

# Todd Hoare

## List of Publications by Year in descending order

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111  
papers

8,833  
citations

50276

46  
h-index

42399

92  
g-index

114  
all docs

114  
docs citations

114  
times ranked

10608  
citing authors

#	ARTICLE	IF	CITATIONS
1	Review of Hydrogels and Aerogels Containing Nanocellulose. <i>Chemistry of Materials</i> , 2017, 29, 4609-4631.	6.7	1,056
2	Preparation of Monodisperse Biodegradable Polymer Microparticles Using a Microfluidic Flow-Focusing Device for Controlled Drug Delivery. <i>Small</i> , 2009, 5, 1575-1581.	10.0	545
3	Nanogels and Microgels: From Model Colloids to Applications, Recent Developments, and Future Trends. <i>Langmuir</i> , 2019, 35, 6231-6255.	3.5	395
4	Highly pH and Temperature Responsive Microgels Functionalized with Vinylacetic Acid. <i>Macromolecules</i> , 2004, 37, 2544-2550.	4.8	380
5	A Magnetically Triggered Composite Membrane for On-Demand Drug Delivery. <i>Nano Letters</i> , 2009, 9, 3651-3657.	9.1	335
6	Injectable Polysaccharide Hydrogels Reinforced with Cellulose Nanocrystals: Morphology, Rheology, Degradation, and Cytotoxicity. <i>Biomacromolecules</i> , 2013, 14, 4447-4455.	5.4	263
7	Engineering Glucose Swelling Responses in Poly(N-isopropylacrylamide)-Based Microgels. <i>Macromolecules</i> , 2007, 40, 670-678.	4.8	242
8	Magnetically Triggered Nanocomposite Membranes: A Versatile Platform for Triggered Drug Release. <i>Nano Letters</i> , 2011, 11, 1395-1400.	9.1	241
9	Functional Group Distributions in Carboxylic Acid Containing Poly(N-isopropylacrylamide) Microgels. <i>Langmuir</i> , 2004, 20, 2123-2133.	3.5	224
10	Composite Hydrogels with Tunable Anisotropic Morphologies and Mechanical Properties. <i>Chemistry of Materials</i> , 2016, 28, 3406-3415.	6.7	206
11	Injectable Microgel-Hydrogel Composites for Prolonged Small-Molecule Drug Delivery. <i>Biomacromolecules</i> , 2011, 12, 4112-4120.	5.4	186
12	Charge-Switching, Amphoteric Glucose-Responsive Microgels with Physiological Swelling Activity. <i>Biomacromolecules</i> , 2008, 9, 733-740.	5.4	180
13	Enhanced Mechanical Properties in Cellulose Nanocrystal-Poly(oligoethylene glycol methacrylate) Injectable Nanocomposite Hydrogels through Control of Physical and Chemical Cross-Linking. <i>Biomacromolecules</i> , 2016, 17, 649-660.	5.4	175
14	Designing Injectable, Covalently Cross-Linked Hydrogels for Biomedical Applications. <i>Macromolecular Rapid Communications</i> , 2014, 35, 598-617.	3.9	147
15	Designing responsive microgels for drug delivery applications. <i>Journal of Polymer Science Part A</i> , 2013, 51, 3027-3043.	2.3	146
16	Injectable, Mixed Natural-Synthetic Polymer Hydrogels with Modular Properties. <i>Biomacromolecules</i> , 2012, 13, 369-378.	5.4	145
17	Structured Macroporous Hydrogels: Progress, Challenges, and Opportunities. <i>Advanced Healthcare Materials</i> , 2018, 7, 1700927.	7.6	143
18	Impact of Microgel Morphology on Functionalized Microgel-Drug Interactions. <i>Langmuir</i> , 2008, 24, 1005-1012.	3.5	142

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19	Injectable hydrogels based on poly(ethylene glycol) and derivatives as functional biomaterials. RSC Advances, 2015, 5, 35469-35486.	3.6	138
20	Injectable, Degradable Thermo-responsive Poly( <i>N</i> -isopropylacrylamide) Hydrogels. ACS Macro Letters, 2012, 1, 409-413.	4.8	131
21	Cooperative Ordering and Kinetics of Cellulose Nanocrystal Alignment in a Magnetic Field. Langmuir, 2016, 32, 7564-7571.	3.5	119
22	Injectable Anisotropic Nanocomposite Hydrogels Direct in Situ Growth and Alignment of Myotubes. Nano Letters, 2017, 17, 6487-6495.	9.1	111
23	Injectable Superparamagnets: Highly Elastic and Degradable Poly( <i>N</i> -isopropylacrylamide)-Superparamagnetic Iron Oxide Nanoparticle (SPION) Composite Hydrogels. Biomacromolecules, 2013, 14, 644-653.	5.4	107
24	Injectable and tunable poly(ethylene glycol) analogue hydrogels based on poly(oligoethylene glycol) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	4.1	107
25	Titrametric Characterization of pH-Induced Phase Transitions in Functionalized Microgels. Langmuir, 2006, 22, 7342-7350.	3.5	105
26	Kinetic Prediction of Functional Group Distributions in Thermosensitive Microgels. Journal of Physical Chemistry B, 2006, 110, 20327-20336.	2.6	105
27	Characterizing charge and crosslinker distributions in polyelectrolyte microgels. Current Opinion in Colloid and Interface Science, 2008, 13, 413-428.	7.4	95
28	Decellularized adipose tissue microcarriers as a dynamic culture platform for human adipose-derived stem/stromal cell expansion. Biomaterials, 2017, 120, 66-80.	11.4	95
29	Tuning Gelation Time and Morphology of Injectable Hydrogels Using Ketone-Hydrazide Cross-Linking. Biomacromolecules, 2014, 15, 781-790.	5.4	92
30	Enhanced Pulsatile Drug Release from Injectable Magnetic Hydrogels with Embedded Thermosensitive Microgels. ACS Macro Letters, 2015, 4, 312-316.	4.8	90
31	Haloperidol-loaded intranasally administered lectin functionalized poly(ethylene Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 267 T	4.3	70
32	Integrating programmable DNAzymes with electrical readout for rapid and culture-free bacterial detection using a handheld platform. Nature Chemistry, 2021, 13, 895-901.	13.6	69
33	Functionalized Microgel Swelling: Comparing Theory and Experiment. Journal of Physical Chemistry B, 2007, 111, 11895-11906.	2.6	66
34	Externally Addressable Smart Drug Delivery Vehicles: Current Technologies and Future Directions. Chemistry of Materials, 2019, 31, 4971-4989.	6.7	64
35	Electrophoresis of functionalized microgels: morphological insights. Polymer, 2005, 46, 1139-1150.	3.8	62
36	Patterning of Structurally Anisotropic Composite Hydrogel Sheets. Biomacromolecules, 2018, 19, 1276-1284.	5.4	62

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37	Tuning drug release from smart microgel-hydrogel composites via cross-linking. <i>Journal of Colloid and Interface Science</i> , 2013, 392, 422-430.	9.4	60
38	Injectable poly(oligoethylene glycol methacrylate)-based hydrogels with tunable phase transition behaviours: Physicochemical and biological responses. <i>Acta Biomaterialia</i> , 2014, 10, 4143-4155.	8.3	59
39	Thermoresponsive nanogels for prolonged duration local anesthesia. <i>Acta Biomaterialia</i> , 2012, 8, 3596-3605.	8.3	56
40	Reactive electrospinning of degradable poly(oligoethylene glycol methacrylate)-based nanofibrous hydrogel networks. <i>Chemical Communications</i> , 2016, 52, 1451-1454.	4.1	54
41	Mechanically Reinforced Injectable Hydrogels. <i>ACS Applied Polymer Materials</i> , 2020, 2, 1016-1030.	4.4	54
42	Drug-impregnated, pressurized gas expanded liquid-processed alginate hydrogel scaffolds for accelerated burn wound healing. <i>Acta Biomaterialia</i> , 2020, 112, 101-111.	8.3	54
43	Multi-Component Kinetic Modeling for Controlling Local Compositions in Thermosensitive Polymers. <i>Macromolecular Theory and Simulations</i> , 2006, 15, 619-632.	1.4	52
44	Injectable, in situ gelling, cyclodextrin-dextran hydrogels for the partitioning-driven release of hydrophobic drugs. <i>Journal of Materials Chemistry B</i> , 2014, 2, 5157.	5.8	52
45	Click-Chemistry-Tethered Hyaluronic Acid-Based Contact Lens Coatings Improve Lens Wettability and Lower Protein Adsorption. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 22064-22073.	8.0	51
46	Ocular drug delivery to the anterior segment using nanocarriers: A mucoadhesive/mucopenetrative perspective. <i>Journal of Controlled Release</i> , 2021, 336, 71-88.	9.9	50
47	Properties of Poly(ethylene glycol) Hydrogels Cross-Linked via Strain-Promoted Alkyne-Azide Cycloaddition (SPAAC). <i>Biomacromolecules</i> , 2016, 17, 1093-1100.	5.4	46
48	Tissue Response and Biodistribution of Injectable Cellulose Nanocrystal Composite Hydrogels. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 2235-2246.	5.2	46
49	A Review of Design and Fabrication Methods for Nanoparticle Network Hydrogels for Biomedical, Environmental, and Industrial Applications. <i>Advanced Functional Materials</i> , 2021, 31, 2102355.	14.9	46
50	Synthesis of Monodisperse, Covalently Cross-Linked, Degradable Smart-Microgels Using Microfluidics. <i>Small</i> , 2012, 8, 1092-1098.	10.0	45
51	Externally addressable hydrogel nanocomposites for biomedical applications. <i>Current Opinion in Chemical Engineering</i> , 2014, 4, 1-10.	7.8	42
52	Poly(oligoethylene glycol methacrylate) Dip-Coating: Turning Cellulose Paper into a Protein-Repellent Platform for Biosensors. <i>Journal of the American Chemical Society</i> , 2014, 136, 12852-12855.	13.7	42
53	Intranasal delivery of antipsychotic drugs. <i>Schizophrenia Research</i> , 2017, 184, 2-13.	2.0	41
54	A Highly Sensitive Immunosorbent Assay Based on Biotinylated Graphene Oxide and the Quartz Crystal Microbalance. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 1893-1902.	8.0	39

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55	In situ-gelling starch nanoparticle (SNP)/O-carboxymethyl chitosan (CMCh) nanoparticle network hydrogels for the intranasal delivery of an antipsychotic peptide. <i>Journal of Controlled Release</i> , 2021, 330, 738-752.	9.9	36
56	Click Chemistry Hydrogels for Extrusion Bioprinting: Progress, Challenges, and Opportunities. <i>Biomacromolecules</i> , 2022, 23, 619-640.	5.4	36
57	Nanostructured degradable macroporous hydrogel scaffolds with controllable internal morphologies via reactive electrospinning. <i>Acta Biomaterialia</i> , 2020, 104, 135-146.	8.3	35
58	Injectable Interpenetrating Network Hydrogels via Kinetically Orthogonal Reactive Mixing of Functionalized Polymeric Precursors. <i>ACS Macro Letters</i> , 2015, 4, 1104-1109.	4.8	34
59	Nanogels of methylcellulose hydrophobized with N-tert-butylacrylamide for ocular drug delivery. <i>Drug Delivery and Translational Research</i> , 2016, 6, 648-659.	5.8	34
60	Calorimetric Analysis of Thermal Phase Transitions in Functionalized Microgels. <i>Journal of Physical Chemistry B</i> , 2007, 111, 1334-1342.	2.6	33
61	Design of Smart Size, Surface, and Shape Switching Nanoparticles to Improve Therapeutic Efficacy. <i>Small</i> , 2022, 18, e2104632.	10.0	33
62	Dimensionless plot analysis: A new way to analyze functionalized microgels. <i>Journal of Colloid and Interface Science</i> , 2006, 303, 109-116.	9.4	32
63	Injectable hydrogels with in situ-forming hydrophobic domains: oligo( <i>d</i> -, <i>l</i> -lactide) modified poly(oligoethylene glycol methacrylate) hydrogels. <i>Polymer Chemistry</i> , 2014, 5, 6811-6823.	3.9	32
64	A printable hydrogel microarray for drug screening avoids false positives associated with promiscuous aggregating inhibitors. <i>Nature Communications</i> , 2018, 9, 602.	12.8	32
65	Semi-batch control over functional group distributions in thermoresponsive microgels. <i>Colloid and Polymer Science</i> , 2012, 290, 1181-1192.	2.1	30
66	Off-the-shelf thermoresponsive hydrogel design: tuning hydrogel properties by mixing precursor polymers with different lower-critical solution temperatures. <i>RSC Advances</i> , 2015, 5, 33364-33376.	3.6	29
67	An Injectable Hydrogel Prepared Using a PEG/Vitamin E Copolymer Facilitating Aqueous-Driven Gelation. <i>Biomacromolecules</i> , 2016, 17, 3648-3658.	5.4	29
68	High-Throughput Synthesis, Analysis, and Optimization of Injectable Hydrogels for Protein Delivery. <i>Biomacromolecules</i> , 2020, 21, 214-229.	5.4	29
69	DNAzyme-Immobilizing Microgel Magnetic Beads Enable Rapid, Specific, Culture-Free, and Wash-Free Electrochemical Quantification of Bacteria in Untreated Urine. <i>ACS Sensors</i> , 2022, 7, 985-994.	7.8	29
70	Nanogel scavengers for drugs: Local anesthetic uptake by thermoresponsive nanogels. <i>Acta Biomaterialia</i> , 2012, 8, 1450-1458.	8.3	27
71	Hydrophobically-modified poly(vinyl pyrrolidone) as a physically-associative, shear-responsive ophthalmic hydrogel. <i>Experimental Eye Research</i> , 2015, 137, 18-31.	2.6	26
72	Dynamically Cross-Linked Self-Assembled Thermoresponsive Microgels with Homogeneous Internal Structures. <i>Langmuir</i> , 2018, 34, 1601-1612.	3.5	25

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73	Autonomously Self-Adhesive Hydrogels as Building Blocks for Additive Manufacturing. <i>Biomacromolecules</i> , 2018, 19, 62-70.	5.4	25
74	2.5D Hierarchical Structuring of Nanocomposite Hydrogel Films Containing Cellulose Nanocrystals. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 6325-6335.	8.0	25
75	Patterned Cellulose Nanocrystal Aerogel Films with Tunable Dimensions and Morphologies as Ultra-Porous Scaffolds for Cell Culture. <i>ACS Applied Nano Materials</i> , 2019, 2, 4169-4179.	5.0	25
76	Hydrogels for Tissue Engineering: Addressing Key Design Needs Toward Clinical Translation. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, .	4.1	25
77	Temperature-Induced Assembly of Monodisperse, Covalently Cross-Linked, and Degradable Poly( <i>N</i> -isopropylacrylamide) Microgels Based on Oligomeric Precursors. <i>Langmuir</i> , 2015, 31, 5767-5778.	3.5	23
78	Injectable and Degradable Poly(Oligoethylene glycol methacrylate) Hydrogels with Tunable Charge Densities as Adhesive Peptide-Free Cell Scaffolds. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 3713-3725.	5.2	23
79	Single-Step Reactive Electrospinning of Cell-Loaded Nanofibrous Scaffolds as Ready-to-Use Tissue Patches. <i>Biomacromolecules</i> , 2018, 19, 4182-4192.	5.4	22
80	Microgels and Nanogels for the Delivery of Poorly Water-Soluble Drugs. <i>Molecular Pharmaceutics</i> , 2022, 19, 1704-1721.	4.6	22
81	Polyvinylamine with moderate binding affinity as a highly effective vehicle for RNA delivery. <i>Journal of Controlled Release</i> , 2022, 345, 20-37.	9.9	20
82	Carboxymethyl and hydrazide functionalized $\beta$ -cyclodextrin derivatives: A systematic investigation of complexation behaviours with the model hydrophobic drug dexamethasone. <i>International Journal of Pharmaceutics</i> , 2014, 472, 315-326.	5.2	19
83	Prevention of peritoneal adhesions using polymeric rheological blends. <i>Acta Biomaterialia</i> , 2014, 10, 1187-1193.	8.3	19
84	Narrowly Dispersed, Degradable, and Scalable Poly(oligoethylene glycol methacrylate)-Based Nanogels via Thermal Self-Assembly. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 7495-7506.	3.7	18
85	Using the Intranasal Route to Administer Drugs to Treat Neurological and Psychiatric Illnesses: Rationale, Successes, and Future Needs. <i>CNS Drugs</i> , 2022, 36, 739-770.	5.9	18
86	Probing the Internal Morphology of Injectable Poly(oligoethylene glycol methacrylate) Hydrogels by Light and Small-Angle Neutron Scattering. <i>Macromolecules</i> , 2014, 47, 6017-6027.	4.8	16
87	Applications of Hydrogels. <i>Polymers and Polymeric Composites</i> , 2019, , 453-490.	0.6	16
88	Photopolymerized Starchstarch Nanoparticle (SNP) network hydrogels. <i>Carbohydrate Polymers</i> , 2020, 236, 115998.	10.2	16
89	Multi-scale structuring of cell-instructive cellulose nanocrystal composite hydrogel sheets via sequential electrospinning and thermal wrinkling. <i>Acta Biomaterialia</i> , 2021, 128, 250-261.	8.3	16
90	Controlling the resolution and duration of pulsatile release from injectable magnetic "plum-pudding" nanocomposite hydrogels. <i>RSC Advances</i> , 2016, 6, 15770-15781.	3.6	15

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91	Microfluidic production of degradable thermoresponsive poly( <i>N</i> -isopropylacrylamide)-based microgels. <i>Soft Matter</i> , 2017, 13, 9060-9070.	2.7	15
92	Cationic, Anionic, and Amphoteric Dual pH/Temperature-Responsive Degradable Microgels via Self-Assembly of Functionalized Oligomeric Precursor Polymers. <i>Macromolecules</i> , 2021, 54, 351-363.	4.8	15
93	Designing multi-responsive polymers using latent variable methods. <i>Polymer</i> , 2014, 55, 505-516.	3.8	14
94	Nanostructure of Fully Injectable Hydrazone-Thiosuccinimide Interpenetrating Polymer Network Hydrogels Assessed by Small-Angle Neutron Scattering and dSTORM Single-Molecule Fluorescence Microscopy. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 42179-42191.	8.0	14
95	Effect of Reaction Media on Grafting Hydrophobic Polymers from Cellulose Nanocrystals <i>via</i> Surface-Initiated Atom-Transfer Radical Polymerization. <i>Biomacromolecules</i> , 2021, 22, 3601-3612.	5.4	12
96	Fast Thermoresponsive Poly(oligoethylene glycol methacrylate) (POEGMA)-Based Nanostructured Hydrogels for Reversible Tuning of Cell Interactions. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 4258-4268.	5.2	11
97	Transmission behavior of pNIPAM microgel particles through porous membranes. <i>Journal of Membrane Science</i> , 2015, 479, 141-147.	8.2	10
98	pH-Ionizable in Situ Gelling Poly(oligo ethylene glycol methacrylate)-Based Hydrogels: The Role of Internal Network Structures in Controlling Macroscopic Properties. <i>Macromolecules</i> , 2017, 50, 7687-7698.	4.8	10
99	Tuning the properties of injectable poly(oligoethylene glycol methacrylate) hydrogels by controlling precursor polymer molecular weight. <i>Journal of Materials Chemistry B</i> , 2016, 4, 6541-6551.	5.8	9
100	Single-Step Printable Hydrogel Microarray Integrating Long-Chain DNA for the Discriminative and Size-Specific Sensing of Nucleic Acids. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 2360-2370.	8.0	9
101	Injectable Poly(oligoethylene glycol methacrylate)-Based Hydrogels Fabricated from Highly Branched Precursor Polymers: Controlling Gel Properties by Precursor Polymer Morphology. <i>ACS Applied Polymer Materials</i> , 2019, 1, 369-380.	4.4	8
102	Fabricating Degradable Thermoresponsive Hydrogels on Multiple Length Scales via Reactive Extrusion, Microfluidics, Self-assembly, and Electrospinning. <i>Journal of Visualized Experiments</i> , 2018, , .	0.3	7
103	Macroporous Hydrogels: Structured Macroporous Hydrogels: Progress, Challenges, and Opportunities ( <i>Adv. Healthcare Mater.</i> 1/2018). <i>Advanced Healthcare Materials</i> , 2018, 7, 1870006.	7.6	6
104	Incorporation of Polymer-Grafted Cellulose Nanocrystals into Latex-Based Pressure-Sensitive Adhesives. <i>ACS Materials Au</i> , 2022, 2, 176-189.	6.0	6
105	A DNA Barcode-Based Aptasensor Enables Rapid Testing of Porcine Epidemic Diarrhea Viruses in Swine Saliva Using Electrochemical Readout. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	5
106	Hydrogel Synthesis and Design. <i>Polymers and Polymeric Composites</i> , 2019, , 239-278.	0.6	4
107	Hydrogel Properties and Characterization Techniques. <i>Polymers and Polymeric Composites</i> , 2019, , 429-452.	0.6	2
108	Advanced Hydrogel Structures. <i>Polymers and Polymeric Composites</i> , 2019, , 279-305.	0.6	1

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109	Advanced Hydrogel Structures. Polymers and Polymeric Composites, 2018, , 1-27.	0.6	0
110	Hydrogel Properties and Characterization Techniques. Polymers and Polymeric Composites, 2018, , 1-25.	0.6	0
111	Applications of Hydrogels. Polymers and Polymeric Composites, 2018, , 1-39.	0.6	0