

# DANIEL A. KING, PH.D.

Professor of Chemistry, Faculty Athletics Representative,  
Department of Chemistry & Biochemistry, Taylor University  
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## EMPLOYMENT

2013 – Present            Professor: Taylor University, Upland, IN  
2008 – 2017            Faculty Athletics Representative: Taylor University, Upland, IN  
2008 – 2013            Associate Professor: Taylor University, Upland, IN  
2005 – 2008            Assistant Professor: Taylor University, Upland, IN  
2002 – 2005            Assistant Professor: Bethel University, St. Paul, MN

## Courses Taught:

General Chemistry II	Science Concepts – Chemistry (El. Ed.)
Analytical Chemistry I & II	Introduction to Forensic Science
Introduction to General, Organic, & Biochemistry I	Environmental/Forensic Toxicology
Chemistry for Living	Environmental Chemistry
	Chemistry Thesis
	Directed Research

## EDUCATION

1998 - 2002            **Doctor of Philosophy** – Analytical Chemistry  
The University of Georgia, Athens, Georgia  
1994 - 1998            **Bachelor of Science** – Chemistry Education and Mathematics  
Huntington College, Huntington, Indiana

## TECHNICAL SKILLS: Chromatography, Mass Spectrometry, Spectroscopies, Computational Chemistry

HPLC, GC, GC-MS, MALDI-MS, LC-MS, LC-MS/MS, UV-Vis Absorbance &  
Fluorescence, AA, NMR, FTIR, and Acronyms

## PUBLICATIONS: (Undergraduate Coauthors in Bold)

**Marissa Kneer** and Daniel King. “Open-Loop Geothermal Discharge Stream Design Affects the Precipitation of Calcium”, *Proceedings of the Indiana Academy of Science*, **126**, 42-47, 2017.

**Kim Cleary, Scott Fenstermacher, Brayton Kiedrowski, Ben Hayes, Olivia Auell, Caroline Chow,** Erik Hayes, Daniel King. “The Effects of Acute Exercise and Meat Fasting/Feasting on Urinary 3-methylhistidine by Liquid Chromatography – Mass Spectrometry”, *Journal of Undergraduate Chemistry Research*, **14**, 36-39 2015.

**Emily Hart, Caroline Chow,** Patricia Stan, and Daniel King. “Methods for Essential Tremor Assessment: Acoustic Tremor Monitoring (ATM) and Rhythmic Spirals (RS) Methods”, *American Journal of Undergraduate Research*, **12**, 93-100, 2015.

- Timothy Griffiths**, **Emily Hart**, Patricia Stan, and Daniel King, "Analysis of Iron and Calcium in a Geothermal System Outflow Stream", *Proceedings of the Indiana Academy of Science*, **122**, 35-29, 2013.
- Gerardo Gutierrez-Sanchez, Daniel King, Gabre Kemp, and Carl Bergmann, "SPR and differential proteolysis/MS provide further insight into the interaction between PGIP2 and EPGs", *Fungal Biology*, April 12, 2012.
- Daniel King, **Jorge Fernandez**, and Ruth Nalliah, "Writing Instrument Profiles for Mastery of Instrumental Analysis", *Journal of Chemical Education*, DOI: 10.1021/ed200645t, 2012.
- Andy Davisson**, **Katie Speidel**, **Jason Stegink**, and Daniel King, "A Computational Approach to Understanding Crop Disease Resistance and Susceptibility", *Journal of Undergraduate Chemistry Research*, **11**, 1, pp20-23, 2012.
- John Labavitch, Ann Powell, Alan Bennett, Daniel King, and Rachell Booth, "Optimizing Grape Rootstock Production and Export of Inhibitors of *Xylella fastidiosa* Polygalacturonase Activity", Proceedings of the 2011 Pierce's Disease Research Symposium, pp136, 2011.
- Patricia Stan, Daniel King, and Daniel Hammond, "General Chemistry Laboratory II", Linus Publications, Inc. Deer Park, NY, 2010.
- Brad King**, **Lynne Normant**, **Daniel Storey**, and Daniel King, "Acetylation Labeling Mass Spectrometry: A Method for Studying Protein Conformations and Interactions", *Proceedings of the Indiana Academy of Science*, **118**, 107-113, 2009.
- Patricia Stan, Daniel King, and Daniel Hammond, "General Chemistry Laboratory", Linus Publications, Inc. Deer Park, NY, 2009.
- Jae-Min Lim, Kazuhiro Aoki, Peggi Angel, **Derek Garrison**, Daniel King, Michael Tiemeyer, Carl Bergmann, and Lance Wells, "Mapping Glycans onto Specific N-Linked Glycosylation Sites of *Pyrus Communis* PGIP Redefines the Interface for EPG:PGIP Interactions", *Journal of Proteome Research*, **8**, 673-680, 2009.
- Kelly Pugh**, **Ryan Poe**, and Daniel King, "Quicklime Purity Analysis by Calorimetry", *Journal of Undergraduate Chemistry Research*, **7**, 23-27, 2008.
- Bryan D. Woosley, Young Hwan Kim, V.S. Kumar Kolli, Lance Wells, **Ryan Poe**, Dan King, Ron Orlando, and Carl Bergmann, "Complete glycan analysis of recombinant *Aspergillus niger* endopolygalacturonase A", *Carbohydrate Research*, **341**, 2370-2378, 2006.
- Bryan Woosley, Min Xie, Lance Wells, Ron Orlando, **Derek Garrison**, Daniel King, Carl Bergmann, "Comprehensive Glycan Analysis of Recombinant *Aspergillus niger* Endopolygalacturonase C", *Analytical Biochemistry*, **354**, 43-53, 2006.
- Christopher Jones**, **Jamie Schwendinger**, and Daniel King, "Analysis of Semi-Volatile Organic Compounds from Parking Lot Runoff in nearby Wetlands using GC/MS", *Journal of Undergraduate Chemistry Research*, **2**, 41, 2006.
- M. Xie, G. H. Krooshof, J. A. E. Benen, J. A. Atwood, III, D. King, C. Bergmann, and R. Orlando, "Post-translational modifications of recombinant *B. cinerea* EPG6", *Rapid Commun. Mass Spectrom.* **19**, 3389-3397, 2005.

- C.W. Bergmann, L. Stanton, D. King, R.P. Clay, G. Kemp, R. Orlando, A. Darvill, and P. Albersheim; "Recent observations on the specificity and structural conformation of the polygalacturonase-polygalacturonase inhibiting protein system", In *Advances in Pectin and Pectinase Research* (F. Voragen, H. Schols, and R. Visser, Eds.), Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 277-291, 2003.
- Daniel King, Carl Bergmann, Ron Orlando, Jacques A. E. Benen, Harry C. M. Kester, and Jaap Visser; "Use of Amide Exchange Mass Spectrometry To Study Conformational Changes within the Endopolygalacturonase II – Polygalacturonic Acid – Polygalacturonase Inhibiting Protein System", *Biochem.* **41**, 10225-10233, 2002.
- Daniel King, Michelle Lumpkin, Carl Bergmann, and Ron Orlando; "Studying protein-carbohydrate interactions by amide hydrogen/deuterium exchange mass spectrometry", *Rapid Commun. Mass Spectrom.* Vol. 16, No. 16, 1569-1574, 2002.
- Shanhua Lin, Pete Tornatore, Daniel King, Ron Orlando, Scot R. Weinberger; "Limited acid hydrolysis as a means of fragmenting proteins isolated upon ProteinChip® array surfaces", *Proteomics.* **9**, 1172-1184, 2001.