

Huang Yuan

List of Publications by Year in descending order

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110
papers

2,154
citations

218381

26
h-index

288905

40
g-index

115
all docs

115
docs citations

115
times ranked

1173
citing authors

#	ARTICLE	IF	CITATIONS
1	Assessment of mechanical properties and fatigue performance of a selective laser melted nickel-base superalloy Inconel 718. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 759, 278-287.	2.6	117
2	Quantification of constraint effects in elastic-plastic crack front fields. <i>Journal of the Mechanics and Physics of Solids</i> , 1998, 46, 219-241.	2.3	98
3	Suggestions to the cohesive traction-separation law from atomistic simulations. <i>Engineering Fracture Mechanics</i> , 2011, 78, 525-533.	2.0	76
4	Identification of the intrinsic material length in gradient plasticity theory from micro-indentation tests. <i>International Journal of Solids and Structures</i> , 2001, 38, 8171-8187.	1.3	67
5	A review of the extended finite element method on macrocrack and microcrack growth simulations. <i>Theoretical and Applied Fracture Mechanics</i> , 2018, 97, 236-249.	2.1	67
6	Verification of a Cohesive Zone Model for Ductile Fracture. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 1996, 118, 192-200.	0.8	63
7	Life assessment of multiaxial thermomechanical fatigue of a nickel-based superalloy Inconel 718. <i>International Journal of Fatigue</i> , 2019, 120, 228-240.	2.8	58
8	A continuum damage model for multi-axial low cycle fatigue of porous sintered metals based on the critical plane concept. <i>Mechanics of Materials</i> , 2017, 104, 13-25.	1.7	57
9	Computational analysis of mixed-mode fatigue crack growth in quasi-brittle materials using extended finite element methods. <i>Engineering Fracture Mechanics</i> , 2009, 76, 165-181.	2.0	52
10	On damage accumulations in the cyclic cohesive zone model for XFEM analysis of mixed-mode fatigue crack growth. <i>Computational Materials Science</i> , 2009, 46, 579-585.	1.4	51
11	Multiaxial fatigue life assessment of sintered porous iron under proportional and non-proportional loadings. <i>International Journal of Fatigue</i> , 2017, 97, 214-226.	2.8	47
12	Cyclic plasticity modeling of nickel-based superalloy Inconel 718 under multi-axial thermo-mechanical fatigue loading conditions. <i>International Journal of Fatigue</i> , 2019, 119, 89-101.	2.8	47
13	FEM mesh-dependence in cutting process simulations. <i>International Journal of Advanced Manufacturing Technology</i> , 2011, 53, 313-323.	1.5	46
14	Applications of normal stress dominated cohesive zone models for mixed-mode crack simulation based on extended finite element methods. <i>Engineering Fracture Mechanics</i> , 2011, 78, 544-558.	2.0	46
15	Numerical investigations on the significance of for large stable crack growth. <i>Engineering Fracture Mechanics</i> , 1989, 32, 459-468.	2.0	45
16	Effects of the cohesive law on ductile crack propagation simulation by using cohesive zone models. <i>Engineering Fracture Mechanics</i> , 2014, 126, 1-11.	2.0	42
17	Application of material point methods for cutting process simulations. <i>Computational Materials Science</i> , 2012, 57, 102-110.	1.4	41
18	Assessment of low cycle fatigue crack growth under mixed-mode loading conditions by using a cohesive zone model. <i>International Journal of Fatigue</i> , 2015, 75, 39-50.	2.8	35

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19	Ratcheting and fatigue properties of the high-nitrogen steel X13CrMnMoN18-14-3 under cyclic loading. <i>Computational Materials Science</i> , 2009, 46, 572-578.	1.4	32
20	A damage evolution model based on micro-structural characteristics for an additive manufactured superalloy under monotonic and cyclic loading conditions. <i>International Journal of Fatigue</i> , 2020, 131, 105279.	2.8	32
21	A micro-mechanical damage model based on gradient plasticity: algorithms and applications. <i>International Journal for Numerical Methods in Engineering</i> , 2002, 54, 399-420.	1.5	31
22	Assessment of thermo-mechanical fatigue in a nickel-based single-crystal superalloy CMSX-4 accounting for temperature gradient effects. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 809, 140918.	2.6	29
23	Prediction of residual stress relaxations in shot-peened specimens and its application for the rotor disc assessment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 6690-6698.	2.6	28
24	Computational modeling of mixed-mode fatigue crack growth using extended finite element methods. <i>International Journal of Fracture</i> , 2009, 159, 151-165.	1.1	27
25	Mechanical behavior and fatigue performance of austenitic stainless steel under consideration of martensitic phase transformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 679, 249-257.	2.6	27
26	Evolution and characterization of cyclic thermal shock-induced thermomechanical damage in oxide/oxide ceramics matrix composites. <i>International Journal of Fatigue</i> , 2019, 120, 150-161.	2.8	27
27	Investigations of size effects in tensile tests based on a nonlocal micro-mechanical damage model. <i>Computational Materials Science</i> , 2003, 26, 230-243.	1.4	26
28	Elastoplastic crack analysis for pressure-sensitive dilatant materials ? Part I: Higher-order solutions and two-parameter characterization. <i>International Journal of Fracture</i> , 1993, 61, 295-330.	1.1	25
29	Cohesive zone modelling of low cycle fatigue cracks in cracked and notched specimens. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2013, 36, 1246-1257.	1.7	25
30	On the J-integral concept for elastic-plastic crack extension. <i>Nuclear Engineering and Design</i> , 1991, 131, 157-173.	0.8	24
31	Computational analysis of thin coating layer failure using a cohesive model and gradient plasticity. <i>Engineering Fracture Mechanics</i> , 2003, 70, 1929-1942.	2.0	24
32	Damage evolution and modeling of sintered metals under multi-axial loading conditions. <i>Computational Materials Science</i> , 2013, 80, 123-133.	1.4	24
33	Thermal gradient mechanical fatigue assessment of a nickel-based superalloy. <i>International Journal of Fatigue</i> , 2020, 135, 105486.	2.8	24
34	Analysis of size effects based on a symmetric lower-order gradient plasticity model. <i>Computational Materials Science</i> , 2000, 19, 143-157.	1.4	23
35	Surface vs. interior failure behaviors in a structural steel under gigacycle fatigue: Failure analysis and life prediction. <i>International Journal of Fatigue</i> , 2014, 64, 42-53.	2.8	23
36	Prediction of fatigue crack growth and residual stress relaxations in shot-peened material. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 5962-5968.	2.6	22

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37	Representation of micro-structural evolution and thermo-mechanical damage in thermal shocked oxide/oxide ceramic matrix composites. <i>International Journal of Fatigue</i> , 2019, 126, 122-129.	2.8	22
38	Correlations between microstructure evolution and mechanical behavior of a nickel-based single crystal superalloy with long-term aging effects. <i>Materials Characterization</i> , 2020, 169, 110652.	1.9	22
39	Analysis of elastoplastic sharp notches. <i>International Journal of Fracture</i> , 1994, 67, 187-216.	1.1	20
40	Micro-porosity as damage indicator for characterizing cyclic thermal shock-induced anisotropic damage in oxide/oxide ceramic matrix composites. <i>Engineering Fracture Mechanics</i> , 2019, 220, 106669.	2.0	20
41	Computational fracture mechanics assessment of adhesive joints. <i>Computational Materials Science</i> , 2008, 43, 146-156.	1.4	19
42	Fracture energy and tensile strength depending on stress triaxiality along a running crack front in three-dimensional cohesive modeling. <i>Engineering Fracture Mechanics</i> , 2020, 227, 106919.	2.0	18
43	Quantifications of crack constraint effects in an austenitic steel. <i>International Journal of Fracture</i> , 1995, 71, 273-291.	1.1	17
44	Experimental and computational investigation of cyclic mechanical behavior of sintered iron. <i>Computational Materials Science</i> , 2012, 57, 48-58.	1.4	17
45	Critical remarks to cohesive zone modeling for three-dimensional elastoplastic fatigue crack propagation. <i>Engineering Fracture Mechanics</i> , 2018, 202, 311-331.	2.0	17
46	Computational algorithms and applications of element-free Galerkin methods for nonlocal damage models. <i>Engineering Fracture Mechanics</i> , 2010, 77, 2640-2653.	2.0	16
47	The role of intrinsic material length scales in micro-indentation simulations. <i>Computational Materials Science</i> , 2002, 25, 253-263.	1.4	15
48	Prediction of 3D small fatigue crack propagation in shot-peened specimens. <i>Computational Materials Science</i> , 2009, 46, 566-571.	1.4	15
49	Damage evolution and characterization for sintered powder metals with the varying porosity. <i>Engineering Fracture Mechanics</i> , 2019, 207, 86-98.	2.0	15
50	Fatigue life assessment of a porous casting nickel-based superalloy based on fracture mechanics methodology. <i>International Journal of Fatigue</i> , 2020, 136, 105575.	2.8	15
51	Analysis of creep-fatigue life prediction models for nickel-based super alloys. <i>Computational Materials Science</i> , 2012, 57, 80-88.	1.4	14
52	Computational investigation of multi-axial damage modeling for porous sintered metals with experimental verification. <i>Engineering Fracture Mechanics</i> , 2015, 149, 89-110.	2.0	14
53	Chemo-thermo-mechanical modeling of EB-PVD TBC failure subjected to isothermal and cyclic thermal exposures. <i>International Journal of Fatigue</i> , 2020, 141, 105817.	2.8	14
54	Microstructural characterization and fatigue performance of the recast material induced by laser manufacturing of a nickel-based superalloy. <i>Journal of Materials Processing Technology</i> , 2021, 293, 117087.	3.1	14

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55	Identification of material parameters of micropolar theory for composites by homogenization method. <i>Computational Materials Science</i> , 2009, 46, 733-737.	1.4	13
56	Prediction of fatigue crack growth retardation using a cyclic cohesive zone model. <i>Archive of Applied Mechanics</i> , 2017, 87, 1061-1075.	1.2	13
57	Plasticity modeling for a metastable austenitic stainless steel with strain-induced martensitic transformation under cyclic loading conditions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 775, 138961.	2.6	13
58	Anisotropic damage evolution and modeling for a nickel-based superalloy built by additive manufacturing. <i>Engineering Fracture Mechanics</i> , 2022, 268, 108450.	2.0	13
59	Title is missing!. <i>International Journal of Fracture</i> , 2000, 100, 355-377.	1.1	12
60	Continuum damage mechanics for sintered powder metals. <i>Science China: Physics, Mechanics and Astronomy</i> , 2015, 58, 1-12.	2.0	12
61	Elastoplastic crack analysis for pressure-sensitive dilatant materials-Part II: Interface cracks. <i>International Journal of Fracture</i> , 1995, 69, 167-187.	1.1	11
62	Nonlocal damage modelling using the element-free Galerkin method in the frame of finite strains. <i>Computational Materials Science</i> , 2009, 46, 660-666.	1.4	10
63	Cyclic plasticity modeling and fatigue life assessment of the recasting material of a nickel-based superalloy induced by laser manufacturing. <i>International Journal of Fatigue</i> , 2021, 147, 106154.	2.8	10
64	Computational modelling of poro-visco-hyperelastic effects on time-dependent fatigue crack growth of hydrogels. <i>International Journal of Plasticity</i> , 2022, 155, 103307.	4.1	10
65	Comparison of computational predictions of material failure using nonlocal damage models. <i>International Journal of Solids and Structures</i> , 2004, 41, 1021-1037.	1.3	9
66	Damage modeling of oxide/oxide ceramic matrix composites under cyclic loading conditions. <i>Ceramics International</i> , 2020, 46, 23379-23389.	2.3	9
67	Computational assessment of cracks under strain-gradient plasticity. <i>International Journal of Fracture</i> , 2011, 167, 235-248.	1.1	8
68	Investigation of Micromechanical Deformation Mechanisms in Sinter Powder Metals. <i>Advanced Materials Research</i> , 0, 668, 351-355.	0.3	8
69	A novel elastoplastic constitutive model for woven oxide/oxide ceramic matrix composites with anisotropic hardening. <i>Composite Structures</i> , 2019, 229, 111420.	3.1	8
70	Investigation of Thermal Gradient Mechanical Fatigue Test Methods for Nickel-based Superalloys. <i>Experimental Mechanics</i> , 2021, 61, 565-580.	1.1	8
71	Assessment of three-dimensional multi-crack propagation for fatigue life prediction. <i>International Journal of Pressure Vessels and Piping</i> , 2022, 198, 104660.	1.2	8
72	Anisotropic cyclic plasticity modeling for additively manufactured nickel-based superalloys. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2022, 45, 2371-2387.	1.7	8

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73	A perturbation analysis of combined mode I and III dynamic crack propagation. <i>Acta Mechanica</i> , 1994, 104, 27-63.	1.1	7
74	Simulation of Intergranular Ductile Cracking in $\hat{\Gamma}^2$ Titanium Alloys Based on a Micro-Mechanical Damage Model. <i>Materials</i> , 2017, 10, 1250.	1.3	7
75	Characterization of the recasting-affected zone in the nickel-based superalloy upon single-pulse laser treatment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 826, 141897.	2.6	7
76	Shielding effects on fatigue and crack growth of the recasting zone induced by laser manufacturing in a nickel-based superalloy. <i>International Journal of Fatigue</i> , 2022, 154, 106523.	2.8	7
77	Modelling and simulation of coupled fluid transport and time-dependent fracture in fibre-reinforced hydrogel composites. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 390, 114470.	3.4	7
78	Effects of heat treatments on microstructure and mechanical properties of laser melting multi-layer materials. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 848, 143380.	2.6	7
79	Fracture mechanics assessment of stress concentrations in incomplete fretting contacts. <i>Engineering Fracture Mechanics</i> , 2009, 76, 2344-2358.	2.0	6
80	Computational analysis and characterization of fretting stress fields. <i>Computational Materials Science</i> , 2009, 45, 674-679.	1.4	6
81	Applications of meshless methods for damage computations with finite strains. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2009, 17, 045005.	0.8	6
82	Applications of the element-free Galerkin method for singular stress analysis under strain gradient plasticity theories. <i>Engineering Fracture Mechanics</i> , 2011, 78, 452-461.	2.0	6
83	Experimental and computational investigations of nonlinear frictional behavior in threaded fasteners. <i>Tribology International</i> , 2021, 154, 106737.	3.0	6
84	A nonlocal treatment technique based on the background cell concept for micro-mechanical damage modeling. <i>Acta Mechanica</i> , 2015, 226, 1529-1547.	1.1	5
85	Kinetics of deformation-induced martensitic transformation under cyclic loading conditions. <i>Scripta Materialia</i> , 2020, 189, 53-57.	2.6	5
86	On $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e904" altimg="si128.svg"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \hat{\Gamma} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle J \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ characterization of elastic-plastic crack-tip fields under fatigue loading conditions. <i>International Journal of Fatigue</i> , 2022, 160, 106849.	2.8	5
87	Multi-axial fatigue life assessment of additively manufactured nickel-based superalloys. <i>International Journal of Fatigue</i> , 2022, 163, 107049.	2.8	5
88	Singular stress fields at V-notch tips in elastoplastic pressure-sensitive materials. <i>Acta Mechanica</i> , 1996, 118, 151-170.	1.1	4
89	Micro-defect effect on gigacycle fatigue $\langle i \rangle S-N \langle /i \rangle$ property and very slow crack growth of high strength low alloy steel. <i>Materials Science and Technology</i> , 2013, 29, 1101-1110.	0.8	4
90	Application of a Cohesive Zone Model for Simulating Fatigue Crack Growth from Moderate to High $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="M1"} \rangle \langle \text{mml:mi} \rangle \text{mathvariant="normal"} \rangle \hat{\Gamma} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle K \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ Levels of Inconel 718. <i>International Journal of Aerospace Engineering</i> , 2018, 2018, 1-13.	0.5	4

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91	Experimental and Computational Investigations on Fretting Fatigue Crack Growth in Dovetail Joints. AIAA Journal, 2022, 60, 4893-4905.	1.5	4
92	Numerical Simulation of Creep-Fatigue Crack Growth for Nickel-Based Super Alloy with Extended Finite Element Method. Advanced Materials Research, 2011, 321, 171-175.	0.3	3
93	Cohesive Zone Modeling for 3D Ductile Crack Propagation. Applied Mechanics and Materials, 0, 853, 132-136.	0.2	3
94	A quantitative description of machining effects to mechanical behavior of sintered powder metals. Journal of Materials Processing Technology, 2018, 258, 310-318.	3.1	3
95	Asymptotic Analysis of Steady-State Crack Extension of Combined Modes I and III in Elastic-Plastic Materials with Linear Hardening. , 1993, , 185-207.		3
96	Estimate of Temperature Gradients of Thin-Walled Structures Under Thermomechanical Fatigue Loading. AIAA Journal, 2022, 60, 5489-5499.	1.5	3
97	Plane stress near-tip field analysis of steady-state crack growth along a linear-hardening elastic-plastic interface. Acta Mechanica, 1995, 109, 207-226.	1.1	2
98	Dynamic crack growth along an elastoplastic bimaterial interface. Acta Mechanica, 1997, 121, 51-77.	1.1	2
99	Notes on plastic reloading zone in the asymptotic analysis of elastic-plastic crack extension. Archive of Applied Mechanics, 1991, 61, 471-478.	1.2	2
100	Quantitative correlation between rafting microstructure and anisotropic mechanical behavior in dual-phase materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 847, 143286.	2.6	2
101	Computational boundary layer approaches for fatigue crack propagation under mixed-mode loading conditions. Proceedings in Applied Mathematics and Mechanics, 2008, 8, 10251-10252.	0.2	1
102	On overall properties of micro-polar composites with interface effects. Proceedings in Applied Mathematics and Mechanics, 2008, 8, 10579-10580.	0.2	1
103	An Asymptotic Analysis of Static and Dynamic Crack Extension Along a Ductile Bimaterial Interface/Anti-Plane Case. , 1993, , 208-226.		1
104	Characterization of isothermal and cyclic thermal damage of EB-PVD TBCs with the help of the 3D-DIC technique. Fatigue and Fracture of Engineering Materials and Structures, 2022, 45, 186-202.	1.7	1
105	Computational Analysis of Fatigue Crack Propagation at Elevated Temperature for IN718. Applied Mechanics and Materials, 0, 110-116, 29-32.	0.2	0
106	Micro and macro cracks. Engineering Fracture Mechanics, 2012, 95, 1.	2.0	0
107	On Determining Elastic Modulus from Instrumented Indentation. Advanced Materials Research, 0, 668, 616-620.	0.3	0
108	LCF Assessment of Electron-Beam-Welded Notched Parts of Nickel-Based Superalloy Inconel 718. , 2014, , .		0

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109	Thermal Gradient Mechanical Fatigue Assessment of a Nickel-Based Superalloy. MATEC Web of Conferences, 2019, 300, 07004.	0.1	0
110	Size-dependent fracture energy correlated with the crack tip stress fields in concrete-like materials. , 2004, , 423-434.		0