

Tao Yang

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9267099/publications.pdf>

Version: 2024-02-01

64
papers

5,035
citations

159358

30
h-index

106150

65
g-index

66
all docs

66
docs citations

66
times ranked

2126
citing authors

#	ARTICLE	IF	CITATIONS
1	Multicomponent intermetallic nanoparticles and superb mechanical behaviors of complex alloys. <i>Science</i> , 2018, 362, 933-937.	6.0	950
2	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
3	Outstanding tensile properties of a precipitation-strengthened FeCoNiCrTi0.2 high-entropy alloy at room and cryogenic temperatures. <i>Acta Materialia</i> , 2019, 165, 228-240.	3.8	373
4	Dual heterogeneous structures lead to ultrahigh strength and uniform ductility in a Co-Cr-Ni medium-entropy alloy. <i>Nature Communications</i> , 2020, 11, 2390.	5.8	244
5	Ultrahigh strength and ductility in newly developed materials with coherent nanolamellar architectures. <i>Nature Communications</i> , 2020, 11, 6240.	5.8	226
6	Ultrahigh-strength and ductile superlattice alloys with nanoscale disordered interfaces. <i>Science</i> , 2020, 369, 427-432.	6.0	187
7	Nanoparticles-strengthened high-entropy alloys for cryogenic applications showing an exceptional strength-ductility synergy. <i>Scripta Materialia</i> , 2019, 164, 30-35.	2.6	170
8	A Novel Multinary Intermetallic as an Active Electrocatalyst for Hydrogen Evolution. <i>Advanced Materials</i> , 2020, 32, e2000385.	11.1	169
9	In situ design of advanced titanium alloy with concentration modulations by additive manufacturing. <i>Science</i> , 2021, 374, 478-482.	6.0	168
10	Development of high-strength Co-free high-entropy alloys hardened by nanosized precipitates. <i>Scripta Materialia</i> , 2018, 148, 51-55.	2.6	154
11	Superior high-temperature properties and deformation-induced planar faults in a novel L12-strengthened high-entropy alloy. <i>Acta Materialia</i> , 2020, 188, 517-527.	3.8	144
12	Precipitation hardening in CoCrFeNi-based high entropy alloys. <i>Materials Chemistry and Physics</i> , 2018, 210, 2-11.	2.0	137
13	Control of nanoscale precipitation and elimination of intermediate-temperature embrittlement in multicomponent high-entropy alloys. <i>Acta Materialia</i> , 2020, 189, 47-59.	3.8	137
14	L1 ₂ -strengthened high-entropy alloys for advanced structural applications. <i>Journal of Materials Research</i> , 2018, 33, 2983-2997.	1.2	86
15	Anomalous precipitate-size-dependent ductility in multicomponent high-entropy alloys with dense nanoscale precipitates. <i>Acta Materialia</i> , 2022, 223, 117480.	3.8	72
16	Heterostructured stainless steel: Properties, current trends, and future perspectives. <i>Materials Science and Engineering Reports</i> , 2022, 150, 100691.	14.8	65
17	Novel Co-Ti-V-base superalloys reinforced by L12-ordered $\hat{\Gamma}$ phase. <i>Intermetallics</i> , 2018, 92, 126-132.	1.8	60
18	Cocktail effects in understanding the stability and properties of face-centered-cubic high-entropy alloys at ambient and cryogenic temperatures. <i>Scripta Materialia</i> , 2020, 187, 250-255.	2.6	59

#	ARTICLE	IF	CITATIONS
19	Accelerated design of novel W-free high-strength Co-base superalloys with extremely wide $\hat{\beta}/\hat{\beta}^1$ region by machine learning and CALPHAD methods. <i>Acta Materialia</i> , 2020, 186, 425-433.	3.8	57
20	Exceptional nanostructure stability and its origins in the CoCrNi-based precipitation-strengthened medium-entropy alloy. <i>Materials Research Letters</i> , 2019, 7, 152-158.	4.1	56
21	Phase evolution upon ion mixing and solid-state reaction and thermodynamic interpretation in the Ni-Nb system. <i>Journal of Applied Physics</i> , 1993, 73, 1702-1710.	1.1	55
22	A novel L12-strengthened multicomponent Co-rich high-entropy alloy with both high $\hat{\beta}^2$ -solvus temperature and superior high-temperature strength. <i>Scripta Materialia</i> , 2021, 199, 113826.	2.6	53
23	Spinodal-modulated solid solution delivers a strong and ductile refractory high-entropy alloy. <i>Materials Horizons</i> , 2021, 8, 948-955.	6.4	52
24	Strain partitioning enables excellent tensile ductility in precipitated heterogeneous high-entropy alloys with gigapascal yield strength. <i>International Journal of Plasticity</i> , 2021, 144, 103022.	4.1	51
25	Mechanisms for suppressing discontinuous precipitation and improving mechanical properties of NiAl-strengthened steels through nanoscale Cu partitioning. <i>Acta Materialia</i> , 2021, 205, 116561.	3.8	48
26	Towards superior mechanical properties of hetero-structured high-entropy alloys via engineering multicomponent intermetallic nanoparticles. <i>Scripta Materialia</i> , 2020, 183, 39-44.	2.6	47
27	Refractory alloying additions on the thermal stability and mechanical properties of high-entropy alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 797, 140020.	2.6	45
28	Precipitation-hardened high-entropy alloys for high-temperature applications: A critical review. <i>MRS Bulletin</i> , 2019, 44, 854-859.	1.7	42
29	Ductilizing brittle high-entropy alloys via tailoring valence electron concentrations of precipitates by controlled elemental partitioning. <i>Materials Research Letters</i> , 2018, 6, 600-606.	4.1	41
30	L12-strengthened multicomponent Co-Al-Nb-based alloys with high strength and matrix-confined stacking-fault-mediated plasticity. <i>Acta Materialia</i> , 2022, 229, 117763.	3.8	36
31	Experimental investigation of phase equilibria and microstructure in the Co-Ti-V ternary system. <i>Intermetallics</i> , 2014, 49, 121-131.	1.8	32
32	Control of discontinuous and continuous precipitation of $\hat{\beta}^1$ -strengthened high-entropy alloys through nanoscale Nb segregation and partitioning. <i>Journal of Alloys and Compounds</i> , 2020, 832, 154903.	2.8	31
33	A Novel Self-Assembling Al-based Composite Powder with High Hydrogen Generation Efficiency. <i>Scientific Reports</i> , 2015, 5, 17428.	1.6	30
34	Chemically complex intermetallic alloys: A new frontier for innovative structural materials. <i>Materials Today</i> , 2022, 52, 161-174.	8.3	29
35	Strengthening and fracture mechanisms of a precipitation hardening high-entropy alloy fabricated by selective laser melting. <i>Virtual and Physical Prototyping</i> , 2022, 17, 451-467.	5.3	28
36	Heterogenous columnar-grained high-entropy alloys produce exceptional resistance to intermediate-temperature intergranular embrittlement. <i>Scripta Materialia</i> , 2021, 194, 113622.	2.6	25

#	ARTICLE	IF	CITATIONS
37	Highly pressurized helium nanobubbles promote stacking-fault-mediated deformation in FeNiCoCr high-entropy alloy. <i>Acta Materialia</i> , 2021, 210, 116843.	3.8	25
38	Multicomponent Ni-rich high-entropy alloy toughened with irregular-shaped precipitates and serrated grain boundaries. <i>Scripta Materialia</i> , 2021, 204, 114066.	2.6	23
39	Dual heterogeneous structure facilitating an excellent strength-ductility combination in an additively manufactured multi-principal-element alloy. <i>Materials Research Letters</i> , 2022, 10, 575-584.	4.1	23
40	A degradable polycyclic cross-linker for UV-curing nanoimprint lithography. <i>Journal of Materials Chemistry C</i> , 2014, 2, 1836.	2.7	21
41	Experimental investigations of microstructures and phase equilibria in the Co-V-Ta ternary system. <i>Journal of Alloys and Compounds</i> , 2016, 664, 141-148.	2.8	18
42	Martensitic transformation and mechanical behavior of a medium-entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 786, 139371.	2.6	18
43	Nanoscale Heterogeneities of Non-Noble Iron-Based Metallic Glasses toward Efficient Water Oxidation at Industrial-Level Current Densities. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 10288-10297.	4.0	18
44	Oxidation behaviors and mechanical properties of L12-strengthened high-entropy alloys at 700°C. <i>Corrosion Science</i> , 2022, 206, 110499.	3.0	17
45	Ultrastrong and ductile transient liquid phase (TLP) bonding joints reinforced by ordered multi-precipitates. <i>Composites Part B: Engineering</i> , 2022, 231, 109568.	5.9	16
46	Unveiling the Electronic Origin for Pressure-Induced Phase Transitions in High-Entropy Alloys. <i>Matter</i> , 2020, 2, 751-763.	5.0	14
47	Intermediate temperature embrittlement in a precipitation-hardened high-entropy alloy: The role of heterogeneous strain distribution and environmentally assisted intergranular damage. <i>Materials Today Physics</i> , 2022, 24, 100653.	2.9	12
48	Design of ultrastrong but ductile medium-entropy alloy with controlled precipitations and heterogeneous grain structures. <i>Applied Materials Today</i> , 2021, 23, 101037.	2.3	11
49	L1 ₂ -strengthened Co-rich Alloys for High-Temperature Structural Applications: A Critical Review. <i>Advanced Engineering Materials</i> , 2021, 23, 2100453.	1.6	11
50	Fabrication of Ag nanodot array over large area for surface-enhanced Raman scattering using hybrid nanoimprint mold made from AAO template. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 117, 909-915.	1.1	10
51	Temperature-dependent microstructural evolutions and deformation mechanisms of (Ni ₂ Co ₂ FeCr) ₉₂ Al ₄ Nb ₄ high-entropy alloys. <i>Journal of Alloys and Compounds</i> , 2022, 918, 165597.	2.8	10
52	Low-Temperature Calcination of Belite-Calcium Sulphoaluminate Cement Clinker and the Hydration Process. <i>Journal of Materials in Civil Engineering</i> , 2021, 33, .	1.3	9
53	Martensite colony engineering: A novel solution to realize the high ductility in full martensitic 3D-printed Ti alloys. <i>Materials and Design</i> , 2022, 215, 110445.	3.3	9
54	Compositionally complex coherent precipitation-strengthened high-entropy alloys: a critical review. <i>Rare Metals</i> , 2022, 41, 2002-2015.	3.6	9

#	ARTICLE	IF	CITATIONS
55	Microstructure and Magnetic Properties of the Fe/Cu Nano-Multilayers by Vapour Deposition. <i>Physica Status Solidi A</i> , 1993, 135, 573-580.	1.7	7
56	Microstructure and magnetic properties of Co/Pd multilayer films. <i>Physica Status Solidi A</i> , 1994, 142, 443-450.	1.7	7
57	Water Splitting: A Novel Multinary Intermetallic as an Active Electrocatalyst for Hydrogen Evolution (Adv. Mater. 21/2020). <i>Advanced Materials</i> , 2020, 32, 2070166.	11.1	6
58	Enhanced resistance to hydrogen embrittlement in a CrCoNi-based medium-entropy alloy via grain-boundary decoration of boron. <i>Materials Research Letters</i> , 2022, 10, 278-286.	4.1	6
59	Sub-50Ånm UV-curing nanoimprint based on fluoropolymer, CYTOP, mold. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 116, 79-84.	1.1	5
60	Simultaneously enhanced oxidation resistance and mechanical properties in a novel lightweight Ti ₂ VZrNb _{0.5} Al _{0.5} high-entropy alloy. <i>Science China Materials</i> , 2022, 65, 2842-2849.	3.5	5
61	Interstitially strengthened metastable FeCoCr-based medium-entropy alloys with both high strength and large ductility. <i>Applied Physics Letters</i> , 2021, 119, 051902.	1.5	4
62	Metastable Phase Formation in the Fe _{1-x} Cu System by Ion Irradiation and Solid State Interdiffusion. <i>Physica Status Solidi A</i> , 1993, 135, 199-206.	1.7	3
63	Linear relationship of the enhanced magnetization of Fe atoms versus the radius difference of the constituent metals in Fe/f.c.c. metal multilayers. <i>Physica Status Solidi A</i> , 1995, 149, 677-683.	1.7	2
64	Multicomponent Precipitation and Strengthening in Intermetallic-Strengthened Alloys. <i>Frontiers in Materials</i> , 0, 9, .	1.2	2