Surendra K Makineni

List of Publications by Year
in descending order

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Version: 2024-02-01

		218592	233338
52	2,181	26	45
papers	citations	h-index	g-index

55	55	55	1132
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An Overview on Co-Base Alloys for High Temperature Applications. , 2022, , 323-334.		2
2	Dynamic strain aging in the intermediate temperature regime of near-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si14.svg"><mml:mi>Î±</mml:mi></mml:math> titanium alloy, IMI 834: Experimental and modeling. Acta Materialia, 2022, 222, 117436.	3.8	18
3	Effect of Ru addition on Î³/Î³â€² microstructural stability in a low-density CoNi based superalloy. Scripta Materialia, 2022, 208, 114318.	2.6	7
4	Exploring the correlation between microscopic mechanisms and macroscopic behaviour in creep of a directionally solidified tungsten-free Î³/Î³â€² CoNi-base superalloy. Acta Materialia, 2022, 228, 117738.	3.8	6
5	Microstructural engineering of medium entropy NiCo(CrAl) alloy for enhanced room and high-temperature mechanical properties. Materialia, 2022, 22, 101424.	1.3	3
6	On the fabrication of atom probe tomography specimens of Al alloys at room temperature using focused ion beam milling with liquid Ga ion source. Microscopy Research and Technique, 2022, 85, 3040-3049.	1.2	1
7	Enhancement of high temperatureÂstrength of Al-Cu alloys by minor alloying and hot working process. Journal of Alloys and Compounds, 2022, 921, 166136.	2.8	4
8	On the compositional and structural redistribution during partial recrystallisation: a case of Ï*f*-phase precipitation in a Mo-doped NiCoCr medium-entropy alloy. Scripta Materialia, 2021, 194, 113662.	2.6	11
9	Effect of interface dislocations on mass flow during high temperature and low stress creep of single crystal Ni-base superalloys. Scripta Materialia, 2021, 191, 23-28.	2.6	28
10	Elemental Sub-Lattice Occupation and Microstructural Evolution in Î³/Î³â€² Coâ€“12Tiâ€“4Moâ€“Cr Alloys. Microscopy and Microanalysis, 2021, , 1-5.	0.2	0
11	The role of Ti addition on the evolution and stability of Î³/Î³â€² microstructure in a Co-30Ni-10Al-5Mo-2Ta alloy. Acta Materialia, 2021, 208, 116736.	3.8	25
12	Precipitation formation on â˜5 and â˜7 grain boundaries in 316L stainless steel and their roles on intergranular corrosion. Acta Materialia, 2021, 210, 116822.	3.8	30
13	Low-Density, High-Temperature Co Base Superalloys. Annual Review of Materials Research, 2021, 51, 187-208.	4.3	11
14	Atom probe tomography. Nature Reviews Methods Primers, 2021, 1, .	11.8	131
15	Chemical heterogeneity enhances hydrogen resistance in high-strength steels. Nature Materials, 2021, 20, 1629-1634.	13.3	83
16	Understanding creep of a single-crystalline Co-Al-W-Ta superalloy by studying the deformation mechanism, segregation tendency and stacking fault energy. Acta Materialia, 2021, 214, 117019.	3.8	23
17	Role of Ti on Phase Evolution, Oxidation and Nitridation of Coâ€“30Niâ€“10Alâ€“8Crâ€“5Moâ€“2Nbâ€“(0, 2 &) Tj ETQq1 1 0.78 Physical Metallurgy and Materials Science, 2021, 52, 5004-5015.	1.1	4
18	Design of low mass density <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î³</mml:mi><mml:mo>/</mml:mo><mml:msup><mml:mi> CoNi-based superalloys with promising high-temperature mechanical properties. Physical Review Materials, 2021, 5, .	0.9	3

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19	On the formation of hierarchical microstructure in a Mo-doped NiCoCr medium-entropy alloy with enhanced strength-ductility synergy. Scripta Materialia, 2020, 175, 1-6.	2.6	75
20	On the atomic solute diffusional mechanisms during compressive creep deformation of a Co-Al-W-Ta single crystal superalloy. Acta Materialia, 2020, 184, 86-99.	3.8	45
21	Effects of Mo on the mechanical behavior of Î³/Î³Ê¹-strengthened Co-Ti-based alloys. Acta Materialia, 2020, 197, 69-80.	3.8	16
22	Achieving lower mass density with high strength in Nb stabilised Î³/Î³â€² Coâ€“Alâ€“Moâ€“Nb base superalloy by the replacement of Mo with V. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 794, 139826.	2.6	7
23	On the effect of W addition on microstructural evolution and Î³â€² precipitate coarsening in a Coâ€“30Niâ€“10Alâ€“5Moâ€“2Taâ€“2Ti alloy. Materialia, 2020, 10, 100632.	1.3	23
24	(Al, Zn)3Zr dispersoids assisted Î·â€² precipitation in anAl-Zn-Mg-Cu-Zr alloy. Materialia, 2020, 10, 100641.	1.3	28
25	Unveiling the Re effect in Ni-based single crystal superalloys. Nature Communications, 2020, 11, 389.	5.8	101
26	Development of new Î³â€²-strengthened Co-based superalloys with low mass density, high solvus temperature and high temperature strength. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 790, 139578.	2.6	24
27	Atomic Structure and Chemical Composition of Planar Fault Structures in Co-Base Superalloys. Minerals, Metals and Materials Series, 2020, , 920-928.	0.3	2
28	On the effect of Re addition on microstructural evolution of a CoNi-based superalloy. Acta Materialia, 2019, 168, 37-51.	3.8	83
29	Design of high-strength and damage-resistant carbide-free fine bainitic steels for railway crossing applications. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 759, 210-223.	2.6	51
30	On the origin of a remarkable increase in the strength and stability of an Al rich Al-Ni eutectic alloy by Zr addition. Acta Materialia, 2019, 170, 205-217.	3.8	77
31	Calibration of Atom Probe Tomography Reconstructions Through Correlation with Electron Micrographs. Microscopy and Microanalysis, 2019, 25, 301-308.	0.2	6
32	Elemental site occupancy in the L12 A3B ordered intermetallic phase in Co-based superalloys and its influence on the microstructure. Acta Materialia, 2019, 163, 140-153.	3.8	65
33	On the grain boundary strengthening effect of boron in Î³/Î³â€² Cobalt-base superalloys. Acta Materialia, 2018, 145, 247-254.	3.8	73
34	Enhancement of High Temperature Strength of 2219 Alloys Through Small Additions of Nb and Zr and a Novel Heat Treatment. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 3047-3057.	1.1	26
35	Synthesis and stabilization of a new phase regime in a Mo-Si-B based alloy by laser-based additive manufacturing. Acta Materialia, 2018, 151, 31-40.	3.8	42
36	Correlative Microscopyâ€”Novel Methods and Their Applications to Explore 3D Chemistry and Structure of Nanoscale Lattice Defects: A Case Study in Superalloys. Jom, 2018, 70, 1736-1743.	0.9	49

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37	Two phase ferromagnetic composites in Co-Zr and Co-Zr-Fe systems containing anti-phase domain imparting very high strength. Materials Research Bulletin, 2018, 97, 61-70.	2.7	4
38	Interfaces and defect composition at the near-atomic scale through atom probe tomography investigations. Journal of Materials Research, 2018, 33, 4018-4030.	1.2	35
39	On the segregation of Re at dislocations in the Î³' phase of Ni-based single crystal superalloys. Materialia, 2018, 4, 109-114.	1.3	51
40	Thermophysical and Mechanical Properties of Advanced Single Crystalline Co-base Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4099-4109.	1.1	58
41	Elemental partitioning and site-occupancy in Î³/Î³â€² forming Co-Ti-Mo and Co-Ti-Cr alloys. Scripta Materialia, 2018, 154, 159-162.	2.6	44
42	Elemental segregation to antiphase boundaries in a crept CoNi-based single crystal superalloy. Scripta Materialia, 2018, 157, 62-66.	2.6	48
43	On the diffusive phase transformation mechanism assisted by extended dislocations during creep of a single crystal CoNi-based superalloy. Acta Materialia, 2018, 155, 362-371.	3.8	89
44	Effect of Cr addition on Î³â€“Î³â€² cobalt-based Coâ€“Moâ€“Alâ€“Ta class of superalloys: a combined experimental and computational study. Journal of Materials Science, 2017, 52, 11036-11047.	1.7	61
45	Enhancing elevated temperature strength of copper containing aluminium alloys by forming L12 Al3Zr precipitates and nucleating Î¸â€² precipitates on them. Scientific Reports, 2017, 7, 11154.	1.6	41
46	Role of Ti on growth, morphology and microtexture evolution of A15-based V3Ga superconductor by bronze technique. Materials and Design, 2016, 110, 404-413.	3.3	5
47	Phase evolution and crystallography of precipitates during decomposition of new â€œtungsten-freeâ€• Co(Ni)â€“Moâ€“Alâ€“Nb Î³â€“Î³â€² superalloys at elevated temperatures. Journal of Materials Science, 2016, 51, 7843-7860.	1.7	55
48	Growth mechanism of the interdiffusion zone between platinum modified bond coats and single crystal superalloys. Acta Materialia, 2016, 105, 438-448.	3.8	50
49	Structural and magnetic properties of ultra-small scale eutectic CoFeZr alloys. Journal of Alloys and Compounds, 2015, 620, 442-450.	2.8	5
50	A new class of high strength high temperature Cobalt based Î³â€“Î³â€² Coâ€“Moâ€“Al alloys stabilized with Ta addition. Acta Materialia, 2015, 97, 29-40.	3.8	151
51	A new tungsten-free Î³â€“Î³â€™ Coâ€“Alâ€“Moâ€“Nb-based superalloy. Scripta Materialia, 2015, 98, 36-39.	2.6	145
52	Synthesis of a new tungsten-free Î³â€“Î³â€² cobalt-based superalloy by tuning alloying additions. Acta Materialia, 2015, 85, 85-94.	3.8	151