

Wenchun Jiang

List of Publications by Year in descending order

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112
papers

2,298
citations

201674

27
h-index

289244

40
g-index

112
all docs

112
docs citations

112
times ranked

1218
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of localized defects on mechanical and creep properties for pyramidal lattice truss panel structure by analytical, experimental and finite element methods. <i>Thin-Walled Structures</i> , 2022, 170, 108531.	5.3	8
2	Biaxial residual stress measurement by indentation energy difference method: Theoretical and experimental study. <i>International Journal of Pressure Vessels and Piping</i> , 2022, 195, 104573.	2.6	30
3	Fracture toughness assessment of the X80 steel by nanoindentation technique and a modified constitutive model. <i>Theoretical and Applied Fracture Mechanics</i> , 2022, 117, 103195.	4.7	12
4	Determination of the through-thickness residual stress in thick duplex stainless steel welded plate by wavelength-dependent neutron diffraction method. <i>International Journal of Pressure Vessels and Piping</i> , 2022, 196, 104603.	2.6	16
5	Tensile fatigue behaviour and life distribution model of the pultruded fibre reinforced composites. <i>Polymers and Polymer Composites</i> , 2022, 30, 096739112210837.	1.9	0
6	Crystal- α -amorphous NiO/MoO ₂ with a high-density interface for hydrogen evolution. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 2087-2096.	6.0	10
7	Reducing Full-Field Residual Stress of Girth Weld with Thick Wall by Combining Local PWHT and WJP. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2022, , .	0.6	2
8	Effect of Cooling Rate on Phase Transformation and Strain Response of SA508-3 Steel by Numerical and Experimental Study. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2022, 144, .	0.6	2
9	High temperature creep strength design and optimization of solid oxide fuel cell. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 21450-21461.	7.1	6
10	Fatigue life prediction of 316L stainless steel weld joint including the role of residual stress and its evolution: Experimental and modelling. <i>International Journal of Fatigue</i> , 2021, 143, 105997.	5.7	33
11	Residual stresses evolution during strip clad welding, post welding heat treatment and repair welding for a large pressure vessel. <i>International Journal of Pressure Vessels and Piping</i> , 2021, 189, 104259.	2.6	18
12	Using reinforce plate to control the residual stresses and deformation during local post-welding heat treatment for ultra-large pressure vessels. <i>International Journal of Pressure Vessels and Piping</i> , 2021, 191, 104332.	2.6	6
13	A rigid-flexible coordinated method to control weld residual stress and deformation during local PWHT for ultra-large pressure vessels. <i>International Journal of Pressure Vessels and Piping</i> , 2021, 191, 104323.	2.6	6
14	Reduction of welding residual stress in the head-cylinder joint of a large rectifying tower by finite element method and experimental study. <i>International Journal of Pressure Vessels and Piping</i> , 2021, 191, 104311.	2.6	12
15	Characterization of inhomogeneous microstructure and mechanical property in an ultra-thick duplex stainless steel welding joint. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 822, 141640.	5.6	14
16	A primary plus secondary local PWHT method for mitigating weld residual stresses in pressure vessels. <i>International Journal of Pressure Vessels and Piping</i> , 2021, 192, 104431.	2.6	24
17	A Comparison of Amplitude-and Time-Dependent Cyclic Deformation Behavior for Fully-Austenite Stainless Steel 316L and Duplex Stainless Steel 2205. <i>Materials</i> , 2021, 14, 5594.	2.9	3
18	Experimental and Analytical Analysis of Mechanical Properties for Large-Size Lattice Truss Panel Structure Including Role of Connected Structure. <i>Materials</i> , 2021, 14, 5099.	2.9	1

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19	Compression, Shear and Bending Performance of X-type Lattice Truss Panel Structure by Theoretical Method and Simulation. <i>International Journal of Steel Structures</i> , 2020, 20, 259-271.	1.3	7
20	Creep fracture behavior of the Crofer 22 APU for the interconnect of solid oxide fuel cell under different temperatures. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 4829-4840.	7.1	3
21	Residual stress and stress fields change around fatigue crack tip: Neutron diffraction measurement and finite element modeling. <i>International Journal of Pressure Vessels and Piping</i> , 2020, 179, 104024.	2.6	10
22	Solid expandable tubular forming behavior based on twin shear stress yield criterion: Analytical, numerical simulation and experiment. <i>Thin-Walled Structures</i> , 2020, 155, 106922.	5.3	8
23	Flexural behavior and damage evolution of pultruded fibre-reinforced composite by acoustic emission test and a new progressive damage model. <i>International Journal of Mechanical Sciences</i> , 2020, 188, 105955.	6.7	17
24	Elastic modulus and hardness characterization for microregion of Inconel 625/BNi-2 vacuum brazed joint by high temperature nanoindentation. <i>Vacuum</i> , 2020, 181, 109582.	3.5	20
25	Evaluation of the creep crack growth behavior in 9Cr-1Mo steel under different stress conditions. <i>International Journal of Pressure Vessels and Piping</i> , 2020, 188, 104174.	2.6	5
26	Cold bending effect on residual stress, microstructure and mechanical properties of Type 316L stainless steel welded joint. <i>Engineering Failure Analysis</i> , 2020, 117, 104825.	4.0	6
27	Characterization of creep constraint effect for brazed joint specimens at crack tip by new constraint parameter A. <i>Theoretical and Applied Fracture Mechanics</i> , 2020, 109, 102707.	4.7	8
28	Fatigue Life Assessment of the Shell Structure of Purified Terephthalic Acid Filter Press. <i>Materials</i> , 2020, 13, 3276.	2.9	2
29	Influence of borides dissolution during the homogenization treatment on the mechanical properties and fracture behavior of austenitic stainless steel brazed joints. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 782, 139200.	5.6	8
30	Effects of dual-cracks on the creep crack growth behaviour of HastelloyC276-BNi2 brazed joints. <i>Materials at High Temperatures</i> , 2020, 37, 230-242.	1.0	1
31	Effect of inhomogeneous oxidation on the mechanical degradation of anode supported solid oxide fuel cell. <i>Journal of Power Sources</i> , 2020, 450, 227663.	7.8	6
32	Experimental and Numerical Simulation to Study the Reduction of Welding Residual Stress by Ultrasonic Impact Treatment. <i>Materials</i> , 2020, 13, 837.	2.9	17
33	Nonhomogeneous microstructure formation and its role on tensile and fatigue performance of duplex stainless steel 2205 multi-pass weld joints. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 786, 139426.	5.6	25
34	Welding Temperature Distribution and Residual Stresses in Thick Welded Plates of SA738Gr.B Through Experimental Measurements and Finite Element Analysis. <i>Materials</i> , 2019, 12, 2436.	2.9	4
35	Distribution and formation mechanism of residual stress in duplex stainless steel weld joint by neutron diffraction and electron backscatter diffraction. <i>Materials and Design</i> , 2019, 181, 108086.	7.0	33
36	Effect of tensile overload on fatigue crack behavior of 2205 duplex stainless steel: Experiment and finite element simulation. <i>International Journal of Fatigue</i> , 2019, 128, 105199.	5.7	19

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37	A Comprehensive Numerical Approach for Analyzing the Residual Stresses in AISI 301LN Stainless Steel Induced by Shot Peening. <i>Materials</i> , 2019, 12, 3338.	2.9	8
38	Effect of frame material on the creep of solid oxide fuel cell. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 20323-20335.	7.1	16
39	Peridynamic analysis of drill-induced borehole damage. <i>Engineering Failure Analysis</i> , 2019, 104, 47-66.	4.0	8
40	Fatigue crack simulation of the 316L brazed joint using the virtual crack closure technique. <i>International Journal of Pressure Vessels and Piping</i> , 2019, 173, 20-25.	2.6	4
41	Effect of the geometrical size on time dependent failure probability of the solid oxide fuel cell. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 11033-11046.	7.1	18
42	Crack Propagation of SS304/BNi-2 Brazed Joints: Experiments and Numerical Simulations. <i>Metals</i> , 2019, 9, 1031.	2.3	4
43	Cyclic hardening/softening behavior of 316L stainless steel at elevated temperature including strain-rate and strain-range dependence: Experimental and damage-coupled constitutive modeling. <i>International Journal of Plasticity</i> , 2019, 114, 196-214.	8.8	77
44	Effect of operating temperature on creep and damage in the bonded compliant seal of planar solid oxide fuel cell. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 4492-4504.	7.1	16
45	Study on hydrogen enrichment in X80 steel spiral welded pipe. <i>Corrosion Science</i> , 2018, 133, 251-260.	6.6	29
46	Effect of geometrical parameters on the effective elastic modulus for an X-type lattice truss panel structure. <i>Science and Engineering of Composite Materials</i> , 2018, 25, 1135-1144.	1.4	1
47	Fatigue life of a dissimilar welded joint considering the weld residual stress: Experimental and finite element simulation. <i>International Journal of Fatigue</i> , 2018, 109, 182-190.	5.7	69
48	Life prediction model of creep-rupture and creep-buckling of a pyramidal lattice truss panel structure by analytical and finite element study. <i>International Journal of Mechanical Sciences</i> , 2018, 141, 502-511.	6.7	11
49	Effects of low-temperature transformation and transformation-induced plasticity on weld residual stresses: Numerical study and neutron diffraction measurement. <i>Materials and Design</i> , 2018, 147, 65-79.	7.0	122
50	Effective elastic constants of wire mesh material studied by theoretical and finite element methods. <i>Composite Structures</i> , 2018, 184, 474-483.	5.8	12
51	Comparison of hydrogen embrittlement susceptibility of three cathodic protected subsea pipeline steels from a point of view of hydrogen permeation. <i>Corrosion Science</i> , 2018, 131, 104-115.	6.6	96
52	Creep rupture behavior of Hastelloy C276-BNi2 brazed joint. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 711, 223-232.	5.6	12
53	Brazed residual stress in a hollow-tube stacking: Numerical simulation and experimental investigation. <i>Journal of Manufacturing Processes</i> , 2018, 31, 35-45.	5.9	3
54	Effect of helix angle on residual stress in the spiral welded oil pipelines: Experimental and finite element modeling. <i>International Journal of Pressure Vessels and Piping</i> , 2018, 168, 233-245.	2.6	22

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55	Effects of element diffusion on microstructure evolution and residual stresses in a brazed joint: Experimental and numerical modeling. <i>Materialia</i> , 2018, 4, 540-548.	2.7	10
56	A more appropriate FE model to predict the creep crack initiation and growth behavior of brazed joint. <i>Engineering Fracture Mechanics</i> , 2018, 204, 72-86.	4.3	11
57	A new damage evolution model to estimate the creep fracture behavior of brazed joint under multiaxial stress. <i>International Journal of Mechanical Sciences</i> , 2018, 149, 178-189.	6.7	18
58	Experimental investigation and numerical prediction on creep crack growth behavior of the solution treated Inconel 625 superalloy. <i>Engineering Fracture Mechanics</i> , 2018, 199, 327-342.	4.3	31
59	On Residual Stress and Relief for an Ultra-Thick Cylinder Weld Joint Based on Mixed Hardening Model: Numerical and Experimental Studies. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2018, 140, .	0.6	8
60	Creep-fatigue strength design of plate-fin heat exchanger by a homogeneous method. <i>International Journal of Mechanical Sciences</i> , 2018, 146-147, 221-233.	6.7	10
61	Effects of Inner Defects on Creep Damage and Crack Initiation for a Brazed Joint. <i>High Temperature Materials and Processes</i> , 2018, 37, 863-872.	1.4	1
62	Time dependent failure probability estimation of the solid oxide fuel cell by a creep-damage related Weibull distribution model. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 13532-13542.	7.1	17
63	Creep Damage Analysis of a Lattice Truss Panel Structure. <i>High Temperature Materials and Processes</i> , 2017, 36, 89-96.	1.4	4
64	A study of the effective elastic modulus of a lattice truss panel structure by experimental and theoretical analysis. <i>Composite Structures</i> , 2017, 165, 130-137.	5.8	14
65	Evaluation of Through-Thickness Residual Stresses by Neutron Diffraction and Finite-Element Method in Thick Weld Plates. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2017, 139, .	0.6	36
66	Residual Stress Distribution in a Dissimilar Weld Joint by Experimental and Simulation Study. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2017, 139, .	0.6	20
67	Weld residual stresses in a thick plate considering back chipping: Neutron diffraction, contour method and finite element simulation study. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 699, 62-70.	5.6	53
68	Creep crack growth behavior analysis of the 9Cr-1Mo steel by a modified creep-damage model. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 708, 68-76.	5.6	27
69	Evolution of thermal stress and failure probability during reduction and re-oxidation of solid oxide fuel cell. <i>Journal of Power Sources</i> , 2017, 371, 65-76.	7.8	34
70	Influence of the ultrasonic surface rolling process on stress corrosion cracking susceptibility of high strength pipeline steel in neutral pH environment. <i>RSC Advances</i> , 2017, 7, 36876-36885.	3.6	7
71	Analytical evaluation of the homogenized elastic constants of plate-fin structures. <i>International Journal of Mechanical Sciences</i> , 2017, 134, 51-62.	6.7	11
72	Using X-Ray Diffraction and Finite Element Method to Analyze Residual Stress of Tube-to-Tubesheet Welded Joints in a Shell and Tube Heat Exchanger. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2017, 139, .	0.6	9

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73	Effect of tube radius on creep for an anode supported tubular solid oxide fuel cell: Experimental and finite element simulation. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 23198-23206.	7.1	11
74	A model to predict the relaxation of weld residual stress by cyclic load: Experimental and finite element modeling. <i>International Journal of Fatigue</i> , 2017, 95, 293-301.	5.7	60
75	The microstructure, mechanical properties and fracture behavior of hastelloy C276-BNi2 brazed joint. <i>Materials and Design</i> , 2017, 115, 458-466.	7.0	26
76	Experimental and Numerical Study on the Reduction of Residual Stress in the Fillet Weld by Overlay Welding and Cutting Method. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2016, 138, .	0.6	6
77	Creep failure prediction of brazing joints with double notches. <i>Materials and Design</i> , 2016, 100, 271-279.	7.0	10
78	Effects of anode porosity on thermal stress and failure probability of planar solid oxide fuel cell with bonded compliant seal. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 7464-7474.	7.1	23
79	Effect of notch position on creep damage for brazed joint. <i>Advances in Engineering Software</i> , 2016, 100, 72-81.	3.8	16
80	An analytical model to predict the equivalent creep strain rate of a lattice truss panel structure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 661, 152-159.	5.6	7
81	Growth and residual stresses in the bonded compliant seal of planar solid oxide fuel cell: Thickness design of window frame. <i>Materials and Design</i> , 2016, 93, 53-62.	7.0	13
82	Comparison of Brazed Residual Stress and Thermal Deformation between X-Type and Pyramidal Lattice Truss Sandwich Structure: Neutron Diffraction Measurement and Simulation Study. <i>High Temperature Materials and Processes</i> , 2016, 35, 567-574.	1.4	3
83	Neutron Diffraction Measurement and Numerical Simulation to Study the Effect of Repair Depth on Residual Stress in 316L Stainless Steel Repair Weld. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2015, 137, .	0.6	27
84	Effect of Impact Pressure on Reducing the Weld Residual Stress by Water Jet Peening in Repair Weld to 304 Stainless Steel Clad Plate. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2015, 137, .	0.6	23
85	Effect of Temperature Fluctuation on Creep and Failure Probability for Planar Solid Oxide Fuel Cell. <i>Journal of Fuel Cell Science and Technology</i> , 2015, 12, .	0.8	20
86	Creep damage and crack initiation in P92-BNi2 brazed joint. <i>Materials & Design</i> , 2015, 72, 63-71.	5.1	17
87	Notch effect on creep damage for Hastelloy C276-BNi2 brazing joint. <i>Materials and Design</i> , 2015, 84, 212-222.	7.0	26
88	Residual stress reduction in the penetration nozzle weld joint by overlay welding. <i>Materials & Design</i> , 2014, 60, 443-450.	5.1	24
89	Simulation of creep and damage in the bonded compliant seal of planar solid oxide fuel cell. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 17941-17951.	7.1	14
90	Using short-time creep relaxation effect to decrease the residual stress in the bonded compliant seal of planar solid oxide fuel cell - A finite element simulation. <i>Journal of Power Sources</i> , 2014, 255, 108-115.	7.8	13

#	ARTICLE	IF	CITATIONS
91	Bending and twisting springback prediction in the punching of the core for a lattice truss sandwich structure. <i>Acta Metallurgica Sinica (English Letters)</i> , 2013, 26, 241-246.	2.9	5
92	Neutron diffraction and finite element modeling to study the weld residual stress relaxation induced by cutting. <i>Materials & Design</i> , 2013, 51, 415-420.	5.1	42
93	Creep analysis of solid oxide fuel cell with bonded compliant seal design. <i>Journal of Power Sources</i> , 2013, 243, 913-918.	7.8	18
94	Experimental to study the effect of multiple weld-repairs on microstructure, hardness and residual stress for a stainless steel clad plate. <i>Materials & Design</i> , 2013, 51, 1052-1059.	5.1	51
95	Using heat sink technology to decrease residual stress in 316L stainless steel welding joint: Finite element simulation. <i>International Journal of Pressure Vessels and Piping</i> , 2012, 92, 56-62.	2.6	68
96	Influence of repair length on residual stress in the repair weld of a clad plate. <i>Nuclear Engineering and Design</i> , 2012, 246, 211-219.	1.7	42
97	Effects of Clad and Base Metal Thickness on Residual Stress in the Repair Weld of a Stainless Steel Clad Plate. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2011, 133, .	0.6	14
98	Effect of Al ₂ O ₃ film on thermal stress in the bonded compliant seal design of planar solid oxide fuel cell. <i>Journal of Power Sources</i> , 2011, 196, 10616-10624.	7.8	10
99	Fatigue life prediction of a stainless steel plate-fin structure using equivalent-homogeneous-solid method. <i>Materials & Design</i> , 2011, 32, 4936-4942.	5.1	10
100	Numerical modelling and nanoindentation experiment to study the brazed residual stresses in an X-type lattice truss sandwich structure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 4715-4722.	5.6	32
101	Effect of brazing temperature on tensile strength and microstructure for a stainless steel plate-fin structure. <i>Materials & Design</i> , 2011, 32, 736-742.	5.1	44
102	A New Connection Structure Between Hydrogen Nozzle and Sphere Head in a Hydrofining Reactor. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2011, 133, .	0.6	4
103	Residual stress and plastic strain analysis in the brazed joint of bonded compliant seal design in planar solid oxide fuel cell. <i>Journal of Power Sources</i> , 2010, 195, 3513-3522.	7.8	20
104	A new cooling method for vacuum brazing of a stainless steel plate-fin structure. <i>Materials & Design</i> , 2010, 31, 648-653.	5.1	37
105	Effect of holding time on vacuum brazing for a stainless steel plate-fin structure. <i>Materials & Design</i> , 2010, 31, 2157-2162.	5.1	39
106	A study of the effect of filler metal thickness on tensile strength for a stainless steel plate-fin structure by experiment and finite element method. <i>Materials & Design</i> , 2010, 31, 2387-2396.	5.1	41
107	Numerical simulation to study the effect of repair width on residual stresses of a stainless steel clad plate. <i>International Journal of Pressure Vessels and Piping</i> , 2010, 87, 457-463.	2.6	55
108	Modelling of temperature field and residual stress of vacuum brazing for stainless steel plate-fin structure. <i>Journal of Materials Processing Technology</i> , 2009, 209, 1105-1110.	6.3	27

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109	Finite element modelling of brazed residual stress and its influence factor analysis for stainless steel plate-fin structure. <i>Journal of Materials Processing Technology</i> , 2009, 209, 1635-1643.	6.3	27
110	A comparison of brazed residual stress in plate-fin structure made of different stainless steel. <i>Materials & Design</i> , 2009, 30, 23-27.	5.1	41
111	Effect of geometric conditions on residual stress of brazed stainless steel plate-fin structure. <i>Nuclear Engineering and Design</i> , 2008, 238, 1497-1502.	1.7	35
112	The effect of filler metal thickness on residual stress and creep for stainless-steel plate-fin structure. <i>International Journal of Pressure Vessels and Piping</i> , 2008, 85, 569-574.	2.6	46