

# Phase Engineering of High-Entropy Alloys

Advanced Materials

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Extremely hard and tough high entropy nitride ceramics. <i>Scientific Reports</i> , 2020, 10, 19874.	1.6	65
2	The Design and Science of Polyelemental Nanoparticles. <i>ACS Nano</i> , 2020, 14, 6407-6413.	7.3	53
3	Strong Band Bowing Effects and Distinctive Optoelectronic Properties of 2H and 1T $\alpha$ Phase $\alpha$ -Tunable Mo <sub>x</sub> Re <sub>1-x</sub> S <sub>2</sub> Alloys. <i>Advanced Functional Materials</i> , 2020, 30, 2003264.	7.8	39
4	The facile oil-phase synthesis of a multi-site synergistic high-entropy alloy to promote the alkaline hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2021, 9, 889-893.	5.2	80
5	Structure characterization of special boundaries in Fe <sub>47</sub> Mn <sub>30</sub> Co <sub>10</sub> Cr <sub>10</sub> B <sub>3</sub> dual-phase high-entropy alloy. <i>Journal of Alloys and Compounds</i> , 2021, 858, 157642.	2.8	7
7	Scalable and Ultrathin High-Temperature Solar Selective Absorbing Coatings Based on the High-Entropy Nanoceramic AlCrWTaNbTiN with High Photothermal Conversion Efficiency. <i>Solar Rrl</i> , 2021, 5, 2000790.	3.1	23
8	Highly Enhanced Thermal Robustness and Photothermal Conversion Efficiency of Solar-Selective Absorbers Enabled by High-Entropy Alloy Nitride MoTaTiCrN Nanofilms. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 16987-16996.	4.0	26
9	Noble metal-based high-entropy alloys as advanced electrocatalysts for energy conversion. <i>Rare Metals</i> , 2021, 40, 2354-2368.	3.6	47
10	Revealing high-fidelity phase selection rules for high entropy alloys: A combined CALPHAD and machine learning study. <i>Materials and Design</i> , 2021, 202, 109532.	3.3	51
11	High-entropy ceramics: Present status, challenges, and a look forward. <i>Journal of Advanced Ceramics</i> , 2021, 10, 385-441.	8.9	510
12	High-entropy materials for catalysis: A new frontier. <i>Science Advances</i> , 2021, 7, .	4.7	294
13	Understanding the Links between the Composition-Processing-Properties in New Formulations of HEAs Sintered by SPS. <i>Metals</i> , 2021, 11, 888.	1.0	3
14	Recent progress on high-entropy materials for electrocatalytic water splitting applications. <i>Tungsten</i> , 2021, 3, 161-180.	2.0	60
15	Microstructure Evolution in a Fast and Ultrafast Sintered Non-Equiatomic Al/Cu HEA. <i>Metals</i> , 2021, 11, 848.	1.0	2
16	Structure of laser welded joints of multicomponent high-entropy alloy of Nb-Cr-Ti-Al-Zr system. <i>The Paton Welding Journal</i> , 2021, 2021, 26-31.	0.1	0
17	Decoupling between calorimetric and dynamical glass transitions in high-entropy metallic glasses. <i>Nature Communications</i> , 2021, 12, 3843.	5.8	24
18	Structure of laser welded joints of multicomponent high-entropy alloy of Nb-Cr-Ti-Al-Zr system. <i>Avtomaticheskaya Svarka</i> , 2021, 2021, 29-34.	0.0	0
19	Improvement ductility and corrosion resistance of CoCrFeNi and AlCoCrFeNi HEAs by electroless copper technique. <i>Journal of Materials Research and Technology</i> , 2021, 13, 463-485.	2.6	30

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20	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
21	Microstructure and ferroelectric properties of high-entropy perovskite oxides with A-site disorder. <i>Ceramics International</i> , 2021, 47, 33039-33046.	2.3	31
22	Multi-Sites Electrocatalysis in High-Entropy Alloys. <i>Advanced Functional Materials</i> , 2021, 31, 2106715.	7.8	128
23	Toward a Scalable and Cost-Conscious Structure in Spectrally Selective Absorbers: Using High-Entropy Nitride TiVCrAlZrN. <i>ACS Applied Energy Materials</i> , 2021, 4, 8801-8809.	2.5	5
24	Novel high entropy alloys as binder in cermets: From design to sintering. <i>International Journal of Refractory Metals and Hard Materials</i> , 2021, 99, 105592.	1.7	8
25	Grain size dependent deformation behavior of a metastable Fe <sub>40</sub> Co <sub>20</sub> Cr <sub>20</sub> Mn <sub>10</sub> Ni <sub>10</sub> high-entropy alloy. <i>Journal of Alloys and Compounds</i> , 2021, 883, 160876.	2.8	11
26	C and N doping in high-entropy alloys: A pathway to achieve desired strength-ductility synergy. <i>Applied Materials Today</i> , 2021, 25, 101162.	2.3	19
27	The directional array TiN-reinforced AlCoCrFeNiTi high-entropy alloy synthesized in situ via magnetic field-assisted laser cladding. <i>Applied Surface Science</i> , 2022, 572, 151407.	3.1	26
28	Synthesis of monodisperse high entropy alloy nanocatalysts from core@shell nanoparticles. <i>Nanoscale Horizons</i> , 2021, 6, 231-237.	4.1	57
29	Refractory High-Entropy HfTaTiNbZr-Based Alloys by Combined Use of Ball Milling and Spark Plasma Sintering: Effect of Milling Intensity. <i>Metals</i> , 2020, 10, 1268.	1.0	26
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31	Synthesis and Corrosion Resistance of FeMnNiAlC <sub>10</sub> Multi-Principal Element Compound. <i>Materials</i> , 2021, 14, 6356.	1.3	3
32	Subnanometer high-entropy alloy nanowires enable remarkable hydrogen oxidation catalysis. <i>Nature Communications</i> , 2021, 12, 6261.	5.8	169
33	Order-Disorder Competitive Cooperation in Equiatomic Transition-Metal Quaternary Alloys: Phase Stability and Electronic Structure. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1
34	A Focused Review on Engineering Application of Multi-Principal Element Alloy. <i>Frontiers in Materials</i> , 2022, 8, .	1.2	4
35	Advanced metal and carbon nanostructures for medical, drug delivery and bio-imaging applications. <i>Nanoscale</i> , 2022, 14, 3987-4017.	2.8	34
36	Facile sol-gel preparation of high-entropy multielemental electrocatalysts for efficient oxidation of methanol and urea. <i>Nano Research</i> , 2022, 15, 5014-5023.	5.8	22
37	Phase formation prediction of high-entropy alloys: a deep learning study. <i>Journal of Materials Research and Technology</i> , 2022, 18, 800-809.	2.6	29

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38	Research of high entropy alloys as electrocatalyst for oxygen evolution reaction. Journal of Alloys and Compounds, 2022, 908, 164669.	2.8	56
39	Probing the structural evolution and its impact on magnetic properties of FeCoNi(AlMn) <sub>x</sub> high-entropy alloy at the nanoscale. Journal of Alloys and Compounds, 2022, 910, 164724.	2.8	6
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42	Synergetic strengthening of coherent and incoherent interface on a mixed-phase high-entropy alloy revealed by micro-pillar compression. Journal of Materials Research and Technology, 2022, 18, 3777-3784.	2.6	5
43	Nanoalloy libraries from laser-induced thermionic emission reduction. Science Advances, 2022, 8, eabm6541.	4.7	11
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45	Synthesizing multicomponent AlCrFeCuNi nanoparticles by joint electrical explosion of wires. Powder Technology, 2022, 404, 117491.	2.1	6
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47	Enhancement of critical current density and strong vortex pinning in high-entropy alloy superconductor Ta <sub>1-x</sub> Nb <sub>x</sub>	3.8	13
48	Efficient FeCoNiCuPd thin-film electrocatalyst for alkaline oxygen and hydrogen evolution reactions. Applied Catalysis B: Environmental, 2022, 313, 121472.	10.8	107
49	Refinement strengthening, second phase strengthening and spinodal microstructure-induced strength-ductility trade-off in a high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 847, 143343.	2.6	20
50	Niobium addition improves the corrosion resistance of TiHfZrNb <sub>x</sub> high-entropy alloys in Hanks's™ solution. Electrochimica Acta, 2022, 424, 140651.	2.6	9
51	The Non-Crystalline Metal-Organic Framework for Corrosion Inhibitor Behavior in Sodium Chloride Solution. SSRN Electronic Journal, 0, , .	0.4	0
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57	Effect of Microstructure and Performance of Nb-Cr-Fe-Ni Quaternary Alloys with the Variation of Niobium Element Content. Transactions of the Indian Institute of Metals, 0, , .	0.7	0
58	Stably Immobilizing Sub-3 nm High-Entropy Pt Alloy Nanocrystals in Porous Carbon as Durable Oxygen Reduction Electrocatalyst. Advanced Functional Materials, 2022, 32, .	7.8	23
59	Microstructure and corrosion resistance of highly <math>111</math>-oriented electrodeposited CoNiFe medium-entropy alloy films. Journal of Materials Research and Technology, 2022, 20, 1677-1684.	2.6	5
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62	Fatigue of Biomaterials and Biomedical Systems. , 2022, , 331-359.		0
63	Mechanical Properties of Complex Concentrated Alloys: Implications for Structural Integrity. , 2023, , 209-239.		2
64	Critical Review of Factors Hindering Scalability of Complex Concentrated Alloys. , 2023, , 103-121.		2
65	Advances in the Processing of High-Entropy Alloys by Mechanical Alloying. Advances in Material Research and Technology, 2022, , 531-559.	0.3	0
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70	Stable cubic crystal structures and optimized thermoelectric performance of SrTiO <sub>3</sub> -based ceramics driven by entropy engineering. Journal of Materials Chemistry A, 2022, 10, 24561-24572.	5.2	12
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73	Strengthening mechanisms in high entropy alloys: A review. Materials Today Communications, 2022, 33, 104686.	0.9	12

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79	High entropy materials based electrocatalysts for water splitting: Synthesis strategies, catalytic mechanisms, and prospects. Nano Research, 2023, 16, 4411-4437.	5.8	16
80	Order-disorder competition in equiatomic 3d-transition-metal quaternary alloys: phase stability and electronic structure. Science and Technology of Advanced Materials Methods, 2023, 3, .	0.4	0
81	Microstructure and properties of Fe <sub>x</sub> CrMnAlCu high-entropy alloy. Materials Science and Technology, 2023, 39, 1245-1254.	0.8	2
82	Microstructure and Mechanical Properties of High-Specific-Strength (TiVCrZr) <sub>100-xWx</sub> (x = 5, 10, 15) Tj ETQq0 0.0.rgBT /Oyerlock 10	1.1	1
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93	Tailored Electronic Structure of Ir in High Entropy Alloy for Highly Active and Durable Bifunctional Electrocatalyst for Water Splitting under an Acidic Environment. <i>Advanced Materials</i> , 2023, 35, .	11.1	51
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120	Dual-phase B-doped FeCoNiCuPd high-entropy alloys for nitrogen electroreduction to ammonia. <i>Chemical Communications</i> , 0, , .	2.2	0
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