Xiaozhi hu

List of Publications by Year in descending order

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76326 128289 4,408 131 40 60 citations h-index g-index papers 132 132 132 2023 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Size effect on toughness induced by crack close to free surface. Engineering Fracture Mechanics, 2000, 65, 209-221.	4.3	229
2	Size effect and quasi-brittle fracture: the role of FPZ. International Journal of Fracture, 2008, 154, 3-14.	2.2	166
3	Boundary effect on concrete fracture and non-constant fracture energy distribution. Engineering Fracture Mechanics, 2003, 70, 2257-2268.	4.3	156
4	Comparison of boundary and size effect models based on new developments. Engineering Fracture Mechanics, 2017, 175, 146-167.	4.3	123
5	On compressive properties of composite sandwich structures with grid reinforced honeycomb core. Composites Part B: Engineering, 2016, 94, 245-252.	12.0	118
6	Size effect: Influence of proximity of fracture process zone to specimen boundary. Engineering Fracture Mechanics, 2007, 74, 1093-1100.	4.3	104
7	Determination of tensile strength and fracture toughness of concrete using notched 3-p-b specimens. Engineering Fracture Mechanics, 2016, 160, 67-77.	4.3	99
8	Determination of Tensile Strength and Fracture Toughness of Granite Using Notched Three-Point-Bend Samples. Rock Mechanics and Rock Engineering, 2017, 50, 17-28.	5.4	98
9	Influence of fracture process zone height on fracture energy of concrete. Cement and Concrete Research, 2004, 34, 1321-1330.	11.0	97
10	Scaling of quasi-brittle fracture: Boundary and size effect. Mechanics of Materials, 2006, 38, 128-141.	3.2	94
11	Energy-absorption enhancement in carbon-fiber aluminum-foam sandwich structures from short aramid-fiber interfacial reinforcement. Composites Science and Technology, 2013, 77, 14-21.	7.8	92
12	Size effect on specific fracture energy of concrete. Engineering Fracture Mechanics, 2007, 74, 87-96.	4.3	89
13	In-depth analysis of notched 3-p-b concrete fracture. Engineering Fracture Mechanics, 2016, 165, 57-71.	4.3	81
14	NaOH etching and resin pre-coating treatments for stronger adhesive bonding between CFRP and aluminium alloy. Composites Part B: Engineering, 2019, 178, 107478.	12.0	76
15	Mechanism behind the Size Effect Phenomenon. Journal of Engineering Mechanics - ASCE, 2010, 136, 60-68.	2.9	74
16	Flexural strength and energy absorption of carbon-fiber–aluminum-honeycomb composite sandwich reinforced by aluminum grid. Thin-Walled Structures, 2014, 84, 416-422.	5.3	74
17	Synthesis of yttria nanopowders for transparent yttria ceramics. Optical Materials, 2006, 29, 239-245.	3.6	73
18	Fracture process zone in cementitious materials. International Journal of Fracture, 1991, 51, 3-18.	2.2	68

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19	Statistical analysis of concrete fracture using normal distribution pertinent to maximum aggregate size. Theoretical and Applied Fracture Mechanics, 2019, 101, 236-253.	4.7	68
20	Enhanced epoxy adhesion between steel plates by surface treatment and CNT/short-fibre reinforcement. Composites Science and Technology, 2016, 127, 149-157.	7.8	65
21	Improvement of adhesive bonding of grit-blasted steel substrates by using diluted resin as a primer. International Journal of Adhesion and Adhesives, 2017, 73, 92-99.	2.9	64
22	Wedge-splitting tests for tensile strength and fracture toughness of concrete. Theoretical and Applied Fracture Mechanics, 2018, 93, 263-275.	4.7	62
23	Granite strength and toughness from small notched three-point-bend specimens of geometry dissimilarity. Engineering Fracture Mechanics, 2019, 216, 106482.	4.3	62
24	Margin failures in brittle dome structures: Relevance to failure of dental crowns. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2007, 80B, 78-85.	3.4	61
25	Improving impact resistance and residual compressive strength of carbon fibre composites using un-bonded non-woven short aramid fibre veil. Composites Part A: Applied Science and Manufacturing, 2019, 121, 439-448.	7.6	61
26	Short-aramid-fiber toughening of epoxy adhesive joint between carbon fiber composites and metal substrates with different surface morphology. Composites Part B: Engineering, 2015, 77, 38-45.	12.0	59
27	Crack-Bridging Analysis for Alumina Ceramics under Monotonic and Cyclic Loading. Journal of the American Ceramic Society, 1992, 75, 848-853.	3.8	56
28	Experimental Method to Determine Extension of Fractureâ€Process Zone. Journal of Materials in Civil Engineering, 1990, 2, 15-23.	2.9	54
29	Prediction of ceramic fracture with normal distribution pertinent to grain size. Acta Materialia, 2018, 145, 41-48.	7.9	54
30	Substrate constraint and adhesive thickness effects on fracture toughness of adhesive joints. Journal of Adhesion Science and Technology, 2004, 18, 39-53.	2.6	51
31	Carbon-fiber aluminum-foam sandwich with short aramid-fiber interfacial toughening. Composites Part A: Applied Science and Manufacturing, 2012, 43, 2059-2064.	7.6	50
32	Quasi-brittle fracture criterion of bamboo-based fiber composites in transverse direction based on boundary effect model. Composite Structures, 2019, 220, 347-354.	5.8	49
33	Analytical solution for the pull-out response of FRP rods embedded in steel tubes filled with cement grout. Materials and Structures/Materiaux Et Constructions, 2010, 43, 597-609.	3.1	48
34	Modelling fracture process zone width and length for quasi-brittle fracture of rock, concrete and ceramics. Engineering Fracture Mechanics, 2022, 259, 108158.	4.3	48
35	An analytical model to predict the effective fracture toughness of concrete for three-point bending notched beams. Engineering Fracture Mechanics, 2006, 73, 2166-2191.	4.3	46
36	Effect of microstructure on mechanical properties in weld-repaired high strength low alloy steel. Materials & Design, 2012, 36, 233-242.	5.1	46

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37	Effects of aramid-fibre toughening on interfacial fracture toughness of epoxy adhesive joint between carbon-fibre face sheet and aluminium substrate. International Journal of Adhesion and Adhesives, 2014, 48, 288-294.	2.9	46
38	Buckling resistance of grid-stiffened carbon-fiber thin-shell structures. Composites Part B: Engineering, 2013, 45, 888-896.	12.0	45
39	Transverse and longitudinal flexural properties of unidirectional carbon fiber composites interleaved with hierarchical Aramid pulp micro/nano-fibers. Composites Part B: Engineering, 2020, 188, 107897.	12.0	45
40	Fracture of 0.1 and 2 m long mortar beams under three-point-bending. Materials and Design, 2017, 133, $363-375$.	7.0	44
41	Statistics-assisted fracture modelling of small un-notched and large notched sandstone specimens with specimen-size/grain-size ratio from 30 to 900. Engineering Fracture Mechanics, 2020, 235, 107134.	4.3	42
42	Theoretical analysis on pullout of anchor from anchor–mortar–concrete anchorage system. Engineering Fracture Mechanics, 2008, 75, 961-985.	4.3	39
43	Buckling response of advanced grid stiffened carbon–fiber composite cylindrical shells with reinforced cutouts. Composites Part B: Engineering, 2013, 44, 26-33.	12.0	39
44	Influence of grain size on granite strength and toughness with reliability specified by normal distribution. Theoretical and Applied Fracture Mechanics, 2018, 96, 534-544.	4.7	37
45	Effect of off-axis concentrated loading on failure of curved brittle layer structures. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2006, 76B, 334-339.	3.4	34
46	Effect of aramid pulp on low temperature flexural properties of carbon fibre reinforced plastics. Composites Science and Technology, 2020, 192, 108095.	7.8	32
47	An analytical method to determine the bridging stress transferred within the fracture process zone: I, general theory. Cement and Concrete Research, 1991, 21, 1118-1128.	11.0	31
48	Flexure and flexure-after-impact properties of carbon fibre composites interleaved with ultra-thin non-woven aramid fibre veils. Composites Part A: Applied Science and Manufacturing, 2020, 131, 105813.	7.6	30
49	Comprehensive tests and quasi-brittle fracture modeling of light-weight foam concrete with expanded clay aggregates. Cement and Concrete Composites, 2021, 115, 103822.	10.7	29
50	A simple and effective resin pre-coating treatment on grinded, acid pickled and anodised substrates for stronger adhesive bonding between Ti-6Al-4V titanium alloy and CFRP. Surface and Coatings Technology, 2022, 432, 128072.	4.8	29
51	Comparison of impact resistance of carbon fibre composites with multiple ultra-thin CNT, aramid pulp, PBO and graphene interlayers. Composites Part A: Applied Science and Manufacturing, 2022, 155, 106815.	7.6	29
52	Interfacial bonding enhancement on the epoxy adhesive joint between engineered bamboo and steel substrates with resin pre-coating surface treatment. Wood Science and Technology, 2019, 53, 785-799.	3.2	28
53	Directing helical CNT into chemically-etched micro-channels on aluminum substrate for strong adhesive bonding with carbon fiber composites. Composites Part A: Applied Science and Manufacturing, 2020, 135, 105952.	7.6	28
54	Deposition of Microâ€Porous Hydroxyapatite/Triâ€Calcium Phosphate Coating on Zirconiaâ€Based Substrate. Journal of the American Ceramic Society, 2012, 95, 1212-1215.	3.8	26

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55	Quasi-Z-directional toughening from un-bonded non-woven veil at interface in laminar composites. Composites Communications, 2017, 6, 20-24.	6.3	26
56	Fracture properties of jointed rock infilled with mortar under uniaxial compression. Engineering Fracture Mechanics, 2020, 228, 106822.	4.3	26
57	Tensile strength model of bamboo srimber by 3-p-b fracture test on the basis of non-LEFM. Composites Science and Technology, 2020, 198, 108295.	7.8	26
58	Modelling and testing of large-scale masonry elements under three-point bending – Tough and strong nacre-like structure enlarged by a factor of 20,000. Engineering Fracture Mechanics, 2020, 229, 106961.	4.3	25
59	Adhesive bond strength enhancing between carbon fiber reinforced polymer and aluminum substrates with different surface morphologies created by three sulfuric acid solutions. Composites Part A: Applied Science and Manufacturing, 2021, 146, 106427.	7.6	25
60	Design of concrete fracture property by average aggregate size. Cement and Concrete Composites, 2021, 122, 104105.	10.7	25
61	Fatigue crack growth behavior in weld-repaired high-strength low-alloy steel. Engineering Fracture Mechanics, 2011, 78, 1862-1875.	4.3	24
62	Micro-mechanics modeling of compressive strength and elastic modulus enhancements in unidirectional CFRP with aramid pulp micro/nano-fiber interlays. Composites Science and Technology, 2021, 206, 108664.	7.8	24
63	Optimizing adhesive bonding between CFRP and Al alloy substrate through resin pre-coating by filling micro-cavities from sandblasting. International Journal of Adhesion and Adhesives, 2021, 110, 102952.	2.9	24
64	Critical bending load of CFRP panel with shallow surface scratch determined by a tensile strength model. Composites Science and Technology, 2020, 191, 108072.	7.8	23
65	Effect of buffer layer and notch location on fatigue behavior in welded high-strength low-alloy. Journal of Materials Processing Technology, 2012, 212, 2091-2101.	6.3	22
66	Repair of subsurface micro-cracks in rock using resin pre-coating technique. Construction and Building Materials, 2019, 196, 485-491.	7.2	22
67	Interfacial design and flexural property of CFRP/aluminum-honeycomb sandwich with Aramid-pulp micro/nano-fiber interlays. Composite Structures, 2022, 289, 115486.	5.8	22
68	Novel, low-cost solid-liquid-solid process for the synthesis of \hat{l}_{\pm} -Si3N4 nanowires at lower temperatures and their luminescence properties. Scientific Reports, 2015, 5, 17250.	3.3	20
69	Correlation between Cohesive Crack-Tip Local Fracture Energy and Peak Load in Mortar Beams. Journal of Materials in Civil Engineering, 2014, 26, .	2.9	19
70	CNT-reinforced adhesive joint between grit-blasted steel substrates fabricated by simple resin pre-coating method. Journal of Adhesion, 2018, 94, 529-540.	3.0	19
71	Analytical Method for Pullout of Anchor from Anchor–Mortar–Concrete Anchorage System due to Shear Failure of Mortar. Journal of Engineering Mechanics - ASCE, 2007, 133, 1352-1369.	2.9	18
72	Effect of acetone on mechanical properties of epoxy used for surface treatment before adhesive bonding. Polymer Testing, 2020, 86, 106492.	4.8	17

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73	A study on the failure behavior of Al2O3-Ni micro-layered beams under three point bending. Theoretical and Applied Fracture Mechanics, 2020, 110, 102773.	4.7	15
74	Microstructure characteristics and fatigue properties of welded HSLA with and without buffer layer. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 546, 169-179.	5.6	14
75	Micro-porous calcium phosphate coatings on load-bearing zirconia substrate: Processing, property and application. Ceramics International, 2013, 39, 6533-6542.	4.8	14
76	Porous bio-ceramic coating on zirconia formed through freeze-drying. Materials Letters, 2013, 109, 66-69.	2.6	14
77	Adhesive joints between carbon fiber and aluminum foam reinforced by surfaceâ€treated aramid fibers. Polymer Composites, 2015, 36, 192-197.	4.6	14
78	Effects of nanoâ€grain structures and surface defects on fracture of microâ€scaled polysilicon components. Journal of the American Ceramic Society, 2020, 103, 3757-3762.	3.8	14
79	Predicting the fracture behavior of concrete using artificial intelligence approaches and closed-form solution. Theoretical and Applied Fracture Mechanics, 2021, 112, 102892.	4.7	14
80	Analytical Method for Failure of Anchor-Grout-Concrete Anchorage due to Concrete Cone Failure and Interfacial Debonding. Journal of Structural Engineering, 2009, 135, 356-365.	3.4	13
81	Analytical Solution for Fracture Analysis of CFRP Sheet–Strengthened Cracked Concrete Beams. Journal of Engineering Mechanics - ASCE, 2010, 136, 1202-1219.	2.9	13
82	Tensile overload-induced plastic deformation and fatigue behavior in weld-repaired high-strength low-alloy steel. Journal of Materials Processing Technology, 2013, 213, 2005-2014.	6.3	13
83	Low temperature fracture toughness of PMMA and crack-tip conditions under flat-tipped cylindrical indenter. Polymer Testing, 2014, 38, 57-63.	4.8	13
84	Pretreatment using diluted epoxy adhesive resin solution for improving bond strength between steel and wood surfaces. International Journal of Adhesion and Adhesives, 2020, 98, 102502.	2.9	13
85	Loadingâ€rate dependence of mode I crack growth in concrete. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 978-990.	3.4	13
86	A simple closed-form model for fracture of CFRP panel with shallow surface scratch confirmed by comprehensive flexural/tensile tests. Mechanics of Materials, 2021, 155, 103725.	3.2	13
87	Modified essential work of fracture model for polymer fracture. Composites Science and Technology, 2006, 66, 3172-3178.	7.8	12
88	Design optimization of a radial functionally graded dental implant. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 58-66.	3.4	12
89	Synchronistic preparation of fibre-like SiC and cubic-ZrO2/SiC composite from zircon via carbothermal reduction process. Materials Research Bulletin, 2013, 48, 7-11.	5.2	11
90	In vitro bioactivity of 3D Ti-mesh with bioceramic coatings in simulated body fluid. Journal of Asian Ceramic Societies, 2014, 2, 210-214.	2.3	11

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91	Edge Delamination and Residual Properties of Drilled Carbon Fiber Composites with and without Short-Aramid-Fiber Interleaf. Applied Composite Materials, 2016, 23, 973-985.	2.5	11
92	Effect of resin pre-coating method on repairing subsurface micro-defects in sandstone and granite. Construction and Building Materials, 2020, 264, 120144.	7.2	11
93	Repairing sharp delamination cracks in CFRP through capillary action of acetone-diluted resin solution. Composites Science and Technology, 2022, 219, 109249.	7.8	11
94	Size effect on tensile softening relation. Materials and Structures/Materiaux Et Constructions, 2011, 44, 129-138.	3.1	10
95	Fatigue and hardness effects of a thin buffer layer on the heat affected zone of a weld repaired Bisplate80. Journal of Materials Processing Technology, 2012, 212, 393-401.	6.3	10
96	Processing and property of carbon-fiber aluminum-foam sandwich with aramid-fiber composite adhesive joints. Journal of Adhesion Science and Technology, 2014, 28, 1835-1845.	2.6	10
97	Residual stress and softening in welded high-strength low-alloy steel with a buffering layer. Journal of Materials Processing Technology, 2014, 214, 229-237.	6.3	10
98	CNT toughened aluminium and CFRP interface for strong adhesive bonding. Nano Materials Science, 2022, 4, 266-275.	8.8	10
99	Strengthening and repairing of engineered bamboo-steel epoxy adhesive joints with carbon nanotube on the basis of resin pre-coating method. European Journal of Wood and Wood Products, 2020, 78, 313-320.	2.9	9
100	Crack Tip Shielding in Ceramic and Cementitious Materials Subjected to Monotonic and Cyclic Loading. Applied Mechanics Reviews, 1992, 45, 346-354.	10.1	8
101	Synthesis of ZrN–sialon composites from zircon and alumina by carbothermal reduction–nitridation. Materials Research Bulletin, 2012, 47, 3273-3276.	5.2	8
102	Residual stress-induced deformation and fatigue crack growth in weld-repaired high-strength low-alloy steel with soft buffer layer. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 564, 147-157.	5.6	8
103	Modelling and testing of Temperature-Dependent strength and toughness of asphalt concrete from â°'10â€⁻ŰC toâ€⁻+â€⁻23â€⁻ŰC using small notched beams. Construction and Building Materials, 2021, 294, 123	15 ⁷ 80.	8
104	Benefits of Short Kevlar Fiber Reinforcement at the Interface for Repair of Concrete-Like Materials. Journal of Materials in Civil Engineering, 2016, 28, .	2.9	7
105	Normal distribution analysis of fracture parameters of alkali-activated slag seawater column coral aggregate concrete. Theoretical and Applied Fracture Mechanics, 2020, 110, 102794.	4.7	7
106	Applications of Boundary Effect Model to Quasi-Brittle Fracture of Concrete and Rock. Journal of Advanced Concrete Technology, 2005, 3, 413-422.	1.8	7
107	Quasi-brittle fracture analysis of large and small wedge splitting concrete specimens with size from 150Âmm to 2Âm and aggregates from 10 to 100Âmm. Theoretical and Applied Fracture Mechanics, 2022, 121, 103474.	4.7	7
108	A statistical theory of time-dependent fracture for cementitious materials subjected to cyclic loading. Journal of Materials Science, 1989, 24, 3118-3122.	3.7	6

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109	Characterization of Highâ€Gadolinium Y _{0.6} Gd _{1.34} Eu _{0.06} O ₃ Powder and Fabrication of Transparent Ceramic Scintillator Using Pressureless Sintering. International Journal of Applied Ceramic Technology, 2010, 7, E1.	2.1	6
110	Surface Modification and Microstructure Design of Alumina Ceramics. Journal of the American Ceramic Society, 2011, 94, 2764-2766.	3.8	6
111	Processing and properties of pressable ceramic with non-uniform reinforcement for selective-toughening. Materials Science & Damp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 558, 543-549.	5. 6	6
112	Characterizing depth-dependent refractive index of articular cartilage subjected to mechanical wear or enzymic degeneration. Journal of Biomedical Optics, 2016, 21, 095002.	2.6	6
113	Novel porous calcium aluminate/phosphate nanocomposites: in situ synthesis, microstructure and permeability. Nanoscale, 2016, 8, 3599-3606.	5.6	6
114	<scp>Compressionâ€afterâ€impact</scp> properties of carbon fiber composites with interlays of Aramid pulp microâ€i scp>nanofibers. Polymer Composites, 2021, 42, 4424-4433.	4.6	5
115	Determination of fracture toughness of brittle polymers from contact crack induced by flat-tipped cylindrical indenter. Polymer Testing, 2012, 31, 765-769.	4.8	4
116	Shear strength of epoxy adhesive joint between steel substrates with indented patterns. Journal of Adhesion, 2017, 93, 657-666.	3.0	4
117	Modelling of bone fracture using the fundamental functional unit – Osteon. Theoretical and Applied Fracture Mechanics, 2022, 118, 103216.	4.7	3
118	Processing and Properties of BioCeramic Coatings onto 3D Tiâ€Mesh by DipCasting Method. International Journal of Applied Ceramic Technology, 2014, 11, 1030-1038.	2.1	2
119	Effects of heterogeneity and load amplitude on fatigue rate prediction of a welded joint. Advances in Mechanical Engineering, 2016, 8, 168781401666396.	1.6	2
120	"Steel–Concrete―Inspired Biofunctional Layered Hybrid Cage for Spine Fusion and Segmental Bone Reconstruction. ACS Biomaterials Science and Engineering, 2017, 3, 637-647.	5.2	2
121	Effect of Post-weld Heat Treatment on the Fatigue and Fracture Mechanisms of Weld-Repaired Bisplate80 With or Without a Buffer Layer. Journal of Materials Engineering and Performance, 2017, 26, 2742-2753.	2.5	2
122	Nanoscaled Interface Between Microgold Particles and Biphase Glassâ€Ceramic Matrix. Journal of the American Ceramic Society, 2013, 96, 3662-3669.	3.8	1
123	Preparation of Si3N4 Form Diatomite via a Carbothermal Reduction-Nitridation Process. Jom, 2016, 68, 1456-1464.	1.9	1
124	Elastic-Plastic and Quasi-Brittle Fracture. , 2019, , 1785-1816.		1
125	Fracture performance testing and modeling of butt weld metal. Engineering Failure Analysis, 2022, 139, 106489.	4.0	1
126	Flexural tests and analysis of notched specimens of glass fiber reinforced composite. Engineering Fracture Mechanics, 2022, 272, 108641.	4.3	1

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127	Time-dependent fracture of a two-phase brittle material. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1992, 66, 173-186.	0.6	O
128	<title>Size effect on quasi-brittle fracture</title> ., 2005, 5852, 289.		0
129	Stochastic elasto-plastic fracture analysis of aluminum foams. Acta Mechanica Solida Sinica, 2009, 22, 276-282.	1.9	0
130	Dynamic fracture analysis of adhesive bonded material under normal loading. Acta Mechanica Sinica/Lixue Xuebao, 2010, 26, 107-112.	3.4	0
131	Closure to "Mechanism behind the Size Effect Phenomenon―by Xiaozhi Hu and Kai Duan. Journal of Engineering Mechanics - ASCE, 2011, 137, 304-305.	2.9	0