Sammy Tin

List of Publications by Year
in descending order

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69 papers	3,470 citations	304602 22 h-index	143943 57 g-index
89 all docs	89 docs citations	89 times ranked	2366 citing authors

#	Article	IF	Citations
1	The Effect of Ta Additions on a Low Î³â€² Volume Fraction Niâ€"Fe Base Superalloy System. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 2515-2529.	1.1	2
2	Enhanced creep performance in a polycrystalline superalloy driven by atomic-scale phase transformation along planar faults. Acta Materialia, 2021, 202, 232-242.	3.8	29
3	Understanding the Effects of CoAl2O4 Inoculant Additions on Microstructure in Additively Manufactured Inconel 718 Processed Via Selective Laser Melting. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 2630-2641.	1.1	8
4	Microstructure dependence of stress relaxation behavior of powder-processed Niâ€base superalloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 814, 141146.	2.6	6
5	Effect of Phosphorus Additions on the Microstructure and Creep Properties of a Wrought Ni-Base Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 2959-2972.	1.1	4
6	Partitioning of Solutes at Crystal Defects in Borides After Creep and Annealing in a Polycrystalline Superalloy. Jom, 2021, 73, 2293-2302.	0.9	3
7	Insight to agglomeration and chemical reactions of CoAl2O4 inoculants in IN718 processed by selective laser melting. Journal of Alloys and Compounds, 2021, 883, 160753.	2.8	8
8	Effects of CoAl2O4 inoculants on microstructure and mechanical properties of IN718 processed by selective laser melting. Additive Manufacturing, 2020, 35, 101328.	1.7	10
9	Effect of phosphorus content and grain size on the long-term phase stability of Ni-base superalloys. Journal of Alloys and Compounds, 2020, 829, 154352.	2.8	6
10	Effect of Carbide Inoculants Additions in IN718 Fabricated by Selective Laser Melting Process. Minerals, Metals and Materials Series, 2020, , 982-989.	0.3	7
11	Understanding the Effects of Alloy Chemistry and Microstructure on the Stress Relaxation Behavior of Ni-Based Superalloys. Minerals, Metals and Materials Series, 2020, , 579-590.	0.3	1
12	Microstructure and Mechanical Properties of Additively Manufactured Rene 65. Minerals, Metals and Materials Series, 2020, , 961-971.	0.3	4
13	Deformation of Borides in Nickel-based Superalloys: a Study of Segregation at Dislocations. Microscopy and Microanalysis, 2019, 25, 2538-2539.	0.2	4
14	Effect of Phosphorus on the Phase Stability of a High Refractory Content Powder-Processed Niâ€Base Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 5459-5475.	1.1	4
15	Phosphorous behavior and its effect on secondary phase formation in high refractory content powder-processed Ni-based superalloys. Materialia, 2019, 7, 100423.	1.3	13
16	Hot deformation behavior and flow stress modeling of a Ni-based superalloy. Materials Characterization, 2019, 157, 109915.	1.9	47
17	Effect of grain boundary misorientation on Î· phase precipitation in Ni-base superalloy 718Plus. Materials Characterization, 2019, 151, 53-63.	1.9	36
18	Design and thermomechanical properties of a Î³Ê¹ precipitate-strengthened Ni-based superalloy with high entropy Î³ matrix. Journal of Alloys and Compounds, 2019, 792, 550-560.	2.8	32

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19	Phase stability and thermodynamic database validation in a set of non-equiatomic Al-Co-Cr-Fe-Nb-Ni high-entropy alloys. Intermetallics, 2019, 104, 103-112.	1.8	21
20	The effect of phosphorus on the formation of grain boundary laves phase in high-refractory content Ni-based superalloys. Scripta Materialia, 2019, 161, 44-48.	2.6	22
21	Understanding the effects of recrystallization and strain induced boundary migration on âˆ3 twin boundary formation in Ni-base superalloys during iterative sub-solvus annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 740-741, 427-438.	2.6	13
22	Controlling the grain boundary morphology and secondary Î³â€² precipitate size distribution in Ni-base superalloys. Journal of Alloys and Compounds, 2019, 775, 931-941.	2.8	36
23	A modified Î¸ projection model for constant load creep curves-II. Application of creep life prediction. Journal of Materials Science and Technology, 2019, 35, 687-694.	5.6	14
24	A modified Î¸ projection model for constant load creep curves-I. Introduction of the model. Journal of Materials Science and Technology, 2019, 35, 223-230.	5.6	18
25	MC Carbide Characterization in High Refractory Content Powder-Processed Ni-Based Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 2340-2351.	1.1	13
26	Utilization of hot deformation to trigger strain induced boundary migration (SIBM) in Ni-base superalloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 720, 189-202.	2.6	14
27	Comparison of Thermodynamic Predictions and Experimental Observations on B Additions in Powder-Processed Ni-Based Superalloys Containing Elevated Concentrations of Nb. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 729-739.	1.1	6
28	Design of Novel Precipitate-Strengthened Al-Co-Cr-Fe-Nb-Ni High-Entropy Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 305-320.	1.1	52
29	Application of ICME to Engineer Fatigue-Resistant Ni-Base Superalloys Microstructures. Jom, 2018, 70, 2485-2492.	0.9	2
30	Synchrotron In-Situ Aging Study and Correlations to the Î³â€² Phase Instabilities in a High-Refractory Content Î³-Î³â€² Ni-Base Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 3885-3895.	1.1	10
31	Ïƒ and Î· Phase formation in advanced polycrystalline Ni-base superalloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 687, 232-240.	2.6	54
32	Grain Boundary Engineering of a Low Stacking Fault Energy Ni-based Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 1666-1677.	1.1	13
33	The effect of Nb on grain boundary segregation of B in high refractory Ni-based superalloys. Scripta Materialia, 2017, 138, 35-38.	2.6	23
34	Tailoring the Properties of a Ni-Based Superalloy via Modification of the Forging Process: an ICME Approach to Fatigue Performance. Integrating Materials and Manufacturing Innovation, 2017, 6, 265-278.	1.2	15
35	The role of texturing and recrystallization during grain boundary engineering of Ni-based superalloy RR1000. Journal of Materials Science, 2016, 51, 5122-5138.	1.7	26
36	Comparative study of high-temperature grain boundary engineering of two powder-processed low stacking-fault energy Ni-base superalloys. Materials at High Temperatures, 2016, 33, 310-317.	0.5	11

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37	Fabrication of Carbon Nanotube - Chromium Carbide Composite Through Laser Sintering. Lasers in Manufacturing and Materials Processing, 2016, 3, 1-8.	1.2	3
38	Modeling the effect of thermalâ€“mechanical processing parameters on the density and length fraction of twin boundaries in Ni-base superalloy RR1000. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 647, 157-162.	2.6	27
39	Grain boundary engineering of powder processed Ni-base superalloy RR1000: Influence of the deformation parameters. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 627, 95-105.	2.6	48
40	EBSD analysis of high strain rate application Alâ€“Cu based alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 630, 99-106.	2.6	12
41	Effects of Carbides on the Microstructural Evolution in Sub-micron Grain 9310ÂSteel During Isothermal Heat Treatment. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 3208-3219.	1.1	5
42	Comparison of thermodynamic database models and APT data for strength modeling in high Nb content Î³â€“Î³â€² Ni-base superalloys. Materials and Design, 2015, 86, 649-655.	3.3	43
43	Precipitate phase stability and compositional dependence on alloying additions in Î³â€“Î³â€²â€“Î´â€“Î· Ni-base superalloys. Journal of Alloys and Compounds, 2015, 626, 76-86.	2.8	83
44	Precipitate Phase Stability in Î³-Î³â€²-Î´-Î· Ni-Base Superalloys. Jom, 2014, 66, 2478-2485.	0.9	17
45	Compositional dependence of serrated flow in nickel binary solid solutions during high-temperature microindentation. Philosophical Magazine, 2014, 94, 1982-1991.	0.7	0
46	Microstructural Stability and Hot Deformation of Î³â€“Î³â€²â€“Î´ Ni-Base Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 5332-5343.	1.1	18
47	Co Effect on As-cast and Heat-Treated Microstructures in Ru-Containing Single-Crystal Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1833-1843.	1.1	30
48	Kinetics of Sub-Micron Grain Size Refinement in 9310 Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 2590-2600.	1.1	3
49	The role of deformation temperature and strain on grain boundary engineering of Inconel 600. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 603, 104-113.	2.6	35
50	Hot deformation characteristics of a polycrystalline Î³â€“Î³â€²â€“Î´ ternary eutectic Ni-base superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 586, 236-244.	2.6	24
51	Deformation Characteristics and Recrystallization Response of a 9310 Steel Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 479-493.	1.1	12
52	The influence of Ta on the solidification microstructure and segregation behavior of Î³(Ni)/Î³â€²(Ni3Al)â€“Î´(Ni3Nb) eutectic Ni-base superalloys. Journal of Alloys and Compounds, 2013, 562, 11-18.	2.8	21
53	Influence of pre-deformation on jerky flow in Niâ€“10Pd during high-temperature instrumented indentation. Philosophical Magazine Letters, 2013, 93, 371-378.	0.5	1
54	Rate dependence of the serrated flow in Ni-10Pd during high temperature instrumented microindentation. Applied Physics Letters, 2012, 100, 191902.	1.5	5

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55	In situcharacterization of the martensitic transformation temperature of NiTi shape memory alloys via instrumented microindentation. Philosophical Magazine Letters, 2012, 92, 254-261.	0.5	10
56	Phenomenological description and temperature dependence of serrated flow in Niâ€“10Pd during high temperature instrumented microindentation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 554, 41-47.	2.6	6
57	Ultrahigh Strength of Dislocationâ€Free Ni₃Al Nanocubes. Small, 2012, 8, 1869-1875.	5.2	61
58	The Influence of Cr on the Solidification Behavior of Polycrystalline Î³(Ni)/Î³â€²(Ni3Al)-Î´(Ni3Nb) Eutectic Ni-Base Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 1259-1267.	1.1	7
59	Assessment of the effectiveness of transition metal solutes in hardening of Ni solid solutions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6809-6815.	2.6	18
60	Intelligent alloy design: Engineering single crystals superalloys amenable for manufacture. Materials Science and Technology, 2009, 25, 136-146.	0.8	9
61	The effect of ruthenium on the intermediate to high temperature creep response of high refractory content single crystal nickel-base superalloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 489, 65-76.	2.6	67
62	The influence of cooling rate from temperatures above the Î³â€² solvus on morphology, mismatch and hardness in advanced polycrystalline nickel-base superalloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 473, 158-165.	2.6	85
63	Nickel-Based Superalloys for Advanced Turbine Engines: Chemistry, Microstructure and Properties. Journal of Propulsion and Power, 2006, 22, 361-374.	1.3	1,818
64	Influence of composition and cooling rate on constrained and unconstrained lattice parameters in advanced polycrystalline nickelâ€“base superalloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 423, 282-291.	2.6	69
65	Grain boundary transformations during isothermal exposure of powder metallurgy nickel base superalloys for turbine disc applications. Materials Science and Technology, 2005, 21, 125-132.	0.8	21
66	Integrated model for tracking defects through full manufacturing route of aerospace discs. Materials Science and Technology, 2005, 21, 437-444.	0.8	8
67	Modelling hot deformation of Inconel 718 using state variables. Materials Science and Technology, 2004, 20, 1414-1420.	0.8	15
68	Phase instabilities and carbon additions in single-crystal nickel-base superalloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 348, 111-121.	2.6	118
69	Solidification of high-refractory ruthenium-containing superalloys. Acta Materialia, 2003, 51, 269-284.	3.8	122