

# Alireza Zargaran

## List of Publications by Year in descending order

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Version: 2024-02-01

52  
papers

1,920  
citations

236833

25  
h-index

265120

42  
g-index

53  
all docs

53  
docs citations

53  
times ranked

1114  
citing authors

#	ARTICLE	IF	CITATIONS
1	1.7 Gpa tensile strength in ferrous medium entropy alloy via martensite and precipitation. <i>Materials Letters</i> , 2022, 307, 130958.	1.3	7
2	Deformation-induced grain boundary segregation mediated high-strain rate superplasticity in medium entropy alloy. <i>Scripta Materialia</i> , 2022, 207, 114239.	2.6	32
3	Architected heterogeneous alloys with selective laser melting. <i>Scripta Materialia</i> , 2022, 208, 114332.	2.6	27
4	Superlative room temperature and cryogenic tensile properties of nanostructured CoCrFeNi medium-entropy alloy fabricated by powder high-pressure torsion. <i>Scripta Materialia</i> , 2022, 213, 114631.	2.6	12
5	Role of cellular structure on deformation twinning and hetero-deformation induced strengthening of laser powder-bed fusion processed CuSn alloy. <i>Additive Manufacturing</i> , 2022, 54, 102744.	1.7	5
6	The subsurface deformed region and superficial protective tribo-oxide layer during wear in a non-equiatomic CoCrFeNiV high entropy alloy. <i>Materials and Design</i> , 2022, 218, 110685.	3.3	17
7	A powder-metallurgy-based fabrication route towards achieving high tensile strength with ultra-high ductility in high-entropy alloy. <i>Scripta Materialia</i> , 2021, 190, 69-74.	2.6	50
8	Enhanced cryogenic tensile properties with multi-stage strain hardening through partial recrystallization in a ferrous medium-entropy alloy. <i>Scripta Materialia</i> , 2021, 194, 113653.	2.6	36
9	Unusual strain-induced martensite and absence of conventional grain refinement in twinning induced plasticity high-entropy alloy processed by high-pressure torsion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 803, 140570.	2.6	17
10	Effect of 1Al addition on deformation behavior of Mg. <i>Journal of Magnesium and Alloys</i> , 2021, 9, 489-498.	5.5	24
11	Effects of Al addition on tensile properties of partially recrystallized austenitic TRIP/TWIP steels. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 806, 140823.	2.6	24
12	Architected multi-metal CoCrFeMnNi-Inconel 718 lamellar composite by high-pressure torsion. <i>Scripta Materialia</i> , 2021, 195, 113722.	2.6	28
13	Synergetic strengthening from grain refinement and nano-scale precipitates in non-equiatomic CoCrFeNiMo medium-entropy alloy. <i>Intermetallics</i> , 2021, 135, 107212.	1.8	20
14	Aluminum-alloyed lightweight stainless steels strengthened by B <sub>2</sub> -(Ni,Fe)Al precipitates. <i>Materials and Design</i> , 2021, 206, 109813.	3.3	6
15	Simultaneous effects of deformation-induced plasticity and precipitation hardening in metastable non-equiatomic FeNiCoMnTiSi ferrous medium-entropy alloy at room and liquid nitrogen temperatures. <i>Scripta Materialia</i> , 2021, 202, 114013.	2.6	28
16	Î <sup>ε</sup> -Carbide assisted nucleation of B <sub>2</sub> : A novel pathway to develop high specific strength steels. <i>Acta Materialia</i> , 2021, 220, 117349.	3.8	23
17	Deformation behavior of a Co-Cr-Fe-Ni-Mo medium-entropy alloy at extremely low temperatures. <i>Materials Today</i> , 2021, 50, 55-68.	8.3	51
18	2.3 GPa cryogenic strength through thermal-induced and deformation-induced body-centered cubic martensite in a novel ferrous medium entropy alloy. <i>Scripta Materialia</i> , 2021, 204, 114157.	2.6	26

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19	Delayed deformation-induced martensite transformation and enhanced cryogenic tensile properties in laser additive manufactured 316L austenitic stainless steel. <i>Additive Manufacturing</i> , 2021, 47, 102314.	1.7	13
20	TiC-reinforced CoCrFeMnNi composite processed by cold-consolidation and subsequent annealing. <i>Materials Letters</i> , 2021, 303, 130503.	1.3	13
21	Nano-scale heterogeneity-driven metastability engineering in ferrous medium-entropy alloy induced by additive manufacturing. <i>Acta Materialia</i> , 2021, 221, 117426.	3.8	58
22	Metastability engineering of partially recrystallized C-doped non-equiatomic CoCrFeNiMo medium-entropy alloy. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	16
23	Microstructure and Tensile Properties of Ferritic Lightweight Steel Produced by Twin-Roll Casting. <i>Metals and Materials International</i> , 2020, 26, 75-82.	1.8	16
24	Effect of Initial Grain Size on Deformation Mechanism during High-Pressure Torsion 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. <i>Advanced Engineering Materials</i> , 2020, 22, 1900587.	1.6	21
25	Novel precipitation and enhanced tensile properties in selective laser melted Cu-Sn alloy. <i>Materialia</i> , 2020, 13, 100861.	1.3	21
26	Ultrahigh high-strain-rate superplasticity in a nanostructured high-entropy alloy. <i>Nature Communications</i> , 2020, 11, 2736.	5.8	116
27	Improvement of strength – ductility balance of B2-strengthened lightweight steel. <i>Acta Materialia</i> , 2020, 191, 1-12.	3.8	100
28	Effects of Cu addition on formability and surface delamination phenomenon in high-strength high-Mn steels. <i>Journal of Materials Science and Technology</i> , 2020, 43, 44-51.	5.6	9
29	Effect of Initial Grain Size on Deformation Mechanism during High-Pressure Torsion 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. <i>Advanced Engineering Materials</i> , 2020, 22, 2070002.	1.6	1
30	Effect of annealing conditions on the microstructure and tensile properties of 0.5%V containing Fe-16Mn-0.8C-0.5Si steel. <i>Scripta Materialia</i> , 2019, 172, 125-129.	2.6	7
31	Exceptional cryogenic strength-ductility synergy in Al <sub>0.3</sub> CoCrNi medium-entropy alloy through heterogeneous grain structure and nano-scale precipitates. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 766, 138372.	2.6	50
32	Achieving high strength and high ductility in Al <sub>0.3</sub> CoCrNi medium-entropy alloy through multi-phase hierarchical microstructure. <i>Materialia</i> , 2019, 8, 100442.	1.3	47
33	FCC to BCC transformation-induced plasticity based on thermodynamic phase stability in novel V <sub>10</sub> Cr <sub>10</sub> Fe <sub>45</sub> Co <sub>x</sub> Ni <sub>35</sub> medium-entropy alloys. <i>Scientific Reports</i> , 2019, 9, 2948.	1.6	71
34	Effect of B2 morphology on the mechanical properties of B2-strengthened lightweight steels. <i>Scripta Materialia</i> , 2019, 165, 68-72.	2.6	48
35	Cu addition effects on TRIP to TWIP transition and tensile property improvement of ultra-high-strength austenitic high-Mn steels. <i>Acta Materialia</i> , 2019, 166, 246-260.	3.8	50
36	Effect of grain size on the tensile behavior of 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. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 744, 610-617.	2.6	51

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37	Effects of solute segregation on tensile properties and serration behavior in ultra-high-strength high-Mn TRIP steels. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 740-741, 16-27.	2.6	28
38	Utilization of brittle $\delta$ phase for strengthening and strain hardening in ductile VCrFeNi high-entropy alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 743, 665-674.	2.6	67
39	Novel medium-Mn (austenite+ $\delta$ martensite) duplex hot-rolled steel achieving 1.6 GPa strength with 20 % ductility by Mn-segregation-induced TRIP mechanism. <i>Acta Materialia</i> , 2018, 147, 247-260.	3.8	114
40	Exceptional combination of ultra-high strength and excellent ductility by inevitably generated Mn-segregation in austenitic steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 737, 69-76.	2.6	12
41	Designing a magnesium alloy with high strength and high formability. <i>Nature Communications</i> , 2018, 9, 2522.	5.8	321
42	Effect of stacking faults on the ductility of Fe-18Mn-1.5Al-0.6C twinning-induced plasticity steel at low temperatures. <i>Scripta Materialia</i> , 2017, 137, 18-21.	2.6	34
43	Improvement of impact toughness of 5Mn-1Al-0.5Ti steel by intercritical annealing. <i>Metals and Materials International</i> , 2017, 23, 283-289.	1.8	14
44	Effect of C content on the microstructure and tensile properties of lightweight ferritic Fe-8Al-5Mn-0.1Nb alloy. <i>Metals and Materials International</i> , 2015, 21, 79-84.	1.8	25
45	Microstructural evolution and deformation behavior of twinning-induced plasticity (TWIP) steel during wire drawing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 644, 41-52.	2.6	58
46	Effect of reduction of area on microstructure and mechanical properties of twinning-induced plasticity steel during wire drawing. <i>Metals and Materials International</i> , 2015, 21, 815-822.	1.8	33
47	Effects of Nb and C additions on the microstructure and tensile properties of lightweight ferritic Fe-8Al-5Mn alloy. <i>Scripta Materialia</i> , 2014, 89, 37-40.	2.6	45
48	The hot formability of an Al-Cu-Mg-Fe-Ni forging disk. <i>Jom</i> , 2010, 62, 37-41.	0.9	4
49	High temperature tensile behavior of a PH stainless steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 4727-4732.	2.6	12
50	Low-cycle fatigue behavior of AA2618-T61 forged disk. <i>Materials &amp; Design</i> , 2010, 31, 4104-4109.	5.1	11
51	A Powder-Metallurgy-Based Fabrication Route Towards Achieving High Tensile Strength with Ultra-High Ductility in High-Entropy Alloy. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
52	The influence of laser powder-bed fusion microstructures on the corrosion behavior of CuSn alloy. <i>Journal of Materials Science</i> , 0, , 1.	1.7	1