

CURRICULUM VITAE

BENJAMIN TYLER WHITE

Macromolecules Innovation Institute
Virginia Polytechnic and State University
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EDUCATION

VIRGINIA POLYTECHNIC AND STATE UNIVERSITY
Ph.D., Macromolecular Science and Engineering, 3.43/4.00

Blacksburg, VA
Expected May 2021

UNIVERSITY OF TENNESSEE
B.S. in Chemistry, Chemistry, 3.48/4.00

Knoxville, TN
May 2015

RESEARCH EXPERIENCE

Graduate Research Assistant **August 2016 – Present**

- Virginia Polytechnic and State University, *Department of Chemistry*
- Advisor: Dr. Timothy E. Long

Post-Baccalaureate Research Associate **June 2015 – August 2016**

- Oak Ridge National Laboratory
- Advisor: Dr. Tomonori Saito

Summer Undergraduate Laboratory Internship (SULI) **June 2014 – August 2015**

- Oak Ridge National Laboratory, *Oak Ridge, TN*
- Advisor: Dr. Tomonori Saito

Undergraduate Research Assistant **February 2013 – May 2015**

- University of Tennessee, Knoxville, *Department of Chemistry*
- Advisor: Dr. Jimmy Mays

CORE SKILLS

Polymer chemistry • RAFT polymerization • Emulsion polymerization • thiol-ene click chemistry • nuclear magnetic resonance spectroscopy • size exclusion chromatography • dynamic light scattering • thermogravimetric analysis • differential scanning calorimetry • tensile testing • dynamic mechanical analysis

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AWARDS AND HONORS

Southeastern Undergraduate Research Conference (SURC) – 2014
Best presentation in polymer chemistry

Melaven-Rhenium Scholarship 2012-2014

AFFILIATIONS

American Chemical Society (2013-present)

PUBLICATIONS

1. Wang, W.; Schlegel, R.; White, B. T.; Williams, K.; Voyloy, D.; Steren, C. A.; Goodwin, A.; Coughlin, E. B.; Gido, S.; Beiner, M., High temperature thermoplastic elastomers synthesized by living anionic polymerization in hydrocarbon solvent at room temperature. *Macromolecules* **2016**, *49* (7), 2646-2655.
2. Holt, A. P.; Bocharova, V.; Cheng, S.; Kisliuk, A. M.; White, B. T.; Saito, T.; Uhrig, D.; Mahalik, J. P.; Kumar, R.; Imel, A. E., Controlling interfacial dynamics: covalent bonding versus physical adsorption in polymer nanocomposites. *ACS nano* **2016**, *10* (7), 6843-6852.
3. Cheng, S.; Holt, A. P.; Wang, H.; Fan, F.; Bocharova, V.; Martin, H.; Etampawala, T.; White, B. T.; Saito, T.; Kang, N.-G., Unexpected Molecular Weight Effect in Polymer Nanocomposites. *Phys. Rev. Lett.* **2016**, *116* (3), 038302.

CONFERENCE PRESENTATIONS

1. **White, B.T.**; Martin, H.J; Dadmun, M.D.; Saito, T.S “Impact of Monomer Addition Rate on Polystyrene Nanoparticle Hierarchical Structure.” **The 12th National Graduate Research Polymer Conference**, Akron, OH, June 19-22, 2016; Oral Presentation.
2. **White, B.T.**; Wang, W.; Kang, N.G; Mays J.W. “Improving Upper Service Temperature of Styrenic Thermoplastic Elastomers by using Polybenzofulvene Hard Blocks.” **The 250th ACS National Meeting**, Boston, MA, August 16-20, 2015; Oral Presentation
3. **White, B.T.**; Wang, W.; Kang, N.G; Mays J.W. “Improving Upper Service Temperature of Styrenic Thermoplastic Elastomers by using Polybenzofulvene Hard Blocks.” **Exhibition of Undergraduate Research and Creative Achievement (EURECA)**, University of Tennessee, Knoxville, TN, April, 14, 2015; Poster Presentation.

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4. **White, B.T.;** Wang, W.; Kang, N.G; Mays J.W. “Improving Upper Service Temperature of Styrenic Thermoplastic Elastomers by using Polybenzofulvene Hard Blocks.” **Southeastern Regional Meeting of the American Chemical Society (SERMACS)**, Nashville, TN, October, 16, 2014; Oral Presentation.
5. **White, B.T.;** Wang, W.; Kang, N.G; Mays J.W. “Synthesis of New Thermoplastic Elastomers Based on Benzofulvene.” **Southeastern Undergraduate Research Conference**, University of Tennessee, Knoxville, TN, January 31, 2014; Oral Presentation.