

**CURRICULUM VITAE**  
**ELIZABETH M. SANFORD**  
**Associate Professor of Chemistry**  
**Hope College**  
**Holland, MI**  
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**September 4, 2014**

**Education and Professional Training:**

B.A.	Chemistry	1987	Smith College
Ph.D.	Chemistry (Organic)	1992	University of California, Los Angeles
Postdoctoral	Organic/polymer chemistry	1994	Cornell University

**Teaching Fields:**

Primary: Organic Chemistry

Secondary: General c

The Jacob E. Nyenhuis Faculty Development Grant for Student/Faculty Cooperative Research, "The Preparation of Highly Conjugated Small Molecules for Device Applications" E. M. Sanford and A. Ketchum, \$6,800, funded

#### **2007**

Gentex Corporation, "Preparation of Compounds for Device Applications" E. M. Sanford, \$4,000, funded

#### **2006**

Gentex Corporation, "Preparation of Compounds for Device Applications" E. M. Sanford, \$4,000, funded

#### **2005**

Howard Hughes Medical Institute Grant to Hope College, "Enzymatic Hydrolysis of a Library of Esters," E. M. Sanford and T. Smith, \$2,500, funded

The American Chemical Society Petroleum Research Fund SRF, "Low Band Gap, n-Dopable Conjugated Oligomers and Polymers" M. D. Curtis and E. M. Sanford, \$8,000, funded

Gentex Corporation, "Preparation of Phthalocyanines", E. M. Sanford \$4,000, funded

The Jacob E. Nyenhuis Faculty Development Grant, "Surface Modification with Synthetic Polymers For Control of Cell Adhesion and Growth" E. M. Sanford, \$3,600, funded

#### **2004**

The Jacob E. Nyenhuis Faculty Development Grant, "The Preparation of Polyelectrolyte-substituted Poly(arylenevinylenes) for Use in Light Emitting Electrochemical Cells" E. M. Sanford, \$3,600, funded

#### **1997**

NSF CAREER, "The Polymerization of Small and Large Ring Propellanes and the Incorporation of Materials Science into the Hope College Curriculum" E. M. Sanford, \$200,000, funded

#### **1995**

The Petroleum Research Fund, American Chemical Society, "The Synthesis of Structurally Regular Organic and Inorganic Molecular Tubes from Cyclodextrin Dimers" E. M. Sanford, \$20,000, funded

#### **1994**

Camille and Henry Dreyfus Foundation Start-up Grant, "The Synthesis and Polymerization of Substituted [1.1.1]Propellanes to Create Rigid-Rod Polymers and The Synthesis of Molecular Tubes from Preorganized Cyclodextrins" E. M. Sanford, \$12,500, funded

#### **Publications:**

(\* indicates undergraduate author)

E. M. Sanford, M. G. Tori\*, T. M. Smeltzer\*, C. K. Beaudoin\*, Mary E. Anderson, Kenneth L. Brown, "Cyclic Voltammetric and Spectroelectrochemical Studies of Electropolymerized Films Based on (3,4-Ethylenedioxythiophene)-Substituted 3,6-Dithiophen-2-yl-2,5-dihydropyrrole[3,4-c]pyrrole-1,4- dione" *In preparation*

M. R. Roslaniec, E. M. Sanford, "Benzoylation of Ergosterol through Nucleophilic Acyl Substitution and Subsequent Formation of Ergosterol Benzoate Endoperoxide by Reaction with Singlet Oxygen Generated by Photosensitization" *J. Chem. Ed.* **2011**, *88*(2), 229-231.

E. M. Sanford, C. C. Lis\*, N. R. McPherson\*, "The Preparation of Allyl Phenyl Ether and 2-Allyl Phenol Using the Williamson Ether Synthesis and Claisen Rearrangement" *J. Chem. Ed.* **2009**, *86(12)*, 1422-1423.

E. M. Sanford, T. L. Smith, "The Preparation and Enzymatic Hydrolysis of a Library of Esters" *J. Chem. Ed.* **2008**, *85(7)*, 944-945.



"The Preparation of Spiro-Substituted [1.1.1]Propellanes" National Organic Symposium, U. of WI, Madison, WI, June, 1999.

"What [1.1.1]Propellanes Do Under Stress" Grand Valley State University, Allendale, MI, Fall, 1998.

"Finding a Job at a Liberal Arts Institution" Council for Undergraduate Research, North Carolina Central University, Durham, NC, June, 1996.

"The Role of the Library at a Research-Rich Undergraduate Institution" Project Kaleidoscope Meeting, Hope College, Holland, MI, Spring, 1996.

"Developing a Career at a Research-Rich Undergraduate Institution" Project Kaleidoscope meeting, Hope College, Holland, MI, Spring, 1996.

"Functionalized Dendrimers: What's New and What's Next" University of Michigan, Ann Arbor, MI, Fall, 1995.