Xu Chen

List of Publications by Year
in descending order

258 papers	7,397 citations	61977 43 h-index	91872 69 g-index
259 all docs	259 docs citations	259 times ranked	3029 citing authors

#	Article	IF	Citations
1	Low-Temperature Sintering with Nano-Silver Paste in Die-Attached Interconnection. Journal of Electronic Materials, 2007, 36, 1333-1340.	2.2	297
2	On the Ohno?Wang kinematic hardening rules for multiaxial ratcheting modeling of medium carbon steel. International Journal of Plasticity, 2005, 21, 161-184.	8.8	223
3	Low-Temperature Sintering of Nanoscale Silver Paste for Attaching Large-Area $({>}100~{m) Tj ETQq1 1 0.784314 rgBT /Overlock	1.3	200
4	Moisture sorptionâ€“desorptionâ€“resorption characteristics and its effect on the mechanical behavior of the epoxy system. Polymer, 2005, 46, 11994-12003.	3.8	194
5	Modified kinematic hardening rule for multiaxial ratcheting prediction. International Journal of Plasticity, 2004, 20, 871-898.	8.8	192
6	A critical plane-strain energy density criterion for multiaxial low-cycle fatigue life under non-proportional loading. Fatigue and Fracture of Engineering Materials and Structures, 1999, 22, 679-686.	3.4	151
7	Applying Anand model to low-temperature sintered nanoscale silver paste chip attachment. Materials & Design, 2009, 30, 4574-4579.	5.1	137
8	Low cycle fatigue and creep-fatigue interaction behavior of nickel-base superalloy GH4169 at elevated temperature of 650 Â°C. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 655, 175-182.	5.6	124
9	Estimation methods for fatigue properties of steels under axial and torsional loading. International Journal of Fatigue, 2002, 24, 783-793.	5.7	102
10	Investigation of moisture diffusion in epoxy system: Experiments and molecular dynamics simulations. Chemical Physics Letters, 2005, 412, 322-326.	2.6	100
11	Effects of hygrothermal aging on epoxy-based anisotropic conductive film. Materials Letters, 2006, 60, 2958-2963.	2.6	91
12	Recent progresses in experimental investigation and finite element analysis of ratcheting in pressurized piping. International Journal of Pressure Vessels and Piping, 2013, 101, 113-142.	2.6	87
13	Prediction of stress-strain relationship with an improved Anand constitutive Model For lead-free solder Sn-3.5Ag. IEEE Transactions on Components and Packaging Technologies, 2005, 28, 111-116.	1.3	86
14	Ratcheting behavior of PTFE under cyclic compression. Polymer Testing, 2005, 24, 829-833.	4.8	80
15	Simulation of uniaxial tensile properties for lead-free solders with modified Anand model. Materials & Design, 2009, 30, 122-128.	5.1	80
16	Effect of mean stress and ratcheting strain on the low cycle fatigue behavior of a wrought 316LN stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 677, 193-202.	5.6	79
17	Evaluation of multiaxial fatigue criteria under irregular loading. International Journal of Fatigue, 2002, 24, 913-922.	5.7	76
18	Visco-plastic constitutive modeling on Ohnoâ€“Wang kinematic hardening rule for uniaxial ratcheting behavior of Z2CND18.12N steel. International Journal of Plasticity, 2012, 28, 88-101.	8.8	76

#	Article	IF	Citations
19	LOW-CYCLE FATIGUE UNDER NON-PROPORTIONAL LOADING. Fatigue and Fracture of Engineering Materials and Structures, 1996, 19, 839-854.	3.4	75
20	Multiaxial ratcheting behavior of PTFE at room temperature. Polymer Testing, 2009, 28, 288-295.	4.8	74
21	A new unified constitutive model with short- and long-range back stress for lead-free solders of Snâ€“3Agâ€“0.5Cu and Snâ€“0.7Cu. International Journal of Plasticity, 2009, 25, 2181-2203.	8.8	73
22	Creep properties of low-temperature sintered nano-silver lap shear joints. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 579, 108-113.	5.6	69
23	Tensile Behaviors and Ratcheting Effects of Partially Sintered Chip-Attachment Films of a Nanoscale Silver Paste. Journal of Electronic Materials, 2008, 37, 1574-1579.	2.2	65
24	Ratcheting Study of Pressurized Elbows Subjected to Reversed In-Plane Bending. Journal of Pressure Vessel Technology, Transactions of the ASME, 2006, 128, 525-532.	0.6	62
25	Fracture toughness of the materials in welded joint of X80 pipeline steel. Engineering Fracture Mechanics, 2015, 148, 337-349.	4.3	60
26	Uniaxial ratcheting and fatigue behaviors of low-temperature sintered nano-scale silver paste at room and high temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6714-6722.	5.6	59
27	Uniaxial ratcheting behavior of polytetrafluoroethylene at elevated temperature. Polymer Testing, 2010, 29, 352-357.	4.8	59
28	Lowâ€cycle fatigue of 1Crâ€“18Niâ€“9Ti stainless steel and related weld metal under axial, torsional and 90Â° outâ€ofâ€phase loading. Fatigue and Fracture of Engineering Materials and Structures, 2004, 27, 439-448.	3.4	58
29	Applying viscoplastic constitutive models to predict ratcheting behavior of sintered nanosilver lap-shear joint. Mechanics of Materials, 2014, 72, 61-71.	3.2	58
30	Transient Thermal Performance of IGBT Power Modules Attached by Low-Temperature Sintered Nanosilver. IEEE Transactions on Device and Materials Reliability, 2012, 12, 124-132.	2.0	57
31	Uniaxial ratcheting behavior of 63Sn37Pb solder with loading histories and stress rates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 421, 238-244.	5.6	54
32	Thermo-viscoplastic modeling incorporating dynamic strain aging effect on the uniaxial behavior of Z2CND18.12N stainless steel. International Journal of Plasticity, 2012, 37, 119-139.	8.8	54
33	Fatigueâ€“creep behavior of 1.25Cr0.5Mo steel at high temperature and its life prediction. International Journal of Fatigue, 2007, 29, 1174-1183.	5.7	53
34	Mechanical deformation behavior and mechanism of Sn-58Bi solder alloys under different temperatures and strain rates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 662, 251-257.	5.6	52
35	Migration of Sintered Nanosilver Die-Attach Material on Alumina Substrate Between 250 $^{circ}hbox{C}$ and 400 $^{ circ}hbox{C}$ in Dry Air. IEEE Transactions on Device and Materials Reliability, 2011, 11, 316-322.	2.0	51
36	Study on the curing process and shearing tests of die attachment by Ag-epoxy electrically conductive adhesive. International Journal of Adhesion and Adhesives, 2010, 30, 80-88.	2.9	50

#	Article	IF	Citations
37	High-Temperature Creep Behavior of Low-Temperature-Sintered Nano-Silver Paste Films. Journal of Electronic Materials, 2012, 41, 782-790.	2.2	50
38	Enhanced ductility in harmonic structure designed SUS316L produced by high energy ball milling and hot isostatic sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 674, 212-220.	5.6	50
39	Experimental study on ratcheting behavior of eutectic tinâ€“lead solder under multiaxial loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 406, 86-94.	5.6	46
40	Ratcheting strain and simulation of 16MnR steel under uniaxial cyclic loading. Computational Materials Science, 2012, 57, 43-47.	3.0	46
41	Uniaxial ratcheting behavior of Zircaloy-4 tubes at room temperature. Materials & Design, 2013, 46, 426-434.	5.1	46
42	Machine learningâ€based genetic feature identification and fatigue life prediction. Fatigue and Fracture of Engineering Materials and Structures, 2021, 44, 2524-2537.	3.4	46
43	Simplification of Low-Temperature Sintering Nanosilver for Power Electronics Packaging. Journal of Electronic Materials, 2013, 42, 1209-1218.	2.2	45
44	Ratchetting and ratchetting boundary study of pressurized straight low carbon steel pipe under reversed bending. International Journal of Pressure Vessels and Piping, 2006, 83, 96-106.	2.6	44
45	A simple constitutive model for cyclic compressive ratchetting deformation of polyteterafluoroethylene (PTFE) with stress rate effects. Polymer Engineering and Science, 2008, 48, 29-36.	3.1	43
46	Revealing the cyclic hardening mechanism of an austenitic stainless steel by real-time in situ neutron diffraction. Scripta Materialia, 2014, 89, 45-48.	5.2	43
47	Effects of different bonding parameters on the electrical performance and peeling strengths of ACF interconnection. Microelectronics Reliability, 2006, 46, 774-785.	1.7	42
48	Low cycle fatigue life prediction of 63Snâ€“37Pb solder under proportional and non-proportional loading. International Journal of Fatigue, 2006, 28, 757-766.	5.7	41
49	High temperature ratcheting behavior of nano-silver paste sintered lap shear joint under cyclic shear force. Microelectronics Reliability, 2013, 53, 174-181.	1.7	40
50	Rapid Sintering Nanosilver Joint by Pulse Current for Power Electronics Packaging. IEEE Transactions on Device and Materials Reliability, 2013, 13, 258-265.	2.0	39
51	Ratcheting behavior of pressurized elbow pipe with local wall thinning. International Journal of Pressure Vessels and Piping, 2013, 102-103, 14-23.	2.6	39
52	Cyclic deformation of 316L stainless steel and constitutive modeling under non-proportional variable loading path. International Journal of Plasticity, 2019, 120, 127-146.	8.8	39
53	Cyclic multiaxial and shear finite deformation response of OFHC: Part I, experimental results. International Journal of Plasticity, 2007, 23, 1285-1306.	8.8	38
54	Effects of pre-strain on uniaxial ratcheting and fatigue failure of Z2CN18.10 austenitic stainless steel. International Journal of Fatigue, 2013, 52, 106-113.	5.7	38

#	Article	IF	Citations
55	Mechanical properties of Nafion 212 proton exchange membrane subjected toÂhygrothermal aging. Journal of Power Sources, 2013, 238, 318-323.	7.8	38
56	Fatigue and dwell-fatigue behavior of nano-silver sintered lap-shear joint at elevated temperature. Microelectronics Reliability, 2014, 54, 648-653.	1.7	38
57	Microcrack initiation mechanisms of 316LN austenitic stainless steel under in-phase thermomechanical fatigue loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 752, 1-14.	5.6	38
58	Pits formation and stress corrosion cracking behavior of Q345R in hydrofluoric acid. Corrosion Science, 2020, 166, 108443.	6.6	38
59	Investigation of the effect of hygrothermal conditions on epoxy system by fractography and computer simulation. Materials Letters, 2005, 59, 3831-3836.	2.6	36
60	Effect of Oxygen Partial Pressure on Silver Migration of Low-Temperature Sintered Nanosilver Die-Attach Material. IEEE Transactions on Device and Materials Reliability, 2011, 11, 312-315.	2.0	36
61	Effect of joint sizes of low-temperature sintered nano-silver on thermal residual curvature of sandwiched assembly. International Journal of Adhesion and Adhesives, 2012, 35, 88-93.	2.9	36
62	Damage analysis of low-cycle fatigue under non-proportional loading. International Journal of Fatigue, 1994, 16, 221-225.	5.7	35
63	Effect of interconnection area on shear strength of sintered joint with nanoâ€silver paste. Soldering and Surface Mount Technology, 2008, 20, 8-12.	1.5	35
64	A comparison between fracture toughness at different locations of longitudinal submerged arc welded and spiral submerged arc welded joints of API X80 pipeline steels. Engineering Fracture Mechanics, 2015, 148, 110-121.	4.3	35
65	Microstructure evolution and enhanced mechanical properties in SUS316LN steel processed by high pressure torsion at room temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 711, 476-483.	5.6	35
66	Simulation of ratcheting strain to a high number of cycles under biaxial loading. International Journal of Solids and Structures, 2003, 40, 7449-7461.	2.7	34
67	Effect of axial ratcheting deformation on torsional low cycle fatigue life of lead-free solder Snâ€“3.5Ag. International Journal of Fatigue, 2009, 31, 276-283.	5.7	34
68	Reliability comparison between SAC305 joint and sintered nanosilver joint at high temperatures for power electronic packaging. Journal of Materials Processing Technology, 2014, 214, 1900-1908.	6.3	34
69	Cyclic deformation and cracking behavior of 316LN stainless steel under thermomechanical and isothermal fatigue loadings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138866.	5.6	34
70	Cyclic deformation behavior and dynamic strain aging of 316LN stainless steel under low cycle fatigue loadings at 550ÂÂ°C. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 818, 141411.	5.6	34
71	Ratcheting and fatigue properties of the high-nitrogen steel X13CrMnMoN18-14-3 under cyclic loading. Computational Materials Science, 2009, 46, 572-578.	3.0	32
72	Uniaxial ratcheting behavior of anisotropic conductive adhesive film at elevated temperature. Polymer Testing, 2011, 30, 571-577.	4.8	32

#	Article	IF	Citations
73	Shrinkage and Sintering Behavior of a Low-Temperature Sinterable Nanosilver Die-Attach Paste. Journal of Electronic Materials, 2012, 41, 2543-2552.	2.2	32
74	Effects of hygrothermal aging on anisotropic conductive adhesive joints: experiments and theoretical analysis. Journal of Adhesion Science and Technology, 2006, 20, 1383-1399.	2.6	31
75	Mechanical property evaluation of nanoâ€silver paste sintered joint using lapâ€shear test. Soldering and Surface Mount Technology, 2012, 24, 120-126.	1.5	31
76	Pressure-Assisted Low-Temperature Sintering of Nanosilver Paste for 5$,imes,$5-${m mm}^{2}$ Chip Attachment. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 1759-1767.	2.5	31
77	Uniaxial ratcheting behavior of sintered nanosilver joint for electronic packaging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 591, 121-129.	5.6	30
78	Manipulating the powder size to achieve enhanced strength and ductility in harmonic structured Al alloy. Materials Research Letters, 2019, 7, 217-224.	8.7	30
79	Effects of elemental composition and microstructure inhomogeneity on the corrosion behavior of nickel-based alloys in hydrofluoric acid solution. Corrosion Science, 2020, 176, 108917.	6.6	30
80	Uniaxial ratchetting behavior of vulcanized natural rubber. Polymer Engineering and Science, 2008, 48, 191-197.	3.1	29
81	Uniaxial ratcheting behaviors of Zircaloy-4 tubes at 400 Â°C. Journal of Nuclear Materials, 2015, 458, 129-137.	2.7	29
82	Ratcheting and low-cycle fatigue characterizations of extruded AZ31B Mg alloy with and without corrosive environment. International Journal of Fatigue, 2015, 80, 364-371.	5.7	29
83	The effects of in-plane and out-of-plane constraints on J-R curves for X80 steel: A study using clamped SENT specimens. Engineering Fracture Mechanics, 2019, 206, 342-358.	4.3	29
84	Fatigue crack propagation behavior of fuel cell membranes after chemical degradation. International Journal of Hydrogen Energy, 2020, 45, 27653-27664.	7.1	29
85	Ferrite formation and its effect on deformation mechanism of wire arc additive manufactured 308ÂL stainless steel. Journal of Nuclear Materials, 2021, 550, 152933.	2.7	29
86	A new cyclical generative adversarial network based data augmentation method for multiaxial fatigue life prediction. International Journal of Fatigue, 2022, 162, 106996.	5.7	29
87	Determination of ductile fracture properties of 16MND5 steels under varying constraint levels using machine learning methods. International Journal of Mechanical Sciences, 2022, 224, 107331.	6.7	29
88	A weight function-critical plane approach for low-cycle fatigue under variable amplitude multiaxial loading. Fatigue and Fracture of Engineering Materials and Structures, 2006, 29, 331-339.	3.4	28
89	Experimental study on multiaxial ratcheting behavior of vulcanized natural rubber. Polymer Engineering and Science, 2009, 49, 506-513.	3.1	28
90	Characterization and Reliability of Sintered Nanosilver Joints by a Rapid Current-Assisted Method for Power Electronics Packaging. IEEE Transactions on Device and Materials Reliability, 2014, 14, 262-267.	2.0	28

#	Article	IF	Citations
91	Thermo-Mechanical Reliability of Double-Sided IGBT Assembly Bonded by Sintered Nanosilver. IEEE Transactions on Device and Materials Reliability, 2014, 14, 194-202.	2.0	28
92	Fatigue behavior of a harmonic structure designed austenitic stainless steel under uniaxial stress loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 707, 287-294.	5.6	28
93	Exploring the role of reinforcement in controlling fatigue crack propagation behavior of perfluorosulfonic-acid membranes. International Journal of Hydrogen Energy, 2018, 43, 6379-6389.	7.1	28
94	Constitutive and damage model for 63Sn37Pb solder under uniaxial and torsional cyclic loading. International Journal of Solids and Structures, 2006, 43, 3596-3612.	2.7	27
95	Reliability of High-Power Light Emitting Diode Attached With Different Thermal Interface Materials. Journal of Electronic Packaging, Transactions of the ASME, 2010, 132, .	1.8	27
96	Mechanism of Migration of Sintered Nanosilver at High Temperatures in Dry Air for Electronic Packaging. IEEE Transactions on Device and Materials Reliability, 2014, 14, 311-317.	2.0	27
97	Effect of thermal aging on the low cycle fatigue behavior of Z3CN20.09M cast duplex stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 646, 263-271.	5.6	27
98	Martensitic transformation of an austenitic stainless steel under non-proportional cyclic loading. International Journal of Fatigue, 2019, 124, 338-347.	5.7	27
99	Fatigue life prediction of vulcanized natural rubber under proportional and nonâ€proportional loading. Fatigue and Fracture of Engineering Materials and Structures, 2008, 31, 38-48.	3.4	26
100	Reliability of Anisotropic Conductive Adhesive Joints in Electronic Packaging Applications. Journal of Adhesion Science and Technology, 2008, 22, 1631-1657.	2.6	26
101	Shear strength of anisotropic conductive adhesive joints under hygrothermal aging and thermal cycling. International Journal of Adhesion and Adhesives, 2012, 33, 75-79.	2.9	26
102	Fracture mechanics analysis of the effect of substrate flexibility on solder joint reliability. Engineering Fracture Mechanics, 2005, 72, 2628-2646.	4.3	25
103	Phase-specific deformation behavior of a NiAlâ€“Cr(Mo) lamellar composite under thermal and mechanical loads. Journal of Alloys and Compounds, 2016, 656, 481-490.	5.5	25
104	Role of dynamic strain aging in the tensile property, cyclic deformation and fatigue behavior of Z2CND18.12N stainless steel between 293 K and 723 K. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 558, 730-736.	5.6	24
105	Ratcheting behavior of sandwiched assembly joined by sintered nanosilver for power electronics packaging. Microelectronics Reliability, 2013, 53, 645-651.	1.7	24
106	Three-Dimensional Visualization of the Crack-Growth Behavior of Nano-Silver Joints During Shear Creep. Journal of Electronic Materials, 2015, 44, 761-769.	2.2	24
107	Biaxial fatigue crack propagation behavior of perfluorosulfonic-acid membranes. Journal of Power Sources, 2018, 384, 58-65.	7.8	24
108	Effect of Pretreatment on Microstructure and Mechanical Properties of Nafionâ„¢ XL Composite Membrane. Fuel Cells, 2019, 19, 530-538.	2.4	24

#	Article	IF	Citations
109	Mechanical properties of anisotropic conductive film with strain rate and temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 513-514, 216-221.	5.6	23
110	Low cycle fatigue of 2.25Cr1Mo steel with tensile and compressed hold loading at elevated temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 667, 251-260.	5.6	23
111	Effect of thermal aging on mechanical properties of a bainitic forging steel for reactor pressure vessel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 720, 169-175.	5.6	23
112	Effects of thermal aging on uniaxial ratcheting behavior of vulcanised natural rubber. Polymer Testing, 2018, 70, 102-110.	4.8	23
113	Ratcheting behavior of pressurized-bending elbow pipe after thermal aging. International Journal of Pressure Vessels and Piping, 2019, 169, 160-169.	2.6	23
114	Exploring factors controlling pre-corrosion fatigue of 316L austenitic stainless steel in hydrofluoric acid. Engineering Failure Analysis, 2020, 113, 104556.	4.0	23
115	Thermomechanical fatigue properties and microstructural damage of nitrogen alloyed 316LN stainless steel. International Journal of Fatigue, 2020, 138, 105704.	5.7	23
116	Fatigue life of 63Snâ€“37Pb solder related to load drop under uniaxial and torsional loading. International Journal of Fatigue, 2006, 28, 767-776.	5.7	22
117	Effect of Strain Rate and Temperature on the Tensile Properties of Tin-Based Lead-Free Solder Alloys. Journal of Electronic Materials, 2008, 37, 1012-1019.	2.2	22
118	Ratcheting behavior of pressurized elbow pipe at intrados under different loading paths. Thin-Walled Structures, 2019, 138, 293-301.	5.3	22
119	Ratcheting behavior of pressurized 90Â° elbow piping subjected to reversed in-plane bending with a combined hardening model. International Journal of Pressure Vessels and Piping, 2016, 137, 28-37.	2.6	21
120	In-plane biaxial cyclic mechanical behavior of proton exchange membranes. Journal of Power Sources, 2017, 360, 495-503.	7.8	21
121	Recent progress on the corrosion behavior of metallic materials in HF solution. Corrosion Reviews, 2021, 39, 313-337.	2.0	21
122	Hygrothermal Effects on the Tensile Properties of Anisotropic Conductive Films. Journal of Electronic Materials, 2009, 38, 2415-2426.	2.2	20
123	Low cycle fatigue and creepâ€“fatigue interaction behaviour of 2.25Cr1MoV steel at elevated temperature. Materials at High Temperatures, 2016, 33, 75-84.	1.0	20
124	Description of nonlinear viscoelastic behavior and creep-rupture time of anisotropic conductive film. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 5115-5121.	5.6	19
125	In-plane biaxial ratcheting behavior of PVDF UF membrane. Polymer Testing, 2016, 50, 41-48.	4.8	19
126	Evaluation of fracture toughness in different regions of weld joints using unloading compliance and normalization method. Engineering Fracture Mechanics, 2018, 195, 1-12.	4.3	19

#	Article	IF	Citations
127	Stress intensity factor and T-stress solutions for three-dimensional clamped single edge notched tension (SENT) specimens. International Journal of Pressure Vessels and Piping, 2018, 168, 11-23.	2.6	19
128	Effect of cyclic softening and stress relaxation on fatigue behavior of 2.25Cr1Mo0.25V steel under strain-controlled fatigue-creep interaction at 728ÂK. International Journal of Fatigue, 2020, 140, 105848.	5.7	19
129	Ductile fracture properties of 16MND5 bainitic forging steel under different in-plane and out-of-plane constraint conditions: Experiments and predictions. Engineering Fracture Mechanics, 2021, 241, 107359.	4.3	19
130	Biodegradable behaviour and fatigue life of ZEK100 magnesium alloy in simulated physiological environment. Fatigue and Fracture of Engineering Materials and Structures, 2015, 38, 904-913.	3.4	18
131	Embrittlement induced fracture behavior and mechanisms of perfluorosulfonic-acid membranes after chemical degradation. Journal of Power Sources, 2020, 453, 227893.	7.8	18
132	Modeling of ratcheting behavior under multiaxial cyclic loading. Acta Mechanica, 2003, 163, 9-23.	2.1	17
133	Fatigue crack growth law of API X80 pipeline steel under various stress ratios based on Jâ€integral. Fatigue and Fracture of Engineering Materials and Structures, 2014, 37, 1124-1135.	3.4	17
134	Multiaxial low cycle fatigue behavior and life prediction method of 316LN stainless steel at 550 Â°C. International Journal of Fatigue, 2022, 156, 106637.	5.7	17
135	Evolution of curvature under thermal cycling in sandwich assembly bonded by sintered nanosilver paste. Soldering and Surface Mount Technology, 2013, 25, 107-116.	1.5	16
136	Mechanical properties of cerium oxide-modified vulcanised natural rubber at elevated temperature. Plastics, Rubber and Composites, 2017, 46, 306-313.	2.0	16
137	Effect of notch root angle on fatigue behavior of aluminum to steel resistance spot welds. International Journal of Fatigue, 2020, 141, 105866.	5.7	16
138	Dynamic Visible Monitoring of Heterogeneous Local Strain Response through an Organic Mechanoresponsive AIE Luminogen. ACS Applied Materials & Interfaces, 2020, 12, 22129-22136.	8.0	16
139	Effect of substrate flexibility on solder joint reliability. Part II: finite element modeling. Microelectronics Reliability, 2005, 45, 143-154.	1.7	15
140	Bending ratcheting tests of Z2CND18.12 stainless steel. International Journal of Fatigue, 2012, 35, 16-22.	5.7	15
141	Effects of Voids in Sintered Silver Joint on Thermal and Optoelectronic Performances of High Power Laser Diode. Journal of Electronic Packaging, Transactions of the ASME, 2013, 135, .	1.8	15
142	Mechanical properties and microstructure changes of proton exchange membrane under immersed conditions. Polymer Engineering and Science, 2014, 54, 2215-2221.	3.1	15
143	Evaluation of multiaxial fatigue life prediction criteria for PEEK. Theoretical and Applied Fracture Mechanics, 2014, 73, 128-135.	4.7	15
144	Multiaxial ratcheting-fatigue interaction on acrylonitrile-butadiene-styrene terpolymer. Polymer Engineering and Science, 2015, 55, 664-671.	3.1	15

#	Article	IF	Citations
145	Thermal aging effect on the ratcheting-fatigue behavior of Z2CND18.12N stainless steel. International Journal of Fatigue, 2015, 72, 19-26.	5.7	15
146	Study on ratcheting effect of pressurized straight pipe with local wall thinning using finite element analysis. International Journal of Pressure Vessels and Piping, 2016, 139-140, 69-76.	2.6	15
147	Multiaxial ratcheting behavior of zirconium alloy tubes under combined cyclic axial load and internal pressure. Journal of Nuclear Materials, 2017, 489, 99-108.	2.7	15
148	Fracture property of Nafion XL composite membrane determined by R-curve method. Journal of Power Sources, 2018, 398, 34-41.	7.8	15
149	Uniaxial ratcheting deformation of 316LN stainless steel with dynamic strain aging: Experiments and simulation. International Journal of Solids and Structures, 2020, 207, 196-205.	2.7	15
150	Application of modified normalization method for J-R curve determination using clamped SENT specimens with varying in-plane and out-of-plane constraints. Engineering Fracture Mechanics, 2020, 230, 106968.	4.3	15
151	Emerging lead-free, high-temperature die-attach technology enabled by low-temperature sintering of nanoscale silver pastes. , 2009, , .		14
152	Nonlinear viscoelasticâ€“plastic constitutive description of proton exchange membrane under immersed condition. Journal of Power Sources, 2012, 213, 40-46.	7.8	14
153	Torsional fatigue with axial constant stress for Snâ€“3Agâ€“0.5Cu lead-free solder. International Journal of Fatigue, 2014, 67, 203-211.	5.7	14
154	A comparison between fracture toughness at different locations of SMAW and GTAW welded joints of primary coolant piping. Engineering Fracture Mechanics, 2018, 202, 135-146.	4.3	14
155	A Wavelet Transform-Assisted Convolutional Neural Network Multi-Model Framework for Monitoring Large-Scale Fluorochemical Engineering Processes. Processes, 2020, 8, 1480.	2.8	14
156	Low-cycle fatigue behavior and life prediction of fine-grained 316LN austenitic stainless steel. Journal of Materials Research, 2020, 35, 3180-3191.	2.6	14
157	Fatigue damage coupled constitutive model for 63Sn37Pb solder under proportional and non-proportional loading. Mechanics of Materials, 2007, 39, 11-23.	3.2	13
158	Effect of die-attach material on performance and reliability of high-power light-emitting diode modules. , 2010, , .		13
159	Mechanical Properties of Anisotropic Conductive Adhesive Film Under Hygrothermal Aging and Thermal Cycling. Journal of Electronic Materials, 2012, 41, 2001-2009.	2.2	13
160	A tension-torsional fatigue testing apparatus for micro-scale components. Review of Scientific Instruments, 2016, 87, 015111.	1.3	13
161	Ratcheting behavior of zirconium alloy tubes under combined cyclic axial load and internal pressure at 350ÂÂ°C. Journal of Nuclear Materials, 2017, 491, 138-148.	2.7	13
162	Effect of long-term aging on the fracture toughness of primary coolant piping material Z3CN20.09M. Nuclear Engineering and Design, 2018, 327, 150-160.	1.7	13

#	Article	IF	Citations
163	Cyclic deformation behavior and failure mechanism of S32205 duplex stainless steel under torsional fatigue loadings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 786, 139443.	5.6	13
164	Torsional thermomechanical fatigue behavior of 316LN stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 789, 139676.	5.6	13
165	Ratcheting behavior of pressurized Z2CND18.12N stainless steel pipe under different control modes. Steel and Composite Structures, 2015, 18, 29-50.	1.3	13
166	Evaluation of fatigue damage at welded tube joint under cyclic pressure using surface hardness measurement. Engineering Failure Analysis, 2005, 12, 616-622.	4.0	12
167	Fatigue life evaluation of anisotropic conductive adhesive film joints under mechanical and hygrothermal loads. Microelectronics Reliability, 2011, 51, 1393-1397.	1.7	12
168	Die Bonding of High Power 808 nm Laser Diodes With Nanosilver Paste. Journal of Electronic Packaging, Transactions of the ASME, 2012, 134, .	1.8	12
169	Microcrack nucleation and early crack growth of a nuclear grade nitrogen alloyed austenitic stainless steel X2CrNiMo18.12 under thermomechanical fatigue loading. International Journal of Pressure Vessels and Piping, 2019, 172, 188-198.	2.6	12
170	Effect of torsional pre-strain on low cycle fatigue performance of 304 stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 746, 50-57.	5.6	12
171	Low Cycle Fatigue Behavior and Failure Mechanism of Wire Arc Additive Manufacturing 16MND5 Bainitic Steel. Journal of Materials Engineering and Performance, 2021, 30, 4911-4924.	2.5	12
172	Fatigue failure mechanism and life prediction of a cast duplex stainless steel after thermal aging. International Journal of Fatigue, 2021, 146, 106161.	5.7	12
173	Temperature-dependent fatigue crack growth mechanisms of fuel cell membranes. International Journal of Fatigue, 2022, 154, 106554.	5.7	12
174	Effect of local wall thinning on ratcheting behavior of pressurized 90^{Â°} elbow pipe under reversed bending using finite element analysis. Steel and Composite Structures, 2016, 20, 931-950.	1.3	12
175	Multiaxial isothermal and thermomechanical fatigue behavior of 316LN stainless steel. International Journal of Pressure Vessels and Piping, 2022, 197, 104633.	2.6	12
176	Effects of dwell time on the isothermal and thermomechanical fatigue behavior of 316LN stainless steel. International Journal of Fatigue, 2022, 162, 106989.	5.7	12
177	Improved thermal performance of high-power LED by using low-temperature sintered chip attachment. , 2009, , .		11
178	On the all components of T-stress for an external circular crack under tension and bending. Engineering Fracture Mechanics, 2014, 119, 29-42.	4.3	11
179	Interplay between temperature and biaxial loading on creep behavior of perfluorosulfonic-acid membranes. Journal of Power Sources, 2019, 444, 227309.	7.8	11
180	Fatigue life assessment of Al-steel resistance spot welds using the maximum principal strain approach considering material inhomogeneity. International Journal of Fatigue, 2020, 140, 105851.	5.7	11

#	Article	IF	Citations
181	The effect of constraint on fracture properties of Z3CN20.09M after accelerated thermal aging. International Journal of Pressure Vessels and Piping, 2021, 190, 104294.	2.6	11
182	Effect of material inhomogeneity on fracture modes in aluminiumâ€“steel resistance spot welds. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 2157-2168.	3.4	11
183	Bending ratcheting behavior of pressurized straight Z2CND18.12N stainless steel pipe. Structural Engineering and Mechanics, 2014, 52, 1135-1156.	1.0	11
184	Constitutive modeling for the anisotropic uniaxial ratcheting behavior of Zircaloy-4 alloy at room temperature. Journal of Nuclear Materials, 2013, 443, 152-160.	2.7	10
185	Migration of Sintered Nanosilver on Alumina and Aluminum Nitride Substrates at High Temperatures in Dry Air for Electronic Packaging. IEEE Transactions on Device and Materials Reliability, 2014, 14, 600-606.	2.0	9
186	Characterizations of Nanosilver Joints by Rapid Sintering at Low Temperature for Power Electronic Packaging. IEEE Transactions on Device and Materials Reliability, 2014, 14, 623-629.	2.0	9
187	Deformation behavior of woven glass/epoxy composite substrate under thermo-mechanical loading. Materials and Design, 2015, 82, 130-135.	7.0	9
188	In situ X-ray observation and simulation of ratcheting-fatigue interactions in solder joints. Electronic Materials Letters, 2017, 13, 97-106.	2.2	9
189	Fracture Toughness of Z3CN20.09M Cast Stainless Steel with Long-Term Thermal Aging. Journal of Materials Engineering and Performance, 2017, 26, 4442-4449.	2.5	9
190	Three-Dimensional analysis of mixed mode Compact-Tension-Shear (CTS) Specimens: Stress intensity Factors, T-stresses and crack initiation angles. Theoretical and Applied Fracture Mechanics, 2022, 118, 103218.	4.7	9
191	Low cycle fatigue behavior of wire arc additive manufactured and solution annealed 308ÂL stainless steel. Additive Manufacturing, 2022, 52, 102688.	3.0	9
192	Multiaxial low-cycle fatigue of 63Sn-37Pb solder. Journal of Electronic Materials, 2005, 34, L1-L6.	2.2	8
193	Migration of sintered nanosilver die-attach material on alumina substrate at high temperatures. , 2011, , .		8
194	Microscopic mechanism of multiaxial fatigue of vulcanised natural rubber. Plastics, Rubber and Composites, 2011, 40, 491-496.	2.0	8
195	Thermal aging effect on the tensile and fatigue properties of the narrow-gap TIG welded joints in offshore floating nuclear power plants. International Journal of Fatigue, 2019, 126, 143-154.	5.7	8
196	Fatigue crack propagation behaviour of pressurised elbow pipes under cyclic bending. Thin-Walled Structures, 2020, 154, 106882.	5.3	8
197	Role of ionic interactions in the deformation and fracture behavior of perfluorosulfonic-acid membranes. Soft Matter, 2020, 16, 1653-1667.	2.7	8
198	Ratcheting deformation behavior of 316LN stainless steel under thermomechanical and isothermal loadings. International Journal of Fatigue, 2020, 138, 105718.	5.7	8

#	Article	IF	Citations
199	Evaluation of AF type cyclic plasticity models in ratcheting simulation of pressurized elbow pipes under reversed bending. Steel and Composite Structures, 2016, 21, 703-753.	1.3	8
200	A simple constitutive model for ratcheting evolution of 63Sn-37Pb solder under multiaxial loading. Journal of Electronic Materials, 2006, 35, L1-L4.	2.2	7
201	Ratchetting behaviour of nitrile butadiene rubber material. Plastics, Rubber and Composites, 2007, 36, 134-140.	2.0	7
202	Uniaxial timeâ€dependent ratcheting behavior of bronze powder filled polytetrafluoroethylene at room and high temperature. Polymer Engineering and Science, 2014, 54, 1571-1578.	3.1	7
203	Fracture Toughness of Different Locations of Spiral Submerged Arc Welded Joints in API X80 Pipeline Steels. Procedia Engineering, 2015, 130, 828-834.	1.2	7
204	Temperature-Dependent Dwell-Fatigue Behavior of Nanosilver Sintered Lap Shear Joint. Journal of Electronic Packaging, Transactions of the ASME, 2016, 138, .	1.8	7
205	Thermal Aging Effect on the Ratcheting Behavior of Pressurized Elbow Pipe. Journal of Pressure Vessel Technology, Transactions of the ASME, 2018, 140, .	0.6	7
206	Size effects on uniaxial tension and multiaxial ratcheting of oligo-crystalline stainless steel thin wires. International Journal of Fatigue, 2018, 116, 163-171.	5.7	7
207	Modeling of Intergranular Mechanical Fatigue of a Sintered Nanosilver Die Attachment for Power Electronics. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 982-989.	2.5	7
208	Determination of R-curves for thermal aged 16MND5 bainitic forging steel using 3D constraint-based fracture mechanics. Theoretical and Applied Fracture Mechanics, 2021, 116, 103084.	4.7	7
209	Strain Rate Dependent Constitutive Model of Multiaxial Ratchetting of 63Snâ€“37Pb Solder. Journal of Electronic Packaging, Transactions of the ASME, 2007, 129, 278-286.	1.8	6
210	Uniaxial low cycle fatigue behavior for pre-corroded 16MND5 bainitic steel in simulated pressurized water reactor environment. Journal of Nuclear Materials, 2018, 504, 267-276.	2.7	6
211	Ratchetingâ€fatigue behaviour of bainite 2.25Cr1MoV steel with tensile and compressed hold loading at 455Â°C. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 1937-1949.	3.4	6
212	Fracture toughness of thermal aged 16MND5 bainitic forging steel under varying 3D constraint conditions: An experimental study using SENT specimens. Theoretical and Applied Fracture Mechanics, 2021, 114, 103025.	4.7	6
213	An experimental study of degradation of anisotropic conductive adhesive joints. , 0, , .		5
214	Mechanical behavior of Fe75Mo5P10C7.5B2.5 bulk-metallic glass under torsional loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7801-7807.	5.6	5
215	Die bonding of single emitter semiconductor laser with nano-scale silver paste. , 2011, , .		5
216	Interfacial thermal stresses in ACF bonding assembly. Microelectronics Reliability, 2015, 55, 1089-1096.	1.7	5

#	Article	IF	Citations
217	Temperature-Dependent Bending Ratcheting Behavior of a 316LN Stainless Steel. Journal of Materials Engineering and Performance, 2016, 25, 274-279.	2.5	5
218	Torsional fatigue with axial constant stress of oligoâ€crystalline 316<scp>L</scp> stainless steel thin wire. Fatigue and Fracture of Engineering Materials and Structures, 2018, 41, 1929-1937.	3.4	5
219	Elevated-temperature shear creep evolution and life prediction of sintered nano-silver lap-shear joint. Journal of Materials Science: Materials in Electronics, 2018, 29, 303-312.	2.2	5
220	Cyclic Deformation and Low-Cycle Fatigue for 316LN Stainless Steel under Non-proportional Loading. MATEC Web of Conferences, 2019, 300, 08002.	0.2	5
221	Comparison of low cycle fatigue behavior of 304 stainless steels induced by tensile and torsional prestrain. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 2247-2258.	3.4	5
222	Size effect in stainless steel thin wires under tension. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 790, 139686.	5.6	5
223	Fatigue lifetime prediction of a novel interface material with plastic failure for power electronics packaging. Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, 2008, , .	0.0	4
224	Out-of-phase thermo-mechanical coupling behavior of proton exchange membranes. Journal of Power Sources, 2011, 196, 2644-2649.	7.8	4
225	Microstructure of uniaxially fatigued thermally aged vulcanised natural rubber filled with cerium oxide. Journal of Rubber Research (Kuala Lumpur, Malaysia), 2020, 23, 323-331.	1.1	4
226	Effect of catalyst layer on fatigue life and fracture mechanisms of fuel cell membrane. Fatigue and Fracture of Engineering Materials and Structures, 2022, 45, 687-700.	3.4	4
227	Effect of Annealing Temperature on the Microstructure and Mechanical Properties of High-Pressure Torsion-Produced 316LN Stainless Steel. Materials, 2022, 15, 181.	2.9	4
228	Ratcheting Boundary Analysis of Straight and Elbow Piping. Advanced Materials Research, 0, 118-120, 131-135.	0.3	3
229	Study on adhesive reliability of low-temperature sintered high power LED modules. , 2010, , .		3
230	Isothermal low cycle fatigue behavior of nano-silver sintered single lap shear joint. , 2012, , .		3
231	Tensile ratcheting behaviors of bronze powder filled polytetrafluoroethylene. Frontiers of Chemical Science and Engineering, 2013, 7, 103-109.	4.4	3
232	Recent advances in mechanical properties of anisotropic conductive adhesive film for microelectronic packaging. Soldering and Surface Mount Technology, 2015, 27, 164-177.	1.5	3
233	Creep-ratcheting-fatigue life prediction of bainitic 2.25Cr1MoV steel. Procedia Structural Integrity, 2019, 17, 555-561.	0.8	3
234	Cyclic Deformation Behavior and Failure Mechanism of 316LN Stainless Steel under Creep-Fatigue Loading at 550ÂÂ°C. Journal of Materials Engineering and Performance, 2022, 31, 8314-8326.	2.5	3

#	Article	IF	Citations
235	Ratcheting Study of Pressurized Straight Z2CND18.12N Austenitic Stainless Steel Pipe under Reversed Bending. Advanced Materials Research, 2013, 798-799, 235-238.	0.3	2
236	Study on Ratcheting Effect of Pressurized Straight Pipe with Local Wall Thinning Using Finite Element Analysis. Procedia Engineering, 2015, 130, 1460-1469.	1.2	2
237	Thermoâ€mechanical Coupling Properties of Proton Exchange Membrane in Liquid Water. Fuel Cells, 2015, 15, 472-478.	2.4	2
238	Cyclic Creep Behavior and Modified Life Prediction of Bainite 2.25Cr-1Mo Steel at 455 Â°C. Metals, 2020, 10, 1486.	2.3	2
239	A Quality Integrated Fuzzy Inference System for the Reliability Estimating of Fluorochemical Engineering Processes. Processes, 2021, 9, 292.	2.8	2
240	Ratcheting boundary of 316LN austenitic stainless steel under thermal aging. Science China Technological Sciences, 0, , 1.	4.0	2
241	Effect of cladding material properties on sealing performance of reactor pressure vessel with spherical head. International Journal of Pressure Vessels and Piping, 2022, 195, 104571.	2.6	2
242	Behavior of Anisotropic Conductive Joints under Hygrothermal Conditions. Key Engineering Materials, 2007, 353-358, 2936-2939.	0.4	1
243	Effects of DC bias and spacing on migration of sintered nanosilver at high temperatures for power electronic packaging. , 2013, , .		1
244	Structural Integrity and Creep-fatigue Assessment by ASME-NH for Hydrogenation Equipment at 454 ÌŠC. Procedia Engineering, 2015, 130, 414-422.	1.2	1
245	Region-Specified Ratcheting Behavior of API X80 Welded Joint Under Uniaxial Cyclic Loading. , 2016, , .		1
246	A Cyclic Plasticity Model with Martensite Transformation for S30408 and Its Finite Element Implementation. Applied Sciences (Switzerland), 2020, 10, 6002.	2.5	1
247	Magnetic ordering suppressed phase transformation of a TRIP-HEA during thermal cycling. Applied Physics Letters, 2021, 119, 171906.	3.3	1
248	RPV Sealing Reliability Estimating Using a New Inconsistent Knowledge Fused Bayesian Network and Weighted Loss Function. Processes, 2022, 10, 1099.	2.8	1
249	Thermomechanical and isothermal fatigue crack propagation testing method for 316LN austenitic stainless steel. Fatigue and Fracture of Engineering Materials and Structures, 2022, 45, 3040-3052.	3.4	1
250	A Comparative Study of the Solder Joint Reliability in Flip Chip Assemblies with Compliant and Rigid Substrates. Key Engineering Materials, 0, 353-358, 2932-2935.	0.4	0
251	Creep-Recovery Behaviors of Anisotropic Conductive Adhesive Film with Temperature and Hygrothermal Aging. Advanced Materials Research, 2012, 509, 16-21.	0.3	0
252	Evolution of curvature under thermal cycling in sandwich assembly bonded by sintered nano-silver Paste. , 2012, , .		0

#	Article	IF	Citations
253	Low-temperature sintering of nanoscale silver paste for double-sided attaching 9×9 mm² chip. , 2012, , .		0
254	Development and Application of a High-Thrust Voice Coil Motor. Advanced Materials Research, 0, 718-720, 1677-1681.	0.3	0
255	Multiaxial Ratcheting Behavior of M5 Zirconium Alloys Tubes in Different Loading History. Applied Mechanics and Materials, 0, 853, 187-191.	0.2	0
256	Multiaxial Fatigue of 6061-T6 Aluminum Alloy under Corrosive Environment. Applied Mechanics and Materials, 0, 853, 77-82.	0.2	0
257	Ratcheting Behavior of Weld Joints Under Uniaxial Cyclic Loading Using Miniature Specimen. Transactions of Tianjin University, 2019, 25, 283-292.	6.4	0
258	Temperature- and time-dependent behavior of Z2CN18.10 stainless steel under uniaxial loading. Mechanics of Time-Dependent Materials, 2021, 25, 711-722.	4.4	0