

Direct observation of chemical short-range order in a m

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Citation Report

#	ARTICLE	IF	CITATIONS
1	On the Real-Time Atomistic Deformation of the CoNiCrFeMn High-Entropy Alloy with Gradient Structures. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021, 218, 2100336.	0.8	4
2	Mechanical properties and deformation mechanisms of a Ni ₂ Co ₁ Fe ₁ V _{0.5} Mo _{0.2} medium-entropy alloy at elevated temperatures. <i>Acta Materialia</i> , 2021, 213, 116982.	3.8	36
3	Characterization of Nucleation Behavior in Temperature-Induced BCC-to-HCP Phase Transformation for High Entropy Alloy. <i>Acta Metallurgica Sinica (English Letters)</i> , 2021, 34, 1546-1556.	1.5	7
4	From evidence to new high-entropy alloys. <i>Nature Computational Science</i> , 2021, 1, 458-459.	3.8	4
5	Atomistic simulations of dislocation mobility in refractory high-entropy alloys and the effect of chemical short-range order. <i>Nature Communications</i> , 2021, 12, 4873.	5.8	138
6	Hydrogen-induced ordering on the deformation mechanism of the as-cast high-Mn steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 825, 141923.	2.6	3
7	Role of local chemical fluctuations in the melting of medium entropy alloy CoCrNi. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	13
8	Improving ductility of Ti-6Al-4V alloy via rotational hot rolling. <i>Vacuum</i> , 2021, 191, 110404.	1.6	8
9	Gradient cell-structured high-entropy alloy with exceptional strength and ductility. <i>Science</i> , 2021, 374, 984-989.	6.0	316
10	Compositional variations in equiatomic CrMnFeCoNi high-entropy alloys. <i>Materials Characterization</i> , 2021, 180, 111437.	1.9	11
11	Kinetic Monte Carlo simulation framework for chemical short-range order formation kinetics in a multi-principal-element alloy. <i>Computational Materials Science</i> , 2021, 198, 110670.	1.4	20
12	The effect of local chemical ordering on dislocation activity in multi-principle element alloys: A three-dimensional discrete dislocation dynamics study. <i>Acta Materialia</i> , 2021, 220, 117307.	3.8	19
13	Short-range ordering governs brittleness and ductility in W-Ta solid solution: Insights from Pugh's shear-to-bulk modulus ratio. <i>Scripta Materialia</i> , 2021, 204, 114136.	2.6	21
14	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
15	Chemical short-range order in Fe ₅₀ Mn ₃₀ Co ₁₀ Cr ₁₀ high-entropy alloy. <i>Materials Today Nano</i> , 2021, 16, 100139.	2.3	24
16	Effect of Ta content on stacking fault energy and microstructure characteristics of (VCoNi) _{100-x} Ta _x (x=0, 0.05, 0.5 and 1) medium entropy alloy. <i>Materials Letters</i> , 2021, 305, 130770.	1.3	12
17	Advanced mechanical properties obtained via accurately tailoring stacking fault energy in Co-rich and Ni-depleted Co _x Cr ₃₃ Ni _{67-x} medium-entropy alloys. <i>Scripta Materialia</i> , 2022, 207, 114269.	2.6	9
18	Role of chemical disorder and local ordering on defect evolution in high-entropy alloys. <i>Physical Review Materials</i> , 2021, 5, .	0.9	16

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19	Short-range order in SiSn alloy enriched by second-nearest-neighbor repulsion. <i>Physical Review Materials</i> , 2021, 5, .	0.9	3
20	Role of local chemical fluctuations in the shock dynamics of medium entropy alloy CoCrNi. <i>Acta Materialia</i> , 2021, 221, 117380.	3.8	63
21	Effect of solid-solution strengthening on deformation mechanisms and strain hardening in medium-entropy V1-Cr CoNi alloys. <i>Journal of Materials Science and Technology</i> , 2022, 108, 270-280.	5.6	30
22	Chemical short-range order strengthening mechanism in CoCrNi medium-entropy alloy under nanoindentation. <i>Scripta Materialia</i> , 2022, 209, 114364.	2.6	48
23	Abnormal chemical composition fluctuations in multi-principal-element alloys induced by simple cyclic deformation. <i>Journal of Materials Science and Technology</i> , 2022, 113, 287-295.	5.6	8
24	Local chemical fluctuation mediated ultra-sluggish martensitic transformation in high-entropy intermetallics. <i>Materials Horizons</i> , 2022, 9, 804-814.	6.4	15
25	Phase separation with ordering in aged Fe-Ni-Mn medium entropy alloy. <i>Acta Materialia</i> , 2022, 223, 117487.	3.8	7
26	Enhanced tensile properties by heterogeneous grain structures and coherent precipitates in a CoCrNi-based medium entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 832, 142440.	2.6	18
27	Atomistic interpretation of extra temperature and strain-rate sensitivity of heterogeneous dislocation nucleation in a multi-principal-element alloy. <i>International Journal of Plasticity</i> , 2022, 149, 103155.	4.1	18
28	Atomic-scale evidence of chemical short-range order in CrCoNi medium-entropy alloy. <i>Acta Materialia</i> , 2022, 224, 117490.	3.8	63
29	Room-temperature-deformation-induced chemical short-range ordering in a supersaturated ultrafine-grained Al-Zn alloy. <i>Scripta Materialia</i> , 2022, 210, 114423.	2.6	16
30	A new strategy to strength-toughen metals: Tailoring disorder. <i>Theoretical and Applied Mechanics Letters</i> , 2021, 11, 100310.	1.3	2
31	Coupled Strengthening Effects by Lattice Distortion, Local Chemical Ordering, and Nanoprecipitates in Medium-Entropy Alloys. <i>Frontiers in Materials</i> , 2021, 8, .	1.2	2
32	Theory of history-dependent multi-layer generalized stacking fault energy A modeling of the micro-substructure evolution kinetics in chemically ordered medium-entropy alloys. <i>Acta Materialia</i> , 2022, 224, 117504.	3.8	19
33	Exploding and weeping ceramics. <i>Nature</i> , 2021, 599, 416-420.	13.7	13
34	Disentangling diffusion heterogeneity in high-entropy alloys. <i>Acta Materialia</i> , 2022, 224, 117527.	3.8	25
35	Metalloid substitution elevates simultaneously the strength and ductility of face-centered-cubic high-entropy alloys. <i>Acta Materialia</i> , 2022, 225, 117571.	3.8	64
36	In situ neutron diffraction unravels deformation mechanisms of a strong and ductile FeCrNi medium entropy alloy. <i>Journal of Materials Science and Technology</i> , 2022, 116, 103-120.	5.6	16

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37	Occurrence of the R-phase with increased stability induced by low temperature precipitate-free aging in a Ni50.9Ti49.1 alloy. <i>Acta Materialia</i> , 2022, 227, 117688.	3.8	18
38	Recent Progress in Our Understanding of Phase Stability, Atomic Structures and Mechanical and Functional Properties of High-Entropy Alloys. <i>Materials Transactions</i> , 2022, 63, 394-401.	0.4	30
39	Mechanical Properties and Deformation Mechanisms of Heterostructured High-Entropy and Medium-Entropy Alloys: A Review. <i>Frontiers in Materials</i> , 2022, 8, .	1.2	25
40	Phase formation, texture evolutions, and mechanical behaviors of Al _{0.5} CoCr _{0.8} FeNi _{2.5} V _{0.2} high-entropy alloys upon cold rolling. <i>Progress in Natural Science: Materials International</i> , 2022, 32, 196-205.	1.8	8
41	Structure motif of chemical short-range order in a medium-entropy alloy. <i>Materials Research Letters</i> , 2022, 10, 149-155.	4.1	23
42	Liquid helium temperature deformation and local atomic structure of CoNiV medium entropy alloy. <i>Materials Today Communications</i> , 2022, 30, 103141.	0.9	4
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44	Constructing Structurally Ordered High-Entropy Alloy Nanoparticles on Nitrogen-Rich Mesoporous Carbon Nanosheets for High-Performance Oxygen Reduction. <i>Advanced Materials</i> , 2022, 34, e2110128.	11.1	44
45	Excellent tensile properties induced by heterogeneous grain structure and dual nanoprecipitates in high entropy alloys. <i>Materials Characterization</i> , 2022, 186, 111779.	1.9	15
46	First-principle study of interstitial atoms (C, B and Si) in CrFeCoNi high entropy alloy. <i>Materials Today Communications</i> , 2022, 31, 103241.	0.9	1
47	Xe Ion Irradiation-Induced Structural Transitions and Elemental Diffusion in High-Entropy Alloy and Nitride Thin-Film Multilayers. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
48	Chemical medium-range order in a medium-entropy alloy. <i>Nature Communications</i> , 2022, 13, 1021.	5.8	46
49	Fracture properties of high-entropy alloys. <i>MRS Bulletin</i> , 2022, 47, 176-185.	1.7	11
50	Composition formulas of solid-solution alloys derived from chemical-short-range orders. <i>Scientific Reports</i> , 2022, 12, 3169.	1.6	0
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52	Atomic Short-Range Order in a Cation-Deficient Perovskite Anode for Fast-Charging and Long-Life Lithium-Ion Batteries. <i>Advanced Materials</i> , 2022, 34, e2200914.	11.1	25
53	High-entropy materials. <i>MRS Bulletin</i> , 2022, 47, 145-150.	1.7	22
54	Characterization of chemical local ordering and heterogeneity in high-entropy alloys. <i>MRS Bulletin</i> , 2022, 47, 186-193.	1.7	9

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55	Dual heterogeneous structured medium-entropy alloys showing a superior strength-ductility synergy at cryogenic temperature. <i>Journal of Materials Research and Technology</i> , 2022, 17, 3262-3276.	2.6	22
56	Massive interstitial solid solution alloys achieve near-theoretical strength. <i>Nature Communications</i> , 2022, 13, 1102.	5.8	29
57	3D Nanoscale Mapping of Short-Range Order in GeSn Alloys. <i>Small Methods</i> , 2022, 6, e2200029.	4.6	7
58	Direct observation of chemical short-range order in 25 wt% Mn steel via transmission electron microscopy. <i>Scripta Materialia</i> , 2022, 213, 114642.	2.6	12
59	Designing structures with combined gradients of grain size and precipitation in high entropy alloys for simultaneous improvement of strength and ductility. <i>Acta Materialia</i> , 2022, 230, 117847.	3.8	74
60	Distinct point defect behaviours in body-centered cubic medium-entropy alloy NbZrTi induced by severe lattice distortion. <i>Acta Materialia</i> , 2022, 229, 117806.	3.8	44
61	A reasonable approach to describe the atom distributions and configurational entropy in high entropy alloys based on site preference. <i>Intermetallics</i> , 2022, 144, 107489.	1.8	9
62	Interstitial strengthening in f.c.c. metals and alloys. , 2022, 1, 100034.		10
63	An <i>in situ</i> ambient and cryogenic transmission electron microscopy study of the effects of temperature on dislocation behavior in CrCoNi-based high-entropy alloys with low stacking-fault energy. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	8
64	Decoupling between Shockley partials and stacking faults strengthens multiprincipal element alloys. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	11
65	The hierarchical energy landscape of screw dislocation motion in refractory high-entropy alloys. <i>Acta Materialia</i> , 2022, 234, 118022.	3.8	26
66	Towards ultrastrong and ductile medium-entropy alloy through dual-phase ultrafine-grained architecture. <i>Journal of Materials Science and Technology</i> , 2022, 126, 228-236.	5.6	15
67	Xe-ion-irradiation-induced structural transitions and elemental diffusion in high-entropy alloy and nitride thin-film multilayers. <i>Materials and Design</i> , 2022, 219, 110749.	3.3	10
68	Anomalous size effect on yield strength enabled by compositional heterogeneity in high-entropy alloy nanoparticles. <i>Nature Communications</i> , 2022, 13, 2789.	5.8	26
69	Short-Range Diffusion Enables General Synthesis of Medium-Entropy Alloy Aerogels. <i>Advanced Materials</i> , 2022, 34, .	11.1	74
70	Unveiling microstructural origins of the balanced strength-ductility combination in eutectic high-entropy alloys at cryogenic temperatures. <i>Materials Research Letters</i> , 2022, 10, 602-610.	4.1	10
71	Chemical Domain Structure and its Formation Kinetics in CrCoNi Medium-Entropy Alloy. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
72	Freezing solute atoms in nanograined aluminum alloys via high-density vacancies. <i>Nature Communications</i> , 2022, 13, .	5.8	18

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73	High-entropy enhanced capacitive energy storage. <i>Nature Materials</i> , 2022, 21, 1074-1080.	13.3	161
74	Effects of order-disorder transition on phase relationship, elastic strength, and mechanical anisotropy of Al-Li alloys. <i>Materialia</i> , 2022, 24, 101483.	1.3	0
75	Heterogeneous lattice strain strengthening in severely distorted crystalline solids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	27
76	High Entropy Alloys for Extreme Load-Bearing Applications. , 0, 1, .		2
77	Predicting path-dependent diffusion barrier spectra in vast compositional space of multi-principal element alloys via convolutional neural networks. <i>Acta Materialia</i> , 2022, 237, 118159.	3.8	12
78	Phase prediction and effect of intrinsic residual strain on phase stability in high-entropy alloys with machine learning. <i>Journal of Alloys and Compounds</i> , 2022, 921, 166149.	2.8	26
79	Research on optimizing strength and ductility of HfNbTaZr dual-phase high-entropy alloy by tuning chemical short-range order. <i>International Journal of Refractory Metals and Hard Materials</i> , 2022, 108, 105942.	1.7	6
80	Phase transition in medium entropy alloy CoCrNi under quasi-isentropic compression. <i>International Journal of Plasticity</i> , 2022, 157, 103389.	4.1	27
81	Simultaneous Strengthening Effect of Local Chemical Ordering and Twin Boundary on the Medium Entropy Alloy CoCrNi. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
82	Formation mechanism of co-axial grain boundaries in a Mg alloy. <i>Journal of Magnesium and Alloys</i> , 2023, 11, 1094-1101.	5.5	4
83	Random Generation of Lattice Structures with Short-Range Order. <i>Integrating Materials and Manufacturing Innovation</i> , 2022, 11, 382-390.	1.2	7
84	Overcoming the strength-ductility trade-off in refractory medium-entropy alloys via controlled B2 ordering. <i>Materials Research Letters</i> , 2022, 10, 813-823.	4.1	24
85	Irradiation effects in high-entropy alloys and their applications. <i>Journal of Alloys and Compounds</i> , 2023, 930, 166768.	2.8	38
86	Acoustic emission spectra and statistics of dislocation movements in Fe ₄₀ Mn ₄₀ Co ₁₀ Cr ₁₀ high entropy alloys. <i>Journal of Applied Physics</i> , 2022, 132, .	1.1	6
87	High Entropy van der Waals Materials. <i>Advanced Science</i> , 2022, 9, .	5.6	11
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90	Abnormally fast crack propagation induced by short-range ordering in iron-cobalt alloys: A combined experiments and molecular dynamics simulations. <i>Journal of Alloys and Compounds</i> , 2022, 924, 166649.	2.8	3

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91	Local chemical inhomogeneities in TiZrNb-based refractory high-entropy alloys. <i>Journal of Materials Science and Technology</i> , 2023, 135, 221-230.	5.6	22
92	Local chemical ordering and its impact on radiation damage behavior of multi-principal element alloys. <i>Journal of Materials Science and Technology</i> , 2023, 135, 13-25.	5.6	8
93	Evolution of twins and formation mechanism of special fringes inside nanoscale Cu precipitates in ferritic steel. <i>Materials Characterization</i> , 2022, 192, 112251.	1.9	2
94	Chemical domain structure and its formation kinetics in CrCoNi medium-entropy alloy. <i>Acta Materialia</i> , 2022, 240, 118314.	3.8	25
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96	Accelerated emergence of CoNi-based medium-entropy alloys with emphasis on their mechanical properties. <i>Current Opinion in Solid State and Materials Science</i> , 2022, 26, 101032.	5.6	17
97	Machine learning for high-entropy alloys: Progress, challenges and opportunities. <i>Progress in Materials Science</i> , 2023, 131, 101018.	16.0	54
98	Heterostructured materials. <i>Progress in Materials Science</i> , 2023, 131, 101019.	16.0	264
99	Body-Centered Cubic High-Entropy Alloys. <i>Materials Horizons</i> , 2022, , 3-34.	0.3	0
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101	Highly tailored gap-like structure for excellent thermoelectric performance. <i>Energy and Environmental Science</i> , 2022, 15, 4058-4068.	15.6	11
102	Quantifying the Degree of Disorder and Associated Phenomena in Materials Through Zentropy: Illustrated with Invar Fe ₃Pt. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
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104	Coexistence of two types of short-range order in Siâ€“Geâ€“Sn medium-entropy alloys. <i>Communications Materials</i> , 2022, 3, .	2.9	3
105	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
106	Short range ordering and strengthening in CoCrNi medium-entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 854, 143890.	2.6	6
107	Robust spin glass state with exceptional thermal stability in a chemically complex alloy. <i>Physical Review Materials</i> , 2022, 6, .	0.9	1
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111	Determination of peak ordering in the CrCoNi medium-entropy alloy via nanoindentation. <i>Acta Materialia</i> , 2022, 241, 118380.	3.8	26
112	Multi-type dislocation substructure evolution in a high-strength and ductile duplex high-entropy nanocomposites. <i>Composites Part B: Engineering</i> , 2022, 247, 110322.	5.9	8
113	Crystal Plasticity Model Analysis of the Effect of Short-Range Order on Strength-Plasticity of Medium Entropy Alloys. <i>Metals</i> , 2022, 12, 1757.	1.0	1
114	Fast and diverse phase evolution in VCoNi medium entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 860, 144277.	2.6	1
115	Effect of heat treatment conditions on the plastic deformation behavior of the Inconel 706 alloy. <i>Journal of Materials Research and Technology</i> , 2022, 21, 2145-2155.	2.6	2
116	Formation of lamellar microstructure in Ti-48Al-7Nb-2.5V-1Cr alloy. <i>Materials and Design</i> , 2022, 224, 111342.	3.3	2
117	Unusual phase transformation and novel hardening mechanisms upon impact loading in a medium entropy alloy with dual heterogeneous structure. <i>Intermetallics</i> , 2022, 151, 107747.	1.8	4
118	Abnormal notch brittleness induced by short-range ordering in low-cobalt iron-cobalt alloys under tensile and impact loading: A combined experimental and molecular dynamics simulation study. <i>Journal of Alloys and Compounds</i> , 2023, 931, 167588.	2.8	2
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121	Maximum strength and dislocation patterning in multi-principal element alloys. <i>Science Advances</i> , 2022, 8, .	4.7	33
122	Correlating local chemical and structural order using Geographic Information Systems-based spatial statistics. <i>Ultramicroscopy</i> , 2023, 243, 113642.	0.8	7
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125	Compositional undulation induced strain hardening and delocalization in multi-principal element alloys. <i>International Journal of Mechanical Sciences</i> , 2023, 241, 107931.	3.6	4
126	Fabrication of PtIrPd Noble Metal Medium Entropy Alloy Thin Film by Atomic Layer Deposition. <i>Advanced Engineering Materials</i> , 2023, 25, .	1.6	1

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128	Atomistic simulations of dislocation plasticity in concentrated VCoNi medium entropy alloys: Effects of lattice distortion and short range order. Frontiers in Materials, 0, 9, .	1.2	4
129	Evolution of short-range order and its effects on the plastic deformation behavior of single crystals of the equiatomic Cr-Co-Ni medium-entropy alloy. Acta Materialia, 2023, 243, 118537.	3.8	37
130	Simultaneous strengthening effect of local chemical ordering and twin boundary on the medium entropy alloy CoCrNi. Journal of Alloys and Compounds, 2023, 935, 168093.	2.8	4
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132	Effects of long/short-range ordering on magnetic properties of Fe-23wt% Co alloy: A combined experimental and computational study. Journal of Magnetism and Magnetic Materials, 2023, 565, 170291.	1.0	1
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137	Unconventional energetics of small vacancy clusters in BCC high-entropy alloy Nb0.75ZrTiV0.5. Journal of Materials Science and Technology, 2023, 146, 61-71.	5.6	8
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146	Spatially resolved structural order in low-temperature liquid electrolyte. <i>Science Advances</i> , 2023, 9, .	4.7	12
147	Quantifying chemical fluctuations around medium-range orders and its impact on dislocation interactions in equiatomic CrCoNi medium entropy alloy. <i>Materials and Design</i> , 2023, 225, 111572.	3.3	10
148	Enhancing the radiation tolerance of high-entropy alloys via solute-promoted chemical heterogeneities. <i>Acta Materialia</i> , 2023, 245, 118662.	3.8	30
149	M23C6 precipitation strengthened Fe0.6MnNi1.4 medium entropy alloy matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2023, 865, 144319.	2.6	5
150	Size-dependent microstructural evolution and mechanical properties of crystalline/amorphous high-entropy alloy nanostructured multilayers: Cu/FeCoCrNiBSi vs Ni/FeCoCrNiBSi. <i>Acta Materialia</i> , 2023, 246, 118706.	3.8	4
151	Ultrastrong spinodoid alloys enabled by electrochemical dealloying and refilling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2023, 120, .	3.3	5
152	Short-range order and compositional phase stability in refractory high-entropy alloys via first-principles theory and atomistic modeling: NbMoTa, NbMoTaW, and VNbMoTaW. <i>Physical Review Materials</i> , 2023, 7, .	0.9	3
153	The excellent strength and ductility matching of directly warm-rolled V-alloyed medium manganese steel by stacking fault networks. <i>Materials and Design</i> , 2023, 227, 111719.	3.3	8
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