleaciones multiprincipales ligeras potencialmente candidatas a aleaciones de alta entropía. <i>Revista De Metalurgia</i> , 2019, 55, 147.	0.1	2
352	Determination of regularities of the influence of the elemental composition of niobium-based alloys on their structure and properties. <i>Eastern-European Journal of Enterprise Technologies</i> , 2020, 2, 16-23.	0.3	0
353	Effect of Al Content on Phase Compositions of FeNiCoCrMo <sub>0.5</sub> Al <sub>x</sub> High Entropy Alloy. <i>Metals</i> , 2021, 11, 1734.	1.0	4
354	Development of ultrafine grained cobalt-free AlCrFe <sub>2</sub> Ni <sub>2</sub> high entropy alloy with superior mechanical properties by thermo-mechanical processing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 831, 142190.	2.6	29
355	Tuning figure of merit in Na doped nanocrystalline PbSnTeSe high entropy alloy via band engineering. <i>Materials Science in Semiconductor Processing</i> , 2022, 138, 106270.	1.9	5
356	High entropy alloys with hexagonal close-packed structure derived from thin film combinatorial approach. <i>Journal of Alloys and Compounds</i> , 2022, 893, 162293.	2.8	10
357	Shock-induced amorphization in medium entropy alloy CoCrNi. <i>Scripta Materialia</i> , 2022, 209, 114379.	2.6	33
358	High-entropy alloys as anode materials of nickel - metal hydride batteries. <i>Scripta Materialia</i> , 2022, 209, 114387.	2.6	22
359	Tuning the microstructure for superb corrosion resistance in eutectic high entropy alloy. <i>Journal of Materials Science and Technology</i> , 2022, 109, 197-208.	5.6	41
360	Microstructure and Mechanical Properties of the Ductile Al-Ti-Mo-Nb-V Refractory High Entropy Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2022, 53, 653-662.	1.1	2
361	Transition from high-entropy to conventional (TiZrNbCu) <sub>1-x</sub> Cox metallic glasses. <i>Journal of Applied Physics</i> , 2021, 130, 195102.	1.1	6

#	ARTICLE	IF	CITATIONS
362	High Entropy Materials. , 2022, , 291-320.		5
363	Reviewâ€”Pseudocapacitive Energy Storage Materials from HÃgg-Phase Compounds to High-Entropy Ceramics. Journal of the Electrochemical Society, 2021, 168, 120521.	1.3	12
365	Synergetic effect of Si addition on mechanical properties in face-centered-cubic high entropy alloys: a first-principles study. Modelling and Simulation in Materials Science and Engineering, 2022, 30, 024003.	0.8	8
366	A role of atomic size misfit in lattice distortion and solid solution strengthening of TiNbHfTaZr high entropy alloy system. Scripta Materialia, 2022, 210, 114470.	2.6	31
367	Microstructure and mechanical properties of medium-entropy alloys with a high-density Î-D024 phase. Materials Characterization, 2022, 185, 111713.	1.9	9
368	Mechanical properties and corrosion behavior of novel Al-Mg-Zn-Cu-Si lightweight high entropy alloys. Journal of Alloys and Compounds, 2022, 900, 163508.	2.8	35
369	Concentration of â€œMysterious Soluteâ€•in CoCrFeNi high entropy alloy. Scripta Materialia, 2022, 211, 114504.	2.6	11
370	Regulating local chemistry in ZrCo-based orthorhombic hydrides via increasing atomic interference for ultra-stable hydrogen isotopes storage. Journal of Energy Chemistry, 2022, 69, 397-405.	7.1	12
371	Microstructure and texture of severely warm-rolled and annealed coarse-grained CoCrNi medium entropy alloy (MEA): A perspective on the initial grain size effect. Journal of Alloys and Compounds, 2022, 904, 163954.	2.8	8
372	Recent Progress in Our Understanding of Phase Stability, Atomic Structures and Mechanical and Functional Properties of High-Entropy Alloys. Materials Transactions, 2022, 63, 394-401.	0.4	30
373	High-entropy alloys: properties and prospects of application as protective coatings. Russian Chemical Reviews, 2022, 91, .	2.5	16
374	An overview of high-entropy alloys. Emergent Materials, 2022, 5, 1779-1796.	3.2	5
375	Cantor-derived medium-entropy alloys: bridging the gap between traditional metallic and high-entropy alloys. Journal of Materials Research and Technology, 2022, 17, 1868-1895.	2.6	44
376	Thin films made by reactive sputtering of high entropy alloy FeCoNiCuGe: Optical, electrical and structural properties. Thin Solid Films, 2022, 744, 139083.	0.8	3
377	Microstructure and texture development in CoCrNi medium entropy alloy processed by severe warm cross-rolling and annealing. Intermetallics, 2022, 143, 107463.	1.8	8
378	Effect of He on the irradiation resistance of equiatomic CoCrFeMnNi high-entropy alloy. Journal of Nuclear Materials, 2022, 561, 153525.	1.3	8
379	Development of Complex Concentrated Alloys (CCAs) Utilizing Scrap to Preserve Critical Raw Materials. Materials Proceedings, 2021, 5, 5109.	0.2	2
380	Mechanically alloyed high entropy alloys: existing challenges and opportunities. Journal of Materials Research and Technology, 2022, 17, 2431-2456.	2.6	73

#	ARTICLE	IF	CITATIONS
381	Recent progress on the development of high entropy alloys (HEAs) for solid hydrogen storage: A review. International Journal of Hydrogen Energy, 2022, 47, 11236-11249.	3.8	77
382	Excellent thermal stability and their origins in $\gamma'$ precipitation-strengthened medium-entropy alloys. Scripta Materialia, 2022, 212, 114576.	2.6	15
383	High-throughput discovery of hydrogen evolution electrocatalysts in the complex solid solution system $\text{CoCrFeMoNi}$ . Journal of Materials Chemistry A, 2022, 10, 9981-9987.	5.2	12
384	Microstructure and sliding wear behavior of $(\text{AlCoCrFeNi})_{1-x}(\text{WC})_x$ . Ceramics International, 2022, 48, 19399-19411.	2.3	13
385	High-entropy materials. MRS Bulletin, 2022, 47, 145-150.	1.7	22
386	Compositional phase stability in medium-entropy and high-entropy Cantor-Wu alloys from an <i>ab initio</i> all-electron Landau-type theory and atomistic modeling. Physical Review B, 2022, 105, .	1.1	8
387	Influence of compositional complexity on species diffusion behavior in high-entropy solid-solution alloys. Journal of Materials Research, 2022, 37, 1403-1415.	1.2	7
388	The microstructure and properties of $\text{Fe}_{55}\text{Cr}_{15}\text{Ni}_{30}\text{-Nb}$ eutectic high-entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 841, 143026.	2.6	8
389	Hydrogen storage in $\text{TiVCrMo}$ and $\text{TiZrNbHf}$ multiprinciple-element alloys and their catalytic effect upon hydrogen storage in Mg. Renewable Energy, 2022, 188, 411-424.	4.3	19
390	Recent progress on the microstructure and properties of high entropy alloy coatings prepared by laser processing technology: A review. Journal of Manufacturing Processes, 2022, 76, 397-411.	2.8	52
391	Local Order in $\text{AgAuCuPdPt}$ High-Entropy Alloy Surfaces. Journal of Physical Chemistry C, 2022, 126, 6782-6790.	1.5	5
392	Novel B2-strengthening $\text{NiCoCrAl}$ medium-entropy alloys with prominent mechanical performance. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 840, 142856.	2.6	10
393	Superconducting and normal-state properties of the high-entropy alloy $\text{Nb-Re-Hf-Zr-Ti}$ investigated by muon spin relaxation and rotation. Physical Review B, 2022, 105, .	1.1	7
394	Enhanced passivity of $\text{Cr-Fe-Co-Ni-Mo}$ multi-component single-phase face-centred cubic alloys: design, production and corrosion behaviour. Corrosion Science, 2022, 200, 110233.	3.0	18
395	Theoretical critical metastability temperature to interpret phase formation in a lamellar-like-structured high entropy alloy. Journal of Materials Research and Technology, 2022, 18, 2519-2530.	2.6	1
396	Effect of $\text{CoCrFeNiMn}$ high entropy alloy interlayer on microstructure and mechanical properties of laser-welded $\text{NiTi/304 SS}$ joint. Journal of Materials Research and Technology, 2022, 18, 1028-1037.	2.6	40
397	Pairwise dilatational strain as a parametric model describing potential secondary phase formation and high-angle grain misorientation in as-cast high-entropy alloys. Intermetallics, 2022, 144, 107462.	1.8	0
398	Effect of lattice distortion and nanovoids on the shock compression behavior of $(\text{Co-Cr-Cu-Fe-Ni})$ high entropy alloy. Computational Materials Science, 2022, 209, 111402.	1.4	22

#	ARTICLE	IF	CITATIONS
399	Evaluation of high-frequency induction heat sintering and conventional sintering in Al <sub>x</sub> CoCrFeMnNi high-entropy alloys. <i>Journal of Alloys and Compounds</i> , 2022, 910, 164780.	2.8	7
400	In-situ observations of static recrystallization and texture formation in a cold-rolled CoCrFeMnNi high entropy alloy. <i>Scripta Materialia</i> , 2022, 215, 114706.	2.6	16
401	Cohesive Strength and Structural Stability of the Ni-Based Superalloys. <i>Materials</i> , 2022, 15, 200.	1.3	2
402	Recent Advances in Additive Manufacturing of High Entropy Alloys and Their Nuclear and Wear-Resistant Applications. <i>Metals</i> , 2021, 11, 1980.	1.0	9
403	High entropy alloy synthesis, characterisation, manufacturing & potential applications: a review. <i>Materials and Manufacturing Processes</i> , 2022, 37, 1085-1109.	2.7	19
404	Rationally Tailoring Catalysts for the CO Oxidation Reaction by Using DFT Calculations. <i>ACS Catalysis</i> , 2022, 12, 116-125.	5.5	8
406	Metallic nanocomposites for automotive applications. , 2022, , 163-198.		1
407	Microstructure and unusually strong recrystallization texture of the FCC phase of a cost-effective high-strength dual-phase AlCrFe <sub>2</sub> Ni <sub>2</sub> high entropy alloy. <i>Intermetallics</i> , 2022, 145, 107559.	1.8	10
408	Simultaneous Strength-Plasticity Enhancement of Dual-Phase Light-Weight Medium Entropy Alloy. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
409	Evaluation of phase stability and diffusion kinetics in novel BCC-structured high entropy alloys. <i>Materials Research Letters</i> , 2022, 10, 556-565.	4.1	1
410	Long-Term Creep Behavior of a CoCrFeNi Medium-Entropy Alloy. <i>Journal of Materials Engineering and Performance</i> , 0, , .	1.2	1
411	Atomic Stress State Inside fcc and bcc Random Alloys: A First-Principles Approach. <i>Frontiers in Materials</i> , 2022, 9, .	1.2	4
412	Structure-property relations of lightweight Ti-Sc-Zr-Nb-V high-entropy alloys. <i>Journal of Alloys and Compounds</i> , 2022, 915, 165295.	2.8	6
413	A critical review on mechanically alloyed high entropy alloys: processing challenges and properties. <i>Materials Research Express</i> , 2022, 9, 052001.	0.8	18
414	Composition influence on edge dislocation mobility in an FCC high-entropy alloy. <i>MRS Advances</i> , 0, , 1.	0.5	0
415	Thermal Super-Jogs Control High-Temperature Strength in Nb-Mo-Ta-W Alloys. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
416	Mechanical alloying: a critical review. <i>Materials Research Letters</i> , 2022, 10, 619-647.	4.1	49
417	High-Entropy Coatings (HEC) for High-Temperature Applications: Materials, Processing, and Properties. <i>Coatings</i> , 2022, 12, 691.	1.2	19



#	ARTICLE	IF	CITATIONS
418	Corrosion resistant behaviour of titanium â€“ Molybdenum alloy in sulphuric acid environment. <i>Materials Today: Proceedings</i> , 2022, 65, 3282-3287.	0.9	3
419	Comparative study of vacancy cluster formation in pure Ni, CoCrNi, and CoCrFeNi with a CoCrFeMnNi multicomponent system. <i>Journal of Alloys and Compounds</i> , 2022, 918, 165747.	2.8	5
420	High entropy metal chalcogenides: synthesis, properties, applications and future directions. <i>Chemical Communications</i> , 2022, 58, 8025-8037.	2.2	31
421	Review: High-Entropy Materials for Lithium-Ion Battery Electrodes. <i>Frontiers in Energy Research</i> , 0, 10, .	1.2	23
422	The statistic and fluctuant phenomena of interaction between edge extended dislocation and microvoid in FCC CoCrFeCuNi high entropy alloy. <i>Journal of Nuclear Materials</i> , 2022, 568, 153884.	1.3	5
423	Machine learning-assisted design of biomedical high entropy alloys with low elastic modulus for orthopedic implants. <i>Journal of Materials Science</i> , 2022, 57, 11151-11169.	1.7	8
424	The Mechanism of the High Resistance to Hydrogen-Induced Strength Loss in Ultra-High Strength High-Entropy Alloy. <i>Metals</i> , 2022, 12, 971.	1.0	1
425	Composition Stability of Single Fcc Phase in Cr-Fe-Mn-Ni Alloys: First-Principles Prediction and Experimental Validation. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
426	High-Temperature Oxidation Behaviors of Rare Earth La and Y Doped AlCrTiSi0.2 High-Entropy Alloy. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
427	On Cyclic Plasticity of Nanostructured Dual-Phase CoCrFeNi High-Entropy Alloy: An Atomistic Study. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
428	A Study of the Effects of Hf and Sn on the Microstructure, Hardness and Oxidation of Nb-18Si Silicide-Based Alloys-RM(Nb)ICs with Ti Addition and Comparison with Refractory Complex Concentrated Alloys (RCCAs). <i>Materials</i> , 2022, 15, 4596.	1.3	7
429	Tribological and corrosion performance of an atmospheric plasma sprayed AlCoCr0.5Ni high-entropy alloy coating. <i>Wear</i> , 2022, 506-507, 204443.	1.5	12
430	Simultaneous strength-plasticity enhancement of dual-phase light-weight medium entropy alloy. <i>Journal of Alloys and Compounds</i> , 2022, 923, 166406.	2.8	1
431	Structure and low-temperature micromechanical properties of as-cast and SPD-processed high-entropy Co <sub>25</sub> Cr <sub>25</sub> Fe <sub>25</sub> Ni <sub>25</sub> alloys. <i>Low Temperature Physics</i> , 2022, 48, 560-569.	0.2	4
432	Thermodynamic and atomic mobility assessment of the Coâ€“Feâ€“Mn system. <i>Journal of Materials Science</i> , 2022, 57, 15999-16015.	1.7	2
433	A new light-element multi-principal-elements alloy AlMg <sub>2</sub> TiZn and its potential for hydrogen storage. <i>Renewable Energy</i> , 2022, 198, 1186-1192.	4.3	6
435	The effect of Al addition on solid solution strengthening in CoCrFeMnNi: Experiment and modelling. <i>Acta Materialia</i> , 2022, 238, 118208.	3.8	22
436	Compositional stability in medium and high-entropy alloys of CoCrFeMnNi system under ion irradiation. <i>Journal of Alloys and Compounds</i> , 2022, 925, 166697.	2.8	6

#	ARTICLE	IF	CITATIONS
437	Perpendicular magnetic anisotropy in a sputter deposited nanocrystalline high entropy alloy thin film. <i>Journal of Alloys and Compounds</i> , 2023, 930, 167337.	2.8	8
438	Shock resistance capability of multi-principal elemental alloys as a function of lattice distortion and grain size. <i>Journal of Applied Physics</i> , 2022, 132, .	1.1	12
439	Designing lightweight multicomponent magnesium alloys with exceptional strength and high stiffness. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 855, 143901.	2.6	9
440	Microscale deformation controlled by compositional fluctuations in equiatomic NbMoTaW alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 856, 143892.	2.6	3
441	Effect of lattice distortion and grain size on the crack tip behaviour in Co-Cr-Cu-Fe-Ni under mode-I and mode-II loading. <i>Engineering Fracture Mechanics</i> , 2022, 274, 108809.	2.0	12
442	Corrosion behavior of refractory TiNbZrMoV high-entropy alloy coating in static lead-bismuth eutectic alloy: A novel design strategy of LBE corrosion-resistant coating?. <i>Surface and Coatings Technology</i> , 2022, 448, 128884.	2.2	22
443	The Status of Bulk Metallic Glass and High Entropy Alloys Research. , 2022, , 233-278.		0
444	Mechanical and Corrosion Properties of Biomedical Ti-Zr-Nbx-Ta-Mo Medium Entropy Alloys. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
445	Inducing the Cocktail Effect in Yolk-Shell High-Entropy Perovskite Oxides Using an Electronic Structural Design for Improved Electrochemical Applications. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
446	Mechanical Properties of Complex Concentrated Alloys: Implications for Structural Integrity. , 2023, , 209-239.		2
447	Critical Review of Limitations of Equiatomic Composition Alloying Strategy of Complex Concentrated Alloys. , 2023, , 122-135.		2
448	Effects of Erbium Additions on Microstructures and Mechanical Properties of CoCrNi Medium Entropy Alloys. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1
449	Critical Review of Factors Hindering Scalability of Complex Concentrated Alloys. , 2023, , 103-121.		2
450	Inducing the cocktail effect in yolk-shell high-entropy perovskite oxides using an electronic structural design for improved electrochemical applications. <i>Chemical Engineering Journal</i> , 2023, 452, 139501.	6.6	21
451	Effect of Weldability on Metallurgical, Mechanical, and Corrosion Behaviour of High Entropy Alloy_A Review. <i>Lecture Notes in Mechanical Engineering</i> , 2023, , 151-161.	0.3	0
452	Synthesis and characterization of a novel CoCrFeMnNi high-entropy alloy-reinforced AA6082 composite. <i>Journal of Materials Research</i> , 2022, 37, 2961-2978.	1.2	13
453	Effects of Nb Additions and Heat Treatments on the Microstructure, Hardness and Wear Resistance of CuNiCrSiCoTiNbX High-Entropy Alloys. <i>Entropy</i> , 2022, 24, 1195.	1.1	0
454	A cluster-plus-glue-atom composition design approach designated for multi-principal element alloys. <i>Rare Metals</i> , 2022, 41, 3839-3849.	3.6	0

#	ARTICLE	IF	CITATIONS
455	Effect of Thermodynamic Stability Parameters on Tracer Diffusion Kinetics in High Entropy Alloys. Journal of Phase Equilibria and Diffusion, 2022, 43, 803-813.	0.5	1
456	Deformation Rate and Temperature Sensitivity in TWIP/TRIP VCrFeCoNi Multi-Principal Element Alloy. Metals, 2022, 12, 1510.	1.0	2
457	Gas tungsten arc welding of as-cast AlCoCrFeNi <sub>2.1</sub> eutectic high entropy alloy. Materials and Design, 2022, 223, 111176.	3.3	71
458	An Odyssey from High Entropy Alloys to Complex Concentrated Alloys. Indian Institute of Metals Series, 2023, , 159-180.	0.2	1
459	Different Types of Particle Effects in Creep Tests of CoCrFeNiMn High-Entropy Alloy. Materials, 2022, 15, 7363.	1.3	0
460	Microstructure, Thermal, and Magnetic Properties of the AlCoFeMnNi and AlCoFeMnNi <sub>10</sub> (X <sub>Cr</sub> =â€%Ti, Cr,) Tj ETQq1 1 0.784314 0.8 3713-3726.	0.8	1
461	Crucial feature space for ductile bcc high-entropy alloys. Applied Physics Letters, 2022, 121, .	1.5	2
462	Synthesis and characterization of the ceramic refractory metal high entropy nitride thin films from Cr-Hf-Mo-Ta-W system. Surface and Coatings Technology, 2022, 449, 128987.	2.2	6
463	Microstructure, dislocation density and microhardness of 1 %C-doped CoCrFeNi complex concentrated alloys during isochronal annealing. Journal of Alloys and Compounds, 2023, 930, 167504.	2.8	1
464	Hierarchical machine learning based structureâ€“property correlations for asâ€“cast complex concentrated alloys. Computational Materials Science, 2023, 216, 111855.	1.4	3
465	Controlling microstructure and mechanical properties of Ti-V-Cr-Nb-Ta refractory high entropy alloys through heat treatments. Journal of Alloys and Compounds, 2023, 932, 167651.	2.8	7
466	Investigation of correlation between the microstructural characteristics and mechanical properties of (CoCuFeNi) <sub>100</sub> -Al high entropy alloys. Journal of Alloys and Compounds, 2023, 933, 167679.	2.8	9
467	High-Entropy Alloys for Bone Tissue Engineering: Recent Developments in New Methods of Manufacture. , 0, , .		0
468	Comparative Measurements and Analysis of the Electrical Properties of Nanocomposites TixZr1âˆ“xC+Î±-Cy (0.0 â€% x â€% 1.0). Materials, 2022, 15, 7908.	1.3	2
469	Platinum based high entropy alloy oxygen reduction electrocatalysts for proton exchange membrane fuel cells. Materials Today Nano, 2023, 21, 100282.	2.3	12
470	Thermal super-jogs control the high-temperature strength plateau in Nb-Mo-Ta-W alloys. Acta Materialia, 2023, 244, 118539.	3.8	6
471	Reactive interdiffusion of an Al film and a CoCrFeNi high-entropy alloy at elevated temperatures. Intermetallics, 2023, 153, 107797.	1.8	3
472	Effects of aging treatment on microstructure and mechanical properties of non-equiatomic high entropy alloy. Intermetallics, 2023, 153, 107799.	1.8	2

#	ARTICLE	IF	CITATIONS
473	Phase and Microstructural Selection in High Entropy Materials. <i>Materials Horizons</i> , 2022, , 47-82.	0.3	0
474	High Entropy Materials (HEMs): An Overview. <i>Materials Horizons</i> , 2022, , 1-25.	0.3	0
475	Effects of lattice distortion and chemical short-range order on creep behavior of medium-entropy alloy CoCrNi. <i>Mechanics of Materials</i> , 2023, 177, 104549.	1.7	5
476	Dual precipitates and heterogeneous fine-grain structure induced strength-ductility synergy in a CoCrNi-based medium-entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2023, 867, 144504.	2.6	4
477	High entropy materials based electrocatalysts for water splitting: Synthesis strategies, catalytic mechanisms, and prospects. <i>Nano Research</i> , 2023, 16, 4411-4437.	5.8	16
478	Exceptional fracture toughness of CrCoNi-based medium- and high-entropy alloys at 20 kelvin. <i>Science</i> , 2022, 378, 978-983.	6.0	100
479	Electron-ion-plasma boriding of a multilayer nanostructural high-entropy alloy. <i>Letters on Materials</i> , 2022, 12, 433-438.	0.2	1
480	Influences of Heat Input on the Geometric Parameters and Element Distribution of CrMnFeCoNi High-Entropy Alloy Coating on Aluminum Alloy Using Laser Cladding. <i>Transactions of the Indian Institute of Metals</i> , 0, , .	0.7	0
481	On the rate of microstructural degradation of Al-Ta-Ti-Zr refractory metal high entropy superalloys. <i>Journal of Alloys and Compounds</i> , 2023, 939, 168369.	2.8	6
482	Structure and Properties of Hard Nitride Coatings from a High-Entropy Alloy. <i>Journal of Surface Investigation</i> , 2022, 16, 1061-1068.	0.1	0
483	Scalable Synthesis of Multiâ€Metal Electrolyte Powders and Electrodes and their Application for Oxygen Evolution and Water Splitting. <i>Angewandte Chemie</i> , 0, , .	1.6	0
484	Scalable Synthesis of Multiâ€Metal Electrolyte Powders and Electrodes and their Application for Oxygen Evolution and Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	20
485	Dynamic thermomechanical response and constitutive modeling of eutectic high-entropy alloy. <i>International Journal of Mechanical Sciences</i> , 2023, 246, 108148.	3.6	6
486	The role of Al on microstructure and high-temperature oxidation behavior of Al <sub>x</sub> MnCrCoFeNi (xâ€=0,1,2) alloys. <i>Journal of Materials Engineering and Performance</i> , 2023, 32, 10077-10084.	1.2	2
487	Control of the Microstructure in a Al <sub>5</sub> Co <sub>15</sub> Cr <sub>30</sub> Fe <sub>25</sub> Ni <sub>25</sub> High Entropy Alloy through Thermo-Mechanical and Thermal Treatments. <i>Metals</i> , 2023, 13, 180.	1.0	2
488	Effect of High Pressure Torsion on Microstructure and Properties of Intermetallic Containing CoCrFeNi <sub>2.1</sub> Nb <sub>0.2</sub> High Entropy Alloy: Comparative Insights. <i>Journal of Materials Engineering and Performance</i> , 2023, 32, 10077-10084.	1.2	1
489	Using concentration gradients to examine the effects of Al, Ga and Sn additions on the low-activation VCrMnFe system. <i>JPhys Energy</i> , 2023, 5, 024013.	2.3	0
490	A simple phenomenological model to describe stability of homogeneous solid solutions in high entropy alloys from metallic bonding potential. <i>Materialia</i> , 2023, 28, 101744.	1.3	5

#	ARTICLE	IF	CITATIONS
491	Phase stability and possible superconductivity of new 4d and 5d transition metal high-entropy alloys. <i>Journal of Solid State Chemistry</i> , 2023, 321, 123881.	1.4	4
492	Super capacity of boron on the grain refinement of FeCoCrNiMn high entropy alloy. <i>Journal of Alloys and Compounds</i> , 2023, 945, 169320.	2.8	1
493	Tuning thermoelectric figure of merit in Ag doped nanostructured PbSnTeSe alloy by entropy and band engineering phenomena. <i>Materials Today Communications</i> , 2023, 35, 105880.	0.9	0
494	Probing plastic mechanisms in gradient dual-phase high-entropy alloys under nanoindentation. <i>Journal of Alloys and Compounds</i> , 2023, 946, 169424.	2.8	2
495	Electromagnetic wave absorbing properties of high-entropy transition metal carbides powders. <i>Materials Research Bulletin</i> , 2023, 163, 112212.	2.7	11
496	A novel Fe-rich non-equiatomic medium-entropy alloy with superior mechanical properties. <i>Journal of Alloys and Compounds</i> , 2023, 952, 170029.	2.8	12
497	Mechanically alloyed (FeCoNi) <sub>75</sub> Cu <sub>25</sub> high entropy alloys: Phase evaluation and magnetic properties. <i>Journal of Alloys and Compounds</i> , 2023, 952, 170030.	2.8	6
498	Effect of warm-rolling on microstructure and superior mechanical properties of a cost-effective AlCrFe <sub>2</sub> Ni <sub>2</sub> high entropy alloy. <i>Journal of Alloys and Compounds</i> , 2023, 948, 169783.	2.8	3
499	Cracking suppression in selective electron beam melted WMoTaNbC refractory high-entropy alloy. <i>Journal of Alloys and Compounds</i> , 2023, 948, 169787.	2.8	6
500	Recent advances in tribology of high entropy alloys: A critical review. <i>Progress in Materials Science</i> , 2023, 136, 101106.	16.0	38
501	Tensile behavior of hexagonal rare-earth-based low, medium, and high entropy alloys: Strengthening effect of configurational entropy. <i>Intermetallics</i> , 2023, 155, 107835.	1.8	4
502	Microstructure evolution and mechanical properties in a gas tungsten arc welded Fe <sub>42</sub> Mn <sub>28</sub> Co <sub>10</sub> Cr <sub>15</sub> Si <sub>5</sub> metastable high entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2023, 867, 144722.	2.6	39
503	Effect of the Synthesis Route on the Microstructure of Hf <sub>x</sub> Ti <sub>(1-x)</sub> NbVZr Refractory High-Entropy Alloys. <i>Metals</i> , 2023, 13, 343.	1.0	1
504	Compositionally Complex Alloys: Some Insights from Photoemission Spectroscopy. <i>Materials</i> , 2023, 16, 1486.	1.3	0
505	ALGORITHM FOR DEVELOPING THE PROGRAM OF CURVED SURFACES BURN-IN. , 2023, 2023, 12-18.		0
506	Bimetallic Structure of Ti6Al4V/IN718 with CuSi Interlayer for Wire-Arc Directed Energy Deposition Process. <i>Metals and Materials International</i> , 2023, 29, 2331-2344.	1.8	1
507	Studies on high-temperature stability and strengthening mechanisms of high/medium-entropy alloys for potential nuclear applications: The case of FeCrV-based alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2023, 870, 144858.	2.6	8
508	Approaches to the Development of Advanced Alloys Based on Refractory Metals. <i>Encyclopedia</i> , 2023, 3, 311-326.	2.4	0

#	ARTICLE	IF	CITATIONS
509	Interdiffusion in Refractory Metal System with a BCC Lattice: Ti/TiZrHfNbTaMo. Entropy, 2023, 25, 490.	1.1	0
510	Phase prediction and experimental realisation of a new high entropy alloy using machine learning. Scientific Reports, 2023, 13, .	1.6	6
511	Structure and Properties of a High-Entropy Alloy Saturated With Boron by the Additive Method. Russian Physics Journal, 2023, 65, 1848-1854.	0.2	0
512	THE EFFECT OF THE THERMOMECHANICAL PROCESSING ON THE MICROSTRUCTURE AND HARDNESS OF (Co <sub>25</sub> Cr <sub>15</sub> Fe <sub>20</sub> Ni <sub>40</sub> ) <sub>83</sub> Al <sub>17</sub> HIGH ENTROPY ALLOY. EskiÅŸehir Osmangazi Åœniversitesi MÅ¼hendislik Ve Mimarlık FakÅ¼ltesi Dergisi, 0, , .	0.0	0
513	Research on the Shear Angle Theory Based on the Internal Friction in High-Speed Cutting of High-Entropy Alloy FeCoNiCrAl. Strength of Materials, 0, , .	0.2	0
514	Characterisation and property evaluation of High Entropy Alloy coating on 316L steel via thermal spray synthesis. Tribology International, 2023, 185, 108525.	3.0	14
515	On correlations between local chemistry, distortions and kinetics in high entropy nitrides: An ab initio study. Acta Materialia, 2023, 255, 118951.	3.8	3
542	High-entropy alloys: An overview on the fundamentals, development, and future perspective. , 2024, , 647-658.		0
544	Models of dislocation glide and strengthening mechanisms in bcc complex concentrated alloys. MRS Bulletin, 2023, 48, 777-789.	1.7	4
554	Synthesis methods and applications of high entropy nanoparticles. Rare Metals, 2023, 42, 3212-3245.	3.6	2
563	Structure and properties of multilayer nanocrystalline ceramics based on a high-entropy alloy. AIP Conference Proceedings, 2023, , .	0.3	0
583	A Brief Perspective on the Status and Future Prospects of Eutectic High-Entropy Alloys. , 0, , .		0
593	Utilizations of High Entropy Alloy Nanoparticles for Gas Sensors. , 0, , .		0