# Guozhen Wang

## List of Publications by Year in Descending Order



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| 112 papers | 2,297 citations | 27 h-index | 41 g-index |
| 116 ext. papers | 2,667 ext. citations | 3.3 avg, IF | 5.23 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 112 | Effects of material properties and mismatch on unified constraint parameter. *Engineering Fracture Mechanics*, **2022**, 269, 108526 | 4.2 | 0 |
| 111 | Prediction of creep crack initiation time based on constraint parameters in specimens with different geometries. *International Journal of Pressure Vessels and Piping*, **2021**, 192, 104430 | 2.4 | 0 |
| 110 | Correlation of the Master curve reference temperature T with unified constraint parameter. *Engineering Fracture Mechanics*, **2021**, 253, 107867 | 4.2 | 1 |
| 109 | Two-parameter fracture prediction for cracked plates under bending. *Engineering Fracture Mechanics*, **2021**, 255, 107974 | 4.2 | 1 |
| 108 | Limit loads of dissimilar metal welded joints for joining safe end to pipe-nozzle of nuclear pressure vessel. *International Journal of Pressure Vessels and Piping*, **2021**, 194, 104554 | 2.4 | 1 |
| 107 | Creep fracture parameter C* solutions for circumferential surface cracks in pressurized cylinders. *Engineering Fracture Mechanics*, **2020**, 236, 107204 | 4.2 | 0 |
| 106 | In-plane and out-of-plane constraint characterization of different constraint parameters for semi-elliptical surface cracks in pipes. *Engineering Fracture Mechanics*, **2020**, 235, 107161 | 4.2 | 6 |
| 105 | Engineering estimation method of unified constraint parameters for semi-elliptical surface cracks in plates. *Engineering Fracture Mechanics*, **2020**, 229, 106935 | 4.2 | 6 |
| 104 | A comparison between two parameter and ductility exhaustion approaches for creep life assessment. *Theoretical and Applied Fracture Mechanics*, **2020**, 108, 102598 | 3.7 | 2 |
| 103 | Validation and application of a two-parameter J-Ad approach for fracture behaviour prediction. *Fatigue and Fracture of Engineering Materials and Structures*, **2020**, 43, 2998-3011 | 3 | 5 |
| 102 | Unified constraint-based FAD assessments for ductile fracture in cracked pipes. *International Journal of Pressure Vessels and Piping*, **2020**, 185, 104132 | 2.4 | 3 |
| 101 | Creep fracture parameter C* solutions for axial internal and external surface cracks in pressurized cylinders. *Engineering Fracture Mechanics*, **2020**, 231, 107026 | 4.2 | 1 |
| 100 | A creep crack growth life assessment method for pressurized pipes based on a two-parameter approach. *Engineering Fracture Mechanics*, **2019**, 220, 106676 | 4.2 | 5 |
| 99 | Ductile fracture prediction based on J-integral and unified constraint parameters for cracked pipes. *Engineering Fracture Mechanics*, **2019**, 215, 1-15 | 4.2 | 15 |
| 98 | Comparisons of creep constraint and fracture parameter C* of different types of surface cracks in pressurized pipes. *International Journal of Pressure Vessels and Piping*, **2019**, 172, 360-372 | 2.4 | 4 |
| 97 | Effects of creep properties of materials on unified creep constraint parameter Ac for cracked pipes. *Materials at High Temperatures*, **2019**, 36, 417-429 | 1.1 | 3 |
| 96 | Prediction of creep crack initiation behavior considering constraint effects for cracked pipes. *Engineering Fracture Mechanics*, **2018**, 190, 213-231 | 4.2 | 15 |

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| 95 | Unified constraint parameter based on crack-tip opening displacement. *Engineering Fracture Mechanics*, **2018**, 200, 175-188 | 4.2 | 17 |
| 94 | Creep constraint and fracture parameter C* for axial semi-elliptical surface cracks with high aspect ratio in pressurized pipes. *Engineering Fracture Mechanics*, **2018**, 199, 358-371 | 4.2 | 9 |
| 93 | Effects of side-groove depth on creep crack-tip constraint and creep crack growth rate in C(T) specimens. *Fatigue and Fracture of Engineering Materials and Structures*, **2018**, 41, 260-272 | 3 | 7 |
| 92 | Unified constraint parameter solutions for axial and circumferential surface cracks in pressurized pipes under creep condition. *Engineering Fracture Mechanics*, **2018**, 189, 307-329 | 4.2 | 15 |
| 91 | Creep constraint analysis for test specimens with a wide range of dimensions and comparison with constraint of cracked pipes. *Engineering Fracture Mechanics*, **2018**, 204, 454-468 | 4.2 | 2 |
| 90 | Geometry and Material Constraint Effects on Creep Crack Growth Behavior in Welded Joints. *High Temperature Materials and Processes*, **2017**, 36, 155-162 | 0.9 | 2 |
| 89 | Fracture assessment based on unified constraint parameter for pressurized pipes with circumferential surface cracks. *Engineering Fracture Mechanics*, **2017**, 175, 201-218 | 4.2 | 13 |
| 88 | Effect of constraint on creep crack initiation time in test specimens in ASTM-E1457 standard. *Engineering Fracture Mechanics*, **2017**, 176, 61-73 | 4.2 | 20 |
| 87 | Prediction of creep crack initiation in CrMoV steel specimens with different geometries. *Materials at High Temperatures*, **2017**, 34, 87-96 | 1.1 | 8 |
| 86 | High strength-toughness combination of a low-carbon medium-manganese steel plate with laminated microstructure and retained austenite. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 707, 270-279 | 5.3 | 21 |
| 85 | Establishment of Unified Correlation of In-Plane and Out-of-Plane Constraints with Ductile Fracture Toughness of Steel. *Applied Mechanics and Materials*, **2016**, 853, 22-27 | 0.3 | 4 |
| 84 | Characterization of 3-D creep constraint and creep crack growth rate in test specimens in ASTM-E1457 standard. *Engineering Fracture Mechanics*, **2016**, 168, 131-146 | 4.2 | 21 |
| 83 | In-plane and out-of-plane unified constraint-dependent creep crack growth rate of 316H steel. *Engineering Fracture Mechanics*, **2016**, 155, 88-101 | 4.2 | 26 |
| 82 | Creep crack growth prediction and assessment incorporating constraint effect for pressurized pipes with axial surface cracks. *Engineering Fracture Mechanics*, **2016**, 154, 92-110 | 4.2 | 25 |
| 81 | Local failure behavior of a dissimilar metal interface region with mechanical heterogeneity. *Engineering Failure Analysis*, **2016**, 59, 419-433 | 3.2 | 16 |
| 80 | Unified correlation of geometry and material constraints with creep crack growth rate of welded joints. *Engineering Fracture Mechanics*, **2016**, 163, 220-235 | 4.2 | 11 |
| 79 | Three-dimensional analyses of unified characterization parameter of in-plane and out-of-plane creep constraint. *Fatigue and Fracture of Engineering Materials and Structures*, **2016**, 39, 251-263 | 3 | 15 |
| 78 | Correlation of material constraint with fracture toughness of interface regions in a dissimilar metal welded joint. *Fatigue and Fracture of Engineering Materials and Structures*, **2016**, 39, 1251-1262 | 3 | 6 |

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| 77 | Three-dimensional analyses of in-plane and out-of-plane crack-tip constraint characterization for fracture specimens. *Fatigue and Fracture of Engineering Materials and Structures*, **2016**, 39, 1461-1476 | 3 | 24 |
| 76 | Unified correlation of in-plane and out-of-plane creep constraints with creep crack growth rate. *International Journal of Pressure Vessels and Piping*, **2016**, 139-140, 47-60 | 2.4 | 16 |
| 75 | Geometry and material constraint effects on fracture resistance behavior of bi-material interfaces. *International Journal of Fracture*, **2016**, 201, 143-155 | 2.3 | 10 |
| 74 | Effects of creep properties of materials on creep crack-tip constraint parameter R*. *Materials at High Temperatures*, **2016**, 33, 208-217 | 1.1 | 5 |
| 73 | Effects of creep ductility and notch constraint on creep fracture behavior in notched bar specimens. *Materials at High Temperatures*, **2016**, 33, 198-207 | 1.1 | 22 |
| 72 | Unified characterization of in-plane and out-of-plane creep constraint based on crack-tip equivalent creep strain. *Engineering Fracture Mechanics*, **2015**, 142, 1-20 | 4.2 | 38 |
| 71 | Local fracture resistance behavior of interface regions in a dissimilar metal welded joint. *Engineering Fracture Mechanics*, **2015**, 136, 279-291 | 4.2 | 22 |
| 70 | Effects of work hardening mismatch on fracture resistance behavior of bi-material interface regions. *Materials & Design*, **2015**, 68, 186-194 | | 20 |
| 69 | Effect of stress dependent creep ductility on creep crack growth behaviour of steels for wide range of C*. *Materials at High Temperatures*, **2015**, 32, 369-376 | 1.1 | 14 |
| 68 | Characterization and correlation of 3-D creep constraint between axially cracked pipelines and test specimens. *Engineering Fracture Mechanics*, **2015**, 136, 96-114 | 4.2 | 42 |
| 67 | In-plane and out-of-plane constraint effects on creep crack growth rate in CrMoV steel for wide range of C*. *Materials at High Temperatures*, **2015**, 32, 512-523 | 1.1 | 19 |
| 66 | Effects of HAZ widths on creep crack growth properties of welded joints. *Welding in the World, Le Soudage Dans Le Monde*, **2015**, 59, 851-860 | 1.9 | 7 |
| 65 | Creep constraint analysis and constraint parameter solutions for circumferential surface cracks in pressurized pipes. *Engineering Fracture Mechanics*, **2015**, 148, 1-14 | 4.2 | 18 |
| 64 | Investigation of residual stress effects on creep crack initiation and growth using local out-of-plane compression. *Engineering Fracture Mechanics*, **2015**, 149, 45-57 | 4.2 | 17 |
| 63 | Effects of initial crack positions and load levels on creep failure behavior in P92 steel welded joint. *Engineering Failure Analysis*, **2015**, 47, 56-66 | 3.2 | 15 |
| 62 | The influence of stress-regime dependent creep model and ductility in the prediction of creep crack growth rate in CrMoV steel. *Materials & Design*, **2015**, 65, 644-651 | | 35 |
| 61 | Effects of Toughness Mismatch on Failure Behavior of Bi-Material Interfaces. *Procedia Engineering*, **2015**, 130, 754-762 | | 6 |
| 60 | Three-dimensional finite element analyses of in-plane and out-of-plane creep crack-tip constraints for different specimen geometries. *Engineering Fracture Mechanics*, **2015**, 133, 264-280 | 4.2 | 19 |

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| 59 | Unified correlation of in-plane and out-of-plane constraints with cleavage fracture toughness. *Theoretical and Applied Fracture Mechanics*, **2015**, 80, 121-132 | 3.7 | 25 |
| 58 | Unified Correlation of Wide Range of In-Plane and Out-of-Plane Constraints with Cleavage Fracture Toughness. *Procedia Engineering*, **2015**, 130, 803-819 | | |
| 57 | Effects of Residual Stress on Creep Crack Initiation and Growth of Cr-Mo-V Steel in Cracked C(T) Specimen. *Procedia Engineering*, **2015**, 130, 1770-1778 | | 2 |
| 56 | Unified Correlation of In-Plane and Out-of-Plane Creep Constraints with Creep Crack Growth Rate. *Procedia Engineering*, **2015**, 130, 1677-1685 | | |
| 55 | Crack-tip constraint analyses and constraint-dependent LBB curves for circumferential through-wall cracked pipes. *Nuclear Engineering and Design*, **2015**, 285, 75-83 | 1.8 | 4 |
| 54 | Mismatch effect in creep properties on creep crack growth behavior in welded joints. *Materials & Design*, **2014**, 63, 600-608 | | 23 |
| 53 | Prediction of creep crack growth behavior in CrMoV steel specimens with different constraints for a wide range of C*. *Engineering Fracture Mechanics*, **2014**, 132, 70-84 | 4.2 | 41 |
| 52 | Creep constraint analysis and constraint parameter solutions for axial semi-elliptical surface cracks in pressurized pipes. *Engineering Fracture Mechanics*, **2014**, 132, 1-15 | 4.2 | 31 |
| 51 | Unified correlation of in-plane and out-of-plane constraints with fracture toughness. *Fatigue and Fracture of Engineering Materials and Structures*, **2014**, 37, 132-145 | 3 | 52 |
| 50 | An experimental investigation of in-plane constraint effect on local fracture resistance of a dissimilar metal welded joint. *Materials & Design*, **2014**, 53, 611-619 | | 26 |
| 49 | Unified correlation of in-plane and out-of-plane constraint with fracture resistance of a dissimilar metal welded joint. *Engineering Fracture Mechanics*, **2014**, 115, 296-307 | 4.2 | 47 |
| 48 | Out-of-plane constraint effect on local fracture resistance of a dissimilar metal welded joint. *Materials & Design*, **2014**, 55, 542-550 | | 29 |
| 47 | Unified parameter of in-plane and out-of-plane constraint effects and its correlation with brittle fracture toughness of steel. *International Journal of Fracture*, **2014**, 190, 87-98 | 2.3 | 24 |
| 46 | Load-independent creep constraint parameter and its application. *Engineering Fracture Mechanics*, **2014**, 116, 41-57 | 4.2 | 59 |
| 45 | Leak-before-break analysis of a dissimilar metal welded joint for connecting pipe-nozzle in nuclear power plants. *Nuclear Engineering and Design*, **2013**, 255, 1-8 | 1.8 | 16 |
| 44 | Local fracture properties and dissimilar weld integrity in nuclear power plants. *Frontiers of Mechanical Engineering*, **2013**, 8, 283-290 | 3.3 | 9 |
| 43 | Effects of residual stress on creep damage and crack initiation in notched CT specimens of a CrMoV steel. *Engineering Fracture Mechanics*, **2013**, 97, 80-91 | 4.2 | 30 |
| 42 | Derivation of constraint-dependent JR curves based on modified (T)-stress parameter and GTN model for a low-alloy steel. *International Journal of Fracture*, **2013**, 183, 155-168 | 2.3 | 11 |

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| 41 | Unified characterisation of in-plane and out-of-plane constraint based on crack-tip equivalent plastic strain. *Fatigue and Fracture of Engineering Materials and Structures*, **2013**, 36, 504-514 | 3 | 74 |
| 40 | Fracture mechanism of a dissimilar metal welded joint in nuclear power plant. *Engineering Failure Analysis*, **2013**, 28, 134-148 | 3.2 | 47 |
| 39 | Local mechanical properties of a dissimilar metal welded joint in nuclear powersystems. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 568, 108-117 | 5.3 | 79 |
| 38 | Effect and mechanism of out-of-plane constraint on creep crack growth behavior of a CrMoV steel. *Engineering Fracture Mechanics*, **2013**, 99, 324-334 | 4.2 | 68 |
| 37 | Effects of local mechanical and fracture properties on LBB behavior of a dissimilar metal welded joint in nuclear power plants. *Nuclear Engineering and Design*, **2013**, 265, 145-153 | 1.8 | 11 |
| 36 | An experimental investigation of local fracture resistance and crack growth paths in a dissimilar metal welded joint. *Materials & Design*, **2013**, 44, 179-189 | | 71 |
| 35 | Numerical investigation on the creep crack-tip constraint induced by loading configuration of specimens. *Engineering Fracture Mechanics*, **2012**, 79, 353-362 | 4.2 | 52 |
| 34 | Local Mechanical Properties and Microstructures of Alloy52M Dissimilar Metal Welded Joint between A508 Ferritic Steel and 316L Stainless Steel. *Advanced Materials Research*, **2012**, 509, 103-110 | 0.5 | 21 |
| 33 | Three-dimensional numerical analysis of out-of-plane creep crack-tip constraint in compact tension specimens. *International Journal of Pressure Vessels and Piping*, **2012**, 96-97, 78-89 | 2.4 | 52 |
| 32 | Correlation of creep crack-tip constraint between axially cracked pipelines and test specimens. *International Journal of Pressure Vessels and Piping*, **2012**, 98, 16-25 | 2.4 | 29 |
| 31 | Numerical investigation of ductile crack growth behavior in a dissimilar metal welded joint. *Nuclear Engineering and Design*, **2011**, 241, 3234-3243 | 1.8 | 47 |
| 30 | Quantitative characterization of creep constraint induced by crack depths in compact tension specimens. *Engineering Fracture Mechanics*, **2011**, 78, 653-665 | 4.2 | 60 |
| 29 | Inferring the temperature dependence of Beremin cleavage model parameters from the Master Curve. *Nuclear Engineering and Design*, **2011**, 241, 39-45 | 1.8 | 15 |
| 28 | Anisotropic 3D growth of corrosion pits initiated at MnS inclusions for A537 steel during corrosion fatigue. *Corrosion Science*, **2010**, 52, 2867-2877 | 6.8 | 38 |
| 27 | Effects of triaxial stress on martensite transformation, stress–strain and failure behavior in front of crack tips in shape memory alloy NiTi. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 1529-1536 | 5.3 | 27 |
| 26 | Effect of constraint induced by crack depth on creep crack-tip stress field in CT specimens. *International Journal of Solids and Structures*, **2010**, 47, 51-57 | 3.1 | 90 |
| 25 | Effect of microstructure on fatigue crack propagation behavior in a steam turbine rotor steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2009**, 515, 85-92 | 5.3 | 31 |
| 24 | Effects of void damage induced by warm prestressing (WPS) on cleavage fracture of notched steel specimens. *Engineering Fracture Mechanics*, **2009**, 76, 1010-1023 | 4.2 | 2 |

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| 23 | Cleavage fracture behavior of a C-Mn vessel steel at various loading rates in notched specimens. *International Journal of Pressure Vessels and Piping*, **2008**, 85, 720-727 | 2.4 | 2 |
| 22 | A finite element analysis of evolution of stress-strain and martensite transformation in front of a notch in shape memory alloy NiTi. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 460-461, 383-391 | 5.3 | 29 |
| 21 | Effects of notch geometry on stress-strain distribution, martensite transformation and fracture behavior in shape memory alloy NiTi. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 434, 269-279 | 5.3 | 25 |
| 20 | Effects of loading rate on the local cleavage fracture stress in notched specimens. *Engineering Fracture Mechanics*, **2005**, 72, 675-689 | 4.2 | 10 |
| 19 | Effects of sizes of ferrite grains and carbide particles on toughness of notched and precracked specimens of low-alloy steels. *International Journal of Fracture*, **2004**, 126, 223-241 | 2.3 | 8 |
| 18 | Investigation of cleavage fracture initiation in notched specimens of a C-Mn steel with carbides and inclusions. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 369, 181-191 | 5.3 | 29 |
| 17 | Change of critical events of cleavage fracture with variation of loading rate in notched specimens of steel. *International Journal of Fracture*, **2003**, 119, 61-66 | 2.3 | 3 |
| 16 | Effects of geometry of notched specimens on the local cleavage fracture stress of C-Mn steel. *Engineering Fracture Mechanics*, **2003**, 70, 2499-2512 | 4.2 | 14 |
| 15 | Fracture behavior at crack tip a new framework for cleavage mechanism of steel. *Acta Materialia*, **2003**, 51, 1841-1855 | 8.4 | 66 |
| 14 | Mechanism of effects of warm prestressing (WPS) on apparent toughness of notched steel specimens Part II: Calculations and analyses. *International Journal of Fracture*, **2002**, 117, 375-392 | 2.3 | 6 |
| 13 | Mechanism of effects of warm prestressing(WPS) on apparent toughness of notched steel specimens: Part I: Experimental. *International Journal of Fracture*, **2002**, 117, 359-373 | 2.3 | 2 |
| 12 | On the characteristic distance and minimum fracture toughness for cleavage fracture in a C-Mn steel. *International Journal of Fracture*, **2002**, 118, 57-76 | 2.3 | 12 |
| 11 | On the measurement and physical meaning of the cleavage fracture stress in steel. *International Journal of Fracture*, **2002**, 118, 211-227 | 2.3 | 13 |
| 10 | Mechanism of effects of warm prestressing on apparent toughness of precracked specimens of HSLA steels. *Engineering Fracture Mechanics*, **2001**, 68, 1669-1686 | 4.2 | 16 |
| 9 | On locations initiating cleavage fracture in precracked specimens of low alloy steel and weld metal. *International Journal of Fracture*, **2001**, 108, 235-250 | 2.3 | 8 |
| 8 | Effects of precracked specimen geometry on local cleavage fracture stress of low alloy steel. *International Journal of Fracture*, **2001**, 112, 183-196 | 2.3 | 15 |
| 7 | Study on cleavage fracture criteria of the quasi-brittle and micro-inhomogeneous materials. *International Journal of Fracture*, **2001**, 108, 143-164 | 2.3 | 9 |
| 6 | Cleavag Fracture Criterion of Low Alloy Steal and Weld Metal in Notched Specimens. *International Journal of Fracture*, **1998**, 89, 269-284 | 2.3 | 24 |

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| 5 | On scattering of measured values of fracture toughness parameters. *International Journal of Fracture*, **1998**, 94, 33-50 | 2.3 | 13 |
| 4 | Advances in the mechanism of cleavage fracture of low alloy steel at low temperature. Part II: Fracture model. *International Journal of Fracture*, **1997**, 83, 121-138 | 2.3 | 15 |
| 3 | Advances in the mechanism of cleavage fracture of low alloy steel at low temperature. Part I: Critical event. *International Journal of Fracture*, **1997**, 83, 105-120 | 2.3 | 37 |
| 2 | Advances in the mechanism of cleavage fracture of low alloy steel at low temperature. Part III: Local fracture stress *International Journal of Fracture*, **1997**, 83, 139-157 | 2.3 | 20 |
| 1 | A statistical model for cleavage fracture of low alloy steel. *Acta Materialia*, **1996**, 44, 3979-3989 | 8.4 | 23 |