Praveen Sathiyamoorthi

List of Publications by Year
in descending order

44	2,815	218381	276539
papers	citations	26 h-index	41 g-index

45	45	45	1650
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Alloying behavior in multi-component AlCoCrCuFe and NiCoCrCuFe high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 83-89.	2.6	326
2	Highâ€Entropy Alloys: Potential Candidates for Highâ€Temperature Applications â€“ An Overview. Advanced Engineering Materials, 2018, 20, 1700645.	1.6	270
3	High-entropy alloys with heterogeneous microstructure: Processing and mechanical properties. Progress in Materials Science, 2022, 123, 100709.	16.0	270
4	Thermal stability and grain boundary strengthening in ultrafine-grained CoCrFeNi high entropy alloy composite. Materials and Design, 2017, 134, 426-433.	3.3	195
5	Exceptional resistance to grain growth in nanocrystalline CoCrFeNi high entropy alloy at high homologous temperatures. Journal of Alloys and Compounds, 2016, 662, 361-367.	2.8	159
6	Plasma-Sprayed High Entropy Alloys: Microstructure and Properties of AlCoCrFeNi and MnCoCrFeNi. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 791-800.	1.1	149
7	Fabrication and mechanical properties of TiC reinforced CoCrFeMnNi high-entropy alloy composite by water atomization and spark plasma sintering. Journal of Alloys and Compounds, 2019, 781, 389-396.	2.8	120
8	Ultrahigh high-strain-rate superplasticity in a nanostructured high-entropy alloy. Nature Communications, 2020, 11, 2736.	5.8	116
9	Superior cryogenic tensile properties of ultrafine-grained CoCrNi medium-entropy alloy produced by high-pressure torsion and annealing. Scripta Materialia, 2019, 163, 152-156.	2.6	102
10	Phase Evolution and Densification Behavior of Nanocrystalline Multicomponent High Entropy Alloys During Spark Plasma Sintering. Jom, 2013, 65, 1797-1804.	0.9	93
11	Ultra-high tensile strength nanocrystalline CoCrNi equi-atomic medium entropy alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 735, 394-397.	2.6	89
12	Annealing-induced hardening in high-pressure torsion processed CoCrNi medium entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 734, 338-340.	2.6	75
13	High-temperature tensile deformation behavior of hot rolled CrMnFeCoNi high-entropy alloy. Journal of Alloys and Compounds, 2018, 730, 242-248.	2.8	74
14	Characterization of Oxide Dispersed AlCoCrFe High Entropy Alloy Synthesized by Mechanical Alloying and Spark Plasma Sintering. Transactions of the Indian Institute of Metals, 2013, 66, 369-373.	0.7	58
15	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
16	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
17	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
18	Fine tuning of tensile properties in CrCoNi medium entropy alloy through cold rolling and annealing. Intermetallics, 2019, 113, 106578.	1.8	49

#	Article	IF	Citations
19	Achieving high strength and high ductility in Al0.3CoCrNi medium-entropy alloy through multi-phase hierarchical microstructure. Materialia, 2019, 8, 100442.	1.3	47
20	Plastic Deformation Behavior of 40Feâ€“25Niâ€“15Crâ€“10Coâ€“10V High-Entropy Alloy for Cryogenic Applications. Metals and Materials International, 2019, 25, 277-284.	1.8	46
21	Phase evolution and thermal stability of AlCoCrFe high entropy alloy with carbon as unsolicited addition from milling media. Materials Chemistry and Physics, 2018, 210, 57-61.	2.0	41
22	Effect of Annealing on Microstructure and Tensile Behavior of CoCrNi Medium Entropy Alloy Processed by High-Pressure Torsion. Entropy, 2018, 20, 849.	1.1	40
23	Fine-tuning of mechanical properties in V10Cr15Mn5Fe35Co10Ni25 high-entropy alloy through high-pressure torsion and annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 771, 138604.	2.6	38
24	Effect of Molybdenum and Niobium on the Phase Formation and Hardness of Nanocrystalline CoCrFeNi High Entropy Alloys. Journal of Nanoscience and Nanotechnology, 2014, 14, 8106-8109.	0.9	35
25	Shock wave compaction and sintering of mechanically alloyed CoCrFeMnNi high-entropy alloy powders. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 708, 291-300.	2.6	33
26	Deformation-induced grain boundary segregation mediated high-strain rate superplasticity in medium entropy alloy. Scripta Materialia, 2022, 207, 114239.	2.6	32
27	Architectured multi-metal CoCrFeMnNi-Inconel 718 lamellar composite by high-pressure torsion. Scripta Materialia, 2021, 195, 113722.	2.6	28
28	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
29	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
30	Novel precipitation and enhanced tensile properties in selective laser melted Cu-Sn alloy. Materialia, 2020, 13, 100861.	1.3	21
31	Synergetic strengthening from grain refinement and nano-scale precipitates in non-equiatomic CoCrFeNiMo medium-entropy alloy. Intermetallics, 2021, 135, 107212.	1.8	20
32	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
33	Superplasticity of V10Cr15Mn5Fe35Co10Ni25 high-entropy alloy processed using high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 764, 138198.	2.6	16
34	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
35	TiC-reinforced CoCrFeMnNi composite processed by cold-consolidation and subsequent annealing. Materials Letters, 2021, 303, 130503.	1.3	13
36	Effect of heat treatment on microstructural heterogeneity and mechanical properties of 1%C-CoCrFeMnNi alloy fabricated by selective laser melting. Additive Manufacturing, 2021, 47, 102283.	1.7	9

#	Article	IF	Citations
37	Superplastic Behavior in High-Pressure Torsion-Processed Mo7.5Fe55Co18Cr12.5Ni7 Medium-Entropy Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 1-7.	1.1	7
38	1.7 Gpa tensile strength in ferrous medium entropy alloy via martensite and precipitation. Materials Letters, 2022, 307, 130958.	1.3	7
39	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
40	Nanocrystalline High Entropy Alloys: Processing and Properties. , 2022, , 372-380.		1
41	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
42	Fabrication of Layered Cu-Fe-Cu Structure by Cold Consolidation of Powders using High-pressure Torsion. Journal of Korean Powder Metallurgy Institute, 2021, 28, 287-292.	0.2	1
43	The influence of laser powder-bed fusion microstructures on the corrosion behavior of CuSn alloy. Journal of Materials Science, 0, , 1.	1.7	1
44	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