Alireza Zargaran

List of Publications by Year
in descending order

52	1,920	236833 25	265120 42
papers	citations	h-index	g-index

53	53	53	1114
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Designing a magnesium alloy with high strength and high formability. Nature Communications, 2018, 9, 2522.	5.8	321
2	Ultrahigh high-strain-rate superplasticity in a nanostructured high-entropy alloy. Nature Communications, 2020, 11, 2736.	5.8	116
3	Novel medium-Mn (austeniteÂ+Âmartensite) duplex hot-rolled steel achieving 1.6ÂGPa strength with 20 % ductility by Mn-segregation-induced TRIP mechanism. Acta Materialia, 2018, 147, 247-260.	3.8	114
4	Improvement of strength â€“ ductility balance of B2-strengthened lightweight steel. Acta Materialia, 2020, 191, 1-12.	3.8	100
5	FCC to BCC transformation-induced plasticity based on thermodynamic phase stability in novel V10Cr10Fe45CoxNi35â^'x medium-entropy alloys. Scientific Reports, 2019, 9, 2948.	1.6	71
6	Utilization of brittle Ïƒ phase for strengthening and strain hardening in ductile VCrFeNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 743, 665-674.	2.6	67
7	Microstructural evolution and deformation behavior of twinning-induced plasticity (TWIP) steel during wire drawing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 644, 41-52.	2.6	58
8	Nano-scale heterogeneity-driven metastability engineering in ferrous medium-entropy alloy induced by additive manufacturing. Acta Materialia, 2021, 221, 117426.	3.8	58
9	Effect of grain size on the tensile behavior of V10Cr15Mn5Fe35Co10Ni25 high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 744, 610-617.	2.6	51
10	Deformation behavior of a Co-Cr-Fe-Ni-Mo medium-entropy alloy at extremely low temperatures. Materials Today, 2021, 50, 55-68.	8.3	51
11	Exceptional cryogenic strength-ductility synergy in Al0.3CoCrNi medium-entropy alloy through heterogeneous grain structure and nano-scale precipitates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 766, 138372.	2.6	50
12	Cu addition effects on TRIP to TWIP transition and tensile property improvement of ultra-high-strength austenitic high-Mn steels. Acta Materialia, 2019, 166, 246-260.	3.8	50
13	A powder-metallurgy-based fabrication route towards achieving high tensile strength with ultra-high ductility in high-entropy alloy. Scripta Materialia, 2021, 190, 69-74.	2.6	50
14	Effect of B2 morphology on the mechanical properties of B2-strengthened lightweight steels. Scripta Materialia, 2019, 165, 68-72.	2.6	48
15	Achieving high strength and high ductility in Al0.3CoCrNi medium-entropy alloy through multi-phase hierarchical microstructure. Materialia, 2019, 8, 100442.	1.3	47
16	Effects of Nb and C additions on the microstructure and tensile properties of lightweight ferritic Feâ€“8Alâ€“5Mn alloy. Scripta Materialia, 2014, 89, 37-40.	2.6	45
17	Enhanced cryogenic tensile properties with multi-stage strain hardening through partial recrystallization in a ferrous medium-entropy alloy. Scripta Materialia, 2021, 194, 113653.	2.6	36
18	Effect of stacking faults on the ductility of Fe-18Mn-1.5Al-0.6C twinning-induced plasticity steel at low temperatures. Scripta Materialia, 2017, 137, 18-21.	2.6	34

#	Article	IF	Citations
19	Effect of reduction of area on microstructure and mechanical properties of twinning-induced plasticity steel during wire drawing. Metals and Materials International, 2015, 21, 815-822.	1.8	33
20	Deformation-induced grain boundary segregation mediated high-strain rate superplasticity in medium entropy alloy. Scripta Materialia, 2022, 207, 114239.	2.6	32
21	Effects of solute segregation on tensile properties and serration behavior in ultra-high-strength high-Mn TRIP steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 740-741, 16-27.	2.6	28
22	Architectured multi-metal CoCrFeMnNi-Inconel 718 lamellar composite by high-pressure torsion. Scripta Materialia, 2021, 195, 113722.	2.6	28
23	Simultaneous effects of deformation-induced plasticity and precipitation hardening in metastable non-equiatomic FeNiCoMnTiSi ferrous medium-entropy alloy at room and liquid nitrogen temperatures. Scripta Materialia, 2021, 202, 114013.	2.6	28
24	Architectured heterogeneous alloys with selective laser melting. Scripta Materialia, 2022, 208, 114332.	2.6	27
25	2.3 GPa cryogenic strength through thermal-induced and deformation-induced body-centered cubic martensite in a novel ferrous medium entropy alloy. Scripta Materialia, 2021, 204, 114157.	2.6	26
26	Effect of C content on the microstructure and tensile properties of lightweight ferritic Fe-8Al-5Mn-0.1Nb alloy. Metals and Materials International, 2015, 21, 79-84.	1.8	25
27	Effect of 1Al addition on deformation behavior of Mg. Journal of Magnesium and Alloys, 2021, 9, 489-498.	5.5	24
28	Effects of Al addition on tensile properties of partially recrystallized austenitic TRIP/TWIP steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 806, 140823.	2.6	24
29	Îº-Carbide assisted nucleation of B2: A novel pathway to develop high specific strength steels. Acta Materialia, 2021, 220, 117349.	3.8	23
30	Effect of Initial Grain Size on Deformation Mechanism during Highâ€Pressure Torsion in V 10 Cr 15 Mn 5 Fe 35 Co 10 Ni 25 Highâ€Entropy Alloy. Advanced Engineering Materials, 2020, 22, 1900587.	1.6	21
31	Novel precipitation and enhanced tensile properties in selective laser melted Cu-Sn alloy. Materialia, 2020, 13, 100861.	1.3	21
32	Synergetic strengthening from grain refinement and nano-scale precipitates in non-equiatomic CoCrFeNiMo medium-entropy alloy. Intermetallics, 2021, 135, 107212.	1.8	20
33	Unusual strain-induced martensite and absence of conventional grain refinement in twinning induced plasticity high-entropy alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 803, 140570.	2.6	17
34	The subsurface deformed region and superficial protective tribo-oxide layer during wear in a non-equiatomic CoCrFeNiV high entropy alloy. Materials and Design, 2022, 218, 110685.	3.3	17
35	Microstructure and Tensile Properties of Ferritic Lightweight Steel Produced by Twin-Roll Casting. Metals and Materials International, 2020, 26, 75-82.	1.8	16
36	Metastability engineering of partially recrystallized C-doped non-equiatomic CoCrFeNiMo medium-entropy alloy. Applied Physics Letters, 2021, 119, .	1.5	16

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37	Improvement of impact toughness of 5Mn-1Al-0.5Ti steel by intercritical annealing. Metals and Materials International, 2017, 23, 283-289.	1.8	14
38	Delayed deformation-induced martensite transformation and enhanced cryogenic tensile properties in laser additive manufactured 316L austenitic stainless steel. Additive Manufacturing, 2021, 47, 102314.	1.7	13
39	TiC-reinforced CoCrFeMnNi composite processed by cold-consolidation and subsequent annealing. Materials Letters, 2021, 303, 130503.	1.3	13
40	High temperature tensile behavior of a PH stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 4727-4732.	2.6	12
41	Exceptional combination of ultra-high strength and excellent ductility by inevitably generated Mn-segregation in austenitic steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 737, 69-76.	2.6	12
42	Superlative room temperature and cryogenic tensile properties of nanostructured CoCrFeNi medium-entropy alloy fabricated by powder high-pressure torsion. Scripta Materialia, 2022, 213, 114631.	2.6	12
43	Low-cycle fatigue behavior of AA2618-T61 forged disk. Materials & Design, 2010, 31, 4104-4109.	5.1	11
44	Effects of Cu addition on formability and surface delamination phenomenon in high-strength high-Mn steels. Journal of Materials Science and Technology, 2020, 43, 44-51.	5.6	9
45	Effect of annealing conditions on the microstructure and tensile properties of 0.5â€¯V containing Fe-16Mn-0.8C-0.5Si steel. Scripta Materialia, 2019, 172, 125-129.	2.6	7
46	1.7 Gpa tensile strength in ferrous medium entropy alloy via martensite and precipitation. Materials Letters, 2022, 307, 130958.	1.3	7
47	Aluminum-alloyed lightweight stainless steels strengthened by B2-(Ni,Fe)Al precipitates. Materials and Design, 2021, 206, 109813.	3.3	6
48	Role of cellular structure on deformation twinning and hetero-deformation induced strengthening of laser powder-bed fusion processed CuSn alloy. Additive Manufacturing, 2022, 54, 102744.	1.7	5
49	The hot formability of an Al-Cu-Mg-Fe-Ni forging disk. Jom, 2010, 62, 37-41.	0.9	4
50	Effect of Initial Grain Size on Deformation Mechanism during Highâ€Pressure Torsion in V₁₀Cr₁₅Mn₅Fe₃₅Co₁₀Ni₂₅ Highâ€Entropy Alloy. Advanced Engineering Materials, 2020, 22, 2070002.	1.6	1
51	The influence of laser powder-bed fusion microstructures on the corrosion behavior of CuSn alloy. Journal of Materials Science, 0, , 1.	1.7	1
52	A Powder-Metallurgy-Based Fabrication Route Towards Achieving High Tensile Strength with Ultra-High Ductility in High-Entropy Alloy. SSRN Electronic Journal, 0, , .	0.4	0