Sheng

List of Publications by Year
in descending order

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73 papers	3,947 citations	136950 32 h-index	118850 62 g-index
76 all docs	76 docs citations	76 times ranked	5634 citing authors

#	Article	IF	Citations
1	Recent Industrial Roadmaps to Enable Smart Manufacturing of Biopharmaceuticals. IEEE Transactions on Automation Science and Engineering, 2021, 18, 176-183.	5.2	9
2	Towards Quantitative and Standardized Serological and Neutralization Assays for COVID-19. International Journal of Molecular Sciences, 2021, 22, 2723.	4.1	12
3	Standards efforts and landscape for rapid microbial testing methodologies in regenerative medicine. Cytotherapy, 2021, 23, 390-398.	0.7	3
4	Reference standards for accurate validation and optimization of assays that determine integrated lentiviral vector copy number in transduced cells. Scientific Reports, 2021, 11, 389.	3.3	15
5	Toward Standardization in Biotechnology Platforms to Support Smart Manufacturing. Smart and Sustainable Manufacturing Systems, 2020, 4, 250-253.	0.7	2
6	Nanostructured dental composites and adhesives with antibacterial and remineralizing capabilities for caries inhibition. , 2019, , 139-161.		3
7	Effect of dental monomers and initiators on Streptococcus mutans oral biofilms. Dental Materials, 2018, 34, 776-785.	3.5	21
8	Summary of the National Institute of Standards and Technology and US Food And Drug Administration cell counting workshop: Sharing practices in cell counting measurements. Cytotherapy, 2018, 20, 785-795.	0.7	11
9	The Critical Role of Standards in Tissue Engineering and Regenerative Medicine. , 2018, , .		0
10	FDA and NIST collaboration on standards development activities supporting innovation and translation of regenerative medicine products. Cytotherapy, 2018, 20, 779-784.	0.7	17
11	Computational Design of Photocured Polymers Using Stochastic Reactionâ€“Diffusion Simulation. Advanced Theory and Simulations, 2018, 1, 1800028.	2.8	3
12	Experimental and statistical methods to evaluate antibacterial activity of a quaternary pyridinium salt on planktonic, biofilm-forming, and biofilm states. Biofouling, 2017, 33, 222-234.	2.2	5
13	Quantifying the sensitivity of the network structure and properties from simultaneous measurements during photopolymerization. Soft Matter, 2017, 13, 3975-3983.	2.7	8
14	Evaluating the quality of a cell counting measurement process via a dilution series experimental design. Cytotherapy, 2017, 19, 1509-1521.	0.7	16
15	Polyaspartic Acid Concentration Controls the Rate of Calcium Phosphate Nanorod Formation in High Concentration Systems. Biomacromolecules, 2017, 18, 3106-3113.	5.4	20
16	Points to Consider for Cell Manufacturing Equipment and Components. Cell & Gene Therapy Insights, 2017, 3, 793-805.	0.1	5
17	Manufacturing Cell Therapies: The Paradigm Shift in Health Care of This Century. NAM Perspectives, 2017, 7, .	2.9	23
18	Novel Dental Cement to Combat Biofilms and Reduce Acids for Orthodontic Applications to Avoid Enamel Demineralization. Materials, 2016, 9, 413.	2.9	26

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19	Strategies for Achieving Measurement Assurance for Cell Therapy Products. Stem Cells Translational Medicine, 2016, 5, 705-708.	3.3	34
20	Defining quality attributes to enable measurement assurance for cell therapy products. Cytotherapy, 2016, 18, 1241-1244.	0.7	16
21	Primer containing dimethylaminododecyl methacrylate kills bacteria impregnated in human dentin blocks. International Journal of Oral Science, 2016, 8, 239-245.	8.6	14
22	Simultaneous Measurement of Polymerization Stress Evolution, Conversion Kinetics, and Exotherm in Real-Time. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 149-153.	0.5	0
23	Kinetics of Aggregation and Crystallization of Polyaspartic Acid Stabilized Calcium Phosphate Particles at High Concentrations. Biomacromolecules, 2015, 16, 1550-1555.	5.4	13
24	Microstructure and Mechanical Properties of In Situ Streptococcus mutans Biofilms. ACS Applied Materials & Interfaces, 2014, 6, 327-332.	8.0	25
25	Effects of nanoparticle size and charge on interactions with self-assembled collagen. Journal of Colloid and Interface Science, 2014, 417, 244-249.	9.4	24
26	Simultaneous measurement of polymerization stress and curing kinetics for photo-polymerized composites with high filler contents. Dental Materials, 2014, 30, 1316-1324.	3.5	41
27	Antibacterial activity and ion release of bonding agent containing amorphous calcium phosphate nanoparticles. Dental Materials, 2014, 30, 891-901.	3.5	106
28	The support of bone marrow stromal cell differentiation by airbrushed nanofiber scaffolds. Biomaterials, 2013, 34, 2389-2398.	11.4	142
29	Effects of dual antibacterial agents MDPB and nano-silver in primer on microcosm biofilm, cytotoxicity and dentine bond properties. Journal of Dentistry, 2013, 41, 464-474.	4.1	138
30	Nanostructured Dental Composites and Adhesives with Antibacterial and Remineralizing Capabilities for Caries Inhibition. , 2013, , 109-129.		3
31	Different Kinetic Pathways of Early Stage Calcium-Phosphate Cluster Aggregation Induced by Carboxylate-Containing Polymers. Biomacromolecules, 2013, 14, 3417-3422.	5.4	16
32	Effect of Polymer Degree of Conversion on Streptococcus mutans Biofilms. Macromolecular Bioscience, 2012, 12, 1706-1713.	4.1	20
33	Effect of amorphous calcium phosphate and silver nanocomposites on dental plaque microcosm biofilms. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2012, 100B, 1378-1386.	3.4	101
34	Synthesis and characterization of dimethacrylates containing quaternary ammonium functionalities for dental applications. Dental Materials, 2012, 28, 219-228.	3.5	252
35	Antibacterial amorphous calcium phosphate nanocomposites with a quaternary ammonium dimethacrylate and silver nanoparticles. Dental Materials, 2012, 28, 561-572.	3.5	286
36	Antibacterial and physical properties of calciumâ€“phosphate and calciumâ€“fluoride nanocomposites with chlorhexidine. Dental Materials, 2012, 28, 573-583.	3.5	136

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37	Cooperative Calcium Phosphate Nucleation within Collagen Fibrils. Langmuir, 2011, 27, 8263-8268.	3.5	27
38	Modulus-driven differentiation of marrow stromal cells in 3D scaffolds that is independent of myosin-based cytoskeletal tension. Biomaterials, 2011, 32, 2256-2264.	11.4	113
39	In situ formation of silver nanoparticles in photocrosslinking polymers. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 97B, 124-131.	3.4	93
40	Mechanics behind 4D interferometric measurement of biofilm mediated tooth decay. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 337-344.	0.5	1
41	Effects of Sample Preparation on Bacterial Colonization of Polymers. Langmuir, 2010, 26, 2659-2664.	3.5	9
42	The effect of 3D hydrogel scaffold modulus on osteoblast differentiation and mineralization revealed by combinatorial screening. Biomaterials, 2010, 31, 5051-5062.	11.4	265
43	Stability and Surface Topography Evolution in Nanoimprinted Polymer Patterns under a Thermal Gradient. Macromolecules, 2010, 43, 8191-8201.	4.8	16
44	Exploring Cellular Contact Guidance Using Gradient Nanogratings. Biomacromolecules, 2010, 11, 3067-3072.	5.4	36
45	3D mapping of polymerization shrinkage using X-ray micro-computed tomography to predict microleakage. Dental Materials, 2009, 25, 314-320.	3.5	91
46	Evaluation of dental composite shrinkage and leakage in extracted teeth using X-ray microcomputed tomography. Dental Materials, 2009, 25, 1213-1220.	3.5	60
47	Effects of filler type and content on mechanical properties of photopolymerizable composites measured across two-dimensional combinatorial arrays. Acta Biomaterialia, 2009, 5, 2084-2094.	8.3	39
48	X-ray microcomputed tomography for the measurement of cell adhesionand proliferation in polymer scaffolds. Biomaterials, 2009, 30, 2967-2974.	11.4	37
49	Nondestructive quantification of leakage at the toothâ€“composite interface and its correlation with material performance parameters. Biomaterials, 2009, 30, 4457-4462.	11.4	38
50	Effect of fluorosurfactant on capillary instabilities in nanoimprinted polymer patterns. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 2591-2600.	2.1	10
51	Osteoblast response to dimethacrylate composites varying in composition, conversion and roughness using a combinatorial approach. Biomaterials, 2009, 30, 4480-4487.	11.4	16
52	Synthesis and Characterization of Elastinâ^'Mimetic Hybrid Polymers with Multiblock, Alternating Molecular Architecture and Elastomeric Properties. Macromolecules, 2009, 42, 2532-2541.	4.8	78
53	Quantification of Cell Response to Polymeric Composites Using a Two- Dimensional Gradient Platform. Combinatorial Chemistry and High Throughput Screening, 2009, 12, 619-625.	1.1	8
54	X-ray imaging optimization of 3D tissue engineering scaffolds via combinatorial fabrication methods. Biomaterials, 2008, 29, 1901-1911.	11.4	40

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55	Characterization and optimization of RGD-containing silk blends to support osteoblastic differentiation. Biomaterials, 2008, 29, 2556-2563.	11.4	113
56	X-ray microcomputed tomography for measuring polymerization shrinkage of polymeric dental compositesâ˜†. Dental Materials, 2008, 24, 228-234.	3.5	77
57	Systematic Investigation of Porogen Size and Content on Scaffold Morphometric Parameters and Properties. Biomacromolecules, 2007, 8, 1511-1518.	5.4	45
58	Encapsulated chondrocyte response in a pulsatile flow bioreactor. Acta Biomaterialia, 2007, 3, 13-21.	8.3	24
59	Relationship between dispersion metric and properties of PMMA/SWNT nanocomposites. Polymer, 2007, 48, 4855-4866.	3.8	162
60	Two-dimensional gradient platforms for rapid assessment of dental polymers: A chemical, mechanical and biological evaluationâ˜†. Dental Materials, 2007, 23, 1211-1220.	3.5	37
61	Measuring the Modulus of Soft Polymer Networks via a Buckling-Based Metrology. Macromolecules, 2006, 39, 4138-4143.	4.8	175
62	Tissue Engineering Scaffolds Based on Photocured Dimethacrylate Polymers for in Vitro Optical Imaging. Biomacromolecules, 2006, 7, 1751-1757.	5.4	27
63	Combinatorial investigation of the structure-properties characterization of photopolymerized dimethacrylate networks. Biomaterials, 2006, 27, 1711-1717.	11.4	56
64	Synthesis and Characterization of Poly(ethylene glycol) Dimethacrylate Hydrogels. Macromolecular Symposia, 2005, 227, 243-254.	0.7	16
65	Tunable CO transport through mixed polyether membranes. Journal of Membrane Science, 2005, 251, 51-57.	8.2	57
66	Unusual Multilayered Structures in Poly(ethylene oxide)/Laponite Nanocomposite Films. Macromolecular Rapid Communications, 2005, 26, 143-149.	3.9	49
67	Examination of the Covalent Cationization Method Using Narrow Polydisperse Polystyrene. Macromolecules, 2005, 38, 1564-1572.	4.8	17
68	In Situ Formation of Blends by Photopolymerization of Poly(ethylene glycol) Dimethacrylate and Polylactide. Biomacromolecules, 2005, 6, 1615-1622.	5.4	21
69	Structureâ˜Property Relationships of Photopolymerizable Poly(ethylene glycol) Dimethacrylate Hydrogels. Macromolecules, 2005, 38, 2897-2902.	4.8	114
70	Synthesis and Characterization of PEG Dimethacrylates and Their Hydrogels. Biomacromolecules, 2004, 5, 1280-1287.	5.4	238
71	Reaction kinetics and gel properties of blocked diisocyinate crosslinked chitosan hydrogels. Carbohydrate Polymers, 2003, 54, 193-199.	10.2	73
72	Orientation of platelets in multilayered nanocomposite polymer films. Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 3237-3248.	2.1	69

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73	MALDIâˆ’TOF Mass Spectral Characterization of Covalently Cationized Polystyrene. Macromolecules, 2003, 36, 4669-4671.	4.8	8