

## CURRICULUM VITAE – MICHAEL MARK HALEY

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### EDUCATION

1983–1987 Rice University, B.A. in Chemistry. Undergraduate Advisor: W. E. Billups  
1987–1991 Rice University, M.A. & Ph.D. in Chemistry. Graduate Advisor: W. E. Billups  
Thesis: “Synthesis and Structure of Cyclopropenes and Cyclopropenes”  
1991–1993 University of California, Berkeley, Postdoctoral. Advisor: K. P. C. Vollhardt  
Postdoctoral Report: “Investigations into [M]phenylenes and Derivatives”

### PROFESSIONAL POSITIONS

1991–1993 NSF Postdoctoral Research Associate, University of California, Berkeley  
1993–1999 Assistant Professor of Chemistry, University of Oregon  
1993–2000 Associate Member, Materials Science Institute, University of Oregon  
1999–2004 Associate Professor of Chemistry, University of Oregon  
2000– Member, Materials Science Institute, University of Oregon  
2004–2013 Professor of Chemistry, University of Oregon  
2005– Researcher, Oregon Nanosciences and Microtechnologies Institute (ONAMI)  
2008–2014 Head, Department of Chemistry & Biochemistry, University of Oregon  
2013– Richard M. and Patricia H. Noyes Professor of Chemistry, University of Oregon  
2019– Associate Member, Phil & Penny Knight Campus for Accelerating Scientific Impact, University of Oregon

### HONORS AND AWARDS

1987 Z. W. Salsburg Memorial Award for excellent achievements and outstanding scholarship in chemistry (Rice)  
1988 Harry B. Weiser Scholarship for excellence in the teaching of chemistry (Rice)  
1989–1990 Nettie S. Autrey Graduate Fellowship (Rice)  
1990 Lodieska Stockbridge Vaughn Graduate Fellowship (Rice)  
1990–1991 American Chemical Society, Division of Organic Chemistry Fellowship (sponsored by Rohm and Haas)  
1991 Harry B. Weiser Scholarship for excellence in chemical research (Rice)  
1991–1993 National Science Foundation Postdoctoral Fellowship  
1995–1998 National Science Foundation CAREER Award  
1997 US–Israel Binational Science Foundation Ernst D. Bergmann Memorial Award  
1998 Richard A. Bray Faculty Fellow (Oregon)  
1998–2003 Camille Dreyfus Teacher-Scholar Award  
2000–2001 Alexander von Humboldt Research Fellowship, Technical University of Braunschweig  
2002 Thomas F. Herman Faculty Achievement Award for Distinguished Teaching (Oregon)  
2004 Sonderforschungsbereich Visiting Professor, University of Ulm  
2005 Visiting Professor, Institute for Scientific and Industrial Research, Osaka University  
2007 University of Oregon Fund for Faculty Excellence Award (Oregon)  
2011 Fellow, American Association for the Advancement of Science  
2012 National Science Foundation Innovation Corps, “Best in Show” award (top team out of 24)  
2015 Alexander von Humboldt Research Fellowship (renewed stay), University of Erlangen  
2015 UO Research Excellence Award for Innovation and Impact (shared w/ Darren W. Johnson)  
2015 *Nozoe Lecturer*, 16th International Symposium on Novel Aromatic Compounds, Madrid, Spain (Keynote Lecture)  
2016 Japan Society for the Promotion of Science (JSPS) Fellowship for Research in Japan  
2016 National Public Radio (NPR) “Golden Mole Award for Accidental Brilliance in Science” finalist (w/ D.W. Johnson and SupraSensor Technologies)

- 2016 NSF Science Nation Video (w/ D.W. Johnson and SupraSensor Technologies; Episode #254 [http://www.nsf.gov/news/special\\_reports/science\\_nation/suprasensor.jsp](http://www.nsf.gov/news/special_reports/science_nation/suprasensor.jsp))
- 2016 UO Research Innovation Commercialization Sustainability Award (w/ D.W. Johnson)
- 2018 UO Center for Undergraduate Research & Engagement Faculty Research Mentor Award (w/ V.J. DeRose, K.M. Doxsee, D.C. Johnson, D.W. Johnson, R. Jasti, M.D. Pluth & D.R. Tyler)
- 2019 Election to "Senior Member", National Academy of Inventors

#### PROFESSIONAL ACTIVITIES AND SERVICE

- 1996– Member, International Advisory Board, International Symposium on Novel Aromatic Compounds
- 1998–1999 Organizer, Boekelheide 80th Birthday Symposium, 54th Northwest Regional ACS Meeting
- 2002 Chair, Oregon Section, American Chemical Society
- 2002–2003 Organizer, Symposium on "Functional  $\pi$ -Electronic Systems", American Chemical Society 225th National Meeting
- 2003 Co-organizer, 2003 Pauling Award Symposium and Banquet, American Chemical Society – Oregon, Portland, and Puget Sound Sections, Honoring Robert H. Grubbs
- 2003–2004 Consultant, ExxonMobil Corporation
- 2003–2005 Co-organizer, Symposium on "Designed  $\pi$ -Electronic Systems – Synthesis, Properties, Theory, and Function", Pacificchem 2005
- 2004–2005 Co-organizer, Symposium on "Shape Persistent Macrocycles: Molecules and Materials", 88th Canadian Society for Chemistry Conference and Exhibition
- 2004–2006 Co-editor, *Carbon-Rich Compounds: From Molecules to Materials*, published by Wiley-VCH
- 2005 Review Panelist, "Undergraduate Research Center" Program, National Science Foundation
- 2005–2010 Consultant, GFS Chemicals, Inc.
- 2005–2006 Consultant, Brewer Scientific, Inc.
- 2005–2006 Organizer, Symposium on "Modern Acetylene Chemistry", American Chemical Society 232nd National Meeting
- 2006–2007 External Member, Organic Search Committee, Pacific University, Forest Grove, OR
- 2007–2009 Member, Scientific Advisory Board, Oregon Translational Research and Drug Development Institute (OTRADI)
- 2008 Review Panelist, "Organic Synthesis" Program, National Science Foundation
- 2008–2010 Corresponding Co-organizer, Symposium on "Designed  $\pi$ -Electronic Systems – Synthesis, Properties, Theory, and Function", Pacificchem 2010
- 2009 Review Panelist, "Organic Dynamics" Program, National Science Foundation
- 2009 Review Panelist, "Chemical Synthesis" Program, National Science Foundation
- 2009–2011 Organizer and Chair, 14th International Symposium on Novel Aromatic Compounds
- 2009–2016 Chair, International Advisory Board, International Symposium on Novel Aromatic Compounds
- 2010–2011 Organizer, 2011 George A. Olah Hydrocarbon Award Symposium Honoring Lawrence T. Scott, American Chemical Society 241st National Meeting
- 2011 Co-organizer, 2011 Pauling Award Symposium and Banquet, American Chemical Society – Oregon, Portland, and Puget Sound Sections, Honoring Larry R. Dalton
- 2011–2012 Guest Co-editor, *ChemCommun* web-themed Issue on "Aromaticity"
- 2012–2016 Co-founder and Senior Science Advisor, SupraSensor Technologies, LLC
- 2013 Vice-Chair, Physical Organic Chemistry Gordon Research Conference
- 2013–2015 Co-organizer, Symposium on "Designed  $\pi$ -Electronic Systems – Synthesis, Properties, Theory, and Function", Pacificchem 2015
- 2014–2016 Co-owner, SupraSensor Enterprises, Inc.
- 2014–2022 Member, *Synthesis/Synlett* Joint Editorial Advisory Board
- 2014 Review Panelist, "Chemical Synthesis" Program, National Science Foundation
- 2015 Chair, Physical Organic Chemistry Gordon Research Conference
- 2016–2017 Guest Co-editor, *Organic Chemistry Frontiers* web-themed issue on "Aromaticity"
- 2017 Review Panelist, "INFEWS" Program (CBET), National Science Foundation
- 2017–2018 Co-organizer, 2nd Fusion Research Conference on "From Carbon-Rich Molecules to Carbon-Based Materials"

- 2017 Participant, National Science Foundation workshop on “The Subterranean Macroscopic: Sensor Networks for Understanding, Modeling, and Managing Soil Processes”
- 2017 American Chemical Society National Award Selection Committee
- 2018 Participant, National Science Foundation INFEWS Principle Investigators Workshop
- 2018–2020 American Chemical Society Grouped National Awards Selection Committee (chair of one subcommittee)
- 2018–2020 Co-organizer, Symposium on “Designed  $\pi$ -Electronic Systems”, Pacificchem 2020
- 2018–2024 Member, International Advisory Committee, International Symposium on Macrocyclic and Supramolecular Chemistry
- 2019–2021 Co-organizer, 15th International Symposium on Macrocyclic and Supramolecular Chemistry

#### PROFESSIONAL AFFILIATIONS

American Association for the Advancement of Science  
American Chemical Society  
ACS Division of Organic Chemistry  
Materials Research Society  
National Academy of Inventors

## PATENT/INTELLECTUAL PROPERTY ACTIVITY

1. "Tunable Phenylacetylenes for Ion Binding." M. M. Haley, D. W. Johnson, O. B. Berryman, C. A. Johnson II and C. N. Stimpson. US Patent Application #11/957,243, filed 12/14/07, notice of allowance 6/23/10 and US Patent Application #12/892,823, filed 10/28/10; U.S. Patent No. 7,803,946, issued on 10/28/10.
2. "Uses of Pentamidine and Related Compounds." J. A. Berglund, M. B. Warf, C. Matthys, M. M. Haley and C. L. Hilton. U.S. Patent No. 8,436,049; filed on 2/20/09, issued 5/7/13.
3. "Alkynyl-Substituted Indenofluorenes Useful in Electronic and Electro-Optical Devices." M. M. Haley, D. T. Chase, A. G. Fix and B. D. Rose. US Provisional Patent Application No 61/355,107, filed 6/15/10; US Provisional Patent Application No. 61/469,670, filed 3/30/11; PCT Patent Application No. PCT/US2011/040451, filed 6/15/11; U.S. Patent Application No. 13/704,571, filed 12/14/12; Patent No. 9,099,660, issued 8/4/15.
4. "Heterocyclic Indenofluorenes." M. M. Haley and D. T. Chase. US. Provisional Patent Application No. 61/569,629, filed 12/12/11; U.S. Patent Application No. 13/712,589, filed 12/12/12; Patent No. 8,921,578, issued 12/30/14.
5. "Tunable Phenylacetylene Hosts." D. W. Johnson, C. N. Carroll, M. M. Haley and J. M. Engle. U.S. Patent Application No. 13/715,979, filed 12/14/12.
6. "Phenylacetylenes." M. M. Haley, D. W. Johnson, J. M. Engle and C. N. Carroll. U.S. Provisional Patent Application No. 67/755,773, filed 1/23/13; U.S. Patent Application No. 14/760,696, filed 7/13/15.
7. "Thieno-containing Compounds and Processes and Uses Thereof." M. M. Haley, A. G. Fix and G. E. Rudebusch, US Provisional Patent Application No 61/859,133, filed on 7/26/13; PCT Application No PCT/US2014/048262, filed on 7/25/14; Patent No. 9,876,182, issued 1/24/18.
8. "Tripodal Nitrate Receptors." M. M. Watt, D. W. Johnson and M. M. Haley, U.S. Provisional Patent Application No. 61/916,026, filed 12/13/13.
9. "Diindenoanthracene and Diindenopentacene." M. M. Haley and G. E. Rudebusch, U.S. Provisional Patent Application No. 62/146,086, filed 4/10/15; U.S. Patent Application No. 15/092,383, filed 4/6/16; Patent No. 9,773,988, issued 9/26/17.
10. "Phosphorous-Containing Heterocycles and a Method for Making and Using." C. L. Vonnegut, A. M. Shonkwiler, D. W. Johnson and M. M. Haley, U.S. Provisional Patent Application No. 62/183,477, filed 6/23/15; PCT Application No. PCT/US2016/0038813, filed 6/22/16.
11. "Synthetic Receptors for Hydrosulfide." M. M. Haley, M. D. Pluth and D. W. Johnson, U.S. Patent Application 15/612,848, filed 6/2/17; based on U.S. Provisional Patent Application No. 62/345,619, filed 6/3/16.
12. "Fluorescent Halogen Bonding Arylethynyl Scaffolds For Anion Recognition." J. A. Lohrman, M. M. Haley and D. W. Johnson, U.S. Patent Application 16/401,037, filed 5/1/19; based on U.S. Provisional Patent Application No. 62/671,280, filed 5/14/18.
13. "Polycyclic Aromatic Compound Embodiments and Methods of Making and Using the Same." M. M. Haley, J. J. Dressler and J. E. Barker, U.S. Patent Application 16/805,382, filed 2/28/20; based on U.S. Provisional Patent Application No. 62/812,797, filed 3/1/19.

PUBLICATIONS (All refereed)

- \*1. "Cyclopropenes." W. E. Billups, W. A. Rodin, and M. M. Haley, *Tetrahedron* **1988**, *44*, 1305-1338 (Symposium-in-Print).
- \*2. "Bicyclo[n.1.0]alkenes." W. E. Billups, M. M. Haley, and G.-A. Lee, *Chem. Rev.* **1989**, *89*, 1147-1159 (invited review).
- \*3. "Bicycloprop-2-enyl." W. E. Billups and M. M. Haley, *Angew. Chem.* **1989**, *101*, 1735-1737; *Angew. Chem., Int. Ed. Engl.* **1989**, *28*, 1711-1712.
- \*4. "Efficient Production of C<sub>60</sub> (Buckminsterfullerene), C<sub>60</sub>H<sub>36</sub>, and the Solvated Buckide Ion." R. E. Haufler, J. Conceicao, L. P. F. Chibante, Y. Chai, N. E. Byrne, S. Flanagan, M. M. Haley, S. C. O'Brien, C. Pan, Z. Xiao, W. E. Billups, M. A. Ciufolini, R. H. Hauge, J. L. Margrave, L. J. Wilson, R. F. Curl, and R. E. Smalley, *J. Phys. Chem.* **1990**, *94*, 8634-8636.
- \*5. "Dicyclopropenes." W. E. Billups, M. M. Haley, R. C. Claussen, and W. A. Rodin, *J. Am. Chem. Soc.* **1991**, *113*, 4331-4332.
- \*6. "Spiropentadiene." W. E. Billups and M. M. Haley, *J. Am. Chem. Soc.* **1991**, *113*, 5084-5085.
- \*7. "Structure and Photoelectron Spectrum of 3,3'-Bicyclopropenyl." R. Boese, D. Bläser, R. Gleiter, K.-H. Pfeifer, W. E. Billups, and M. M. Haley, *J. Am. Chem. Soc.* **1993**, *115*, 743-746.
- \*8. "The Effect of Fusion of Angular Strained Rings on Benzene: Crystal Structures of 1,2-Dihydrocyclobuta[a]cyclopropa[c]-, 1,2,3,4-Tetrahydrodicyclobuta[a,c]-, 1,2,3,4-Tetrahydrodicyclobuta[a,c]cyclopropa[e]-, and 1,2,3,4,5,6-Hexahydrotricyclobuta[a,c,e]benzene." R. Boese, D. Bläser, W. E. Billups, M. M. Haley, A. H. Maulitz, D. L. Mohler, and K. P. C. Vollhardt, *Angew. Chem.* **1994**, *106*, 321-325; *Angew. Chem., Int. Ed. Engl.* **1994**, *33*, 313-317.
- \*9. "Synthesis of the Bicyclopropenyls." W. E. Billups, M. M. Haley, R. Boese, and D. Bläser, *Tetrahedron* **1994**, *50*, 10693-10700.
- \*10. "X-ray Crystal Structure of 3-Vinylcyclopropene. Gas Phase Synthesis of Simple Cyclopropenes." R. Boese, D. Bläser, W. E. Billups, M. M. Haley, W. Luo, and B. E. Arney, Jr., *J. Org. Chem.* **1994**, *59*, 8125-8126.
11. "Synthesis of Alkenyl- and Alkynylcyclopropenes." M. M. Haley, B. Biggs, W. A. Looney, and R. D. Gilbertson, *Tetrahedron Lett.* **1995**, *36*, 3457-3460.
12. "Carbon Networks Based On Dehydrobenzoannulenes: Synthesis of Graphdiyne Substructures." M. M. Haley, S. C. Brand, and J. J. Pak, *Angew. Chem.* **1997**, *109*, 863-866; *Angew. Chem., Int. Ed. Engl.* **1997**, *36*, 835-838.
13. "Versatile Synthetic Route to and DSC Analysis of Dehydrobenzoannulenes: Crystal Structure of a Heretofore Inaccessible [20]Annulene Derivative." M. M. Haley, M. L. Bell, J. J. English, C. A. Johnson, and T. J. R. Weakley, *J. Am. Chem. Soc.* **1997**, *119*, 2956-2957.
14. "Cyclophene Chemistry: Synthesis and Study of an Octacobalt Complex of [8.8]Paracyclophane-octayne." M. M. Haley and B. L. Langsdorf, *Chem. Commun.* **1997**, 1121-1122.
15. "C-H...π-Interactions in Ethynylbenzenes: The Crystal Structures of Ethynylbenzene and 1,3,5-Triethynylbenzene, and a Redetermination of the Structure of 1,4-Diethynylbenzene." H.-C. Weiss, D. Bläser, R. Boese, B. M. Doughan, and M. M. Haley, *Chem. Commun.* **1997**, 1703-1704.
16. "Synthesis and Crystallographic Characterization of a Platinadehydrobenzo[19]annulene." J. J. Pak, T. J. R. Weakley, and M. M. Haley, *Organometallics* **1997**, *16*, 4505-4507.
17. "One-Pot Desilylation/Dimerization of Ethynyl- and Butadiynyltrimethylsilanes. Synthesis of Tetrayne-Linked Dehydrobenzoannulenes." M. M. Haley, M. L. Bell, S. C. Brand, D. B. Kimball, J. J. Pak and W. B. Wan, *Tetrahedron Lett.* **1997**, *38*, 7483-7486.
18. "≡C-H...π Versus ≡C-H...Halogen Interactions – The Crystal Structures of the 4-Halogenoethynylbenzenes." H.-C. Weiss, R. Boese, H. L. Smith and M. M. Haley, *Chem. Commun.* **1997**, 2403-2404.
19. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." M. M. Haley, *Synlett* **1998**, 557-565 (invited account).
20. "X-ray Crystal and Ab Initio Structure of 3-Ethynylcyclopropene: A Curiously Short Carbon-Carbon Double Bond." K. K. Baldrige, B. Biggs, D. Bläser, R. Boese, R. D. Gilbertson, M. M. Haley, A. H. Maulitz and J. S. Siegel, *Chem. Commun.* **1998**, 1137-1138.
21. "Synthesis and Characterization of an Unusually Stable Dialkylaluminum Aldimine Complex: X-ray Crystal Structure of *trans*-[(1,2,3-(*t*-Bu)<sub>3</sub>-cyclo-C<sub>3</sub>)CH=NAl(*i*-Bu)<sub>2</sub>]<sub>2</sub>." R. D. Gilbertson, M. M. Haley, T. J. R. Weakley, H.-C. Weiss and R. Boese, *Organometallics* **1998**, *17*, 3105-3107.

(\* Publications on research conducted prior to arriving at the University of Oregon.)

22. "Synthesis of Expanded Planar Dehydrobenzoannulenes: Weakly Diatropic, Weakly Paratropic, or Atropic?" W. B. Wan, D. B. Kimball and M. M. Haley, *Tetrahedron Lett.* **1998**, 39, 6795-6798.
23. "Direct Synthesis of an Iridabenzene from a Nucleophilic 3-Vinyl-1-cyclopropene." R. D. Gilbertson, T. J. R. Weakley and M. M. Haley, *J. Am. Chem. Soc.* **1999**, 121, 2597-2598.
24. "Stepwise Assembly of Site-Specifically Functionalized Dehydrobenzo[18]annulenes." J. J. Pak, T. J. R. Weakley and M. M. Haley, *J. Am. Chem. Soc.* **1999**, 121, 8182-8192.
25. "Synthesis, Characterization, and Isomerization of an Iridabenzvalene." R. D. Gilbertson, T. J. R. Weakley and M. M. Haley, *Chem. Eur. J.* **2000**, 6, 437-441.
26. "Preparation, X-ray Crystal Structures, and Reactivity of Alkynylcyclopropenylum Salts." R. D. Gilbertson, T. J. R. Weakley and M. M. Haley, *J. Org. Chem.* **2000**, 65, 1422-1430.
27. "Development and Implementation of a New Industrial Internship Program in Polymer Synthesis and Processing." D. R. Tyler, D. C. Johnson and M. M. Haley, *Chem. Educator* **2000**, 5, 92-95 (<http://journals.springer-ny.com/chedr/>).
28. "Carbon Networks Based On Dehydrobenzoannulenes. 2. Synthesis of Expanded Graphdiyne Substructures." W. B. Wan, S. C. Brand, J. J. Pak and M. M. Haley, *Chem. Eur. J.* **2000**, 6, 2044-2052.
29. "Carbon Networks Based On Dehydrobenzoannulenes. 3. Synthesis of Graphyne Substructures." J. M. Kehoe, J. H. Kiley, J. J. English, C. A. Johnson, R. C. Petersen and M. M. Haley, *Org. Lett.* **2000**, 2, 969-972.
30. "Synthesis and Characterization of Dehydrothieno[18]annulenes." A. Sarkar and M. M. Haley, *Chem. Commun.* **2000**, 1733-1734.
31. "Bis(enediyne) Macrocycles: Synthesis, Reactivity, and Structural Analysis." H. S. Blanchette, S. C. Brand, H. Naruse, T. J. R. Weakley and M. M. Haley, *Tetrahedron* **2000**, 56, 9581-9588.
32. "Thermal Cyclization of (2-Ethynylphenyl)triazenes: Facile Synthesis of Substituted Cinnolines and Isoindazoles." D. B. Kimball, A. G. Hayes and M. M. Haley, *Org. Lett.* **2000**, 2, 3825-3827.
33. "A Versatile Synthetic Route to Dehydrobenzoannulenes via *in situ* Generation of Reactive Alkynes." M. L. Bell, R. C. Chiechi, C. A. Johnson, D. B. Kimball, A. J. Matzger, W. B. Wan, T. J. R. Weakley and M. M. Haley, *Tetrahedron* **2001**, 57, 3507-3520 (Symposium-in-Print).
34. "Carbon Networks Based On Dehydrobenzoannulenes. 4. Synthesis of 'Star' and 'Trefoil' Graphdiyne Substructures via Sixfold Cross-Coupling of Hexaiodobenzene." W. B. Wan and M. M. Haley, *J. Org. Chem.* **2001**, 66, 3893-3901.
35. "Synthesis and Spectroscopic Studies of Expanded Planar Dehydrotribenzo[*n*]annulenes Containing One or Two Isolated Alkene Units." W. B. Wan, R. C. Chiechi, T. J. R. Weakley and M. M. Haley, *Eur. J. Org. Chem.* **2001**, 3485-3490.
36. "Dehydrobenzoannulene/Dimethyldihydropyrene Hybrids: Model Systems for the Synthesis of Molecular Aromatic Probes." D. B. Kimball, M. M. Haley, R. H. Mitchell and T. R. Ward, *Org. Lett.* **2001**, 3, 1709-1711.
37. "[2.2]Paracyclophane/Dehydrobenzoannulene Hybrids: Transannular Delocalization in Open-Circuited Conjugated Macrocycles." A. J. Boydston, L. Bondarenko, I. Dix, T. J. R. Weakley, H. Hopf and M. M. Haley, *Angew. Chem.* **2001**, 113, 2986-2989; *Angew. Chem. Int. Ed.* **2001**, 40, 3074-3077.
38. "Nonlinear Optical Properties of Dehydrobenzo[18]annulenes: Expanded Two-Dimensional Dipolar and Octupolar NLO Chromophores." A. Sarkar, J. J. Pak, G. W. Rayfield and M. M. Haley, *J. Mater. Chem.* **2001**, 11, 2943-2945.
39. "Diatropicity of Dehydrobenzo[14]annulenes: Comparative Analysis of the Bond-Fixing Ability of Benzene on the Parent 3,4,7,8,9,10,13,14-Octadehydro[14]annulene." A. J. Boydston and M. M. Haley, *Org. Lett.* **2001**, 3, 3599-3601.
40. "Two Uncommon, Competitive Mechanisms for (2-Ethynylphenyl)triazene Cyclization: Pseudocoarctate Versus Pericyclic Reactivity." D. B. Kimball, R. Herges and M. M. Haley, *J. Am. Chem. Soc.* **2002**, 124, 1572-1573.
41. "Triazenes: A Versatile Tool in Organic Synthesis." D. B. Kimball and M. M. Haley, *Angew. Chem.* **2002**, 114, 3484-3498; *Angew. Chem. Int. Ed.* **2002**, 41, 3338-3351 (invited review).
42. "Evaluation of Ring-Strain Effects in Cycloalkene-Fused Octadehydro[14]annulenes." A. J. Boydston, M. Laskoski, U. H. F. Bunz and M. M. Haley, *Synlett* **2002**, 981-983.

43. "Metallabenzenes and Valence Isomers. 3. Unexpected Rearrangement of Two Regioisomeric Iridabenzenes to an  $\eta^5$ -Cyclopentadienyliridium(I) Complex." H.-P. Wu, S. Lanza, T. J. R. Weakley and M. M. Haley, *Organometallics* **2002**, *21*, 2824-2826.
44. "Synthesis and Characterization of Annulene-Fused Pseudorotaxanes." J. J. Pak, T. J. R. Weakley, M. M. Haley, D. Y. K. Lee and J. F. Stoddart, *Synthesis* **2002**, 1256-1260.
45. "Cyclization of 1-(2-Alkynylphenyl)-3,3-dialkyltriazenes: A Convenient, High-Yield Synthesis of Substituted Cinnolines and Isoindazoles." D. B. Kimball, T. J. R. Weakley and M. M. Haley, *J. Org. Chem.* **2002**, *67*, 6395-6405.
46. "Metallabenzenes and Valence Isomers. 4. Synthesis and Characterization of a Platinabenzene." V. Jacob, T. J. R. Weakley and M. M. Haley, *Angew. Chem.* **2002**, *114*, 3620-3623; *Angew. Chem. Int. Ed.* **2002**, *41*, 3470-3473 (journal cover).
47. "Metallabenzenes and Valence Isomers. 5. Synthesis and Characterization of a Rhodabenzvalene, A Rare  $\eta^2$ -Cyclopropene/ $\sigma$ -Vinylrhodium(I) Complex." H.-P. Wu, T. J. R. Weakley and M. M. Haley, *Organometallics* **2002**, *21*, 4320-4322.
48. "Deciphering the Mechanistic Dichotomy in the Cyclization of 1-(2-(Ethynylphenyl)-3,3-dialkyltriazenes: Competition Between Pericyclic and Pseudocoarctate Pathways." D. B. Kimball, T. J. R. Weakley, R. Herges and M. M. Haley, *J. Am. Chem. Soc.* **2002**, *124*, 13463-13473.
49. "Dimethyldihydropyrene/Dehydrobenzoannulene Hybrids: Studies in Aromaticity and Photoisomerization." D. B. Kimball, M. M. Haley, R. H. Mitchell, T. R. Ward, S. Bandyopadhyay, R. V. Williams and J. R. Armantrout, *J. Org. Chem.* **2002**, *67*, 8798-8811.
50. "Diatropicity of 3,4,7,8,9,10,13,14-Octadehydro[14]annulenes: A Combined Experimental and Theoretical Investigation." A. J. Boydston, M. M. Haley, R. V. Williams and J. R. Armantrout, *J. Org. Chem.* **2002**, *67*, 8812-8819.
51. "Rearrangement of a  $\sigma$ -2-(Cycloprop-2-enyl)vinyl- to an  $\eta^3$ -Cyclopentadienylplatinum(II) Complex. Selective Protonolysis of the Platinum-Methyl Bond." V. Jacob, T. J. R. Weakley and M. M. Haley, *Organometallics* **2002**, *21*, 5394-5400.
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4. "Taming the Highly Reactive Oxonium Ion." M. M. Haley, *Angew. Chem. Int. Ed.* **2009**, *48*, 1544-1545 (invited "Highlight"; refereed).
5. "On the Road to Carbyne." M. M. Haley, *Nature Chem.* **2010**, *2*, 912-913 (invited 'News and Views' feature; refereed).
6. "Aromaticity: A Web Themed Issue." N. Martin, M. M. Haley and R. R. Tykwinski, *Chem. Commun.* **2012**, *48*, 10471 (special issue forward).
7. "Modern Alkyne Chemistry: Catalytic and Atom-Economic Transformations." M. M. Haley, *Angew. Chem. Int. Ed.* **2015**, *54*, 8332 (invited book review).
8. "Origins of the Indenofluorene Project: Serendipity and Other Surprises." M. M. Haley, *Chem. Rec.* **2015**, *15*, 1140-1143 (invited commentary).
9. "Novel  $\pi$ -Electron Molecular Scaffolds: A Themed Issue." M. M. Haley, N. Martin and F. Würthner, *Org. Chem. Front.* **2017**, *4*, 648-649 (special issue forward).
10. "Single Molecule-level Study of Donor-Acceptor Interactions and Nanoscale Environment in Blends." N. Quist, R. Grollman, J. Rath, A. Robertson, M. Haley, J. Anthony and O. Ostroverkhova, *Proc. SPIE* **2017**, *10101*, Organic Photonic Materials and Devices; doi:10.1117/12.2251276.
11. "Cyclo[18]carbon, the Newest Member of the Family of Carbon Allotropes." M. M. Haley, *Chem* **2019**, *5*, 2517-2519 (invited Preview; not refereed).

#### PENDING OTHER PUBLICATIONS

None currently

## SPECIAL CITATIONS AND HIGHLIGHTS

- \*1. "Unsubstituted 3,3'-Bicyclopropenyl." *Nach. Chem. Tech. Lab.* **1989**, 37, 1132.
  - \*2. "Chemists penetrate benzene's final disguise." *New Scientist* **1990**, 1704, 32.
  - \*3. "Bowtie molecule trapped in the cold." *Chem. Eng. News* **1991**, July 1, 40.
  - \*4. "Elusive bowtie pinned down." *Science News* **1991**, 140, 27.
  - \*5. "Trends: Organische Chemie." *Nach. Chem. Tech. Lab.* **1995**, 43, 151.
  6. "New chemical building blocks promise future wonders." *Oregon Scientist* **1997**, 10(4), 15.
  7. "Explosions as a Synthetic Tool? Cycloalkynes as Precursors to Fullerenes, Buckytubes, and Buckyanions." *Angew. Chem. Int. Ed.* **1998**, 37, 2825-2828.
  8. "Platinum in an Aromatic Ring." *Chem. Eng. News* **2002**, September 23, 90.
  9. "Polyunsaturated Cyclophanes." *Angew. Chem. Int. Ed.* **2002**, 41, 4003-4006.
  10. "Carbon-rich Molecules 'Supersized' For The First Time." *Nanotechnology Now* **2005**, ([http://www.nanotech-now.com/news.cgi?story\\_id=12779](http://www.nanotech-now.com/news.cgi?story_id=12779))
  11. "Carbon-rich Molecules 'Supersized' For The First Time." *ScienceDaily* **2006**, (<https://www.sciencedaily.com/releases/2006/01/060103184816.htm>)
  12. December 2006 issue of the *Virtual Journal of Ultrafast Science* – [www.vjulfrafast.org](http://www.vjulfrafast.org)
  13. Author Profile in *Angew. Chem. Int. Ed.* **2012**, 51, 2540.
  14. "Easily Accessible Electron-Accepting Indenofluorenes." *Synfacts* **2012**, 8, 157.
  15. "A Novel Electron-Accepting Scaffold for Organic Electronics." *Synfacts* **2013**, 9, 611.
  16. "What's Cooking in Chemistry: Michael M. Haley." *ChemistryViews* **2013**, DOI: 10.1002/chemv.201300061
  17. "Two Dots in One 'DIAn'." *Synfacts* **2016**, 12, 798.
  18. JACS Spotlight by Christine Herman, *J. Am. Chem. Soc.* **2016**, 138, 13447-13448.
  19. "Calmer" Organic Radicals. X. Su, ACS "Cutting-Edge Chemistry, **2016** (<https://www.acs.org/content/acs/en/pressroom/cutting-edge-chemistry/calmer-organic-radicals.html>)
  20. "Rare Fluorescence Observed from Indacenes." *Synfacts* **2018**, 14, 1243.
- (\* Publications highlighting research conducted prior to arriving at the University of Oregon.)

## SYMPOSIA LECTURESHIPS

1. "Theoretically Interesting Molecules." Fifth Chemical Congress of North America, Cancun, Mexico, 11/11-15/97.
2. 9th International Symposium on Novel Aromatics, Hong Kong, China, 8/2-7/98.
3. "Synthesis and Properties of Novel Aromatic Compounds." American Chemical Society 216th National Meeting, Boston, MA, 8/23-27/98.
4. "Functional, Conjugated Organic Materials." 82nd Canadian Society for Chemistry Conference and Exhibition, Toronto, ON, Canada, 5/30-6/2/99.
5. "US-German-French Workshop on Carbon-Rich Organometallic Compounds." NSF Workshop, Erlangen, Germany, 7/16-20/00.
6. "Molecular Materials." American Chemical Society 56th Northwest Regional Meeting, Seattle, WA, 6/14-17/01.
7. 2001 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 7/1-6/01.
8. "Novel  $\pi$ -Electronic Systems." 85th Canadian Society for Chemistry Conference and Exhibition, Vancouver, BC, Canada, 6/1-5/02.
9. "Less Common Modes of Bonding in Organometallic Complexes." American Chemical Society 57th Northwest Regional Meeting, Spokane, WA, 6/20-21/02.
10. "Advanced Organic Materials." American Chemical Society 53rd Southeast Regional Meeting, Charleston, SC, 11/13-17/02.
11. "Carbon-Rich Organometallics." American Chemical Society 226th National Meeting, New York, NY, 9/7-11/03.
12. "Contemporary Aspects of Chemical Bonding." American Chemical Society 226th National Meeting, New York, NY, 9/7-11/03.
13. International Symposium on Novel Carbon-Rich Organic Materials, Osaka, Japan, 9/29-30/03.
14. 33rd Symposium on Structural Organic Chemistry, Toyama, Japan, 10/3-4/03.
15. 35th Symposium on Structural Organic Chemistry, Osaka, Japan, 9/9-10/05.
16. "Designed  $\pi$ -Electronic Systems – Synthesis, Properties, Theory, and Function." Pacifichem 2005, Honolulu, HI, 12/15-20/05.
17. "Non-Planarity in Aromatic Macrocycles." Pacifichem 2005, Honolulu, HI, 12/15-20/05.
18. "New Developments in Transition Metal Coordination Chemistry." American Chemical Society 61st Northwest Regional Meeting, Reno, NV, 6/25-28/06.
19. "Organic Materials in Solution and Solid State." American Chemical Society 61st Northwest Regional Meeting, Reno, NV, 6/25-28/06.
20. "Modern Acetylene Chemistry." American Chemical Society 232nd National Meeting, San Francisco, CA, 9/10-14/06.
21. 25th Esther and Bingham J. Humphreys Memorial Symposium, University of Vermont, 9/29-30/06.
22. "Novel  $\pi$ -Systems, Novel Properties." ISNA-12 Pre-symposium, Tokyo, Japan, 7/21/07.
23. 12th International Symposium on Novel Aromatic Compounds, Awaji Island, Japan, 7/22-27/07.
24. "Novel Fluorophores." American Chemical Society 235th National Meeting, New Orleans, LA, 4/6-10/08.
25. "Supramolecular Chemistry." American Chemical Society 63rd Northwest and 21st Rocky Mountain Joint Regional Meeting, Park City, UT, 6/15-18/08.
26. 2009 Physical Organic Chemistry–Molecular Design and Synthesis Gordon Research Conference, Holderness, NH, 6/28-7/3/09.
27. Symposium in Honor of Reginald H. Mitchell, University of Victoria, Victoria, BC, 8/6-7/10.
28. "Designed  $\pi$ -Electronic Systems – Synthesis, Properties, Theory, and Function." Pacifichem 2010, Honolulu, HI, 12/15-20/10.
29. "Cope Scholar Symposium – Advances in  $\pi$ -Functional Materials." American Chemical Society 67th Northwest and Regional Meeting, Boise, ID, 6/24-27/12.
30. "2013 ACS Award for Research at an Undergraduate Institution Honoring Nancy S. Mills." American Chemical Society 245th National Meeting, New Orleans, LA, 4/7-11/13.
31. 15th International Symposium on Novel Aromatic Compounds, Taipei, Taiwan, 7/28-8/2/13.

32. "Material Science Symposium." American Chemical Society 44th Western Regional Meeting, Santa Clara, CA, 10/3-6/13.
33. Workshop on "Structure-Property Relationships of Molecular Precursors to Organic Electronics", CECAM (Centre Européen de Calcul Atomique et Moléculaire), Lausanne, Switzerland, 10/22-25/13.
34. "Pi-conjugated Materials: From Design to Application." 97th Canadian Society for Chemistry Conference and Exhibition, Vancouver, BC, Canada, 6/1-5/14.
35. "From Carbon-Rich Molecules to Carbon-Based Materials." Fusion Conference, El Jadida, Morocco, 9/22-25/14.
36. 16th International Symposium on Novel Aromatic Compounds, Madrid, Spain, 7/5-10/15.
37. "Designed  $\pi$ -Electronic Systems – Synthesis, Properties, Theory, and Function." Pacifichem 2015, Honolulu, HI, 12/15-20/15.
38. 2nd International Symposium on  $\pi$ -System Figuration, Saitama, Japan, 4/14-15/16.
39. "Functional Organic pi-Systems: Synthesis, Theory and Applications." 99th Canadian Society for Chemistry Conference and Exhibition, Halifax, NS, Canada, 6/5-9/16.
40. 2nd International Caparica Conference on Chromogenic and Emissive Materials. Lisbon, Portugal, 9/5-8/16.
41. 1st PKU-WuXi AppTec Symposium of Organic Chemistry, Beijing, China, 10/22-23/16.
42. "Functional Organic pi-Systems – Synthesis, Theory and Applications." 100th Canadian Society for Chemistry Conference and Exhibition, Toronto, ON, Canada, 5/28-6/1/17.
43. 4th Erlangen Symposium on Synthetic Carbon Allotropes, Erlangen, Germany, 9/25-28/17.
44. 3rd Escola de Quimica Computacional – Theory of New Materials at Atomistic Level: Graphene, Graphene Defects and  $\pi$ -Conjugated Polyradical Systems, Ribeirão Preto, Brazil, 12/11-14/17.
45. "From Germany to Canada: Synthetic Carbon Allotropes and Carbon-Rich Molecules." 101st Canadian Society for Chemistry Conference and Exhibition, Edmonton, AB, Canada, 5/27-31/18.
46. 3rd International Caparica Conference on Chromogenic and Emissive Materials, Lisbon, Portugal, 9/3-6/18.
47. 14th International Kyoto Conference on New Aspects of Organic Chemistry, Kyoto, Japan, 11/12-16/18.
48. Aromaticity 2018, Riviera Maya, Mexico, 11/28-12/1/18.
49. "2019 ACS James Flack Norris Award for Physical Organic Chemistry Honoring Eric V. Anslyn." American Chemical Society 257th National Meeting, Orlando, FL, 3/31-4/4/19.
50. Carl Glaser Memorial Symposium, Bad Honnef, Germany, 5/26-28/19.
51. "Functional pi-Systems, Materials and Devices." 10<sup>th</sup> International Conference on Materials for Advanced Technologies, Singapore, 6/23-28/19.
52. 18th International Symposium on Novel Aromatic Compounds, Sapporo, Japan, 7/21-26/19.
53. 5th Erlangen Symposium on Synthetic Carbon Allotropes, Erlangen, Germany, 9/29-10/2/19.

#### *UPCOMING SYMPOSIA LECTURESHIPS*

54. "New Horizon of Main Group and Transition-metal Aromatics." Pacifichem 2020, Honolulu, HI, 12/15-20/2020.
55. "Designed  $\pi$ -Electronic Systems – Synthesis, Properties, Theory, and Function." Pacifichem 2020, Honolulu, HI, 12/15-20/2020.

#### CONFERENCE/MEETING/SYMPOSIUM ATTENDED

1. American Chemical Society 203rd National Meeting, San Francisco, CA, 4/5-9/92.
2. 7th International Symposium on Novel Aromatics, Victoria, BC, Canada, 7/19-24/92.
3. Oregon Materials Science Symposium, Corvallis, OR, 5/14/94.
4. 8th International Symposium on Novel Aromatics, Braunschweig, Germany, 7/31-8/4/95.
5. Oregon Academy of Science 54th Annual Meeting, Eugene, OR, 3/2/96.
6. American Chemical Society 211th National Meeting, New Orleans, LA, 3/24-28/96.
7. American Chemical Society 51st Northwest Regional Meeting, Corvallis, OR, 6/19-22/96. Chair for the 6/21/96 afternoon general organic session.
8. American Chemical Society 213th National Meeting, San Francisco, CA, 4/13-17/97.
9. American Chemical Society 52nd Northwest Regional Meeting, Moscow, ID, 6/18-21/97. Chair for the 6/21/97 morning session.
10. American Chemical Society 214th National Meeting, Las Vegas, NV, 9/7-11/97.
11. 5th Chemical Congress of North America, Cancun, Mexico, 11/11-15/97. Chair for the 11/12/97 afternoon session of the symposium on "Theoretically Interesting Molecules".
12. 9th International Symposium on Novel Aromatic Compounds, Hong Kong, China, 8/2-7/98.
13. American Chemical Society 216th National Meeting, Boston, MA, 8/23-27/98.
14. 82nd Canadian Society for Chemistry Conference and Exhibition, Toronto, ON, Canada, 5/30-6/2/99.
15. American Chemical Society 54th Northwest Regional Meeting, Portland, OR, 6/20-23/99. Organizer of the "Virgil Boekelheide 80th Birthday Symposium" and chair for the 6/21/99 afternoon session.
16. 1999 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/27-7/2/99.
17. American Chemical Society 218th National Meeting, New Orleans, LA, 8/22-26/99.
18. American Chemical Society 219th National Meeting, San Francisco, CA, 3/26-30/00.
19. US-German-French Workshop on Carbon-Rich Organometallic Compounds, Erlangen, Germany, 7/16-20/00.
20. Pacificchem 2000, Honolulu, HI, 12/14-19/00.
21. American Chemical Society 56th Northwest Regional Meeting, Seattle, WA, 6/14-17/01.
22. 2001 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 7/1-6/01.
23. 10th International Symposium on Novel Aromatic Compounds, San Diego, CA, 8/4-8/01. Chair for the 8/8/01 morning session.
24. 85th Canadian Society for Chemistry Conference and Exhibition, Vancouver, BC, Canada, 6/1-5/02. Chair for the 6/4/02 afternoon session of the symposium on "Novel  $\pi$ -Electronic Systems".
25. American Chemical Society 57th Northwest Regional Meeting, Spokane, WA, 6/19-22/02.
26. American Chemical Society 53rd Southeast Regional Meeting, Charleston, SC, 11/13-17/02.
27. American Chemical Society 225th National Meeting, New Orleans, LA, 3/23-27/03. Organizer of the symposium on "Functional  $\pi$ -Electronic Systems" and chair for the 3/24/03 morning session.
28. 2003 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/29-7/4/03. Discussion leader for the 6/29/03 evening session.
29. American Chemical Society 226th National Meeting, New York, NY, 9/7-11/03. Chair for the 9/8/03 afternoon session of the symposium on "Carbon-rich Organometallics".
30. International Symposium on Novel Carbon-Rich Organic Materials, Osaka, Japan, 9/29-30/03. Chair for the 9/30/03 morning session.
31. 33rd Symposium on Structural Organic Chemistry, Toyama, Japan, 10/3-4/03.
32. 6th International Symposium on Functional  $\pi$ -Electron Systems, Ithaca, NY, 6/14-18/04.
33. 2004 Organic Structures and Properties Gordon Research Conference, Les Diablerets, Switzerland, 10/10-15/04.
34. 88th Canadian Society for Chemistry Conference and Exhibition, Saskatoon, SK, Canada, 5/28-6/1/05. Co-organizer of the symposium on "Shape Persistent Macrocycles" and chair for the 5/31/05 morning session.
35. 11th International Symposium on Novel Aromatic Compounds, St. Johns, NF, Canada, 8/14-18/05.
36. 35th Symposium on Structural Organic Chemistry, Osaka, Japan, 9/9-10/05.
37. Pacificchem 2005, Honolulu, HI, 12/15-20/05. Co-organizer of the symposium on "Designed  $\pi$ -Electronic Systems" and chair for the 12/20/05 morning session.
38. American Chemical Society 61st Northwest Regional Meeting, Reno, NV, 6/25-28/06.

39. American Chemical Society 232nd National Meeting, San Francisco, CA, 9/10-14/06. Organizer of the symposium on "Modern Acetylene Chemistry" and chair for the 9/13/06 morning session.
40. 2007 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/24-29/07.
41. 12th International Symposium on Novel Aromatic Compounds, Awaji Island, Japan, 7/22-27/07. Chair for the 7/25/07 morning session.
42. American Chemical Society 235th National Meeting, New Orleans, LA, 4/6-10/08.
43. American Chemical Society 63rd Northwest and 21st Rocky Mountain Combined Regional Meeting, Park City, UT, 6/15-18/08.
44. American Chemical Society 237th National Meeting, Salt Lake City, UT, 3/22-26/09.
45. 2009 Physical Organic Chemistry: Molecular Design and Synthesis Gordon Research Conference, Holderness, NH, 6/28-7/3/09.
46. 13th International Symposium on Novel Aromatic Compounds, Luxembourg City, Luxembourg, 7/19-24/09.
47. 9th International Symposium on Functional  $\pi$ -Electron Systems, Atlanta, GA, 5/23-28/10.
48. Symposium in Honor of Reg Mitchell, University of Victoria, Victoria, BC, 8/6-7/10.
49. Pacificchem 2010, Honolulu, HI, 12/15-20/10. Head organizer of the symposium on "Designed  $\pi$ -Electronic Systems" and chair for the 12/15/10 morning and 12/16/10 evening sessions.
50. American Chemical Society 241st National Meeting, New Orleans, LA, 3/27-30/11. Organizer and chair of the 2011 George A. Olah Hydrocarbon Award Symposium in Honor of Lawrence T. Scott.
51. 2011 Physical Organic Chemistry: Molecular Design and Synthesis Gordon Research Conference, Holderness, NH, 6/26-7/1/11. Chair for the 6/27/11 morning session.
52. 14th International Symposium on Novel Aromatic Compounds, Eugene, Oregon, 7/24-29/11. Organizer and chair of meeting.
53. American Chemical Society 67th Northwest and Regional Meeting, Boise, ID, 6/24-27/12.
54. Fall 2012 Materials Research Society Meeting, Boston, MA, 11/25-30/12.
55. American Chemical Society 245th National Meeting, New Orleans, LA, 4/7-11/13.
56. 11th International Symposium on Functional  $\pi$ -Electron Systems, Arcachon, France, 6/2-7/13.
57. 2013 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/23-28/13. Vice-chair of meeting.
58. 8th International Symposium on Macrocyclic and Supramolecular Chemistry, Washington, DC, 7/7-11/13.
59. 15th International Symposium on Novel Aromatic Compounds, Taipei, Taiwan, 7/28-8/2/13.
60. American Chemical Society 44th Western Regional Meeting, Santa Clara, CA, 10/3-6/13.
61. CECAM Workshop on "Structure-Property Relationships of Molecular Precursors to Organic Electronics", Lausanne, Switzerland, 10/22-25/13.
62. Materials Research Society Spring 2014 Meeting, San Francisco, CA, 4/21-25/14.
63. 97th Canadian Society for Chemistry Conference and Exhibition, Vancouver, BC, Canada, 6/1-5/14.
64. Fusion Conference on "Carbon-Rich Molecules and Carbon-Based Materials", El Jadida, Morocco, 9/22-25/14.
65. 2015 Physical Organic Chemistry Gordon Research Seminar, Holderness, NH, 6/20-21/15. Career Panel.
66. 2015 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/21-26/15. Chair of the meeting.
67. 10th International Symposium on Macrocyclic and Supramolecular Chemistry, Strasbourg, France, 6/28-7/2/15.
68. 16th International Symposium on Novel Aromatic Compounds, Madrid, Spain, 7/5-10/15. Presided over the 7/6/15 afternoon session.
69. 12th International Symposium on Functional  $\pi$ -Electron Systems, Seattle, WA, 7/19-24/15.
70. Pacificchem 2015, Honolulu, HI, 12/15-20/15. Co-organizer of the symposium on "Designed  $\pi$ -Electronic Systems" and presided over the 12/19/15 afternoon session.
71. 2nd International Symposium on  $\pi$ -System Figuration, Saitama, Japan, 4/14-15/16.
72. 99th Canadian Society for Chemistry Conference and Exhibition, Halifax, NS, Canada, 6/5-9/16.
73. 2nd International Caparica Conference on Chromogenic and Emissive Materials. Lisbon, Portugal, 9/5-8/16.

74. CURO-Pi II: 2nd International Symposium on the Synthesis and Application of Curved Organic  $\pi$ -Molecules & Materials, Eugene, OR, 9/12-14/16.
75. 1st PKU-WuXi AppTec Symposium of Organic Chemistry, Beijing, China, 10/22-23/16.
76. 100th Canadian Society for Chemistry Conference and Exhibition, Toronto, ON, Canada, 5/28-6/1/17.
77. 2017 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/25-30/17.
78. 12th International Symposium on Macrocyclic and Supramolecular Chemistry, Cambridge, United Kingdom, 7/2-6/17.
79. 17th International Symposium on Novel Aromatic Compounds, Stony Brook, NY, 7/23-28/17.
80. 4th Erlangen Symposium on Synthetic Carbon Allotropes, Erlangen, Germany, 9/24-27/17.
81. 3rd Escola de Quimica Computacional – Theory of New Materials at Atomistic Level: Graphene, Graphene Defects and  $\pi$ -Conjugated Polyradical Systems, Ribeirão Preto, Brazil, 12/11-14/17.
82. 101st Canadian Society for Chemistry Conference and Exhibition, Edmonton, AB, Canada, 5/27-31/18.
83. 2nd “From Carbon-Rich Molecules to Carbon-Based Materials” Fusion Conference, Nassau, Bahamas, 6/7-10/18.
84. 13th International Symposium on Macrocyclic and Supramolecular Chemistry, Quebec City, Quebec, Canada, 7/8-12/18.
85. 3rd International Caparica Conference on Chromogenic and Emissive Materials. Lisbon, Portugal, 9/3-6/18.
86. 14th International Kyoto Conference on New Aspects of Organic Chemistry, Kyoto, Japan, 11/12-16/18.
87. Aromaticity 2018, Riviera Maya, Mexico, 11/28-12/1/18.
88. American Chemical Society 257th National Meeting, Orlando, FL, 3/31-4/4/19.
89. Carl Glaser Memorial Symposium, Bad Honnef, Germany, 5/26-28/19.
90. 14th International Symposium on Macrocyclic and Supramolecular Chemistry, Lecce, Italy, 6/2-6/19.
91. 10th International Conference on Materials for Advanced Technologies, Singapore, 6/23-28/19.
92. 18th International Symposium on Novel Aromatic Compounds, Sapporo, Japan, 7/21-26/19.
93. 5th Erlangen Symposium on Synthetic Carbon Allotropes, Erlangen, Germany, 9/29-10/2/19.

*UPCOMING MEETINGS*

94. Pacifichem 2020, Honolulu, HI, 12/15-20/2020.

## CONFERENCE/MEETING/SYMPOSIUM PRESENTATIONS

1. "Synthetic Approaches to Novel Carbon-rich Molecules and Networks." M. M. Haley and J. M. Kehoe, Oregon Materials Science Symposium, Corvallis, OR, 5/14/94.
2. "Investigations into the Cyclophynes." M. M. Haley, B. L. Langsdorf, R. C. Petersen, A. H. Maulitz, and R. Boese, 8th International Symposium on Novel Aromatics, Braunschweig, Germany, 7/31-8/4/95. Abstract P35.
3. "Synthesis of Extended Model Systems of Graphyne." M. M. Haley, J. M. Kehoe, R. S. Clegg, and J. H. Kiley, 8th International Symposium on Novel Aromatics, Braunschweig, Germany, 7/31-8/4/95. Abstract P112.
4. "Investigation of Polyacetylenic Benzenoid Networks Through Synthetic Preparation of Oligomeric Substructures." S. C. Brand and M. M. Haley, Oregon Academy of Science 54th Annual Meeting, Eugene, OR, 3/2/96.
5. "Studies of Novel Bis-enediyne Macrocycles." H. L. Smith and M. M. Haley, Oregon Academy of Science 54th Annual Meeting, Eugene, OR, 3/2/96.
6. "Preparation of Substituted 3-Vinylcyclopropenes: Potential Synthons for Metallabenzene Formation." R. D. Gilbertson and M. M. Haley, Oregon Academy of Science 54th Annual Meeting, Eugene, OR, 3/2/96.
7. "Investigation of Polyacetylenic Benzenoid Networks Through Synthetic Preparation of Oligomeric Substructures." S. C. Brand, J. H. Kiley, J. M. Kehoe, J. J. Pak, and M. M. Haley, American Chemical Society 211th National Meeting, New Orleans, LA, 3/24-28/96. Abstract ORGN 096 (Sci-Mix).
8. "Studies of Novel Bis-enediyne Macrocycles." H. L. Smith and M. M. Haley, American Chemical Society 211th National Meeting, New Orleans, LA, 3/24-28/96. Abstract ORGN 133.
9. "Preparation of Substituted 3-Vinylcyclopropenes: Potential Synthons for Metallabenzene Formation." R. D. Gilbertson, B. D. Schill, and M. M. Haley, American Chemical Society 211th National Meeting, New Orleans, LA, 3/24-28/96. Abstract ORGN 307.
10. "Preparation of Substituted 3-Vinylcyclopropenes: Potential Synthons for Metallabenzene Formation." R. D. Gilbertson, B. D. Schill, and M. M. Haley, American Chemical Society 51st Northwest Regional Meeting, Corvallis, OR, 6/19-22/96. Abstract ORGN 161.
11. "Studies of Novel Bis-enediyne Macrocycles." H. L. Smith and M. M. Haley, American Chemical Society 51st Northwest Regional Meeting, Corvallis, OR, 6/19-22/96. Abstract ORGN 162.
12. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." S. C. Brand, J. H. Kiley, J. M. Kehoe, J. J. Pak, and M. M. Haley, American Chemical Society 51st Northwest Regional Meeting, Corvallis, OR, 6/19-22/96. Abstract ORGN 163.
13. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." S. C. Brand, J. H. Kiley, J. M. Kehoe, J. J. Pak, and M. M. Haley, American Chemical Society 213th National Meeting, San Francisco, CA, 4/13-17/97. Abstract ORGN 017.
14. "On the Road to Metallabenzene Synthesis: Preparation of Substituted 3-Vinylcyclopropenes." R. D. Gilbertson, B. D. Schill, and M. M. Haley, American Chemical Society 52nd Northwest Regional Meeting, Moscow, ID, 6/18-21/97. Abstract 98.
15. "Synthesis and Chemistry of Highly Delocalized Conjugated Macrocycles: A Donor-Acceptor Strategy." J. J. Pak and M. M. Haley, American Chemical Society 214th National Meeting, Las Vegas, NV, 9/7-11/97. Abstract ORGN 183.
16. "Synthesis of 3-Vinylcyclopropenes as Potential Precursors of Metallabenzene and its Valence Isomers." R. D. Gilbertson, B. D. Schill, and M. M. Haley, American Chemical Society 214th National Meeting, Las Vegas, NV, 9/7-11/97. Abstract ORGN 305.
17. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." M. L. Bell, S. C. Brand, J. J. English, C. A. Johnson, J. J. Pak, and M. M. Haley, 5th Chemical Congress of North America, Cancun, Mexico, 11/11-15/97. Abstract ORGN 999.
18. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." M. M. Haley, 9th International Symposium on Novel Aromatics, Hong Kong, China, 8/2-7/98. Abstract IL 1.
19. "Functionalized Dehydrobenzo[18]annulenes (DBAs): Synthesis, Characterization, and Thermal Polymerization." J. J. Pak and M. M. Haley, American Chemical Society 216th National Meeting, Boston, MA, 8/23-27/98. Abstract ORGN 113 (Sci-Mix).
20. "Synthesis of Expanded Graphdiyne Substructures." W. B. Wan, S. C. Brand, and M. M. Haley, American Chemical Society 216th National Meeting, Boston, MA, 8/23-27/98. Abstract ORGN 114 (Sci-Mix).



21. "Carbon Networks Based on Dehydrobenzoannulenes: Synthesis of Graphyne and Graphdiyne Substructures." M. M. Haley, American Chemical Society 216th National Meeting, Boston, MA, 8/23-27/98. Abstract ORGN 259.
22. "Dehydrobenzo[18]annulene Chemistry: New Structures for Novel Applications." M. M. Haley, 82nd Canadian Society for Chemistry Conference and Exhibition, Toronto, ON, Canada, 5/30-6/2/99. Abstract 0415.
23. "Stepwise Assembly of Dehydrobenzoannulenes (DBAs) with Unusual Topologies: Syntheses, Characterization, and Their Chemistry." J. J. Pak and M. M. Haley, 36th National Organic Chemistry Symposium, Madison, WI, 6/13-17/99. Poster 204.
24. "Dehydrobenzoannulene-Dimethyldihydropyrene Hybrids: Spectroscopic Probes for the Study of Weakly Diatropic Macrocycles." D. B. Kimball, M. M. Haley, T. R. Ward, and R. H. Mitchell, American Chemical Society 54th Northwest Regional Meeting, Portland, OR, 6/20-23/99. Abstract 202.
25. "Synthesis of Phenylcyclopropenes as Precursors of Metallanaphthalene and its Valence Isomers." E. A. Bercot, R. D. Gilbertson, and M. M. Haley, American Chemical Society 54th Northwest Regional Meeting, Portland, OR, 6/20-23/99. Abstract 203.
26. "Synthesis of Expanded Graphdiyne Substructures." W. B. Wan, S. C. Brand, and M. M. Haley, American Chemical Society 54th Northwest Regional Meeting, Portland, OR, 6/20-23/99. Abstract 204.
27. "Stepwise Assembly of Dehydrobenzoannulenes (DBAs) with Unusual Topologies: Syntheses, Characterization, and Their Chemistry." J. J. Pak and M. M. Haley, American Chemical Society 54th Northwest Regional Meeting, Portland, OR, 6/20-23/99. Abstract 205.
28. "Direct Synthesis of Irida-Aromatics and Valence Isomers from Substituted 3-Vinylcyclopropenes." R. D. Gilbertson, E. A. Bercot, T. L. Lau, and M. M. Haley, 1999 Physical-Organic Chemistry Gordon Research Conference, Holderness, NH, 6/27-7/2/99. Poster and short oral presentation.
29. "Dehydrobenzoannulenes with Unusual Topologies: Synthesis, Characterization, and Chemistry." J. J. Pak, D. B. Kimball, and M. M. Haley, 1999 Physical-Organic Chemistry Gordon Research Conference, Holderness, NH, 6/27-7/2/99. Poster.
30. "Dehydrobenzoannulene-Dimethyldihydropyrene Hybrids: Spectroscopic Probes for the Study of Weakly Diatropic Macrocycles." D. B. Kimball, M. M. Haley, T. R. Ward, and R. H. Mitchell, American Chemical Society 218th National Meeting, New Orleans, LA, 8/22-26/99. Abstract ORGN 67 (Sci-Mix).
31. "Stepwise Assembly of Site-Specifically Functionalized Dehydrobenzoannulenes (DBAs): Syntheses, Characterization, and Their Chemistry." J. J. Pak and M. M. Haley, American Chemical Society 218th National Meeting, New Orleans, LA, 8/22-26/99. Abstract ORGN 467.
32. "Direct Synthesis of Metalla-Aromatics and Valence Isomers from Functionalized, Nucleophilic 3-Vinylcyclopropenes." R. D. Gilbertson, E. A. Bercot, T. L. Lau, and M. M. Haley, American Chemical Society 218th National Meeting, New Orleans, LA, 8/22-26/99. Abstract ORGN 492.
33. "Direct Synthesis of Iridabenzene and Valence Isomers from Nucleophilic 3-Vinylcyclopropenes." M. M. Haley, T. L. Lau, R. D. Gilbertson, and S. Lanza, American Chemical Society 219th National Meeting, San Francisco, CA, 3/26-30/00. Abstract INOR 216.
34. "Synthesis and Chemistry of Alkynylcyclopropenes and Alkynylcyclopropenylium Salts." M. M. Haley and R. D. Gilbertson, American Chemical Society 219th National Meeting, San Francisco, CA, 3/26-30/00. Abstract ORGN 277.
35. "Design and Synthesis of Dehydrobenzoannulenes Containing Thiophene Moieties." M. M. Haley and A. Sarkar, American Chemical Society 219th National Meeting, San Francisco, CA, 3/26-30/00. Abstract ORGN 514.
36. "Carbon Networks Based on Dehydrobenzoannulenes: Synthesis of Graphyne and Graphdiyne Substructures." M. M. Haley and W. B. Wan, Pacificchem 2000, Honolulu, HI, 12/14-19/00. Abstract ORGN 474.
37. "Iridabenzene and Valence Isomers: Synthesis and Characterization of Unusual Metalla-Aromatics." M. M. Haley, R. D. Gilbertson, T. L. Lau, and S. Lanza, Pacificchem 2000, Honolulu, HI, 12/14-19/00. Abstract ORGN 475.
38. "First Hyperpolarizability of Dehydrobenzo[18]annulenes: A New 2D Nonlinear Optical Chromophore." M. M. Haley and A. Sarkar, American Chemical Society 221st National Meeting, San Diego, CA, 4/1-5/01. Abstract PMSE 597 (Sci-Mix).
39. "Dehydrobenzo[18]annulene Chemistry: New Structures and Novel Applications." M. M. Haley, American Chemical Society 56th Northwest Regional Meeting, Seattle, WA, 6/14-17/01. Abstract 8.

40. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." M. M. Haley, 2001 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 7/1-6/01. Oral presentation.
41. "[2.2]Paracyclophane/Dehydrobenzoannulene Hybrids: Transannular Delocalization in Open-Circuited Conjugated Macrocycles." A. J. Boydston, L. Bondarenko, I. Dix, T. J. R. Weakley, H. Hopf, & M. M. Haley, 10th International Symposium on Novel Aromatics, San Diego, CA, 8/4-8/01. Poster 7.
42. "Iridabenzene and Valence Isomers: Synthesis and Characterization of Unusual Metalla-Aromatics." R. D. Gilbertson, T. L. Lau, S. Lanza, and M. M. Haley, 10th International Symposium on Novel Aromatics, San Diego, CA, 8/4-8/01. Poster 15.
43. "Synthesis of 4,5-Diethynyl[2.2]paracyclophane." H. Hinrichs, H. Hopf, and M. M. Haley, 10th International Symposium on Novel Aromatics, San Diego, CA, 8/4-8/01. Poster 22.
44. "Preparation of Isoindazoles and Cinnolines Through the Cyclization of *ortho*-(Alkynylphenyl)-triazenes." D. B. Kimball and M. M. Haley, 10th International Symposium on Novel Aromatics, San Diego, CA, 8/4-8/01. Poster 37.
45. "New Expanded Substructures of Graphdiyne." J. A. Marsden, W. B. Wan, and M. M. Haley, 10th International Symposium on Novel Aromatics, San Diego, CA, 8/4-8/01. Poster 51.
46. "Dehydrobenzo[18]annulene Chemistry: New  $\pi$ -Electronic Structures for Novel Applications." M. M. Haley, 85th Canadian Society for Chemistry Conference and Exhibition, Vancouver, BC, Canada, 6/1-5/02. Abstract 780.
47. "Metallabenzene Chemistry: New Ligands, New Metals, New Insights." M. M. Haley, H.-P. Wu, S. Lanza, and T. J. R. Weakley, American Chemical Society 57th Northwest Regional Meeting, Spokane, WA, 6/19-21/02. Abstract 32.
48. "Dehydrobenzo[18]annulene Chemistry: New  $\pi$ -Electronic Structures for Novel Applications." M. M. Haley, American Chemical Society 53rd Southeast Regional Meeting, Charleston, SC, 11/13-17/02. Abstract 105.
49. "Generation and Transformation of Iridabenzene and Iridabenzvalene Prepared from 3-(2-Iodovinyl)cyclopropenes." M. M. Haley, H.-P. Wu, and T. J. R. Weakley, American Chemical Society 225th National Meeting, New Orleans, LA, 3/23-27/03. Abstract INOR 649 (Sci-Mix).
50. "Synthesis of Platinabenzene from 3-Vinylcyclopropenes and Investigations into the Mechanisms of Their Formation." C. W. Landorf, V. Jacob, and M. M. Haley, American Chemical Society 225th National Meeting, New Orleans, LA, 3/23-27/03. Abstract INOR 652.
51. "Regioselective Synthesis of Donor/Acceptor Tetrakis(phenylethynyl)benzenes." J. J. Miller, G. J. Palmer, and M. M. Haley, American Chemical Society 225th National Meeting, New Orleans, LA, 3/23-27/03. Abstract ORGN 197.
52. "Donor/Acceptor-Functionalized Dehydrobenzo[14]annulenes: Synthesis and Their Optical and Nonlinear Optical Properties." J. A. Marsden, G. J. Palmer, and M. M. Haley, American Chemical Society 225th National Meeting, New Orleans, LA, 3/23-27/03. Abstract ORGN 235.
53. "Novel Cyclization of (2-Ethynylphenyl)phenyldiazene and (2-Ethynylbenzylidene)-*N,N*-dimethylhydrazine: Synthesis and Computational Studies." L. D. Shirtcliff, R. Herges, and M. M. Haley, American Chemical Society 225th National Meeting, New Orleans, LA, 3/23-27/03. Abstract ORGN 291.
54. "Donor/Acceptor-Functionalized Dehydrobenzo[14]- and [15]annulenes: Synthesis and Their Optical and Nonlinear Optical Properties." J. A. Marsden, J. J. Miller, G. J. Palmer, and M. M. Haley, 2003 Physical-Organic Chemistry Gordon Research Conference, Holderness, NH, 6/28-7/4/03. Poster 39.
55. "Cyclization of (2-Ethynylphenyl)phenyldiazene and (2-Ethynylbenzylidene)-*N,N*-dimethylhydrazine: Synthesis and Computational Studies." L. D. Shirtcliff, R. Herges, and M. M. Haley, 2003 Physical-Organic Chemistry Gordon Research Conference, Holderness, NH, 6/28-7/4/03. Poster 52.
56. " $\sigma$ -Bonded 'Metalladehydrobenzo[*n*]annulenes': Synthesis, Structure, and Chemistry." M. M. Haley, American Chemical Society 226th National Meeting, New York, NY, 9/7-11/03. Abstract INOR 49.
57. "Metallabenzene Chemistry: New Ligands, New Metals, New Insights." M. M. Haley, American Chemical Society 226th National Meeting, New York, NY, 9/7-11/03. Abstract INOR 326.
58. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." M. M. Haley, International Symposium on Novel Carbon-Rich Organic Materials, Osaka, Japan, 9/29-30/03. Abstract L14.
59. "Deciphering the Mechanistic Dichotomy in the Cyclization of (2-Ethynylphenyl)triazene, (2-Ethynylphenyl)diazene, and (2-Ethynylbenzylidene)hydrazine: Competition between Pericyclic and Pseudocycloarctate Pathways." M. M. Haley, 33rd Symposium on Structural Organic Chemistry, Toyama, Japan, 10/3-4/03. Abstract S2.

60. "π-π-Wechselwirkungen in [2.2]Paracyclophan-Dehydrobenzannulenen." H. Hinrichs, J. A. Marsden, M. M. Haley, and H. Hopf, Gesellschaft Deutscher Chemiker Jahrestagung 2003, Munich, Germany, 10/6-11/03. Abstract ORG-ALL-068.
61. "Time-resolved Nonlinear Absorptive Properties of Phenyleneethynylenes." A. D. Slepko, F. A. Hegmann, R. R. Tykwinski, J. A. Marsden, J. J. Miller, M. M. Haley, American Physical Society March Meeting 2004, Montreal, Canada, 3/22-26/04. Session V30.003.
62. "Optical Excitations in Some Novel Dodecahydrotribenzo[18]annulene-based Carbon Architectures: A Time-dependent Density Functional Study." S. Anand, S. A. Lahankar, J. A. Marsden, M. M. Haley, T. Goodson, H. B. Schlegel, American Chemical Society 227th National Meeting, Anaheim, CA, 3/28-4/1/04. Abstract COMP 210.
63. "π-π-Interactions in [2.2]Paracyclophane/Dehydrobenzannulenes." H. Hinrichs, H. Hopf, and M. M. Haley, GDCh-JCF Fruhjahrssymposium 2004, Heidelberg, Germany, 3/31-4/3/2004. Poster P-6.
64. "σ-Bonded 'Metalladehydrobenzo[n]annulenes': Synthesis, Structure, and Chemistry." C. A. Johnson and M. M. Haley, Sixth International Symposium on Functional π-Electron Systems, Ithaca, NY, 6/14-18/04. Abstract DP23.
65. "Functionalized Dehydrobenzoannulenes as Optical Materials." J. A. Marsden and M. M. Haley, Sixth International Symposium on Functional π-Electron Systems, Ithaca, NY, 6/14-18/04. Abstract E2.4.
66. "Ethyne[2.2]paracyclophanes as Building Blocks for Carbon-rich Compounds." H. Hinrichs, H. Hopf and M. M. Haley, Vortragstagung der Liebig-Vereinigung für Organische Chemie (ORCHEM) 2004, Bad Nauheim, Germany, 9/9-11/2004. Poster P011.
67. "Structure-Property Relationships of Donor/Acceptor-Functionalized Tetrakis(phenylethynyl)benzenes and Bis(dehydrobenzoannuleno)benzenes." J. A. Marsden, J. J. Miller, L. D. Shirtcliff, and M. M. Haley, 2004 Organic Structures and Properties Gordon Research Conference, Les Diablerets, Switzerland, 10/10-15/04. Poster.
68. "Metal-Mediated Cyclization of 2-(Phenylazo)benzonitriles: New Methods for the Generation of the Isoindazole Nucleus." J. Rivers, L. D. Shirtcliff, and M. M. Haley, American Chemical Society 229th National Meeting, San Diego, CA, 3/13-17/05. Abstract CHED 440.
69. "Selective Metallacyclization of Structurally Related Platinabenzocyclines." C. A. Johnson and M. M. Haley, 88th Canadian Society for Chemistry Conference and Exhibition, Saskatoon, SK, Canada, 5/28-6/1/05. Abstract 28.
70. "Efficient Access to Chiral Metallamacrocycles Using Ligand Exchange." K. Campbell, R. R. Tykwinski, C. A. Johnson, and M. M. Haley, 88th Canadian Society for Chemistry Conference and Exhibition, Saskatoon, SK, Canada, 5/28-6/1/05. Abstract 209.
71. "Synthetic and Mechanistic Investigation into Coarctate Cyclizations: Unique Routes to 2H-Indazoles." L. D. Shirtcliff, J. Rivers, and M. M. Haley, 39th National Organic Chemistry Symposium, Salt Lake City, UT, 6/12-16/05. Poster D26.
72. "Synthetic and Mechanistic Investigation into Coarctate Cyclizations: Unique Routes to 2H-Indazoles." L. D. Shirtcliff, J. Rivers, and M. M. Haley, 2005 Heterocyclic Compounds Gordon Research Conference, Newport, RI, 7/3-8/05. Poster.
73. "The Effects of Donor-Acceptor Substitution Symmetry on the Nonlinear Absorption of Two-Dimensionally Conjugated Isomeric Chromophores." A. D. Slepko, F. A. Hegmann, R. R. Tykwinski, J. A. Marsden, J. J. Miller, M. M. Haley, and K. Kamada, International Society of Optical Engineering – SPIE 50th Annual Meeting, San Diego, CA, 7/31-8/4/05. Abstract 5934-05.
74. "Extension of Two-Dimensional Conjugation in Graphdiyne Nanoarchitectures." J. A. Marsden and M. M. Haley, 11th International Symposium on Novel Aromatic Compounds, St. Johns, NF, Canada, 8/14-18/05. Poster 228.
75. "Dehydrobenzoannulenes and Tetrakis(arylethynyl)benzenes as Multifunctional π-Electronic Materials." J. A. Marsden, E. L. Spitler, J. J. Miller, L. D. Shirtcliff, and M. M. Haley, 11th International Symposium on Novel Aromatic Compounds, St. Johns, NF, Canada, 8/14-18/05. Poster 230.
76. "Dehydrobenzoannulene Chemistry: Carbon-rich π-Electronic Structures for Novel Applications." M. M. Haley, 35th Symposium on Structural Organic Chemistry, Osaka, Japan, 9/9-10/05. Abstract S4.
77. "Nonplanarity in Metallabenzenes." M. M. Haley, Pacificchem 2005, Honolulu, HI, 12/15-20/05. Abstract 1185.
78. "Dehydrobenzoannulenes and Tetrakis(arylethynyl)benzenes as Multifunctional π-Electronic Materials." M. M. Haley, Pacificchem 2005, Honolulu, HI, 12/15-20/05. Abstract 1553.
79. "Coarctate Cyclizations: Routes to Novel Heterocycles with Applications from Pharmaceuticals to Materials." L. D. Shirtcliff and M. M. Haley, American Chemical Society 231st National Meeting, Atlanta, GA, 3/26-30/06. Abstract ORGN 57.

80. "Metallabenzene Chemistry: New Ligands, New Metals, New Insights." M. M. Haley, American Chemical Society 61st Northwest Regional Meeting, Reno, NV, 6/25-28/06. Abstract 25.
81. "Dehydrobenzoannulenes and Tetrakis(arylethynyl)benzenes as Multifunctional  $\pi$ -Electronic Materials." M. M. Haley, American Chemical Society 61st Northwest Regional Meeting, Reno, NV, 6/25-28/06. Abstract 72.
82. "Synthesis, Mechanisms, and Reactivity of Platinabenzenes." C. W. Landorf and M. M. Haley, American Chemical Society 232nd National Meeting, San Francisco, CA, 9/10-14/06. Abstract INOR 788 (Sci-Mix).
83. "Mechanism(s) for the Formation of Iridabenzenes from Z-3-(2-Iodoethenyl)cyclopropenes." C. W. Landorf and M. M. Haley, American Chemical Society 232nd National Meeting, San Francisco, CA, 9/10-14/06. Abstract INOR 789 (Sci-Mix).
84. "Experimental and Computational Studies of Imine-ene-yne Cyclizations." S. P. McClintock and M. M. Haley, American Chemical Society 232nd National Meeting, San Francisco, CA, 9/10-14/06. Abstract ORGN 578.
85. "Donor-Acceptor Functionalized Chromophores Based on Phenylacetylene/Ethynylpyridine Scaffolds." E. L. Spitler and M. M. Haley, American Chemical Society 232nd National Meeting, San Francisco, CA, 9/10-14/06. Abstract ORGN 580.
86. "Benzocyclynes as Substructures for Extended Carbon-Rich Systems." C. A. Johnson II and M. M. Haley, American Chemical Society 232nd National Meeting, San Francisco, CA, 9/10-14/06. Abstract ORGN 582.
87. "Synthesis and Characterization of Dehydrothienoannulenes as Potential Opto-electronic Materials." M. J. O'Connor and M. M. Haley, American Chemical Society 232nd National Meeting, San Francisco, CA, 9/10-14/06. Abstract ORGN 583.
88. "Heterocycle Formation via Coarctate Cyclization of Hetero-dieneynes." M. M. Haley, American Chemical Society 232nd National Meeting, San Francisco, CA, 9/10-14/06. Abstract ORGN 660.
89. "Two-Dimensional Networks of Dehydrobenzo[18]annulene Derivatives: Implications between Size of  $\pi$ -Conjugated Systems and Alkyl Chain Interdigitations." T. Fujita, K. Tahara, C. A. Johnson II, M. Sonoda, M. M. Haley, and Y. Tobe, 87th Annual Meeting of the Chemical Society of Japan, Suita, Osaka, Japan, 3/25-28/07. Abstract 4E1-20.
90. "Design and Synthesis of Functional Mesoporous Carbon Architectures." Y. Shin, G. E. Fryxell, C. A. Johnson II, and M. M. Haley, American Chemical Society 62nd Northwest Regional Meeting, Boise, ID, 6/17-20/07. Abstract 193.
91. "Covalent and Noncovalent Carbon Networks Based On Benzocyclynes." C. A. Johnson II and M. M. Haley, 2007 Physical-Organic Chemistry Gordon Research Conference, Holderness, NH, 6/24-29/07. Poster 13.
92. "Heterocycle Formation via Coarctate Cyclization of Hetero-dieneynes." S. P. McClintock, J. L. Jeffrey, and M. M. Haley, 2007 Physical-Organic Chemistry Gordon Research Conference, Holderness, NH, 6/24-29/07. Poster 32.
93. "Aryl-Acetylene Scaffolding as Receptors in Supramolecular Chemistry." C. A. Johnson II, O. B. Berryman, C. N. Stimpson, D. W. Johnson, and M. M. Haley, "Novel  $\pi$ -Systems, Novel Properties" ISNA-12 Pre-symposium, Tokyo, Japan, 7/21/07. Abstract IL-6.
94. "Extension of Two-Dimensional Conjugation in Graphyne and Graphdiyne Nanoarchitectures: Synthetic and Photophysical Studies." J. A. Marsden, C. A. Johnson II, and M. M. Haley, 12th International Symposium on Novel Aromatic Compounds, Awaji Island, Japan, 7/22-27/07. Abstract IL-2.
95. "Donor/Acceptor-Functionalized Arylacetylenes and Dehydrobenzoannulenes: Chromophores, Fluorophores, and Multifunctional  $\pi$ -Electronic Materials." E. L. Spitler and M. M. Haley, 12th International Symposium on Novel Aromatic Compounds, Awaji Island, Japan, 7/22-27/07. Abstract PP-106 (winner of 'Best Poster Presentation' award).
96. "Effect of Donor/Acceptor Arrangement on Two-Photon Absorption in Cross-Conjugated Chromophores." A. D. Slepko, F. A. Hegmann, R. R. Tykwinski, K. Kamada, K. Ohta, J. A. Marsden, E. L. Spitler, J. J. Miller, and M. M. Haley, 12th International Symposium on Novel Aromatic Compounds, Awaji Island, Japan, 7/22-27/07. Abstract PP-107.
97. "Highly Aromatic Receptors for Anions." O. B. Berryman, C. A. Johnson II, M. M. Haley, and D. W. Johnson, American Chemical Society 234th National Meeting, Boston, MA, 8/19-23/07. Abstract INOR 458.

98. "Molecular Arrangement of Butadiyne-Bridged Dehydrobenzo[12]annulenes and their Reactivities at the Liquid-Solid Interface." N. Hara, K. Tahara, C. A. Johnson II, M. M. Haley, and Y. Tobe, 88th Annual Meeting of the Chemical Society of Japan, Tokyo, Japan, 3/28-30/08. Abstract 2PB-070.
99. "Synthesis and Analysis of a New Class of Hydrogen Bonding Receptors Incorporating Phenyl Acetylene Scaffolds." C. Stimpson, O. B. Berryman, C. A. Johnson II, D. W. Johnson, and M. M. Haley, American Chemical Society 235th National Meeting, New Orleans, LA, 4/6-10/08. INOR 233.
100. "Iridabenzenes: An Investigation of the Pentavalent, Octahedral Variety." D. T. Chase and M. M. Haley, American Chemical Society 235th National Meeting, New Orleans, LA, 4/6-10/08. INOR 698 (Sci-Mix).
101. "Phenyl-Acetylene Scaffolding as Novel Fluorescent Materials." M. M. Haley, American Chemical Society 235th National Meeting, New Orleans, LA, 4/6-10/08. ORGN 37.
102. "Synthesis and Analysis of a New Class of Hydrogen Bonding Receptors Incorporating Phenylacetylene Scaffolds." C. Stimpson, O. B. Berryman, C. A. Johnson II, D. W. Johnson, and M. M. Haley, American Chemical Society 235th National Meeting, New Orleans, LA, 4/6-10/08. ORGN 361.
103. "Synthesis of 1-Substituted Benzo[c]isoxazol-3(1*H*)-imines via Tandem Nitroso-ene/Intramolecular Cyclizations of 2-Nitrosobenzonitrile." J. L. Jeffrey, S. P. McClintock, and M. M. Haley, American Chemical Society 235th National Meeting, New Orleans, LA, 4/6-10/08. ORGN 371.
104. "Computational Analysis of the Dual Reactivity of Conjugated Hetero-'ene-ene-yne' Systems." S. P. McClintock, L. D. Shirtcliff, R. Herges, and M. M. Haley, American Chemical Society 235th National Meeting, New Orleans, LA, 4/6-10/08. ORGN 409.
105. "Theoretical Study on Two-Photon Absorption Properties of Extended  $\pi$ -Conjugated Systems: Two-Dimensional Conjugated Quadrupolar Chromophores." K. Ohta, S. Yamada, K. Kamada, A. D. Slepko, F. A. Hegmann, R. R. Tykwinski, L. D. Shirtcliff, M. M. Haley, P. Salek, and H. Ågren, 10th International Conference on Organic Nonlinear Optics, Santa Fe, NM, 5/23-28/08. Poster.
106. "Aryl-Acetylene Scaffolding as Receptors in Supramolecular Chemistry." M. M. Haley, American Chemical Society 63rd Northwest Regional Meeting, Park City, UT, 6/15-18/08. Abstract 191.
107. "Synthesis and Analysis of a New Class of Hydrogen Bonding Receptors Incorporating Phenyl Acetylene Scaffolds." C. N. Stimpson, O. B. Berryman, C. A. Johnson II, D. W. Johnson, and M. M. Haley, Third Joint International Symposium on Macrocyclic & Supramolecular Chemistry, Las Vegas, NV, 7/13-18/08. Poster.
108. "Unusual Coordinatively Unsaturated 16-Electron Iridabenzenes." D. T. Chase and M. M. Haley, American Chemical Society 237th National Meeting, Salt Lake City, UT, 3/22-26/09. INOR 437.
109. "Solid-state Investigation of a New Series of Phenylacetylene-Based Hydrogen Bonding Receptors with Neutral and Anionic Guests." C. N. Stimpson, O. B. Berryman, C. A. Johnson II, D. W. Johnson, and M. M. Haley, American Chemical Society 237th National Meeting, Salt Lake City, UT, 3/22-26/09. INOR 226.
110. "Coarctate Cyclization of Ester-terminated Azo-ene-yne: Synthesis of  $\alpha$ -Ketoisindazole Esters and their Conversion into Non-natural Amino Acids." S. P. McClintock, N. Forster, and M. M. Haley, American Chemical Society 237th National Meeting, Salt Lake City, UT, 3/22-26/09. ORGN 174.
111. "Anion Binding and Fluorescence Properties in a New Series of Phenylacetylene-Based Hydrogen Bonding Receptors." C. N. Stimpson, O. B. Berryman, C. A. Johnson II, D. W. Johnson, and M. M. Haley, American Chemical Society 237th National Meeting, Salt Lake City, UT, 3/22-26/09. ORGN 330.
112. "Molecular Arrangement of Butadiyne-Bridged Dehydrobenzo[12]annulenes and their Reactivities at the Liquid-Solid Interface." K. Inukai, N. Hara, K. Tahara, C. A. Johnson II, M. M. Haley, and Y. Tobe, 89th Annual Meeting of the Chemical Society of Japan, Chiba, Japan, 3/27-30/09. Abstract 3PB-057.
113. "Influence of Core-Shape and Substitution Pattern of Alkyl Chains of  $\pi$ -Conjugated Molecules on Formation of Two-Dimensional Molecular Networks." M. Matsushita, N. Katayama, K. Tahara, C. A. Johnson II, M. M. Haley, and Y. Tobe, 89th Annual Meeting of the Chemical Society of Japan, Chiba, Japan, 3/27-30/09. Abstract 3PB-062.
114. "Synthesis and Optoelectronic Properties of a Series of Regioisomeric Bis(phenylethynyl)benzenes." B. M. Armstrong, T. Ryhding, A. G. Fix, and M. M. Haley, 41st National Organic Chemistry Symposium, Boulder, CO, 6/7-11/09. Poster.
115. "Phenyl-Acetylene Scaffolding as Carbon-Rich Materials." M. M. Haley, 2009 Physical Organic Chemistry: Molecular Design and Synthesis Gordon Research Conference, Holderness, NH, 6/28-7/3/09. Oral presentation.

116. "Experimental and Computational Studies on the Pericyclic and Coarctate Cyclization of 'Azo-Naphthalene-Yne' Systems: Access into Acenes." S. P. McClintock, B. S. Young, and M. M. Haley, 2009 Physical Organic Chemistry: Molecular Design and Synthesis Gordon Research Conference, Holderness, NH, 6/28-7/3/09. Poster 35.
117. "Preparation and Properties of Expanded Annulene Derivatives Having Different Central Ring Systems." T. Takeda, A. G. Fix, and M. M. Haley, 20th Symposium on Physical Organic Chemistry, Gunma, Japan, 9/28-33/09. Poster 3P13.
118. "Anions and Aromatic Rings: Fluorescent Signaling and Attractive Interactions?" D. W. Johnson and M. M. Haley, American Chemical Society 65th Southwest Regional Meeting, El Paso, TX, 11/4-7/09. Abstract 414.
119. "Functionalized Bis(arylethynyl)pyridine as an Inherently Fluorescent Supramolecular Sensor Platform." C. N. Carroll, C. A. Johnson II, L. N. Zakharov, D. W. Johnson and M. M. Haley, Ninth International Symposium on Functional  $\pi$ -Electron Systems, Atlanta, GA, 5/23-28/10. Poster PI-72.
120. "Synthesis of Expanded Aromatic Heterocycles: Coarctate and Pericyclic Reactions of Triazene-Ene-Yne Systems." B. S. Young, S. P. McClintock, E. MacDonald and M. M. Haley, Ninth International Symposium on Functional  $\pi$ -Electron Systems, Atlanta, GA, 5/23-28/10. Poster PI-89.
121. "Incorporating BODIPY Fluorophores into Tetrakis(arylethynyl)benzenes." D. C. Chase and M. M. Haley, Ninth International Symposium on Functional  $\pi$ -Electron Systems, Atlanta, GA, 5/23-28/10. Poster PI-90.
122. "Synthesis and Applications of Water-Soluble Anion Sensors Based on the 2,6-Bis(2-anilinoethynyl)-pyridine Scaffold." J. M. Engle, C. N. Carroll, D. W. Johnson and M. M. Haley, Ninth International Symposium on Functional  $\pi$ -Electron Systems, Atlanta, GA, 5/23-28/10. Poster PII-87.
123. "Synthesis and Properties of Mixed Ring-Size Dehydrobenzoannulenes." A. G. Fix, T. Takeda, and M. M. Haley, Ninth International Symposium on Functional  $\pi$ -Electron Systems, Atlanta, GA, 5/23-28/10. Poster PII-112.
124. "Indenofluorenes – Stable Anti-aromatic Alternatives to Pentacenes?" D. T. Chase, B. D. Rose, S. Nobusue, C. E. Stockwell, and M. M. Haley, Symposium in Honor of Reg Mitchell, University of Victoria, Victoria, BC, 8/6-7/10. Abstract O18.
125. "Incorporating BODIPY Fluorophores into Tetrakis(arylethynyl)benzenes." D. C. Chase and M. M. Haley, Symposium in Honor of Reg Mitchell, University of Victoria, Victoria, BC, 8/6-7/10. Abstract P14.
126. "Indenofluorenes – Stable Anti-aromatic Alternatives to Pentacenes?" M. M. Haley, D. T. Chase, A. G. Fix, and C. L. Hilton, Pacifichem 2010, Honolulu, HI, 12/15-20/10. Abstract 96.
127. "Fluorescent Probes for Anions Based on Functionalized Bis(arylethynyl)pyridine: Self-assembly and Bioimaging Applications." C. N. Carroll, J. M. Engle, D. Inokuchi, D. W. Johnson, and M. M. Haley, Pacifichem 2010, Honolulu, HI, 12/15-20/10. Abstract 2027.
128. "Aryl-ethynyl Anion Receptors and Emerging Applications in Fluorescent Imaging." C. N. Carroll, J. M. Engle, M. M. Haley, and D. W. Johnson, Pacifichem 2010, Honolulu, HI, 12/15-20/10. Abstract 2352.
129. "Efficient, Gram-scale Synthesis of 5,11-Substituted Indeno[1,2-b]fluorenes." C. E. Stockwell, D. T. Chase, S. Nobusue, and M. M. Haley, American Chemical Society 241st National Meeting, Anaheim, CA, 3/27-31/11. CHED 847.
130. "Indenofluorenes – Stable Anti-aromatic Alternatives to Pentacenes?" D. T. Chase, B. D. Rose, S. Nobusue, C. E. Stockwell, and M. M. Haley, American Chemical Society 241st National Meeting, Anaheim, CA, 3/27-31/11. ORGN 695.
131. "Indeno[1,2-b]fluorenes – A New Class of Electron-Accepting Materials." D. T. Chase, B. D. Rose, A. G. Fix, C. D. Weber, L. N. Zakharov, M. C. Lonergan, and M. M. Haley, 2011 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/26-7/1/11. Poster 33A.
132. "Synthesis of Expanded Aromatic Heterocycles: Coarctate and Pericyclic Reactions of Triazene-ene-yne Systems." B. S. Young, S. P. McClintock, R. Herges, and M. M. Haley, 14th International Symposium on Novel Aromatic Compounds, Eugene, Oregon, 7/24-29/11. Poster 58.
133. "Functionalized Bis(anilinoethynyl)pyridine Chemosensors: Switchable Anion-Dependent Fluorescence." C. N. Carroll, J. M. Engle, D. W. Johnson, and M. M. Haley, 14th International Symposium on Novel Aromatic Compounds, Eugene, Oregon, 7/24-29/11. Poster 63.
134. "Bipyridine-Containing Bisurea-Based Anion Sensor." J. Gavette, N. S. Mills, C. A. Johnson II, M. M. Haley, and D. W. Johnson, 14th International Symposium on Novel Aromatic Compounds, Eugene, Oregon, 7/24-29/11. Poster 64.

135. "Ethynearene Based Anion Sensors." J. M. Engle, C. N. Carroll, P. S. Lakshminarayanan, L. N. Zakharov, D. W. Johnson, and M. M. Haley, 14th International Symposium on Novel Aromatic Compounds, Eugene, Oregon, 7/24-29/11. Poster 67.
136. "Ethynearene-Based Redox Sensors." C. L. Vonnegut, C. N. Carroll, P. S. Lakshminarayanan, L. N. Zakharov, D. W. Johnson, and M. M. Haley, 14th International Symposium on Novel Aromatic Compounds, Eugene, Oregon, 7/24-29/11. Poster 70.
137. "Synthesis, Crystal Structures, and Photophysical Properties of Electron-Accepting Ethynylated Indenofluorenes and Indenofluorenediones." B. D. Rose, D. T. Chase, C. D. Weber, L. N. Zakharov, M. C. Lonergan, and M. M. Haley, 14th International Symposium on Novel Aromatic Compounds, Eugene, Oregon, 7/24-29/11. Poster 131.
138. "Design and Synthesis of Indeno[1,2-*b*]fluorenes for Use as Electron-Deficient Organic Semiconducting Materials." A. G. Fix, D. T. Chase, B. D. Rose, and M. M. Haley. 14th International Symposium on Novel Aromatic Compounds, Eugene, Oregon, 7/24-29/11. Poster 133.
139. "Therapeutic Agents for Myotonic Dystrophy: Defining the Pharmacophore of Pentamidine." M. J. Bodner, L. A. Coonrod, M. Nakamori, C. L. Hilton, S. Wagner, D. Farnsworth, S. Alvarez, M. M. Haley, C. A. Thornton, and J. A. Berglund, 8th International Myotonic Dystrophy Consortium, Clearwater, Florida, 11/30-12/3/11. Poster P68.
140. "A Novel, Genome-wide Method for Mapping Small Molecule Interactions with Nucleic Acids." S. Wagner, M. J. Bodner, L. A. Coonrod, M. M. Haley, and J. A. Berglund. 8th International Myotonic Dystrophy Consortium, Clearwater, Florida, 11/30-12/3/11. Poster P80.
141. "Pentamidine Analogue Demonstrates Increased Efficacy *in vitro* and Symptom Rescue in a DM1 Mouse Model." L. A. Coonrod, M. Nakamori, C. L. Hilton, M. J. Bodner, M. M. Haley, C. A. Thornton, and J. A. Berglund, 8th International Myotonic Dystrophy Consortium, Clearwater, Florida, 11/30-12/3/11. Talk O55.
142. "Indeno[1,2-*b*]fluorenes – A New Class of Electron-Accepting Materials." M. M. Haley, American Chemical Society 67th Northwest Regional Meeting, Boise, ID, 6/24-27/12. Abstract 160.
143. "Tetraethynylindenof[1,2-*b*]fluorenes and Their Dione Precursors." B. D. Rose, D. T. Chase, L. N. Zakharov and M. M. Haley, Materials Research Society Fall 2012 Meeting, Boston, MA, 11/25-30/12. Poster P9.28.
144. "Synthesis and Materials Properties of Indeno[1,2-*b*]fluorenes for Use as Electron-Transport and Ambipolar Organic Semiconducting Materials." A. G. Fix, B. D. Rose and M. M. Haley, Materials Research Society Fall 2012 Meeting, Boston, MA, 11/25-30/12. Poster P9.42.
145. "Aromaticity and Antiaromaticity—A 25-Year Love Affair." M. M. Haley, American Chemical Society 245th National Meeting, New Orleans, LA, 4/7-11/13. ORGN 009.
146. "Synthesis and Crystal Structures of Alkynylated Indeno[1,2-*b*]fluorene-6,12-diones." P. J. Santa Maria, B. D. Rose and M. M. Haley, American Chemical Society 245th National Meeting, New Orleans, LA, 4/7-11/13. CHED 986.
147. "Azide-containing Pt(II) Derivatives for Biomolecule Analysis by Click Chemistry." J. D. White, M. F. Osborn, A. D. Moghaddam, L. E. Guzman, M. J. Bodner, M. M. Haley, V. J. DeRose, American Chemical Society 245th National Meeting, New Orleans, LA, 4/7-11/13. INOR 261.
148. "Indenofluorenes – A New Class of Electron-Accepting Materials." M. M. Haley, B. D. Rose, A. G. Fix, and D. T. Chase, 11th International Symposium on Functional  $\pi$ -Electron Systems, Arcachon, France, 6/2-7/13. O082.
149. "Aryl C–H $\cdots$ Cl<sup>-</sup> Hydrogen Bonding in a Fluorescent Anion Sensor." B. W. Tresca, L. N. Zakharov, D. W. Johnson and M. M. Haley, 8th International Symposium on Macrocyclic and Supramolecular Chemistry, Washington, DC, 7/7-11/13. Poster C34.
150. "Arylethynylamide-Based Dithiol Sensors." C. L. Vonnegut, D. Inokuchi, C. N. Carroll, L. N. Zakharov, D. W. Johnson and M. M. Haley, 8th International Symposium on Macrocyclic and Supramolecular Chemistry, Washington, DC, 7/7-11/13. Poster C51.
151. "Differential Anion Binding of a Tripodal Arylethynyl Urea Receptor over Competitive Hydrogen Bonding Solvents." M. M. Watt, L. N. Zakharov, D. W. Johnson and M. M. Haley, 8th International Symposium on Macrocyclic and Supramolecular Chemistry, Washington, DC, 7/7-11/13. Presentation CL-7 and Poster C59.
152. "Indenofluorenes – A New Class of Electron-Accepting Materials." M. M. Haley, 15th International Symposium on Novel Aromatic Compounds, Taipei, Taiwan, 7/28-8/2/13. IL-03.
153. "Indenofluorenes – A New Class of Electron-Accepting Materials." M. M. Haley, American Chemical Society 44th Western Regional Meeting, Santa Clara, CA, 10/3-6/13. Abstract 168.

154. "Indenofluorenes – Experimental and Theoretical Studies on a New Class of Electron-Accepting Materials." M. M. Haley, CECAM Workshop on "Structure-Property Relationships of Molecular Precursors to Organic Electronics", Lausanne, Switzerland, 10/22-25/13.
155. "Electronics and Photophysics of Indenofluorenes." B. D. Rose and M. M. Haley, CECAM Workshop on "Structure-Property Relationships of Molecular Precursors to Organic Electronics", Lausanne, Switzerland, 10/22-25/13.
156. "Electronics and Photophysics of Indenofluorenes." B. D. Rose and M. M. Haley, Materials Research Society Spring 2014 Meeting, San Francisco, CA, 4/21-25/14. Poster C6.01.
157. "Diindeno(thieno)thiophenes as Candidates for Organic Electronic Materials." G. E. Rudebush, A. G. Fix and M. M. Haley, Materials Research Society Spring 2014 Meeting, San Francisco, CA, 4/21-25/14. Poster C6.58.
158. "Synthesis and Properties of Indacenedithiophenes." J. L. Marshall, B. S. Young, D. T. Chase and M. M. Haley, Materials Research Society Spring 2014 Meeting, San Francisco, CA, 4/21-25/14. Poster C6.70.
159. "Donor-Acceptor-Donor Triads Based on Indeno[1,2-*b*]fluorenedione." C. K. Frederickson, B. D. Rose and M. M. Haley, Materials Research Society Spring 2014 Meeting, San Francisco, CA, 4/21-25/14. Poster C12.09.
160. "Indenofluorenes – A New Class of Electron-Accepting Materials." M. M. Haley, 97th Canadian Society for Chemistry Conference and Exhibition, Vancouver, BC, Canada, 6/1-5/14. Abstract 00717.
161. "*cis*-[Pt(2-azidopropane-1,3-diamine)Cl<sub>2</sub>], (1,3-ADAPt), a Clickable Derivative for Use in Post-Treatment Labeling of Pt(II) Targets." A. D. Moghaddam, J. D. White, M. F. Osborn, A. N. Loes, M. M. Haley and V. J. DeRose, American Chemical Society 248th National Meeting, San Francisco, CA, 8/10-14/14. INOR 657.
162. "New Azide-Modified Pt(II) Compounds for Biomolecule Analysis by Click Chemistry." J. D. White, M. F. Osborn, A. D. Moghaddam, R. M. Cunningham, L. E. Guzman, M. M. Haley and V. J. DeRose, American Chemical Society 248th National Meeting, San Francisco, CA, 8/10-14/14. INOR 995.
163. "Assessing C–H Hydrogen Bond Strength in Fluorescent Anion Sensors." B. W. Tresca, L. N. Zakharov, D. W. Johnson and M. M. Haley, American Chemical Society 248th National Meeting, San Francisco, CA, 8/10-14/14. ORGN 737.
164. "Investigation of Arylethynylamide Redox Sensors." C. L. Vonnegut, D. Inokuchi, C. N. Carroll, D. W. Johnson and M. M. Haley, American Chemical Society 248th National Meeting, San Francisco, CA, 8/10-14/14. ORGN 738.
165. "Indenofluorenes – A New Class of Electron-Accepting Materials." M. M. Haley, Fusion Conference on "Carbon-Rich Molecules and Carbon-Based Materials", El Jadida, Morocco, 9/22-25/14.
166. "Effects of Molecular Packing and Crystallinity on Charge Carrier and Exciton Dynamics in Small-Molecule Organic Semiconductors and Their Donor-Acceptor Blends." K. Paudel, B. Johnson, M. Thieme, M. M. Haley, J. E. Anthony and O. Ostroverkhova, Materials Research Society Fall 2014 Meeting, Boston, MA, 11/30-12/4/14. Presentation Q10.05.
167. "Platinum Biomolecule Target Analysis Using Click Chemistry." J. D. White, A. D. Moghaddam, R. Cunningham, K. Plakos, M. F. Osborn, M. M. Haley and V. J. DeRose, American Chemical Society 249th National Meeting, Denver, CO, 3/22-26/15. INOR 472.
168. "Dinaphthoindacenes: The Effect of Outer Ring Benzo-fusion on the Indeno[1,2-*b*]fluorene Core." C. K. Frederickson, L. N. Zakharov and M. M. Haley, 2015 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/21-26/15. P1-27.
169. "Aqueous Supramolecular Anion Receptors." R. J. Hansen, B. W. Tresca, C. L. Vonnegut, D. W. Johnson and M. M. Haley, 2015 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/21-26/15. P1-41.
170. "Assessing C–H Hydrogen Bond Strength in Fluorescent Anion Sensors." B. W. Tresca, R. J. Hansen, C. Chau, L. N. Zakharov, D. W. Johnson and M. M. Haley, 2015 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/21-26/15. P2-39.
171. "Facile Synthesis of 2-Phosphaquinolines and 2-Phosphaquinolin-2-ones." C. L. Vonnegut, A. Shonkwiler, M. M. Khalifa, L. N. Zakharov, D. W. Johnson and M. M. Haley, 2015 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/21-26/15. P2-42.
172. "Supramolecular Architectures for Aqueous Anion Receptors." R. J. Hansen, B. W. Tresca, C. L. Vonnegut, D. W. Johnson and M. M. Haley, 10th International Symposium on Macrocyclic and Supramolecular Chemistry, Strasbourg, France, 6/28-7/2/15. Poster PA-113.



173. "Assessing C–H Hydrogen Bond Strength in Fluorescent Anion Sensors." B. W. Tresca, R. J. Hansen, C. Chau, L. N. Zakharov, M. M. Haley and D. W. Johnson, 10th International Symposium on Macrocyclic and Supramolecular Chemistry, Strasbourg, France, 6/28-7/2/15. Poster PA-138.
174. "Indenofluorene, Heterocyclic and Expanded Quinoidal Scaffolds: Syntheses, Structures and Properties." M. M. Haley, 16th International Symposium on Novel Aromatic Compounds, Madrid Spain, 7/5-10/15. NL-1.
175. "Thiophene- and Selenophene-Containing Indenofluorene Analogues: Synthesis and Properties." J. L. Marshall, G. E. Rudebusch, K. Uchida, N. J. O'Neal, C. L. Vonnegut, L. N. Zakharov and M. M. Haley, 16th International Symposium on Novel Aromatic Compounds, Madrid Spain, 7/5-10/15. PSA-30.
176. "Diindeno[1,2-*b*:1',2'-*f*]anthracene: A Stable,  $\pi$ -Expanded Homologue of Indeno[1,2-*b*]fluorene." G. E. Rudebusch, J. L. Marshall, L. N. Zakharov and M. M. Haley, 16th International Symposium on Novel Aromatic Compounds, Madrid Spain, 7/5-10/15. PSB-19.
177. "Synthesis and Properties of Electron Accepting Thiophene- and Selenophene-Containing Indenofluorene Analogues." J. L. Marshall, K. Uchida, N. J. O'Neal, C. L. Vonnegut, L. N. Zakharov and M. M. Haley, 12th International Symposium on Functional  $\pi$ -Electron Systems, Seattle, WA, 7/19-24/15. PS1/2-19.
178. "Diindeno[1,2-*b*:1',2'-*f*]anthracene: A Stable Homologue of Indeno[1,2-*b*]fluorene with a Thermally Accessible Triplet Biradical State." G. E. Rudebusch, B. D. Rose, L. N. Zakharov and M. M. Haley, 12th International Symposium on Functional  $\pi$ -Electron Systems, Seattle, WA, 7/19-24/15. P1/2-32 (winner of 'Best Poster Presentation' award).
179. "Dinaphthoindacenes: The Effect of Outer Ring Benzo-fusion on the Indeno[1,2-*b*]fluorene Core." C. K. Frederickson, L. N. Zakharov and M. M. Haley, 12th International Symposium on Functional  $\pi$ -Electron Systems, Seattle, WA, 7/19-24/15. C7-5.
180. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." M. M. Haley, 12th International Symposium on Functional  $\pi$ -Electron Systems, Seattle, WA, 7/19-24/15. A11-3.
181. "RNA Goes Platinum: Metals, Catalysis and Drugs." V. J. DeRose, M. M. Haley, J. D. White, A. D. Moghaddam, R. Cunningham, R. Wirth and K. Plakos, American Chemical Society 250th National Meeting, Boston, MA, 8/16-20/15. BIOL 104.
182. "Facile Synthesis of 2-Phosphaquinolines and 2-Phosphaquinolin-2-ones." M. M. Haley, C. L. Vonnegut, A. Shonkwiler, M. M. Khalifa, L. N. Zakharov and D. W. Johnson, Pacificchem 2015, Honolulu, HI, 12/15-20/15. Abstract INOR 175
183. "Expanded Indeno-fused Carbocyclic and Heterocyclic Quinoidal Scaffolds: Syntheses, Structures and Properties." M. M. Haley, Pacificchem 2015, Honolulu, HI, 12/15-20/15. Abstract ORGN 1380.
184. "Arylacetylenes as Modular Scaffolds for Anion Recognition: Water-soluble Hosts and Insights into Aryl CH $\cdots$ X– Hydrogen Bonds." B. W. Tresca, R. J. Hansen, M. M. Haley and D. W. Johnson, Pacificchem 2015, Honolulu, HI, 12/15-20/15. Abstract ORGN 1745.
185. "Platinum Biomolecule Target analysis Using Click Chemistry." J. D. White, A. D. Moghaddam, R. Cunningham, K. Plakos, E. Reister, M. M. Haley and V. J. DeRose, Pacificchem 2015, Honolulu, HI, 12/15-20/15. Abstract BIOL 1395.
186. "Counter-ions Tune the Fluorescent Properties of a 2,6-Bis(2-anilinoethynyl)pyridine Bis(amide) Anion Receptor." A. Emig, B. W. Tresca, M. M. Haley and D. W. Johnson, American Chemical Society 251st National Meeting, San Diego, CA, 3/13-17/16. CHED 1402.
187. "Energetic Components of Aryl C–H $\cdots$ X $^-$  Hydrogen Bonds: Field and Resonance Effects." B. W. Tresca, R. J. Hansen, M. M. Haley and D. W. Johnson, American Chemical Society 251st National Meeting, San Diego, CA, 3/13-17/16. INOR 1000.
188. "In-cell Fluorescence Imaging of Platinum Anticancer Compounds Detected Using Click Chemistry." A. D. Moghaddam, J. D. White, M. M. Haley and V. J. DeRose, American Chemical Society 251st National Meeting, San Diego, CA, 3/13-17/16. INOR 1007.
189. "RNA and DNA Targets of Platinum Anticancer Compounds Detected Using Click Chemistry." A. D. Moghaddam, K. Plakos, R. M. Cunningham, J. D. White, M. M. Haley and V. J. DeRose, American Chemical Society 251st National Meeting, San Diego, CA, 3/13-17/16. INOR 1018.
190. "Linear Free Energy Relationships of CH Hydrogen Bonds: Unusual Anion and Substituent Effects." B. W. Tresca, R. J. Hansen, M. M. Haley and D. W. Johnson, American Chemical Society 251st National Meeting, San Diego, CA, 3/13-17/16. ORGN 399.
191. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." M. M. Haley, 2nd International Symposium on  $\pi$ -System Figuration, Saitama, Japan, 4/14-15/16. IL1.

192. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." M. M. Haley, 99th Canadian Society for Chemistry Conference and Exhibition, Halifax, NS, Canada, 6/5-9/16. Abstract 99.
193. "Modular Supramolecular Fluorescent Receptors: Functional Materials and Applications as Probes for Anions." M. M. Haley, 2nd International Caparica Conference on Chromogenic and Emissive Materials. Lisbon, Portugal, 9/5-8/16.
194. "Modulating Paratropicity Strength in Diareno-fused Antiaromatics." C. K. Frederickson, L. N. Zakharov and M. M. Haley, CURO-Pi II: 2nd International Symposium on the Synthesis and Application of Curved Organic  $\pi$ -Molecules & Materials, Eugene, OR, 9/12-14/16.
195. "Synthesis and Exploration of Indeno-fused Acenes for OLED Implementation." J. J. Dressler, G. E. Rudebusch, L. N. Zakharov and M. M. Haley, CURO-Pi II: 2nd International Symposium on the Synthesis and Application of Curved Organic  $\pi$ -Molecules & Materials, Eugene, OR, 9/12-14/16.
196. "Indacenodibenzothiophenes: Synthesis, Optoelectronic Properties and Materials Applications of Molecules with Strong Antiaromatic Character." J. L. Marshall, K. Uchida, C. K. Frederickson, C. Schütt, A. M. Zeidell, K. P. Goetz, T. W. Finn, K. Jarolimek, L. N. Zakharov, C. Risko, R. Herges, O. D. Jurchescu and M. M. Haley, CURO-Pi II: 2nd International Symposium on the Synthesis and Application of Curved Organic  $\pi$ -Molecules & Materials, Eugene, OR, 9/12-14/16.
197. "Investigating the Design Limitations of Arylethynyl Anion Probes." L. M. Eytel, P. Görner, L. N. Zakharov, M. M. Haley and D. W. Johnson, CURO-Pi II: 2nd International Symposium on the Synthesis and Application of Curved Organic  $\pi$ -Molecules & Materials, Eugene, OR, 9/12-14/16.
198. "Phenylacetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry, and Emerging Applications." M. M. Haley, 1st PKU-WuXi AppTec Symposium of Organic Chemistry, Beijing, China, 10/22-23/16.
199. "Supramolecular Detection of Hydrosulfide Anion." M. D. Hartle, R. J. Hansen, B. W. Tresca, S. S. Prakel, L. N. Zakharov, M. M. Haley, M. D. Pluth and D. W. Johnson, American Chemical Society 72nd Southwest Regional Meeting, Galveston, TX, 11/10-13/16. SWRM 446.
200. "Synthesis of Silylethynyl-substituted anti-Indacenodibenzothiophenes." S. Durham, C. K. Frederickson, J. L. Marshall and M. M. Haley, American Chemical Society 253rd National Meeting, San Francisco, CA, 4/2-6/17. CHED 1405.
201. "Platinum Reagents Modified for Click Chemistry: Towards High-throughput Analysis of Platinum Drug Targets." A. D. Moghaddam, K. Plakos, J. D. White, R. Cunningham, E. Reiter, E. Sutton, M. M. Haley and V. J. DeRose, American Chemical Society 253rd National Meeting, San Francisco, CA, 4/2-6/17. INOR 579.
202. "Phenylacetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry, and Emerging Applications." M. M. Haley, 100th Canadian Society for Chemistry Conference and Exhibition, Toronto, ON, Canada, 5/28-6/1/17. Abstract 1833.
203. "Synthesis and Properties of Di(benzocyclopentathieno)naphthalenes." J. J. Dressler, M. Teraoka, L. N. Zakharov and Michael M. Haley, 2017 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/24-30/17. Poster P1-10.
204. "Supramolecular Host-guest Binding Motifs Alter the Mechanism of 2:1 Host-guest Complexation in Arylethynyl Urea Anion Receptors." L. M. Eytel, A. K. Gilbert, P. Görner, L. N. Zakharov, D. W. Johnson and M. M. Haley, 2017 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/24-30/17. Poster P1-13.
205. "Modulating Paratropicity Strength in Diareno-Fused Antiaromatics." C. K. Frederickson, L. N. Zakharov and M. M. Haley, 2017 Physical Organic Chemistry Gordon Research Conference and Gordon Research Seminar, Holderness, NH, 6/24-30/17. Poster P1-16.
206. "Facile Synthesis of 2-Phosphaquinolin-2-ones and  $\pi$ -Expanded Analogues." C. L. Vonnegut, A. M. Shonkwiler, N. A. Takaesu, L. N. Zakharov, D. W. Johnson and M. M. Haley, 2017 Physical Organic Chemistry Gordon Research Conference, Holderness, NH, 6/25-30/17. Poster P1-24.
207. "Supramolecular Host-guest Binding Motifs Alter the Mechanism of 2:1 Host-guest Complexation in Arylethynyl Urea Anion Receptors." L. M. Eytel, A. K. Gilbert, P. Görner, L. N. Zakharov, D. W. Johnson and M. M. Haley, 12th International Symposium on Macrocyclic and Supramolecular Chemistry, Cambridge, United Kingdom, 7/2-6/17. Poster P78.
208. "Facile Synthesis of 2-Phosphaquinolin-2-ones and  $\pi$ -Expanded Analogues." C. L. Vonnegut, A. M. Shonkwiler, N. A. Takaesu, L. N. Zakharov, D. W. Johnson and M. M. Haley, 12th International Symposium on Macrocyclic and Supramolecular Chemistry, Cambridge, United Kingdom, 7/2-6/17. Poster P197.

209. "Synthesis and Properties of Di(benzocyclopentathieno)-fused Acenes." J. J. Dressler, M. Teraoka, A. M. Ventura, L. N. Zakharov and Michael M. Haley, 17th International Symposium on Novel Aromatic Compounds, Stony Brook, New York, 7/23-28/17. Poster P-22.
210. "Modulating Paratropicity Strength in Diareno-Fused Antiaromatics." C. K. Frederickson, L. N. Zakharov and M. M. Haley, 17th International Symposium on Novel Aromatic Compounds, Stony Brook, New York, 7/23-28/17. Poster P-30.
211. "Facile Synthesis of 2-Phosphaquinolin-2-ones and  $\pi$ -Expanded Analogues." C. L. Vonnegut, A. M. Shonkwiler, N. A. Takaesu, L. N. Zakharov, D. W. Johnson and M. M. Haley, 17th International Symposium on Novel Aromatic Compounds, Stony Brook, New York, 7/23-28/17. Poster P-185.
212. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." M. M. Haley, 4th Erlangen Symposium on Synthetic Carbon Allotropes, Erlangen, Germany, 9/24-27/17.
213. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." M. M. Haley, 3rd Escola de Quimica Computacional – Theory of New Materials at Atomistic Level: Graphene, Graphene Defects and  $\pi$ -Conjugated Polyradical Systems, São Paulo, Brazil, 12/11-14/17.
214. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Diradicals." M. M. Haley, 101st Canadian Society for Chemistry Conference and Exhibition, Edmonton, AB, Canada, 5/27-31/18. Abstract CSC181606.
215. "Diradical Indenofluorenes and Derivatives: Access to Three Unique Electronic States." J. J. Dressler, M. Teraoka, J. L. Marshall, L. N. Zakharov and M. M. Haley, 2nd "From Carbon-Rich Molecules to Carbon-Based Materials" Fusion Conference, Nassau, Bahamas, 6/7-10/18.
216. "Tuning the Diradical Character in Diindenoanthracene Derivatives." J. J. Dressler, L. N. Zakharov and M. M. Haley, 2nd "From Carbon-Rich Molecules to Carbon-Based Materials" Fusion Conference, Nassau, Bahamas, 6/7-10/18 (winner of 'Best Poster Presentation' award).
217. "Flexibility over Size: Toward Designing Arylethynyl Bisurea Supramolecular Receptors for Oxoanions." L. M. Eytel, A. C. Brueckner, J. A. Lohrman, M. M. Haley, P. H.-Y. Cheong and D. W. Johnson, 13th International Symposium on Macrocyclic and Supramolecular Chemistry, Quebec City, Quebec, Canada, 7/8-13/18. Poster 160.
218. "Reversible Receptors for Hydrogen Chalcogenide Ion Hydrogen Bonding." H. A. Fargher, N. Lau, M. M. Haley, D. W. Johnson and M. D. Pluth, 13th International Symposium on Macrocyclic and Supramolecular Chemistry, Quebec City, Quebec, Canada, 7/8-13/18. Poster 168.
219. "Anion Recognition by Arylethynyl Hosts with Halogen Bonding." J. A. Lohrman, L. N. Zakharov, M. M. Haley and D. W. Johnson, 13th International Symposium on Macrocyclic and Supramolecular Chemistry, Quebec City, Quebec, Canada, 7/8-13/18. Poster 170.
220. "Structure-Function Studies on Phosphorus/Nitrogen-Containing Heterocycles." J. P. Bard, C.-L. Deng, L. N. Zakharov, D. W. Johnson and M. M. Haley, 13th International Symposium on Macrocyclic and Supramolecular Chemistry, Quebec City, Quebec, Canada, 7/8-13/18. Poster 198.
221. "Modular Supramolecular Fluorescent Receptors: Functional Materials and Applications as Probes for Anions." M. M. Haley, 3rd International Caparica Conference on Chromogenic and Emissive Materials. Lisbon, Portugal, 9/3-6/18. PL5.
222. "Synthesis and Optoelectronic Properties of Quinoidal Electron-Accepting Organic Semiconductors." M. M. Haley, 14th International Kyoto Conference on New Aspects of Organic Chemistry, Kyoto, Japan, 11/12-16/18.
223. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Diradicals." M. M. Haley, Aromaticity 2018, Riviera Maya, Mexico, 11/28-12/1/18.
224. "Diarenoindacenes and Diindenoarenes: From Quinoidal Electron-Accepting Materials to Stable Organic Diradicals." M. M. Haley, American Chemical Society 257th National Meeting, Orlando, FL, 3/31-4/4/19. ORGN 36.
225. "Structure-Function Studies on Phosphorus/Nitrogen-Containing Heterocycles." J. M. Odulio, J. P. Bard, C.-L. Deng, L. N. Zakharov, D. W. Johnson and M. M. Haley, American Chemical Society 257th National Meeting, Orlando, FL, 3/31-4/4/19. CHED 1305.
226. "Charge Transport in Diareno-Fused Antiaromatic Molecules." A. Zeidell, L. Jennings, C. K. Frederickson, Q. Ai, M. M. Haley, C. Risko and O. D. Jurchescu, Materials Research Society Spring 2019 Meeting, Phoenix, AZ, 4/22-26/19.
227. "All Kinds of Alkynes – (Not So) New Methods for the Formation of Dehydrobenzoannulenes and Heterocycles." M. M. Haley. Carl Glaser Memorial Symposium, Bad Honnef, Germany, 5/26-28/19.

228. "Exploiting the Hydrogen Bond Donor/Acceptor Properties of PN-Heterocycles: Selective Anion Receptors for Hydrogen Sulfate." C.-L. Deng, J. P. Bard, L. N. Zakharov, D. W. Johnson and M. M. Haley, 14th International Symposium on Macrocyclic and Supramolecular Chemistry, Lecce, Italy, 6/2-6/19. CL4.
229. "Halogen Bonding in 3,5-Bis((2-iodophenyl)ethynyl)pyridine Receptor Scaffolds for Halide and Oxoanion Recognition." J. A. Lohrman, L. N. Zakharov, M. M. Haley and D. W. Johnson, 14th International Symposium on Macrocyclic and Supramolecular Chemistry, Lecce, Italy, 6/2-6/19. P270.
230. "Structure-Function Studies on Phosphorus/Nitrogen-Containing Heterocycles." J. P. Bard, C.-L. Deng, J. M. Odulio, L. N. Zakharov, D. W. Johnson and M. M. Haley, 2019 Physical Organic Chemistry Gordon Research Conference and Gordon Research Seminar, Holderness, NH, 6/22-28/19. Poster 7.
231. "Heterocycle Fusion Influences Diradical Character and Singlet-Triplet Energy Gaps in Persistent Singlet Diradicaloids." J. E. Barker, J. J. Dressler, E. T. Strand, L. N. Zakharov and M. M. Haley, 2019 Physical Organic Chemistry Gordon Research Conference and Gordon Research Seminar, Holderness, NH, 6/22-28/19. Poster 8.
232. "Tuning the Diradical Character and Singlet-Triplet Energy Gap in Diindenoanthracene Derivatives." J. J. Dressler, G. E. Rudebusch, B. E. Chastain, L. N. Zakharov and M. M. Haley, 2019 Physical Organic Chemistry Gordon Research Conference and Gordon Research Seminar, Holderness, NH, 6/22-28/19. Poster 20.
233. "Reversible Receptors for Hydrogen Chalcogenide Ion Hydrogen Bonding." H. A. Fargher, N. Lau, M. M. Haley, D. W. Johnson and M. D. Pluth, 2019 Physical Organic Chemistry Gordon Research Conference and Gordon Research Seminar, Holderness, NH, 6/22-28/19. Poster 23.
234. "Halogen Bonding in 3,5-Bis((2-iodophenyl)ethynyl)pyridine Receptor Scaffolds for Halide and Oxoanion Recognition." J. A. Lohrman, L. N. Zakharov, M. M. Haley and D. W. Johnson, 2019 Physical Organic Chemistry Gordon Research Conference and Gordon Research Seminar, Holderness, NH, 6/22-28/19. Poster 6 AND Selected Poster Presentation.
235. "Diarenoindacenes and Diindenoarenes: From Antiaromatic Semiconducting Materials to Stable Organic Diradicals." M. M. Haley, 10<sup>th</sup> International Conference on Materials for Advanced Technologies, Singapore, 6/23-28/19. HH6.
236. "Tuning the Diradical Character and Singlet-Triplet Energy Gap in Diindenoanthracene Derivatives." J. J. Dressler, G. E. Rudebusch, B. E. Chastain, L. N. Zakharov and M. M. Haley, 2019 DOC Graduate Research Symposium, Durham, North Carolina, 7/11-14/19.
237. "Diarenoindacenes and Diindenoarenes: From Antiaromatic Semiconducting Materials to Stable Organic Diradicals." M. M. Haley, 18th International Symposium on Novel Aromatic Compounds, Sapporo, Japan, 7/21-26/19. IL1.
238. "Tuning the Diradical Character and Singlet-Triplet Energy Gap in Diindenoanthracene Derivatives." J. J. Dressler, G. E. Rudebusch, B. E. Chastain, L. N. Zakharov and M. M. Haley, 18th International Symposium on Novel Aromatic Compounds, Sapporo, Japan, 7/21-26/19. Poster 006.
239. "Heterocycle Fusion Influences Diradical Character and Singlet-Triplet Energy Gaps in Persistent Singlet Diradicaloids." J. E. Barker, J. J. Dressler, E. T. Strand, L. N. Zakharov and M. M. Haley, 18th International Symposium on Novel Aromatic Compounds, Sapporo, Japan, 7/21-26/19. Poster 007.
240. "Diarenoindacenes and Diindenoarenes: From Antiaromatic Semiconducting Materials to Stable Organic Diradicals." M. M. Haley, 5th Erlangen Symposium on Synthetic Carbon Allotropes, Erlangen, Germany, 9/29-10/2/19.

#### UPCOMING PRESENTATIONS

241. "Tuning Antiaromaticity in Diarenoindacenes." M. M. Haley, Pacifichem 2020, Honolulu, HI, 12/15-20/20.
242. "Tuning Diradical Properties in Diindenoarenes." M. M. Haley, Pacifichem 2020, Honolulu, HI, 12/15-20/20.

## INVITED UNIVERSITY/COLLEGE LECTURES

1. "Novel Benzenoid Aromatics: Strained, Bent, and Battered." Lewis and Clark College, Portland, OR, 11/17/93.
2. "Synthetic Investigations into Novel Aromatics." Reed College, Portland, OR, 11/10/94.
3. "Synthetic Investigations into Novel Aromatics." Southern Oregon State College, Ashland, OR, 4/14/95.
4. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." University of Victoria, Victoria, British Columbia, Canada, 1/16/97.
5. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." University of Idaho, Moscow, ID, 1/30/97.
6. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." Tufts University, Boston, MA, 2/4/97.
7. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." Portland State University, Portland, OR, 2/21/97.
8. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." University of Oregon (Materials Science Institute), Eugene, OR, 4/11/97.
9. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." Rice University, Houston, TX, 11/5/97.
10. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." University of Houston, Houston, TX, 11/10/97.
11. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." Oregon State University, Corvallis, OR, 12/4/97.
12. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." University of California, San Diego, La Jolla, CA, 2/2/98.
13. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." University of Michigan, Ann Arbor, MI, 3/2/98.
14. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." University of Illinois at Urbana-Champaign, Urbana, IL, 3/4/98.
15. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." University of Chicago, Chicago, IL, 3/6/98.
16. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." University of California, Berkeley, CA, 4/7/98.
17. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." Boston College, Chestnut Hill, MA, 4/9/98.
18. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." University of New Hampshire, Durham, NH, 4/10/98.
19. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." University of Pennsylvania, Philadelphia, PA, 4/13/98.
20. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." University of California, Los Angeles, CA, 5/7/98.
21. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." Technion – Israel Institute of Technology, Haifa, Israel, 5/18/98.
22. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." Tel Aviv University, Tel Aviv, Israel, 5/24/98.
23. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." Ben Gurion University, Beer Sheva, Israel, 5/25/98.
24. "Dehydrobenzoannulenes Revisited: A New Look at an Old Molecular System." Hebrew University, Jerusalem, Israel, 5/26/98.
25. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." Universität-GH Essen, Essen, Germany, 6/4/98.
26. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." Technischen Universität, Braunschweig, Germany, 6/10/98.
27. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." Osaka University, Osaka, Japan, 7/30/98.

28. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." University of Oregon, Eugene, OR, 10/28/98 (tenure presentation).
29. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." Colorado State University, Ft. Collins, CO, 11/9/98.
30. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." University of Wyoming, Laramie, WY, 11/10/98.
31. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." University of Southern California, Los Angeles, CA, 3/10/99.
32. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." University of California, Riverside, CA, 6/4/99.
33. "Aromatic and Metalla-aromatic Molecules from Strained Intermediates: Synthesis and Chemistry of Iridabenzene and Valence Isomers." Central Washington University, Ellensburg, WA, 10/22/99.
34. "Aromatic and Metalla-aromatic Molecules from Strained Intermediates: Synthesis and Chemistry of Iridabenzene and Valence Isomers." Lebanon Valley College, Annville, PA, 11/17/99.
35. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." Juniata College, Huntingdon, PA, 11/18/99.
36. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." Pennsylvania State University, University Park, PA, 11/19/99.
37. "No Longer Simple Hydrocarbons: Synthesis, Characterization, and Chemistry of Dehydrobenzoannulenes." University of Washington, Seattle, WA, 3/3/00.
38. "No Longer Simple Hydrocarbons: Synthesis, Characterization, and Chemistry of Dehydrobenzoannulenes." University of California, Irvine, CA, 6/7/00.
39. "Aromatic and Metalla-aromatic Molecules from Strained Intermediates: Synthesis and Chemistry of Iridabenzene and Valence Isomers." Technische Universität, Darmstadt, Germany, 10/18/00.
40. "No Longer Simple Hydrocarbons: Synthesis, Characterization, and Chemistry of Dehydrobenzoannulenes." Universität Konstanz, Konstanz, Germany, 11/16/00.
41. "No Longer Simple Hydrocarbons: Synthesis, Characterization, and Chemistry of Dehydrobenzoannulenes." Georg-August-Universität, Göttingen, Germany, 11/20/00.
42. "Iridabenzene and Valence Isomers: Synthesis and Characterization of Unusual Metalla-Aromatic Molecules." Universität Hannover, Hannover, Germany, 11/22/00.
43. "Aromatic and Metalla-aromatic Molecules from Strained Intermediates: Synthesis and Chemistry of Iridabenzene and Valence Isomers." Westfälische Wilhelms-Universität, Münster, Germany, 11/23/00.
44. "No Longer Simple Hydrocarbons: Synthesis, Characterization, and Chemistry of Dehydrobenzoannulenes." Universität Heidelberg, Heidelberg, Germany, 11/27/00.
45. "Aromatic and Metalla-aromatic Molecules from Strained Intermediates: Synthesis and Chemistry of Iridabenzene and Valence Isomers." Technische Universität, Braunschweig, Germany, 11/29/00.
46. "It Takes Alkynes to Make a World – New Methods for Dehydrobenzoannulene Synthesis." Pacific University, Forest Grove, OR, 2/13/01.
47. "No Longer Simple Hydrocarbons: Synthesis, Characterization, and Chemistry of Dehydrobenzoannulenes." University of Kentucky, Lexington, KY, 4/27/01.
48. "No Longer Simple Hydrocarbons: Synthesis, Characterization, and Chemistry of Dehydrobenzoannulenes." University of Alabama, Tuscaloosa, AL, 4/30/01.
49. "Iridabenzene and Valence Isomers: Synthesis and Characterization of Unusual Metalla-aromatic Molecules." Idaho State University, Pocatello, ID, 9/28/01.
50. "Iridabenzene and Valence Isomers: Synthesis and Characterization of Unusual Metalla-aromatic Molecules." Humboldt State University, Arcata, CA, 10/5/01.
51. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Universität-GH Essen, Essen, Germany, 10/29/01.
52. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Universität Bielefeld, Bielefeld, Germany, 10/30/01.
53. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Ruhr Universität Bochum, Bochum, Germany, 10/31/01.

54. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Freie Universität Berlin, Berlin, Germany, 11/1/01.
55. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Universität Hamburg, Hamburg, Germany, 11/6/01.
56. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Universität Kiel, Kiel, Germany, 11/8/01.
57. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Wayne State University, Detroit, MI, 1/14/02.
58. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Oregon State University, Corvallis, OR, 2/14/02.
59. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." University of Texas at Austin, Austin, TX, 4/15/02.
60. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Texas Tech University, Lubbock, TX, 4/17/02.
61. "Iridabenzenes and Valence Isomers: Synthesis and Characterization of Unusual Metalla-aromatic Molecules." New Mexico State University, Las Cruces, NM, 4/18/02.
62. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." University of Alberta, Edmonton, AB, Canada, 6/17/02.
63. "Adventures in Aromatic and Metalla-aromatic Chemistry." Pacific Northwest National Laboratory, Richland, WA, 6/19/02.
64. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Theoretically Interesting Molecules NSF-REU Mini-Symposium, Trinity University, San Antonio, TX, 7/26/02.
65. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Boise State University, Boise, ID, 9/27/02.
66. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." University of Nevada, Reno, Reno, NV, 11/1/02.
67. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." University of Georgia, Athens, GA, 11/11/02.
68. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Emory University, Atlanta, GA, 11/12/02.
69. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." University of South Carolina, Columbia, SC, 11/18/02.
70. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." University of Auckland, Auckland, New Zealand, 11/29/02.
71. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." University of Idaho, Moscow, ID, 9/16/03.
72. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Kyoto University, Kyoto, Japan, 10/1/03.
73. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Tokyo Metropolitan University, Tokyo, Japan, 10/6/03.
74. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." University of Oregon, Eugene, OR, 10/10/03 (promotion seminar).
75. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." Georgia Institute of Technology, Atlanta, GA, 11/4/03.
76. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." University of the South, Sewanee, TN, 11/5/03.

77. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." California State University, Los Angeles, Los Angeles, CA, 11/11/03.
78. "Tuning the Reactivity of (2-Ethynylphenyl)triazenes: Synthetic and Mechanistic Studies Toward the Formation of Annulenes, Cinnolines, and Isoindazoles." University of Ottawa, Ottawa, Quebec, Canada, 12/5/03.
79. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Universität Ulm, Ulm, Germany, 10/6/04.
80. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Universität Zürich, Zürich, Switzerland, 10/19/04.
81. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Universität Karlsruhe, Karlsruhe, Germany, 10/20/04.
82. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Université Louis Pasteur, Strasbourg, France, 10/21/04.
83. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Technischen Universität, Braunschweig, Germany, 10/25/04.
84. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Universität Erlangen, Erlangen, Germany, 10/26/04.
85. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Universität Erlangen, Erlangen, Germany, 10/27/04.
86. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Universität Ulm, Ulm, Germany, 10/28/04.
87. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Universität Kiel, Kiel, Germany, 11/4/04.
88. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Osaka University (Suita Campus), Osaka, Japan, 9/7/05.
89. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Hiroshima University, Hiroshima, Japan, 9/13/05.
90. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Okayama University of Science, Okayama, Japan, 9/16/05.
91. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Metropolitan University of Tokyo, Tokyo, Japan, 9/20/05.
92. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Hokkaido University, Sapporo, Japan, 9/22/05.
93. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Osaka University (Toyanaka Campus), Osaka, Japan, 9/26/05.
94. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Osaka City University, Osaka, Japan, 9/27/05.
95. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Osaka University (Suita Campus), Osaka, Japan, 9/29/05.
96. "Synthetic and Mechanistic Investigations into Coarctate Cyclizations: Unique Routes to 2*H*-Indazoles and Related Heterocycles." Chinese University of Hong Kong, Hong Kong, China, 10/3/05.
97. "Dehydrobenzoannulene Chemistry: Carbon-rich  $\pi$ -Electronic Structures for Novel Applications." Hong Kong University, Hong Kong, China, 10/4/05.
98. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Hong Kong University of Science and Technology, Hong Kong, China, 10/5/05.
99. "Synthetic and Mechanistic Investigations into Coarctate Cyclizations: Unique Routes to 2*H*-Indazoles and Related Heterocycles." University of British Columbia, Vancouver, BC, Canada, 10/31/05.
100. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." California State University – Chico, Chico, CA, 11/4/05.
101. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." Humboldt State University, Arcata, CA, 11/7/05.
102. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." University of San Diego, San Diego, CA, 4/6/06.
103. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." Boise State University, Boise, ID, 9/22/06.



104. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Pacific University, Forest Grove, OR, 10/10/06.
105. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." California State University – Sacramento, Sacramento, CA, 10/27/06.
106. "Aryl-Acetylene Scaffolding as Carbon-Rich, Multifunctional  $\pi$ -Electronic Materials." Clemson University, Clemson, SC, 3/15/07.
107. "Aryl-Acetylene Scaffolding as Carbon-Rich, Multifunctional  $\pi$ -Electronic Materials." University of Victoria, Victoria, British Columbia, Canada, 4/10/07.
108. "Aryl-Acetylene Scaffolding as Carbon-Rich, Multifunctional  $\pi$ -Electronic Materials." Simon Fraser University, Vancouver, British Columbia, Canada, 4/11/07.
109. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." Idaho State University, Pocatello, ID, 9/21/07.
110. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." Seattle University, Seattle, WA, 10/4/07.
111. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." Trinity University, San Antonio, TX, 11/1/07.
112. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." Southwestern University, Georgetown, TX, 11/5/07.
113. "Aryl-Acetylene Scaffolding as Carbon-Rich, Multifunctional  $\pi$ -Electronic Materials." University of Missouri at Kansas City, Kansas City, MO, 3/6/08.
114. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." St. Louis University, St. Louis, MO, 3/7/08.
115. "Aryl-Acetylene Scaffolding as Carbon-Rich, Multifunctional  $\pi$ -Electronic Materials." University of Bonn, Bonn, Germany, 5/27/08.
116. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." University of Düsseldorf, Düsseldorf, Germany, 5/29/08.
117. "Aryl-Acetylene Scaffolding as Carbon-Rich, Multifunctional  $\pi$ -Electronic Materials." University of Bielefeld, Bielefeld, Germany, 5/30/08.
118. "Aryl-Acetylene Scaffolding as Carbon-Rich, Multifunctional  $\pi$ -Electronic Materials." Technical University of Braunschweig, Braunschweig, Germany, 6/2/08.
119. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." University of Giessen, Giessen, Germany, 6/3/08.
120. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." University of Kiel, Kiel, Germany, 6/4/08.
121. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." University of Copenhagen, Copenhagen, Denmark, 6/6/08.
122. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." Miami University, Oxford, OH, 9/4/08.
123. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." University of Cincinnati, Cincinnati, OH, 9/5/08.
124. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." Linfield College, McMinnville, OR, 10/23/08.
125. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." Johns Hopkins University, Baltimore, MD, 11/11/08.
126. "It Takes Alkynes to Make a World: From Organic Materials to Supramolecular Chemistry." University of Maryland, College Park, MD, 11/13/08.
127. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." University of Colorado, Boulder, CO, 9/14/09.
128. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Boise State University, Boise, ID, 9/25/09.
129. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." University of California at Davis, Davis, CA, 10/6/09.
130. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." University of Alberta, Edmonton, AB, Canada 11/24/09.
131. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." National Sun Yet-Sen University, Kaohsiung, Taiwan, 3/16/10.

132. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Fu-Jen Catholic University, Sinjhuang, Taiwan, 3/18/10.
133. "It Takes Alkynes to Make a World: From Organic Materials to Supramolecular Chemistry." National Taiwan University, Taipei, Taiwan, 3/19/10.
134. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." West Virginia University, Morgantown, WV, 3/24/10.
135. "It Takes Alkynes to Make a World: From Annulenes to Acenes." University of Kentucky, Lexington, KY, 3/26/10.
136. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry, and Emerging Applications in Cellular Imaging." Lewis and Clark College, Portland, OR, 12/8/10.
137. "It Takes Alkynes to Make a World: From Annulenes to Acene Analogues." Indiana University, Bloomington, IN, 3/22/11.
138. "It Takes Alkynes to Make a World: From Annulenes to Acene Analogues." Bowling Green State University, Bowling Green, OH, 3/23/11.
139. "It Takes Alkynes to Make a World – New Methods for the Formation of Annulenes, Cinnolines and Isoindazoles." Kansas State University, Manhattan, KS, 9/8/11.
140. "It Takes Alkynes to Make a World: From Annulenes to Acene Analogues." San Francisco State University, San Francisco, CA, 10/14/11.
141. "It Takes Alkynes to Make a World: From Annulenes to Acene Analogues." Pacific University, Forest Grove, OR, 11/8/11.
142. "Indeno[1,2-b]fluorenes – A New Class of Electron-Accepting Materials." National University of Singapore, Singapore, 12/12/11.
143. "It Takes Alkynes to Make a World: From Organic Materials to Supramolecular Chemistry." Nanyang Technological University, Singapore, 12/13/11.
144. "Indeno[1,2-b]fluorenes – A New Class of Electron-Accepting Materials." University of Calgary, Calgary, AB, Canada, 3/9/12.
145. "Indeno[1,2-b]fluorenes – A New Class of Electron-Accepting Materials." University of Toronto, Toronto, ON, Canada, 3/12/12.
146. "Indeno[1,2-b]fluorenes – A New Class of Electron-Accepting Materials." Laval University, Quebec City, Quebec, Canada, 3/21/12.
147. "Indeno[1,2-b]fluorenes – A New Class of Electron-Accepting Materials." Memorial University of Newfoundland, St. Johns, NF, Canada, 3/23/12.
148. "It Takes Alkynes to Make a World: From Annulenes to Acene Analogues." Université Paul Sabatier, Toulouse, France, 5/7/12.
149. "Chemistry of Metallabenzenes and Valence Isomers: New Ligands, New Metals, New Insights." Centre de Recherche Paul Pascal – CRNS, Pessac, France, 5/9/12.
150. "It Takes Alkynes to Make a World: From Annulenes to Acene Analogues." Université de Bordeaux, Talence, France, 5/9/12.
151. "It Takes Alkynes to Make a World: From Annulenes to Acene Analogues." Université Louis Pasteur, Strasbourg, France, 5/11/12.
152. "It Takes Alkynes to Make a World: From Annulenes to Acene Analogues." Universität Frankfurt, Frankfurt, Germany, 5/15/12.
153. "It Takes Alkynes to Make a World: From Annulenes to Heterocycles." University of Illinois at Chicago, Chicago, IL, 9/4/12.
154. "Indeno[1,2-b]fluorenes – A New Class of Electron-Accepting Materials." Marquette University, Milwaukee, WI, 9/5/12.
155. "It Takes Alkynes to Make a World: From Annulenes to Heterocycles." University of Wisconsin at Madison, Madison, WI, 9/6/12.
156. "Indeno[1,2-b]fluorenes – A New Class of Electron-Accepting Materials." Sigma-Aldrich Chemicals, Milwaukee, WI, 9/7/12.
157. "Indenofluorenes – A New Class of Electron-Accepting Materials." Dartmouth College, Hanover, NH, 10/24/12.
158. "Indenofluorenes – A New Class of Electron-Accepting Materials." Boston College, Chestnut Hill, MA, 10/30/12.
159. "It Takes Alkynes to Make a World: From Annulenes to Heterocycles." Whitman College, Walla Walla, WA, 11/12/12.

160. "It Takes Alkynes to Make a World: From Annulenes to Heterocycles." University of Florida, Gainesville, FL, 11/29/12.
161. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry, and Emerging Applications." University of Missouri at St. Louis, St. Louis, MO, 9/30/13.
162. "Indenofluorenes – A New Class of Electron-Accepting Materials." University of Giessen, Giessen, Germany, 10/16/13.
163. "Aryl-Acetylene Scaffolding as Carbon-Rich, Multifunctional  $\pi$ -Electronic Materials." University of Heidelberg, Heidelberg, Germany, 10/17/13.
164. "Indenofluorenes – A New Class of Electron-Accepting Materials." University of Heidelberg, Heidelberg, Germany, 10/18/13.
165. "Indenofluorenes – A New Class of Electron-Accepting Materials." Southern Illinois University, Carbondale, IL, 11/8/13.
166. "Indenofluorenes – A New Class of Electron-Accepting Materials." University of Houston, Houston, TX, 3/27/14.
167. "Life After Rice—A 20+ Year Love Affair with Acetylenes, Annulenes and Indenofluorenes." Rice University, Houston, TX, 3/28/14.
168. "Life at Oregon—A 20+ Year Love Affair with Acetylenes, Annulenes, Metallabenzenes and All Molecules 'Aromatic'." University of Erlangen, Erlangen, Germany, 10/1/14.
169. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." University of Heidelberg, Heidelberg, Germany, 11/14/14.
170. "It Takes Alkynes to Make a World: From Organic Materials to Supramolecular Chemistry." University of Warsaw, Warsaw, Poland, 11/20/14.
171. "It Takes Alkynes to Make a World: From Annulenes to Acene Analogues." Polish Academy of Sciences, Warsaw, Poland, 11/21/14.
172. "It Takes Alkynes to Make a World: From Annulenes to Acene Analogues." Academy of Sciences of the Czech Republic, Prague, Czech Republic, 11/28/14.
173. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." Uppsala University, Uppsala, Sweden, 12/1/14.
174. "Indenofluorenes – A New Class of Electron-Accepting Materials." Chalmers University of Technology, Gothenburg, Sweden, 12/2/14.
175. "Indenofluorenes – A New Class of Electron-Accepting Materials." University of Copenhagen, Copenhagen, Denmark, 12/4/14.
176. "It Takes Alkynes to Make a World: From Organic Materials to Supramolecular Chemistry." University of Bonn, Bonn, Germany, 12/9/14.
177. "Indenofluorenes – A New Class of Electron-Accepting Materials." Heinrich Heine University of Düsseldorf, Düsseldorf, Germany, 12/11/14.
178. "It Takes Alkynes to Make a World: From Organic Materials to Supramolecular Chemistry." University of Regensburg, Regensburg, Germany, 1/14/15.
179. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." University of Kiel, Kiel, Germany, 1/29/15.
180. "Indenofluorenes – A New Class of Electron-Accepting Materials." University of Erlangen "CarbonFest 2015", Erlangen, Germany, 2/5/15.
181. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." University of Erlangen Graduate School of Molecular Sciences "Winter School", Kirchberg in Tirol, Austria, 2/13/15.
182. "Indenofluorenes – A New Class of Electron-Accepting Materials." University of Kentucky, Lexington, KY, 6/5/15.
183. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." California Polytechnic State University, San Luis Obispo, CA, 10/1/15.
184. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." Portland State University, Portland, OR, 10/9/15.
185. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." University of Tübingen, Tübingen, Germany, 11/3/15.
186. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." University of Frankfurt, Frankfurt, Germany, 11/4/15.

187. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." University of Ulm, Ulm, Germany, 11/5/15.
188. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." Ohio University, Athens, OH, 11/16/15.
189. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." Ohio State University, Columbus, OH, 11/17/15.
190. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." Hokkaido University, Sapporo, Japan, 4/16/16.
191. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." Hokkaido University, Sapporo, Japan, 4/18/16.
192. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." Nagoya University, Nagoya, Japan, 4/19/16.
193. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." RIKEN, Tokyo, Japan, 4/22/16.
194. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." Tokyo Institute of Technology, Tokyo, Japan, 4/23/16.
195. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." Osaka University (Toyonaka campus), Osaka, Japan, 4/25/16.
196. "Indenofluorenes and Quinoidal Analogues – A New Class of Electron-Accepting Materials." Osaka University (Suita campus), Osaka, Japan, 4/28/16.
197. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." University of Texas at Austin, Austin, TX, 9/16/16.
198. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." University of Nevada at Reno, Reno, NV, 9/30/16.
199. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." Tianjin University, Tianjin, China, 10/25/16.
200. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." Xiamen University, Xiamen, China, 10/26/16.
201. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." Shanghai Institute of Organic Chemistry, Shanghai, China, 10/28/16.
202. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." The Chinese University of Hong Kong, Hong Kong, China, 10/31/16.
203. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." University of Wyoming, Laramie, WY, 12/2/16.
204. "It Takes Alkynes to Make a World – Adventures with Graphynes, Annulenes and Indenofluorenes." Yoshito Tobe 65<sup>th</sup> Birthday and Retirement Party, Osaka University, Osaka, Japan, 6/10/17.
205. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." Meiji University, Yokohama, Japan, 6/12/17.
206. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." Complutense University of Madrid, Madrid, Spain, 9/19/17.
207. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." IMDEA-Nanoscience Institute, Autonoma University of Madrid, Madrid, Spain, 9/20/17.
208. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." University of Malaga, Malaga, Spain, 9/21/17.
209. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." University of Würzburg, Würzburg, Germany, 9/28/17.
210. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Biradicals." University of Giessen, Giessen, Germany, 10/2/17.
211. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." Pacific Lutheran College, Tacoma, WA, 10/16/17.
212. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." University of São Paulo, Ribeirão Preto, Brazil, 12/15/17.
213. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." University of Franca, Franca, Brazil, 12/15/17.

214. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." St. Mary's College of Maryland, St. Mary's City, MD, 3/28/18.
215. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Diradicals." Johns Hopkins University, Baltimore, MD, 3/29/18.
216. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." Louisiana State University, Baton Rouge, LA, 4/13/18.
217. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Diradicals." Tulane University, New Orleans, LA, 4/16/18.
218. "Modular Supramolecular Fluorescent Receptors: Functional Materials and Applications as Probes for Anions." Idaho State University, Pocatello, ID, 8/24/18.
219. "Modular Supramolecular Fluorescent Receptors: Functional Materials and Applications as Probes for Anions." Université Paul Sabatier, Toulouse, France, 9/17/18.
220. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Diradicals." Centre de Recherche Paul Pascal – CRNS, Talence, France, 9/19/18.
221. "Modular Supramolecular Fluorescent Receptors: Functional Materials and Applications as Probes for Anions." Eastern Washington University, Cheney, WA, 10/4/18.
222. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Diradicals." Kyoto University (Yoshida Campus), Kyoto, Japan, 11/16/18.
223. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." Kyoto University (Uji Campus), Kyoto, Japan, 11/19/18.
224. "Indenofluorenes and Ring-Expanded Analogues: From Quinoidal Electron-Accepting Materials to Stable Organic Diradicals." University of Tokyo, Tokyo, Japan, 11/20/18.
225. "It Takes Alkynes to Make a World: From Antiaromatic Organic Semiconductors to Supramolecular Receptors for Anions." University of Mainz, Mainz, Germany, 5/29/19.
226. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." University of Auckland, Auckland, New Zealand, 12/13/19.
227. "Diarenoindacenes and Diindenoarenes: From Antiaromatic Semiconducting Materials to Stable, Tunable Organic Diradicals." Texas Tech University, Lubbock, TX, 4/22/20 (Zoom).

#### PENDING UNIVERSITY/COLLEGE LECTURES

228. "Phenyl-Acetylene Scaffolding as Receptors for Anions: Synthesis, Supramolecular Chemistry and Emerging Applications." Florida State University, Tallahassee, FL, 10/2/20.
229. "Diarenoindacenes and Diindenoarenes: From Antiaromatic Semiconducting Materials to Stable, Tunable Organic Diradicals." Florida State University, Tallahassee, FL, 10/3/20.

#### NAMED LECTURESHIPS

1. Nozoe Lecturer, 16th International Symposium on Novel Aromatic Compounds, 7/5/15.
2. Sara Jane Rhoads and Rebecca Raulins Lecturer, University of Wyoming, 12/2/16.

## SUPERVISED RESEARCH

### A. Postdoctoral Associates

- Micah J. Bodner – 11/10 to 11/12; postdoctoral scholar from USA; Ph.D. (2010) Johns Hopkins University; joint with Andy Berglund; Myotonic Dystrophy Foundation Postdoctoral Fellowship (2012) and NIH Postdoctoral Fellowship (2012); expert in the synthesis of biologically active molecules; currently Associate Director of Chemistry at Cascade Chemistry, Eugene, OR.
- Calden N. Carroll – 1/12 to 12/12; NSF I-Corps postdoctoral scholar from USA; Ph.D. (2011) University of Oregon; co-supervised with Darren Johnson; expert in supramolecular chemistry; founder and CEO of SupraSensor Technologies, LLC, Eugene, OR.; currently managing partner at Three Bones Group.
- Chunlin Deng – 5/17 to 7/19; postdoctoral scholar from China; Ph.D. (2016) Chinese University of Hong Kong; co-supervised with Darren Johnson; expert in the synthesis of novel aromatic hydrocarbons and their supramolecular chemistry; currently doing a second postdoc with Lyle Isaacs (Maryland).
- Charlotte Gers-Panther – 10/15 to 6/16; postdoctoral scholar from Germany; Ph.D. (2015) Universität Düsseldorf; expert in synthesis and characterization of fluorescent materials; currently an Assistant Editor at *European Journal of Organic Chemistry*, Wiley-VCH (Weinheim, Germany).
- Cameron L. Hilton – 9/08 to 8/10; postdoctoral scholar from USA; Myotonic Dystrophy Foundation Postdoctoral Fellowship (2010-2011); Ph.D. (2008) University of Nevada at Reno; co-supervised with Andy Berglund; expert in the synthesis of novel aromatic hydrocarbons; currently a research associate with Hexion, Inc. (Springfield, OR).
- Volker Jacob – 10/01 to 9/02; Feodor Lynen Scholar (Humboldt Foundation) from Germany; Ph.D. (2000) Universität Heidelberg; expert in synthesis and characterization of organometallic complexes; currently Senior Associate Editor for *Angewandte Chemie*, Wiley-VCH (Weinheim, Germany).
- Carissa S. Jones – 8/03 to 6/05; postdoctoral scholar from New Zealand; Ph.D. (2001) Victoria University, Wellington, NZ; expert in the synthesis of novel aromatic hydrocarbons; currently a research associate with Brewer Scientific, Inc. (Springfield, MO).
- Jessica A. Lohrman – 7/17 to present; postdoctoral scholar from USA; Ph.D. (2017) University of Kansas; co-supervised with Darren Johnson; expert in supramolecular chemistry.
- Grant J. Palmer – 7/01 to 6/02; postdoctoral scholar from USA; Ph.D. (2001) University of Kentucky; expert in synthesis and characterization of alkyne-rich molecules; currently Director of Business Finance at Adaptimmune US.
- Lakshminarayanan Piramuthu – 9/10 to 7/11; postdoctoral scholar from India; Ph.D. (2008) Bhavnagar University, Kolkata, India; co-supervised with Darren Johnson; expert in supramolecular receptors for halides and water clusters.
- Abhijit Sarkar – 6/99 to 5/01; postdoctoral scholar from India; Ph.D. (1994) Indian Institute of Technology (Bombay); expert in diacetylene polymerization chemistry and non-linear optics; currently staff researcher at Michigan Molecular Institute (Midland, MI).
- Takashi Takeda – 7/08 to 3/09; JSPS postdoctoral scholar from Japan; Ph.D. (2008) Hokkaido University; expert in the synthesis of novel aromatic hydrocarbons; JSPS postdoctoral fellow with Yoshito Tobe, Osaka University; currently Assistant Professor at Tohoku University.
- He-Ping Wu – 7/01 to 9/03; postdoctoral scholar from China; Ph.D. (1995) Lanzhou Institute of Chemical Physics; expert in synthesis and characterization of organometallic complexes (metallatrienes and other novel ligands); currently a research associate with Eternity BioScience (Cranbury, NJ).

## B. Graduate Students

- Jeremy P. Bard – Research topic: Synthesis and Supramolecular Chemistry of PN-Heterocycles. Co-supervised with Darren Johnson. UO Doctoral Dissertation Research Fellowship (2020-2021). Ph.D. anticipated June 2021.
- Joshua E. Barker – Research topic: Synthesis and Properties of Fluorenofluorenes and Related Expanded Quinoidal Motifs. Ph.D. anticipated June 2021.
- Hannah J. Bates – Research topic: Anion-Binding Chemistry of Arylethynyl Scaffolding. Co-supervised with Darren Johnson. Ph.D. anticipated June 2023.
- Andrew J. Boydston – Research topic: I. Aromaticity of Dehydrobenzoannulenes. II. Synthesis and Characterization of [2.2]Paracyclophane/Dehydrobenzoannulene Hybrids. M.S. awarded June 2002; Ph. D. Chemistry, University of Texas, Austin 2007; postdoc with Bob Grubbs (2008-2010), Cal Tech; Assistant Professor, University of Washington; currently Associate Professor, University of Wisconsin, Madison.
- Stephen C. Brand – Research topic: I. Synthesis and Chemistry of Bis(enediyne) Macrocycles. II. Synthesis of Substructures of the All-carbon Network Graphdiyne. GAANN Fellow (1995-1996). M.S. awarded June 1995; left graduate program October 1998.
- Calden N. Carroll (Stimpson) – Research topic: Supramolecular Chemistry of Arylethynyl Scaffolding. IGERT Fellow (2008-2011). Co-supervised with Darren Johnson. Ph.D. awarded December 2011; iCorp Postdoctoral Fellow with MMH/DWJ; currently managing partner at Three Bones Group.
- Daniel T. Chase – Research topics: I. Arylethynyl Scaffolding Containing BODIPY Fluorophores. II. Indenofluorenes as Stable Alternatives to Pentacenes. Ph.D. awarded August 2011; postdoc first with MMH until Dec 2011 and then Chris Bielawski at University of Texas, Austin until August 2012; currently Assistant Professor at St. Mary's College of Maryland, St. Mary's, MD.
- Thais de Faria – Research topic: Anion-Binding Chemistry of Arylethynyl Scaffolding. Co-supervised with Darren Johnson. Ph.D. anticipated June 2022.
- Aaron G. Docter – Research topic: Small Molecule Therapeutics for Myotonic Dystrophy; co-supervised with Andy Berglund. M.S. awarded December 2013.
- Justin J. Dressler – Research topic: Synthesis and Chemistry of Diindenoacene Derivatives. Ph.D. anticipated June 2020.
- Jeffrey M. Engle – Research topic: Fluorescent Anion Sensors Based on the 2,6-Bis(2-anilinoethynyl)-pyridine Scaffold. GK-12 Fellow (2011-2013). Co-supervised with Darren Johnson. Ph.D. awarded August 2013; currently Associate Professor at Tacoma Community College, Tacoma, WA.
- Lisa M. Eytel – Research topic: Effects of Secondary Binding Motifs in Arylethynyl Anion Receptors. Co-supervised with Darren Johnson. Ph.D. awarded June 2019; currently Assistant Professor at Boise State University, Boise, ID.
- Hazel A. Fargher – Research topic: Anion-Binding Chemistry of Arylethynyl Scaffolding. Co-supervised with Darren Johnson. Julie & Rocky Dixon Graduate Student Innovation Award (2018-2019). Ph.D. anticipated June 2021.
- Aaron G. Fix – Research topic: Synthesis and Properties of Indenofluorene and Diindenothiophene Derivatives for Use as Semiconducting Materials in Organic Electronic Devices. Ph.D. awarded August 2013.
- Conerd K. Frederickson – Research topic: Expanded Indenofluorenes: From Structure To Theory. Ph.D. awarded March 2018.
- Robert D. Gilbertson – Research topic: Synthesis of Metallabenzenes and Valence Isomers from Nucleophilic 3-Vinylcyclopropenes. Ph.D. awarded June 1999; postdoc with Jim Hutchison (UO, 1999-2002); currently staff researcher and manager at Los Alamos National Laboratory.
- Ryan J. Hansen – Research topic: Anion-Binding Chemistry of Arylethynyl Scaffolding. Co-supervised with Darren Johnson until January 2017. Left graduate program June 2017.
- Charles A. Johnson II – Research topic: Synthesis, Characterization, and Materials Properties of Benzocyclines and Metallobenzocyclines. IGERT Fellow (2004-2006); UO Doctoral Dissertation Research Fellowship (2006-2007). Ph.D. awarded June 2007.

David B. Kimball – Research topic: I. Aromaticity of Dehydrobenzoannulenes. II. Cyclization and Mechanistic Studies of 1-(2-Alkynylphenyl)-3,3-dialkyltriazenes. Ph.D. awarded June 2002; currently staff researcher at Los Alamos National Laboratory.

Christopher W. Landorf – Research topic: Synthesis of Iridabenzene and Platinabenzene from Nucleophilic 3-Vinylcyclopropenes. Ph.D. awarded July 2007; currently a research associate with Brewer Scientific, Inc., Springfield, MO.

Thomas L. S. Lau – Research topic: Synthesis of Iridabenzene and Valence Isomers from Nucleophilic 3-Vinylcyclopropenes and Vaska-type Complexes. M.A. awarded June 2000; currently research associate with Suterra, Inc.

Jeremiah A. Marsden – Research topic: Structure/Property Relationships and Synthetic Methodology of Functionalized Dehydrobenzoannulenes. GAANN Fellow (2001-2003); IGERT Fellow (2003-2005). Ph.D. awarded January 2005; currently researcher/owner Cascade Chemistry, Eugene, OR.

Jonathan L. Marshall – Research topic: Heterocycle Substitution Within Indenofluorenes. Transferred from Liu group July 2013. Ph.D. awarded March 2016; postdoc with Rik Tykwinski, University of Alberta, Canada; currently a staff scientist at Cascade Chemistry.

Sean P. McClintock – Research topic: Synthesis of Heterocyclic Compounds via the Dual Cyclizations of Hetero-‘Ene-Ene-Yne’ Systems. IGERT Fellow (2006-2009). Ph.D. awarded November 2009; postdoc with Nancy Mills, Trinity University, 2009-2011; currently Associate Professor at Western New England University.

Nolan McNeill – Research topic: Synthesis and Supramolecular Chemistry of PN-Heterocycles. Co-supervised with Darren Johnson. Ph.D. anticipated June 2024.

Matthew J. O’Connor – Research topic: Synthesis and Characterization of Thiophenes Locked into an Annulene Scaffold. Ph.D. awarded March 2008; postdoc with Tim Dore, New York University of Abu Dhabi; currently staff instrumentation specialist at New York University of Abu Dhabi.

Joshua J. Pak – Research topic: Synthesis and Chemistry of Dehydrobenzo[18]annulene: Site-Specific Functionalization and Thermal Polymerization Studies. ACS Division of Organic Chemistry Fellowship (1998-1999). Ph.D. awarded December 1999; postdoc with Ken Shea, UC Irvine, 1999-2001; currently Professor of Chemistry, Idaho State University.

Bradley D. Rose – Research topic: Synthesis and Explorations of Indenofluorenes and Related Molecules. GK-12 Fellow (2011-2012 and 2013-2014); ACS Division of Organic Chemistry Emmanuel Troyansky Fellowship (2012-2013). Ph.D. awarded June 2014; postdoc with Jean-Luc Brédas, KAUST, Saudi Arabia, 2014-2016; currently an Assistant Professor at Illinois Central College.

Gabriel E. Rudebusch – Research topic: Design, Synthesis and Properties of Diindeno-fused Acenes: Open-shell Compounds for Organic Electronic Applications. Transferred from Liu group May 2013. Ph.D. awarded June 2016; postdoc with Jeff Moore at the University of Illinois at Urbana-Champaign; currently an Assistant Professor at Eastern Michigan University.

Laura D. Shirtcliff – Research topic: ‘Coarctate’ Cyclizations: Applications to Heterocycle Synthesis. GAANN Fellow (2002-2003); IGERT Fellow (2003-2006). Ph.D. awarded June 2006; NSF International Research Postdoctoral Fellow (2006-2008) with Francois Diederich, ETH-Zürich, Switzerland; Assistant Professor of Chemistry, Oklahoma State University (2008-2012); currently staff scientist at Cascade Chemistry

Heather L. Smith – Research topic: I. Synthesis and Chemistry of Bis(enediyne) Macrocycles. II. Synthetic Approaches to Pancratistatin. (Changed to group of Prof. Bruce Branchaud in June 1997.) Ph.D. awarded December 1999; postdoc with Organix Inc. (Boston, MA); currently staff researcher with AstraZeneca.

Eric L. Spitzer – Research topic: Structure-Property Relationships in Conjugated Donor/Acceptor-Functionalized Arylacetylenes and Dehydrobenzoannulenes. IGERT Fellow (2005-2008). Ph.D. awarded February 2008; postdoc with Will Dichtel, Cornell University; currently a research associate with PPG (Pittsburgh, PA).

Blakely W. Tresca – Research topic: theory and Application of Aryl CH Hydrogen Bonds In Arylethynyl Receptors. Co-supervised with Darren Johnson. Ph.D. awarded September 2016; postdoc with Ron Zuckermann, Lawrence Berkeley National Lab, Berkeley, CA; currently Assistant Professor at Kalamazoo College, Kalamazoo, MI.



Austin M. Ventura – Research topic: Benzothiophene-Fused Diindenoanthracene. M.S. awarded June 2018.

Efrain Vidal – Research topic: Synthesis and Properties of Fluorenofluorenes and Related Expanded Quinoidal Motifs. Ph.D. anticipated June 2024.

Chrisgen L. Vonnegut – Research topic: Design and Application of Fluorescent Sensing Scaffolds Based Upon and Originating From Conjugated Arylethynyl Systems. Co-supervised with Darren Johnson. Ph.D. awarded March 2016; currently a research associate at Thermo Fisher, Molecular Probes Division, Eugene, OR.

W. Brad Wan – Research topic: Synthesis of Fused and Derivatized Dehydrobenzoannulenes and Hexakis(phenylbutadiynyl)benzenes for Elucidating the Aromatic and Optical Properties of the All-Carbon Network, Graphdiyne. GAANN Fellow (1998-2001). Ph.D. awarded June 2001; currently staff scientist with Isis Pharmaceuticals.

Gabrielle I. Warren – Research topic: Synthesis and Properties of Heterocycle-Fused Antiaromatics. Ph.D. anticipated June 2023.

Michelle M. Watt – Research topic: Anion-Binding Chemistry of Arylethynyl Scaffolding. GK-12 Fellow (2012-2014). Co-supervised with Darren Johnson. Ph.D. awarded August 2014; currently an Assistant Professor at Emanuel College.

Jonathan D. White – Research topic: Pt-Alkyne Complexes for Click Chemistry. Co-supervised with Victoria DeRose. Ph.D. awarded June 2015; postdoc with Kimberly Beatty at Oregon Health Science University, Portland, OR; currently Assistant Professor at Longwood University, Longwood, VA.

Brian S. Young – Research topic: Synthesis of Aromatic Heterocycles via Pericyclic and Coarctate Cyclizations. Ph.D. awarded June 2013; currently staff chemist at Pulse Health, Portland, OR.

### C. First Year Rotation Students

Dima E. Azar – W03  
Jeremy P. Bard – F16  
Joshua E. Barker – W17  
Hannah J. Bates – F18  
Alec N. Brown – F09  
Leif O. Brown – S94  
Patrick G. Campbell – F07  
Virginia M. Cangelosi – S06  
Timothy G. Carter – S05  
Erich C. Chapman – W06  
Daniel T. Chase – W06  
Marisa Choffel – Su/F17  
Robert S. Clegg – Su/F94  
Bartholomew J. Dahl – Su/F02  
Bridget M. Daly – Su/F17  
Bella Demachke – S20  
Aaron G. Docter – W12  
Justin J. Dressler – Su/F15  
Jeffrey M. Engle – W09  
Lisa M. Eytel – Su/F14  
Aaron G. Fix – Su/F08  
Brandy R. Fox – W07  
Conerd K. Frederickson – F12  
Alec “Nick” Gallman – Su/F18  
Patrick Gamache – Su/F14  
Arman Garcia – S20  
Jason T. Gatlin – W03  
Jesse V. Gavette – W09  
Sara K. Gibson – W04  
John D. Gilbertson – S01  
Robert D. Gilbertson – W94  
Lana D. Grubb – S94  
Matthew Hammers – W12  
Ryan J. Hansen – S14  
Kyle R. Hanson – F07  
Hannah E. Hashimoto – Su/F19  
Hillary A. Henthorn – W14  
Jacob S. Ishibashi – S11  
Charles A. Johnson – Su03,S04  
David B. Kimball – W97  
Matthew B. Kraynyak – S01  
Ashley N. Lamm – W08  
Christopher W. Landorf – Su/F01  
Brandi L. Langsdorf – Su/F93,W94  
Erik J. Leonhardt – W16  
Bridget Loftus – F11  
Jenna L. Mancuso – Su/F17  
Jeremiah A. Marsden – W01  
Bervil E. Marsh – S01  
Jonathan L. Marshall – F10  
Jacob Mayhugh – S20

Sean P. McClintock – W05  
Christy McDevitt – S17  
Jacqueline M. McGrath – F10  
Nolan McNeill – W20  
Zachary L. Mensinger – F05  
Amy Miller – F95  
James Navratil – S94  
Bryan T. Nell – W10  
Turner D. Newton – W18  
Matthew J. O'Connor – S03  
Claire Otteson – S18  
Joshua J. Pak – W96  
Bevin W. Parks – W02  
Ngoc-Minh Phan – F16  
Tavis W. Price – S19  
Eden Reed – F97  
Jacob L. Reichman – W02  
Bradley D. Rose – F09  
Gabriel E. Rudebusch – W11  
Cleophas Rwemera – W14  
David Scheidler – F08  
Benjamin A. Schmid – Su/F03  
Laura D. Shirtcliff – Su/F01  
Daniel T. Seidenkranz – Su/F13  
Heather L. Smith – Su93,W/S94  
Eric L. Spittler – S04  
Andrea Stieger – Su14  
Calden N. Stimpson – F06  
Charles D. Swor – F05  
Christopher Thomas – S17  
Blakely Tresca – F11  
Kari A. Trumbull – W03  
Jeff M. VanRaden – S15  
Austin M. Ventura – F16  
W. Jake Vickaryous – F02  
Efrain Vidal – F19  
Collin J. Vincent – W20  
Chrisgen L. Vonnegut – W11  
W. Brad Wan – S97  
Zeran Wang – W12  
Gabrielle I. Warren – W19  
Michelle M. Watt – S10  
Michael J. Williams – F94  
Gerd H. Wörhle – W00  
Stephen R. Woodcock – Su/F02  
Keenan N. Woods – Su/F13  
Regina M. Wirth – S15  
Brian S. Young – W09  
Douglas M. Young – S08  
John Ziebiec – F15

D. Undergraduate Students (# = published)

Samuel Alvarez – 06/11 to 08/11; REU student from Connecticut College.

Brittany M. Armstrong# – 6/08 to 9/09.

Benjamin A. Baker# – 5/04 to 6/05; M.S. Chemistry, University of Oregon, 2006.

Christopher M. Bejger – 4/05 to 6/06; Ph.D. Chemistry, University of Texas, 2012; currently a postdoc with Colin Nuckolls at Columbia.

Michael L. Bell# – 4/96 to 3/97; Robert D. Clark Honors College Thesis (pass with distinction); M.D. 2002, Oregon Health Sciences University.

Eric A. Bercot – 6/97 to 6/99; Ph.D. Chemistry, Colorado State University, 2004.

Bluegrass Biggs# – 9/93 to 6/95; M.S. Chemistry, University of California – Irvine, 1997.

Ben W. Boal – 10/05 to 6/06.

Karola S. Bond – 4/07 to 6/08.

Andrew J. Boydston# – 4/99 to 6/01; M.S. Chemistry, University of Oregon, 2002; Ph.D. Chemistry, University of Texas at Austin, 2007; postdoc with Bob Grubbs (2008-2010), Cal Tech; currently an Associate Professor, University of Wisconsin.

Brian Chastain# – 9/17 to 6/18 and 9/18 to 12/18.

Calvin Chau# – 6/14 to 6/15 (joint w/ DWJ).

Ryan C. Chiechi# – 6/99 to 6/01; Ph.D. Chemistry, University of California – Los Angeles, 2006; postdoc with George Whitesides, Harvard University; currently Assistant Professor, University of Groningen.

Jessica Y. Choi# – 6/12 to 6/13 (joint w/ JAB).

Brian A. Coombs# – 6/08 to 12/10 (joint w/ DWJ).

Ossama S. Darwish# – 5/98 to 6/99.

Parker E. Deal# – 1/12 to 11/12 and 4/13 to 5/13; attending graduate school in chemistry at University of California, Berkeley.

Manuel DeLeon – 6/97 to 9/97.

Brandon M. Doughan# – 1/94 to 10/96.

Sierra D. Durham – 6/16 to 8/16; REU student from California Polytechnic State University.

Janiel Elizarraga-Oregel – 1/19 to 6/19 and 9/19 to present (joint w/ DWJ).

Chris Garcia – 4/19 to 6/19 and 9/19 to current (joint w/ DWJ)

Patrick M. Ellison – 4/94 to 6/96; M.D. 2000, Uniformed Services University of Health Sciences.

Jamieson J. English# – 6/96 to 12/96.

Kevin A. Fajardo# – 5/13 to 6/15 (joint w/ DWJ).

Ololade Fatunmbi – 6/08 to 8/08; REU student from Lincoln University.

Nathan Forster# – 6/08 to 8/08; U-CORE student from Portland Community College.

James H. Frederich – 4/03 to 6/05; Ph.D. Chemistry, University of California at Irvine, 2009; postdoc with Patrick Harran at UCLA; currently Assistant Professor of Chemistry at Florida State University.

Annie K. Gilbert# – 1/16 to 6/17 (joint w/ DWJ).

Drew Gorman-Lewis# – 6/00 to 6/01; UO McNair Undergraduate Research Scholar; Ph.D. Geochemistry, University of Notre Dame, 2005; currently Associate Professor, University of Washington.

Evan R. Hanks# – 9/15 to 6/16.

Austin G. Hayes# – 6/00 to 10/01; Pfizer Summer Undergraduate Research Fellowship (2001); M.D., 2007, Columbia University.

Bradley J. Hensley – 5/06 to 9/06.

Elliott E. Hinds – 2/04 to 10/05.

Benjamin D. Horning – 4/05 to 6/07; Ph.D. Chemistry, Princeton University, 2012.

John J. Houlihan – 6/13 to 6/14 (joint w/ DWJ); in graduate school in chemistry at USC.

Bridget Huston – 9/11 to 3/12 (joint w/ DWJ).

Jenna L. Jeffrey# – 6/06 to 6/08; Ph.D. Chemistry, University of California, Berkeley, 2013.

Emiliano J. Jimenez – 6/12 to 8/12; REU student from Irvine Valley College.

Nicolas P. Johansen – 9/12 to 6/13.

Charles A. Johnson# – 6/96 to 6/98; Ph.D. Chemistry, University of Oregon, 2007; postdoc at Naval Research Lab, Washington, DC.

Michael H. Jones# – 4/14 to 6/15.

Joshua M. Kehoe# – 8/93 to 6/95; M.D. 1999.

Rose K. Kent-McGlew – 4/13 to 6/14.  
 James H. Kiley<sup>#</sup> – 9/94 to 3/96; M.D. 2000, Medical College of Georgia.  
 Kai Z. Kinder – 4/01 to 6/02; UO Undergraduate Research Fellowship (URF).  
 Muhammad M. Khalifa<sup>#</sup> – 9/11 to 4/15 (joint w/ JAB); UO Undergraduate Research Fellowship (URF);  
 Robert D. Clark Honors College Thesis (pass with distinction).  
 Serenity Lanza<sup>#</sup> – 6/99 to 6/01; Robert D. Clark Honors College Thesis (pass with distinction).  
 Virginia A. Larson – 6/17 to 8/17; REU student from Wheaton College.  
 Thomas L. Lau<sup>#</sup> – 6/98 to 8/99; M.S. Chemistry, University of Oregon, 2000.  
 Thomas M. Linz<sup>#</sup> – 4/06 to 6/08.  
 Will A. Looney<sup>#</sup> – 9/93 to 6/94.  
 Jeffrey Manus – 1/95 to 6/95.  
 Dagmara Marston – 1/08 to 6/09.  
 Jonathan Matson – 6/13 to 3/15 (joint w/ DWJ).  
 Will A. McArdle – 6/96 to 6/97.  
 Jeremie J. Miller<sup>#</sup> – 4/02 to 6/04; UO McNair Undergraduate Research Scholar; Ph.D. Chemistry,  
 University of Utah, 2009.  
 Michael P. Miller – 6/19 to 8/19; REU student from University of New Hampshire.  
 Tristan Mistkawi – 9/17 to 6/18; Undergraduate Research Opportunity Program (UROP) awardee.  
 John M. Monson<sup>#</sup> – 10/06 to 6/08.  
 Jacob M. Odulio<sup>#</sup> – 6/18 to 8/18; REU student from Hanover College.  
 April Oleson – 9/14 to 4/15 (joint w/ DWJ).  
 Charles “Chip” W. O’Neal – 1/10 to 9/10.  
 Nathan J. O’Neal<sup>#</sup> – 4/14 to 7/15; Robert D. Clark Honors College Thesis (pass with honors).  
 Jessica Paredes – 6/15 to 8/15; REU student from New College of Florida.  
 Hae Jean “Harry” Park – 4/09 to 9/09.  
 Haleigh Patten-Trujillo – 4/19 to 6/19 and 9/19 to current (joint w/ DWJ).  
 Ryan C. Petersen<sup>#</sup> – 6/95 to 6/96; M.D. 2000, Oregon Health Sciences University.  
 Samuel S. Prake<sup>#</sup> – 1/16 to 6/16 and 9/16 to 12/16 (joint w/ DWJ and MDP)  
 Jazmin Rivers<sup>#</sup> – 3/03 to 6/05; UO Undergraduate Research Fellowship (URF) and UO McNair  
 Undergraduate Research Scholar.  
 Timothy E. Robitshek<sup>#</sup> – 1/12 to 6/13 (joint w/ DWJ).  
 Ariel Rosenfield – 9/14 to 2/15.  
 Vanessa N. Salvia – 6/03 to 9/03.  
 Eli A. Sanchez – 6/14 to 8/14; REU student from the University of Texas at Dallas.  
 Peter J. Santa Maria<sup>#</sup> – 6/12 to 8/12; REU student from Wabash College.  
 Brenden D. Schill – 6/95 to 6/97.  
 Airlia M. Shonkwiler<sup>#</sup> – 5/12 to 6/13 (joint w/ DWJ); hired as post-bacc researcher 1/14 to 6/15.  
 Pushpinder “Sean” Singh<sup>#</sup> – 6/10 to 8/10 (joint w/ DWJ); U-CORE student from Umpqua Community  
 College.  
 Victoria M. Stanfill – 9/15 to 6/16; PURS student.  
 Chelsea E. Stockwell<sup>#</sup> – 6/10 to 8/10; REU student from Truman State University.  
 Eric T. Strand<sup>#</sup> – 4/18 to current.  
 Michael D. Swanson – 6/02 to 8/02.  
 Noah A. Takaesu<sup>#</sup> – 6/15 to 6/17 (joint w/ DWJ).  
 Tennille J. Tippett – 5/02 to 8/02.  
 William J. Warkentin – 1/04 to 9/04.  
 Emily R. Wearing – 6/18 to 8/18; REU student from Cal Poly San Luis Obispo.  
 Margarita N. Wickham – 6/05 to 10/05; UO McNair Undergraduate Research Scholar.  
 Leif Winstead – 6/14 to 8/14 (joint w/ DWJ); SPUR student from New Mexico State U.

#### E. Visiting Scholars

Kazuhiko Adachi – 7/11 to 10/11; Ph.D. student from Osaka University (Takashi Kubo).

Lennart T. Anger – 9/08 to 12/08; diploma student from University of Kiel (Rainer Herges).

Roderick Bates – 6/14 to 7/14; Associate Professor from Nanyang Technological University in Singapore; on sabbatical

Mikkel Christensen – 6/11 to 11/11; Ph.D. student from University of Copenhagen (Mogens Brønsted Nielsen).

Carolin Fleischmann – 5/11 to 7/11; diploma student from University of Düsseldorf (Thomas Müller).

Ayanjyoti Ghosh – 6/07 to 8/07; summer student from South Eugene High School.

Dai Hata – 7/17 to 9/17; Ph.D. student from Osaka University (Toru Amaya).

Heino Hinrichs – 7/01 to 9/01 and 4/05 to 6/05; Ph.D. student from Technical University of Braunschweig (Henning Hopf).

Daisuke Inokuchi – 7/09 to 9/09; Ph.D. student from Osaka University (Takashi Kubo).

Takuya Kodama – 5/17 to 7/17; Ph.D. student from Osaka University (Takashi Kubo).

Christy Yi-Lynn Lau – 7/17 to 11/17; undergraduate student from Nanyang Technological University (Roderick Bates).

Meike Leiske – 9/13 to 12/13; master's student from the University of Jena.

Frédéric Louerat – 2/16 to 3/16 – staff scientist at CRNS, Bordeaux, France.

Ellen MacDonald – 9/09 to 12/09; undergraduate from Trinity College, Dublin, Ireland.

Takehisa Maekawa – 6/13 to 9/13; Ph.D. student from Nagoya University (Kenichiro Itami)

Nancy Mills – 9/08 to 5/09; professor from Trinity University in San Antonio, TX; on sabbatical.

Hitoshi Naruse – 3/97 to 3/99; scientist employed by Fuji-Silycia Chemical Ltd, Japan.

Mogens Brønsted Nielsen – 5/16; professor from the University of Copenhagen.

Shunpei Nobusue – 6/10 to 9/10; Ph.D. student from Osaka University (Yoshito Tobe).

Wataru Nojo – 8/16 to 9/16; master's student from Hokkaido University (Takanori Suzuki).

Pascal Oesau – 9/13 to 12/13; master's student from the University of Jena.

Eisuke Ohta – 11/16 to 3/17; assistant professor from Osaka Prefecture University in Osaka, Japan; on sabbatical.

Johannes Petersen – 11/15 to 5/16; Ph.D. student from University of Copenhagen (Mogens Brønsted Nielsen).

I. David Reingold – 6/09 to 8/09; professor from Juniata College in Juniata, PA; summer research.

Torben Ryhding – 6/08 to 12/08; Ph.D. student from University of Copenhagen (Mogens Brønsted Nielsen).

Stefan Schramm – 9/13 to 1/14; master's student from University of Jena.

Mitsuru Teraoka – 9/16 to 11/16; Ph.D. student from Osaka University (Takashi Kubo).

Kazuyuki Uchida – 1/14 to 3/14; Ph.D. student from Osaka University (Takashi Kubo).

## EXTERNAL RESEARCH SUPPORT

7/93–12/94	National Science Foundation (CHE-9313753) “Syntheses of Graphyne and Model Systems” \$32,000
9/94–8/96	American Chemical Society, Petroleum Research Fund (PRF 28556-G1) “The Cyclophynes: A New Class of Highly Unsaturated Hydrocarbons” \$20,000
4/95–3/99	National Science Foundation CAREER Award (CHE-9502588) “Investigations into New Areas of Cyclopropene Chemistry” \$195,000
6/97–5/01	National Science Foundation (CHE-9704171) “Carbon-rich Networks and Materials Based on Polyacetylenic Benzenoid Aromatics” \$224,600
9/97–8/99	American Chemical Society, Petroleum Research Fund (PRF 32432-AC1) “Novel Annulene Topologies: Synthesis, Reactivity, and Materials Studies” \$50,000
10/97–9/00	United States-Israel Binational Science Foundation (BSF 96-00415/1) “Strained-ring Annelated Cyclophanes: Precursors to Novel Stair-step Polymers” Joint grant with Amnon Stanger at Technion – Israel Institute of Technology \$30,000 (MMH portion)
7/00–8/02	American Chemical Society, Petroleum Research Fund (PRF 35668-AC1) “Aromaticity and Strain in Dehydrobenzoannulenes” \$60,000
8/00–7/04	National Science Foundation (CHE-0075246) “Novel Metalla-Aromatic Systems from Highly Strained Precursors” \$317,000
7/01–6/04	National Science Foundation (CHE-0104854) “New Frontiers in Dehydrobenzoannulene Chemistry: Synthesis, Reactivity, and Materials Studies” \$370,000
7/04–6/07	National Science Foundation (CHE-0414175) “Molecules Based on Phenyl-Acetylene Scaffolding: Experimental, Theoretical, and Materials Studies” \$390,000
8/05–8/07	American Chemical Society, Petroleum Research Fund (PRF 43621-AC4) “Probing Conjugation-Related Properties in Benzo- and Thieno-Fused Dehydroannulenes” \$80,000
3/07–2/10	National Science Foundation (CHE-0647252) “Aromatic Metallacycles: Syntheses, Structures, and Properties” \$422,000
7/07–6/10	National Science Foundation (CHE-0718242) “Phenyl-Acetylene Scaffolding: Experimental, Theoretical, and Materials Studies of New Molecular Systems” \$345,000
5/10–6/16	National Institutes of Health (R01GM087398-01/05) “Design of Modular Receptors for Ion and Molecule Recognition” \$1,195,174 (co-PI, split 50/50 w/ PI DW Johnson)
7/10–6/14	National Science Foundation (CHE-1013032) “New Molecular Systems Based on Aryl-Acetylene Scaffolding: Experimental, Theoretical, and Materials Studies” \$457,860
9/10–8/15	National Institutes of Health (R01AR059833-01A1) “Targeting a Toxic RNA with Small Molecules” \$1,250,000 (PI Andy Berglund; MMH funded co-investigator @ ca. 20%)

7/13–6/16 National Science Foundation (CHE-1301485)  
 “Indenofluorenes & Related Structures: Syntheses, Properties and Emerging Materials Applications”  
 \$443,900

5/16–4/21 National Science Foundation (CHE-1565780)  
 “New Molecular Systems Based on Indenofluorenes & Expanded Quinoidal Analogues: Experimental, Theoretical, and Materials Studies”  
 \$600,000

7/16–7/20 National Science Foundation (CHE-1607214)  
 “INFEWS N/P/H2O: New Molecular Receptors to Complete the Loop on N/P Fertilizer Use and Detection” (split 50/50 w/ co-PI DW Johnson)  
 \$630,000

9/16–8/18 National Institutes of Health (R01GM087398-06/07)  
 “Design of Modular Receptors for Ion and Molecule Recognition”  
 \$501,866 (co-PI, split 50/50 w/ PI DW Johnson)

9/18–8/21 National Institutes of Health (R01GM087398-08/10)  
 “Design of Modular Receptors for Ion and Molecule Recognition”  
 \$879,548 (co-PI, split 50/50 w/ PI DW Johnson)

10/18–9/20 National Science Foundation (CBET-1841606)  
 “EAGER SitS: Sensors and Materials for In-field Soil Analysis of Nitrate and Other Oxoanions” (co-PI, split 50/50 w/ PI DW Johnson)  
 \$300,000

7/20–6/23 National Science Foundation (CHE-1954389)  
 “Tuning Antiaromaticity and Diradical Properties in Diarenoindacenes, Diindenoacenes, and Related Quinoidal Scaffolds”  
 \$490,000

## MISCELLANEOUS RESEARCH SUPPORT

- 6/98 University of Oregon  
"Richard A. Bray Faculty Fellow"  
\$5,000 (award to MMH)
- 7/98–6/03 The Camille and Henry Dreyfus Foundation, Camille Dreyfus Teacher-Scholar Award (TC-98-003)  
"Synthesis and Characterization of Novel Benzenoid and Non-benzenoid Aromatic Systems"  
\$60,000 (Teacher-Scholar award to MMH)
- 9/98–8/99 American Chemical Society, Division of Organic Chemistry  
"Division of Organic Chemistry Graduate Fellowship"  
\$18,000 (for Joshua J. Pak, sponsored by Organic Syntheses)
- 6/01–9/01 Pfizer Inc.  
"Pfizer Summer Undergraduate Research Program"  
\$5,000 (for Austin G. Hayes)
- 7/01–6/04 University of Oregon  
"New Frontiers in Dehydrobenzoannulene Chemistry: Synthesis, Reactivity, and Materials Studies"  
\$16,500 (matching funds for NSF CHE-0104854)
- 7/02–6/04 National Science Foundation (CHE-0104854)  
"New Frontiers in Dehydrobenzoannulene Chemistry: Synthesis, Reactivity, and Materials Studies"  
\$10,000 (international supplement)
- 1/09–12/09 University of Oregon Innovation and Entrepreneurship Program  
"Analogues of Pentamidine for Use in Myotonic Dystrophy"  
\$30,000 (joint w/ Andy Berglund)
- 7/09–6/10 National Science Foundation (CHE-0947817)  
"Phenyl-Acetylene Scaffolding: Experimental, Theoretical, and Materials Studies of New Molecular Systems"  
\$40,000 (instrumentation supplement)
- 3/12–8/13 National Science Foundation (IIP-1237240)  
"I-Corps: Commercialization of New Anion-sensing Materials"  
\$50,000 (split 50/50 w/ co-PI Darren Johnson)
- 12/14–11/16 National Science Foundation (IIP-1430932)  
Sub-award to "SBIR Phase 2: Development and Commercialization of Nitrate-Selective Sensors for Precision Agriculture"  
\$60,000 (split 50/50 w/ co-PI Darren Johnson)
- 8/16–4/20 National Science Foundation (CHE-1641022)  
"New Molecular Systems Based on Indenofluorenes & Expanded Quinoidal Analogues: Experimental, Theoretical, and Materials Studies"  
\$14,500 (international supplement)
- 8/17–7/20 National Science Foundation (CHE-1745635)  
"INFEWS N/P/H<sub>2</sub>O: New Molecular Receptors to Complete the Loop on N/P Fertilizer Use and Detection"  
\$45,000 (supplement to include Prof. Paul Cheong at OSU)



## CONTRIBUTIONS TO FUNDED GROUP PROPOSALS

12/93–5/95	National Science Foundation CRIF Program (CHE-9317414) “Upgrade of an X-ray Diffractometer” \$100,000
12/94–11/95	National Science Foundation CRIF Program (CHE-9421882) “Instrument Development Plan for Chemistry at the University of Oregon” \$214,000
9/96–8/98	National Science Foundation ARI Program (DMR-9601813) “Acquisition of Instrumentation for Characterization of Polymeric and Solid State Materials” \$146,300
9/98–8/99*	National Science Foundation CRIF Program (CHE-9808168) “Acquisition of a Thermal Analysis System for Materials Characterization” \$105,000
7/99–6/02	National Science Foundation CCLI Program (DUE-9950242) “An Integrated Polymer Synthesis, Processing, and Characterization Laboratory for Physics and Chemistry Majors” \$91,935
9/00–8/01	National Science Foundation CRIF Program (CHE-0078338) “Acquisition of an Ultrafast Tunable Laser Source” \$176,500
4/01–3/02*	National Science Foundation CRIF Program (CHE-0091326) “Acquisition of a Mass Spectrometer” \$107,600
7/02–6/06*	National Science Foundation IGERT Program (DGE-0114419) “IGERT: Doctoral Training at the Interface of Chemistry and Physics: New Materials for Electronics and Optics through Control of Nanoscale Structure” \$60,000 (international supplement)
4/03–3/07*	National Science Foundation CRIF Program (CHE-0234965) “Acquisition of a CCD X-ray Diffractometer” \$190,650
2/06–1/09	National Science Foundation CRIF Program (CHE-0541832) “Acquisition of a Raman Spectroscopy System” \$246,849
4/07–3/10	National Science Foundation CRIF Program (CHE-0639170) “Acquisition of a MALDI-TOF Mass Spectrometer and Cyber-Enhancement of CAMCOR” \$402,965
2/09–1/12	National Science Foundation MRI Program (CHE-0840478) “Upgrade and Cyber-Access of Magnetic Resonance Facilities at the University of Oregon” \$275,000
8/09–7/12	National Science Foundation MRI Program (CHE-0923589) “Acquisition of High-Sensitivity NMR Capabilities for the University of Oregon CAMCOR Magnetic Resonance Facility” \$499,379
8/14–7/17*	National Science Foundation MRI Program (CHE-1427987) “MRI: Acquisition of High Sensitivity 500 MHz NMR for the University of Oregon CAMCOR NMR Facility” \$424,487
8/14–7/16*	ONAMI and Oregon BEST Match to “MRI: Acquisition of High Sensitivity 500 MHz NMR for the University of Oregon CAMCOR NMR Facility” \$33,959 (ONAMI) and \$59,900 (BEST)

- 9/15–8/18 National Science Foundation MRI Program (CHE-1531189)  
“MRI: Acquisition of an Epifluorescent Microscope for Research and Education at the  
University of Oregon CAMCOR Facility”  
\$108,951
- 9/16–8/19 National Science Foundation MRI Program (CHE-1625529)  
“MRI: Acquisition of a High Resolution Mass Spectrometer for Research and Education at  
a University of Oregon Facility”  
\$174,076

(\* Group proposal spearheaded and predominantly written/edited by MMH)

## UNIVERSITY SERVICE

### Department of Chemistry & Biochemistry

Alumni Awards Committee, 2004-2008  
CAS/Chemistry ONAMI Advisory Group, 2004  
Chemical Re-use Facility, 1994-2000 (Director)  
Chemical Research Instrumentation Services, 1995-2005 (Chair)  
Cumulative Exam Administrator, 1993-1994, 2008  
Departmental Graduation Commencement Speaker, 2008  
Departmental Graduation Master of Ceremonies, 2003, 2009-2014  
Department Head (and Associated Duties/Responsibilities), 2008-2014  
Design and Remodel of General Chemistry Laboratories (and Associated Renovations), 2010-2011  
Design and Remodel of Onyx Bridge Labs and Offices, 1993-1995  
Design and Remodel of 323/327 Klamath Hall, 2000-2001  
Design and Remodel of 311/317/328 Klamath Hall, 2006-2008  
Design and Remodel of 377 Onyx Bridge, 2008-2009  
Design and Remodel of 361/365 Klamath Hall, 2008-2010  
Design and Remodel of 3<sup>rd</sup> Floor Klamath Hall, 2014-2020  
Faculty Advisor and Co-Editor of Department Newsletter, 2009-present  
Faculty Mentor of Asst. Prof. Darren W. Johnson, 2003-2008  
Faculty Mentor of Asst. Prof. Shih-Yuan Liu, 2006-2009  
ISC2/LISB Instructional Users Group Subcommittee, 2008-2009  
ISC2/LISB Physical Sciences Users Group Subcommittee, 2008-2009  
Laboratory Preparator Search Committee, 2006  
NMR Facilities Operator Search Committee, 1995  
Organic Faculty Search Committee, 1993, 1998-2001 (Chair), 2002, 2005 (Chair), 2007 (Chair), 2009, 2013  
Organic/Inorganic/Materials Division Floor Representative, 2005-2008, 2019-present  
Organic Laboratory Instructor Search Committee, 1996, 1999, 2004, 2006  
Personnel and Advisory Committee, 2003-2005  
Ph.D. Thesis Committees, 1993-present – ~120 total, chair on 25+, advisor/co-advisor on 30  
Post-Tenure Review Committee, 2007-2008, 2018-2020  
Safety and Hazardous Materials Committee, 1994-2004  
Scholarship Selection Committee, 2015-2016, 2017-present (Chair)  
Science Stores Committee, 2005-present (Chair, 2008-present)  
Student Affiliates of the American Chemical Society, UO Chapter, 1995-1999 (Co-advisor)  
X-ray Facilities Operator Search Committee, 2003, 2005 (Chair for both)

### Materials Science Institute

IGERT International Collaborative Research Committee, 2002-2012  
IGERT Selection Committee, 2006-2008  
Organic/Organometallic Graduate Internship Program, 2004-2010 (Head, 2005-2010)  
PolyCamp Program, 2002-2007  
Polymer Science Graduate Internship Program, 1999-2003

### University of Oregon Community

Academic Budgeting System Advisory Group, 2016-2017  
CAMCOR NMR Facility Advisory Committee, 2006-present  
CAMCOR Surface Analytical Facility Advisory Committee, 2007-2012  
CAS "Wise Heads" Advisory Group, 2010-2011, 2013-2014  
Chemical Safety Officer Search Committee, 2015  
Commencement Head Marshall, Su 2002, S,Su 2003, Su 2007  
Commencement Marshall, 2010, 2012  
Committee on Committees, 2001-2003  
Distinguished Teaching Awards Committee, 2003-2005  
Environmental Policy Statement Review Committee, 1996  
IntroDUCKtion Speaker, 2002, 2004, 2007-2008, 2010-2011, 2013  
ION Task Force, 2013-2014  
ISC2/LISB Coordinating Users Group Committee, 2008-2011  
Laboratory Safety Committee, 2006-2014  
LGBT in STEM, Faculty Advisor, 2016-present

RIGE Review Committee, 2013-2014  
Robert D. Clark Honors College Thesis Committees, 1997, 1998, 2001, 2007, 2013, 2014, 2015  
Ronald E. McNair Scholars Program, Faculty Mentor, 2000-2001, 2003-2005  
Ronald E. McNair Scholars Symposium Keynote Speaker, 2002  
Science Literacy Program Internal Advisory Committee, 2012-2014  
Strategic Purchasing Advisory Committee, 2017-present  
Undergraduate Research Fellows Program, Faculty Mentor, 2001-2002, 2003-2004  
Undergraduate Undeclared Majors Advising, 1993-1994  
Williams Council for Undergraduate Education, 2003-2008