

Michael J Mills

List of Publications by Year in descending order

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54
papers

2,410
citations

331670

21
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233421

45
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62
all docs

62
docs citations

62
times ranked

2602
citing authors

#	ARTICLE	IF	CITATIONS
1	High-precision orientation mapping from spherical harmonic transform indexing of electron backscatter diffraction patterns. Ultramicroscopy, 2021, 222, 113187.	1.9	5
2	Experimental Calibration & Multi-scale Simulation of Multi-modal γ' Precipitation in Nickel Superalloys During Continuous Cooling. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 3122.	2.2	2
3	In-Situ γ' Lattice Parameter Evolution and Tertiary Burst Phenomena During Controlled Cooling of Commercial PM Nickel-Base Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 2973.	2.2	4
4	Shearing mechanisms of co-precipitates in IN718. Acta Materialia, 2021, 220, 117305.	7.9	13
5	Utilizing local phase transformation strengthening for nickel-base superalloys. Communications Materials, 2021, 2, .	6.9	19
6	Creep Behavior of Compact γ' - γ'' Coprecipitation Strengthened IN718-Variant Superalloy. Metals, 2021, 11, 1897.	2.3	3
7	Generalized stacking fault energy surface mismatch and dislocation transformation. Npj Computational Materials, 2021, 7, .	8.7	6
8	Knowledge of process-structure-property relationships to engineer better heat treatments for laser powder bed fusion additive manufactured Inconel 718. Additive Manufacturing, 2020, 31, 100977.	3.0	57
9	Laser Powder Bed Fusion of NiTiHf High-Temperature Shape Memory Alloy: Effect of Process Parameters on the Thermomechanical Behavior. Metals, 2020, 10, 1522.	2.3	10
10	On the Temperature Limits of Ni-Based Superalloys. Minerals, Metals and Materials Series, 2020, , 785-792.	0.4	2
11	Three-Dimensional in situ Reconstructions of Microstructures with Bimodal Grain Size Distributions. Microscopy and Microanalysis, 2019, 25, 370-371.	0.4	0
12	Structure, Morphology and Coarsening Behavior of MX (NbC) Nanoprecipitates in Fe-Ni-Cr Based Alloys. Microscopy and Microanalysis, 2019, 25, 2612-2613.	0.4	0
13	Oxidation-Related Microstructural Changes at a Crack Tip in Waspaloy After Elevated-Temperature Dwell-Fatigue Testing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 5574-5580.	2.2	3
14	Achieving superelasticity in additively manufactured NiTi in compression without post-process heat treatment. Scientific Reports, 2019, 9, 41.	3.3	110
15	Growth behavior of γ' coprecipitates in Ni-Base superalloys. Acta Materialia, 2019, 164, 220-236.		
16	Magnetically-driven phase transformation strengthening in high entropy alloys. Nature Communications, 2018, 9, 1363.	12.8	263
17	Enabling Large Superalloy Parts Using Compact Coprecipitation of γ' and γ'' . Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 708-717.	2.2	53
18	Structure-Property Relationships of a High Strength Superelastic NiTi-1Hf Alloy. Advanced Engineering Materials, 2018, 20, 1800046.	3.5	23

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19	Effect of mixed partial occupation of metal sites on the phase stability of $\hat{\Gamma}^3$ -Cr ₂₃ xFe x C ₆ (x=0-3) carbides. Scientific Reports, 2018, 8, 7279.	3.3	14
20	Study of Structure and Deformation Pathways in Ti-7Al Using Atomistic Simulations, Experiments, and Characterization. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 2222-2236.	2.2	19
21	On the origin of extraordinary cyclic strengthening of the austenitic stainless steel Sanicro 25 during fatigue at 700 °C. Journal of Materials Research, 2017, 32, 4342-4353.	2.6	18
22	Novel Characterization of Deformation Mechanisms in a Ni-base Superalloy Using HAADF Imaging and Atomic Ordering Analysis. Microscopy and Microanalysis, 2016, 22, 272-273.	0.4	2
23	Solute segregation and deviation from bulk thermodynamics at nanoscale crystalline defects. Science Advances, 2016, 2, e1601796.	10.3	56
24	Creep deformation mechanism mapping in nickel base disk superalloys. Materials at High Temperatures, 2016, 33, 372-383.	1.0	74
25	Super-X EDS Characterization of Chemical Segregation within a Superlattice Extrinsic Stacking Fault of a Ni-based Superalloy. Microscopy and Microanalysis, 2015, 21, 493-494.	0.4	4
26	Considerations for Physical Facility Design and Management of a State-of-the-Art Electron Microscopy and Analysis Laboratory. Microscopy and Microanalysis, 2015, 21, 525-526.	0.4	0
27	High resolution energy dispersive spectroscopy mapping of planar defects in L12-containing Co-base superalloys. Acta Materialia, 2015, 89, 423-437.	7.9	127
28	Sub-nanometer Resolution Chemi-STEM EDS Mapping of Superlattice Intrinsic Stacking Faults in Co-based Superalloys. Microscopy and Microanalysis, 2014, 20, 1028-1029.	0.4	6
29	Molecular Beam Epitaxy of Graded-Composition InGa _N Nanowires. Journal of Electronic Materials, 2013, 42, 863-867.	2.2	13
30	Spectrum-optimized Si-based III-V multijunction photovoltaics. Proceedings of SPIE, 2012, , .	0.8	15
31	Growth and characterization of InGaAs quantum dots on metamorphic GaAsP templates by molecular beam epitaxy. , 2012, , .		1
32	High-resolution characterization of the precipitation behavior of an Al-Zn-Mg-Cu alloy. Philosophical Magazine Letters, 2012, 92, 166-178.	1.2	59
33	Polarization-Induced pn Diodes in Wide-Band-Gap Nanowires with Ultraviolet Electroluminescence. Nano Letters, 2012, 12, 915-920.	9.1	106
34	Three-Dimensional GaN/AlN Nanowire Heterostructures by Separating Nucleation and Growth Processes. Nano Letters, 2011, 11, 866-871.	9.1	97
35	Modeling dislocation coupled dislocation shearing of $\hat{\Gamma}^3$ precipitates in Ni-base superalloys. Acta Materialia, 2011, 59, 3484-3497.	7.9	57
36	Expanding the palette: Metamorphic strategies over multiple lattice constant ranges for extending the spectrum of accessible photovoltaic materials. , 2011, , .		10

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37	Microstructural Features Leading to Enhanced Resistance to Grain Boundary Creep Cracking in ALLVAC 718Plus. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 409-420.	2.2	25
38	Characterization of Metamorphic GaAsP/Si Materials and Devices for Photovoltaic Applications. IEEE Transactions on Electron Devices, 2010, 57, 3361-3369.	3.0	99
39	Crystal plasticity modeling of deformation and creep in polycrystalline Ti-6242. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 1371-1388.	2.2	141
40	Microstructures of LENS [®] , [®] Deposited Nb-Si Alloys. Materials Research Society Symposia Proceedings, 2004, 842, 108.	0.1	0
41	Static recovery in titanium alloys at lower temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 387-389, 570-575.	5.6	13
42	Microstructural effects on the tensile properties and deformation behavior of a Ti-48Al gamma titanium aluminide. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 2113-2127.	2.2	10
43	Deformation and creep modeling in polycrystalline Ti-6Al alloys. Acta Materialia, 2003, 51, 4533-4549.	7.9	280
44	Application of a Modified Jogged-Screw Model for Creep of Titanium Aluminides: Evaluation Of The Key Substructural Parameters. Materials Research Society Symposia Proceedings, 2003, 778, 861/W7.6.1.	0.1	0
45	Application of a Modified Jogged-Screw Model for Creep of Titanium Aluminides: Evaluation Of The Key Substructural Parameters. Materials Research Society Symposia Proceedings, 2003, 779, 761.	0.1	0
46	Microstructural Evaluation of LENS [®] , [®] Deposited Nb-Ti-Si-Cr Alloys. Materials Research Society Symposia Proceedings, 2002, 753, 1.	0.1	1
47	A Revised Jogged-Screw Model For Creep Of Equiaxed β -TiAl: Identification Of The Key Substructural Parameters.. Materials Research Society Symposia Proceedings, 2002, 753, 1.	0.1	0
48	Modeling Dislocation Dissociation and Cutting of γ Precipitates in Ni-Based Superalloys by the Phase Field Method. Materials Research Society Symposia Proceedings, 2002, 753, 1.	0.1	3
49	Anatase \leftrightarrow Rutile Transformation in Titania Powders. Journal of the American Ceramic Society, 2001, 84, 619-622.	3.8	262
50	Fabrication of Free \rightarrow Standing Titania \rightarrow Based Gas Sensors by the Oxidation of Metallic Titanium Foils. Journal of the American Ceramic Society, 2000, 83, 1007-1009.	3.8	48
51	On the Role of Lamellar Interfaces on the Strength and Ductility of Two-Phase Titanium-Aluminum. Materials Research Society Symposia Proceedings, 1998, 552, 1.	0.1	0
52	Investigations of the misfit dislocation structure at a CdTe(001)/GaAs(001) interface using Stillerger-Weber potentials and high-resolution transmission electron microscopy. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1995, 72, 635-649.	0.6	12
53	High-resolution transmission electron microscopy studies of dislocation cores in metals and intermetallic compounds. Ultramicroscopy, 1994, 56, 79-93.	1.9	38
54	A study of the structure of Lomer and 60 \rightarrow dislocations in aluminium using high-resolution transmission electron microscopy. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1989, 60, 355-384.	0.6	112