Jinju Chen

List of Publications by Year
in descending order

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Version: 2024-02-01

		172457	214800
83	2,589	29	47
papers	citations	h-index	g-index

87	87	87	3536
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	3D culture of human pluripotent stem cells in RGD-alginate hydrogel improves retinal tissue development. Acta Biomaterialia, 2017, 49, 329-343.	8.3	122
2	Assessment of the toughness of thin coatings using nanoindentation under displacement control. Thin Solid Films, 2006, 494, 1-7.	1.8	112
3	Indentation fracture and toughness assessment for thin optical coatings on glass. Journal Physics D: Applied Physics, 2007, 40, 5401-5417.	2.8	109
4	On the factors affecting the critical indenter penetration for measurement of coating hardness. Vacuum, 2009, 83, 911-920.	3.5	108
5	Synthesis and characterisation of poly (lactic acid)/halloysite bionanocomposite films. Journal of Composite Materials, 2014, 48, 3705-3717.	2.4	107
6	Approaches to investigate delamination and interfacial toughness in coated systems: an overview. Journal Physics D: Applied Physics, 2011, 44, 034001.	2.8	102
7	Nanostructured titanium surfaces exhibit recalcitrance towards Staphylococcus epidermidis biofilm formation. Scientific Reports, 2018, 8, 1071.	3.3	97
8	Synthesis of bioinspired collagen/alginate/fibrin based hydrogels for soft tissue engineering. Materials Science and Engineering C, 2018, 91, 236-246.	7.3	95
9	Indentation-based methods to assess fracture toughness for thin coatings. Journal Physics D: Applied Physics, 2012, 45, 203001.	2.8	92
10	Influence of surface roughness on the initial formation of biofilm. Surface and Coatings Technology, 2015, 284, 410-416.	4.8	92
11	Nanobiomechanics of living cells: a review. Interface Focus, 2014, 4, 20130055.	3.0	88
12	Cell Mechanics, Structure, and Function Are Regulated by the Stiffness of the Three-Dimensional Microenvironment. Biophysical Journal, 2012, 103, 1188-1197.	0.5	76
13	On the relationship between plastic zone radius and maximum depth during nanoindentation. Surface and Coatings Technology, 2006, 201, 4289-4293.	4.8	73
14	A mechanistic Individual-based Model of microbial communities. PLoS ONE, 2017, 12, e0181965.	2.5	69
15	Mechanical interactions between bacteria and hydrogels. Scientific Reports, 2018, 8, 10893.	3.3	64
16	Extracellular Polymeric Substance Production and Aggregated Bacteria Colonization Influence the Competition of Microbes in Biofilms. Frontiers in Microbiology, 2017, 8, 1865.	3.5	63
17	A critical examination of the relationship between plastic deformation zone size and Young's modulus to hardness ratio in indentation testing. Journal of Materials Research, 2006, 21, 2617-2627.	2.6	50
18	Finite element analysis of contact induced adhesion failure in multilayer coatings with weak interfaces. Thin Solid Films, 2009, 517, 3704-3711.	1.8	46

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19	Relation between the ratio of elastic work to the total work of indentation and the ratio of hardness to Young's modulus for a perfect conical tip. Journal of Materials Research, 2009, 24, 590-598.	2.6	44
20	NUFEB: A massively parallel simulator for individual-based modelling of microbial communities. PLoS Computational Biology, 2019, 15, e1007125.	3.2	40
21	Modelling the limits of coating toughness in brittle coated systems. Thin Solid Films, 2009, 517, 2945-2952.	1.8	39
22	Finite element modelling of nanoindentation based methods for mechanical properties of cells. Journal of Biomechanics, 2012, 45, 2810-2816.	2.1	38
23	The investigation of creep of electroplated Sn and Niâ€“Sn coating on copper at room temperature by nanoindentation. Surface and Coatings Technology, 2009, 203, 1609-1617.	4.8	37
24	On the determination of coating toughness during nanoindentation. Surface and Coatings Technology, 2012, 206, 3064-3068.	4.8	37
25	Penetration of blood–brain barrier and antitumor activity and nerve repair in glioma by doxorubicin-loaded monosialoganglioside micelles system. International Journal of Nanomedicine, 2017, Volume 12, 4879-4889.	6.7	37
26	Nonlinear rheological characteristics of single species bacterial biofilms. Npj Biofilms and Microbiomes, 2020, 6, 19.	6.4	35
27	Slippery Liquid-Like Solid Surfaces with Promising Antibiofilm Performance under Both Static and Flow Conditions. ACS Applied Materials & Interfaces, 2022, 14, 6307-6319.	8.0	35
28	An easy and eco-friendly method to prepare reduced graphene oxide with Fe(OH)2 for use as a conductive additive for LiFePO4 cathode materials. RSC Advances, 2013, 3, 4408.	3.6	34
29	Hierarchical Rose Petal Surfaces Delay the Early-Stage Bacterial Biofilm Growth. Langmuir, 2019, 35, 14670-14680.	3.5	33
30	Regulating, Measuring, and Modeling the Viscoelasticity of Bacterial Biofilms. Journal of Bacteriology, 2019, 201, .	2.2	33
31	Nanomechanical characterization of tissue engineered bone grown on titanium alloy inÂvitro. Journal of Materials Science: Materials in Medicine, 2010, 21, 277-282.	3.6	30
32	Nanoindentation and nanowear study of Sn and Niâ€“Sn coatings. Tribology International, 2009, 42, 779-791.	5.9	26
33	Nanoindentation for Fracture Toughness of Coatings. Advances in Materials Science and Engineering, 2015, , 123-178.	0.4	25
34	On the Applicability of Sneddon's Solution for Interpreting the Indentation of Nonlinear Elastic Biopolymers. Journal of Applied Mechanics, Transactions ASME, 2014, 81, .	2.2	24
35	Antiwetting and Antifouling Performances of Different Lubricant-Infused Slippery Surfaces. Langmuir, 2020, 36, 13396-13407.	3.5	24
36	Experimental and modelling techniques for assessing the adhesion of very thin coatings on glass. Journal Physics D: Applied Physics, 2009, 42, 214003.	2.8	22

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37	Nanoscale viscoelastic properties and adhesion of polydimethylsiloxane for tissue engineering. Acta Mechanica Sinica/Lixue Xuebao, 2014, 30, 2-6.	3.4	22
38	Rheological Characterization of Alginate Based Hydrogels for Tissue Engineering. MRS Advances, 2017, 2, 1309-1314.	0.9	22
39	Multi-cycling nanoindentation study on thin optical coatings on glass. Journal Physics D: Applied Physics, 2008, 41, 074009.	2.8	20
40	Individual Based Model Links Thermodynamics, Chemical Speciation and Environmental Conditions to Microbial Growth. Frontiers in Microbiology, 2019, 10, 1871.	3.5	20
41	Muco-ciliary clearance: A review of modelling techniques. Journal of Biomechanics, 2020, 99, 109578.	2.1	20
42	Mechanical analysis andin situstructural and morphological evaluation of Niâ€“Sn alloy anodes for Li ion batteries. Journal Physics D: Applied Physics, 2008, 41, 025302.	2.8	19
43	Modelling the combined effect of surface roughness and topography on bacterial attachment. Journal of Materials Science and Technology, 2021, 81, 151-161.	10.7	18
44	The effect of anodizing voltage on the electrical properties of Alâ€“Ti composite oxide film on aluminum. Journal of Electroanalytical Chemistry, 2006, 590, 26-31.	3.8	17
45	Al2O3-TiO2 composite oxide films on etched aluminum foil by hydrolysis precipitation and anodizing. Journal of Materials Science, 2006, 41, 569-571.	3.7	16
46	How cell culture conditions affect the microstructure and nanomechanical properties of extracellular matrix formed by immortalized human mesenchymal stem cells: An experimental and modelling study. Materials Science and Engineering C, 2018, 89, 149-159.	7.3	15
47	Modeling the nanomechanical responses of biopolymer composites during the nanoindentation. Thin Solid Films, 2015, 596, 277-281.	1.8	14
48	Effects of elemene on inhibiting proliferation of vascular smooth muscle cells and promoting reendothelialization at the stent implantation site. Biomaterials Science, 2017, 5, 1144-1155.	5.4	14
49	Ultraviolet emission properties of ZnO film with zinc deficiency by SS CVD. Applied Surface Science, 2008, 254, 1599-1603.	6.1	13
50	Loading rate effects on the fracture behaviour of solar control coatings during nanoindentation. Thin Solid Films, 2007, 516, 128-135.	1.8	12
51	Modelling bacterial twitching in fluid flows: a CFD-DEM approach. Scientific Reports, 2019, 9, 14540.	3.3	11
52	A modified Sneddon model for the contact between conical indenters and spherical samples. Journal of Materials Research, 2021, 36, 1762-1771.	2.6	11
53	Realization of nonpolar a-plane ZnO films on r-plane sapphire substrates using a simple single-source chemical vapor deposition. Materials Letters, 2011, 65, 716-718.	2.6	10
54	Understanding the nanoindentation mechanisms of a microsphere for biomedical applications. Journal Physics D: Applied Physics, 2013, 46, 495303.	2.8	9

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55	Nanomechanical and microstructure analysis of extracellular matrix layer of immortalized cell line Y201 from human mesenchymal stem cells. Surface and Coatings Technology, 2015, 284, 417-421.	4.8	9
56	Finite element modeling of nanoindentation response of elastic fiber-matrix composites. Journal of Materials Research, 2018, 33, 2494-2503.	2.6	9
57	Simultaneous Measurement of Single-Cell Mechanics and Cell-to-Materials Adhesion Using Fluidic Force Microscopy. Langmuir, 2022, 38, 620-628.	3.5	9
58	Structure and optical properties of AlxZn1â^'xO alloys by solâ€“gel technique. Materials Research Bulletin, 2011, 46, 755-759.	5.2	8
59	An asymmetrical dual coating on the stent prepared by ultrasonic atomization. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 825-837.	3.4	8
60	Assessment of the Adhesion of Ceramic Coatings. Advances in Science and Technology, 2006, 45, 1299-1308.	0.2	7
61	Coupled CFDâ€ĐEM modeling to predict how EPS affects bacterial biofilm deformation, recovery and detachment under flow conditions. Biotechnology and Bioengineering, 2022, 119, 2551-2563.	3.3	7
62	Investigation of the relationship between work done during indentation and the hardness and Young's modulus obtained by indentation testing. International Journal of Materials Research, 2008, 99, 852-857.	0.3	6
63	Hydrothermal synthesis and optical properties of ZnO single-crystal hexagonal microtubes. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 163, 157-160.	3.5	6
64	Thin film coatings and the biological interface. , 2016, , 143-164.		6
65	Modelling the nanomechanical response of a micro particleâ€“matrix system for nanoindentation tests. Nanotechnology, 2016, 27, 195703.	2.6	6
66	Rheological Characterization of Agarose and Poloxamer 407 (P407) Based Hydrogels. MRS Advances, 2018, 3, 1719-1724.	0.9	6
67	Modelling the Nanomechanical Responses of Biofilms Grown on the Indenter Probe. Processes, 2018, 6, 84.	2.8	6
68	Bacterial nanotubes mediate bacterial growth on periodic nano-pillars. Soft Matter, 2020, 16, 7613-7623.	2.7	6
69	Revealing the nanoindentation response of a single cell using a 3D structural finite element model. Journal of Materials Research, 2021, 36, 2591-2600.	2.6	6
70	Effect of substrate microstructure on the misorientation of a-plane ZnO film investigated using x-ray diffraction. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	2.1	5
71	Finite Element Modeling of Cell Deformation When Chondrocyte Seeded Agarose Is Subjected to Compression. IFMBE Proceedings, 2011, , 17-20.	0.3	5
72	High quality p-type ZnO film growth by a simple method and its properties. Science Bulletin, 2008, 53, 2582-2585.	9.0	4

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73	A modified model to determine limiting values of coating toughness by nanoindentation. Tribology - Materials, Surfaces and Interfaces, 2008, 2, 219-224.	1.4	4
74	Formation of highly ordered micro fillers in polymeric matrix by electro-field-assisted aligning. RSC Advances, 2019, 9, 15238-15245.	3.6	4
75	CFDâ€“DEM modelling of biofilm streamer oscillations and their cohesive failure in fluid flow. Biotechnology and Bioengineering, 2021, 118, 918-929.	3.3	4
76	Finite Element Modelling of Delamination in Multilayer Coatings. Nanoscience and Nanotechnology Letters, 2013, 5, 795-800.	0.4	3
77	Intergrated Shape Memory Alloys Soft Actuators with Periodic and Inhomogeneous Deformations by Modulating Elastic Tendon Structures. Advanced Engineering Materials, 2020, 22, 2000640.	3.5	3
78	Modeling of Indentation Damage in Single and Multilayer Coatings. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2009, , 161-170.	0.2	2
79	How does lubricant viscosity affect the wear behaviour of VitE-XLPE articulated against CoCr?. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 112, 104067.	3.1	2
80	FINITE ELEMENT ANALYSIS OF MECHANICAL DEFORMATION OF CHONDROCYTE TO 2D SUBSTRATE AND 3D SCAFFOLD. Journal of Mechanics in Medicine and Biology, 2015, 15, 1550077.	0.7	1
81	Title is missing!. Journal of Materials Science Letters, 2003, 22, 383-385.	0.5	0
82	Structural and optical properties of Al<inf>x</inf>Zn<inf>1−x</inf>O alloys by sol-gel technique. , 2010, , .		0
83	Controllable growth of zinc oxide single-crystal hexagonal microtubes by hydrothermal synthesis. , 2010, , .		0