Jeffrey W Stansbury

List of Publications by Year
in descending order

94 papers	4,498 citations	136950 32 h-index	106344 65 g-index
94 all docs	94 docs citations	94 times ranked	4466 citing authors

#	Article	IF	Citations
1	3D printing with polymers: Challenges among expanding options and opportunities. Dental Materials, 2016, 32, 54-64.	3.5	1,170
2	Curing Dental Resins and Composites by Photopolymerization. Journal of Esthetic and Restorative Dentistry, 2000, 12, 300-308.	3.8	249
3	Conversion-dependent shrinkage stress and strain in dental resins and composites. Dental Materials, 2005, 21, 56-67.	3.5	211
4	Dimethacrylate network formation and polymer property evolution as determined by the selection of monomers and curing conditions. Dental Materials, 2012, 28, 13-22.	3.5	181
5	Influence of BisGMA, TEGDMA, and BisEMA contents on viscosity, conversion, and flexural strength of experimental resins and composites. European Journal of Oral Sciences, 2009, 117, 442-446.	1.5	152
6	Control of polymerization shrinkage and stress in nanogel-modified monomer and composite materials. Dental Materials, 2011, 27, 509-519.	3.5	130
7	3D printing restorative materials using a stereolithographic technique: a systematic review. Dental Materials, 2021, 37, 336-350.	3.5	119
8	Investigation of thiol-ene and thiol-eneâ€"methacrylate based resins as dental restorative materials. Dental Materials, 2010, 26, 21-28.	3.5	111
9	Synthesis and photopolymerization of low shrinkage methacrylate monomers containing bulky substituent groups. Dental Materials, 2005, 21, 1163-1169.	3.5	101
10	Network formation and compositional drift during photo-initiated copolymerization of dimethacrylate monomers. Polymer, 2001, 42, 6363-6369.	3.8	91
11	Visible-Light Organic Photocatalysis for Latent Radical-Initiated Polymerization via 2e^{â€"}/1H⁺ Transfers: Initiation with Parallels to Photosynthesis. Journal of the American Chemical Society, 2014, 136, 7418-7427.	13.7	78
12	Role of filler and functional group conversion in the evolution of properties in polymeric dental restoratives. Dental Materials, 2014, 30, 586-593.	3.5	78
13	Thiolâ€"eneâ€"methacrylate composites as dental restorative materials. Dental Materials, 2011, 27, 267-272.	3.5	77
14	Smart Antibacterial Surface Made by Photopolymerization. ACS Applied Materials & Interfaces, 2016, 8, 28047-28054.	8.0	76
15	The reciprocity law concerning light dose relationships applied to BisGMA/TEGDMA photopolymers: Theoretical analysis and experimental characterization. Dental Materials, 2014, 30, 605-612.	3.5	74
16	Ester-free thiolâ€"ene dental restorativesâ€"Part A: Resin development. Dental Materials, 2015, 31, 1255-1262.	3.5	71
17	Probing the origins and control of shrinkage stress in dental resin composites. II. Novel method of simultaneous measurement of polymerization shrinkage stress and conversion. Journal of Biomedical Materials Research Part B, 2004, 71B, 206-213.	3.1	68
18	Application of an additionâ€"fragmentation-chain transfer monomer in di(meth)acrylate network formation to reduce polymerization shrinkage stress. Polymer Chemistry, 2017, 8, 4339-4351.	3.9	60

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19	Novel Monovinyl Methacrylic Monomers Containing Secondary Functionality for Ultrarapid Polymerization:Â Steady-State Evaluation. Macromolecules, 2004, 37, 3165-3179.	4.8	57
20	A study of shrinkage stress reduction and mechanical properties of nanogel-modified resin systems. European Polymer Journal, 2012, 48, 1819-1828.	5.4	52
21	Photo-reactive nanogels as a means to tune properties during polymer network formation. Polymer Chemistry, 2014, 5, 227-233.	3.9	49
22	Dimethacrylate derivatives of dimer acid. Journal of Polymer Science Part A, 2006, 44, 3921-3929.	2.3	45
23	Reduced shrinkage stress via photo-initiated copper(I)-catalyzed cycloaddition polymerizations of azide-alkyne resins. Dental Materials, 2016, 32, 1332-1342.	3.5	41
24	Property evolution during vitrification of dimethacrylate photopolymer networks. Dental Materials, 2013, 29, 1173-1181.	3.5	40
25	The role of spacer carbon chain in acidic functional monomers on the physicochemical properties of self-etch dental adhesives. Journal of Dentistry, 2014, 42, 565-574.	4.1	37
26	Kinetic pathway investigations of threeâ€component photoinitiator systems for visibleâ€light activated free radical polymerizations. Journal of Polymer Science Part A, 2009, 47, 887-898.	2.3	36
27	A photoâ€oxidizable kinetic pathway of threeâ€component photoinitiator systems containing porphrin dye (Znâ€tpp), an electron donor and diphenyl iodonium salt. Journal of Polymer Science Part A, 2009, 47, 3131-3141.	2.3	35
28	Dynamic Covalent Chemistry at Interfaces: Development of Tougher, Healable Composites through Stress Relaxation at the Resinâ€“Silica Nanoparticles Interface. Advanced Materials Interfaces, 2018, 5, 1800511.	3.7	35
29	<i>o</i>-Nitrobenzyl-Based Photobase Generators: Efficient Photoinitiators for Visible-Light Induced Thiol-Michael Addition Photopolymerization. ACS Macro Letters, 2018, 7, 852-857.	4.8	35
30	Using hyperbranched oligomer functionalized glass fillers to reduce shrinkage stress. Dental Materials, 2012, 28, 1004-1011.	3.5	34
31	Effect of Aryl Substituents on the Reactivity of Phenyl Carbamate Acrylate Monomers. Macromolecules, 2004, 37, 4062-4069.	4.8	33
32	Highâ€throughput kinetic analysis of acrylate and thiolâ€ene photopolymerization using temperature and exposure time gradients. Journal of Polymer Science Part A, 2008, 46, 1502-1509.	2.3	32
33	Kinetically Controlled Photoinduced Phase Separation for Hybrid Radical/Cationic Systems. Macromolecules, 2019, 52, 2975-2986.	4.8	32
34	Photopolymerization shrinkage-stress reduction in polymer-based dental restoratives by surface modification of fillers. Dental Materials, 2021, 37, 578-587.	3.5	30
35	Ester-free thiolâ€“ene dental restorativesâ€"Part B: Composite development. Dental Materials, 2015, 31, 1263-1270.	3.5	29
36	A Biosynthetic Scaffold that Facilitates Chondrocyte-Mediated Degradation and Promotes Articular Cartilage Extracellular Matrix Deposition. Regenerative Engineering and Translational Medicine, 2015, 1, 11-21.	2.9	28

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37	UV-Vis/FT-NIR in situ monitoring of visible-light induced polymerization of PEGDA hydrogels initiated by eosin/triethanolamine/O₂. Polymer Chemistry, 2016, 7, 592-602.	3.9	28
38	Photopolymerization of highly filled dimethacrylate-based composites using Type I or Type II photoinitiators and varying co-monomer ratios. Dental Materials, 2016, 32, 136-148.	3.5	27
39	A photopolymerizable thermoplastic with tunable mechanical performance. Materials Horizons, 2020, 7, 835-842.	12.2	27
40	Evaluation of a Potential Ionic Contribution to the Polymerization of Highly Reactive (Meth)acrylate Monomers. Macromolecules, 2005, 38, 9474-9481.	4.8	26
41	Additive manufacture of lightly crosslinked semicrystalline thiolâ€“enes for enhanced mechanical performance. Polymer Chemistry, 2020, 11, 39-46.	3.9	26
42	Effect of the electron donor structure on the shelfâ€lifetime of visibleâ€light activated threeâ€component initiator systems. Journal of Applied Polymer Science, 2009, 114, 1535-1542.	2.6	21
43	Independent Control of Singlet Oxygen and Radical Generation via Irradiation of a Two-Color Photosensitive Molecule. Macromolecules, 2019, 52, 4968-4978.	4.8	21
44	(Meth)acrylate vinyl ester hybrid polymerizations. Journal of Polymer Science Part A, 2009, 47, 2509-2517.	2.3	20
45	Coupled UVâ€“Vis/FTâ€“NIR Spectroscopy for Kinetic Analysis of Multiple Reaction Steps in Polymerizations. Macromolecules, 2015, 48, 6781-6790.	4.8	20
46	Modification of filler surface treatment of composite resins using alternative silanes and functional nanogels. Dental Materials, 2019, 35, 928-936.	3.5	20
47	Influence of Secondary Functionalities on the Reaction Behavior of Monovinyl (Meth)Acrylates. Chemistry of Materials, 2007, 19, 641-643.	6.7	19
48	RAFT-mediated control of nanogel structure and reactivity: Chemical, physical and mechanical properties of monomer-dispersed nanogel compositions. Dental Materials, 2014, 30, 1252-1262.	3.5	19
49	Modification of linear prepolymers to tailor heterogeneous network formation through photo-initiated polymerization-induced phase separation. Polymer, 2015, 70, 8-18.	3.8	19
50	Shrinkage stress kinetics of Bulk Fill resin-based composites at tooth temperature and long time. Dental Materials, 2016, 32, 1322-1331.	3.5	19
51	Rational Design of Efficient Amine Reductant Initiators for Amineâ€“Peroxide Redox Polymerization. Journal of the American Chemical Society, 2019, 141, 6279-6291.	13.7	19
52	Near-infrared spectroscopy investigation of water effects on the cationic photopolymerization of vinyl ether systems. Journal of Polymer Science Part A, 2004, 42, 1985-1998.	2.3	18
53	Tuning the surface microstructure and gradient properties of polymers with photopolymerizable polysiloxane-modified nanogels. RSC Advances, 2014, 4, 28928-28936.	3.6	18
54	The impact of water on photopolymerization kinetics of methacrylate/vinyl ether hybrid systems. Polymers for Advanced Technologies, 2005, 16, 195-199.	3.2	17

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55	Enhanced reactivity of monovinyl acrylates characterized by secondary functionalities toward photopolymerization and Michael addition: Contribution of intramolecular effects. Journal of Polymer Science Part A, 2008, 46, 3452-3458.	2.3	17
56	Accessing photo-based morphological control in phase-separated, cross-linked networks through delayed gelation. European Polymer Journal, 2015, 67, 314-325.	5.4	17
57	Tailoring heterogeneous polymer networks through polymerization-induced phase separation: influence of composition and processing conditions on reaction kinetics and optical properties. Journal of Polymer Science Part A, 2014, 52, 1796-1806.	2.3	16
58	Water dispersible siloxane nanogels: a novel technique to control surface characteristics and drug release kinetics. Journal of Materials Chemistry B, 2016, 4, 5299-5307.	5.8	16
59	Combined, independent small molecule release and shape memory via nanogel-coated thiourethane polymer networks. Polymer Chemistry, 2016, 7, 816-825.	3.9	15
60	Kinetics and mechanics of photo-polymerized triazole-containing thermosetting composites via the copper(I)-catalyzed azide-alkyne cycloaddition. Dental Materials, 2017, 33, 621-629.	3.5	14
61	Control of microstructure and gradient property of polymer network by photopolymerizable silicone-containing nanogel. Journal of Polymer Science Part A, 2014, 52, 2830-2840.	2.3	13
62	Stress reduction in phaseâ€separated, crossâ€linked networks: Influence of phase structure and kinetics of reaction. Journal of Applied Polymer Science, 2014, 131, .	2.6	13
63	High-Efficiency Radical Photopolymerization Enhanced by Autonomous Dark Cure. Macromolecules, 2020, 53, 5034-5046.	4.8	13
64	Influence of the secondary functionality on the radicalâ€vinyl chemistry of highly reactive monoacrylates. Journal of Polymer Science Part A, 2009, 47, 4859-4870.	2.3	12
65	Photopolymerizable nanogels as macromolecular precursors to covalently crosslinked water-based networks. Soft Matter, 2015, 11, 5647-5655.	2.7	12
66	Influence of nanogel additive hydrophilicity on dental adhesive mechanical performance and dentin bonding. Dental Materials, 2016, 32, 1406-1413.	3.5	12
67	Fully recoverable rigid shape memory foam based on copper-catalyzed azideâ€"alkyne cycloaddition (CuAAC) using a salt leaching technique. Polymer Chemistry, 2018, 9, 121-130.	3.9	12
68	Photopolymerization kinetics of methyl methacrylate with reactive and inert nanogels. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 85, 218-224.	3.1	12
69	Stress Relaxation via Covalent Dynamic Bonds in Nanogel-Containing Thiolâ€"Ene Resins. ACS Macro Letters, 2020, 9, 713-719.	4.8	12
70	Thiol-functionalized nanogels as reactive plasticizers for crosslinked polymer networks. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 74, 296-303.	3.1	11
71	FTIR Microscopy for Kinetic Measurements in Highâ€Throughput Photopolymerization: Experimental Design and Application. Macromolecular Reaction Engineering, 2009, 3, 522-528.	1.5	10
72	Water-soluble clickable nucleic acid (CNA) polymer synthesis by functionalizing the pendant hydroxyl. Chemical Communications, 2017, 53, 10156-10159.	4.1	10

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73	Factors affecting the sensitivity to acid inhibition in novel acrylates characterized by secondary functionalities. Journal of Polymer Science Part A, 2007, 45, 1287-1295.	2.3	9
74	Catalyst-free, aza-Michael polymerization of hydrazides: polymerizability, kinetics, and mechanistic origin of an Î±-effect. Polymer Chemistry, 2019, 10, 5790-5804.	3.9	9
75	Determining Michael acceptor reactivity from kinetic, mechanistic, and computational analysis for the base-catalyzed thiol-Michael reaction. Polymer Chemistry, 2021, 12, 3619-3628.	3.9	9
76	Controlled nanogel and macrogel structures from self-assembly of a stimuli-responsive amphiphilic block copolymer. RSC Advances, 2016, 6, 64791-64798.	3.6	8
77	Photoreactive nanogels as versatile polymer networks with tunable in situ drug release kinetics. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 108, 103755.	3.1	8
78	Electroâ€•induced Cationic Polymerization of Vinyl Ethers by Using Ionic Liquid 1â€•Butylâ€•3â€•methylâ€•imidazolium Tetrafluoroborate as Initiator. Macromolecular Chemistry and Physics, 2015, 216, 380-385.	2.2	7
79	Influence of small amounts of additionâ€•fragmentation capable monomers on polymerizationâ€•induced shrinkage stress. Journal of Polymer Science Part A, 2014, 52, 1315-1321.	2.3	6
80	Vinyl sulfonamide based thermosetting composites via thiol-Michael polymerization. Dental Materials, 2020, 36, 249-256.	3.5	6
81	Functional Nanogels as a Route to Interpenetrating Polymer Networks with Improved Mechanical Properties. Macromolecules, 2021, 54, 10657-10666.	4.8	6
82	Computational and Experimental Evaluation of Peroxide Oxidants for Amineâ€"Peroxide Redox Polymerization. Macromolecules, 2020, 53, 9736-9746.	4.8	5
83	Poly(triazole) Glassy Networks via Thiol-Norbornene Photopolymerization: Structureâ€"Property Relationships and Implementation in 3D Printing. Macromolecules, 2021, 54, 4042-4049.	4.8	5
84	Evaluation of a photo-initiated copper(I)-catalyzed azide-alkyne cycloaddition polymer network with improved water stability and high mechanical performance as an ester-free dental restorative. Dental Materials, 2021, 37, 1592-1600.	3.5	5
85	Systematic Modulation and Structureâ€"Property Relationships in Photopolymerizable Thermoplastics. ACS Applied Polymer Materials, 2021, 3, 1171-1181.	4.4	4
86	Suppression of hydrolytic degradation in labile polymer networks via integrated styrenic nanogels. Dental Materials, 2021, 37, 1295-1306.	3.5	3
87	Photo-polymerization kinetics of a dental resin at a high temporal resolution. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 124, 104884.	3.1	3
88	Multistructured Nanogelâ€•Based Networks Formed from Interfacial Redox Polymerizations for Modulating Small Molecule Release. Macromolecular Chemistry and Physics, 2017, 218, 1700256.	2.2	2
89	Effects of Photodegradable <i>o</i>â€•Nitrobenzyl Nanogels on the Photopolymerization Process. Macromolecular Materials and Engineering, 2018, 303, 1800206.	3.6	2
90	Visible-Light Photoinitiation of (Meth)acrylate Polymerization with Autonomous Post-conversion. Macromolecules, 2021, 54, 7702-7715.	4.8	2

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91	Synthesis, characterization and evaluation of azobenzene nanogels for their antibacterial properties in adhesive dentistry. European Journal of Oral Sciences, 2022, 130, .	1.5	1
92	Optimization of multicomponent photopolymer formulations using highâ€throughput analysis and kinetic modeling. AICHE Journal, 2010, 56, 1262-1269.	3.6	0
93	Macromol. Chem. Phys. 4/2015. Macromolecular Chemistry and Physics, 2015, 216, 468-468.	2.2	0
94	Relocation and reinforcement of the adhesive/composite interface with spontaneous amine-peroxide interfacial polymerization. Dental Materials, 2021, 37, 1865-1872.	3.5	0