Zhongpu Zhang

List of Publications by Year
in descending order

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38	667	586496 16	685536 24
papers	citations	h-index	g-index

38	38	38	755
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanical failure of posterior teeth due to caries and occlusal wear- A modelling study. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 125, 104942.	1.5	7
2	On fatigue failure prediction of prosthetic devices through XFEM analysis. International Journal of Fatigue, 2021, 147, 106160.	2.8	8
3	A path-dependent level set topology optimization with fracture criterion. Computers and Structures, 2021, 249, 106515.	2.4	12
4	Fracture modeling of brittle biomaterials by the phase-field method. Engineering Fracture Mechanics, 2020, 224, 106752.	2.0	18
5	Effect of different implant configurations on biomechanical behavior of full-arch implant-supported mandibular monolithic zirconia fixed prostheses. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 102, 103490.	1.5	10
6	Monolithic crowns fracture analysis: The effect of material properties, cusp angle and crown thickness. Dental Materials, 2020, 36, 1038-1051.	1.6	28
7	On design for additive manufacturing (DAM) parameter and its effects on biomechanical properties of 3D printed ceramic scaffolds. Materials Today Communications, 2020, 23, 101065.	0.9	3
8	Levelâ€set topology optimization for maximizing fracture resistance of brittle materials using phaseâ€field fracture model. International Journal for Numerical Methods in Engineering, 2020, 121, 2929-2945.	1.5	28
9	Nondestructive characterization of bone tissue scaffolds for clinical scenarios. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 89, 150-161.	1.5	27
10	Threeâ€dimensional reconstruction of internal fascicles and microvascular structures of human peripheral nerves. International Journal for Numerical Methods in Biomedical Engineering, 2019, 35, e3245.	1.0	6
11	Modelling of stress distribution and fracture in dental occlusal fissures. Scientific Reports, 2019, 9, 4682.	1.6	29
12	Investigation on masticatory muscular functionality following oral reconstruction â€“ An inverse identification approach. Journal of Biomechanics, 2019, 90, 1-8.	0.9	17
13	Quantitative/qualitative analysis of adhesive-dentin interface in the presence of 10-methacryloyï»¿loxydecyl dihydrogen phosphate. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 92, 71-78.	1.5	13
14	Nanomechanical characterization of time-dependent deformation/recovery on human dentin caused by radiation-induced glycation. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 90, 248-255.	1.5	7
15	Exceptional contact elasticity of human enamel in nanoindentation test. Dental Materials, 2019, 35, 87-97.	1.6	13
16	Microâ€CT based modelling for characterising injectionâ€moulded porous titanium implants. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e02779.	1.0	7
17	Identification of dynamic load for prosthetic structures. International Journal for Numerical Methods in Biomedical Engineering, 2017, 33, e2889.	1.0	6
18	Stability analysis of generalized mass formulation in dynamic heat transfer. Numerical Heat Transfer, Part B: Fundamentals, 2016, 69, 287-311.	0.6	12

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19	Smoothed finite element method for topology optimization involving incompressible materials. Engineering Optimization, 2016, 48, 2064-2089.	1.5	13
20	Yielding behaviors of polymeric scaffolds with implications to tissue engineering. Materials Letters, 2016, 184, 108-111.	1.3	20
21	XFEM Fracture Modelling for Implant-Supported Fixed Partial Dentures. Applied Mechanics and Materials, 2016, 846, 488-493.	0.2	1
22	Fracture behaviors of ceramic tissue scaffolds for load bearing applications. Scientific Reports, 2016, 6, 28816.	1.6	41
23	Topological design of allâ€ceramic dental bridges for enhancing fracture resistance. International Journal for Numerical Methods in Biomedical Engineering, 2016, 32, e02749.	1.0	30
24	Effects of design parameters on fracture resistance of glass simulated dental crowns. Dental Materials, 2016, 32, 373-384.	1.6	15
25	Smoothed finite element method for analysis of multi-layered systems â€“ Applications in biomaterials. Computers and Structures, 2016, 168, 16-29.	2.4	19
26	Fracture behavior of inlay and onlay fixed partial dentures â€“ An in-vitro experimental and XFEM modeling study. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 59, 279-290.	1.5	21
27	Characterization of tissue scaffolds for time-dependent biotransport criteria â€“ a novel computational procedure. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 1210-1224.	0.9	8
28	A New Homogenization Formulation for Multifunctional Composites. International Journal of Computational Methods, 2016, 13, 1640002.	0.8	10
29	Mechanical benefits of conservative restoration for dental fissure caries. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 53, 11-20.	1.5	29
30	Design for minimizing fracture risk of all-ceramic cantilever dental bridge. Bio-Medical Materials and Engineering, 2015, 26, S19-S25.	0.4	4
31	Computational modeling of dynamic behaviors of human teeth. Journal of Biomechanics, 2015, 48, 4214-4220.	0.9	17
32	Numerical homogenization for incompressible materials using selective smoothed finite element method. Composite Structures, 2015, 123, 216-232.	3.1	42
33	Smoothed finite element method with exact solutions in heat transfer problems. International Journal of Heat and Mass Transfer, 2014, 78, 1219-1231.	2.5	41
34	Role of Mechanical Stimuli in Oral Implantation. Journal of Biosciences and Medicines, 2014, 02, 63-68.	0.1	1
35	Thermally induced fracture for core-veneered dental ceramic structures. Acta Biomaterialia, 2013, 9, 8394-8402.	4.1	60
36	The all-ceramic, inlay supported fixed partial denture. Part 5. Extended finite element analysis validation. Australian Dental Journal, 2013, 58, 434-441.	0.6	15

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37	Sensitivity analysis of bi-layered ceramic dental restorations. Dental Materials, 2012, 28, e6-e14.	1.6	28
38	Numerical Simulation of Biomechanical Behaviours in Novel Dental Restorations. Applied Mechanics and Materials, 0, 553, 327-331.	0.2	1