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Education:

Ph. D.	Chemical Physics	State University of New York, Stony Brook	1987
A.B.	Chemistry	Princeton University	1981

Appointments:

Co-Founder, Chief Technical Officer – UMP Analytical	2015-present
Elmer E. Hartgerink Professor of Chemistry, Hope College	2011-present
Chair, Chemistry Department, Hope College	2008-2012
Professor of Chemistry & Environmental Science, Hope College,	2007-2011
Visiting Scientist, Counterterrorism and Forensic Science Research Unit, FBI Academy, Quantico VA	2007-2008
Assoc. Professor of Chemistry & Environmental Science, Hope College,	2000-2007
Visiting Scientist, Center for Accelerator Mass Spectrometry Lawrence Livermore National Laboratory, Livermore, CA,	2000-2001
Asst. Professor of Chemistry & Environmental Science, Hope College,	1996-2000
Assistant Professor of Chemistry, Hope College,	1993-1996
Post-doctoral Fellow, National Superconducting Cyclotron Lab., E. Lansing, MI	1990-1993
Post-doctoral Fellow, Nuclear Science Division, Lawrence Berkeley National Laboratory, Berkeley, CA,	1988-1990

Publications:

177 publications since 1983, 52 with 149 undergraduate co-authors*.

177. Tara Mastren, Aranh Pen, Shaun Loveless, Bernadette V. Marquez, Elizabeth Bollinger, Boone Marois*, Nicholas Hubley*, Kyle Brown, David J. Morrissey, Graham F. Peaslee, Suzanne E. Lapi; "Harvesting ⁶⁷Cu from the Collection of a Secondary Beam Cocktail at the National Superconducting Cyclotron Laboratory" (*in press*) *J. Analytical Chem* (2015).

176. Meagan B. Elinski*, Alexandra S. Benson*, Christopher K. Beaudoin*, Kyle A. Alexander*, Monica L. Ohnsorg*, Graham F. Peaslee, Paul A. DeYoung, Mary E. Anderson; "Metal-Organic Coordinated Multilayer Film Formation: Quantitative Analysis of Composition and Structure" *Thin Solid Films* **590** 103–110 (2015).

175. Adam M. Maley*, Kyle A. Falk*, Luke Hoover*, Elly B. Earlywine*, Michael D. Seymour, Paul A. DeYoung, Arlene Blum, Heather M. Stapleton and Graham F. Peaslee; "Detection of Halogenated Flame Retardants in Polyurethane Foam by Particle Induced X-ray Emission"; *Nucl. Instr. Meth.* **B358** 21-25 (2015).

174. Arlene Blum, Simona A. Balan, Martin Scherlinger, Gretta Goldenman, Xenia Trier, Ian Cousins, Miriam Diamond, Tony Fletcher, Christopher Higgins, Avery E. Lindeman, Graham Peaslee, Pim de Voogt, Zhanyun Wang, Roland Weber, "The Madrid Statement on Poly- and Perfluoroalkyl Substances (PFASs)" *Env. Health Perspectives* **123** A107-A111 (2015).
173. Sarah A. Brokus*, Danielle K. Silletti*, J. Mark Lunderberg*, Paul A. DeYoung, Graham F. Peaslee, Dyanne E. Carpenter, and JoAnn Buscaglia, "Cathodoluminescence dependence on feldspar mineral structure" *Am. Mineralogist* **100** 451-458 (2015).
172. Tara Mastren, Aranh Pen, Graham F. Peaslee, Nick Wozniak*, Shaun Loveless*, Scott Essenmacher*, Lee G. Sobotka, David J. Morrissey, Suzanne E. Lapi, "Feasibility of Isotope Harvesting at a Projectile Fragmentation Facility: ^{67}Cu " *Sci. Rep.* **4** 6706 (2014).
171. E. Martinez-Quiroz, E. F. Aguilera, D. Lizcano, P. Amador-Valenzuela, H. Garcia-Martinez, J. J. Kolata, A. Roberts, L. O. Lamm, G. Rogachev, V Guimaraes, F. D. Becchetti, A. Villano, M. Ojaruega, M. Febbraro, Y. Chen, and H. Jiang, P. A. DeYoung, G. F. Peaslee, "Near and sub-barrier fusion of the $^7\text{Be} + ^{58}\text{Ni}$ system" *Phys Rev* **C90** 014616 (2014).
170. Aranh Pen, Tara Mastren, Graham F. Peaslee, Kelly Petrasky*, Paul A. DeYoung, David J. Morrissey, Suzanne E. Lapi "Design and construction of a water target system for harvesting radioisotopes at the National Superconducting Cyclotron Laboratory" *Nucl. Instr. Meth.* **A747** 62-68 (2014).
169. Natalie L. H. Huisman*, K. G. Karthikeyan, Jasmeet Lamba, Anita M. Thompson, Graham Peaslee," Quantification of seasonal sediment and phosphorus transport dynamics in an agricultural watershed using radiometric fingerprinting techniques" *J Soils Sediments* **13** 1724–1734 (2013).
168. S. Kandasamy, A. Trinchi, M.K. Ghantasala, G.F. Peaslee, A. Holland, W. Wlodarski, E. Comini, "Characterization and testing of Pt/TiO₂/SiC thin film layered structure for gas sensing", *Thin Solid Films* **542** 404-408 (2013).
167. M Thoennessen, Z Kholey, A Spyrou, E Lunderberg*, Paul A. DeYoung, H Attanayake, T Baumann, D Bazin, B A. Brown, G Christian, D Divaratne, S M. Grimes, A Haagsma, J E. Finck, N Frank, B Luther, S Mosby, T Nagi*, Graham F. Peaslee, W A. Peters, A Schiller, J K. Smith, J Snyder, M Strongman and A Volya. "Observation of Ground-State Two-Neutron Decay." *Acta Physica Polonica* **B44** 543 (2013).
166. S. J. Quinn, A. Spyrou, A. Simon, A. Battaglia, M. Couder, P. A. DeYoung, A. C. Dombos, X. Fang, J. Görres, A. Kontos, Q. Li, S. Lyons, B. S. Meyer, G. F. Peaslee, D. Robertson, K. Smith, M. K. Smith, E. Stech, W. P. Tan, X. D. Tang, and M. Wiescher, "Probing the production mechanism of the light p-process nuclei" *Phys. Rev.* **C88** 011603(R) (2013).
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164. E. F. Aguilera, E. Martinez-Quiroz, R. Chávez-González, P. Amador-Valenzuela, D. Lizcano, A. Gómez-Camacho, J. J. Kolata, L. O. Lamm, A. Roberts, T. Spencer, F. D. Becchetti, H. Jiang, M. Ojaruega, P.A. DeYoung, G.F. Peaslee and J. Brown, "Near-barrier fusion and total reaction of a proton-rich projectile: $^3\text{He} + ^{58}\text{Ni}$ ", *Phys. Rev.* **C87** (2013) 014613.
163. Simon A. J. Messing, Bao Ton-Hoang, Alison B. Hickman, Andrew J. McCubbin*, Graham F. Peaslee, Rodolfo Ghirlando, Michael Chandler, Fred Dyda, "The processing of repetitive

extragenic palindromes: the structure of a repetitive extragenic palindrome bound to its associated nuclease" *Nucl. Acids Res.* **40** 9964-9979 (2012).

162. Rebecca Fuoco, Arlene Blum and Graham Peaslee, "From Data to Policy: An Undergraduate Program in Research and Communication", *J. Coll. Sci. Teaching* **42** (2012) 44.

161. G.F. Peaslee, P.A. DeYoung, "Particle induced X-ray emission of lake sediment", *Rev. Mex. de Fisica* **58** 249–252 (2012).

160. K. Klunder*, F. A. Hekman, K. L. Brown, G. F. Peaslee, "A Study of Dissolved Gas Dynamics in Mixed Stream Electrolyzed Water", *Electrochemistry* **80** 574-577 (2012).

159. E. Lunderberg*, P. A. DeYoung, Z. Kohley, H. Attanayake, T. Baumann, D. Bazin, G. Christian, D. Divaratne, S. M. Grimes, A. Haagsma, J. E. Finck, N. Frank, B. Luther, S. Mosby, T. Nagi*, G. F. Peaslee, A. Schiller, J. Snyder, A. Spyrou, M. J. Strongman, and M. Thoennessen; "Evidence for the Ground-State Resonance of ^{26}O " *Phys. Rev. Lett.* **108** 142503 (2012).

158. D.K. Silletti*; S.A. Brokus*; E.B. Earlywine*; J.D. Borycz*; G. F. Peaslee, P.A. DeYoung, Nickie J. Peters, J. D. Robertson and J. Buscaglia; "Radiation-induced cathodoluminescent signatures in calcite" *J. Rad. Meas.* **47** 195-200 (2012).

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155. Kenneth Lionel Brown, Xisen Hou*, Olajide Banks*, Kevin A. Krueger*, Julian Hinson*, Graham F. Peaslee, Paul A. DeYoung, Shannon M. Alger*, Jessica Benzer*, Thomas L. Neils; "Characterization of Tris (5-amino-1,10-phenanthroline) Ruthenium(II/III) Polymer Films Using Cyclic Voltammetry and Rutherford Backscattering Spectrometry" *Int. J. Chemistry* **3** 12-19 (2011).

154. L.J. Jisonna, P.A. DeYoung, J. Ferens*, C. Hall*, J.M. Lunderberg*, P. Mears*, D. Padilla*, G. F. Peaslee and R. Sampson*; "Forensic analysis of tempered sheet glass by particle induced X-ray emission (PIXE)" *Nucl. Instr. Meth.* **B269** 1067-1070 (2011).

153. W. A. Peters, T. Baumann, B. A. Brown, J. Brown, P. A. DeYoung, J. E. Finck, N. Frank, K. L. Jones, J.-L. Lecouey, B. Luther, G. F. Peaslee, W. F. Rogers, A. Schiller, M. Thoennessen, J. A. Tostevin, and K. Yoneda; "Neutron knockout of ^{11}Be populating neutron-unbound states in ^{11}Be " *Phys. Rev.* **C83** 057304 (2011).

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151. D.T. Restrepo, C. Greibel, K. Giesler, E.j. Buke, D.K. Silletti*, S. A. Brokus*, Graham F. Peaslee, R. G. Blair, "Mechanochemically enhanced synthesis of isomorphously substituted kaolinites" *J. Appl. Clay Science* **52** 386-391 (2011).

150. Thomas B. Higgins, Kenneth L. Brown, Jason G. Gillmore, Jeffrey B. Johnson, Graham F. Peaslee, Daniel J. Stanford, "Successful Student Transitions from the Community College to the Four-Year College Facilitated by Undergraduate Research", *CUR Quarterly* 31(2011) 16-21.
149. Edward C. Hansen, Brian E. Bodenbender, Bradley G. Johnson*, Keiko Kito*, Anna K. Davis*, Karen G. Havholm*, and Graham F. Peaslee, "The Origin of Dark Sand in Eolian Deposits along the Southeastern Shore of Lake Michigan"; *J. Geology* 119 (2011) 487-503.
148. Alyssa A. Frey*, Nicholas R. Wozniak*, Timothy B. Nagi*, Matthew P. Keller*, J. Mark Lunderberg*, Graham F. Peaslee, Paul A. DeYoung and Jennifer R. Hampton, "Analysis of Electrodeposited Nickel-Iron Alloy Film Composition Using Particle-Induced X-ray Emission", *International J. Electrochemistry* **2011** 604395 (2011).
147. P. DeYoung, C. Hall*, P. Mears*, D. Padilla*, R. Sampson*, G. F. Peaslee, "Comparison of Glass Fragments Using Particle Induced X-Ray Emission (PIXE) Spectrometry"; *J. Forensic Science* **56** 366-371 (2011).
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145. E. F. Aguilera, E. Martinez-Quiroz, P. Rosales, J. J. Kolata, P. A. DeYoung, Graham F. Peaslee, P. Mears*, C. Guess*, F. D. Becchetti, J. H. Lupton, and Yu Chen "Hindrance of complete fusion in the $^8\text{Li}+^{208}\text{Pb}$ system at above-barrier energies"; *Phys. Rev.* **C80**, (2009) 044605.
144. Jennifer Soukhome, Graham F. Peaslee, Carl Van Faasen, and William Statema* "Watershed Investigations: 12 Labs for High School Science" NSTA Press, Arlington, VA (2009)
143. M. J. Strongman, A. Spyrou, C. R. Hoffman, T. Baumann, D. Bazin, J. Brown, P. A. DeYoung, J. E. Finck, N. Frank, S. Mosby, W. F. Rogers, G. F. Peaslee, W. A. Peters, A. Schiller, S. L. Tabor, and M. Thoennessen; "Disappearance of the N=14 shell", *Phy. Rev.* **C80** 021302(R) (2009).
142. John S. Vogel, Ted J. Ognibene, Graham S. Bench, Graham F. Peaslee, "System for trapping and storing gases for subsequent chemical reduction to solids" US Patent 7611903 B2 (2009).
141. Philip J. Voss, Joseph E. Finck, Ruth H. Howes, James Brown, Thomas Baumann, Andreas Schiller, Michael Thoennessen, Paul A. DeYoung, Graham F. Peaslee, Jerry Hinnefeld, Bryan Luther, Paul V. Pancella, Warren F. Rogers, "Big Physics At Small Places: The Mongol Horde Model Of Undergraduate Research"; *J. College Teaching & Learning* **5** (2008) 37-46.
140. Book: "An Environmental History of the Lake Macatawa Watershed"; Carl Van Faasen, Jennifer Soukhome, Graham Peaslee, Holland Litho, Holland, MI 2008.
139. J.M. Lunderberg*, R.J. Bartlett*, A.M. Behm*, C. Contreras, P.A. DeYoung, N.L. Hoogeveen*, A.J. Huisman*, G. F. Peaslee, J.K. Postma*; "PIXE as a complement to trace metal analysis of sediments by ICP-OES"; *Nucl. Instr. Meth.* **B266** (2008) 4782-4787.
138. C.R. Hoffman, T. Baumann, D. Bazin, J. Brown, G. Christian, P.A. DeYoung, J.E. Finck, N. Frank, J. Hinnefeld, R. Howes, P. Mears*, E. Mosby, S. Mosby, J. Reith*, B. Rizzo, W.F. Rogers, G. F. Peaslee, W.A. Peters, A. Schiller, M.J. Scott, S.L. Tabor, M. Thoennessen, P.J. Voss, T. Williams, "Determination of the N = 16 Shell Closure at the Oxygen Drip Line", *Phys. Rev. Lett.* **100**, 152502 (2008).
137. G. Christian, W.A. Peters, D. Absalon, D. Albertson, T. Baumann, D. Bazin, E. Breitbach, J. Brown, P.L. Cole, D. Denby*, P.A. DeYoung, J.E. Finck, N. Frank, A. Fritsch, C. Hall*, A.M.

- Hayes, J. Hinnefeld, C.R. Hoffman, R. Howes, B. Luther, E. Mosby, S. Mosby, D. Padilla*, P.V. Pancella, G. F. Peaslee, W.F. Rogers, A. Schiller, M.J. Strongman, M. Thoennessen, L.O. Wagner, "Production of nuclei in neutron unbound states via primary fragmentation of ^{48}Ca "; *Nucl. Phys.* **A801**, 101 (2008)
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135. J. J. Kolata, H. Amro, F. D. Becchetti, J. A. Brown, P. A. DeYoung, M. Hencheck, J. D. Hinnefeld, G. F. Peaslee, A. L. Fritsch, C. Hall, U. Khadka*, Patrick J. Mears, P. O'Rourke, D. Padilla*, J. Rieth*, Tabatha Spencer, and T. Williams, "Breakup of ^6He Incident on ^{209}Bi Near the Coulomb Barrier," *Phys. Rev.* **C75**, 031302 (2007).
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133. H. Amro, F.D. Becchetti, Hao Jiang, M. Ojaruega, J.J. Kolata, B. Skorodumov, G. Peaslee, P. DeYoung, D. Denby*, H.D. Hinnefeld, "BaF array for γ -tagged studies with radioactive nuclear beams" *Nucl. Instr. Meth.* **B579**, 31-33 (2007).
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130. J.J. Kolata, H. Amro, M. Cloughesy, P.A. DeYoung, J. Rieth*, J.P. Bychowski*, G. Peaslee, "A Large Segmented Neutron Detector for Reaction Studies with Radioactive Beams Near the Coulomb Barrier." *Nucl. Instr. Meth.* **A557**, 594 (2006).
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126. R. H. Howes, T. Baumann, M. Thoennessen, J. Brown, P. A. DeYoung, J. Finck, J. Hinnefeld, K. W. Kemper, B. Luther, P. V. Pancella, G. F. Peaslee, W. F. Rogers, S. Tabor,

"Fabrication of a Modular Neutron Array: A Collaborative Approach to Undergraduate Research." *Am. J. Phys.* **73**, 122 (2005).

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111. T. J. Ognibene, G. Bench, T. A. Brown, G. F. Peaslee, and J. S. Vogel;" A new accelerator Mass Spectrometry System for ^{14}C -quantification of Biochemical Samples" *Int. J. Mass. Spect.* **218**, 255 (2002).
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109. R. L. Varner, J. R. Beene, M. Chartier, J. F. Liang, D. Shapira, D. Bazin, B. Blank, B. Sherrill, M. Thoennessen, P. A. DeYoung, and G. F. Peaslee; "Excitation of the Isovector Giant Quadrupole Resonance in ^{208}Pb by Coulomb Inelastic Scattering"; *Nucl. Phys.* **A687**, 140c (2001).
108. R. Sun, E. Colin, N.N. Ajitanand, J. M. Alexander, M. A. Barton*, P. A. DeYoung, K. L. Drake*, A. Elmaani, C.J.Gelderloos, E.E.Gualtieri, D.Guinet, S.Hannuschke, J. A. Jaasma*, L. Kowalski, R.A.Lacey, J.Lauret, E.Norbeck, R.Pak, G. F. Peaslee, M.Stern, N.T.B.Stone, S.D.Sundbeck*, A.M.Vander Molen, G.D.Westfall, L.B.Yang, J.Yee; " Balance of Mass, Momentum, and Energy in Splintering Central Collisions for ^{40}Ar up to 115 MeV/Nucleon"; *Phys. Rev. Lett.* **84**, 43 (2000).
107. D. Lizcano, E. F. Aguilera, E. Martinez Quiroz, J. J. Kolata, V. Guimaraes, D. Peterson, P. Santi, R. White Stevens, P. A. DeYoung, G. F. Peaslee, M. Goupell*, B. Hughey*, A. Nowlin*, F. D. Becchetti, T. O'Donnell, M. Y. Lee, and F. M. Nunez; "Alpha Particle Emission from $^6\text{He} + ^{209}\text{Bi}$ "; *Rev. Mex. Fis.* **46**, 116 (2000).
106. P. A. DeYoung, B. Atallah*, B. Hughey*, P. L. Jolivette, M. Kern*, G. F. Peaslee, V. Guimarães, J. J. Kolata, D. Peterson, P. Santi, R. White-Stevens, E. F. Aguilera, E. Martinez-Quiroz, F. D. Becchetti, M. Y. Lee, J. A. Zimmerman, J. D. Hinnefeld and O. A. Capurro; "Angular Momentum in the $^6\text{He} + ^{209}\text{Bi}$ Reaction Deduced from Isomer Ratio Measurements"; *Phys. Rev.* **C62**, 047601 (2000).
105. B. E. Bodenbender, E. C. Hansen, G. F. Peaslee, J. W. Peterson; "The Environmental Science Minor: A Disciplinary Approach to Interdisciplinary Studies with a Grounding in Undergraduate Research" *CUR Quarterly* XXI, 72 (2000).
104. E. F. Aguilera, J. J. Kolata, F. M. Nunes, F. D. Becchetti, P. A. DeYoung, M. Goupell*, V. Guimaraes, B. Hughey*, M. Y. Lee, D. Lizcano, E. Martinez-Quiroz, A. Nowlin*, T. W. O'Donnell, G. F. Peaslee, D. Peterson, P. Santi, and R. White-Stevens; "Transfer and/or Breakup Modes in the $^6\text{He} + ^{209}\text{Bi}$ Reaction Near the Coulomb Barrier" *Phys. Rev. Lett.* **84**, 5058 (2000).
103. E. Colin, Rulin Sun, N. N. Ajitanand, John M. Alexander, M. A. Barton*, P. A. DeYoung, K. L. Drake*, A. Elmaani, C. J. Gelderloos, E. E. Gualtieri,* D. Guinet, S. Hannuschke, J. A. Jaasma*, L. Kowalski, Roy A. Lacey, J. Lauret, E. Norbeck, R. Pak, G. F. Peaslee, M. Stern, N. T. B. Stone, S. D. Sundbeck*, A. M. Vander Molen, G. D. Westfall, L. B. Yang, and J. Yee; "Nuclear Disassembly in Violent Central Collisions at Intermediate Energies: ($65-115$)A MeV $^{40}\text{Ar} + \text{Cu, Ag, Au}$ "; *Phys. Rev.* **C61**, 067602 (2000).

102. Rulin Sun, E. Colin, N. N. Ajitanand, John M. Alexander, M. A. Barton*, P. A. DeYoung, K. L. Drake*, A. Elmaani, C. J. Gelderloos, E. E. Gualtieri,* D. Guinet, S. Hannuschke, J. A. Jaasma*, L. Kowalski, Roy A. Lacey, J. Lauret, E. Norbeck, R. Pak, G. F. Peaslee, M. Stern, N. T. B. Stone, S. D. Sundbeck*, A. M. Vander Molen, G. D. Westfall, L. B. Yang, and J. Yee; "Isotropic Emission Components in Splintering Central Collisions: (17-115)A MeV $^{40}\text{Ar} + \text{Cu, Ag, Au}$ "; *Phys. Rev.* **C61**, 061601 (2000).

101. R. Sun, E. Colin, N. N. Ajitanand, J. M. Alexander, M. A. Barton*, P. Danielewicz, P. A. DeYoung, K. L. Drake*, A. Elmaani, C. J. Gelderloos, E. E. Gualtieri, D. Guinet, S. Hannuschke, J. A. Jaasma*, L. Kowalski, R. A. Lacey, J. Lauret, E. Norbeck, R. Pak, G. F. Peaslee, M. Stern, N. T. B. Stone, S. D. Sundbeck*, A. M. Vander Molen, G. D. Westfall, and J. Yee; "Nuclear Stopping and Energy Removal in Central Heavy Ion Collisions of up to 115 MeV/Nucleon"; *Phys. Rev. Lett.* **84**, 43 (2000).

100 previous publications from 1983-1999 listed:

<http://www.hope.edu/academic/chemistry/faculty/peaslee/publications.html>

Honors & Awards:

Endeavour Executive Fellowship, Australian Dept, of Education, NSW Australia	2015
Schaap Research Fellow, Hope College, Holland, MI	2013
James Boelkins Natural & Applied Sci. Division Research Award, Hope College,	2011
Janet Anderson Award, Midstates Consortium for Math/Science, St. Louis, MO	2010
Stakeholder of the Year Award, Macatawa Area Coordinating Council, Holland MI	2005
Hope Outstanding Professor & Educator (HOPE) award, Holland, MI	2000
Bourse Chateaubriand, Ambassade de France, Paris, France	1985
Camille & Henry Dreyfus Undergraduate Scholar, Boston, MA	1977

Grants:

PI or co-PI on 18 external grants since 1995 for \$6,456,687.

28. NSF I-Corps - Development of a Business Model for a Rapid Screening Test for PFCs	2/15-2/16	\$ 50,000
27. DOE - Preparing for Isotope Harvesting at FRIB	4/15-4/17	\$ 800,000
26. USGS - Citizen Monitoring of Chlorides in Water	5/14 - 5/15	\$ 6,000
25. NSF REU - Achieving the next Level: Research Experiences for Underserved Populations	5/13- 4/16	\$ 285,732
24. NSF RUI - Cutting-edge nuclear physics research (collaborative and interdisciplinary) at Hope College	5/13 - 5/16	\$ 299,106
23. EPA - Reducing PBDEs & Related Flame Retardants in the Great Lakes	9/12 - 9/13	\$ 100,000
22. DOE - Preparing for Harvesting Radioisotopes at FRIB	1/12 - 12/14	\$ 840,000
21. ODC/MG - Investigating Water Quality Problems in Lake Macatawa	3/11 -9/12	\$ 500,000
20. MDEQ - Sediment Fingerprinting in the Macatawa Watershed	8/10-8/12	\$ 50,192
19. NSF RUI - Unstable Neutron-Rich Nuclei and Interdisciplinary Applications of Nuclear Physics with Undergraduates	5/10-4/13	\$ 295, 683

18. NSF MRI - Acquisition of Instrumentation to Determine Provenance of Environmental Samples	1/10-12/11	\$ 283,764
17. NSF MRI - Development of a Neutron Detector Array by Undergraduates for Studies of Exotic Nuclei.	9/09-8/11	\$ 203,894
16. NSF REU - Professional Excellence and Development in Science Through Undergraduate Research	9/09-8/12	\$ 185,000
15. MDEQ -Developing a Method for Suspended Sediment Sampling in the Macatawa Watershed	8/09-8/11	\$ 31,568
14. DHS - Cathodoluminescent Signatures of Neutron Irradiation	10/08 - 9/11	\$ 147,896
13. NSF REU - Chemistry Leadership Group	8/07-8/10	\$ 99,163
12. NSF RUI - Fundamental and Applied Nuclear Physics with Undergraduates	4/07-4/10	\$ 311,079
11. NSF - Celebration of Undergraduate Research	7/06-7/09	\$ 170,709
10. EPA - A Water Quality Assessment of Lake Macatawa: Internal vs. External Loading.	5/04-5/05	\$ 34,666
9. NSF RUI - Multifaceted Opportunities in Nuclear Physics for Undergraduates at Hope College	3/04-3/07	\$ 213,252
8. NSF MRI - Acquisition of a Nuclear Microprobe System for Interdisciplinary Research and the Integration of Research and Undergraduate Education at Hope College	7/03-7/07	\$ 719,035
7. NSF MRI - Consortium to Construct a Highly Efficient Neutron Detector Array for the NSCL (Hope College)	9/01-8/03	\$ 93,626
6. NSF MRI - Acquisition of an ICP for Environmental Metals Analysis and Undergraduate Training at Hope College	8/01-8/03	\$ 132,676
5. NSF RUI -Radioactive Nuclear Beam Physics with Undergraduates at Hope College	6/01-5/04	\$ 166,879
4. NSF RUI -Research in Nuclear Physics with Undergraduates at Hope College	6/98 - 5/01	\$ 215,834
3. NSF ILI -Environmental Science Instrumentation for Interdisciplinary Undergraduate Research Teams	5/98-5/00	\$ 27,365
2. NSF ILI -The Introduction of Atomic Absorption Spectroscopy into the General Chemistry Lab	5/98-5/00	\$ 20,900
1. NSF RUI - Heavy-Ion Reaction Studies at Hope College	6/95-5/98	\$ 172,668

Recent Invited Talks:

21. "Harvesting Radioisotopes at the NSCL", Pacificchem 2015, Honolulu, HI – Dec. 16, 2015
20. "Ion Beam Analysis of Consumer Products", Williams College Chemistry Dept., Williamston, MA – Oct 30, 2015
19. "Ion Beam Analysis of Consumer Products", Ohio University Physics Dept., Miami, OH – Oct 20, 2015
18. "PIXE as a Screening Technique for Consumer Products", Denver X-ray Conference, Denver, CO – Aug. 6, 2015.
17. "Rapid Screening Test for PFAS: Particle Induced Gamma-ray Emission (PIGE) Spectroscopy", Fluoros 2015, Golden CO – Jul. 15, 2015.
16. "Towards Closing the Mass Balance - PFASs & Paper and Textiles", Fluoros 2015, Golden CO – Jul. 12, 2015.

15. "Ion Beam Analysis for Screening Consumer Products", Environmental Division – Australian Nuclear Science and Technology Organisation, Lucas Heights, NSW Australia – Jul. 7, 2015.
14. "Radioisotope Harvesting at the National Superconducting Cyclotron Laboratory", EMIS 2015, Grand Rapids, MI – May 14, 2015.
13. "Ion Beam Analysis For Consumer Product Screening", Oregon State University, Molecular and Environmental Toxicology Dept., Corvallis, OR – Feb 20, 2015.
12. "Ion Beam Analysis: New Environmental Applications for an Old Physics Tool", Notre Dame University, Physics Dept., South Bend, IN – Feb 18, 2015.
11. "Ion Beam Analysis for Screening Consumer Products", Colorado State University, Chemistry Dept., Ft. Collins, CO – Jan. 21, 2015.
10. "Ion Beam Analysis: New Environmental Applications for an Old Physics Tool", Colorado School of Mines, Chemistry Dept., Golden, CO – Jan 14, 2015.
9. "Ion Beam Analysis For Consumer Product Screening", University of Richmond, Physics Dept., Richmond, VA – Nov. 19, 2014.
8. "Town Hall Meeting Summary: Innovation", Nuclear Science Long-range Planning Meeting, Bethesda, MD – Nov.16, 2014.
7. "Ion Beam Analysis For Consumer Product Screening", North Carolina State University, Civil and Environmental Engineering Dept., Raleigh, NC – Nov. 13, 2014.
6. "Ion Beam Analysis For Consumer Product Screening", US Military Academy, Physics Dept., West Point, NY – Oct. 2, 2014.
5. "Ion Beam Analysis For Consumer Product Screening", Emmanuel College, Chemistry Dept., Boston, MA – Sept. 29, 2014.
4. "Ion Beam Analysis For Consumer Product Screening", Union College, Chemistry Dept., Schenectedy, NY – Sept. 25, 2014.
3. "Ion Beam Analysis For Consumer Product Screening", SUNY- Geneseo, Physics Dept., Geneseo, NY – Sept. 18, 2014.
2. "The Lake Macatawa Water Quality Project", Council for Undergraduate Research Meeting, Washington, DC – Jun. 30, 2014.
1. "Applications of Ion Beam Analysis to Consumer Product Testing", CAARI 2015, San Antonio, TX – May 30, 2014.

Courses Taught (Hope College):

General Chemistry I and II	Earth Environmental Systems I and II
Accelerated General Chemistry	Laboratory Methods in Environmental Science
General Chemistry I and II Laboratory	Advanced Environmental Seminar
Physical Chemistry I (Thermodynamics)	Environmental Geochemistry
Physical Chemistry I Laboratory	First-year Seminar (4 different topics)
Physical Chemistry II (Quantum)	General Education Math/Science: Atmosphere
Physical Chemistry II Laboratory	General Education Math/Science: Chemistry
Advanced Spectroscopy Laboratory	Radiation Waste: General Education Math/Science
Inorganic Chemistry Laboratory	College Physics I and II
Instrumental Chemistry	Day 1: Watershed FYS & Laboratory
Structures, Dynamics, Synthesis II – Advanced Inorganic/Physical Chemistry	

Synergistic Activities:

American Chemical Society Councilor, Division of Nuclear Chemistry & Technology,	2012-present
American Chemical Society Division of Nuclear Chemistry & Technology Education Committee	2000-present
Council of Undergraduate Research Councilor – Chemistry	2009-2011
Member and Chair, NSF Chemistry REU Leadership Group,	2003-2009
Chair, Committee on Qualifications & Membership, Sigma Xi	2002-2005

Undergraduate Research Students Supervised: More than 146

Professional References:

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