

*Curriculum Vitae***Charles S. Weinert**

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Summary:

- **Inorganic Chemist** trained at Univ. Michigan (B.S., 1995), Univ. Chicago (M.S., 1997), Northwestern Univ. (Ph.D., 2000), Purdue Univ. (PDF, 2001 – 2004).
- **Promotion and Tenure:** Promoted to Associate Professor with Tenure July 2010. Promoted to Full Professor July 2016. Visting Professor, TU-Graz March 2018.
- **Publications:** 53 Total; 38 as PI at OSU; 16 before tenure, 22 after tenure, ~ 365 citations on independent work.
- **Conference Presentations & University Talks:** 60 (7 invited conference presentations).
- **Research Awards:** Sigma Xi Young Investigator (2009), OSU College of Arts and Sciences Junior Faculty Award (2009), NSF CAREER Award (2009 – 2015).
- **Grants & Funding:** 10 external submissions (2 funded).
- **Total Funded Amount:** ~ \$990,000 (2009 – Present).
- **Graduate Alumni:** 4 Ph.D. graduates, 2 M.S. graduates, 1 postdoctoral fellow.
- **Current Group:** 4 Ph. D. students.
- **Courses Taught:** General Chemistry for Engineers, General Chemistry II, Descriptive Inorganic Chemistry, Foundations of Inorganic Chemistry (Graduate Level), Inorganic Chemistry II, Organometallic Chemistry of the Main Group Elements.
- **Departmental Service Highlights:** Graduate Admissions Coordinator (July 2016 – Present), Safety Chairperson (2011 – 2016), Promotion and Tenure Committee (4 appointments, 2005 – Present, Chair 2017 – 2018), Faculty Search Committee (5 appointments, 2005 – Present), Seminar Coordinator (2008 – 2010).
- **External Service Highlights:** NSF *ad hoc* and panel reviewer, international board member for the *International Conference on the Coordination and Organometallic Chemistry of Germanium, Tin, and Lead*.
- **Outreach Highlights:** Summer program to involve Native American and other minority High School and Undergraduate students in research (2009 – Present, 12 participants).

Education

- Ph. D.**, Inorganic Chemistry (Northwestern University) 3/98 – 12/2000
 Cumulative GPA: 4.0/4.0
Research Supervisor: Prof. Duward F. Shriver
Dissertation Title: Synthesis and Substitution Chemistry of Clusters Containing the $\{W_6Cl_8\}^{4+}$ Core.
- M. S.**, Inorganic Chemistry (University of Chicago) 9/96 – 2/98
 Cumulative GPA: 3.2/4.0
Research Supervisor: Prof. Lawrence R. Sita
Project Title: Synthesis of group 14 clusters and catenated compounds containing germanium, tin, and lead.
- B. S.**, Chemistry (University of Michigan) 9/90 – 8/95
 Cumulative GPA: 3.6/4.0
Research Supervisor: Prof. Arthur J. Ashe, III
Thesis Title: Preparation and Properties of 2,2',5,5'-Tetramethyl-1,1'-distibaferrocene
Graduated with Distinction

Professional Employment

- Professor of Chemistry** (Oklahoma State University) 7/2016-Present
 Research Area: Synthetic Main Group Chemistry- the synthesis and properties of inorganic and organometallic complexes of germanium, particularly those complexes having single germanium – germanium bonds.
- Visiting Professor of Chemistry** (Technische Universität Graz, Austria) 3/2018
- Associate Professor of Chemistry** (Oklahoma State University) 7/2010-6/2016
- Assistant Professor of Chemistry** (Oklahoma State University) 8/2004-7/2010
- Postdoctoral Research Fellow** (Purdue University) 2/2001-7/2004
Research Supervisor: Prof. Ian P. Rothwell

Professional Honors and Affiliations

Honors

- National Science Foundation CAREER Award** (2009 – 2015) Spring 2009
- Sigma Xi Young Investigator Award** Spring 2009
- Oklahoma State University College of Arts and Sciences Junior Faculty Award** Fall 2009

Affiliations

American Chemical Society	(1995 – Present)
Sigma Xi Scientific Research Society	(2009 – Present)
Canadian Institute of Chemistry	(2010 – Present)

Extramural Research Funding

1). “CAREER: The Hydrogermolysis Reaction: Facilitating Germanium-Germanium Bond Formation and Promoting Careers in Science.”

Awarding Agency: The National Science Foundation

Award Amount and Period: \$596,000, February 1st 2009 – January 31st 2015 (6 Years)

2). “Long-Chain Linear Oligogermanes and Polygermanes with Tunable Optical and Electronic Properties: Steps Toward the Design of Tailored Molecular Electronics.”

Awarding Agency: The National Science Foundation, August 2015

Award Amount and Period: \$390,000, 8/15/2015 – 8/14/2018 (3 Years)

Publication List

Publications in Peer-Reviewed Journals:

Work conducted prior to arrival at Oklahoma State University (corresponding author(s) marked with an asterisk):

1. Charles S. Weinert, Ilia A. Guzei, Arnold L. Rheingold, and Lawrence R. Sita* “Heterocumulene Metathesis of $\text{Pb}[\text{N}(\text{SiMe}_3)_2]$. High-Yield Syntheses of the Heteroleptic Dimer $\{\text{Pb}[\text{N}(\text{SiMe}_3)_2](\mu\text{-OSiMe}_3)\}_2$ and the Novel Lead(II) Oxo Cluster $\text{Pb}_3(\mu_3\text{-O})(\mu_2\text{-O})(\mu\text{-OSiMe}_3)_6$.” *Organometallics* **1998**, *17*, 498-500.
2. Kazusato Shibata, Charles S. Weinert, and Lawrence R. Sita* “Deconvoluting Steric and Electronic Substituent Effects on the Properties of Linear Oligostannanes: Synthesis and Characterization of a New Series Incorporating the -Bu₃Sn- Group.” *Organometallics* **1998**, *17*, 2241-2248.
3. Charles S. Weinert, Charlotte L. Stern, and Duward F. Shriver* “Synthesis, Characterization, and Substitution Chemistry of $[\text{Bu}_4\text{N}]_2[\text{W}_6\text{Cl}_8(\text{OSO}_2\text{CF}_3)_6]$. A Versatile Precursor for Axially Substituted Clusters Containing the $\{\text{W}_6\text{Cl}_8\}^{4+}$ Core.” *Inorg. Chem.* **2000**, *39*, 240-246.
4. Nicholas Prokopuk, Charles S. Weinert, Vance O. Kennedy, David P. Siska, Hee-Joo Jeon, Charlotte L. Stern, and Duward F. Shriver* “Synthesis and Structure of the Useful Starting Material $[\text{Bu}_4\text{N}]_3[\text{Nb}_6\text{Cl}_{12}(\text{OSO}_2\text{CF}_3)_6]$.” *Inorg. Chim. Acta.* **2000**, *300-302*, 951-957.
5. Nicholas Prokopuk, Charles S. Weinert, David P. Siska, Charlotte L. Stern, and Duward F. Shriver* “Hydrogen-Bonded Hexamolybdenum Clusters: Formation of Inorganic-Organic Networks.” *Angew. Chem., Int. Ed. Engl.* **2000**, *39*, 3312-3315.
6. Charles S. Weinert, Charlotte L. Stern, and Duward F. Shriver* “Preparation of $[\text{Bu}_4\text{N}]_2[\text{W}_6\text{Cl}_8\text{F}_6]$ and Characterization of the Clusters $[\text{Bu}_4\text{N}]_2[\text{W}_6\text{Cl}_8\text{X}_6]$ (X = F, Cl, Br, I, NCO, NCS, NCS_e, or OSO_2CF_3) by ¹⁸³W NMR Spectroscopy.” *Inorg. Chim. Acta* **2000**, *307*, 139-143.
7. Charles S. Weinert, Nicholas Prokopuk, Stephanie M. Arendt, Charlotte L. Stern, and Duward F. Shriver* “Preparation and Substitution Chemistry of $[\text{Bu}_4\text{N}]_2[\text{W}_6\text{Cl}_8(p\text{-OSO}_2\text{C}_6\text{H}_4\text{CH}_3)_6]$. A Useful Precursor for Pseudohalide, Acetate, and Organometallic Complexes Containing the $\{\text{W}_6\text{Cl}_8\}^{4+}$ Core.” *Inorg. Chem.* **2001**, *40*, 5162-5168.
8. Charles S. Weinert, Phillip E. Fanwick, and Ian P. Rothwell* “Isolation and Chemistry of Tantalum(V) Compounds Containing Two Resolved 3,3'-Disubstituted-1,1'-bi-2,2'-naphthoxide Ligands.” *Organometallics* **2002**, *31*, 484-490.

9. Charles S. Weinert, Phillip E. Fanwick, and Ian P. Rothwell "Novel Germanium(II) Binaphthoxide Complexes: Synthesis and Crystal Structure of (*R, R*)-[Ge{OC₂₀H₁₀-(OSiMe₃)-2'-(SiMe₃)₂-3,3'}₂] and (*R*)-[Ge{O₂C₂₀H₁₀(SiMe₃Ph)₂-3,3'}{NH₃}]]; Catalytic Function of Ge[N(SiMe₃)₂]₂ for the Mono-Silylation of 3,3-Disubstituted-1,1'-bi-2,2'-naphthols." *J. Chem. Soc., Dalton Trans.* **2002**, 2948-2950.
10. Charles S. Weinert, Phillip E. Fanwick, and Ian P. Rothwell "A Germanium-Silver Complex Containing a Ge-Ag Bond, Ag[Ge(OC₆HPh₂-2,3,5,6)(AgOSO₂CF₃)]₄C₆H₆." *Acta Cryst.* **2002**, E58, m718-m720.
11. Charles S. Weinert, Andrew E. Fenwick, Phillip E. Fanwick, and Ian P. Rothwell "Synthesis, Structures, and Reactivity of Novel Germanium(II) Aryloxy and Arylsulfide Complexes." *J. Chem. Soc., Dalton Trans.* **2003**, 532-539.
12. Charles S. Weinert, Phillip E. Fanwick, and Ian P. Rothwell "Synthesis and Structures of the Group 1 Metal /Germanium Cage Complexes [M(μ₂-OC₆HPh₂-2,6)₂Ge] (M = Li, Na, K, Rb, Cs); Periodic Trends and Alkali Metal Dependent Arene Bonding." *J. Chem. Soc., Dalton Trans.* **2003**, 1795-1802.
13. Charles S. Weinert, Phillip E. Fanwick, and Ian P. Rothwell "Synthesis of Group 1 Metal 2,6-Diphenylphenoxide Complexes [M(OC₆HPh₂-2,6)] (M = Li, Na, K, Rb, Cs) and Structures of the Solvent-Free Complexes [Rb(OC₆HPh₂-2,6)], and [Cs(OC₆HPh₂-2,6)]: One Dimensional Extended Arrays of Metal Aryloxides." *Inorg. Chem.* **2003**, 42, 6089-6094.

Collaborative work completed while at Oklahoma State University

14. Jennifer L. Walding, Phillip E. Fanwick, and Charles S. Weinert "Syntheses and Reactivity of the Bulky Germanium(IV) Trisamide Compounds BrGe[N(SiMe₃)₂]₃ and LiGe[N(SiMe₃)₂]₃. X-Ray Crystal Structures of BrGe[N(SiMe₃)₂]₃ and [(Me₃Si)₂N]₃Ge(CH₂CH₂CH₂CH₃)." *Inorg. Chim. Acta* **2005**, 358, 1186-1192.
15. Charles S. Weinert, Phillip E. Fanwick, and Ian P. Rothwell. "Synthesis of the Tantalum-Hydride Complex (*R,R*)-[Ta(O₂C₂₀H₁₀{SiMe₃}-3,3')(H)] and Reactivity with Aldehydes, Ketones, Acetylenes, and Related Substrates: A Reagent for the Asymmetric Hydrogenation of Prochiral Carbonyl Species." *Organometallics* **2005**, 24, 5759-5766.

Independent work conducted at Oklahoma State University

16. Esla Subashi, Arnold L. Rheingold, and Charles S. Weinert. "Preparation of Oligogermanes via the Hydrogermolysis Reaction." *Organometallics* **2006**, 25, 3211-3219.
17. Charles S. Weinert. "Germanium Organometallics." In *Comprehensive Organometallic Chemistry III*; Crabtree, R. H., Mingos, D. M. P., Eds.; Elsevier: London, 2006; Vol. 3, Chapter 13, pp. 699 - 808. **INVITED BOOK CHAPTER**
18. Anthony E. Wetherby, Jr., Stacy D. Benson, and Charles S. Weinert. "Reaction of Bis(bis(trimethylsilyl)amido)mercury(II) with 3,3'-Disubstituted Binaphthols: Cyclization via an Intramolecular Electrophilic Aromatic Substitution Reaction." *Inorg. Chim. Acta* **2007**, 360, 1977-1986.
19. Anthony E. Wetherby, Jr., Lindy R. Goeller, Antonio G. DiPasquale, Arnold L. Rheingold, and Charles S. Weinert. "Synthesis and Structures of an Unusual Germanium(II) Calix[4]arene Complex and the First Germanium(II) Calix[8]arene Complex and Their Reactivity with Diiron Nonacarbonyl." *Inorg. Chem.* **2007**, 46, 7579-7586.
20. Charles S. Weinert. "An NMR (¹H and ⁷⁷Se) Investigation of the Reaction of Ge[N(SiMe₃)₂]₂ with Mesitylselenol: Formation of (MesSe)₂Ge." *Main Group Met. Chem.* **2007**, 30, 93-100.
21. Anthony E. Wetherby, Jr., Lindy R. Goeller, Antonio G. DiPasquale, Arnold L. Rheingold, and Charles S. Weinert. "Metal-Dependent Reactions of Bulky Metal(II) Amides M[N(SiMe₃)₂]₂ with 3,3'-Disubstituted Binaphthols (HO)₂C₂₀H₁₀(SiR₃)₂-3,3': Selective Conversion of One Equivalent -OH Group to a Silyl Ether -OSiMe₃." *Inorg. Chem.* **2008**, 47, 2162-2170.
22. Monika L. Amadoruge, Antonio G. DiPasquale, Arnold L. Rheingold, and Charles S. Weinert. "Hydrogermolysis Reactions Involving the α-Germylated Nitriles R₂GeCH₂CN (R = Ph, Pr, Bu) and Germanium Amides R₂GeNMe₂ (R = Pr, Bu) with Ph₃GeH: Substituent

- Dependent Reactivity and Crystal Structures of $\text{Pr}_3\text{GeGePh}_3$ and $\text{Bu}_3\text{Ge}[\text{NHC}(\text{CH}_3)\text{CHCN}]$.” *J. Organomet. Chem.* **2008**, 693, 1771-1778.
23. Anthony E. Wetherby, Jr., Arnold L. Rheingold, Christa L. Feasley, and Charles S. Weinert. “Synthesis and Crystal Structure of a Germanium(II) Calix[6]arene containing Unusual Diamidosilyl Ether Groups.” *Polyhedron* **2008**, 27, 1841-1847.
 24. Monika L. Amadoruge, James A. Golen, Arnold L. Rheingold, and Charles S. Weinert. “Preparation, Structure, and Reactivity of Discrete Branched Oligogermanes.” *Organometallics* **2008**, 27, 1979-1984.
Cited in “Science & Technology Concentrates”, *Chemical and Engineering News*, May 5, 2008.
 25. Monika L. Amadoruge, James R. Gardinier, and Charles S. Weinert. “Substituent Effects in Linear Organogermanium Catenates.” *Organometallics* **2008**, 27, 3753-3760.
 26. Monika L. Amadoruge and Charles S. Weinert. “Singly Bonded Catenated Germanes: Eighty Years of Progress.” *Chem. Rev.* **2008**, 108, 4253-4294. **INVITED REVIEW.**
 27. Charles S. Weinert. “Syntheses, Structures, and Properties of Linear and Branched Oligogermanes.” *Dalton Trans.* **2009**, 1691-1699. **INVITED PERSPECTIVE REVIEW.**
 28. Rebecca A. Green, Arnold L. Rheingold, and Charles S. Weinert. “Synthesis of the Germanium(II) Calixarene $\{p\text{-Bu}_3\text{calix}[8]\text{arene}\}_2\text{Ge}_2$ and its Reaction with $\text{Fe}_2(\text{CO})_9$: Generation of the Germanium(II)/Iron(0) Complex $\{p\text{-Bu}_3\text{calix}[8]\text{arene}\}_2\text{Ge}_2[\text{Fe}(\text{CO})_4]_2$.” *Inorg. Chim. Acta* **2009**, 362, 3159-3164.
 29. Monika L. Amadoruge, Claude H. Yoder, Julia Hope Conneywerdy, Katie Heroux, Arnold L. Rheingold, and Charles S. Weinert. “ ^{77}Ge NMR Spectral Investigations of Singly Bonded Oligogermanes.” *Organometallics* **2009**, 28, 3067-3073.
 30. Rebecca A. Green, Curtis Moore, Arnold L. Rheingold, and Charles S. Weinert. “Formation and Structures of Germanium(II) Aryloxo/Oxo Clusters.” *Inorg. Chem.* **2009**, 48, 7510-7512.
 31. Monika L. Amadoruge, Arnold L. Rheingold, and Charles S. Weinert. “2,2,3,3,5,5,6,6-Octa(*para*-methylphenyl)-1,4-dioxo-2,3,5,6-tetragermacyclohexane Bis(dichloromethane) solvate.” *Acta Cryst.* **2009**, E65, o2186.
 32. Monika L. Amadoruge, Erin K. Short, Curtis Moore, Arnold L. Rheingold, and Charles S. Weinert. “Structural, Spectral, and Electrochemical Investigations of *para*-Tolyl-substituted Oligogermanes.” *J. Organomet. Chem.* **2010**, 695, 1813-1823.
 33. Anthony E. Wetherby, Jr., Christian R. Samanam, Aaron C. Schrick, Antonio DiPasquale, James A. Golen, Arnold L. Rheingold, and Charles S. Weinert. “Synthesis and Structures of Aryloxo- and Binaphthoxogermanium(IV) Alkyl Iodide Complexes.” *Inorg. Chim. Acta* **2010**, 364, 89-95.
 34. Christian R. Samanam, Monika L. Amadoruge, James A. Golen, Curtis E. Moore, Arnold L. Rheingold, Nicholas F. Materer, and Charles S. Weinert. “Syntheses, Structures and Electronic Properties of the Branched Oligogermanes $(\text{Ph}_3\text{Ge})_3\text{GeH}$ and $(\text{Ph}_3\text{Ge})_3\text{GeX}$ (X = Cl, Br, I).” *Organometallics* **2011**, 30, 1046-1058.
 35. Aaron C. Schrick, Arnold L. Rheingold, and Charles S. Weinert. “The First Germanium-Minor Calixarene Complex.” *Dalton Trans.* **2011**, 40, 6629-6631.
 36. Christian R. Samanam, Monika L. Amadoruge, and Charles S. Weinert. “Synthesis, Structures, and Properties of Branched Oligogermanes.” *Phosphorus, Sulfur, and Silicon* (Proceedings of the 13th International Conference on the Coordination and Organometallic Chemistry of Germanium, Tin, and Lead) **2011**, 186, 1389-1395.
 37. Christian R. Samanam, Courtney R. Anderson, James A. Golen, Curtis E. Moore, Arnold L. Rheingold, and Charles S. Weinert*. “Syntheses and Structural Analysis of the Sterically Encumbered Germanes $(o\text{-Bu}^t\text{C}_6\text{H}_4)_3\text{GeX}$ (X = Br, H, Cl, OH), $(o\text{-Bu}^t\text{C}_6\text{H}_4)_2\text{GeBr}_2$, and Me_2GeH_2 : Distortions Arising from the Presence of an *ortho-tert*butyl Substituent.” *J. Organomet. Chem.* **2011**, 696, 2993-2999.
 38. Christian R. Samanam, Arnold L. Rheingold, and Charles S. Weinert*. “Reactivity of α -Germynyl Nitriles with Acetonitrile: Synthesis, Structures, and Generation of

- Ph₃Ge[NHC(CH₃)₂CHCN] and 2,6-dimethyl-4-(triphenylgermylamino)pyrimidine from Ph₃GeCH₂CN.” *J. Organomet. Chem.* **2011**, 696, 3721-3726.
39. Charles S. Weinert. “Synthetic, Structural, and Physical Aspects of Organo-Oligogermanes.” *Comments Inorg. Chem.* **2011**, 32, 55-87.
 40. Christian R. Samanamu, Nicholas F. Materer, and Charles S. Weinert*. “Absorption, Electrochemical, Theoretical, and ⁷⁶Ge NMR Spectral Characterization of the Germanium Neo-Pentane Analogue (Me₃Ge)₄Ge.” *J. Organomet. Chem.* **2012**, 698, 62-65.
 41. Aaron C. Schrick, Chao Chen, Arnold L. Rheingold, and Charles S. Weinert. “Synthesis of Ge[N(SiMe₂Ph)₂]₂ and Crystal Structures of the Benzil Adducts Ph₂C₂O₂Ge[N(SiMe₂Ph)₂]₂ and Ph₂C₂O₂Ge[N(SiMe₃)₂]₂.” *Main Group Chem.* **2012**, 11, 3-11.
 42. Christian R. Samanamu, Monika L. Amadoruge, Aaron C. Schrick, Chao Chen, James A. Golen, Arnold L. Rheingold, Nicholas F. Materer, and Charles S. Weinert. “Synthetic, Structural, and Physical Investigations of the Large Linear and Branched Oligogermanes Ph₃GeGePh₂GePh₂GePh₂H, Ge₃Ph₁₂, and (Ph₃Ge)₄Ge.” *Organometallics* **2012**, 31, 4374-4385.
 43. Charles S. Weinert. “⁷⁶Ge Nuclear Magnetic Resonance Spectroscopy of Germanium Compounds.” *ISRN Spectroscopy* **2012**, Article ID 718050, 18 pp. **INVITED REVIEW**.
 44. Erin K. Schrick, Trevor J. Forget, Kimberly D. Roewe, Aaron C. Schrick, Curtis E. Moore, James A. Golen, Arnold L. Rheingold, Nicholas F. Materer, and Charles S. Weinert. “Substituent Effects in Digermanes: Electrochemical, Theoretical, and Structural Investigations.” *Organometallics* **2013**, 32, 2245-2256.
 45. Aaron C. Schrick and Charles S. Weinert. “Oligogermanes as Molecular Precursors for Germanium(0) Nanoparticles. Size Control and Size Dependent Fluorescence.” *Mater. Res. Bull.* **2013**, 48, 4390-4394.
 46. Kimberly D. Roewe, Arnold L. Rheingold, and Charles S. Weinert. “A Luminescent and Dichroic Hexagermane.” *Chem. Commun.* **2013**, 49, 8380-8382.
Cited in “News of the Week”, *Chemical and Engineering News*, September 16, 2013.
 47. Kimberly D. Roewe, James A. Golen, Arnold L. Rheingold, and Charles S. Weinert. “Synthesis, Structure and Properties of the Hexagermane Pr₃Ge(GePh₂)₃GePr₃.” *Can. J. Chem.* **2014**, 92, 533-541. **INVITED ARTICLE**.
 48. Charles S. Weinert. “Germanium: Organometallic Chemistry.” In *Encyclopedia of Inorganic and Bioinorganic Chemistry*, ed. R. A. Scott, John Wiley: Chichester, UK, **2015**, DOI: 10.1002/9781119951438.eibc0075.pub3 (18 pp).
 49. Sangeetha P. Komanduri, Aaron C. Schrick, Christa L. Feasley, Craig P. Dufresne, and Charles S. Weinert*. “Photodecomposition of the Heteroleptic Trigermane Buⁿ₃GeGePh₂GeBuⁿ₃ and Identification of the Photoproducts by High Resolution Accurate Mass Spectrometry.” *Eur. J. Inorg. Chem.* **2016**, 3196-3203.
 50. Sangeetha P. Komanduri, F. Alexander Shumaker, Kimberly D. Roewe, Melanie Wolf, Frank Uhlig, Curtis E. Moore, Arnold L. Rheingold, and Charles S. Weinert*. “A Series of Isopropyl-Substituted Oligogermanes Prⁱ₃Ge(GePh₂)_nGePrⁱ₃ (n = 0 – 3) Featuring a Luminescent and Dichroic Pentagermane Prⁱ₃Ge(GePh₂)₃GePrⁱ₃.” *Organometallics* **2016**, 35, 3240-3247.
 51. Sangeetha P. Komanduri, F. Alexander Shumaker, Sydney A. Hallenbeck, Cody J. Knight, Claude H. Yoder, Beth A. Buckwalter, Craig P. Dufresne, Erico J. Fernandez, Christopher A. Kaffel, Ryan E. Nazareno, Marshall Neu, Geoffrey Reeves, James T. Rivard, Lance J. Shackelford, and Charles S. Weinert*. “Structure/Property Relationships in Branched Oligogermanes. Preparation of (Me₃Ge)₃GePh, (Me₂Bu^tGe)₃GePh, and (Me₂PhGe)₃GePh and Investigation of Their Properties by Spectroscopic, Spectrometric, and Electrochemical Methods.” *J. Organomet. Chem.* **2017**, 848, 104-113.

52. Sangeetha P. Komanduri, Aaron C. Schrick, Christopher J. A. Daley, Arnold L. Rheingold, and Charles S. Weinert*. "Synthesis, Structure, and Decomposition of the Digermane $\text{Ph}_3\text{GeGePh}_2\text{H}$." *Main Group Chem.* **2017**, *16*, 217-225.
53. Ardalan Hayatifar, F. Alexander Shumaker, Sangeetha P. Komanduri, Sydney A. Hallenbeck, Arnold L. Rheingold, and Charles S. Weinert*. "Synthesis of the Elusive Branched Fluoro-Oligogermane $(\text{Ph}_3\text{Ge})_3\text{GeF}$: A Structural, Spectroscopic, Electrochemical, and Computational Study." *Organometallics* **2018**, *37*, *accepted*.

Research Presentations

Invited Oral Presentations at National and International Conferences

- 2005 Gordon Research Conference on Inorganic Chemistry**
Salve Regina University, Newport, RI July 2005
"Rational Synthesis and Characterization of Oligogermanes."
- American Chemical Society 231st National Meeting**
(Atlanta, GA March 2006)
"Synthesis of Oligogermanes via the Hydrogermolysis Reaction."
- National Science Foundation Inorganic Chemistry Workshop**
(Virginia Beach, VA June 2008)
"Rational Synthesis of Linear and Branched Oligogermanes: Structure/Property Relationships."
- 2009 Gordon Research Conference on Inorganic Chemistry**
(University of New England, Biddeford, ME June 2009)
"Recent Advances in Organo-oligogermane Chemistry."
- 13th International Conference on the Coordination and Organometallic Chemistry of Germanium, Tin, and Lead (GTL-13)**
(Graz University of Technology, Graz, Austria July 2010)
"Synthesis, Structures, and Properties of Branched Oligogermanes."
- 44th Silicon Symposium**
(Brock University, St. Catherine's, Ontario, Canada June 2012)
"Synthetic, Structural, and Physical Characteristics of the Large Oligogermanes $\text{Ph}_3\text{GeGePh}_2\text{GePh}_2\text{GePh}_2\text{H}$, Ge_3Ph_6 , and $(\text{Ph}_3\text{Ge})_2\text{Ge}$."
- The 5th F.G.A. Stone Symposium**
(Baylor University, Waco, TX, May 2015)
"Long-Chain Oligogermanes: Steps Toward the Design of Molecular Models for Polygermanes and Ge Nanomaterials"

Oral and Poster Presentations at International, National, and Regional Conferences

- 2006 Gordon Research Conference on Inorganic Chemistry**
(Salve Regina University, Newport, RI July 2006)
"Synthesis of Oligogermanes via the Hydrogermolysis Reaction."
- 2007 Gordon Research Conference on Inorganic Chemistry**
(Salve Regina University, Newport, RI July 2007)
"Reaction of Bulky Metal(II) Amides with Polyfunctional Phenol Substrates."
- Dalton Discussions 11: The Renaissance of Main Group Chemistry**
(University of California-Berkeley June 2008)
"Variation of the Chain Length and Substituent Patterns in Oligogermanes and Influence of These Changes on Their Optical and Electronic Properties."
- 2010 American Chemical Society 45th Midwest Regional Meeting**
(Wichita, KS October 2010)
"Syntheses, Structures, and Properties of Linear and Branched Oligogermanes."

5. **2010 American Chemical Society 66th Southwest Regional Meeting/62nd Southeast Regional Meeting**
(New Orleans, LA November 2010)
“Structures and Electronic Properties of Linear and Branched Oligogermanes.”
6. **94th Canadian Chemistry Conference**
(Montréal, PQ, Canada June 2011)
“Structures and Electronic Properties of Linear and Branched Oligogermanes.”
7. **2011 American Chemical Society 67th Southwest Regional Meeting**
(Austin, TX November 2011)
“Structural and Physical Aspects of Branched Oligogermanes.”
8. **95th Canadian Chemistry Conference**
(Calgary, AB, Canada May 2012)
“Germanium and Mixed Germanium/Tin Oligomers.”
9. **45th Silicon Symposium**
(Texas Tech University, Lubbock, TX May 2013)
“Catenation and Substituent Effects on the Electronic and Optical Properties of Linear and Branched Oligogermanes.”
10. **14th International Conference on the Coordination and Organometallic Chemistry of Germanium, Tin, and Lead (GTL-14)**
(Baddeck, Nova Scotia, Canada July 2013)
“Optical and Electronic Properties of Large Linear and Branched Oligogermanes.”
11. **246th American Chemical Society National Meeting**
(Indianapolis, IN September 2013)
“Long Chain Linear and Branched Oligogermanes: Structural, Spectroscopic, and Electrochemical Properties.”
12. **47th Silicon Symposium**
(Portland State University, Portland, OR June 2016)
“Linear and Branched Oligogermanes as Molecular Models and Mimics for Polygermanes and Germanium Nanomaterials.”
13. **15th International Conference on the Coordination and Organometallic Chemistry of Germanium, Tin, and Lead (GTL-15)**
(Pardubice, Czech Republic, September 2016)
“The Quest for Long-Chain Oligogermanes: Molecular Models and Mimics for Polygermanes and Germanium Nanomaterials.”
14. **2017 American Chemical Society 73rd Southwest Regional Meeting**
(Lubbock, TX, October 2017)
“Photophysical Properties of the Hexagermane $\text{Pr}_3\text{Ge}(\text{GePh}_2)_2\text{GePr}_3$: Temperature Dependent Absorbance and Emission Properties.”

Invited University Departmental Seminars

1. **Midwestern State University**-Wichita Falls, TX, November 17th, 2006
2. **Wichita State University**-Wichita, KS, January 31st, 2007
3. **University of Michigan**-Ann Arbor, MI, April 24th, 2007
4. **Texas Christian University**-Ft. Worth, TX, September 20th, 2007
5. **University of Nebraska-Kearney**-Kearney, NE, October 26th, 2007
6. **University of Texas**-Austin, TX, November 14th, 2007
7. **University of Oklahoma**-Norman, OK, February 21st, 2008
8. **University of New Mexico**-Albuquerque, NM, October 10th, 2008
9. **Marquette University**-Milwaukee, WI, October 24th, 2008
10. **Bowling Green State University**-Bowling Green, OH, March 11th, 2009
11. **Wayne State University**-Detroit, MI, March 12th, 2009
12. **University of Windsor**-Windsor, ON, Canada, March 13th, 2009

13. **Texas A & M University**-College Station, TX, April 27th, 2009
14. **New Mexico State University**-Las Cruces, NM, February 11th, 2010
15. **University of Texas at El Paso**-El Paso, TX, February 12th, 2010
16. **University of Missouri-St Louis**-St. Louis, MO, March 15th, 2010
17. **Southern Methodist University**-Dallas, TX, September 17th, 2010
18. **McMaster University**-Hamilton, ON, Canada-December 9th, 2010
19. **Brock University**-St. Catherine's, ON, Canada-December 10th, 2010
20. **Northwest Missouri State University**-Maryville, MO-April 11th, 2011
21. **Texas Tech University**-Lubbock, TX-August 31st, 2011
22. **University of Vermont**-Burlington, VT-November 17th, 2011
23. **Université de Montréal**-Montréal, PQ, Canada-November 18th, 2011
24. **Indiana University-Purdue University Indianapolis**-Indianapolis, IN-October 22nd, 2012
25. **Purdue University**-West Lafayette, IN-October 23rd, 2012
26. **University of Notre Dame du Lac**-South Bend, IN-October 26th, 2012
27. **University of Missouri**-Columbia, MO-October 1st, 2013
28. **Western University**-London, ON, Canada-January 28th, 2014
29. **University of Toronto**-Toronto, ON, Canada-January 29th, 2014
30. **Ryerson University**-Toronto, ON, Canada-January 31st, 2014
31. **Technische Universität Graz**-Graz, Austria-May 13th, 2014
32. **Univerzita Pardubice**-Pardubice, Czech Republic-May 19th, 2014
33. **Technische Universität Bergakademie Freiberg**-Freiberg, Germany-May 21st, 2014
34. **Université de Montréal**-Montréal, PQ, Canada-May 13th, 2015
35. **Wayne State University**-Detroit, MI-March 17th, 2016
36. **Eastern Michigan University**-Ypsilanti, MI-November 27th, 2017
37. **Oakland University**-Rochester, MI-November 29th, 2017
38. **University of Michigan**-Ann Arbor, MI-November 30th, 2017
39. **Technische Universität Graz**-Graz, Austria-March 15th, 2018
40. **Univerza v Mariboru**-Maribor, Slovenia-March 28th, 2018

Student and Postdoctoral Advising

Postdoctoral Research Fellows

Dr. Christian R. Samanamu June 2009 – October 2011

Graduate Students

Ardalan Hayatifar	Ph. D. Student	8/2017 – Present
Miguel Léal	Ph. D. Student	1/2017 – Present
Alex Shumaker	Ph. D. Student	1/2015 – Present
Sangeetha Komanduri	Ph. D. Student	4/2014 – Present
Aaron Schrick	Ph. D. Student	1/2010 – 5/2014
Ph. D. May 2014		
Kimberly Roewe	Ph. D. Student	1/2010 – 5/2014
Ph. D. May 2014		
Monika L. Amadoruge	Ph. D. Student	5/2006 – 8/2010
Ph. D. August 2010		
Anthony E. Wetherby, Jr	Ph. D. Student	10/2005 – 8/2009
Ph. D. August 2009		
Rebecca A. Green	M. S. Student	2/2007 – 8/2009
M.S. August 2009		
Erin K. Schrick (Short)	M. S. Student	8/2009 – 7/2012
M.S. August 2012		

Undergraduate Students

Visiting Undergraduate Students

Eduardo Cervantes (University of Texas at El Paso)	7/2011 – 8/2011
Kimberly Sigala (University of Texas at El Paso)	7/2011 – 8/2011
Trevor Forget (Michigan State University)	7/2012

Former Undergraduate Students

Lindy R. Goeller	Senior Research Assistant (B.S. 5/2005)	4/2005 – 8/2005
Tadayuki Seshimo	Senior Research Assistant (B.S. 12/2005)	8/2005 – 12/2005
Patrick Ellis	Senior Research Assistant (B.S. 5/2006)	1/2006 – 5/2006
Erin K. Short	Senior Research Assistant (B.S. 5/2009)	6/2009 – 8/2009
Courtney R. Anderson	Undergraduate Research Assistant (B.S. 5/2013)	5/2010 – 2/2012
Ellie Hummel	Undergraduate Research Assistant	9/2013 – 12/2014
Sydney Hallenbeck	Undergraduate Research Assistant (B.S. 5/2017)	5/2016 – 5/2017
Cody Knight	Undergraduate Research Assistant	5/2016 – 11/2017

High School Students

Julia Hope Conneywerdy (Frontier High School, Red Rock, OK)	July 2008
Marshall Neu (University of Detroit Jesuit High School, Detroit, MI)	May 2016
Erico Fernandez (University of Detroit Jesuit High School, Detroit, MI)	May 2016
Ryan Nazareno (University of Detroit Jesuit High School, Detroit, MI)	May 2016
Jim Rivard (University of Detroit Jesuit High School, Detroit, MI)	May 2016
Geoff Reeves (University of Detroit Jesuit High School, Detroit, MI)	May 2016
Chris Kaffel (University of Detroit Jesuit High School, Detroit, MI)	May 2016
Lance Shackelford (University of Detroit Jesuit High School, Detroit, MI)	May 2016

Elementary School Students

Luke Moore (St. Elizabeth Ann Seton Grade School, Edmond, OK)	June 2011
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Departmental Service

Departmental Committees

Faculty Search Committee	Fall 2005/Spring 2006, Spring 2007, Fall 2010/Spring 2011, Fall 2012/Spring 2013, Fall 2013/Spring 2014
Department Chair Search Committee	Spring 2008/Spring 2009
Departmental Seminar Coordinator	Fall 2008 - Spring 2010
Chemistry 5011 Coordinator	Spring 2009 - Spring 2010
Promotion and Tenure Committee	Fall 2004, Fall 2006, Fall 2010/Spring 2011, Fall 2013/Spring 2014, Fall 2016/Spring 2017
Safety Committee (Chairman)	Spring 2011 – Summer 2016
Graduate Admissions Coordinator	Summer 2016 - Present

Teaching Responsibilities

Chemistry 1414 – General Chemistry for Engineers

(Typical Enrollment 175 – 275 Students, Undergraduate Students)

Spring 2005, Spring 2006, Spring 2007, Spring 2008, Fall 2008, Fall 2009, Spring 2011, Fall 2011, Fall 2014, Fall 2015

Chemistry 1515 – General Chemistry II

(Typical Summer Enrollment 30 – 50 Students, Undergraduate Students)

Summer 2008

Chemistry 2980 – General Chemistry II Honors Add-On
(Typical Enrollment 5 – 10 Students, Undergraduate Students)
Fall 2017

Chemistry 3353 – Descriptive Inorganic Chemistry
(Typical Enrollment 20 – 30 Students, Undergraduate Students)
Spring 2009, Spring 2010, Spring 2013, Spring 2014, Spring 2015, Spring 2016, Spring 2017,
Spring 2018

Chemistry 5260 – Advanced Inorganic Chemistry I
(Typical Enrollment 15 – 25 Students, Undergraduate and Graduate Students)
Fall 2005, Fall 2006, Fall 2010, Fall 2013, Fall 2016

Chemistry 5960 – Inorganic Chemistry II
(Typical Enrollment 5 – 10 Students, Graduate Students)
Spring 2012

**Chemistry 6650 – Special Topics in Inorganic Chemistry: Organometallic Chemistry of the
Main Group Elements**
(Typical Enrollment 5 – 10 Students, Graduate Students)
Fall 2004, Fall 2007, Fall 2012, Fall 2017

Awards for Instruction, Scholarship, or Advising

University Scholarship Awards

College of Arts and Sciences Junior Faculty Award	Fall 2009
Sigma Xi Young Investigator Award-OSU Chapter	Spring 2009

College of Arts and Sciences Awards

College of Arts and Sciences Summer Salary Support Award	Summer 2014
College of Arts and Sciences Summer Travel Award	Summer 2014
College of Arts and Sciences Summer Travel Award	Summer 2013
College of Arts and Sciences Summer Travel Award	Spring 2009
College of Arts and Sciences Summer Travel Award	Spring 2008
College of Arts and Sciences Summer Travel Award	Spring 2006
College of Arts and Sciences Summer Travel Award	Spring 2005
College of Arts and Sciences Summer Salary Support Award	Summer 2010
College of Arts and Sciences Summer Salary Support Award	Summer 2005

Editorship and Advising Activities

Advisory Board Membership

International Advisory Board, *International Conference on the Inorganic and Organometallic Chemistry of Germanium, Tin, and Lead (GTL)*

Reviewer, Granting Agencies

Science and Technology Center of the Ukraine	2006
American Chemical Society Petroleum Research Fund	2008
National Science Foundation <i>ad hoc</i> Reviewer	2009 – Present
National Science Foundation Panel Reviewer	2009, 2017
Austrian Science Fund (FWF)	2010
National Sciences and Engineering Research Council of Canada	2015

Peer Reviewer, Journals

Journal of the American Chemical Society
Angewandte Chemie
Dalton Transactions

Inorganic Chemistry Communications
Inorganic Chemistry
Organometallics
Journal of Organometallic Chemistry
Canadian Journal of Chemistry
Chemistry of Materials
Heterocyclic Chemistry
Monatshefte für Chemie
Chemistry: A European Journal
Journal of Inorganic and Organometallic Polymers and Materials
Chemical Communications

External Doctoral Research Committees

University of Western Ontario

2010

University of Texas at El Paso

2011