Curriculum Vitae
Professor Kenneth L. Brown

Hope College
35 East 12th Street
Holland, MI 49423

Phone: 616-395-7173
Fax: 616-395-7118
E-mail: brownk@hope.edu
https://hope.edu/directory/people/brown-kenneth/index.html

Education

Oral Roberts University	Chemistry	B.S., 1993
Oklahoma State University	Chemistry	Ph.D., 1999

Positions Held

Research Assistant, Dowell Schlumberger, 1994-95.
Analytical Chemist, Lab One Analytical, 1993-94.
Professor of Chemistry, Hope College, 2015-Present
Associate Professor of Chemistry, Hope College, 2008-2015.
Assistant Professor of Chemistry, Hope College, 2002--

- Neuroscience in collaboration with Professor Lei Chase: using electrochemistry and LC-MS techniques to understand the biochemical transformation of homocysteine to homocysteic acid; understanding the role of homocysteine and homocysteic in bipolar mental disorders.

- Environmental Justice: Research with the Universities of Purdue, Notre Dame, Valparaiso in global health, and air, soil, and water quality; an emphasis in environmental justice cases in the state of Indiana, specifically, Northern Lake County, IN. Developed and framed a new organization (Northern Lake County Environmental Partnership) in the state of Indiana; https://facebook.com/northern.lake.environment

- Phytochemistry in collaboration with Professor Jianhua Li: using analytical chemistry to understand phylogentics of plant species.

Publications (*Undergraduate Student co-authors: 40 undergraduate co-authors)

21. K.L. Brown. "Electrochemical Detection of Hydrazine Using Ruthenium bis(1,10-Phenanthroline)(4-Methyl-4'vinyl-2,2'-Bipyridine) Polymer Films in Flow Injection Anal Tw 2.9 nCw w 7.4
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13. E. M. Sanford, M. E. Tori*, T.M. Smeltzer*, C.K. Beaudoin*, B.H. Bowser*, M.E. Anderson, and K.L. Brown. "Cyclic Voltammetric, Chronocoulometric, and Spectroelectro chemical Studies of Electropolymerized Films Based on (3,4-Ethylenedioxy-thiophene)-Substituted 3,6-Dithiophen-2-yl-2,5-dihydropyrrole[3,4-c]pyrrole-1,4-dione." *Electrochemistry, The Electrochemical Society of Japan*, 2015, 83(12), 1061-1066.

12. K. Brown, J. Li, K. Wirth*, E. Wilkins*, J. Tufts*, and F. Bahema*. "Determination of Genistein and Protein Content in *Apios Carnea and Apios Fortunei from China, and Apios Americana," Modern Applied Science,* 2015, 9(1), 109-118.

11. J. Li, J. Jiang, H. Vander Stel*, A. Homkes*, J. Corajod*, K. Brown, and Z. Chen, "Phylogentics and Biogeography of *Apios* (Fabaceae) inferred From Sequences of Nuclear and Plastid Genes", *International Journal of Plant Sciences*, 2014, 175(7), 764-780.

10. K. Klunder*, F. Heckman, K.L. Brown, and G.F. Peaslee, "A Study of Dissolve Gas Dynamics in Mixed Stream Electrolyzed Water," *Electrochemistry, The Electrochemical Society of Japan,* 2012, 80(8), 574-577.

9. K.L. Brown, X. Hou*, O. Banks*, K.A. Krueger*, J. Hinson*, G.F. Peaslee, P.A. DeYoung, S.M. Alger*, J. Benzer*, T. Neils, "Characterization of Tris (5-amino-1,10-phenanthroline) Ruthenium(II/III) Polymer Films Using Cyclic Voltammetry and Rutherford Backscattering Spectrometry", *Inter. J. Chem.,* 2011, 3(4), 12-

Grants, Fellowships, and Awards (Funded: Internal: $36,100; External: $2,207,852)
Global Health Research Grant
March 2022-

National Science Foundation-Research Site for Educators in Chemistry
(2006-2007)-$11,500.
PI: *Collaborative Research with a Hope College Research Team in the Development of Amperometric Sensors*.

National Science Foundation-Collaborative Research at Undergraduate Institutions
(2004-2008)-$816,773.
Co-PI: *A Multidisciplinary Test of Mutualistic Benefits Fungal Endophytes Provide Their Host Plants*.

National Science Foundation-Major Research Instrumentation
(2003-2005)-$719,035.
Co-PI: *Acquisition of a Nuclear Microprobe System for Interdisciplinary Research and the Integration of Research and Undergraduate Education at Hope College.*

NASA Michigan Space Grant
(2001-2002)-$5,000.
PI: *Carbon Dioxide and Glucose Sensing Based on Luminol Chemiluminescence and Electropolymerized Metal(II)-Tetraaminophthalocyanine* iH (i)(c)4 -2 (iH 1.17 0

<u>Service to Hope College and the Department of Chemistry</u>

- Admissions Representative for minority recruiting to Grand Rapids (2000).
- Admissions Representative for minority recruiting to Kalamazoo (2002).
- Delegate for Annual Sigma Xi National Meeting in Galveston, Texas (2002).
- Presentation at the Martin Luther King Jr. Celebration (2000, 2002, and 2003).
- Committee Member on Critical Issues Symposium: Brown vs. Board of Education (2004).
- Ad Hoc Committee member on the Permanent Arts Collection (2004).
- Coordinator for Science Day panel on interdisciplinary research and education (2004).
- President's Advisory Board Committee member (2004).
- Chemistry Club Faculty Advisor (2004-2005).
- Chemistry Department Seminar Coordinator (2004-2005).
- Chair of Sigma Xi Nominating Committee for the North Central Region (2004).
- PEW Representative for the Natural and Applied Sciences Division (2004-2007).
- Ad Hoc Committee Member on The Comprehensive Plan to Improve Minority Participation at Hope College (2004-2006).
- Interim Sigma Xi President, Hope College Chapter (2007-Present).
- Secretary of Hope College Chapter of Sigma Xi (2002-2003).
- Vice-President of Hope College Chapter of Sigma Xi (2003-2004).
- President of Hope College Chapter of Sigma Xi (2004-2007).
- Coordinator for Sigma Xi Student Research Awards (2004-Present).
- Committee member and secretary for the Global Task Force to review the mission statement of Hope College and general education requirements (2010)
- Coordinator for the *Hope 6* panel of faculty and students to discuss the *Jena 6* case (2008).
- Mentor for a student in Hope College's PROJECT TEACH initiative (2010)
- Committee member for HHMI; reviewed proposals for HHMI.
- Scholarship Committee Member for Barry M. Goldwater Scholarship (2010-2015).
- Klesis Mentor (2014-2016).
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- Search Committee Member (seven search committee appointments 2016-2019; Engineering, Chemistry x 3, Neuroscience, GES, and Assessment).
- Hope College Recruiting Senior Representative at the Southeastern Regional Education Board (2010-Present).
- Provost Search Committee Member (2021-2022).
- Cultural Intelligence Workshop Trainee (2021).

<u>Service to the Holland Community</u>

- Vice President of CORE City Christian Development Association (2000-2005).
- Science Director for Learning Enhancement Achievement Program-(2003-2005).
- Presentation and Chemistry Demonstrations at Eagle Crest Charter Academy (2006).
- Volunteer and Visiting Minister and Chaplain at RestHaven Nursing Home (2003-2013).
- Outreach Coordinator for Harvestime Fellowship Church (2000-2003).
- Keynote Speaker for LEAP Fundraiser (2000).
- Keynote Speaker for Community Action House/EPIC Graduation (2015).
- Presentation and Chemistry Demonstrations at Juneteenth Celebration (2015).
- Presentation for Community Action House/EPIC group (2015).