

Xiao-Guang Yang

List of Publications by Year in descending order

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100
papers

1,589
citations

279798

23
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100
all docs

100
docs citations

100
times ranked

840
citing authors

#	ARTICLE	IF	CITATIONS
1	High-temperature oxidation behavior of DZ125 Ni-based superalloy under tensile stress. <i>Rare Metals</i> , 2022, 41, 4188-4193.	7.1	4
2	An orientation-dependent creep life evaluation method for nickel-based single crystal superalloys. <i>Chinese Journal of Aeronautics</i> , 2022, 35, 238-249.	5.3	14
3	Mechanical modeling of a stitched sandwich thermal protection structure with ceramic-fiber-reinforced SiO ₂ aerogel as core layer. <i>Journal of Sandwich Structures and Materials</i> , 2022, 24, 1028-1048.	3.5	4
4	Multiscale investigation on fatigue properties and damage of a 3D braided SiC/SiC + PyC/SiC composites in the full stress range at 1300 Å°C. <i>Journal of the European Ceramic Society</i> , 2022, 42, 1208-1218.	5.7	14
5	Creep-fatigue behavior of thin-walled plate with holes: Stress state characterization and life estimation. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2022, 45, 3053-3066.	3.4	4
6	An energy-based low-cycle fatigue life evaluation method considering anisotropy of single crystal superalloys. <i>Propulsion and Power Research</i> , 2022, 11, 253-264.	4.3	4
7	Microstructural evolution and restoration of creep property for a damaged K403 alloy after rejuvenation heat treatments. <i>Rare Metals</i> , 2021, 40, 1865-1871.	7.1	4
8	Experimental, analytical and numerical investigation on tensile behavior of twisted fiber yarns. <i>Chinese Journal of Aeronautics</i> , 2021, 34, 278-288.	5.3	5
9	A fatigue life estimation approach considering the effect of geometry and stress sensitivity. <i>Theoretical and Applied Fracture Mechanics</i> , 2021, 112, 102915.	4.7	6
10	Stress analysis and lifetime prediction for Ti-6Al-4V welding joint under fatigue loading. <i>Materials Science and Technology</i> , 2021, 37, 969-978.	1.6	0
11	In situ investigation of failure in 3D braided SiCf/SiC composites under flexural loading. <i>Composite Structures</i> , 2021, 270, 114067.	5.8	19
12	Effects of tensile load hold time on the fatigue and corrosion-fatigue behavior of turbine blade materials. <i>International Journal of Fatigue</i> , 2021, 152, 106448.	5.7	13
13	A modified constitutive model considering microstructure degradation of Ni-based superalloys and its application to microstructural damage calculation. <i>Journal of Alloys and Compounds</i> , 2021, 882, 160605.	5.5	9
14	The framework of hot corrosion fatigue life estimation of a PM superalloy using notch fatigue methodology combined with pit evolution. <i>International Journal of Fatigue</i> , 2021, 153, 106483.	5.7	9
15	Low-cycle fatigue of MCrAlY-coated superalloys: A fracture mechanics-based analysis. <i>Materials Science and Technology</i> , 2021, 37, 151-161.	1.6	5
16	A numerical approach to simulate 3D crack propagation in turbine blades. <i>International Journal of Mechanical Sciences</i> , 2020, 171, 105408.	6.7	19
17	High-temperature hot-corrosion effects on the creep-fatigue behavior of a directionally solidified nickel-based superalloy: Mechanism and lifetime prediction. <i>International Journal of Damage Mechanics</i> , 2020, 29, 798-809.	4.2	6
18	Prediction of Tensile Strength and Deformation of Diffusion Bonding Joint for Inconel 718 Using Deep Neural Network. <i>Metals</i> , 2020, 10, 1266.	2.3	5

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19	Experimental investigation on creep-fatigue behaviours of as-received and service-exposed turbine blades: Mechanism and life evaluation. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2020, 43, 2892-2906.	3.4	7
20	Viscoplastic constitutive model for Ni-based directionally solidified superalloy: Experimental validation on notched specimen. <i>Engineering Failure Analysis</i> , 2020, 118, 104930.	4.0	7
21	The Influence of Different Microstructure on Tensile Deformation and Acoustic Emission Behaviors of Low-Alloy Steel. <i>Materials</i> , 2020, 13, 4981.	2.9	5
22	The Effects of Grain Size and Twins Density on High Temperature Oxidation Behavior of Nickel-Based Superalloy GH738. <i>Materials</i> , 2020, 13, 4166.	2.9	10
23	Study on Constitutive Relation of Nickel-Base Superalloy Inconel 718 Based on Long Short Term Memory Recurrent Neural Network. <i>Metals</i> , 2020, 10, 1588.	2.3	4
24	The influence of microstructure on CTOD fracture toughness of DZ125 base metal and brazed joint. <i>Journal of Physics: Conference Series</i> , 2020, 1653, 012032.	0.4	1
25	Effect of interface diffusion on low-cycle fatigue behaviors of MCrAlY coated single crystal superalloys. <i>International Journal of Fatigue</i> , 2020, 137, 105660.	5.7	16
26	Residual fatigue life prediction based on a novel damage accumulation model considering loading history. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2020, 43, 1005-1021.	3.4	14
27	A novel fatigue life model considering surface-damage induced performance degradation. <i>Engineering Fracture Mechanics</i> , 2020, 228, 106899.	4.3	3
28	Evaluation of the influence of surface crack-like defects on fatigue life for a P/M nickel-based superalloy FGH96. <i>International Journal of Fatigue</i> , 2020, 137, 105639.	5.7	26
29	Initiation and Early-Stage Growth of Internal Fatigue Cracking Under Very-High-Cycle Fatigue Regime at High Temperature. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 1575-1592.	2.2	24
30	Tension and compression moduli characterization of a bimodular ceramic-fiber reinforced SiO ₂ aerogel composite. <i>Materialprüfung/Materials Testing</i> , 2020, 62, 1003-1009.	2.2	3
31	Evaluation of service-induced microstructural damage for directionally solidified turbine blade of aircraft engine. <i>Rare Metals</i> , 2019, 38, 157-164.	7.1	24
32	Deformation and rupture behaviors of SiC/SiC under creep, fatigue and dwell-fatigue load at 1300°C. <i>Ceramics International</i> , 2019, 45, 21440-21447.	4.8	7
33	Mechanical properties deterioration and its relationship with microstructural variation using small coupons sampled from serviced turbine blades. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 757, 134-145.	5.6	11
34	Experimental investigation and simulation on stress rupture behavior of a Ni-based DS superalloy affected by initial elastic-plastic multi-axial stress state. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 757, 124-133.	5.6	5
35	The role of coarsening on LCF behaviour using small coupons of a DS Ni-based superalloy. <i>International Journal of Fatigue</i> , 2019, 125, 418-431.	5.7	16
36	The influence of temperature and orientation on fatigue crack growth behavior of a directional solidification nickel-based superalloy: Experimental investigation and modelling. <i>International Journal of Fatigue</i> , 2019, 125, 505-519.	5.7	10

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37	A systematical weight function modified critical distance method to estimate the creep-fatigue life of geometrically different structures. <i>International Journal of Fatigue</i> , 2019, 126, 6-19.	5.7	24
38	Low-cycle fatigue behavior of a directionally solidified Ni-based superalloy subjected to gas hot corrosion pre-exposure. <i>Rare Metals</i> , 2019, 38, 227-232.	7.1	9
39	Constitutive modeling of a directionally solidified nickel-based superalloy DZ125 subjected to thermal mechanical creep fatigue loadings. <i>Rare Metals</i> , 2019, 38, 922-936.	7.1	14
40	Experimental Investigation on the Creep and Low Cycle Fatigue Behaviors of a Serviced Turbine Blade. , 2019, , .		2
41	Isothermal Fatigue and Creep-Fatigue Interaction Behavior of Nickel-Base Directionally Solidified Superalloy. <i>Strength of Materials</i> , 2018, 50, 98-106.	0.5	2
42	Accelerated LCF&€creep experimental methodology for durability life evaluation of turbine blade. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2018, 41, 1196-1207.	3.4	15
43	Fatigue behavior of uncoated and MCrAlY-coated DS nickel-based superalloys pre-exposed in hot corrosion condition. <i>Rare Metals</i> , 2018, 37, 936-941.	7.1	5
44	Oxidation-induced damage of an uncoated and coated nickel-based superalloy under simulated gas environment. <i>Rare Metals</i> , 2018, 37, 204-209.	7.1	9
45	Evaluation Study on Iterative Inverse Modeling Procedure for Determining Post-Necking Hardening Behavior of Sheet Metal at Elevated Temperature. <i>Metals</i> , 2018, 8, 1044.	2.3	11
46	Influence of orientation and temperature on the fatigue crack growth of directionally solidification superalloys DZ125. <i>MATEC Web of Conferences</i> , 2018, 165, 13014.	0.2	2
47	Experimental investigation and modelling of microstructure degradation in a DS Ni-based superalloy using a quantitative cross-correlation analysis method. <i>Journal of Alloys and Compounds</i> , 2018, 762, 488-499.	5.5	30
48	Numerical investigation on the cracking behaviors of thermal barrier coating system under different thermal cycle loading waveforms. <i>Surface and Coatings Technology</i> , 2018, 349, 166-176.	4.8	37
49	Finite element analysis and life modeling of a notched superalloy under thermal mechanical fatigue loading. <i>International Journal of Pressure Vessels and Piping</i> , 2018, 165, 51-58.	2.6	6
50	Low-temperature hot corrosion effects on the low-cycle fatigue lifetime and cracking behaviors of a powder metallurgy Ni-based superalloy. <i>International Journal of Fatigue</i> , 2018, 116, 334-343.	5.7	13
51	Failure assessment of the first stage high&€pressure turbine blades in an aero&€engine turbine. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2017, 40, 2092-2106.	3.4	5
52	Low-cycle fatigue behavior of DZ125 superalloy under prior exposure conditions. <i>Rare Metals</i> , 2017, , 1.	7.1	0
53	Effect of high temperature on compression property and deformation recovery of ceramic fiber reinforced silica aerogel composites. <i>Science China Technological Sciences</i> , 2017, 60, 1681-1691.	4.0	14
54	An improved viscoplastic constitutive model and its application to creep behavior of turbine blade. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 707, 344-355.	5.6	19

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55	Out of phase thermal mechanical fatigue investigation of a directionally solidified superalloy DZ125. Chinese Journal of Aeronautics, 2016, 29, 257-267.	5.3	16
56	Fatigue response, fracture characteristic and life modeling of a near-alpha titanium alloy under typical cyclic loadings in service. Rare Metals, 2016, 35, 676-685.	7.1	1
57	Thermomechanical fatigue experimental study on a notched directionally solidified Ni-base superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 674, 451-458.	5.6	18
58	Influence of MCrAlY coating on low-cycle fatigue behavior of a directionally solidified nickel-based superalloy in hot corrosive environment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 678, 57-64.	5.6	15
59	Tensile properties and failure analysis of Ti-6Al-4V joints by electron beam welding. Rare Metals, 2016, 35, 450-455.	7.1	3
60	Influence of the different salt deposits on the fatigue behavior of a directionally solidified nickel-based superalloy. International Journal of Fatigue, 2016, 84, 91-96.	5.7	14
61	A physically based methodology for predicting anisotropic creep properties of Ni-based superalloys. Rare Metals, 2016, 35, 606-614.	7.1	9
62	Low-cycle fatigue lifetime estimation of Ti-6Al-4V welded joints by a continuum damage mechanics model. Rare Metals, 2016, 35, 299-302.	7.1	5
63	Low cyclic fatigue behavior of electron-beam-welded Ti-6Al-4V titanium joint. Rare Metals, 2016, 35, 230-234.	7.1	2
64	Unified modeling of high temperature deformations of a Ni-based polycrystalline wrought superalloy under tension-compression, cyclic, creep and creep-fatigue loadings. Science China Technological Sciences, 2015, 58, 248-257.	4.0	5
65	Low cycle fatigue behavior of a 3D braided KD-I fiber reinforced ceramic matrix composite for coated and uncoated specimens at 1100°C and 1300°C. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 631, 38-44.	5.6	32
66	Effect of MCrAlY coating on the low-cycle fatigue behavior of a directionally solidified nickel-base superalloy at different temperatures. International Journal of Fatigue, 2015, 75, 126-134.	5.7	23
67	Effect of high-temperature hot corrosion on the low cycle fatigue behavior of a directionally solidified nickel-base superalloy. International Journal of Fatigue, 2015, 70, 106-113.	5.7	41
68	Life prediction for thermal barrier coating systems in gas turbine vanes. Materials Research Innovations, 2014, 18, S4-983-S4-989.	2.3	2
69	Effect of multi-axial stress state on creep behavior and stress rupture life of a Ni-based DS superalloy. Computational Materials Science, 2014, 85, 20-31.	3.0	13
70	Comparative investigation of creep behavior of ceramic fiber-reinforced alumina and silica aerogel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 609, 125-130.	5.6	23
71	Life modeling of anisotropic fatigue behavior for a single crystal nickel-base superalloy. International Journal of Fatigue, 2014, 61, 21-27.	5.7	27
72	A modern and robust methodology for modeling anisotropic creep characteristics of Ni-based DS and SC superalloys. Science China Technological Sciences, 2014, 57, 1802-1815.	4.0	7

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73	A simple unified critical plane damage parameter for high-temperature LCF life prediction of a Ni-based DS superalloy. <i>Journal of Materials Science</i> , 2014, 49, 7625-7638.	3.7	7
74	Ti-6Al-4V welded joints via electron beam welding: Microstructure, fatigue properties, and fracture behavior. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 597, 225-231.	5.6	30
75	Experimental investigation and numerical modeling for elasto-plastic notch-root stress/strain analysis under monotonic loadings. <i>Science China Technological Sciences</i> , 2014, 57, 1411-1424.	4.0	4
76	Modeling of anisotropic tensile and cyclic viscoplastic behavior of a nickel-base directionally solidified superalloy. <i>Materials & Design</i> , 2014, 55, 966-978.	5.1	23
77	Systematic methodology for high temperature LCF life prediction of smooth and notched Ni-based superalloy with and without dwells. <i>Computational Materials Science</i> , 2014, 89, 65-74.	3.0	24
78	Constitutive modeling and failure mechanisms of anisotropic tensile and creep behaviors of nickel-base directionally solidified superalloy. <i>Materials & Design</i> , 2013, 45, 663-673.	5.1	40
79	Experimental investigation on high temperature anisotropic compression properties of ceramic-fiber-reinforced SiO ₂ aerogel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 585, 25-31.	5.6	54
80	Effects of crystallographic orientations and dwell types on low cycle fatigue and life modeling of a SC superalloy. <i>International Journal of Fatigue</i> , 2013, 49, 31-39.	5.7	46
81	Creep and fatigue lifetime analysis of directionally solidified superalloy and its brazed joints based on continuum damage mechanics at elevated temperature. <i>Materials & Design</i> , 2013, 45, 643-652.	5.1	43
82	Continuum damage mechanism-based life prediction for Ni-based superalloy under complex loadings. <i>Materials at High Temperatures</i> , 2013, 30, 287-294.	1.0	2
83	Effect of notch on fatigue behaviour of a directionally solidified superalloy at high temperature. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2013, 36, 1288-1297.	3.4	28
84	Experimental investigation and modeling of the creep behavior of ceramic fiber-reinforced SiO ₂ aerogel. <i>Journal of Non-Crystalline Solids</i> , 2012, 358, 519-524.	3.1	29
85	Computational analysis for understanding the failure mechanism of APS-TBC. <i>Computational Materials Science</i> , 2012, 57, 38-42.	3.0	20
86	HCF strength estimation of notched Ti-6Al-4V specimens considering the critical distance size effect. <i>International Journal of Fatigue</i> , 2012, 40, 97-104.	5.7	27
87	Experimental investigations on creep rupture strength and failure mechanism of vacuum brazed joints of a DS superalloy at elevated temperature. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 545, 162-167.	5.6	25
88	Analysis of failure behaviors of dovetail assemblies due to high gradient stress under contact loading. <i>Engineering Failure Analysis</i> , 2011, 18, 314-324.	4.0	21
89	High temperature LCF life prediction of notched DS Ni-based superalloy using critical distance concept. <i>International Journal of Fatigue</i> , 2011, 33, 1470-1476.	5.7	54
90	Experimental investigation on both low cycle fatigue and fracture behavior of DZ125 base metal and the brazed joint at elevated temperature. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 7005-7011.	5.6	37

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91	Experimental investigation on mechanical properties of a fiber-reinforced silica aerogel composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 4830-4836.	5.6	123
92	Low cycle fatigue behavior and life evaluation of a P/M nickel base superalloy under different dwell conditions. <i>Procedia Engineering</i> , 2010, 2, 2103-2110.	1.2	7
93	Experimental investigation on low cycle fatigue and creep-fatigue interaction of DZ125 in different dwell time at elevated temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 528, 233-238.	5.6	40
94	Effects of temperature on oxidation behaviour of air plasma sprayed thermal barrier coatings. <i>Materials at High Temperatures</i> , 2009, 26, 365-368.	1.0	1
95	Investigation and modeling of low cycle fatigue behaviors of two Ni-based superalloys under dwell conditions. <i>International Journal of Pressure Vessels and Piping</i> , 2009, 86, 616-621.	2.6	16
96	Uneven growth of thermally grown oxide and stress distribution in plasma-sprayed thermal barrier coatings. <i>Surface and Coatings Technology</i> , 2009, 203, 3088-3091.	4.8	32
97	Evaluation of properties and thermal stress field for thermal barrier coatings. <i>Central South University</i> , 2008, 15, 367-371.	0.5	1
98	In-situ measurement of elastic modulus for ceramic top-coat at high temperature. <i>Central South University</i> , 2008, 15, 372-376.	0.5	2
99	Effect of bond coat surface roughness on oxidation behaviour of air plasma sprayed thermal barrier coatings. <i>Surface Engineering</i> , 2008, 24, 276-279.	2.2	24
100	Measurement of Young's Modulus and Poisson's Ratio of Thermal Barrier Coatings. <i>Chinese Journal of Aeronautics</i> , 2005, 18, 180-184.	5.3	19