Christopher N. Bowman

James and Catherine Patten Chair
Department of Chemical and Biological Engineering, University of Colorado
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PROFESSIONAL EXPERIENCE

Distinguished Professor, University of Colorado, 11/12 – Present
Director, Materials Science and Engineering Program, 7/10 – 6/17
James and Catherine Patten Endowed Chair of Chemical and Biological Engineering, 7/07 – Present
Associate Dean for Research, College of Engineering and Applied Science, 8/07 – 7/09
Mel and Virginia Clark Professor of Chemical and Biological Engineering, University of Colorado, 7/05 – 6/07
Department Chair, Chemical and Biological Engineering, 8/03 – 6/07, 7/11 – 6/12
Courtesy Professor, Chemistry and Biochemistry, University of Colorado, 8/03 – Present
Clinical Professor of Dentistry, University of Colorado, Health Sciences Center, 1/01 – Present
Co-Director, I/UCR Center for Fundamentals and Applications of Photopolymerizations, 1/00 – Present
Gillespie Professor, Chemical and Biological Engineering, University of Colorado, 8/99 – 7/05
Associate Professor, Chemical Engineering, University of Colorado, 8/95 – 8/99
Assistant Professor, Chemical Engineering, University of Colorado, 1/92 – 8/95

EDUCATION

Ph.D. in Chemical Engineering, August 1991, Purdue University
B.S. in Chemical Engineering (with Honors), May 1988, Purdue University

HONORS AND AWARDS

AADOCR Distinguished Scientist Award, 2023
Member, National Academy of Engineering, 2021
Charles E. Hoyle Award, European Society for Photopolymer Science, 2021
Fellow, International Academy of Medical and Biological Engineering, 2020
American Chemical Society, Div. of Polymeric Mtls Science and Engr Cooperative Research Award, 2020
Roy W. Tess Award in Coatings, American Chemical Society, Polymeric Materials Science and Engineering, 2018
Fellow, National Academy of Medicine, 2018
Mark Scholar Award, American Chemical Society, Division of Polymer Chemistry, 2017
University of Colorado Distinguished Research Lecture, 2017
Fellow, National Academy of Inventors, 2017
Outstanding Chemical Engineering Alumni Award, Department of Chemical Engineering, Purdue University, 2016
Plenary Lecture, American Chemical Society National Meeting, Divisions of Polymer Chemistry and Polymeric Materials Science and Engineering, Joint Symposium Plenary Lecture, 2016
Oustanding Teaching Award, College of Engineering and Applied Science, University of Colorado, 2016
Student Selected Outstanding Undergraduate Teaching Award, Dept of Chemical Engr, Univ of Colorado, 2016
International Association for Dental Research Peyton-Skinner Award for Innovation in Dental Materials, 2015
American Institute of Chemical Engineers Professional Progress Award in Chemical Engineering, 2011
American Institute of Chemical Engineering Materials Engineering and Science Division C.M.A. Stine Award, 2009
Academic Life Teaching Award, Committee on Learning and Academic Support Services, Univ. of Colorado, 2008
American Chemical Society, Div. of Polymeric Mtls Science and Engr Cooperative Research Award, 2007
American Institute of Chemical Engineers R.H. Wilhem Award, 2006
University of Colorado Faculty Fellowship, 2005-06
Society for Biomaterials Clemson University Award for Contributions to the Literature, 2005
College of Engineering Max S. Peters Outstanding Service Award, 2004
University of Colorado Technology Transfer Office Physical Sciences Inventor of the Year, 2003
College of Engineering John and Mercedes Peebles Teaching Innovation Award, 2002
Boulder Faculty Assembly Award for Excellence in Research, Scholarly, and Creative Work, 2002
Department of Chemical Engineering Outstanding Undergraduate Teaching Award, 2002
American Institute of Chemical Engineers Allan P. Colburn Award, 2001
American Society of Engineering Education Curtis W. McGraw Award, 2000
Fellow, American Institute of Medical and Biological Engineers, 1999
Alfred P. Sloan Research Fellow, 1998 - 2000
Materials Research Society Outstanding Young Investigator Award, 1997

Camille Dreyfus Teacher-Scholar Award, 1996
National Institutes of Health FIRST Award, 1995 - 2000
University of Colorado Outstanding Faculty Graduate Advisor, 1995
National Science Foundation Presidential Faculty Fellowship, 1994 - 1999
Department of Chemical Engineering Outstanding Graduate Teaching Award, 1994
American Society of Engineering Education Rocky Mountain Section Dow Outstanding New Faculty Award, 1994
American Chemical Society Unilever Award for the Outstanding Graduate Research in Polymer Chemistry, 1993

UNIVERSITY, PROFESSIONAL, AND PUBLIC SERVICE ACTIVITIES

University Service:

Director, Materials Science and Engineering Program (July 2010 – June 2017)
Department Chair (Fall 2003 – Summer 2007, Fall 2011 – Spring 2012)
Energy Initiative Steering Committee (Fall 2008 – Spring 2010)
Associate Dean for Research (August 2007 – June 2009)
Chair, Faculty Search Committee (Numerous Occasions)
Graduate Admissions Committee (Fall 2003)
Member, Administrative Council (Fall 2003 – Spring 2009, Fall 2011 – Spring 2012)
Graduate School Executive Advisory Committee (Fall 2000 – Spring 2003)
Graduate Program Director (Fall 1993 – Fall 1996, Fall 1999 – Fall 2001, Fall 2002 – Spring 2003)
Graduate Student Advisor (Fall 1993 – Fall 1996, Fall 1999 – Spring 2003)
Strategic Futures Council, College of Engineering (Fall 1999 – Fall 2000)
Dean's Search Committee (Fall 2000 – Spring 2001)
Graduate Fellowship Subcommittee (Fall 2000 – Spring 2003)
Program Review Committee (Fall 1996)
AIChE Faculty Sponsor (Spring 1992 - Spring 1996)
Assistant Safety Director (Spring 1992)
Undergraduate Lab Renovation Committee (Spring 1992)
Centennial Celebration Committee (Fall 1992 - September 1993)
Faculty Search Committees (Numerous Occasions)
Integrated Teaching Laboratory Committee for Mechanics and Materials (Spring 1993 - Fall 1994)
Developed Materials Option for Chemical Engineering (Spring 1993)
Developed New Course: CHEN 4838/5838 Polymer Chemistry
Developed New Course: Graduate Level Photopolymerization Reactions
Revised Existing Course Outline for CHEN Materials
Dean's Small Grant Award Committee (Numerous Occasioins)
Patten Chair Search Committee (Fall 1994)

Professional and Public Service:

Organizer and Chair, Photopolymerization Fundamentals Meeting, Fall 2019, Monterey, CA
Organizer and Chair, Photopolymerization Fundamentals Meeting, Fall 2017, Boulder, CO
Organizer and Chair, Photopolymerization Fundamentals Meeting, Fall 2015, Boulder, CO
Organizer and Chair, Photopolymerization Fundamentals Meeting, Summer 2013, Jackson Hole, WY
Organizer and Chair, Polymer Networks 2012 Meeting, Summer 2012, Jackson Hole, WY
Organizer and Chair, Photopolymerization Fundamentals Meeting, Summer 2011, Breckenridge, CO
Chair, Engineering Research Council Awards Committee, 2009 - 2012
Editorial Board, Chemistry of Materials, 2011-2014
Board of Directors, ASEE Engineering Research Council, 2009-2011
Organizer, ACS Tess Award Symposia to Honor Christian Decker, Fall 2009, Washington D.C.
Organizer and Chair, Photopolymerization Fundamentals Meeting, Summer 2009, Breckenridge, CO
Organizer, American Chemical Society Symposia on Polymerizations in Nanostructured Environments, Spring 2009, Salt Lake City, UT
Board of Consulting Editors, AIChE Journal, 2009 - 2014
Editorial Board, Cambridge Series in Chemical Engineering, 2008 - 2011
Session Co-Chair, MRS 2007 Fall Meeting, "Biological and Biomimetic Networks," November 2007, Boston, MA
Organizer and Chair, Photopolymerization Fundamentals Meeting, Summer 2007, Breckenridge, CO
Session Chair, IUCRC Update at 2006 UV & EB Technology Expo & Conference, April 2006.
Session Chair, "Hydrogels I," 28th Australasian Polymer Symposium, Rotorua, New Zealand, February 2006.
Organizer and Chair, Photopolymerization Fundamentals Meeting, Summer 2005, Breckenridge, CO

Editorial Board, *Journal of Macromolecular Science, Pure and Applied Chemistry*, Fall 2004– Summer 2008
Chair ACS Symposium "Advances in Photopolymerizations" ACS National Meeting, Fall 2004, Philadelphia, PA
Taught one day short course on "Photopolymerization Reactions" at Radtech National Meeting, May, 2004
Director, Materials Division of the American Institute of Chemical Engineers, November 2003 – October 2005
Session Chair, "Dental Materials: Polymer Materials-Chemistry," International Association for Dental Research 82nd General Session, Honolulu, HI, March, 2004
Session Chair, "Polymer Networks," 26th Australasian Polymer Symposium, Noosa, Australia, July, 2003.
Session Chair, "Dental Materials: V – Polymer Materials--Chemistry Program," International Association of Dental Research Annual Meeting, San Antonio, TX, March, 2003.
Organizer and Chair, Photopolymerization Fundamentals Meeting, Summer 2002, Breckenridge, CO
Participant, workshop and summer school on Free Radical Polymerization Methods, 25th Australasian Polymer Symposium, Armidale, Australia, February, 2002.
Committee Chair, "Biomedical and Chemical Engineering Panel," 2001 NSF Graduate Research Fellowship Panel, February, 2001
Program Co-Chair, Division of Polymer Chemistry, Fall 2000 – Fall 2003
Co-chair, AIChE Annual Meeting, 1999
Editorial Board, *Polymer Reaction Engineering,* January 1997 – 2004
Assistant Editor, *Polymer Preprints*, Summer 1996 – Fall 1999
Chair Symposium "Polymers and Liquid Crystals" at the ACS National Meeting
Chair Session "Polymerization Reaction Engineering: Applications," at the AIChE National Meeting, November 1997
Co-Chair Symposium "Chemical Reactions on Polymers" at the ACS Fall National Meeting, August 1996
Chair Symposium "Unilever Award Symposium to Honor Kristi Anseth" at the ACS Fall National Meeting, August 1996
Co-chair Symposium "Recent Advances in Photopolymerizations: Applications and Fundamentals" at the ACS Spring National Meeting, 1996
Chair of Rocky Mountain Section of AIChE, 1995-1996
Chair Session "Polymerization Reaction Engineering: Applications" AIChE National Meeting, November 1995
Co-Chair Session "Polymerization Reaction Engineering: Fundamentals" AIChE National Meeting, November 1995
Chair Session "Young Faculty Forum" at the AIChE National Meeting, November 1995
Chair Session "Proposal Writing Workshop" at the ASEE National Meeting, June 1995
Vice-Chair of Rocky Mountain Section of AIChE, 1994-1995
Co-chaired Session "Young Faculty Forum" at the AIChE National Meeting, November 1994
Co-chaired Sessions on "Preparation and Physicochemical Characterization of Hydrogels" Spring American Chemical Society National Meeting, Denver, CO, March 1993.
Co-Taught one-day short course on "Photopolymerizations" at Radtech National Meeting, April 2000, 2002, 2004
Taught three day short course "Photopolymerization Reactions" at 3M Company, January 1998
Taught short course "Frontiers in Polymer Science: Polymer Preparation, Properties, and Structure," June 22 - June 26, 1992, Indianapolis, IN, Course taught with three other instructors.
Taught short course "Macromolecules and Polymers of Pharmaceutical Interest," Part of the First International Advanced Course on Technology and Control of Drugs in Perugia, Italy, August 2 - August 7, 1992.
Fellowship Panel and Reviewer for National Science Foundation
Reviewed Papers for *Journal of Polymer Science, Biomaterials, Journal of Applied Polymer Science, Macromolecules, AIChE Journal, Liquid Crystals, Polymer, Science, Nature Materials, Among Others*

336 INVITED LECTURES HAVE BEEN PRESENTED BY CHRISTOPHER BOWMAN AT CONFERENCES, UNIVERSITIES AND COMPANIES

476 PRESENTATIONS HAVE BEEN COAUTHORED BY BOWMAN AND PRESENTED AS CONTRIBUTIONS AT NATIONAL AND INTERNATIONAL CONFERENCES

73 STUDENTS HAVE COMPLETED THEIR PHD'S ADVISED BY CHRISTOPHER BOWMAN

38 INDIVIDUALS WERE POST DOCTORAL ASSOCIATES ADVISED BY CHRISTOPHER BOWMAN

25 OTHER PUBLICATIONS, NON-REFEREED ARTICLES, EDITED BOOKS, REFEREED PROCEEDINGS AND BOOK CHAPTERS

ISSUED PATENTS (SELECTED FROM 29, NUMEROUS OTHER APPLICATIONS PENDING)

1. C.N. Bowman, W. Xi and S. Pattanayak, "Click Nucleic Acid Polymers and Methods of Use," U.S. Patent 10,508,116. Issued 2019.
2. K.S. Anseth, B. Fairbanks, C.N. Bowman, "Covalently cross linked hydrogels and methods of making and using same," U.S. Patent No 9,987,393. Issued 2018. Technology licensed to Mosaic Biosciences.
3. C.N. Bowman, C. J. Kloxin, W. Xi, "Click nucleic acids," U.S. Patent No 9,879,012. Issued 2018.
4. C.M. Yakacki, M. Saed, D.P. Nair, T. Gong, C.N. Bowman, "Systems and methods of creating liquid crystal polymers using stepped reactions," U.S. Patent No 9,884,941. Issued 2018.
5. C.N. Bowman, K.S. Anseth, B. Hacioglu, C. Nuttelman, "Degradable Thiol-Ene Polymers," U.S. Patent No. 9,631,092. Issued 2017. Technology licensed to Mosaic Biosciences.
6. C.N. Bowman, C.J. Kloxin, H.Y. Park, D. Leung "Stress Relief in Crosslinked Polymers," US Pat No. 8,877,730. November, 2014. Technology Licensed to 3M Corporation.
7. J.W. Stansbury, C.N. Bowman, M.Trujillo, "Dimer-acid Derived Methacryaltes and Use in Dental Restorative Compositions," US Pat No. 8.727,775, May, 2014. Technology licensed to Confi-Dental Products Company.
8. R.R. McLeod, C.N. Bowman, T.F. Scott, A. Sullivan, "Diffraction Unlimited Photolithography," US Pat No. 8,697,346, April, 2014.
9. C.N. Bowman and T.F. Scott, "Stress Relaxation in Crosslinked Polymers," U.S. Pat. No. 8,404,758, Issued March, 2013. Technology Licensed to 3M Corporation.
10. N.B. Cramer, H. Lu, J.W. Stansbury, and C.N. Bowman, "New Resin Systems for Dental Restorative Materials," U.S. Patent No. 8,192,673, June 5, 2012. Technology Optioned to Confi-Dental Products Company.
11. C.N. Bowman and T.F. Scott, "Stress Relaxation in Crosslinked Polymers," U.S. Pat. No. 7,943,680, Issued May 2011. Technology Licensed to 3M Corporation.
12. K.L. Rowlen, H.D. Sikes, C.N. Bowman, and J.L. Birks "Use of Photopolymerization for Amplification and Detection of a Molecular Recognition Event," European Patent No. 1673480, Issued April 2010. Technology licensed to InDevR.
13. C.N. Bowman, H. Lu, J.W. Stansbury, "Novel Photopolymers and use in Dental Restorative Materials," US Patent No. 7,838,571, Issued November 2010. Technology licensed to Confi-Dental Products Company.
14. C.N. Bowman, H.D. Sikes, K. Rowlen, H. Avens, and R. Hansen, "Use of Photopolymerization for Amplification and Detection of a Molecular Recognition Event," US Pat. No. 7,354,706 B2, April 8, 2008. Technology licensed to InDevR.
15. C.N. Bowman, K. Anseth, B. Hacioglu, C. Nuttelman, "Photopolymerizations of Degradable Thiol-ene Polymers," U.S. Patent No. 7,288,608, October 30, 2007. Technology licensed to Mosaic Biosciences.

REFEREED PUBLICATIONS (SELECTED FROM 472)

1. T.S. Hebner, B.E. Kirkpatrick, B.D. Fairbanks, C.N. Bowman, K.S. Anseth, and D.S.W. Benoit, "Radical-Mediated Degradation of Thiol-Maleimide Hydrogels," *Advanced Materials*, accepted, in press.
2. A.L. Dobson, and C.N. Bowman, "A Comprehensive, Multidimensional First-Principles Model for Free-Radical Photopolymerizations in Bulk and Thin Films," *Advanced Functional Materials*, accepted Jan 2024. **DOI:** 10.1002/adfm.202312607
3. J.J. Hernandez, G.R. Sama, Y. Hu, S. Soars, C.E. Niemet, C.M. Sanchez, and C.N. Bowman, "Radical-Mediated Scission of Thioaminals for On-Demand Construction-Then)Destruction of Cross-Linked Polymer Networks," *Advanced Functional Materials*, 34*(4),* 2306462 (2023). **DOI:** 10.1002/adfm.202306462
4. A.S. Kuenstler, J.J. Hernandez, M. Trujillo-Lemon, A. Osterbaan, and C.N. Bowman, "Vat Photopolymerization Additive Manufacturing of Tough, Fully Recyclable Thermosets," *ACS Applied Materials & Interfaces*, 15(*8*), 11111-11121 (2023). **DOI:** https://doi.org/10.1021/acsami.2c22081
5. L.J Macdougall, T.E Hoffman, B.E. Kirkpatrick, B.D. Fairbanks, C.N. Bowman, S.L. Spencer, and K.S. Anseth, "Intracellular Crowding by Bio-Orthogonal Hydrogel Formation Induces Reversible Molecular Stasis," *Adv. Mater.* 34, 2202882 (2022). **DOI: 10.1002/adma.202202882**
6. A.M Martinez, L.M. Cox, A. Darabi, N.J. Bongiardina, and C.N. Bowman, "Tunable Surfaces and Films from Thioester Containing Microparticles," *ACS Appl. Mater. Interfaces,* 14(*23)*, 27177-27186 (2022). **DOI:** 10.1021/acsami.2c05113
7. B.J. Carberry, J.J. Hernandez, A.L. Dobson, C.N. Bowman, and K.S. Anseth, "Kinetic Analysis of Degradation in Thioester Cross-linked Hydrogels as a Function of Thiol Concentration, pKa, and Presentation," *Macromolecules, 55*(6), 2123-2129 (2022). **DOI:** 10.1021/acs.macromol.1c02396
8. Y. Hu, S. Mavila, M. Podgorski, J.E. Kowalski, R.R. McLeod, and C.N. Bowman, "Manipulating the Relative Rates of Reaction and Diffusion in a Holographic Photopolymer Based on Thiol-Ene Chemistry," *Macromolecules, 55*(5), 1822-1833, (2022). **DOI:** 10.1021/acs.macromol.1c02528
9. S.M. Soars, N.J. Bongiardina, B.D. Fairbanks, M. Podgorski, and C.N. Bowman, "Spatial and Temporal Control of Photomediated Disulfied-Ene and Thiol-Ene Chemistries for Two-Stage Polymerizations," *Macromolecules, 55*(5), 1811-1821 (2022). **DOI:** 10.1021/acs.macromol.1c02464
10. T.S. Hebner, M. Podgorski, S. Mavila, T.J. White, and C.N. Bowman, "Shape Permanence in Diarylethene-Functionalized Liquid-Crystal Elastomers Facilitated by Thiol-Anhydride Dynamic Chemistry," *Angewandte Chemie, 61,* e202116522 (2022). **DOI:** 10.1002/anie.202116522
11. J.J. Hernandez, A.L. Dobson, B.J. Carberry, A.S. Kuenstler, P.K. Shah, K.S. Anseth, T.J. White, and C.N. Bowman, "Controlled Degradation of Cast and 3-D Printed Photocurable Tioester Networks via Thiol-Thiester Exchange," *Macromolecules*, *55*(4), 1376-1385 (2022). **DOI:** 10.1021/acs.macromol.1c02459
12. S. Mavila, H.R. Culver, A.J. Anderson, T.R. Prieto, and C.N. Bowman, "Athermal Chemically Triggered Relase of RNA from Tioester Nucleic Acids," *Angewandte Chemie*, *61*, e202110741 (2021). **DOI:** 10.1002/anie.202110741
13. N.J. Bongiardina, J. Sinha, and C.N. Bowman, "Flory-Huggins Parameters for Thiol-ene Networks Using Hansen Solubility Parameters," *Macromolecules, 54*(24), 11439-11448 (2021). **DOI:** 10.1021/acs.macromol.1c01957
14. G. Gao, X. Wang, M. Chen, C.N. Bowman, and J.W. Stansbury, "Functional Nanogels as a Route to Interpenetrating Polymer Networks with Improved Mechanical Properties," *Macromolecules, 54*(23), 10657-10666 (2021). **DOI:** 10.1021/acs.macromol.1c01242
15. T. S. Hebner, H.E. Fowler, K.M. Herbert, N.P. Skillin, C.N. Bowman, and T.J. White, "Polymer Network Structure, Properties, and Formation of Liquid Crystalline Elastomers Prepared via Thiol-Acrylate Chain Transfer Reactions," *Macromolecules*, *54*(23), 11074-11082 (2021). **DOI:** 10.1021/acs.macromol.1c01919
16. N.J. Bongiardina, K.F. Long, M. Podgorski, C.N. Bowman, "Substituted Thiols in Dynamic Thil-Thioester Reactions," *Macromolecules, 54*(18), 8341-8351 (2021). **DOI:** 10.1021/acs.macromol.1c00649
17. X. Wang, J.J. Hernandez, G. Gao, J.W. Stansbury, and C.N. Bowman, "Poly(triazole) Glassy Networks via Thiol-Norbornene Photopolymerization: Structure–Property Relationships and Implementation in 3D Printing," *Macromolecules, 54*(9) 4042-4049 (2021). **DOI:** 10.1021/acs.macromol.1c00047
18. T.S. Hebner, C.N. Bowman, and T.J. White, "Influence of Orientational Genesis on the Actuation of Monodomain Liquid Crystalline Elastomers," *Macromolecules, 54*(9), 4023-4029 (2021). **DOI:** 10.1021/acs.macromol.1c00437
19. K.F. Long, H. Wang, T.T. Dimos, and C.N. Bowman, "Effects of Thiol Substitution on the Kinetics and Efficiency of Thiol-Michael Reactions and Polymerizations," *Macromolecules, 54*(7) 3093-3100 (2021). **DOI:** 10.1021/acs.macromol.0c02677
20. B.D. Fairbanks, L.J. Macdougall, S. Mavila, J. Sinha, B.E. Kirkpatrick, K.S. Anseth, and C.N. Bowman, "Photoclick Chemistry: A Bright Idea," *Chemical Reviews, 121*(12), 6915-6990 (2021). **DOI:** 10.1021/acs.chemrev.0c01212

21. S. Mavila, J. Sinha, Y. Hu, M. Podgórski, P.K. Shah, and C.N. Bowman, "High Refractive Index Photopolymers by Thol-Yne "Click" Polymerization," *ACS Applied Materials & Interfaces, 13*(13), 15647-15658 (2021). **DOI:** 10.1021/acsami.1c00831
22. M. Podgórski, S. Huang, and C.N. Bowman, "Additive Manufacture of Dynamic Thiol–ene Networks Incorporating Anhydride-Derived Reversible Thioester Links," *ACS Applied Materials & Interfaces, 13*(11), 12789-12796 (2021). **DOI:** 10.1021/acsami.0c18979
23. A.J. Anderson, E. Grey, N.J. Bongiardina, C.N. Bowman, and S. J. Bryant, "Synthesis and Characterization of Click Nucleic Acid Conjugated Polymeric Microparticles for DNA Delivery Applications," *Biomacromolecules, 22*(3), 1127-1136 (2021). **DOI**: 10.1021/acs.biomac.0c01563
24. J. Sinha, S. Soars, and C.N. Bowman, "Enamine Organocatalysts for the Thiol-Michael Addition Reaction and Cross-Linking Polymerizations," *Macromolecules*, *54*(4), 1693-1701 (2021). **DOI**: 10.1021/acs.macromol.0c02128
25. K.K. Childress, M.D. Alim, S. Mavila, V. Martinez, Y. Ding, C.N. Bowman, and J.W. Stansbury, "Systematic Modulation and Structure-Property Relationships in Photopolymerizable Thermoplastics," *ACS Appl. Plym. Mater., 3*(2), 1171-1181, (2021). **DOI:** 10.1021/acsapm.0c01393
26. H.B. Song, N. Sowan, A. Baranek, J. Sinha, W.D. Cook, C.N. Bowman, "Effects of Network Structures on the Tensile Toughness of Copper-Catalyzed Azide-Alkyne Cycloaddition (CuAAC)-Based Photopolymers," *Macromolecules*, *54*(2), 747-756 (2021). **DOI:** 10.1021/acs.macromol.0c02455
27. M. Podgorski, S. Huang, C.N. Bowman, "Additive Manufacture of Dynamic Thiol-ene Networks Incorporating Anhydride-Derived Reversible Thioester Links," *ACS Applied Materials & Interfaces,* 13(11), 12789-12796 (2021). **DOI:** 10.1021/acsami.0c18979
28. N. Sowan, H.B. Song, L.M. Cox, J.R. Patton, B.D. Fairbanks, Y. Ding, C.N. Bowman, "Light-Activated Stress Relaxation, Toughness Improvement, and Photoinduced Reversal of Physical Aging in Glassy Polymer Networks," *Advanced Materials*, 2007221, (2020). **DOI**: 10.1002/adma.202007221
29. A.M. Martinez, M.K. McBride, T.J. White, and C.N. Bowman, "Reconfigurable and Spatially Programmable Chameleon Skin-Like Material Utilizing Light Responsive Covalent Adaptable Cholesteric Liquid Crystal Elastomers," *Advanced Functional Materials, 30,* 2003150 (2020). **DOI:** https://doi.org/10.1002/adfm.202003150
30. Podgórski, M., Mavila, S., Huang, S., Spurgin, N., Sinha, J. and Bowman, C.N. "Thiol–Anhydride Dynamic Reversible Networks," *Angewandte Chemie International Edition, 59*, 9345 - 9349 (2020). **DOI**:10.1002/anie.202001388
31. M. Podgorski, B.D. Fairbanks, B.E. Kirkpatrick, M.K. McBride, A. Martinez, A. Dobson, N.J. Bongiardina, and C.N. Bowman, "Towards Stimuli Responsive Dynamic Thermosets Through Continuous Development and Improvements in Covalent Adaptable Networks," *Advanced Materials, 32,* 1906876 (2020). **DOI**: 10.1002/adma.201906876
32. M.D. Alim, K.K. Childress, N.J. Baugh, A.M. Martinez, A. Davenport, B.D. Fairbanks, M.K. McBride, B.T. Worrell, J.W. Stansbury, R.R. McLeod, and C.N. Bowman, " A Photopolymerizable Thermoplastic with Tunable Mechanical Performance," *Materials Horizons, 7*, 835-842 (2020). **DOI:** 10.1039/C9MH01336A
33. D. Love, B. Fairbanks, and C.N. Bowman, "Reaction Environment Effect on the Kinetics of Radical Thiol-EnePolymerizations in the Presence of Amines and Thiolate Anions," *ACS Macro Lettters, 9,* 174-179 (2020). **DOI:** 10.1021/acsmacrolett.9b00960
34. L.M. Cox, A.M. Martinez, A.K. Blevins, N. Sowan, Y. Ding, and C.N. Bowman, "Nanoimprint Lithography: Emergent Materials and Methods of Actuation," *Nano Today, 31, 10038 (2020).* **DOI:**10.1016.j.nantod.2019.100838
35. K.K. Childress, M.D. Alim, J.J. Hernandez, J.W. Stansbury, and C.N. Bowman, "Additive manufacture of lightly crosslinked semicrystalline thiol-enes for enhanced mechanical performance," *Polymer Chemistry*, *11,* 39-46 (2020). **DOI:** 10.1039/c9py01452g
36. K.K. Childress, K. Kim, DJ Glugla, CB Musgrave, C.N. Bowman, and JW Stansbury "Independent Control of Singlet Oxygen and Radical Generation via Irradiation of a Two-Color Photosensitve Molecule," *Macromolecules, 13,* 4968-4978 (2019). **DOI:** 10.1021/acs.macromol.9b00424
37. D. Love, K. Kim, D.W. Domaille, O. Williams, J.W. Stansbury, C.B. Musgrave, and C.N. Bowman, "Catalyst-free, aza_Michael Polymerization of Hydrazides: Polymerizability, Kinetics, and Mechanistic Origin of alpha Effect," *Polymer Chemistry, 10,* 5790 – 5804 (2019). **DOI:** 10.1039/C9PY01199D
38. A. Harguindey, R. Shambojit, AW Harris, B. Fairbanks, AP Goodwin, C.N. Bowman, and JN Cha "Click Nucleic Acid Mediated Loading of Prodrug Activating Enzymes in PEG-PLGA Nanoparticles for Combination Chemotherapy," *Biomacromolecules, 4,* 1683-1690 (2019). **DOI:** 10.1021/acs.biomac.9b00040
39. J. Sinha, B.D. Fairbanks, HB Song, and C.N. Bowman, "Phosphate-Based Cross-Linked Polymers from Iodo-ene Photopolymerization: Tuning Surface Wettability through Thiolene Chemistry," *ACS Macro Letters, 8,* 213-217 (2019). DOI. 10.1021/acsmacrolett.8b00934

40. M.D. Alim, S. Mavila, D.B. Miller, S. Huang, M. Podgorski, L.M. Cox, A.C. Sullivan, R.R. McLeod, and C.N. Bowman, "Realizing High Refractive Index Thiol-X Materials: A General and Scalable Synthetic Approach," *ACS Materials Letters, 1,* 582-588 (2019). **DOI:** 10.1021/acsmaterialslett.9b00331
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