

Timothy J. White

Curriculum Vitae

Education

2006	Ph.D.	Chemical and Biochemical Engineering, The University of Iowa
2005	M.S.	Chemical and Biochemical Engineering, The University of Iowa
2002	B.A.	Chemistry, Central College, Pella, Iowa

Personal Details

U.S. Citizen

Clearance status: Top Secret/SCI

Current Position(s) at the University of Colorado Boulder:

Associate Director of Research, Center for National Security Initiatives

Associate Chair and Director of Graduate Education, Chemical and Biological Engineering

Gallogly Professor of Engineering, Chemical and Biological Engineering

Faculty Fellow, Materials Science and Engineering Program

Professional Experience

2015-2018 - Senior Research Engineer (DR-III), Team Lead, Air Force Research Laboratory

2012-2015 - Senior Research Engineer (DR-III), Group Lead, Air Force Research Laboratory

2008-2012 - Principal Research Engineer (DR-II), Air Force Research Laboratory

2006-2008 - Post-doctoral Associate, Air Force Research Laboratory

2002-2006 - Graduate Research Assistant, University of Iowa

Prior Educational Roles

2018-2020 - Adjunct Faculty, Case Western Reserve University

2014-2018 - Graduate Faculty, University of Dayton

Editorial Leadership and Service

2019-present - Editorial Board, *Journal of Polymer Science*

2019-present - Editorial Advisory Board, *Soft Matter*

Awards and Professional Recognition

- *Senior Member, SPIE, 2022*
- *Soft Matter Lectureship, 2019*
- *Sigma Millipore Lectureship, Harvard University, 2019*
- *Frontiers of Engineering, National Academy of Engineering, 2018*
- *Outstanding Young Investigator, Materials Research Society, 2016*
- *Early Career Award, SPIE, 2013*
- *Cooperative Research Award in Polymer Science and Engineering, American Chemical Society, Polymer Materials Science and Engineering Division (PMSE), 2013. (with T. Bunning and N. Tabiryan)*
- *Early Career Award, U.S. Air Force, 2012*
- *Directors Award, Materials and Manufacturing Directorate, Air Force Research Laboratory., 2011*

Academic and Athletic Achievement

- *2019 - Central College, Athletic Hall of Honor*
- *2007 - "Outstanding Graduate Student Mentor" at the University of Iowa*

- 2007 - Karl Kammermeyer Research Award, University of Iowa
- 2005 - Vetter Service Award, University of Iowa
- NCAA All-American (2002, golf)
- NCAA Academic All-American (2001, 2002)

Professional Organizations

- American Chemical Society
 - POLY Division
 - PMSE Division
- American Institute for Chemical Engineers (AIChE)
- Materials Research Society
- American Physical Society
- SPIE - *lifetime member*
- International Liquid Crystal Society - *lifetime member*

Synopsis of Metrics

- H index of 62
- 193 peer-reviewed publications
 - *Science* (2015), *Nature* (2012), *Nature Materials* (2015), *Nature Communications* (2016, 2016, 2018, 2021), *Nature Review Materials* (2022), *PNAS* (2013, 2019), *Angewandte Chemie* (2012, 2019, 2022, 2022), and *Advanced Materials* (2011, 2011, 2011, 2012, 2013, 2018, 2018, 2019, 2020, 2021, 2024).
- 13 patents, 2 patents pending, 3 provisional filings
- > 200 invited conference, seminar, keynote, and plenary lectures

Community Leadership and Service

- Organizer, "International Liquid Crystal Elastomer Conference", Fall 2023
- Co-organizer, "Mechanically Responsive Materials", Pacifichem 2021
- Royal Society of Chemistry, Awards Committee - 2020, 2021, 2022
- Advisory Committee, "International Liquid Crystal Elastomer Conference", Fall 2019
- Federal Interagency Coordination Meeting on Material Science, Co-Chair, 2018
- ACS Polymer Chemistry Division Program Chair, 2015-2017
- Co-Chair, "International Liquid Crystal Elastomer Conference", Fall 2017
- Lead Organizer, "Liquid Crystals: Displays and Beyond", Spring 2016 MRS National Meeting
- Co-organizer, "Mechanically Responsive Materials", Pacifichem 2015
- Lead Organizer, "Shape Programmable Materials", Fall 2015 MRS National Meeting
- Co-organizer, "Shape Programmable Materials", Spring 2014 MRS National Meeting
- Steering Committee, International Liquid Crystal Elastomer Conference - 2011-present
- SPIE, Awards Committee - 2013-2015
- SPIE, "Committee on Non-Academic Issues" - 2013
- Lead Organizer, "Liquid Crystals and Polymers", Spring 2013 American Chemical Society National Meeting
- Conference Co-Chair, "Optics of Liquid Crystals", Fall 2013
- Advisory Committee, "Actively Moving Polymers", CIMTEC 2012
- Advisory Board, Stimuli-Responsive Materials Conference (2010-2011)
- Lead Organizer, "Liquid Crystal Materials: Beyond Displays" Fall 2010 MRS National Meeting

Student and Post-doctoral Mentorship

- *PhD Graduates @CU*
 - Alexis T. Phillips, "Engineering Stimuli-Responsive Optical Elements: Synthesis, Processing, and Optical Characterization", October 18, 2024
 - Kristin L. Lewis, "Synthesis and Characterization of Liquid Crystalline Elastomers Composed with Intra-mesogenic Supramolecular Bonds", October 7, 2024
 - Jeremy A. Herman, "Fundamental and Functional Investigation of the Deformation of Liquid Crystalline Elastomer Films and Freeforms", August 29, 2024
 - LtCol Jonathan D. Hoang, "Morphological Investigation of Liquid Crystalline Elastomers", July 23, 2024
 - Nathaniel P. Skillin, "Biomedical Applications of Anisotropic Liquid Crystalline Polymer Networks", July 15, 2024
 - Grant R. Bauman, "Fundamental Investigation into 3-D Printed Liquid Crystalline Elastomers: Orientation, Rheology, and Stimulus-Response", October 12, 2023
 - Hayden E. Fowler, "Programmable Mechanical Responses in Liquid Crystal Elastomers", October 6, 2023
 - Kyle R. Schlafmann, "Retention and Response of Chiral Liquid Crystalline Phases in Elastomers", August 25, 2023
 - Brian P. Radka, "Fundamental Examinations of The Ion-Mediated Electro-Optical Response of Polymer Stabilized Cholesteric Liquid Crystals", August 23, 2023
 - Taylor S. Hebner, "Stimulus Response in Liquid Crystalline Elastomers: Fundamental Characterization to Functional Design", August 8, 2022
- *PhD Graduates @AFRL*
 - Michelle T. Brannum, "Functional Performance of Liquid Crystalline Elastomers", January 18, 2019 [Case Western Reserve University]
- Current Graduate Student Mentees (7 current)
 - 5th year – Melvin Colorado Escobar (MSE)
 - 4rd year – David Kennedy (ChBE), Paula Pranda (ChBE, co-advised with Hayward)
 - 3rd year – Justin Speregen (MSE), Noah Smith (ChBE, co-advised with Marder)
 - 2nd year – Lorin Danielson (BIEN, co-advised with Burdick), Stella Belony (ChBE)
- Post-doctoral Associates @CU
 - Dr. Brian Donovan, 2018-2019 [Carbon, Colorado School of Mines, University of Denver]
 - Dr. Jamie (Benjamin) Kowalski, 2018-2019 [Google]
 - Dr. Joselle McCracken, 2019-present
 - Dr. Katie Herbert, 2019-2022 [University of Delaware]
 - Dr. Gaurav Pande, 2021-2024 [IIT Madras]
 - Dr. Avijit Das, 2023-2024 [Post-doc, Texas A&M]
 - Dr. Mohsin Saeed, 2023-2024 [Post-doc, Michigan State]
- Post-doctoral Associates @AFRL
 - Dr. Kyung Min Lee, 2009-2013 [staff at AFRL]
 - Dr. Michael McConney, 2009-2014 [Team Lead, AFRL]
 - Dr. Jonathan Vernon, 2012-2013 [Team Lead, AFRL]
 - Dr. Jeong Jae Wie, 2012-2014 [Professor, Hanyang University]
 - Dr. Taylor Ware, 2013-2015 [Professor, Texas A&M University]

- Dr. Mariacristina Rumi, 2012-2017 [Group Lead, AFRL]
- Dr. Suk-kyun Ahn, 2014-2015 [Professor, Pusan National University]
- Dr. Clare Mahoney, 2015-2017 [National Nanotechnology Office]
- Dr. Jamie (Benjamin) Kowalski, 2015-2018 [Google]
- Dr. Tyler Guin, 2015-2018 [Savannah River NL]
- Dr. Anesia Auguste, 2016-2018 [Group Lead, AFRL]
- Dr. Nicholas Godman, 2016-2017 [Group Lead, AFRL]
- Dr. Matthew Mills, 2017-2018 [Lockheed Martin]
- Dr. Brian Donovan, 2017-2018 [Carbon, Colorado School of Mines, University of Denver]
- Dr. Eric Harper, 2017-2018 [Group Lead, AFRL]
- Dr. Joselle McCracken, 2017-2019 [CU]

Patents

@CU Boulder

1. "Liquid crystal elastomer compositions and methods of making the same", US Patent Application No. 18/166,389
2. "Mechanotropic Elastomers", U.S. Patent Application No. 17/615,021

@AFRL

3. "Liquid Crystal Elastomers", U.S. Patent No. 11,926,686. (issued March 12, 2024)
4. "Programmable nanocomposites", U.S. Patent No. 11,142,696. (issued October 12, 2021)
5. "Voxelated Liquid Crystal Elastomers", U.S. Patent No. 10,731,077. (issued August 4, 2020)
6. "Methods for Making Voxelated Liquid Crystal Elastomers", U.S. Patent No. 10,626,329. (issued April 21, 2020)
7. "Bis (Azobenzene) Diamines and Photomechanical Polymers Made Therefrom", US 10,301,430. (issued 05/28/2019)
8. "Voxelated Liquid Crystal Elastomers", US Patent 9,902,906. (issued February 27, 2018)
9. "Photomechanically active copolyimides derived from an azobenzene diamine, a rigid dianhydride, and a flexible dianhydride," U.S. Patent No. 9,834,644 (issued Dec, 5 2017).
10. "Bis(azobenzene) diamines and photomechanical polymers made therefrom." U.S. Patent 9,644,071 (issued May 9, 2017).
11. "Optically fixable shape memory polymers", US Patent No. 9,475,912 (issued Oct 25, 2016).
12. "Phototropic Liquid Crystal Material and Processes", US Patent No. 9,200,203 (issued Dec 1, 2015).
13. "Photomechanically active copolyimides derived from an azobenzene diamine, a rigid dianhydride, and a flexible dianhydride", U. S. Patent No. 9,085,661 (issued July 21, 2015).
14. "Azobenzene-Containing Glassy Polyimides Capable of Photo-Induced Large-angle Bending", US Patent No. 8,785,589 (issued July 22, 2014).
15. "Multifunctional crosslinkers for shape-memory polyimides, polyamides and poly(amide-imides) and methods of making the same" US Patent No. 8,546,614 (issued Oct 1, 2013).

Edited Books, Edited Journal Issues, and Invited Book Chapters

1. White, Timothy J. (ed.), "Photomechanical Materials, Composites, and Systems: Wireless Transduction of Light into Work", John Wiley & Sons, 2017.
2. White, T. J. (2017), "Photomechanical Effects in Materials, Composites, and Systems: Outlook and Future Challenges", in Photomechanical Materials, Composites, and Systems: Wireless Transduction of Light into Work (ed T. J. White), John Wiley & Sons, Ltd, Chichester, UK. doi: 10.1002/9781119123279.ch12

3. White, T. J. (2017) Photomechanical Effects in Liquid-Crystalline Polymer Networks and Elastomers, in Photomechanical Materials, Composites, and Systems: Wireless Transduction of Light into Work (ed T. J. White), John Wiley & Sons, Ltd, Chichester, UK. doi: 10.1002/9781119123279.ch5
4. White, T., Dickey, M. (ed.), Materials Research Society Symposium XX Proceedings, Vol. 1710 (<http://journals.cambridge.org/action/displayIssue?jid=OPL&volumeId=1710&iid=9270696>)
5. White, T.J., "Mechanical Adaptivity in Photoresponsive Liquid Crystal Elastomers, Polymer Networks, and Composites" contribution to the "Handbook of Liquid Crystals" Vol. 7 "Applications of Liquid Crystals"
6. White, T.J. (ed.), Materials Research Society Symposium L Proceedings, Vol. 1293E (www.mrs.org/opl)

Publications

@ CU Boulder (*graduate student advisee, undergraduate student, post-doctoral associate*)

1. Herman, J.A., Telles, R., Cook, C.C., Leguizamon, S.C., Lewis, J.A., Kaehr, B., White, T.J., Roach, D.J.* "Digital Light Process 3D Printing of Magnetically Aligned Liquid Crystalline Elastomer Free-forms", Advanced Materials, 2024, 2414209 (<https://doi.org/10.1002/adma.202424209>)
2. Pande, G.K., Radka, B.P., Phillips, A.T., and White, T.J.* "Enhanced electrically-induced bandwidth broadening via stratification of polymer stabilized cholesteric liquid crystals", Optical Materials, 2024, 157, 116229 (<https://doi.org/10.1016/j.optmat.2024.116229>)
3. Kennedy, D.T., Hoang, J.D., Toney, M.F., and White, T.J.* "Deconvoluting the Contribution of Polymerization Temperature to Liquid Crystalline Elastomer Actuation", Macromolecules, 2024 (<https://doi.org/10.1021/acs.macromol.3c03000>)
4. Nelson, B.R., Kirkpatrick, B.E., Skillin, N.P., Di Caprio, N., Lee, J.S., Hibbard, L.P., Hach, G.K., Khang, A., White, T.J., Burdick, J.A., Bowman, C.N., Anseth, K.S.* "Facile Physicochemical Reprogramming of PEG-Dithiolane Microgels", Advanced Healthcare Materials, 2024, 13(25), 2302925 (<https://doi.org/10.1002/adhm.202302925>)
5. Herman, J.A., Hoang, J.D., White, T.J.* "Elastocaloric Response of Isotropic Liquid Crystalline Elastomers", Small, 2024, 2400786 (<https://doi.org/10.1002/smll.202400786>)
6. Kirkpatrick, B.E., Hach, G.K., Nelson, B.R., Skillin, N.P., Lee, J.S., Hibbard, L.P., Dhand, A.P., Grotheer, H.S., Miksch, C.E., Salazar, V., Hebner, T.S., Keyser, S.P., Kamps, J.T., Sinha, J., Macdougall, L.J., Fairbanks, B.D., Burdick, J.A., White, T.J., Bowman, C.N., and Anseth, K.S.* "Photochemical Control of Network Topology in PEG Hydrogels", Advanced Materials, 2024, 2409603 (<https://doi.org/10.1002/adma.202409603>)
7. Velasco Abadia, A., White, T.J. Schwartz, D.K. and Kaar, J.L.* "Cumulative dose sensing of malathion using a biocatalytic liquid crystal elastomer with chemical memory", Sensors and Actuators B: Chemical, 2024, 400, Part B, 134877 (<https://doi.org/10.1016/j.snb.2023.134877>)
8. Pranda, P.A., Hedegaard, A., Kim, H., Clapper, J., Nelson, E., Hines, L., Hayward, R.C.* White, T.J.* "Directional adhesion of monodomain liquid crystalline elastomers", ACS Applied Materials and Interfaces, 2024, 16, 5, 6394-6402 (<https://doi.org/10.1021/acsami.3c16760>)
9. Colorado Escobar, M., and White, T.J.* "Fast and Slow-Twitch Actuation via Twisted Liquid Crystal Elastomer Fibers", Advanced Materials, 2024, e2401140 (<https://doi.org/10.1002/adma.202401140>)
10. Schlafmann, K. R., Alahmed, M.S., Pearl, H., and White, T.J.* "Tunable and Switchable Thermochromism in Cholesteric Liquid Crystalline Elastomers", ACS Applied Materials and Interfaces, 2024, 16, 18, 23780-23787 (<https://doi.org/10.1021/acsami.3c18367>)

11. Skillin, N.P., Bauman, G.E., Kirkpatrick, B.E., McCracken, J.M., Park, K., Vaia, R.A., Anseth, K.S., and White, T.J.*, "Photothermal Actuation of Thick 3D-Printed Liquid Crystalline Elastomer Nanocomposites", *Advanced Materials*, 2024, 2313745 (<https://doi.org/10.1002/adma.202313745>)
12. Fowler, H.E., Pearl, H.M., and White, T.J.*, "Enhanced Electromechanical Output in Liquid Crystal Elastomers Prepared by Thiol-ene Photopolymerization", *Advanced Materials Technologies*, 2024, 9, 9, 2301970 (<https://doi.org/10.1002/admt.202301970>)
13. Jaeschke, M.W., Borelli, A.N., Skillin, N.P., White, T.J., and Anseth, K.S.*, "Engineering a Hydrazone and Triazole Crosslinked Hydrogel for Extrusion-Based Printing and Cell Delivery", *Advanced Healthcare Materials*, 2024, e2400062 (<https://doi.org/10.1002/adhm.202400062>)
14. Skillin, N.P., Kirkpatrick, B.E., Herbert, K.M., Nelson, B.R., Hach, G.K., Günay, K.A., Khan, R.M., DelRio, F.W., White, T.J.*, and Anseth, K.S.*, "Stiffness anisotropy coordinates supracellular contractility driving long-range myotube-ECM alignment", *Science Advances*, 2024, 10, 22, eadn0235 (<https://www.science.org/doi/10.1126/sciadv.adn0235>)
15. Radka, B.P., Lee, T., Smalyukh, I.I., White, T.J.*, "The association of structural chirality and liquid crystal anchoring in stabilized cholesteric liquid crystals", *Soft Matter*, 2024, 20, 1815-1823 (<https://doi.org/10.1039/D3SM01558K>)
16. Fowler, H.E., Pearl, H.M., Hoang, J.D., and White, T.J.*, "Liquid Crystal Elastomers Prepared by Thiol-ene Photopolymerization Amenable to Surface-Enforced Alignment", *Macromolecules*, 2024, 57, 6, 2619-2627 (<https://doi.org/10.1021/acs.macromol.3c02291>)
17. Herman, J.A., Hoang, J.D., McCracken, J.M., and White, T.J.*, "Compositional and Temperature Dependence of Amorphous Polymer Networks Undergoing Mechanotropic Phase Transitions", *Macromolecules*, 2024, 57, 2, 664-671 (<https://doi.org/10.1021/acs.macromol.3c01869>)
18. Radka, B.P., Pande, G.K., and White, T.J., "Enhancing the electro-optic response of polymer stabilised cholesteric liquid crystals with ionic dopants", *Liquid Crystals*, 2024, 51, 4, 587-595 (<https://doi.org/10.1080/02678292.2024.2311278>)
19. McDougall, L., Herman, J.A., Huntley, E., Leguizamon, S., Cook, A., White, T.J., Kaehr, B., and Roach, D.*, "Free-Form Liquid Crystal Elastomers via Embedded 4D Printing", *ACS Applied Materials and Interfaces*, 2023, 15, 50, 58897-58904 (<https://doi.org/10.1021/acsami.3c14783>)
20. Nelson, B.R., Kirkpatrick, B.E., Skillin, N.P., Di Caprio, N., Lee, J.S., Hibbard, L.P., Hach, G.K., Khang, A., White, T.J., Burdick, J.A., Bowman, C.N., and Anseth, K.S.*, "Facile Physicochemical Reprogramming of PEG-Dithiolane Microgels", *Advanced Healthcare Materials*, 2023, 2302925. (<https://doi.org/10.1002/adhm.202302925>)
21. Bauman, G.E., and White, T.J.*, "Rheology of oligomer melts in the nematic and isotropic states", *Soft Matter*, 2023, 19, 8882 - 8888 (<https://doi.org/10.1039/D3SM01084H>)
22. Pande, G.K., Radka, B.P., McCracken, J.M., and White, T.J.*, "Molecular engineering of the polymer stabilizing network to enhance the electro-optic response of cholesteric liquid crystals", *J. Mater. Chem. C*, 2023, 11, 16377-16383 (<https://doi.org/10.1039/D3TC03230B>)
23. Schlafmann, K. R., Alahmed, M. S., Lewis, K. L., and White, T.J.*, "Large Range Thermochromism in Liquid Crystalline Elastomers Prepared with Intra-Mesogenic Supramolecular Bonds," *Adv. Funct. Mater.*, 2023, 2305818 (<https://doi.org/10.1002/adfm.202305818>)
24. Velasco Abadia, A., Bauman, G. E., White, T.J., Schwartz, D. K., and Kaar, J. L.*, "Direct Ink Writing of Enzyme-Containing Liquid Crystal Elastomers as Versatile Biomolecular-Responsive Actuators," *Adv. Mater. Interfaces*, 2023, 10, 2300086 (<https://doi.org/10.1002/admi.202300086>)
25. McCracken, J.M., Hoang, J.D., Herman, J.A., Lynch, K.M., and White, T.J.*, "Millimeter-thick Liquid Crystalline Elastomer Actuators Prepared by Surface-Enforced Alignment", *Adv. Mater. Technologies*, 2023, 8: 2202067 (<https://doi.org/10.1002/admt.202202067>)

26. Duffy, D., McCracken, J.M., Hebner, T.S., White, T.J., and Biggins, J.S.*, "Lifting, Loading, and Buckling in Conical Shells," *Phys. Rev. Lett.*, 2023, 131, 148202 (<https://doi.org/10.1103/PhysRevLett.131.148202>)
27. Hebner, T.S., Bowman, R.G.A., Duffy, D., Mostajeran, C., Griniasty, I., Cohen, I., Warner, M., Bowman, C.N., and White, T.J.*, "Discontinuous metric programming in liquid crystalline elastomers", *ACS Applied Materials & Interfaces* 2023 15 (8), 11092-11098 (<https://doi.org/10.1021/acsami.2c21984>)
28. Bauman, G.E., Hoang, J.D., Toney, M.F., and White, T.J.*, "Degree of Orientation in Liquid Crystalline Elastomers Defines the Magnitude and Rate of Actuation", *ACS Macro Letters*, 2023, 12(2), 248-254 (<https://doi.org/10.1021/acsmacrolett.2c00754>)
29. Hebner, T.S., McCracken, J.M., Bowman, C.N., and White, T.J.*, "The Contribution of Oligomerization Reaction Chemistry to the Thermomechanical Properties of Surface-Aligned Liquid Crystalline Elastomers", *Macromolecules*, 2023, 56, 3, 974-979 (<https://doi.org/10.1021/acs.macromol.2c02371>)
30. Hebner, T.S., Korner, K., Bowman, C.N., Bhattacharya, K., and White, T.J.*, "Leaping Liquid Crystal Elastomers", *Science Advances*, 2023, 9(3) (<https://doi.org/10.1126/sciadv.ade1320>)
31. Lewis, K.L., Herbert, K.M., Matavulj, V.M., Hoang, J.D., Ellison, E.T., Bauman, G.E., Herman, J.A., and White, T.J.*, "Programming orientation in liquid crystalline elastomers prepared with intra-mesogenic supramolecular bonds", *ACS Appl. Mater. Interfaces*, 2023, 15(2), 3467-3475 (<https://doi.org/10.1021/acsami.2c18993>)
32. Radka, B.P., Pande, G.K., and White, T.J.*, "The contribution of network elasticity to electro-optic response in polymer stabilized cholesteric liquid crystals", *Soft Matter*, 2023, 19, 4634-4641. (<https://doi.org/10.1039/D3SM00225J>)
33. Phillips, A.T., Schlafmann, K.R., Fowler, H.E., and White, T.J.*, "Electrically tunable, fully solid reflective optical elements", *Adv. Optic. Mater.*, 2022, 10, 22, 2201457 (<https://doi.org/10.1002/adom.202201457>)
34. Hebner, T.S., Kirkpatrick, B.E., Anseth, K.S., Bowman, C.N., and White, T.J.*, "Surface-Enforced Alignment of Reprogrammable Liquid Crystalline Elastomers", *Adv. Sci.* 2022, 9, 2204003. (<https://doi.org/10.1002/advs.202204003>)
35. Miksch, C.E., Skillin, N.P., Kirkpatrick, B.E., Hach, G.K., Rao, V.V., White, T.J., and Anseth, K.S.*, "4D Printing of Extrudable and Degradable Poly(Ethylene Glycol) Microgel Scaffolds for Multidimensional Cell Culture", *Small* 2022, 18, 2200951 (<https://doi.org/10.1002/smll.202200951>)
36. Bauman, G.E., McCracken, J.M., White T.J.*, "Actuation of Liquid Crystalline Elastomers at or Below Ambient Temperature", *Angewandte Chemie International Edition*, 2022, 61 (28), e202202577 (<https://doi.org/10.1002/anie.202202577>)
37. Abadia, A.V., Herbert, K.M., White, T.J., Schwartz, D.K., Kaar, J.L.*, "Biocatalytic 3D actuation in liquid crystal elastomers via enzyme patterning", *ACS Appl. Mater. Interfaces*, 2022, 14(23), 26480-26488 (<https://doi.org/10.1021/acsami.2c05802>)
38. Hernandez, J.J., Dobson, A.L., Carberry, B.J. Kuenstler, A.S., Shah, P.K., Anseth, K.S., White, T.J., and Bowman, C.N.*, "Controlled Degradation of Cast and 3-D Printed Photocurable Thioester Networks via Thiol-Thioester Exchange", *Macromolecules*, 2022, 55(4), 1376-1385. (<https://doi.org/10.1021/acs.macromol.1c02459>)
39. Bauman, G.E., Koch, J.A., White, T.J.*, "Rheology of liquid crystalline oligomers for 3-D printing of liquid crystalline elastomers", *Soft Matter*, 2022, 18, 3168-3176 (<https://doi.org/10.1039/D2SM00166G>)
40. Hebner, T.S., Podgorski, M., Mavila, S., White, T.J., and Bowman, C.N.*, "Shape Permanence in Diarylethene-Functionalized Liquid Crystal Elastomers Facilitated by Thiol-Anhydride Dynamic

Chemistry", *Ang. Chem. Int. Ed.*, 2022, 61(11), e202116522. (<https://doi.org/10.1002/anie.202116522>)

41. Hebner, T.S., Fowler, H.E., Herbert, K.M., Skillin, N.P., Bowman, C.N., and White, T.J.*, "Polymer network structure, properties, and formation of liquid crystalline elastomers prepared via thiol-acrylate chain transfer reactions", *Macromolecules*, 2021, 54(23), 11074-11082. (<https://doi.org/10.1021/acs.macromol.1c01919>)
42. Radka, B.P., Lee, K.M., Godman, N.P., White, T.J.*, "Electro-optic characteristics of stabilized cholesteric liquid crystals with non-liquid crystalline polymer networks", *Soft Matter*, 2022, 18, 3013-3018 (<https://doi.org/10.1039/D2SM00203E>)
43. Herbert, K.M., Fowler, H.E., McCracken, J.M., Schlafmann, K.R., Koch, J.A., and White, T.J.*, "Synthesis and alignment of liquid crystalline elastomers", *Nature Review Materials*, 2022, 7, 23-38. (<https://doi.org/10.1038/s41578-021-00359-z>)
44. Fowler, H.E., Rothemond, P., Keplinger, C., and White, T.J., "Liquid Crystal Elastomers with Enhanced Directional Actuation to Electric Fields", *Advanced Materials*, 2021, 33(43), 2103806. (<https://doi.org/10.1002/adma.202103806>)
45. Schlafmann, K.R., and White, T.J.*, "Retention and deformation of the blue phases in liquid crystalline elastomers", *Nature Communications*, 2021, 12, article 4916 (<https://doi.org/10.1038/s41467-021-25112-6>)
46. Velasco Abadia, A., Herbert, K.M., Matavulj, V.M., White, T.J., Schwartz, D.K., and Kaar, J.L.*, "Chemically Triggered Changes in Mechanical Properties of Responsive Liquid Crystal Polymer Networks with Immobilized Urease", *Journal of American Chemical Society*, 2021, 143(40), 16740-16749. (<https://doi.org/10.1021/jacs.1c08216>)
47. Koch, J.A., Herman, J.A., and White, T.J.*, "Elastocaloric effect in amorphous polymer networks undergoing mechanotropic phase transitions", *Physical Review Materials*, 2021, 5(6), L062401. (<https://doi.org/10.1103/PhysRevMaterials.5.L062401>)
48. Hebner, T.S., Bowman, C.N., and White, T.J.*, "Influence of Orientational Genesis on the Actuation of Monodomain Liquid Crystalline Elastomers", *Macromolecules*, 2021, 54, 9, 4023-4029. (<https://doi.org/10.1021/acs.macromol.1c00437>)
49. Hebner, T.S., Bowman, C.N., and White, T.J., "The contribution of intermolecular forces to phototropic actuation of liquid crystalline elastomers", *Polym. Chem.*, 2021, 12, 1581-1587. (<https://doi.org/10.1039/D1PY00028D>)
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11. White, T.J. and Guymon C.A., "Composition dependence of the photopolymerization kinetics in holographic polymer dispersed liquid crystals (HPDLCS)", ACS Polymer Preprints, 2004, 45(2), 43.
12. White, T.J. and Guymon, C.A., "Photopolymerization kinetics of holographic polymer-dispersed liquid crystals", ACS PMSE Proceedings, 2003, 89, 452.

Presentations

Lectureships

1. White, T.J., "Exploiting Directed Self-Assembly to Enable Functional Performance in Liquid Crystalline Elastomers ", Sigma Millipore Lecture, Harvard University, April 2019.
2. White, T.J., "Programming Function into Liquid Crystalline Polymer Networks and Elastomers ", Soft Matter Lectureship, given at the International Soft Matter Conference, Edinburgh, Scotland, June 2019.

Invited Seminars

1. White, T.J., "Enabling Functional Outcomes by Programming the Responsivity of Liquid Crystalline Polymer Networks and Elastomers", Arizona State University, October 2023 (invited - X. Chen)
2. White, T.J., "Enabling Functional Outcomes by Programming the Responsivity of Liquid Crystalline Polymer Networks and Elastomers", California Institute of Technology (CalTech), May 2023 (invited - K. Bhattacharya)
3. White, T.J., "Enabling Functional Outcomes by Programming the Responsivity of Liquid Crystalline Polymer Networks and Elastomers", Stanford University, March 2023 (invited - R. Zhao)
4. White, T.J., "Enabling functional outcomes by programming the responsivity of liquid crystalline polymer networks and elastomers", University of California San Diego (UCSD), November 2022. (invited - S. Cai)
5. White, T.J., "Enabling functional outcomes by programming the responsivity of liquid crystalline polymer networks and elastomers via directed self assembly", PPG, November 2022. (invited - A. Kumar)
6. White, T.J., "Liquid crystalline elastomers as programmable material actuators", Florida State University/Florida A&M, Department of Mechanical Engineering Colloquium, April 2022. (invited - W. Oates)
7. White, T.J., "Liquid crystalline elastomers as programmable material actuators", University of Denver, Department of Chemistry Colloquium, November 2021. (invited - B. Worrell).
8. White, T.J., "Enabling Functional Outcomes by Programming the Responsivity of Liquid Crystalline Polymer Networks and Elastomers", University of Colorado, Materials Science and Engineering Colloquium, September 2020. (invited - A. Zunger, T. Cúk) *virtual*
9. White, T.J., "Enabling Functional Outcomes by Programming the Responsivity of Liquid Crystalline Polymer Networks and Elastomers", Ohio State University, February 2020. (invited - X. Wang)
10. White, T.J., "Enabling Functional Outcomes by Programming the Responsivity of Liquid Crystalline Polymer Networks and Elastomers", Virginia Tech University, February 2020. (invited - J. Matson, J. Foster)
11. White, T.J., "Programming Responsivity in Liquid Crystalline Elastomers", University of Tampere (Finland), May 2019. (invited - A. Priimagi)

12. White, T.J., "Pixelated Polymers: Programming Function into Liquid Crystalline Polymer Networks and Elastomers", Colorado State University, March 2019. (invited - A. Kota)
13. White, T.J., "Pixelated Polymers: Programming Function into Liquid Crystalline Polymer Networks and Elastomers", University of Pennsylvania, February 2019. (invited - C. Osuji)
14. White, T.J., "Pixelated Polymers: Programming Function into Liquid Crystalline Polymer Networks and Elastomers", Dartmouth College, February 2019. (invited - I. Apramhian)
15. White, T.J., "Programming Responsivity in Liquid Crystalline Elastomers", 3M Corporation, November 2018. (invited - C. Cook)
16. White, T.J., "Programming Responsivity in Liquid Crystalline Elastomers", University of Colorado Boulder, Department of Chemistry, October 2018. (invited - D. Walba)
17. White, T.J., "Programming Responsivity in Liquid Crystalline Elastomers", University of Colorado Boulder, Soft Materials Research Center (NSF MRSEC), September 2018. (invited - E. Korblova)
18. White, T.J., "Light Control with Liquid Crystals", National Renewable Energy Laboratory (NREL), August 2018. (invited - A. Holder)
19. White, T.J., "Pixelated Polymers: Directing the Self-Assembly of Liquid Crystalline Polymer Networks and Elastomers", University of Colorado Boulder, Department of Chemical and Biological Engineering, January 2018. (invited - C. Bowman)
20. White, T.J., "Pixelated Polymers: Directing the Self-Assembly of Liquid Crystalline Polymer Networks and Elastomers", University of Iowa, Department of Chemical and Biochemical Engineering, January 2018. (invited - C.A. Guymon)
21. White, T.J., "Pixelated Polymers: Directing the Self-Assembly of Liquid Crystalline Polymer Networks and Elastomers", University of Chicago, Institute for Molecular Engineering, November 2017. (invited - S. Rowan)
22. White, T.J., "Pixelated Polymers: Directing the Self-Assembly of Liquid Crystalline Polymer Networks and Elastomers", APTAC at University of Southern Mississippi, November 2017. **(invited keynote - student nominated)**
23. White, T.J., "Pixelated polymers: directing the self-assembly of liquid crystalline networks", University of Massachusetts, Department of Polymer Science and Engineering, September 2017. (invited - R. Hayward)
24. White, T.J., "Photomechanical Effects in Materials, Composites, and Systems: Opportunities and Challenges", Incubator: Materials for Optomechanical Actuation, June 2017. (invited - P. Morrison)
25. White, T.J., "Pixelated polymers: directing the self-assembly of liquid crystalline networks", Vandevener Bush Faculty Fellowship Symposium, April 2017. (selected AFRL presenter)
26. White, T.J., "Mechanical Design Opportunities and Challenges: Some Thoughts", Workshop on Optomechanical Effects in Materials, April 2017. (invited - R. Shankar)
27. White, T.J., "Programming Shape or Stretch in Liquid Crystal Elastomers", Kent State University, Liquid Crystal Institute, December 2016. (invited - Q. Wei)
28. White, T.J., "Programming Shape or Stretch in Liquid Crystal Elastomers", University of Delaware, Department of Materials Science, November 2016. (invited - C. Kloxin)
29. White, T.J., "Programming Shape or Stretch in Liquid Crystal Elastomers", North Carolina State University, Department of Chemical Engineering, September 2016. (invited - M. Dickey)
30. White, T.J., "Photomechanical Effects in Azobenzene-Functionalized Polymers", Technical University of Eindhoven, Functional Devices Group, August 2016. (invited - A. Schenning)
31. White, T.J., "Programming Liquid Crystal Elastomers: Elasticity, Actuation, and Beyond", University of Minnesota, Department of Aerospace Engineering, May 2016. (invited - D. James)

32. White, T.J., "Programming Liquid Crystal Elastomers: Elasticity, Actuation, and Beyond", Case Western Reserve University, Macromolecular Science and Engineering, January 2016. (invited - S. Rowan)
33. White, T.J., "Programming Liquid Crystal Elastomers: Elasticity, Actuation, and Beyond", University of Akron, College of Polymer Science and Engineering, October 2015. (invited - T. Kyu)
34. White, T.J., "Stimuli-Responsive Liquid Crystalline Materials: Towards Optics and Origami", University of Cambridge, Department of Physics, November 2014. (invited - M. Warner)
35. White, T.J., "Stimuli-Responsive Liquid Crystalline Materials: Towards Optics and Origami", Technical University of Eindhoven, Institute for Complex Molecular Systems, November 2014. (invited - D. Broer)
36. White, T.J., "Stimuli-Responsive Liquid Crystalline Materials: Towards Optics and Origami", University of Cincinnati, Department of Materials and Mechanical Engineering, September 2014. (invited - G. Beaucage, J. Iroh)
37. White, T.J., "Stimuli-Responsive Liquid Crystalline Materials: Towards Optics and Origami", Wright State University, Department of Chemistry, September 2014. (invited - K. Turnbull)
38. White, T.J., "Smart and Stimuli-Responsive Polymers, Liquid Crystals, and Composites", University of Pittsburgh, Department of Industrial Engineering, November 2013. (invited - M.R. Shankar)
39. White, T.J., "Smart and Stimuli-Responsive Polymers, Liquid Crystals, and Composites", University of Colorado, Department of Chemical Engineering, March 2013. (invited - C. Bowman)
40. White, T.J., "Color Change in Cholesteric Liquid Crystals", Kent State University, Liquid Crystal Institute Colloquia, October 2012. (invited - T. Hegmann)
41. White, T.J., "Stimuli-Responsive Liquid Crystalline Materials", U.S. Air Force Academy (USFA), September 2012. (invited - S. Iacono)
42. White, T.J., "Taking Flight with Light: Photomechanical Effects in Glassy Photoresponsive Polymeric Materials", University of Iowa, Department of Chemical and Biochemical Engineering, March 2012. (invited - C. Allan Guymon)
43. White, T.J., "Smart Optically Responsive Materials: Exploiting Chiral (and Achiral) Photochemistry to Enable Color Tunable Cholesteric Liquid Crystal Reflectors", University of Iowa, Optical Science and Technology Center Seminar, March 2012. (invited - C. Allan Guymon)
44. White, T.J., "Shape Adaptation in Glassy Photoresponsive Polymeric Materials", Ohio University, Department of Chemistry and Biochemistry, Department Colloquium, October 2011. (invited - J. Rack)
45. White, T.J., "Photoresponsive Liquid Crystal Polymer Networks: Glassy Adaptive Materials", Technical University of Eindhoven, Department of Chemistry and Chemical Engineering, September 2011. (invited - D. Broer)
46. White, T.J., "Novel Light Directed Effects in Cholesteric Liquid Crystals", University of Colorado, Department of Physics, Condensed Matter Seminar, March 2011. (invited - I. Smalyukh)
47. White, T.J., "Photoresponsive Liquid Crystal Polymer Networks: Glassy Adaptive Materials", Georgia Tech University, Woodruff School of Mechanical Engineering, Departmental Seminar, March 2011. (invited - A. Alexeev)
48. White, T.J., and Lee, K.M., "Photoresponsive Liquid Crystal Polymer Networks: Glassy Adaptive Materials", Proctor and Gamble, Miami Valley Research Center, January 2011. (invited - J. Adams)

National and International Meetings - Talks I've Delivered

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1. White, T.J., "Color-Changing Optical Devices Enabled by Ion-Mediated Deformation of Polymer Networks", ACS National Meeting, New Orleans, LA, March 2024. (invited)

2. [White, T.J.](#), "Fully solid, dynamic optical filters via mechanical reconfiguration of liquid crystalline materials" SPIE Photonics West, San Francisco, CA, January 2024. (invited)
3. [White, T.J.](#), "Responsive Material Actuators enabled by Photoalignment of Liquid Crystalline Materials", 4th International Conference on Photoalignment and Photopatterning in Soft Materials, St. Petersburg, FL, December 2023. (keynote)
4. [White, T.J.](#), "(Fully) Solid, Dynamic Optical Filters via Mechanical Reconfiguration of Liquid Crystalline Materials", Materials Research Society Fall Meeting, Boston, MA, November 2023. (invited)
5. [White, T.J.](#), "Low Density Actuators for Soft Robotics by Programming the Responsivity of Liquid Crystalline Polymer Networks and Elastomers", Materials Research Society Fall Meeting, Boston, MA, November 2023. (invited)
6. [White, T.J.](#), "Mark Warner's Contributions to Our Field and the ILCEC", International Liquid Crystalline Elastomer Conference, Boulder, CO, October 2023.
7. [White, T.J.](#), "Photopolymerization Fundamentals Photopolymerization of Liquid Crystalline Monomers and Oligomers to Realize Distinctive Optical and Robotic Functionality", RadTech, Boulder, CO, September 2023. (invited)
8. [White, T.J.](#), "Liquid crystalline elastomers as dynamic optical materials", SPIE Optics + Photonics, San Deigo, CA, August 2023. (keynote)
9. [White, T.J.](#), "Molecular Engineering of Liquid Crystalline Elastomers to Enhance Functional Utility", The 13th SPSJ International Polymer Conference, Hokkaido, Japan, July 2023. (invited)
10. [White, T.J.](#), "Liquid Crystal Elastomers: Past, Present, and Future", Gordon Research Conference Liquid Crystals, Manchester, NH, June 2023. (invited)
11. [White, T.J.](#), "Topography via Topology *Localized Stimuli-Response of Liquid Crystalline Elastomers*", Materials Research Society Spring Meeting, San Francisco, CA, April 2023. (invited)
12. [White, T.J.](#), "Photoinduced shape transformations in liquid crystalline elastomers", American Chemical Society Spring Meeting", Indianapolis, IN, March 2023. (invited)
13. [White, T.J.](#), "Towards Subcritical Phase Transitions in Liquid Crystalline Elastomers", American Physical Society Spring Meeting", Las Vegas, NV, March 2023. (invited)
14. [White, T.J.](#), "Programming the Response of Liquid Crystalline Elastomers", Gordon Research Conference Complex Active and Adaptive Material Systems, Ventura, CA, February 2023. (invited)
15. [White, T.J.](#), "Advancing the Functional Utility of Liquid Crystalline Elastomers at the Nexus of Computation, Materials Processing, and Chemistry", 6th Edwards Symposium - Soft Matter for the 21st Century, Cambridge UK, September 2022. (invited)
16. [White, T.J.](#), "Dynamic Covalent and Supramolecular Chemistries in Liquid Crystalline Elastomers", ACS National Meeting, Chicago IL, August 2022. (invited)
17. [White, T.J.](#), "Liquid crystalline elastomers as programmable material actuators", Pacificchem, December 2021. (invited) (virtual conference)
18. [White, T.J.](#), "The Stimuli-Response of Liquid Crystalline Elastomers", International Liquid Crystalline Elastomer Conference, December 2021. (plenary) (virtual conference)
19. [White, T.J.](#), "Preparing liquid crystalline elastomers via chain extension reactions of reactive mesogens", ACS National Meeting, August 2021. (invited) (virtual conference)
20. [White, T.J.](#), "Dynamic Optical Filters via Mechanical Reconfiguration of Liquid Crystalline Materials", SPIE Optics + Photonics, August 2021. (keynote) (virtual conference)
21. [White, T.J.](#), "Sharpening and Amplifying the Actuation of Liquid Crystalline Elastomers", IUTAM Symposium on Mechanics of Smart and Tough Gels, May 2021. (invited) (virtual conference)
22. [White, T.J.](#), "Sharpening and Amplifying the Actuation of Liquid Crystalline Elastomers", MRS Spring Meeting, April 2021. (invited) (virtual conference)

23. [White, T.J.](#), Donovan, B.R., Hebner, T., Bowman, C.N., "Photomechanical Effects in Liquid Crystalline Polymer Networks and Elastomers", MRS Fall Meeting, December 2020. (invited) (recorded presentation, live presentation, panel participant, COVID-19)
24. [White, T.J.](#), Lee, K.M., Radka, B.R., McConney, M.E., "Electrochromism in liquid crystals: dynamic control of reflection wavelength and bandwidth", SPIE Optics+Photonics, San Diego CA, August 2020. (invited) (recorded presentation, COVID-19)
25. [White, T.J.](#), Brannum, M., Schlafmann, K., "Dynamic Optical Elements from Fully Solid Liquid Crystalline Films", SPIE Photonics West, San Francisco CA, February 2020. (invited)
26. [White, T.J.](#), "Patterning Deformation in Liquid Crystalline Elastomers", American Institute of Chemical Engineers (MESD), Orlando FL, November 2019.
27. [White, T.J.](#), "Exploiting Directed Self-Assembly to Enable Functional Performance in Liquid Crystalline Elastomers", International Symposium on Stimuli-Responsive Materials, Windsor CA, October 2019. (invited)
28. [White, T.J.](#), "Pixelated Polymers: Programming Function into Liquid Crystalline Polymer Networks and Elastomers", International Liquid Crystalline Elastomer Conference, Eindhoven Netherlands, September 2019. (keynote)
29. [White, T.J.](#), "Pixelated Polymers: Programming Function into Liquid Crystalline Polymer Networks and Elastomers", Euromat, Stockholm Sweden, September 2019, (keynote)
30. [White, T.J.](#), "Light Control with Liquid Crystalline Elastomers", SPIE Optics+Photonics, San Diego CA, August 2019. (invited)
31. [White, T.J.](#), "Electro-optical Manipulation via the Mechanical Distortion of Polymer Stabilizing Networks", Ferroelectric Liquid Crystal Conference, Boulder CO, August 2019. (invited)
32. [White, T.J.](#), "Programming Functionality into Liquid Crystalline Polymer Networks and Elastomers.", ACS National Meeting, Orlando FL, March 2019. (invited)

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33. [White, T.J.](#), "Performance Derived from the Directed Self-Assembly of Liquid Crystalline Elastomers" Frontiers of Soft Matter, Georgia Tech University, April 2018.
34. [White, T.J.](#), "Shape Programmable Materials via the Directed Self-Assembly of Liquid Crystalline Elastomers." American Physical Society March Meeting, Los Angeles, CA, March 2018. (invited)
35. [White, T.J.](#), "Pixelated Polymers: Directing the Self Assembly of Liquid Crystalline Polymer Networks and Elastomers." Institute for Mathematics and their Application, Workshop on Liquid Crystals, University of Minnesota, February 2018. (invited)
36. [White, T.J.](#), Auguste, A., Kowalski, B., Guin, T., Godman, N., Donovan, B., Leslie, M., "From the Inside Looking Out: Perspective on Current Status and Future R&D of Liquid Crystalline Elastomers", International Liquid Crystal Elastomer Conference (ILCEC), Houston, TX, October 2017. (invited)
37. [White, T.J.](#), Tan, L.-S., Lee, K.M., Wie, J.J., and Donovan, B., "Photomechanical Effects in Azobenzene-Functionalized Polymer Networks and Elastomers", Frontiers of Photoactive Soft Matter, Boulder, CO, September 2017. (invited)
38. [White, T.J.](#), Lee, K.M., Kowalski, B., and Tondiglia, V.P., "Photopolymerization of Liquid Crystalline Monomers: Enabling Next Generation Optics", Photopolymerization Fundamentals Meeting, Boulder, CO, September 2017. (invited)
39. [White, T.J.](#), "Pixelated polymers: directing the self-assembly of liquid crystalline networks", American Chemical Society (ACS) National Meeting, Washington, DC, August 2017. (invited)
40. [White, T.J.](#), Leslie, M.L., Guin, T., Beblo, R., Settle, M., and Reich, G., "Shape Programming: Functional Topographical Surfaces", American Chemical Society (ACS) National Meeting, Washington, DC, August 2017. (invited)

41. White, T.J., Lee, K.M., and Tondiglia, V.P., "Responsive Optical Filters Prepared from Polymer Stabilized Cholesteric Liquid Crystals", SPIE Optics + Photonics, San Diego, CA, August 2017. (keynote)
42. White, T.J., Ware, T.H., Ahn, S.-K., Guin, T., Auguste, A., and Godman, N., "Programming Shape or Stretch in Liquid Crystal Elastomers", Shape Memory Applications, Research, and Technology (SMART), Dallas, TX, December 2016. (**plenary**)
43. White, T.J., Rumi, M., and Bunning, T.J., "Photoresponsive Liquid Crystal Systems: Using Light to Control Light", International Symposium on Stimuli Responsive Materials, Sonoma, CA, October 2016. (invited)
44. White, T.J., "Photopolymerization and Aerospace: Selected Opportunities", Radtech: Future of Photopolymerization, Estes Park, CO, October 2016. (invited)
45. White, T.J., Lee, K.M., Tondiglia, V.P., "Electrical Control of Reflection Wavelength and Bandwidth in Cholesteric Liquid Crystals", International Meeting on Electrochromics (IME-12), Delft, Netherlands, August 2016. (invited)
46. White, T.J., et. al, "Cooperative Research of Liquid Crystalline Materials: Enabling Applications Beyond Displays", ACS National Meeting, Philadelphia, PA, August 2016. (invited)
47. White, T.J., Ware, T., Guin, T., Kowalski, B., Ahn, S.-K., Wie, J.J., Lee, K.M., and Tondiglia, V.P., "Programming Liquid Crystal Elastomers: Actuation, Elasticity, and Beyond", 26th International Liquid Crystal Conference, Kent, OH, August 2016. (invited)
48. White, T.J., Ware, T., Guin, T., Kowalski, B., Ahn, S.-K., Lee, K.M., and Tondiglia, V.P., "Blueprinting Topology Into Liquid Crystal Elastomers", Materials Research Society National Meeting, Phoenix, AZ, April 2016.
49. White, T.J., "Programming Liquid Crystal Elastomers: Elasticity, Actuation, and Beyond", Materials Research Society National Meeting, Phoenix, AZ, April 2016. (award lecture)
50. White, T.J., Ware, T.H., Ahn, S.-K., Kowalski, B., Guin, T., Lee, K.M., and Tondiglia, V.P., "Responsive surfaces prepared by programming liquid crystalline elastomers", ACS National Meeting, San Diego, CA, March 2016. (invited)
51. White, T.J., Ware, T.H., Ahn, S.-K., and Tondiglia, V.P., "Optical Patterning and Preparation of Liquid Crystalline Elastomers: Shape Changing Materials", SPIE Photonics West, San Francisco, CA, February 2016. (invited)
52. White, T.J., Lee, K.M., Tondiglia, V.P., McConney, M.E., and Bunning, T.J., "Electrical Control of Reflection Wavelength and Bandwidth in Cholesteric Liquid Crystals", SPIE Photonics West, San Francisco, CA, February 2016. (invited)
53. White, T.J., Ware, T.H., Ahn, S.-K., and Tondiglia, V.P., "Programming Mechanical Adaptivity in Liquid Crystal Polymer Networks", Pacificchem, Honolulu, HI, December 2015. (invited)
54. White, T.J., Ware, T.H., Ahn, S.-K., and Tondiglia, V.P., "Localizing Stretch and Actuation within Liquid Crystalline Elastomers", Materials Research Society National Meeting, Boston, MA, December 2015. (invited)
55. White, T.J., Ware, T.H., Ahn, S.-K., and Tondiglia, V.P., "Adaptive Shapes and Reconfigurable Surfaces Prepared from Liquid Crystalline Elastomers", Materials Research Society National Meeting, Boston, MA, December 2015.
56. White, T.J., Ware, T.H., Ahn, S.-K., and Tondiglia, V.P., "Programming Shape and Soft Elasticity in Liquid Crystal Elastomers", International Liquid Crystal Elastomer Conference, Erice Italy, October 2015. (keynote)
57. White, T.J., Ware, T.H., Lee, K.M., Ahn, S.-K., Wie, J.J., McConney, M.E., and Tondiglia, V.P., "Stimuli-Responsive liquid crystalline polymer Networks and composites", Photopolymerization Fundamentals Conference, September 2015. (invited)

58. White, T.J., Ware, T.H., Ahn, S.-K., and Tondiglia, V.P., "Facile Multi-Step Synthesis of Liquid Crystalline Elastomers", American Chemical Society National Meeting (POLY), August 2015. (invited)
59. White, T.J., Ware, T.H., Ahn, S.-K., and Tondiglia, V.P., "Shape Programmable Materials from Photoresponsive Liquid Crystalline Polymer Networks", American Chemical Society National Meeting (POLY), August 2015.
60. White, T.J., Ware, T.H., Ahn, S.-K., and Tondiglia, V.P., "Functionally Graded Order in Liquid Crystal Elastomers: Designer Substrates for Flexible Devices?", American Chemical Society National Meeting (PMSE), August 2015.
61. White, T.J., Ware, T.H., Ahn, S.-K., and Tondiglia, V.P., "Shape programming with light: voxelated liquid crystal elastomers", SPIE Optics+Photonics, San Diego, CA, August 2015. (invited)
62. White, T.J., Lee, K.M., Worth, B., Tondiglia, V.P., McConney, M.E., Yang, D.-k., and Bunning, T.J., "Dynamic Filtering with Liquid Crystals", SPIE Optics+Photonics, San Diego, CA, August 2015. (invited)
63. White, T.J., Ware, T.H., Ahn, S.-K., and Tondiglia, V.P., "Programming Shape and Soft Elasticity in Liquid Crystal Elastomers", Gordon Conference on Liquid Crystals, College of New England, June 2015. (invited)
64. White, T.J., Ware, T.H., Ahn, S.-K., McConney, M.E., Wie, J.J., and Tondiglia, V.P., "Voxelated Liquid Crystalline Elastomers", American Chemical Society National Meeting (POLY), Denver, CO, April 2015. (invited)
65. White, T.J., Lee, K.M., Tondiglia, V.P., McConney, M.E., Yang, D.-k., and Bunning, T.J., "Color control in stimuli-responsive cholesteric liquid crystal composites", American Chemical Society National Meeting (PMSE), Denver, CO, April 2015. (invited)
66. White, T.J., Ware, T.H., Wie, J.J., McConney, M.E., Lee, K.M., "Voxelated Liquid Crystal Elastomers", International Symposium on Stimuli Responsive Materials, Sonoma, CA, October 2014. (invited)
67. White, T.J., Ware, T.H., Wie, J.J., Lee, K.M., "Optically Fixable Shape Memory in Azobenzene-functionalized Polymeric Materials, American Chemical Society National Meeting (PMSE), San Francisco, CA, August 2014. (invited)
68. White, T.J., Lee, K.M., Tondiglia, V.P., and Bunning, T.J., "Large range reflection notch tuning in polymer stabilized cholesteric liquid crystals", SPIE Optics+Photonics, San Diego, CA, August 2014. (invited keynote)
69. White, T.J., Ware, T.H., Wie, J.J., McConney, M.E., and Tondiglia, V.P., "From Flat to Functional: Complex 3-dimensional Shape Transformations in Patterned Liquid Crystal Polymers and Elastomers", International Liquid Crystal Conference (ILCC), Dublin, Ireland, June 2014.
70. White, T.J., Lee, K.M., McConney, M.E., Tondiglia, V.P., Natarajan, L.V., and Bunning, T.J., "Stimuli-Responsive Cholesteric Liquid Crystal Composites for Optics and Photonics", Society of Information Display - "Display Week", San Diego, CA, June 2014. (invited)
71. White, T.J., McConney, M.E., Wie, J.J., and Ware, T.H., "Topography from Topology: 2-D and 3-D Shape Transformations in Patterned Liquid Crystalline Networks", MRS Spring Meeting, San Francisco, CA, April 2014.
72. White, T.J., Lee, K.M., Tondiglia, V.P., McConney, M.E., and Bunning, T.J., "Electro-optic color tuning in cholesteric liquid crystals" SPIE Photonics West, San Francisco, CA, February 2014. (invited)
73. White, T.J., Lee, K.M., McConney, M.E., Tondiglia, V.P., Natarajan, L.V., and Bunning, T.J., "Color Control with Cholesteric Liquid Crystals", Optics of Liquid Crystals, Honolulu, HI, September 2013.

74. White, T.J., McConney, M.E., Wie, J.J., Lee, K.M., and Tondiglia, V.P., "Stimuli-Responsive, Shape and Surface Morphing Liquid Crystal Polymer Networks", ACS National Meeting (POLY), Indianapolis, IN, September 2013.
75. White, T.J., McConney, M.E., Wie, J.J., Tondiglia, V.P., Martinez, A., and Smalyukh, I.I., "Defect and Domain Patterning in Mechanically Adaptive Liquid Crystal Polymer Networks", SPIE Optics+ Photonics, San Diego, CA, August, 2013.
76. White, T.J., McConney, M.E., and Lee, K.M., "Wireless mechanical adaptivity: Photomechanical effects in azobenzene-functionalized polymeric materials", ACS National Meeting (POLY), New Orleans, LA, April 2013. (invited)
77. White, T.J., Lee, K.M., Wang, D.H., Tan, L.-S., Koerner, H., Smith, M.L., and Vaia, R.A. "Shape Adaptive Liquid Crystal Polymer Networks", 8th International Symposium on Stimuli-Responsive Materials, October 2012. (invited)
78. White, T.J., Lee, K.M., Wang, D.H., Koerner, H., Tan, L.-S., and Vaia, R.A. "Wireless Mechanical Adaptivity: Photomechanical Effects in Azobenzene-Functionalized Polymeric Materials", ASME 2012 Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS), September 2012. (invited)
79. White, T.J., Lee, K.M., Wang, D.H., Tan, L.-S., Smith, M.L., Koerner, H., Vaia, R.A., and Bunning, T.J. "Towards Remote Fixing of Complex Shapes in Liquid Crystal Polymer Networks", International Liquid Crystal Conference (ILCC), Mainz, Germany, August 2012. (invited)
80. White, T.J., McConney, M.E., Cazzell, S.A., Duning, M., Hurtubise, J., Natarajan, L., Tondiglia, V., and Bunning, T.J. "Responsive Liquid Crystal Polymer Network Architectures: Towards Color Tuning", Polymer Network Group Conference, Jackson Hole, WY, August 2012. (invited)
81. White, T.J., Lee, K.M., Wang, D.H., Tan, L.-S., Smith, M.L., Koerner, H., Vaia, R.A., and Bunning, T.J. "Towards Remote Fixing of Complex Shapes in Liquid Crystal Polymer Networks", CIMTEC 4th International Conference on Smart Materials, Structures, and Systems, Montecatini Terme, Italy, June 2012. (invited)
82. White, T.J., Lee, K.M., and Bunning, T.J., "Optically Directing Out-of-plane Shape Adaptations in Azobenzene Functionalized Liquid Crystalline Polymer Networks", 2011 Fall Materials Research Society Meeting, Boston, MA, December 2011.
83. White, T.J., Lee, K.M., Wang, D., Tan, L.-S., Tabiryan, N.V., Smith, M., Koerner, H., Vaia, R.A., and Bunning, T.J., "Shape Adaptation in Glassy Photoresponsive Polymeric Materials", International Stimuli Responsive Materials Conference, Hattiesburg, MS, October 2011. (invited)
84. White, T.J., Lee, K.M., Tabiryan, N.V., Smith, M., Koerner, H., Vaia, R.A., Bunning, T.J. "Photoresponsive Liquid Crystal Polymer Networks: Glassy Adaptive Materials", International Liquid Crystal Elastomer Conference, Lisbon, Portugal, September 2011. (invited)
85. White, T.J., Bricker, R.L., Natarajan, L.V., Li, Q., Tabiryan, N.V., Taheri, B., Kosa, T., and Bunning, T.J. "Novel Light Directed Effects in Cholesteric Liquid Crystals", 2011 SPIE Photonics West, San Francisco, CA, January 2011. (invited)
86. White, T.J., McConney, M.E., Natarajan, L.V., Tondiglia, V.P., and Bunning, T.J. "Novel Light Directed Effects in Cholesteric Liquid Crystals", 2010 Pacificchem Meeting, Honolulu, HI, December 2010.
87. White, T.J., Lee, K.M., Smith, M.L, Koerner, H., Vaia, R.A., and Bunning, T.J. "Photoresponsive Liquid Crystal Polymer Networks: Glassy Adaptive Materials", Stimuli-Responsive Materials International Symposium, Hattiesburg, MS, October 2010. (invited)
88. White, T.J., Freer, A., Natarajan, L.V., Tondiglia, V.P., Li, Q., Serak, S.V., Tabiryan, N., and Bunning, T.J. "Light-controlled bandwidth in azo-benzene-based cholesteric liquid crystals", SPIE Optics+Photonics, San Diego, CA, August 2010.

89. White, T.J., Tabiryian, N.V., Serak, S., Vaia, R.A., and Bunning, T.J. "Angle Controlled Bending and Oscillation of Azobenzene Liquid Crystal Polymer Network Cantilevers", Optics of Liquid Crystals Meeting, Erice, Italy, October 2009.
90. White, T.J., Tabiryian, N.V., Serak, S., Vaia, R.A., and Bunning, T.J. "Angle Controlled Bending and Oscillation of Azobenzene Liquid Crystal Polymer Network Cantilevers", International Liquid Crystal Elastomer Conference, Kent, Ohio, September 2009.
91. White, T.J., Serak, S. Hrozhyk, U. Tabiryian, N., Koerner, H., Vaia, R.A., and Bunning, T.J. "Photodriven Oscillations of Azobenzene Liquid Crystal Polymer Network Cantilevers", 2009 Spring Materials Research Society Meeting, San Francisco, CA, April 2009.
92. White, T.J., Bricker, R.L., Natarajan, L.V., Li, Q., Tabiryian, N.V., and Bunning, T.J. "Photoresponsive Liquid Crystal Materials: Phototunable CLCs and Oscillating LC Polymers", Hougen Symposium on Liquid Crystals, Madison, WI, April 2009. (invited)
93. White, T.J., Natarajan, L.V., Bricker, R.L., Li, Q., Tabiryian, N.V., and Bunning, T.J. "Impact of Helical Structure Retention in Phototunable Polymer Stabilized Cholesteric Liquid Crystals", American Chemical Society National Meeting (POLY), Salt Lake City, UT, March 2009. (invited)
94. White, T.J., Tondiglia, V.P., Koerner, H., Vaia, R.A., Serak, S., Grozhyk, V., Tabiryian, N., and Bunning, T.J. "Photoresponsive Polymers with Large Deformation and Fast Movement", CIMTEC Smart Conference, Acireale, Italy, June 2008.
95. White, T.J., Tondiglia, V.P., Koerner, H., Vaia, R.A., Serak, S., Grozhyk, V., Tabiryian, N., and Bunning, T.J., "Photoresponsive Liquid Crystal Elastomers", Materials Research Society Spring Meeting, San Francisco, CA, March 2008.
96. White, T.J., Bunning, T.J., Koval, J., Tondiglia, V.P., Vaia, R.A., Serak, S., Grozhyk, V., and Tabiryian, N., "Polarization Dependent Photoactuation in Azobenzene LC Polymers", SPIE Optics+Photonics, San Diego, CA, August 2007.
97. White, T.J., Natarajan, L.V., Tondiglia, V.P., Lloyd, P.F., Bunning, T.J., and Guymon, C.A. "Polymerization Behavior and Phase Separation Effects in Holographic Polymer Dispersed Liquid Crystals", American Chemical Society National Meeting (POLY), Boston, MA, August 2007.
98. White, T.J., Bunning, T.J., Vaia, R.A., Serak, S., Grozhyk, V., and Tabiryian, N. "Azobenzene Liquid Crystal Elastomers", Photopolymerization Fundamentals Conference, Breckenridge, CO, June 2007.
99. White, T.J., Bunning, T.J., Vaia, R.A., Urbas, A.M., Serak, S., Grozhyk, V., and Tabiryian, N., "Polymer and Azobenzene Liquid Crystal Mixtures: New Photoresponsive Materials", Society of Plastics Engineers Annual Meeting (ANTEC), Cincinnati, OH, May 2007. (invited)

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100. White, T.J., Natarajan, L.V., Tondiglia, V.P., Lloyd, P.F., Bunning, T.J., and Guymon, C.A. "The Formation and Performance of Thiol-ene Based Holographic Polymer Dispersed Liquid Crystals (HPDLCs) Containing Fast Reacting Vinyl Monomers", Materials Research Society National Meeting (MRS), San Francisco, CA, April 2007.
101. White, T.J., Liechty, W.B., and Guymon C.A. "Copolymerization of N-Vinyl Pyrrolidone with Multifunctional Acrylates", Radtech e/5, Chicago, IL, April 2006.
102. White, T.J., Liechty, W.B., and Guymon, C.A. "Influence of N-Vinyl Pyrrolidinone (NVP) to the Polymerization Kinetics of Photopolymer Systems with Increasing Acrylate Functionality", Photopolymerization Fundamentals Conference, Breckenridge, CO, June 2005.
103. White, T.J. and Guymon, C.A. "Acrylate and Thiol-ene Based (H)PDLC Polymerization Kinetics, Liquid Crystal Phase Separation and Morphology", Photopolymerization Fundamentals Conference, Breckenridge, CO, June 2005.

104. White, T.J., Natarajan, L.V., Tondiglia, V.P., Lloyd, P.F., Bunning, T.J., and Guymon, C.A. "The Influence of Thiol-ene Polymer Evolution on the Formation and Performance of Holographic Polymer Dispersed Liquid Crystals", American Chemical Society National Meeting (POLY), San Francisco, CA, September 2006.
105. White, T.J., Liechty, W.B., and Guymon, C.A. "The Influence of N-Vinyl Pyrrolidinone on the Photopolymerization Kinetics and Mechanical Properties in Copolymerization with Acrylates with Increasing Functionality", 2005 AIChE National Meeting, Cincinnati, OH, October 2005. (poster)
106. White, T.J. and Guymon, C.A. "Acrylate and Thiol-ene Based (H)PDLC Polymerization Kinetics, Liquid Crystal Phase Separation and Morphology", Gordon Research Conference on Liquid Crystals, New London, NH, June 2005.
107. White, T.J. and Guymon, C.A. "Photopolymerization Kinetic Contribution of Additives in the Formation of Holographic Polymer Dispersed Liquid Crystals (HPDLCs)", Materials Research Society National Meeting, Boston, MA, December 2004.
108. White, T.J. and Guymon, C.A. "Composition Dependence of the Photopolymerization Kinetics in Holographic Polymer Dispersed Liquid Crystals (HPDLCs)", American Chemical Society National Meeting (POLY), Philadelphia, PA, August 2004.
109. White, T.J. and Guymon, C.A. "Photopolymerization Kinetics of Holographic Polymer Dispersed Liquid Crystals: Role of Octanoic Acid and N-Vinyl Pyrrolidinone", Great Lakes Photonic Symposium: Liquid Crystal Technology and Applications Conference, Cleveland, OH, June 2004.
110. White, T.J. and Guymon, C.A. "Photopolymerization Kinetics of Holographic Polymer Dispersed Liquid Crystals", American Chemical Society National Meeting (PMSE), New York, NY, August 2003.

National and International Meetings - Talks I've Co-Authored

111. McCracken, J. M., White, T. J., "Large Force-Displacement Actuation via Liquid Crystalline Elastomer Actuators Prepared by Photoalignment," PhoSM 2023, St. Petersburg, FL, December 2023
112. Colorado Escobar, M., White T.J., "Twisting liquid crystal elastomer fibers to realize fast and slow twitch thermomechanical response" Oral Presentation, Materials Research Society National Meeting, Boston, MA, November 2023
113. Lewis, K.L., Hoang, J.D., Kennedy, D.T., Aye, S.S., White, T.J., "Molecular Engineering of Liquid Crystalline Elastomers Containing Supramolecular Mesogens", Oral Presentation, Materials Research Society National Meeting, Boston, MA, November 2023
114. Phillips, A.T., Chen, J., White, T.J., "Flexible, fully solid tunable filters via cholesteric liquid crystalline elastomer stimuli-response", Oral Presentation, International Liquid Crystalline Elastomer Conference, Boston, MA, November 2023
115. Kennedy, D.T., White, T.J., "Molecular and Macromolecular Engineering of Mesogen Interactions in Liquid Crystal Elastomers", Oral Presentation, International Liquid Crystal Elastomer Conference, Boulder, CO, October 2023
116. Hoang, J.D., Lewis, K.L., Toney, M.F., White, T.J., "Morphological Study of the Order-Disorder Transition in Liquid Crystalline Elastomers Containing Supramolecular Mesogens", Poster Presentation, International Liquid Crystal Elastomer Conference, Boulder, CO, October 2023
117. Lewis, K.L., Hoang, J.D., Aye, S.S., Kennedy, D.T., White, T.J., "Supramolecular Liquid Crystalline Elastomers", Oral Presentation, International Liquid Crystalline Elastomer Conference, Boulder, CO, October 2023
118. Skillin, N.P., Herbert, K.M., Kirkpatrick, B.E., Nelson, B.R., Hach, G.K., Günay, K.A., DelRio, F.W., Khan, R.M., Anseth, K.S., White, T.J. "Stiffness anisotropy coordinates supracellular contractility

driving long-range myotube-ECM alignment”, Oral Presentation, International Liquid Crystal Elastomer Conference, Boulder, CO, October 2023

119. Saeed, M.H., Herman, J., Koch, J., Lewis, K.L., White, T.J., “Elastocaloric effects in amorphous and liquid crystalline elastomers ”, Poster Presentation, ILCEC 2023, Boulder, CO, October 2023
120. Pande, G.K., White, T.J., “Molecular engineering of polymer stabilizing network to enhance the electro-optic response of polymer-stabilized cholesteric liquid crystals ”, Poster Presentation, ILCEC, Boulder, Colorado, October 2023
121. Pranda, P.A., Hayward, R.C., White, T.J., “Aligned liquid crystalline elastomers for directional adhesion,” Poster Presentation, International Liquid Crystalline Elastomer Conference, Boulder, Colorado, October 2023
122. McCracken, J. M., White, T.J., "Thickness Dependent Topography of Liquid Crystalline Elastomer Conical Actuators Under Compressive Load," Oral Presentation, LCE and Robotics 1 Symposium, International Liquid Crystalline Elastomer Conference, Boulder, Colorado, October 2023
123. Phillips, A.T., Chen, J., White, T.J., "Color change in cholesteric liquid crystalline elastomers", Oral Presentation, International Liquid Crystalline Elastomer Conference, Boulder, CO, October 2023
124. Herman, J.A., Roach, D.J., Kaehr, B., and White, T.J. "3D Printed Liquid Crystalline Elastomers Aligned by Magnetic Field", Poster Presentation, International Liquid Crystal Elastomer Conference, Boulder, CO, October 2023
125. Roach, D.J., Herman, J.A., Leguizamon, S.C., Linde, E., Cook, A., White, T.J., and Kaehr, B. " Multi-Planar Printing and Control of Liquid Crystal Elastomers", Oral Presentation, International Liquid Crystal Elastomer Conference, Boulder, CO, October 2023
126. Bauman, G.B., Hoang, J.D., McCracken, J.M., White, T.J., "Synthesis and Characterization of Liquid Crystal Elastomer Actuators with a Wide Range of Actuation Temperatures", Poster Presentation, Poster Presentation, International Liquid Crystal Elastomer Conference 2023, Boulder, CO, October 2023
127. Colorado Escobar, M., Hoang, J.D., Shersha, S.K., White, T.J., “Bioinspired fast and slow twitch muscles via liquid crystal elastomer twisted fibers” Poster Presentation, International Liquid Crystal Elastomer Conference, Boulder, CO, October 2023
128. Pranda, P.A., Hayward, R.C., White, T.J., “Aligned liquid crystalline elastomers for directional adhesion,” Poster Presentation, RadTech Photopolymerization Fundamentals Conference, Boulder, Colorado, August 2023
129. Hoang, J.D., Lewis, K.L., Toney, M.F., White, T.J., "Morphological Study of the Order-Disorder Transition in Liquid Crystalline Elastomers Containing Supramolecular Mesogens", Poster Presentation, Innovation in Materials Science Symposium, Boulder, CO, August 2023
130. Pranda, P.A., Hayward, R.C., White, T.J., “Aligned liquid crystalline elastomers for directional adhesion,” Poster Presentation, Master’s Thesis Bypass, University of Colorado Boulder, August 2023
131. Pranda, P.A., Hayward, R.C., White, T.J., “Aligned liquid crystalline elastomers for directional adhesion,” Poster Presentation, Materials Science Symposium, University of Colorado Boulder, August 2023
132. Pande, G.K., Radka, B.P., White, T.J., “Molecular engineering of polymer stabilizing network to enhance the electro-optic response of polymer-stabilized cholesteric liquid crystals ”, Oral Presentation, Liquid Crystals XXVII, SPIE Organic Photonics + Electronics, San Diego, California, August 2023
133. Skillin, N.P., Herbert, K.M., Kirkpatrick, B.E., Nelson, B.R., Hach, G.K., Günay, K.A., DelRio, F.W., Khan, R.M., Anseth, K.S., White, T.J. “Stiffness anisotropy coordinates supracellular contractility

driving long-range myotube-ECM alignment", Poster Presentation, 38th Annual MD-PhD National Student Conference, Copper, CO, July 2023

134. Pranda, P.A., Hayward, R.C., White, T.J., "Aligned liquid crystalline elastomers for directional adhesion," Poster Presentation, Gordon Research Conference, Science on Adhesion, Mount Holyoke, South Hadley, MA, July 2023
135. Skillin, N.P., Herbert, K.M., Kirkpatrick, B.E., Nelson, B.R., Hach, G.K., Günay, K.A., DelRio, F.W., Khan, R.M., Anseth, K.S., White, T.J. "Reciprocal Cell-ECM Dynamics Drive Nematic Ordering of C2C12 Myotubes on Anisotropic Liquid Crystalline Polymer Networks", Oral Presentation, Society for Biomaterials Annual Meeting, San Diego, CA, April 2023
136. Roach, D.J., Herman, J.A., Leguizamon, S.C., Linde, E., Cook, A., White, T.J., and Kaehr, B. "Multi-Planar Printing and Control of Liquid Crystal Elastomers", Oral Presentation, Materials Research Society Spring Meeting, San Francisco, CA, April 2023
137. Herman, J.A., White, T.J. "Elastocaloric Response of Isotropic Liquid Crystalline Elastomers", Oral Presentation, Materials Research Society Spring Meeting, San Francisco, CA, April 2023
138. Skillin, N.P., Herbert, K.M., Kirkpatrick, B.E., Nelson, B.R., Hach, G.K., Günay, K.A., DelRio, F.W., Khan, R.M., Anseth, K.S., White, T.J. "Collective Cellular Dynamics Drive Nematic Ordering of C2C12 Myotubes on Anisotropic Liquid Crystalline Polymer Networks", Oral Presentation, Rocky Mountain Biomaterials Day, Aurora, CO, March 2023
139. Phillips, A.T., Schlafmann, K.R., Fowler, H.E., "Electrically tunable, fully solid, reflective optical elements", Oral Presentation, SPIE Photonics West, San Francisco, CA, February 2023
140. Colorado Escobar, M., Hoang, J.D., McCracken, J.M., and White T.J., "Twisting liquid crystal elastomer fibers to realize distinctive thermomechanical response" Poster Presentation, Gordon Research Conference Complex Active and Adaptive Material Systems, Ventura, CA, January 2023
141. Bauman, G.B., Hoang, J.D., McCracken, J.M., White, T.J., "Synthesis and Characterization of Liquid Crystal Elastomer Actuators with a Wide Range of Actuation Temperatures", Poster Presentation, Gordon Research Conference Complex Active and Adaptive Material Systems, Ventura, CA, January 2023
142. Radka, B.P., Pande, G.K., White, T. J., "Dynamic ion assisted optical changes in polymer stabilized cholesteric liquid crystals", Oral Presentation, Emerging Liquid Crystal Technologies XVIII, SPIE Photonics West, 2023
143. Radka, B.P., White, T. J., "Reconfiguration of structural chirality in polymer stabilized liquid crystal phases", Poster, AFOSR Organic Materials Chemistry Program Review, 2023
144. Herman, J.A., White, T.J. "Fundamental Studies and Functional Applications of Mechanotropic Phase Transitions", Poster Presentation, Rio Grande Symposium on Advanced Materials, Albuquerque, NM, October 2022
145. Hoang, J.D., Bauman, G.E., Toney, M.F., White, T.J., "Understanding Liquid Crystalline Elastomers Response: Synthesis, Properties, and Orientation Parameter", Poster Presentation, Innovation in Materials Science Symposium, Boulder, CO, August 2022
146. Hebner, T.S., Bowman, C.N., White, T.J., "Tuning fundamental properties in liquid crystalline elastomers for design of complex and reprogrammable actuation", Oral Presentation, Eastman Chemical Award Symposium, ACS Fall Meeting, Chicago, IL, August 2022
147. Radka, B.P., White, T.J., "Electro-optic response of polymer stabilized cholesteric liquid crystals functionalized with ionic monomers," Oral Presentation, Eastman Chemical Award Symposium, ACS Fall Meeting, Chicago, August 2022
148. Hebner, T.S., Bowman, C.N., White, T.J., "Reprogramming stimuli-responsive shape change in liquid crystalline elastomers", Oral Presentation, CU Boulder Innovation in Material Science Symposium, Boulder, Colorado, August 2022

149. [Bauman, G.E.](#), McCracken, J.M., White, T.J., "Thermotropic Actuation of Liquid Crystalline Elastomers at or Below Ambient Temperature", International Liquid Crystals Conference, Lisbon, Portugal, July 2022 (poster)
150. [Hebner, T.S.](#), McCracken, J.M., Bowman, C.N., White, T.J., "Sharpening and Amplifying the Stimuli-Response of Liquid Crystalline Elastomers by Molecular Engineering", Oral Presentation, International Liquid Crystal Conference, Lisbon, Portugal, July 2022
151. [Herman, J.A.](#), Koch, J.A., White, T.J. "Fundamental Studies and Functional Applications of Mechanotropic Phase Transitions in Polymer Networks Containing Appreciable Liquid Crystalline Content." ILCC Summer 2022 Meeting, Lisbon, Portugal, July 2022.
152. [Lewis, K. L.](#), Herbert, K. M., White, T. J., "Liquid Crystalline Elastomers Containing Supramolecular Bonds", Oral Presentation, International Liquid Crystal Conference, Lisbon, Portugal, July 2022.
153. [Skillin, N. P.](#), Herbert, K. M., Kirkpatrick, B. E., Hach, G. K., Günay, K. A., DelRio, F. W., Khan, R. M., Anseth, K. A., White, T. J., "Collective cell mechanosensing drives muscle myotube alignment on monodomain liquid crystal polymer networks," 37th National MD-PhD Conference, Copper, CO, June 2022. (Poster)
154. [Hebner, T.S.](#), Bowman, C.N., White, T.J., "Controlled Actuation of Light-Activated Liquid Crystalline Elastomers Enabled by Tunable Disruption of Order", Oral Presentation, MRS Spring Meeting, Honolulu, HI, May 2022
155. [Hebner, T.S.](#), Bowman, C.N., White, T.J., "Tunable Response in Liquid Crystalline Elastomers for Complex and Reprogrammable Actuations", Oral presentation, MRS Spring Meeting, Honolulu, HI, May 2022
156. [Lewis, K. L.](#), Herbert, K. M., White, T. J., "Subcritical Phase Transitions in Supramolecular Liquid Crystalline Elastomers", Poster Presentation, Materials Research Society Spring National Meeting, Honolulu, HI, May 2022.
157. [Phillips, A.T.](#), Schlafmann, K.R., Fowler, H.E., White, T.J., "Electrically Tunable, Fully Solid Reflective Optical Elements," MRS Spring Meeting, Honolulu, May 2022.
158. [Skillin, N. P.](#), Anseth, K. S., White, T. J. "Molecular engineering of liquid crystal-poly(ethylene glycol) (LC-PEG) block copolymers for 3D printed biomaterial scaffolds," MRS Spring Meeting, Honolulu, HI, May 2022. (Poster)
159. [Bauman, G.E.](#), McCracken, J.M., White, T.J., "4-D printing of efficient thermomechanical and magnetothermal actuators based on liquid crystalline elastomers", ACS Spring Meeting, San Diego, March 2022
160. [Hebner, T.S.](#), Bowman, C.N., White, T.J., "Photoinduced deformation and shape memory in diarylethene-functionalized liquid crystal elastomers facilitated by thiol-anhydride dynamic chemistry", Oral Presentation, ACS Spring Meeting, San Diego, CA, March 2022
161. [Hebner, T.S.](#), Bowman, C.N., White, T.J. "Association of alignment methodology and actuation of liquid crystalline elastomers", Oral Presentation, ACS Spring Meeting, San Diego, CA, March 2022
162. [Hebner, T.S.](#), Bowman, C.N., White, T.J., "Thiol-acrylate chain transfer polymerization to prepare and functionalize liquid crystalline elastomers" Oral Presentation, ACS Spring Meeting, San Diego, CA, March 2022
163. [Hebner, T.S.](#), Bowman, C.N., White, T.J. "Circumventing physical limits of liquid crystalline elastomer actuation", Oral Presentation, Padden Award Symposium, APS March Meeting, Chicago, IL, March 2022
164. [Herman, J.A.](#), White, T.J. "Optimizing the Polymer Network Architecture in Liquid Crystalline Containing Polymer Networks to Enhance Functional Outcomes." ACS Spring Meeting, San Diego, March 2022.

165. Lewis, K. L., Herbert, K. M., White, T. J., "Subcritical Phase Transitions in Supramolecular Liquid Crystalline Elastomers", Oral Presentation, American Chemical Society Spring National Meeting, San Diego, CA, March 2022.
166. Alahmed, M. S., Schlafmann, K. R., White, T. J., "Optimizing Thermochromism in Cholesteric Elastomers", Undergraduate Research Poster Symposium, Boulder CO, December 2021. (poster)
167. Fowler, H.E., Rothmund, P., Keplinger, C., White, T.J., "Liquid Crystal Elastomers with Enhanced Directional Actuation to Electric Fields," MRS Fall Meeting, Boston, December 2021.
168. Bauman, G. E., McCracken, J. M., White, T. J. "Molecular Engineering of Liquid Crystalline Elastomer Inks for Additive Manufacturing of Biologically Relevant Actuators" MRS Fall Meeting, Boston, December 2021.
169. Herman, J. A., Koch, J. A., White, T.J. "Optimizing the Elastocaloric Output of Liquid Crystalline Elastomers" ACS National Meeting, August 2021. (virtual)
170. Bauman, G. E., McCracken, J. M., White, T. J., "Reduced Actuation Temperature of 3-D Printed Liquid Crystal Elastomers" ACS National Meeting, August 2021. (virtual)
171. Radka, B.P., White, T.J. "Exploring the electro-optic response of stabilized cholesteric liquid crystals containing non-liquid crystalline polymer network" SPIE Optics+Photonics, August 2021. (virtual)
172. Fowler, H.E., Rothmund, P., Keplinger, C., White, T.J., "Programmable Electromechanical Deformation of Liquid Crystal Elastomers," American Chemical Society National Meeting, April 2021. (virtual)
173. Hebner, T.S., Bowman, C.N., and White, T.J., "Molecular engineering of intermolecular interactions in liquid crystal elastomers to enhance photomechanical response", American Chemical Society National Meeting, April 2021. (virtual)
174. Hebner, T.S., Bowman, C.N., White, T.J., "Molecular Engineering of Liquid Crystalline Elastomers to Enhance Phototropic Disruption of Order", MRS Fall Meeting, Virtual, December 2020
175. Donovan, B. R., Fowler, H. F., Matavulj, T. M., Ahn, S., Guin, T., White, T. J. "Exploiting Self-Assembly in Photoresponsive Materials" ACS National Meeting, August 2019.
176. Schlafmann, K. R., Brannum, M. T., White, T. J., "Reconfigurable optics in liquid crystalline elastomers", SPIE Optics & Photonics, San Diego CA, August 2019. (poster)
177. Radka, B. P., White, T. J., "Towards elucidating the electrochemical interaction of ions and structurally chiral polymer stabilized networks in electrically tunable filters", SPIE Optics and Photonics Conference, August 2019 (Poster)
178. Donovan, B. R., Fowler, H. F., Matavulj, T. M., White, T. J. "Mechanotropic Elastomers" International Conference on Ferroelectric Liquid Crystals, August 2019.
179. Schlafmann, K. R., Brannum, M. T., White, T. J., "Reconfigurable optics in liquid crystalline elastomers", Ferroelectric Liquid Crystals Conference, Boulder CO, August 2019. (poster)
180. Radka, B. P., White, T. J., "Towards elucidating the electrochemical interaction of ions and structurally chiral polymer stabilized networks in electrically tunable filters", International Conference on Ferroelectric Liquid Crystals, August 2019 (Poster)
181. McConney, M.E., White, T.J., and Bunning, T.J. "Using Polymers to Affect the Behavior of Liquid Crystals." ACS National Meeting, Boston MA, August 2018.
182. McConney, M.E., White, T.J., Rumi, M., and Bunning, T.J. "Polymer stabilization of chiral nematic liquid crystals to realize distinctive electro-optic performance." SPIE Optics + Photonics, San Diego CA, August 2018. (invited)
183. Kowalski, B.A., Guin, T., and White, T.J. "Heavy Lifting with Soft Materials: Directed Self-Assembly of Liquid Crystal Elastomers." International Liquid Crystal Conference, Kyoto Japan, July 2018.
184. McCracken, J. M., Tondiglia, V. P., Auguste A. D., Bagnall, B. N., Godman, N. P., Grusenmeyer, T. A., Berrigan, J. D., White, T. J., "Epoxy Resin Development to Enable 3D Patterned Shape-

Responsive Liquid Crystalline Elastomers", International Liquid Crystal Conference, Kyoto Japan, July 2018.

185. Kowalski, B.A., Donovan, B., and White, T.J. "Optical programming and switching of curvature in liquid crystal elastomers" SIAM Conference on Mathematical Aspects of Materials Science, Portland OR, July 2018. (invited)
186. Donovan, B.R., Godman, N. P., Guin, T., Kowalski, B.A., and White, T.J., "Pixelated Polymers - Directing the Self Assembly of Liquid Crystalline Elastomers." RadTech, Chicago IL, May 2018. (invited)
187. Mills, M.S., Kowalski, B.A., Tondiglia, V.P., Lee, K.M., Steele, A.M., White, T.J., Evans, D.R. "Spectrally tunable Airy beam generation using cholesteric liquid crystals." Conference on Lasers and Electro-Optics, San Jose CA, May 2018. (invited)
188. Kowalski, B.A., and White, T.J. "Pixelated polymers: directed self-assembly of liquid crystal elastomers." SPIE Defense & Commercial Sensing, Orlando, FL, April 2018. (invited)
189. McCracken, J. M., Godman, N. P., Tondiglia V. P., White, T. J. "Resin Development to Enable Printing of Shape-Responsive Liquid Crystalline Elastomers", Materials Research Society, Phoenix, AZ, April 2018.
190. Auguste, A., Harper, E. and White, T., "Tailoring Poisson's Ratio via the Directed Self-Assembly of Liquid Crystal Elastomers", American Physical Society March Meeting, Los Angeles, CA, March 2018.
191. Kowalski, B.A., Godman, N., Mostajeran, C., Warner, M., and White, T.J. "Curvature by design in liquid crystal elastomer sheets." American Physical Society March Meeting, Los Angeles, CA, March 2018.
192. Rumi, M., White, T.J., Bunning, T.J., "Photoinduced effects in guest-host liquid crystals containing naphthopyran derivatives", 2017 MRS Fall Meeting, Boston, MA, November-December, 2017.
193. Auguste, A., White, T.J., "Omni-directional soft elasticity for designer substrates", invited seminar, Hope College, Holland, MI, November 2017.
194. Warner, M., Mostajeran, C., Kowalski, B., White, T.J., "Topography from the flash of a lamp?", International Liquid Crystal Elastomer Conference (ILCEC), Houston, TX, October 2017. (plenary keynote)
195. Auguste, A., White, T.J., "Tuning Poisson's ratios through omni-directional soft elasticity", International Liquid Crystal Elastomer Conference (ILCEC), Houston, TX, October 2017.
196. Kowalski, B., White, T.J., "Tailored curvatures in liquid crystal elastomer sheets", International Liquid Crystal Elastomer Conference (ILCEC), Houston, TX, October 2017.
197. Guin, T., White, T.J., "Photo-Patterned Carbon Nanotube - Liquid Crystal Elastomer Nanocomposites", International Liquid Crystal Elastomer Conference (ILCEC), Houston, TX, October 2017.
198. Donovan, B., White, T.J., "LCEs from Thiol-ene Polymerizations", International Liquid Crystal Elastomer Conference (ILCEC), Houston, TX, October 2017.
199. Leslie, M.T., Venetos, M., White, T.J., Wnek, G.E., Korley, L.T.J., "Shape and color tuning in cholesteric liquid crystal elastomers", International Liquid Crystal Elastomer Conference (ILCEC), Houston, TX, October 2017.
200. Lee, K. M., Baczkowski, M., Wang, D. H., Lee, D. H., White, T. J., Tan, L.-S., "Effect of Bulky Cardo-diamine on Photomechanical Response in Linear Azobenzene Polyimides", Frontiers of Photoactive Soft Matter 2017, Boulder, CO, September 2017. (Poster)
201. Donovan, B. R., White, T. J., "Uniform Liquid Crystal Elastomers from Thiol-ene Photopolymerizations" Frontier of Photoactive Soft Matter, Boulder, CO, September 2017.

202. Donovan, B. R., White, T. J., "Uniform Liquid Crystal Elastomers from Thiol-ene Photopolymerizations" Photopolymerization Fundamentals Meeting, Boulder, CO, September 2017.
203. Lee, K. M., Tondiglia, V., and White, T. J., "Initiatorless Photopolymerization of Liquid Crystal Monomers: Enabling Improved Electrooptic Device Performance", Photopolymerization Fundamentals 2017, Boulder, CO, September 2017. (Poster)
204. Godman, N.P., Auguste, A.D., Kowalski, B.A., and White, T.J., "Liquid crystal elastomers derived using chain transfer agents", ACS National Meeting, Washington DC, August 2017.
205. Donovan, B. R., White, T. J., "Liquid Crystal Elastomers with Programmable and Dynamic Shape Change" ACS National Meeting, Washington DC, August 2017.
206. Guin, T., Kowalski, B., Auguste, A., Rahul, R., Grabowski, C., Maruyama, B., Vaia, R., White, T. J., "Voxelated Liquid Crystal Elastomer Nanocomposites," ACS National Meeting, Washington DC, August 2017.
207. Auguste, A., White, T.J., "Exploring the functionality of homeotropically aligned liquid crystal elastomers", American Chemical Society 254th National Meeting, Washington, DC, August 2017.
208. Kowalski, B., Guin, T., White, T.J., "Liquid crystalline elastomer films: actuation under load", American Chemical Society (ACS) National Meeting, Washington, DC, August 2017.
209. Mills, M.S., Kowalski, B., White, T.J., Evans, D.R., "Electrically Selectable Airy Beams using Cholesteric Liquid Crystals", International Photorefractive Review, Sarasota, FL, June 2017.
210. Leslie, M.T., White, T.J., Wnek, G.E., Korley, L.T.J., "Bioinspired stimuli-responsive materials: concurrent shape and color change in programmed cholesteric liquid crystal", American Chemical Society National Meeting, San Francisco, CA, April 2017.
211. Guin, T., Kowalski, B., Auguste, A., Rahul, R., Grabowski, C., White, T. J., "Voxelated Liquid Crystal Elastomer Nanocomposites," ACS National Meeting, San Francisco, CA, April 2017.
212. Kowalski, B., Mostajeran, C., Warner, M., White, T.J., "Thermomechanical deformation of liquid crystalline elastomers: from flat to functional", American Chemical Society (ACS) National Meeting, San Francisco, CA, April 2017
213. Auguste, A., Godman, N., White, T.J., "Omnidirectional nonlinear elasticity in liquid crystal elastomers", American Chemical Society 253rd National Meeting, San Francisco, CA, April 2017.
214. Leslie, M.T., White, T.J., Wnek, G.E., Korley, L.T.J., "Bioinspired stimuli-responsive materials: concurrent shape and color change in programmed cholesteric liquid crystal", Research ShowCASE, Case Western Reserve University, Cleveland, OH, April 2017.
215. Guin, T., Kowalski, B., Auguste, A., Rahul, R., Grabowski, C., White, T. J., "Electrically-Induced Shape Change in Patterned Carbon Nanotube-Containing Liquid Crystal Elastomers," MRS National Meeting, Phoenix, AZ, April 2017.
216. Auguste, A., Godman, N., Guin, T., White, T.J., "Omnidirectional soft elasticity in homeotropically aligned liquid crystal elastomers", Material Research Society Spring Meeting, Phoenix, AZ, April 2017.
217. Rumi, M., White, T. J., Bunning, T. J., "Properties of polymer stabilized cholesteric liquid crystals in the oblique helicoidal state", APS March Meeting 2017, New Orleans, LA, March 2017.
218. Kowalski, B., White, T.J., "Resolution limits of voxelated liquid crystal networks and elastomers", American Physical Society (APS) March Meeting, New Orleans, LA, March 2017
219. Auguste, A., White, T.J., "Localizing linear and nonlinear elastic responses in liquid crystal elastomers", American Physical Society March Meeting, New Orleans, LA, March 2017.
220. Lee, K. M., Tondiglia, V., Bunning, T. J., and White, T. J., "Time-dependent Deformation of Polymer Network in Polymer Stabilized Cholesteric Liquid Crystals", Emerging Liquid Crystal Technology XII, SPIE Photonics West, San Francisco, CA, February 2017.

221. Lee, K. M., Tondiglia, V., and White, T. J., "Dynamic EO responses in Positive Dielectric Anisotropy Polymer Stabilized Cholesteric Liquid Crystals", Emerging Liquid Crystal Technology XII, SPIE Photonics West, San Francisco, CA, January 2017.
222. Lee, K. M., Tondiglia, V., Bunning, T. J., and White, T. J., "Photo-controllable reflection notch tuning and broadening in PSCLCs", Emerging Liquid Crystal Technology XII, SPIE Photonics West, San Francisco, CA. February 2017. (Poster)
223. Tondiglia, V.P., Lee, K.M., and White, T.J., "Bandgap Tuning Induced by Polymer Deformation in PSCLCs with Positive Dielectric Anisotropies", SPIE Optics+Photonics, San Diego, CA, August 2016. (invited)
224. Bunning, T.J., White, T.J., Evans, D.R., Tabiryan, N.V., "20 Years and Counting of LC Science and Technology at the Summer SPIE Meeting", SPIE Optics+Photonics, San Diego, CA, August 2016. (keynote)
225. Rumi, M., Kosa, T., Sukhomlikova, L., Taheri, B., White, T. J., and Bunning, T. J. "Environment effects on the kinetics of naphthopyrans in phototropic LC guest-host systems", 26th International Liquid Crystal Conference, Kent, OH, August 2016.
226. Kowalski, B. and White, T.J., "Switchable optical devices via surface relief in liquid crystal elastomers", 26th International Liquid Crystal Conference, Kent, OH, August 2016.
227. Beblo, R., Guin, T., White, T., and Reich, G., "Flow Control via Surface Topography Using Patterned Liquid Crystal Elastomer", 26th International Liquid Crystal Conference, Kent, OH, August 2016.
228. Guin, T., Ahn, S.-K., Ware, T.H., Lee, K.M., Tondiglia, V.P., and White, T.J., "Photoinduced Shape Change in Patterned Azobenzene-Containing Liquid Crystal Elastomers", 26th International Liquid Crystal Conference, Kent, OH, August 2016.
229. Lee, K.M., Ware, T., Tondiglia, V., McBride, M., Zhang, X., Bowman, C., and White, T., "Initiatorless Photopolymerization of Liquid Crystal Monomers", 26th International Liquid Crystal Conference, Kent, OH, August 2016.
230. Tondiglia, V., Lee, K.M., and White, T., "Photosensitivity of Reflection Notch Tuning and Broadening in Polymer Stabilized Cholesteric Liquid Crystals", 26th International Liquid Crystal Conference, Kent, OH, August 2016.
231. Lee, K.M., Tondiglia, V., and White, T., "The Effect of Polymer Network Structure on the Electro-Optic Response of Polymer Stabilized Cholesteric Liquid Crystals", 26th International Liquid Crystal Conference, Kent, OH, August 2016.
232. Kowalski, B. and White, T.J., "High resolution photopatterning of liquid crystal elastomers", Materials Research Society National Meeting, Phoenix, AZ, April 2016.
233. Mahoney, C., Park, K., Tondiglia, V., Luchette, P., Taheri, B., Palffy-Muhoray, P., White, T., and Vaia, R., "Gold Nanorods in Plasmonic Hybrids", Materials Research Society National Meeting, Phoenix, AZ, April 2016.
234. Lee, K.M., Tondiglia, V., and White, T., "The Effect of Polymer Network Structure on the Electro-Optic Response of Polymer Stabilized Cholesteric Liquid Crystals", Materials Research Society National Meeting, Phoenix, AZ, April 2016.
235. Tondiglia, V., Binzer, J.F., Lee, K.M., Bunning, T.J., and White, T.J., "Total reflection of electrically induced band gap changes in polymer stabilized cholesteric liquid crystals", Materials Research Society National Meeting, Phoenix, AZ, April 2016.
236. Rumi, M., White, T.J., and Bunning, T.J., "Photophysics of liquid crystal systems containing naphthopyran derivatives", APS March Meeting 2016, Baltimore, MD, March 2016.
237. Bunning, T.J., Lee, K.M., Tondiglia, V.P., and White, T.J., "Improving and Extending the Dynamic Optical Response of PSCLCs with Materials Chemistry", Pacifichem, Honolulu, HI, December 2015.

238. De Sio, L., Placido, T., Comparelli, R., Curri, L., Serak, S., Tabirian, N., White, T.J., and Bunning, T., "Cholesteric Liquid Crystals + Nanoparticles", Pacificchem, Honolulu, HI, December 2015.
239. Buskohl, P.R., Fuchi, K., Ware, T., Bazzan, G., Durstock, M.F., Tan, L.-S., Joo, J., Reich, G., White, T., and Vaia, R.A., "Design Tools for Functional Reconfiguration of Liquid Crystal Elastomers", Materials Research Society National Meeting, Boston, MA, December 2015.
240. Ware, T.H. and White, T.J., "Programmable Shape Change and Mechanics in Liquid Crystal Elastomers", International Symposium on Stimuli-Responsive Materials, Sonoma, CA, October 2015. (invited)
241. Wie, J.J., Lee, K.M., Ware, T.H., McConney, M.E., Tondiglia, V.P., and White, T.J., "Programmable stimuli-responsive liquid crystalline polymers", Polymer Society of Korea, Daegu, Korea, October 2015.
242. Reich, G.W., Fuchi, K., Ware, T., Buskohl, P.R., Bazzan, G., Durstock, M.F., Tan, L.-S., Joo, J., White, T., and Vaia, R.A., "Design of origami structures and mechanisms for aerospace applications". Smart Material, Adaptive Structures, and Intelligent Systems Meeting, Colorado Springs, CO, September 2015.
243. Rumi, M., Cazzell, S., Kosa, T., Sukhomlikova, L., Taheri, B., White, T.J., and Bunning, T.J., "Photophysics of photoinduced order increase in liquid crystals doped with naphthopyran derivatives", Optics of Liquid Crystal Conference, Sopot, Poland, September, 2015.
244. Bunning, T.J., White, T.J., Lee, K.M., Tondiglia, V., Binzer, J., De Sio, L., Serak, S., Umeton, C., and Tabirian, N., "Cholesteric LC's - a couple of scientific vignettes", Optics of Liquid Crystal Conference, Sopot, Poland, September, 2015.
245. Lee, K.M., Ware, T.H., Tondiglia, V.P., and White, T.J., "Initiatorless Photopolymerization of Liquid Crystal Monomers", American Chemical Society National Meeting (POLY), August 2015.
246. Tan, L.-S., Wang, D.H., Koerner, H., White, T.J., and Vaia, R.A. "Thermally activated shape-memory polyimides for origami-inspired objects in hot environment." 2015 European Polymer Congress, Dresden, Germany, June 2015.
247. Tondiglia, V.P., Lee, K.M., Binzer, J., Bunning, T.J., and White, T.J., "Total Reflection Properties of Dynamic Cholesteric Liquid Crystals", Novel Optical Materials and Applications Conference (NOMA), Calabria, Italy, June 2015. (invited)
248. Wang, D.H., Baczkowski, M. L., Wie, J.J., White, T.J., and Tan, L.-S., "Synthesis and structure-property relationship of novel azobenzene-containing diamines and polyimides", American Chemical Society National Meeting (PMSE), Denver, CO, April 2015.
249. Bunning, T.J., Hrozhyk, U.A., Serak, S., De Sio, L., Umeton, C., Tabirian, N.V., and White, T.J., "Responsive Liquid Crystal/Polymer Aperiodic and Periodic Composites", American Chemical Society National Meeting (COLL), Denver, CO, April 2015.
250. Bunning, T.J., Rumi, M., Cazzell, S., White, T.J., Kosa, T., Sukhomlinova, L., and Taheri, B., "Photophysics of photoinduced disorder-to-order transitions in dye-doped liquid crystals", Materials Research Society National Meeting, San Francisco, CA, April 2015.
251. Smith, M.J., Malak, S.T., Jung, J., Lin, Z.H., White, T.J., Bunning, T.J., Lin, Z., and Tsukruk, V.V., "Utilizing thiol-ene click chemistry to fabricate highly emissive QD patterns for polymer based optical systems", Materials Research Society National Meeting, San Francisco, CA, April 2015.
252. Rumi, M., Cazzell, S., Kosa, T., Sukhomlikova, L., Taheri, B., White, T. J., Bunning, T. J., "Phototropic liquid crystal materials containing naphthopyran dopants", APS March Meeting 2015, San Antonio, TX, March 2015.
253. Gibson, J., Liu, X., Georgakopoulos, S.V., Ware, T., Wie, J.J., and White, T.J., "Novel Reconfigurable Antennas Using Liquid Crystal Elastomers", APS April Meeting, April 2015.

254. Lee, K. M., Tondiglia, V., Natarajan, L., McConney, M. E., Bunning, T. J., and White, T. J., "Large Reflection Notch Tuning of Cholesteric Liquid Crystals Stabilized by Chiral Liquid Crystal Polymers", SPIE Photonic West, San Francisco, CA, February 2015.
255. Bunning, T.J., Serak, S., DeSio, L., Umeton, C., Ouskova, E., Tondiglia, V.P., White, T.J., Binzer, J., and Tabiryan, N.V., "Dynamic LC/Polymer Systems", SPIE Photonic West, San Francisco, CA, February 2015. (invited)
256. Buskohl, P.R., Fuchi, K., Ware, T., Bazzan, G., Durstock, M.F., Tan, L.-S., Joo, J., Reich, G., White, T., and Vaia, R.A., "Design of Origami-based Materials: An Optimization Approach". Workshop on Origami Design for Integration of Self-assembling Systems for Engineering Innovation (ODISSEI), Miami, FL, January 2015 (invited)
257. Ware, T.H. and White, T.J., "Main-Chain Liquid Crystal Elastomer Actuators with Photopatterned Director Orientation", Materials Research Society National Meeting, December 2014.
258. Lee, K. M., Tondiglia, V., Natarajan, L., McConney, M. E., Bunning, T. J., and White, T. J., "Color and Bandwidth Control in Polymer Stabilized Cholesteric Liquid Crystals", IMID, Daegu Korea, August, 2014.
259. Wie, J.J., Wang, D.H., Tondiglia, V.P., Tabiryan, N.V., Vergara-Tolozza, R.O., Tan, L.-S., and White, T.J., "Light to work to electricity in azobenzene-functionalized linear polyimide copolymers", SPIE Optics + Photonics, San Diego, CA, August 2014.
260. Ware, T.H., McConney, M.E., Wie, J.J., and White, T.J., "Origami-Inspired Main-Chain Liquid Crystal Elastomer Actuators", International Liquid Crystal Conference (ILCC), Dublin, Ireland, June 2014.
261. Rumi, M., White, T. J., and Bunning, T. J., "Reflection spectra of distorted cholesteric liquid crystal structures in cells with interdigitated electrodes", International Liquid Crystal Conference (ILCC), Dublin, Ireland, June 2014.
262. Vaia, R.A., Durstock, M.F., White, T.J., Tan, L.-S., Joo, J.J., and Reich, G.W., "Where art and technology meet: Origami for three-dimensional adaptive devices", SPIE DSS, Baltimore, MD, May 2014. (invited keynote)
263. Reich, G.W., Vaia, R.A., White, T.J., Joo, J.J., Durstock, M.F., and Tan, L.-S., "Adaptive Origami for Aerospace Systems", MRS Spring Meeting, San Francisco, CA, April 2014. (invited)
264. Wie, J.J., McConney, M.E., Lee, K.M., and White, T.J., "Shape Adaptivity of Light-Responsive Liquid Crystalline Polymer Networks: Twisting, Folding and Locomotion", MRS Spring Meeting, San Francisco, CA, April 2014.
265. Ware, T.H., Wie, J.J., McConney, M.E., and White, T.J., "Optimization of Materials Chemistry of Photoresponsive Liquid Crystal Polymer Networks", MRS Spring Meeting, San Francisco, CA, April 2014.
266. Chatterjee, S., Shankar, M.R., Smith, M.L., Tondiglia, V.P., Lee, K.M., McConney, M.E., Wang, D.H., Tan, L.-S., Wie, J.J., and White, T.J., "Photodriven Snapping Instability of Azobenzene-Functionalized Polymers", MRS Spring Meeting, San Francisco, CA, April 2014.
267. Smith, M.L., Shankar, M.R., Backman, R., Tondiglia, V.P., Lee, K.M., McConney, M. E. , Wang, D.H., Tan, L.S., and White, T.J., "Designing light responsive bistable arches for rapid, remotely triggered actuation," SPIE Smart Structures/NDE, San Diego, CA, March 2014.
268. Wie, J.J., Wang, D.H., Lee, K.M., Tan, L.-S., and White, T.J., "Positional Isomer Effects on Photomechanical Response of Azobenzene Functionalized Polyimides", APS March Meeting, Denver, CO, March 2014.
269. Rumi, M., Tondiglia, V.P., Natarajan, L.V., White, T.J., and Bunning, T.J., "Microcharacterization of cholesteric liquid crystals in interdigitated electrode-based cells", SPIE Photonics West, San Francisco, CA, February 2014. (invited)

270. Vernon, J.P., Rumi, M., Hrozhyk, U.A., Serak, S.V., Tondiglia, V.P., McConney, M.E., Tabiryan, N.V., White, T.J., and Bunning, T.J., "Photoresponsive Cholesteric Liquid Crystal Architectures", Optics of Liquid Crystals, Honolulu, HI, September 2013. (invited)
271. Taheri, B., Munoz, A., McConney, M.E., Kosa, T., Luchette, P., Sukhomlinova, L., White, T.J., and Bunning, T.J., "CW Mirrorless Lasing in Cholesteric Liquid Crystals", Optics of Liquid Crystals, Honolulu, HI, September 2013. (invited)
272. Vernon, J.P., Zhao, A.D., Lynch, B.M., Tondiglia, V.P., White, T.J., Tabiryan, N.V., and Bunning, T.J., "Self-regulated and infrared-stimulated control of light transmission through cholesteric liquid crystals", ACS National Meeting (POLY), Indianapolis, IN, September 2013.
273. Wang, D.H., Wie, J.J., Lee, K.M., White, T.J., and Tan, L.-S., "Photomechanical responses of high T_g main-chain-azobenzene-containing polyimides", ACS National Meeting (POLY), Indianapolis, IN, September 2013.
274. Wie, J.J., Lee, K.M., McConney, M.E., and White, T.J., "Body Temperature Triggered Shape Memory Properties of Twisted Nematic Liquid Crystal Polymer Networks", ACS National Meeting (POLY), Indianapolis, IN, September 2013.
275. McConney, M.E., Wie, J.J., Tondiglia, V.P., and White, T.J., "Bending and Buckling of Photoresponsive Liquid Crystalline Networks", International Liquid Crystal Elastomer Conference, Shanghai, China, September 2013. (invited)
276. Rumi, M., Tondiglia, V.P., Natarajan, L.V., White, T.J., and Bunning, T. J., "Local optical spectra and texture for chiral nematic liquid crystals in cells with interdigitated electrodes", Optics of Liquid Crystals, Honolulu, HI, September 2013.
277. Bunning, T.J., Vernon, J.P., Tabiryan, N.V., Serak, S.V., Tondiglia, V.P., Rumi, M., Lee, K.M., McConney, M.E., and White, T.J., "Responsive Cholesteric Liquid Crystals", SPIE Optics+ Photonics, San Diego, CA, August, 2013. (invited)
278. Tabiryan, N.V., Nersisyan, S.R., Serak, S.V., White, T.J., Bunning, T.J., Steeves, D.M., and Kimball, B.R., "The Science (and the Art) of Switching Diffractive Waveplates", SPIE Optics+ Photonics, San Diego, CA, August, 2013. (invited)
279. Lee, K.M., Tondiglia, V.P., Natarajan, L.V., McConney, M.E., Bunning, T.J., and White, T.J., "Large Color Tuning of Polymer Stabilized Negative Dielectric Anisotropy Cholesteric Liquid Crystals", SPIE Optics+ Photonics, San Diego, CA, August, 2013.
280. Rumi, M., Tondiglia, V.P., Natarajan, L.V., White, T.J., and Bunning, T.J., "Effects of in-plane electric fields on the optical properties of cholesteric liquid crystals, SPIE Optics+ Photonics, San Diego, CA, August, 2013.
281. Tondiglia, V.P., Natarajan, L.V., McConney, M.E., Bailey, C., Yang, D.-k., Bunning, T.J., and White, T.J., "Mechanism for field dependent reflection band broadening in polymer stabilized cholesteric liquid crystal.", Novel Optical Materials and Applications Conference (NOMA), Calabria, Italy, June 2013.
282. Serak, S.V., Vergara, R., Tabiryan, N.V., White, T.J., and Bunning, T.J., "Advancing the prospects of using photoresponsive azopolymer liquid crystals for adaptive membrane optics, polymer engines and opto-mechanical power conversion", Canadian Chemistry Conference and Exhibition, Montreal, Canada, May 2013. (invited)
283. White, T.J., Bunning, T.J., and Tabiryan, N.V., "Photosensitive polymer/liquid crystal mixtures", ACS National Meeting (PMSE), New Orleans, LA, April 2013. (invited) (award talk for ACS PMSE Cooperative Research Award in Applied Polymer Science)
284. Natarajan, L.V., Tondiglia, V.P., Lee, K.M., McConney, M.E., Keister, C., Bunning, T.J., and White, T.J., "Dynamic reflection notch bandwidth broadening in polymer stabilized cholesteric liquid crystals", ACS National Meeting (POLY), New Orleans, LA, April 2013.

285. Lee, K.M., Natarajan, L.V., Tondiliga, V.P., McConney, M.E., Bunning, T.J., and White, T.J., "Large Reflection Notch Tuning of Cholesteric Liquid Crystals Stabilized by Chiral Liquid Crystal Polymers", ACS National Meeting (POLY), New Orleans, LA, April 2013.
286. McConney, M.E., Duning, M., Cazzell, S., Natarajan, L.V., Tondiglia, V.P., White, T.J., and Bunning, T.J., "Templated chiral polymer architectures", ACS National Meeting (POLY), New Orleans, LA, April 2013.
287. Vernon, J.P., Serak, S.V., Hrozhyk, U.A., Tondiglia, V.P., White, T.J., Tabiryan, N.V., and Bunning, T.J., "Optically reconfigurable media enabled by photosensitive surfaces", ACS National Meeting (COLL), New Orleans, LA, April 2013.
288. Wie, J.J., Lee, K.M., Lynch, B.M., and White, T.J., "Three-dimensional mechanical deformations of azobenzene functionalized liquid crystalline polymer networks", ACS National Meeting (POLY), New Orleans, LA, April 2013.
289. McConney, M.E., Bunning, T.J., Vernon, J.P., Tabiryan, N.V., Serak, S.V., Tondiglia, V.P., Rumi, M., Lee, K.M., and White, T.J., "Responsive Cholesteric Liquid Crystals", SPIE Photonics West, San Francisco CA, January, 2013. (invited)
290. McConney, M.E., Martinez, A., Lee, K.M., Tondiglia, V.P., Bunning, T.J., Smalyukh, I., and White, T.J. "Directed Self-Assembly of Liquid Crystalline Polymers through Photo-alignment Surfaces", 2012 Fall Materials Research Society Meeting, Boston, MA, December 2012.
291. Lee, K.M., Tondiglia, V., Natarajan, L., McConney, M., Bailey, C., White, T., and Bunning, T. "Dynamic Coloration Effects in Negative Dielectric Anisotropy Cholesteric Liquid Crystals", International Meeting on Information Display (IMID), Seoul Korea, August 2012. (invited)
292. Kosa, T., Sukhomlinova, L., Su, L., Taheri, B., White, T.J., and Bunning, T.J. "Light Induced Liquid Crystallinity - Order-increasing Phase Transitions in Naphthopryan Guest-Host Mixtures", International Liquid Crystal Conference (ILCC), Mainz, Germany, August 2012.
293. Taheri, B., Munoz, A., McConney, M.E., Kosa, T., Luchette, P., Sukhomlinova, L., White, T.J., and Bunning, T.J. "CW mirrorless lasing in cholesteric liquid crystals", International Liquid Crystal Conference (ILCC), Mainz, Germany, August 2012.
294. Bunning, T.J., Tabiryan, N.V., Serak, S., Hrozhyk, U.A., Vernon, J., Tondiglia, V., and White, T. "Dynamic photo-driven optical architectures using azo-benzene and liquid crystal material combinations", SPIE Optics+Photonics, San Diego, CA, August 2012. (invited)
295. Bunning, T.J., Bailey, C.A., McConney, M.E., Yang, D.-k., Natarajan, L., Tondiglia, V., and White, T.J. "Novel electro-optic effects in negative dielectric polymer stabilized cholesteric liquid crystals", SPIE Optics+Photonics, San Diego, CA, August 2012. (invited)
296. Lee, K.M., Tondiglia, V., Natarajan, L., Bailey, C.A., White, T., Bunning, T.J. "Electromechanical tuning of negative dielectric anisotropic cholesteric liquid crystals", SPIE Optics+Photonics, San Diego, CA, August 2012.
297. Vernon, J., Serak, S., Hrozhyk, U., Tondiglia, V., White, T.J., Tabiryan, N.V., and Bunning, T.J. "Cholesteric liquid crystals and photoalignment surfaces", SPIE Optics+Photonics, San Diego, CA, August 2012.
298. Lee, K.M., Tabiryan, N.V., Bunning, T.J., and White, T.J. "Photochemical mechanism in the generation of photomechanical behavior of the polydomain azobenzene liquid crystal polymer networks", SPIE Optics+Photonics, San Diego, CA, August 2012.
299. Lee, K.M., Wang, D.H., Koerner, H., Vaia, R.A., Tan, L.-S., and White, T.J. "Photomechanical Behavior of Azobenzene Polyimides", Collaborative Conference on Materials Research, Seoul, South Korea, June 2012.
300. Wang, D.H., Lee, K.M., Koerner, H., Yu, Z., Vaia, R.A., White, T.J., and Tan, L.-S. "Azobenzene-Containing, High Tg, Crosslinked and Linear Aromatic Polyimides: Photomechanically Bendable

and Twistable", CIMTEC 4th International Conference on Smart Materials, Structures, and Systems, Montecatini Terme, Italy, June 2012.

301. McConney, M.E., Duning, M., Natarajan, L.V., Tondiglia, V.P., Bailey, C., White, T.J., and Bunning, T.J. "Dynamic Coloration Enabled by Polymer Stabilized Cholesteric Liquid Crystals", CIMTEC 4th International Conference on Smart Materials, Structures, and Systems, Montecatini Terme, Italy, June 2012. (invited)
302. McConney, M.E., Duning, M., Natarajan, L.V., Tondiglia, V.P., White, T.J., and Bunning, T.J. "Helicoidally structured gels undergoing order-disorder phase transitions", American Chemical Society National Meeting, San Diego, CA, April 2012.
303. Taheri, B., Munoz, A., McConney, M.E., Kosa, T., Luchette, P., Sukhomlinova, L., White, T.J., and Bunning, T.J. "CW mirrorless lasing in cholesteric liquid crystals", SPIE Photonics West, San Francisco, CA, January 2012. (invited)
304. Natarajan, L.V., McConney, M.E., Duning, M., Tondiglia, V.P., White, T.J., and Bunning, T.J. "Thermally responsive polymer/liquid crystal gels exhibiting large scale color changing in cholesterics", SPIE Photonics West, San Francisco, CA, January 2012. (invited)
305. Tabiryan, N., Nersisyan, S.R., Serak, S.V., White, T.J., Bunning, T.J., Steeves, D.M., and Kimball, B.R. "Modernizing the technology for controlling light, both laser and broadband, with diffractive waveplates", SPIE Photonics West, San Francisco, CA, January 2012. (invited)
306. McConney, M.E., Duning, M., Natarajan, L., Tondiglia, V.P., White, T.J., Bunning, T.J. "Responsive Polymer/Liquid Crystal Nanocomposites enabling Large Scale Coloration Changes", 2011 Fall Materials Research Society Meeting, Boston, MA, December 2011.
307. Duning, M., Voevodin, A., McConney, M., Natarajan, L., Tondiglia, V.P., White, T.J., Bunning, T.J. "Structure/property relationships of Responsive LC Gels", 2011 Fall Materials Research Society Meeting, Boston MA, December, 2011.
308. Bunning, T.J., McConney, M.E., Duning, M.D., Voevodin, A., Natarajan, L.V., Tondiglia, V.P., White, T.J. "Thermal Responsive Gels based on Order/Disorder Transitions in Liquid Crystal Fluids", 2011 Fall Materials Research Society Meeting, Boston, MA, December 2011.
309. Lee, K.M., Wang, D., Koerner, H., Vaia, R.A., Tan, L.-S., and White, T.J. "Photomechanical Response of Highly Glassy Azobenzene Polyimide Networks", 2011 Fall Materials Research Society Meeting, Boston, MA, December 2011.
310. Lee, K.M., Smith, M.L., Koerner, H., Vaia, R.A., Bunning, T.J., and White, T.J. "Molecular Orientation and Temperature Effects on Photodriven, Bending/Twisting and Multidimensional Oscillation of Azobenzene Liquid Crystalline Polymer Networks", 2011 Fall Materials Research Society Meeting, Boston, MA, December 2011.
311. Bunning, T.J., McConney, M.E., Hurtubise, J., Duning, M., Natarajan, L.V., Tondiglia, V., and White, T.J. "Dynamic Selective Reflection Properties in Cholesteric Liquid Crystals", International Stimuli Responsive Materials Conference, Hattiesburg, MS, October 2011. (invited)
312. Tabiryan, N.V., Nersisyan, S.R., White, T.J., Bunning, T.J., Steeves, D.M., and Kimball, B.R. "Transmittive-to-reflective electro-optical switching system based on polymer diffractive waveplates and photonic bandgaps", IMID-2011, Seoul, Korea, October 2011. (invited)
313. Serak, S.V., Vergara, R., Tabiryan, N.V., White, T.J., and Bunning, T.J. "Storing light energy and converting it into electricity with azobenzene liquid crystal elastomers", Optics of Liquid Crystals, Yerevan, Armenia, September 2011.
314. Bunning, T.J., White, T.J., McConney, M.E., Tabiryan, N.V., Serak, S., Hrozhyk, U., Bailey, C., Natarajan, L.V., and Tondiglia, V.P. "Dynamic Coloration and Cholesteric Liquid Crystals", Optics of Liquid Crystals, Yerevan, Armenia, September 2011. (invited)

315. Hrozhyk, U.A., Nersisyan, S.R., Tabiryan, N.V., Steeves, D., Kimball, B., White, T.J., and Bunning, T.J. "Universal Optical Controller", Photorefractive Workshop, Marco Island, FL, June 2011.
316. Lee, K.M., Wang, D.H., Koerner, H., Vaia, R.A., Tan, L.-S., and White, T.J. "Photomechanical Bending Behavior of Glassy, Amorphous Azo-Polyimides", American Chemical Society Meeting, Denver, CO, August 2011.
317. Li, Q., Ma, J., Li, Y., Matthews, M., White, T.J., and Bunning, T.J. "Light-driven chiral molecular switches for dynamic reflection color phototuning", American Chemical Society Meeting, Denver, CO, August 2011.
318. Bunning, T.J., McConney, M.E., Hurtubise, J., Duning, M., Natarajan, L.V, Tondiglia, V., and White, T.J. "Dynamic Selective Reflection Properties in Cholesteric Liquid Crystals", 2011 SPIE Optics and Photonics National Meeting, San Diego, CA, August 2011. (invited)
319. Taheri, B., Kosa, T., Sukhomlinova, L., White, T., Bunning, T., and Munoz, A. "Phototropic Liquid Crystals", 2011 SPIE Optics and Photonics National Meeting, San Diego, CA, August 2011. (invited)
320. Natarajan, L.V., White, T.J., Li, Q., and Bunning, T.J., "Polymer stabilization of phototunable cholesteric liquid crystals", 2011 SPIE Optics and Photonics National Meeting, San Diego, CA, August 2011.
321. Lee, K.M., Koerner, H., Vaia, R.A., Bunning, T.J., and White, T.J. "Light-Activated Shape Memory of Glassy, Azobenzene Liquid Crystalline Polymer Networks", 2011 SPIE Optics and Photonics National Meeting, San Diego, CA, August 2011.
322. Lee, K.M., Smith, M., Koerner, H., Tabiryan, N., Vaia, R.A., Bunning, T.J., and White, T.J., "Photodriven, multidimensional oscillation of glassy, azobenzene liquid crystalline polymer networks", 2011 SPIE Optics and Photonics National Meeting, San Diego, CA, August 2011.
323. Lee, K.M., McConney, M.E., Natarajan, L.V., Tondiglia, V., White, T.J., and Bunning, T.J., "Liquid Crystal/Polymer Composites as Novel Responsive Motifs", 2011 Nano Science and Technology Institute, Boston, MA, June 2011. (invited)
324. McConney, M.E., White, T.J., Hurtubise, J.M., Tondiglia, V.P., Bunning, T.J., "Dynamic High Contrast CLCs enabled by Surface tethered Polymer Stabilization", Liquid Crystal Gordon Conference, June 2011.
325. Tondiglia, V.P., Natarajan, L.V., Bailey, C.A., Duning, M.M., Sutherland, R.L., Voevodin, A., White, T.J., and Bunning, T.J. "DC-field controlled bandwidth broadening in polymer stabilized cholesteric liquid crystals", 10th International Novel Optical Materials and Applications Workshop, Cetraro, Italy, June 2011.
326. White, T., Lee, KM, Tondiglia, V., Koerner, H., Vaia, R., Bunning, T., "Polarization Controlled Photomechanical Behaviors of Polydomain Azobenzene Liquid Crystalline Polymer Networks", " APS Annual Meeting, Dallas, TX, March 2011.
327. Bunning, T., McConney, M., Hurtubise, J., Tondiglia, V., White, T., "A mechanistic study of a thermoresponsive polymer in a liquid crystal solvent", APS Annual Meeting, Dallas, TX, March 2011.
328. Lee, K.M., Smith, M., Koerner, H., Vaia, R., Bunning, T., and White, T. "Molecular Alignment and Temperature Effects on Photodriven, ultidimensional Oscillaion of Azobenzene Liquid Crystalline Polymer Networks", APS Annual Meeting, Dallas, TX, March 2011.
329. McConney, M., Hurtubise, J., Tondiglia, V., White, T., and Bunning, T. "The unique behavior of chiral template polymers swollen with liquid crystals", APS Annual Meeting, Dallas, TX, March 2011.

330. Duning, M., Bailey, C., Voevodin, A., Tondiglia, V., Natarajan, L., White, T., and Bunning, T. "Symmetric reflection band broadening of weakly polymer stabilized cholesteric thin films using low DC electric fields", APS Annual Meeting, Dallas, TX, March 2011.
331. Sutherland, R.L., Natarajan, L.V., Tondiglia, V.P., Bailey, C.A., Duning, M.M., Voevodin, A., White, T.J., Bunning, T.J. "Liquid Crystal Bragg Filters", SPIE Photonics West, San Francisco, CA, January 2011. (invited)
332. Lee, K., Bunning, T.J., and White, T.J. "Photomechanical Behaviors of Polydomain Azo-Liquid Crystalline Polymer Networks", 2010 Pacificchem Meeting, Honolulu, HI, December 2010. (invited)
333. Lee, K., Bunning, T.J., and White, T.J. "Temperature Effect on the Photodriven Oscillation Behaviors of Monodomain Azo-Liquid Crystalline Polymer Networks", 2010 Pacificchem Meeting, Honolulu, HI, December 2010.
334. Bunning, T.J., White, T.J., McConney, M.E., Hurtubise, J., Tabiryan, N.V., Serak, S.V., Natarajan, L.V., and Tondiglia, V.P. "Dynamic Cholesteric Liquid Crystals Using Spatially Templated Polymer Structures", 2010 Pacificchem Meeting, Honolulu, HI, December 2010. (invited)
335. McConney, M.E., Hurtubise, J., Tondiglia, V.P., Natarajan, L.V., White, T.J., and Bunning, T.J., "Interactions Between Cholesteric Templated Polymers and Liquid Crystals", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010.
336. Tabiryan, N.V., Serak, S., Vergara, R., White, T.J., Vaia, R.A., and Bunning, T.J. "The Prospect of Light-powered Polymer Engines and Photo-controlled Adaptive Membranes Based on Azobenzene Liquid Crystal Elastomers", Materials Research Society Meeting, Boston, MA, December 2010. (invited)
337. Bunning, T.J., White, T.J., McConney, M.E., Hurtubise, J., Tabiryan, N.V., Serak, S.V., Natarajan, L.V., and Tondiglia, V.P. "Dynamic Cholesteric Liquid Crystals Using Spatially Templated Polymer Structures", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010. (invited)
338. Taheri, B., Kosa, T., Sukhomlinova, L., Munoz, A., Su, L., White, T.J., and Bunning, T.J. "Phototropic Liquid Crystals", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010. (invited)
339. Natarajan, L.V., White, T.J., Li, Q., and Bunning, T.J. "Polymer Stabilization of Phototunable Cholesteric Liquid Crystals", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010.
340. Tabiryan, N.V., Serak, S.V., Vergara, R., White, T.J., Vaia, R.A., and Bunning, T.J. "The Prospect of Light-powered Polymer Engines and Photo-controlled Adaptive Membranes Based on Azobenzene Liquid Crystal Elastomers", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010. (invited)
341. Lee, K.M., Bunning, T.J., and White, T.J. "Shape Memory Behavior in Photoresponsive Azobenzene Liquid Crystal Polymer Networks", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010.
342. Oates, W.S., Wang, H., White, T.J., and Lee, K.M. "Polarized Light Induced Deformation of Azobenzene Liquid Crystal Elastomers", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010.
343. Natarajan, L.V., Tondiglia, V.P., Duning, M., Bailey, C., White, T.J., and Bunning, T.J. "Broadening of a Polymer Stabilized Negative Dielectric Anisotropy Cholesteric Reflection Notch Using a DC Field", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010.
344. Lee, K.M., Torres, Y., Koerner, H., Vaia, R.A., Bunning, T.J., and White, T.J. "Photomechanical Response of Azobenzene Liquid Crystal Polymer Networks as a Function of Temperature", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010.

345. Freer, A., White, T.J., Tabiryan, N.V., and Bunning, T.J. "Photoinduced Broadening of Cholesteric Liquid Crystal Reflectors", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010.
346. Voevodin, A., Natarajan, L.V., Tondiglia, V.P., Duning, M., Bailey, C., White, T.J., and Bunning, T.J. "Cholesteric Pitch Broadening Relationships for Negative Dielectric Anisotropy Materials", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010.
347. Hurtubise, J., McConney, M.E., Tondiglia, V.P., Natarajan, L.V., White, T.J., and Bunning, T.J. "Surface Initiated Polymer Stabilized Liquid Crystals", 2010 Materials Research Society Fall Meeting, Boston, MA, December 2010.
348. Bunning, T.J., White, T.J., McConney, M.E., Hurtubise, J., Natarajan, L.V., and Tondiglia, V.P. "Dynamic Hyper-reflective Cholesteric Liquid Crystals using Spatially Polymer Templated Structures", Liquid Crystal Photonics, Spain, September 2010. (invited)
349. Lee, K.M., Bunning, T.J., and White, T.J. "Effect of Crosslinking Density on the Photochemical Behaviors of Azo-Liquid Crystalline Polymer Networks", American Chemical Society National Meeting, Boston, MA, August 2010.
350. Bailey, C.A., Tondiglia, V.P., Natarajan, L.V., Bricker, R., Sutherland, R.L., White, T.J., and Bunning, T.J. "Electro-mechanical tuning of the optical bandgap using negative dielectric anisotropy cholesteric liquid crystals", SPIE Optics+Photonics, San Diego, CA, August 2010.
351. Natarajan, L.V., Voss, J.R., Tondiglia, V.P., White, T.J., and Bunning, T.J. "Fabrication of broadband reflective films with polymer stabilized cholesteric liquid crystals", SPIE Optics+Photonics, San Diego, CA, August 2010.
352. Lee, K., Serak, S.V., Tabiryan, N., Bunning, T.J., and White, T.J. "The use of photoresponsive liquid crystal polymer networks as membrane and cantilever optical systems", SPIE Optics+Photonics, San Diego, CA, August 2010.
353. McConney, M.E., White, T.J., Tondiglia, V.P., Natarajan, L.V., Hurtubise, J., and Bunning, T.J. "Thermally tunable hyper-reflective filters", SPIE Optics+Photonics, San Diego, CA, August 2010. (invited)
354. Tabiryan, N.V., Serak, S.V., White, T.J., Vaia, R., and Bunning, T.J. "Using Photoresponsive Membranes and Cantilevers for Efficient Optical Switching", Optics of Liquid Crystals Meeting, Erice, Italy, October 2009.
355. Bunning, T.J., White, T.J., Bricker, R.L., Jakubiak, R., Tabiryan, N.V., Hrozyhk, U., and Serak, S.V. "Photoresponsive Cholesteric Liquid Crystals", SPIE Optics+Photonics, San Diego, CA, August 2009. (invited)
356. Serak, S., Vergara, R., Tabiryan, N., White, T.J., Vaia, R., and Bunning, T.J. "Photocontrolled membrane optics, cantilevers, and polymer engines fueled by light", Novel Optical Materials and Applications, Cetraro, Italy, June 2009.
357. Bunning, T.J., White, T.J., Natarajan, L.V., Tondiglia, V.P., Sutherland, R.L., Bricker, R.L., Tabiryan, N.V., Serak, S.V., and Li, Q. " Polymer/(Liquid Crystal) Materials for and through Optics", Gordon Conference on Macromolecular Materials, Ventura, CA, January 2009. (invited)
358. Natarajan, L.V., Beckel, E.R., Tondiglia, V.P., Sutherland, R.L. White, T.J., and Bunning, T.J. "Improvement of electro-optical Performance of polymer Stabilized Cholesteric Liquid Crystals by Holographic Patterning", 2nd International Workshop on Liquid Crystals for Photonics, Cambridge, UK, July 2008. (invited)
359. Bunning, T.J., White, T.J., Tondiglia, V.P., Natarajan, L.V., and Sutherland, R.L. "Polymer/LC Nanocomposite Dynamic Gratings", 35th Annual Conference of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Philadelphia, PA, March 2008.

360. Hrozhyk, U., Nersisyan, S.R., Serak, S.V., Tabiryan, N.V., White, T.J., Tondiglia, V.P., Vaia, R.A., and Bunning, T.J. "Photoresponsive polymers, photonic bandgaps, and micro-optical structures utilizing azobenzene liquid crystals", Optical Micro-Manipulation by Nonlinear Nanophotonics, Muenster, Germany, February 2008.
361. Hrozhyk, U., Serak, S., Tabiryan, N.V., White, T.J., and Bunning, T.J. "Optically controlled polymer films with large and high-speed deformation ability", SPIE Photonics West, San Jose, CA, January 2008.
362. Koval, J.J., White, T.J., Bunning, T.J., Vaia, R.A., Tabiryan, N., Serak, S., and Grozhyk, V. "Nanostructured Photoresponsive Polymers Based on Azobenzene Liquid Crystalline Elastomers". Materials Research Society Fall Meeting, Boston, MA, December 2007.
363. Hrozhyk, U.A., Serak, S.V., Tabiryan, N.V., White, T.J., and Bunning, T.J. "The mechanism of large and high-speed photocontrol ability of azobenzene elastomers", Optics of Liquid Crystals, Puebla, Mexico, October 2007.
364. Bunning, T.J., White, T.J., Koval, J., Tondiglia, V.P., Natarajan, L.V., Vaia, R.A., Serak, S., Grozhyk, V., and Tabiryan, N., "Creating Work with Light: Photoresponsive Azobenzene Liquid Crystalline Elastomers", American Chemical Society National Meeting (POLY), Boston, MA, August 2007. (invited)
365. Bunning, T.J., Natarajan, L.V., Tondiglia, V.P., Sutherland, R.L., Beckel, E.R., White, T., and Wofford, J. "A foray into cholesteric LC's and photoinitiation + several other odds and ends", Photopolymerization Fundamentals Conference, Breckenridge, CO, June 2007.
366. Klosterman, J., Natarajan, L.V., Tondiglia, V.P., Sutherland, R.L., White, T., Guymon, C.A., and Bunning, T.J. "The Influence of Surfactant on the Temporal Evolution and Long-term Stability of HPDLC" Great Lakes Photonic Symposium: Liquid Crystal Technology and Applications Conference, Cleveland, OH, June 2004.

Regional Conferences - Talks I've Coauthored

367. Duning, M.M., Tondiglia, V.T., Natarajan, L.V., Bailey, C.A., Sutherland, R.L., Voevodin, A., White, T.J., and Bunning, T.J. "Broadening of a Polymer Stabilized Cholesteric Liquid Crystal Reflection Notch Using DC Field", Joint ACS and Society for Applied Spectroscopy Meeting, Dayton, OH, March 2011.
368. Lee, K.M., Koerner, H., Vaia, R., Bunning, T.J., and White, T.J., "Effect of Crosslinking Density on the Photomechanical Behaviors of Azobenzene Liquid Crystalline Networks", Joint ACS and Society for Applied Spectroscopy Meeting, Dayton, OH, March 2011.
369. Hurtubise, J., McConney, M.E., White, T.J., Tondiglia, V.P., Natarajan, L.V., and Bunning, T.J. "Surface Initiated Polymerization in the Presence of Cholesteric Liquid Crystals", CeRMACS American Chemical Society Meeting, Dayton, OH, June 2010.
370. Lee, K., Bunning, T.J., and White, T.J. "Polarization Controlled Photochemical Bidirectional Bending Behaviors of Poly-domain Azo-Liquid Crystalline Polymer Networks", CeRMACS American Chemical Society Meeting, Dayton, OH, June 2010.
371. Duning, M., Natarajan, L.V., Tondiglia, V., White, T.J. Sutherland, R.L., and Bunning, T.J. "Broadening of a Polymer Stabilized Negative Dielectric Anisotropy Cholesteric Notch by a low DC Field", CeRMACS American Chemical Society Meeting, Dayton, OH, June 2010.
372. McConney, M.E., White, T.J., Hurtubise, J., Tondiglia, V.P., Natarajan, L.V., and Bunning, T.J. "Tunable Hyper-Reflective Filters", CeRMACS American Chemical Society Meeting, Dayton, OH, June 2010.
373. Freer, A., White, T.J., Tabiryan, N., and Bunning, T.J. "Photoinduced Broadening of Cholesteric Liquid Crystals", CeRMACS American Chemical Society Meeting, Dayton, OH, June 2010.

374. Klosterman, J.R., Natarajan, L.V., Tondiglia, V.P., Sutherland, R.L., White, T., Guymon, C.A., Bunning, T.J., "The Effect on Holographic-Polymer Dispersed Liquid Crystals", AIChE North Central Regional Conference, Chicago, IL, April 2004