

# Derek L Patton

## List of Publications by Year in descending order

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65  
papers

2,683  
citations

186209

28  
h-index

182361

51  
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67  
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67  
docs citations

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times ranked

3604  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrolyzable Poly( $\hat{\text{I}}^2$ Thioether Ester Ketal) Thermosets via Acyclic Ketal Monomers. <i>Macromolecular Rapid Communications</i> , 2022, , 2200028.	2.0	2
2	Atomic Oxygen-Resistant Epoxy-amines Containing Phenylphosphine Oxide as Low Earth Orbit Stable Polymers. <i>ACS Applied Polymer Materials</i> , 2021, 3, 178-190.	2.0	5
3	Versatile Surface Functionalization of Water-Dispersible Iron Oxide Nanoparticles with Precisely Controlled Sizes. <i>Langmuir</i> , 2021, 37, 1279-1287.	1.6	9
4	Selective and Rapid Light-Induced RAFT Single Unit Monomer Insertion in Aqueous Solution. <i>Macromolecular Rapid Communications</i> , 2020, 41, e1900478.	2.0	22
5	Antimicrobial Activity of, and Cellular Pathways Targeted by, <i>p</i> -Anisaldehyde and Epigallocatechin Gallate in the Opportunistic Human Pathogen <i>Pseudomonas aeruginosa</i> . <i>Applied and Environmental Microbiology</i> , 2020, 86, .	1.4	17
6	Programmable Porous Polymers via Direct Bubble Writing with Surfactant-Free Inks. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 42048-42055.	4.0	22
7	Command-destruct thermosets <i>via</i> photoinduced thiol-catalyzed $\hat{\text{I}}^2$ -scission of acyclic benzylidene acetals. <i>Polymer Chemistry</i> , 2020, 11, 6873-6878.	1.9	5
8	Quantifying Strain via Buckling Instabilities in Surface-Modified Polymer Brushes. <i>Macromolecules</i> , 2020, 53, 4552-4559.	2.2	5
9	Quantifying Strain via Buckling Instabilities in Surface Modified Polymer Brushes. <i>Macromolecules</i> , 2020, 53, .	2.2	0
10	Sequential and one-pot post-polymerization modification reactions of thiolactone-containing polymer brushes. <i>Polymer Chemistry</i> , 2019, 10, 4935-4943.	1.9	11
11	Hydrolytically degradable poly( $\hat{\text{I}}^2$ -thioether ester ketal) thermosets <i>via</i> radical-mediated thiol-ene photopolymerization. <i>Polymer Chemistry</i> , 2019, 10, 5635-5644.	1.9	14
12	A bio-based pro-antimicrobial polymer network via degradable acetal linkages. <i>Acta Biomaterialia</i> , 2018, 67, 196-205.	4.1	13
13	Using Aldehyde Synergism To Direct the Design of Degradable Pro-Antimicrobial Networks. <i>ACS Applied Bio Materials</i> , 2018, 1, 1983-1991.	2.3	7
14	Rational Design of Superhydrophilic/Superoleophobic Surfaces for Oil-Water Separation via Thiol-Acrylate Photopolymerization. <i>ACS Omega</i> , 2018, 3, 10278-10285.	1.6	32
15	Fabrication of single-chain nanoparticles through the dimerization of pendant anthracene groups <i>via</i> photochemical upconversion. <i>Dalton Transactions</i> , 2018, 47, 8663-8669.	1.6	9
16	Functional Microcapsules via Thiol-Ene Photopolymerization in Droplet-Based Microfluidics. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 3288-3293.	4.0	39
17	Pro-Antimicrobial Networks via Degradable Acetals (PANDAs) Using Thiol-Ene Photopolymerization. <i>ACS Macro Letters</i> , 2017, 6, 171-175.	2.3	21
18	Buckling Instabilities in Polymer Brush Surfaces via Postpolymerization Modification. <i>Macromolecules</i> , 2017, 50, 8670-8677.	2.2	15

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19	Post-polymerization modification of styrene- <i>maleic anhydride</i> copolymer brushes. <i>Polymer Chemistry</i> , 2017, 8, 6778-6785.	1.9	10
20	Synthesis and thiol-ene photopolymerization of (meth)allyl-terminated polysulfides. <i>Journal of Applied Polymer Science</i> , 2017, 134, 45523.	1.3	5
21	Thiol-Trifluorovinyl Ether (TFVE) Photopolymerization: An On-Demand Synthetic Route to Semifluorinated Polymer Networks. <i>Macromolecules</i> , 2016, 49, 7667-7675.	2.2	7
22	Destruction of Opportunistic Pathogens via Polymer Nanoparticle-Mediated Release of Plant-Based Antimicrobial Payloads. <i>Advanced Healthcare Materials</i> , 2016, 5, 1094-1103.	3.9	22
23	RAFT Polymerization of <i>Splitters</i> and <i>Cryptos</i> , Exploiting Azole- <i>N</i> -carboxamides As Blocked Isocyanates for Ambient Temperature Postpolymerization Modification. <i>Macromolecules</i> , 2016, 49, 554-563.	2.2	21
24	Functional, composite polythioether nanoparticles via thiol-alkyne photopolymerization in miniemulsion. <i>Chemical Communications</i> , 2015, 51, 10910-10913.	2.2	26
25	Thiol-ene adhesives from clove oil derivatives. <i>RSC Advances</i> , 2014, 4, 61927-61935.	1.7	25
26	A Dynamic Duo: Pairing Click Chemistry and Postpolymerization Modification To Design Complex Surfaces. <i>Accounts of Chemical Research</i> , 2014, 47, 2999-3008.	7.6	55
27	Sequential Thiol Click Reactions: Formation of Ternary Thiourethane/Thiol-ene Networks with Enhanced Thermal and Mechanical Properties. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 6088-6097.	4.0	28
28	Spray-Deposition and Photopolymerization of Organic-Inorganic Thiol-ene Resins for Fabrication of Superamphiphobic Surfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 10763-10774.	4.0	76
29	Solvent-free copolymerization of rigid and flexible bis-1,3-benzoxazines: Facile tunability of polybenzoxazine network properties. <i>Polymer</i> , 2013, 54, 5553-5559.	1.8	8
30	Photocaged pendent thiol polymer brush surfaces for postpolymerization modifications via thiol-click chemistry. <i>Journal of Polymer Science Part A</i> , 2013, 51, 1079-1090.	2.5	29
31	Superhydrophobic Hybrid Inorganic-Organic Thiol-ene Surfaces Fabricated via Spray-Deposition and Photopolymerization. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 1811-1817.	4.0	113
32	Highly Tunable Thiol-ene Networks via Dual Thiol Addition. <i>Macromolecules</i> , 2013, 46, 5614-5621.	2.2	33
33	Exploring the Effect of Maximum Cure Temperature on the Thermal and Thermomechanical Properties of Polybenzoxazine Networks. <i>Macromolecular Symposia</i> , 2013, 329, 133-141.	0.4	1
34	Hybrid dual-cure polymer networks via sequential thiol-ene photopolymerization and thermal ring-opening polymerization of benzoxazines. <i>Reactive and Functional Polymers</i> , 2012, 72, 799-806.	2.0	31
35	Flexible aliphatic-bridged bisphenol-based polybenzoxazines. <i>Polymer Chemistry</i> , 2012, 3, 2892.	1.9	46
36	Mussel-Inspired Thiol-ene Polymer Networks: Influencing Network Properties and Adhesion with Catechol Functionality. <i>Chemistry of Materials</i> , 2012, 24, 3633-3642.	3.2	81

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37	A robust and high-throughput measurement platform for monomer reactivity ratios from surface-initiated polymerization. <i>Polymer Chemistry</i> , 2012, 3, 1174.	1.9	11
38	Cyclic tetravinylsiloxanetetraols as hybrid inorganic-organic thiol-ene networks. <i>Journal of Materials Chemistry</i> , 2012, 22, 3817.	6.7	20
39	Synthesis of multifunctional polymer brush surfaces via sequential and orthogonal thiol-click reactions. <i>Journal of Materials Chemistry</i> , 2012, 22, 932-943.	6.7	80
40	Rapid Synthesis of Polymer Brush Surfaces via Microwave-Assisted Surface-Initiated Radical Polymerization. <i>Macromolecular Rapid Communications</i> , 2012, 33, 863-868.	2.0	9
41	Stimuli-Responsive Peptide-Based ABA Triblock Copolymers: Unique Morphology Transitions With pH. <i>Macromolecular Rapid Communications</i> , 2012, 33, 819-826.	2.0	39
42	Dynamic-covalent nanostructures prepared by Diels-Alder reactions of styrene-maleic anhydride-derived copolymers obtained by one-step cascade block copolymerization. <i>Polymer Chemistry</i> , 2012, 3, 3112.	1.9	99
43	Synthesis of thiol-clickable and block copolypeptide brushes via nickel-mediated surface initiated polymerization of $\alpha$ -amino acid N-carboxyanhydrides (NCAs). <i>Chemical Communications</i> , 2011, 47, 6245.	2.2	23
44	Thiol-isocyanate click reactions: rapid development of functional polymeric surfaces. <i>Polymer Chemistry</i> , 2011, 2, 88-90.	1.9	91
45	Polymer Loops vs. Brushes on Surfaces: Adsorption, Kinetics, and Viscoelastic Behavior of Thiol Telechelics on Gold. <i>Macromolecular Chemistry and Physics</i> , 2011, 212, 485-497.	1.1	31
46	Nanostructured Interpenetrating Polymer Network (IPN) Precursor Ultrathin Films. <i>Macromolecular Chemistry and Physics</i> , 2011, 212, 1039-1049.	1.1	4
47	Hybrid Gold-Nanoparticle-Cored Conjugated Thiophene Dendrimers: Synthesis, Characterization, and Energy-Transfer Studies. <i>Chemistry - A European Journal</i> , 2011, 17, 8929-8940.	1.7	23
48	Clicking Polymer Brushes with Thiol-yne Chemistry: Indoors and Out. <i>Journal of the American Chemical Society</i> , 2009, 131, 14673-14675.	6.6	218
49	Disordered nanoparticle interfaces for directed self-assembly. <i>Soft Matter</i> , 2009, 5, 622-628.	1.2	35
50	Viscoelastic properties of confined polymer films measured via thermal wrinkling. <i>Soft Matter</i> , 2009, 5, 4638.	1.2	61
51	Electrochemically Active Dendritic Linear Block Copolymers via RAFT Polymerization: Synthesis, Characterization, and Electrodeposition Properties. <i>Macromolecules</i> , 2008, 41, 6703-6713.	2.2	33
52	Quantitative Electrochemical and Electrochromic Behavior of Terthiophene and Carbazole Containing Conjugated Polymer Network Film Precursors: EC-QCM and EC-SPR. <i>Langmuir</i> , 2007, 23, 908-917.	1.6	68
53	Investigating Carbazole Jacketed Precursor Dendrimers: Sonochemical Synthesis, Characterization, and Electrochemical Crosslinking Properties. <i>Journal of the American Chemical Society</i> , 2007, 129, 12537-12548.	6.6	83
54	Measurement of Reactivity Ratios in Surface-Initiated Radical Copolymerization. <i>Macromolecules</i> , 2007, 40, 6017-6020.	2.2	21

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55	Fuzzy Ternary Particle Systems by Surface-Initiated Atom Transfer Radical Polymerization from Layer-by-Layer Colloidal Core-Shell Macroinitiator Particles. <i>Langmuir</i> , 2006, 22, 8397-8402.	1.6	31
56	A Versatile Synthetic Route to Macromonomers via RAFT Polymerization. <i>Macromolecules</i> , 2006, 39, 8674-8683.	2.2	92
57	Conjugated Polymer Nanoparticles via Intramolecular Crosslinking of Dendrimeric Precursors. <i>Advanced Materials</i> , 2006, 18, 2461-2465.	11.1	65
58	Structure and Band-Gap Design of a New Series of Light-Emitting Poly(cyanofluorene-alt-o/m/p-phenylenevinylene)-Based Copolymers for Light-Emitting Diodes. <i>Macromolecules</i> , 2006, 39, 3848-3854.	2.2	40
59	Thiophene Dendron Jacketed Poly(amidoamine) Dendrimers: Nanoparticle Synthesis and Adsorption on Graphite. <i>Journal of the American Chemical Society</i> , 2005, 127, 1744-1751.	6.6	64
60	Preparation of Carbazole Polymer Thin Films Chemically Bound to Substrate Surface by Physical Vapor Deposition Combined with Self-Assembled Monolayer. <i>Japanese Journal of Applied Physics</i> , 2005, 44, 504-508.	0.8	21
61	A Facile Synthesis Route to Thiol-Functionalized Telechelic Polymers via Reversible Addition Fragmentation Chain Transfer Polymerization. <i>Macromolecules</i> , 2005, 38, 8597-8602.	2.2	134
62	Conjugated Oligothiophene-Dendron-Capped CdSe Nanoparticles: Synthesis and Energy Transfer. <i>Chemistry of Materials</i> , 2004, 16, 5187-5193.	3.2	92
63	Nanocomposite Hydrogen-Bonded Multilayer Ultrathin Films by Simultaneous Sexithiophene and Au Nanoparticle Formation. <i>Chemistry of Materials</i> , 2004, 16, 5063-5070.	3.2	24
64	Evanescant Waveguide and Photochemical Characterization of Azobenzene-Functionalized Dendrimer Ultrathin Films. <i>Langmuir</i> , 2002, 18, 1688-1694.	1.6	28
65	Low-density framework form of crystalline silicon with a wide optical band gap. <i>Physical Review B</i> , 2000, 62, R7707-R7710.	1.1	278