

Christopher E. Hobbs, Ph.D.

Assistant Professor

Department of Chemistry, Sam Houston State University

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Education

- *Ph.D. Chemistry* Department of Chemistry 2011
Texas A&M University, College Station, Texas
Research Advisor: Prof. David E. Bergbreiter
Dissertation: *The Use of Soluble Polyolefins as Supports for Transition Metal Catalysts*
- *B.S. Chemistry* Department of Chemistry and Biochemistry 2006
Angelo State University, San Angelo, Texas
Research Advisor: Prof. Donna K. Howell
Research: *Preparation and Use of Tetrathiophene-containing Macrocycles*

Professional Appointments

- *Assistant Professor* Department of Chemistry 8/2017-present
Sam Houston State University
Huntsville, Texas
- *Assistant Professor* Department of Chemistry 6/2014-5/2017
Texas A&M University-Kingsville,
Kingsville, Texas
- *Assistant Professor* Department of Chemistry and Biochemistry 8/2011-6/2014
Angelo State University, San Angelo, Texas

Awards/Funding

- Sam Houston State Univ. *Faculty Research Grant*, \$5,000 2018
- *National Science Foundation*, \$229,395.00 2016
RUI: Utilization of a Thio-Bromo Substitution Reaction for the
Preparation of a New Class of ROMP Hydrogels
- Texas A&M Univ.-Kingsville *University Research Award*, \$15,000.00 2016
- Texas A&M Univ.-Kingsville *Summer Research Award*, \$3,000.00 2015
- Texas A&M Univ.-Kingsville Dept. of Chemistry *John S. Thompson Award* 2015
- Texas A&M Univ.-Kingsville *University Research Award*, \$15,000.00 2014
- *Robert A. Welch Foundation Department Grant*, \$30,000.00 2014 - 2017
- Angelo State Univ. *Faculty Excellence in Research/Creative Endeavor, Finalist* 2013
- *American Chemical Society Petroleum Research Fund*, \$50,000.00 2013

Publications

Journal Articles-undergraduate coauthors denoted with an underline, corresponding author denoted with an asterisk

· *Independent Career:*

Grubb, J.; Carosio, F.; Vasireddy, M.; Moncho, S.; Brothers, E. N.; **Hobbs, C. E.*** "Ring Opening Metathesis Polymerization (ROMP) and Thio-Bromo "Click" Chemistry Approach Toward the Preparation of Flame-Retardant Polymers." *J. Polym. Sci. Part A: Polym. Chem.* **2018**, 56, 645-652.

Liu, Y.; **Hobbs, C. E.*** "Phase-Selectively Soluble, Polymer-Supported Salen Catalyst Prepared Using Atom Transfer Radical Polymerization (ATRP)." *Polymer*, **2018**, 135, 25-29. *Spotlight Article*

Yao, Q.; Gutierrez, D. C.; Hoang, N. H.; Kim, D.; Wang, R.; **Hobbs, C.***; Zhu, L.* "Efficient Codelivery of Paclitaxel and Curcumin by Novel Bottlebrush Copolymer-Based Micelles." *Molecular Pharmaceutics*. **2017**, 14, 2378.

Fredlund, A.; Kothapalli, V. A.; **Hobbs, C. E.*** "Phase-Selectively Soluble Polynorbornene as a Catalyst Support." *Polym. Chem.* **2017**, 8, 516.

Kothapalli, V. A.; Shetty, M.; de los Santos, C.; **Hobbs, C. E.*** "Thio-Bromo "Click", Post-Polymerization Strategy for Functionalizing Ring Opening Metathesis Polymerization (ROMP)-Derived Materials." *J. Polym. Sci. Part A: Polym. Chem.* **2016**, 54, 179. *Spotlight Article*

Shetty, M.; Kothapalli, V. A.; **Hobbs, C. E.*** "Toward the (Nearly) Complete Elimination of Solvent Waste in Ring Opening Metathesis Polymerization (ROMP) Reactions." *Polymer*, **2015**, 80, 64.

Suriboot, J.; **Hobbs, C. E.**; Guzman, W.; Bazzi, H. S.; Bergbreiter, D. E. "Polyethylene as a Cosolvent and Catalyst Support in Ring-Opening Metathesis Polymerization." *Macromolecules*, **2015**, 48, 5511.

Hobbs, C. E.*; Lin, B.; Malinski, T. "Norbornene Derivatives From a Metal-free, Strain-Promoted Cycloaddition Reaction: New Building Blocks for Ring-Opening Metathesis Polymerization (ROMP) Reactions." *J. Polym. Sci., Part A: Polym. Chem.* **2015**, 53, 2357.

Hicks, A.; Lin, B.; Osburn, P.; **Hobbs*, C. E.** "Use of an Isotactic-Propylene/Hexene Copolymer as a New, Versatile, Soluble Support." *J. Polym. Sci., Part A: Polym. Chem.* **2013**, 52, 600. *Inside Cover Image*

Lin, B.; Lawler, D.; McGovern, G.; Bradley, C.; **Hobbs*, C. E.** "Terminal Functionalization of Atactic Polypropylene: A New, Soluble Polymer Support." *Tet. Lett.* **2013**, 54, 970.

· *Graduate School (Texas A&M University):*

Suriboot, J.; **Hobbs, C. E.**; Yang, Y.-C.; Bergbreiter*, D. E. "Protective Encapsulation of Acid-Sensitive Catalysts Using Polyethylene Ligands." *J. Polym. Sci.: Part A* **2012**, 50, 4840.

Bergbreiter*, D. E.; Yang, Y.-C.; **Hobbs, C. E.** "Polyisobutylene-Supported Phosphines as Recyclable and Regenerable Catalysts and Reagents." *J. Org. Chem.* **2011**, 76, 6912.

Hobbs, C. E.; Yang, Y.-C.; Ling, J.; Nicola, S.; Su, H.-L.; Bazzi*, H. S.; Bergbreiter*, D. E. "Thermomorphic Polyethylene-Supported Olefin Metathesis Catalysts." *Org. Lett.* **2011**, 13, 3904.

Bergbreiter*, D. E.; **Hobbs, C. E.**; Hongfa, C. "Polyolefin-Supported Recoverable/Reusable Cr(III)-salen Catalysts." *J. Org. Chem.* **2011**, 76, 523.

Bergbreiter*, D. E.; **Hobbs, C.**; Tian, J.; Koizumi, H.; Hongfa, C. "Syntheses of Aryl-Substituted Polyisobutylenes as Precursors for Ligands for Greener, Phase-Selectively Soluble Catalysts." *Pure and Appl. Chem.* **2009**, 81, 1981

Book Chapters

Hobbs, C. E. Recoverable Polymer-Supported DMAP Derivatives. In *Hazardous Reagent Substitution: A Pharmaceutical Perspective*; Sharma R. K. and Bandichhor, R., Ed.; RSC: Croydon, UK, 2018; 53-69.

Selected Presentations (underline denotes undergraduate presenters)

· *Independent Career:*

Hobbs, C. E. "Polymer Chemistry at Sam Houston State University." Houston Baptist University, February 2, 2018. (***Invited Oral Presentation***)

Hobbs, C. E. "Use of Thio-Bromo "Click" Chemistry for Functionalizing Polymers." Abstracts, 73rd Southwest Regional Meeting of the American Chemical Society, Lubbock, TX, United States, October 29-November 1, 2017 (2017)

Grubb, J.; **Hobbs, C. E.** "Thio-bromo click approach for developing new, ROMP-based flame-resistant materials." Abstracts of Papers, 253rd ACS National Meeting & Exposition, San Francisco, CA, United States, April 2-6, 2017 (2017).

Gutierrez, D.; **Hobbs, C. E.** "Thio-bromo click approach for the preparation of a new class of cross-linked, ROMP-based gels." Abstracts of Papers, 253rd ACS National Meeting & Exposition, San Francisco, CA, United States, April 2-6, 2017 (2017).

Hobbs, C. "Green(er) Routes Toward the Synthesis, Functionalization, and Use of Polymers." Texas A&M University-Commerce, Commerce, Texas, United States, February 26, 2016. (***Invited Oral Presentation***)

Hobbs, C. "Green(er) Routes Toward the Synthesis, Functionalization, and Use of Polymers." Texas State University, San Marcos, Texas, United States, February 15, 2016. (***Invited Oral Presentation***)

de Los Santos, C.; Hobbs, C. E. "Functionalization of Polymers Using Thio-Bromo Click Reactions." Abstracts of Papers, 250th National Meeting of the American Chemical Society, Boston, Massachusetts, United States, August 16-20, 2015. (***Student Poster Presentation***)

Tovar, C.; Lopez, A.; Hobbs, C. E. "Utilization of a Catalyst-Free, Strain Promoted Reaction Between Azides and Norbornenes in Dendrimer Synthesis." Abstracts of Papers, 250th National Meeting of the American Chemical Society, Boston, Massachusetts, United States, August 16-20, 2015. (***Student Poster Presentation***)

Hobbs, C. "Development and Use of Propylene-based Oligomers as Supports for Homogeneous Catalysis." Gordon Research Conference: Polymers, Mount Holyoke College, South Hadley, MA, United States, June 14-19 (2015).

Hobbs, C. "Soluble Polypropylene-based Supports in Synthesis and Catalysis." Abstracts of Papers, 70th Southwest Regional Meeting of the American Chemical Society, Fort Worth, Texas, United States, November 19-22, (2014).

Hobbs, C. E. "Polypropylene Oligomers as Synthetic Scaffolds Toward Supported Ligands/Catalysts." University of Texas-Arlington, Arlington, Texas, United States, October 17 (2014). (***Invited Oral Presentation***)

Lin, B.; Hobbs, C. E. "Atactic-Polypropylene, a New Catalyst Support Towards Green Chemistry." Abstracts of Papers, 247th National Meeting of the American Chemical Society, Dallas, Texas, United States, March 16-20, 2014. (***Student Poster Presentation***)

Hobbs, C. E. "Polypropylene Oligomers as Synthetic Scaffolds Toward Supported Ligands/Catalysts." Abstracts of Papers, 69th Southwest Regional Meeting of the American Chemical Society, Waco, TX, United States, November 16-19 (2013). (***Invited Oral Presentation***)

Hicks, A.; Lin, B.; Hobbs, C. E. "Preparation and Use of an Isotactic-poly(propylene-co-hexene)-Supported Organocatalyst." Abstract of Papers, 69th Southwest Regional Meeting of the American Chemical Society, Waco, TX, United States, November 16-19 (2013). (***Student Poster Presentation***)

Lin, B.; Lawler, D.; Hobbs, C. E. "Terminal Functionalization of Atactic-Polypropylene Oligomers: Toward the Development of Polymer-Bound Ligands and Catalysts." Abstract of Papers, 244th National Meeting of the American Chemical Society, Philadelphia, PA, United States, August 19-23 (2012). (***Student Poster Presentation***)

• *Graduate School (Texas A&M University):*

Hobbs, C. E.; Bazzi, H. S.; Bergbreiter, D. E. 'Soluble Polyethylene Oligomers as Supports for NHC Ligands." Abstracts of Papers, 240th ACS National Meeting, Boston, MA, United States, August 22-26, (2010).

Hobbs, C.; Hongfa, C.; Bergbreiter, D. E.; Bazzi, H. S. "Designing separable polyolefinic ligands for transition metal catalysts." Gordon Research Conference: Green Chemistry, Davidson, NC, July 25-30 (2010). (***Poster***)

Hobbs, C. E.; Hongfa, C.; Bergbreiter, D. E. "Polyisobutylene as a soluble polymer support for salen ligands." Abstracts of Papers, 238th ACS National Meeting, Washington, DC, United States, August 16-20 (2009). (***Poster***)

Teaching/Leadership Experience

• <i>Assistant Professor</i>	Department of Chemistry Sam Houston State University Huntsville, Texas <i>Courses:</i> Organic Chemistry (undergraduate) Polymer Chemistry (graduate)	2017-present
• <i>Assistant Professor</i>	Department of Chemistry Texas A&M University-Kingsville Kingsville, Texas <i>Courses:</i> Organic Chemistry (undergraduate) Reaction Mechanisms (graduate) Polymer Chemistry (graduate) Spectroscopic Analysis (graduate)	2014-2017
• <i>Assistant Professor</i>	Department of Chemistry and Biochemistry Angelo State University, San Angelo, Texas <i>Courses taught:</i> Organic Chemistry lecture and laboratory (undergraduate)	2011-2014
• <i>Research Mentor</i>	Department of Chemistry	2006-2011

Texas A&M University, College Station, Texas

· *Teaching Assistant*

Department of Chemistry
Texas A&M University, College Station, Texas
Courses taught: Chem 237/238 Organic
Chemistry laboratory

2006-2007

Professional Affiliations

- American Chemical Society Committee on Minority Affairs (CMA)
- South Texas Local Section of the American Chemical Society
- Permian Basin Local Section of the American Chemical Society
- The American Chemical Society
- Society of Plastics Engineers
- Phi Lambda Upsilon