

# JOSEPH A. R. SCHMIDT

## EDUCATION

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- 1997 – 2002:** University of California—Berkeley Berkeley, CA  
*PbD in Inorganic / Organometallic Chemistry*
- 1992 – 1997:** Kansas State University Manhattan, KS  
*BS in Chemistry / BS in Mathematics*  
Summa Cum Laude

## PROFESSIONAL EXPERIENCE

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- 2004 – Present:** The University of Toledo Toledo, OH  
*Professor of Chemistry (2016–Present)*  
*Associate Professor of Chemistry (2010–2016)*  
*Assistant Professor of Chemistry (2004–2010)*
- 2002 – 2004:** Cornell University Ithaca, NY  
*Postdoctoral Fellow in Organic / Polymer Chemistry*
- 1997 – 2002:** University of California—Berkeley Berkeley, CA  
*Graduate Research Assistant / Teaching Assistant*
- 1997 – 2002:** Lawrence Berkeley National Laboratory Berkeley, CA  
*Graduate Research Assistant Joint Position*
- 1994 – 1997:** Kansas State University Manhattan, KS  
*Undergraduate Teaching Assistant*

## RESEARCH GRANTS RECEIVED

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Petroleum Research Fund – New Directions Grant: “New Homoleptic Rare-Earth Metal Complexes for Catalytic Hydrophosphination.” Funding: \$100,000. Award Period: January 2013 – August 2016. Received Nov. 2012. P.I.: Joseph Schmidt.

American Chemical Society Project SEED: “Project SEED: Summer 2009.” Funding: \$12,250. Award Period: May 2009 – Aug. 2009. Received Apr. 2009. P.I.: Joseph Schmidt.

National Science Foundation Faculty Early Career Development (CAREER) Program: “CAREER: 3-Iminophosphine Palladium Catalysts for Atom-Efficient Syntheses.” (CHE-0841611) Funding: \$570,000. Award Period: May 2009 – May 2015. Received Dec. 2008. P.I.: Joseph Schmidt.

The University of Toledo Interdisciplinary Research Initiation Grant: “Green Processes for Production of Fine Chemicals and Pharmaceuticals.” Funding: \$74,447. Award Period: July 2008 – June 2009. Received June 2008. P.I.: Mark Mason; Co-I’s: Jared Anderson, Richard Hudson, Joseph Schmidt, Viranga Tillekeratne.

The University of Toledo Summer Research Award: “New Catalytic Systems Based on 3-Iminophosphine Palladium Complexes.” Funding: \$12,000. Award Period: May 2006 – Dec. 2006. Received March 2006. P.I.: Joseph Schmidt.

The University of Toledo Summer Research Award: “New Zirconium Complexes for Intermolecular Alkene Hydroamination.” Funding: \$9,900. Award Period: May 2005 – Dec. 2005. Received March 2005. P.I.: Joseph Schmidt.

#### OUTREACH GRANTS RECEIVED

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Saturday Morning Science – Spring 2017. Funding: \$2300. College of Natural Sciences and Mathematics. Award Period: Jan. 2017 – May 2017. Received Aug. 2016. Co-P.I.s: Joseph Schmidt; John Bellizzi; Terry Bigioni

Saturday Morning Science – Spring 2016. Funding: \$2200. College of Natural Sciences and Mathematics. Award Period: Jan. 2016 – May 2016. Received June 2015. P.I.: Joseph Schmidt; Co-I: John Bellizzi

Saturday Morning Science – Spring 2015. Funding: \$2000. College of Natural Sciences and Mathematics. Award Period: Jan. 2015 – May 2015. Received May 2014. P.I.: Joseph Schmidt; Co-I: John Bellizzi

Saturday Morning Science – Spring 2014. Funding: \$1900. College of Natural Sciences and Mathematics. Award Period: Jan. 2014 – May 2014. Received July 2013. P.I.: Joseph Schmidt; Co-I: John Bellizzi

Saturday Morning Science – Spring 2013. Funding: \$1900. College of Natural Sciences and Mathematics. Award Period: Jan. 2013 – May 2013. Received Aug. 2012. P.I.: Joseph Schmidt; Co-I: John Bellizzi

Saturday Morning Science – Spring 2012. Funding: \$1750. College of Natural Sciences and Mathematics. Award Period: Jan. 2012 – May 2012. Received Oct. 2011. P.I.: Joseph Schmidt; Co-I: John Bellizzi

Saturday Morning Science – Spring 2011. Funding: \$1600. College of Natural Sciences and Mathematics. Award Period: Feb. 2011 – May 2011. Received Feb. 2011. P.I.: Joseph Schmidt; Co-I: John Bellizzi

The University of Toledo Program for Academic Excellence: “Saturday Morning Science: A Community Outreach Program.” Funding: \$4,500. Award Period: Aug. 2006 – June 2010. Received July 2006. P.I.: Joseph Schmidt.

## AWARDS RECEIVED

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Eleni and Evangelos Theodosiou Sigma Xi Young Investigator Research Award,  
Awarded: Sept. 2010. Awardee: Joseph Schmidt

College of Arts & Sciences Master Teacher, Academic Years 2010-2011 and 2011-  
2012. Awarded: Apr. 2010. Awardee: Joseph Schmidt

## TEACHING EXPERIENCE

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### **The University of Toledo**

General Chemistry 1 (Chem. 1230) S 2007, S 2012

General Chemistry 2 (Chem. 1240) F 2007, S 2008, F 2008, F 2009, F 2010, S 2011, F  
2011, F 2012

Organic Chemistry 1 (Chem. 2410) S 2013, S 2014, S 2015, F 2016

Organic Chemistry 2 (Chem. 2420) S 2016, S 2017

Advanced Inorganic Chemistry (Chem. 6600/8600) F 2004, F 2005, F 2006, F 2009, F  
2013, F 2015

Inorganic and Organometallic Chemistry of the Transition Elements (Chem.  
6610/8610) S 2005, F 2008, F 2014

### **Cornell University**

Experimental Chemistry 1 (Chem. 301 – 4 weeks) S 2003

Organic Chemistry for the Life Sciences 2 (Chem. 358 – Substitute Teacher) S 2004

### **University of California—Berkeley (TA)**

Chemical Structure and Reactivity (Chem. 3A) F 1997

Inorganic Synthesis and Reactions (Chem. 108) F 1998, F 1999

### **Kansas State University (TA)**

General Chemistry Lab (Chem. 111) F 1996

Chemistry 1 Lab (Chem. 210, 2 sections) F 1996

Chemistry 2 Lab (Chem. 230, 3 sections) S 1997

General Organic Chemistry Lab (Chem. 351) S 1994, F 1994, S 1995

Organic Chemistry Lab (Chem. 532) F 1995, S 1996

## RESEARCH MENTORING

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### **High School Students**

Julian Banks (ACS Project SEED) Summer 2005

Aaron Jones (ACS Project SEED) Summer 2009

Ksenia Kriatchkova (ACS Project SEED) Summer 2007, Summer 2008

Asia Murphy (ACS Project SEED) Summer 2006

### **Undergraduate Students**

Andrew Behrle F 2006, S 2007, Summer 2007

Nichole Bennett Summer 2012, F 2012

Brian Collins Summer 2014, F 2014, S 2015

Deborah Dollard S 2015, S 2016, F 2016, S 2017

Paul Eid Summer 2009

Abbey Hill S 2011  
 Mitchell Howard S 2011, F 2011  
 Ksenia Kriatchkova Summer 2009, Summer 2010, Summer 2011  
 Simoni Marfatia F 2013  
 Pascal Marillier Summer 2009  
 Kevin Perzynski S 2005, Summer 2005  
 Kyle Prusinski S 2008, Summer 2008  
 Danielle Samblanet S 2010, Summer 2010, F 2010, S 2011, Summer 2011, F 2011, S  
 2012, Summer 2012, F 2012, S 2013, Summer 2013  
 Jennifer Sundermann S 2008  
 Aiden Yoon F 2015  
 Robert Yoxtheimer Summer 2015, F 2015, S 2016, Summer 2016, F 2016, S 2017

### **Graduate Students**

Tamam Baiz	M.S.	May 2007
Miriam Basiouny	Ph.D.	Aug. 2017, anticipated
John Beck	Ph.D.	Aug. 2011
Andrew Behrle	Ph.D.	Aug. 2012
Matthew Hertel	M.S.	Dec. 2008
Istiak Hossain	Ph.D.	May 2020, anticipated
Sreejit Menon	Ph.D.	May 2016
Abdollah Neshat	Ph.D.	May 2011
Cheryl Seambos	M.S.	Aug. 2007
Andrew Shaffer	Ph.D.	Aug. 2009
Hosein Tafazolian	Ph.D.	Aug. 2016
Rajendr Thakuri	Ph.D.	May 2018, anticipated
Nicholas Zingales	M.S.	Dec. 2012

### **Post-Doctoral Associates**

John Beck	Aug. 2011 – Aug. 2013
Glenn Kuchenbeiser	Sept. 2009 – June 2010

### **Served as Thesis/Dissertation Committee Member**

Kedar Baryal	Ph.D.	Aug. 2015
Badri Bhattarai	Ph.D.	May 2018, anticipated
Brian Conn	Ph.D.	Dec. 2016
Anirban Das	M.S.	Aug. 2007
Christopher Gianopoulos	Ph.D.	Dec. 2014
Farzana Hossain	Ph.D.	May 2019, anticipated
Morteza Jandaghi	Ph.D.	May 2018, anticipated
Adam Keith	Ph.D.	Aug. 2014
Nicholas Kingsley	Ph.D.	Aug. 2009
Vincent Kowalski	M.S.	May 2017, anticipated
Zhongtao Li	M.S.	Aug. 2007
La'Nese Lovings	Ph.D.	May 2020, anticipated
Amarendar Maddirala	Ph.D.	May 2016
Janani Manchala	M.S.	May 2017, anticipated
Allison Rabon	Ph.D.	May 2021, anticipated
Ryan Rondo	Ph.D.	May 2010
Yasaman Saleh	Ph.D.	May 2019, anticipated
Christopher Yeisley	M.S.	May 2013
Yeakub Zaker	Ph.D.	Dec. 2018, anticipated

SERVICE

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**Departmental**

Academic Achievement Committee: Member AY 07-08  
 ACS Project SEED: Dept. Coordinator 2008-2009  
 Assistant Professor (Tenure-Track) Search Committee  
     Member: AY 2009-2010, AY 2011-2012  
 Chair's Advisory Committee: Member: F 2010, S 2011  
 Colloquium Committee: Chair: F 2005, S 2006  
 Coordinator of Organic Chemistry AY 16-17  
 Curriculum Committee: Member: AY 11-12, 15-16  
 Director of Graduate Studies: AY 11-12, 12-13, 13-14  
 Facilities Committee  
     Chair: AY 08-09, 09-10  
     Member: AY 05-06, 06-07, 07-08  
 General Chemistry Committee  
     Member: AY 06-07, 07-08, 08-09, 09-10, 10-11, 11-12  
 Graduate Admissions and Recruitment Committee  
     Member: AY 04-05, 08-09, 09-10, 10-11, 11-12, 12-13, 13-14, 14-15  
 Graduate Examinations Committee: Member AY 06-07, 11-12  
 Graduate Standings Committee: Chair AY 11-12, 12-13, 13-14  
 Oral Examination Committees  
     Qualifying Exams: Chair (14), Member (29)  
     Final Defenses: Chair (10), Member (11)  
 Personnel Committee  
     Member: AY 10-11, 11-12, 12-13, 13-14, 14-15, 15-16, 16-17  
 Safety Committee: Member AY 14-15, 15-16  
 Undergraduate Academic Advisor  
     Standard Advisor: AY 15-16  
     Honors Advisor (B.S. Chemistry): AY 16-17  
 Undergraduate Recruitment Committee  
     Member: AY 04-05, 05-06, 06-07, 07-08, 14-15  
 Visiting Assistant Professor (VAP) Search Committees  
     Chair: Summer 2011  
     Member: Summer 2008, Summer 2009

**College**

Arts & Sciences Council  
     Member: AY 07-08, 08-09, 09-10, F 2010  
     Curriculum Committee  
         Member: AY 07-08, 08-09  
 College of Graduate Studies Council (Graduate Council)  
     Member: AY 14-15, 15-16, 16-17  
     Member of Executive Committee: AY 16-17  
     Academic Programs and Regulations Committee  
         Chair: AY 15-16, 16-17  
 Natural Sciences & Mathematics Council  
     Chair: AY 11-12  
     Vice-Chair: S 2011  
     Member: AY 12-13  
 Constitution and Rules Committee

Chair: AY 12-13  
Elections Committee  
Member: AY 11-12, 12-13  
Executive Committee  
Chair: AY 11-12  
Vice-Chair: S 2011  
Member: AY 12-13

College Personnel Committee (CCAP)  
Member: AY 12-13, 13-14

### **Professional**

External Ph.D. Examiner (1), Jacky Yim (Ph.D. University of British Columbia, May 2015)

Manuscripts Reviewed for Journals (69)

Journals: *ACS Catalysis*, *Acta Crystallographia C*, *Advanced Synthesis & Catalysis*, *Catalysis Letters*, *Chemistry – A European Journal*, *Chemical Communications*, *Chemical Engineering & Technology*, *ChemSusChem*, *Dalton Transactions*, *European Journal of Inorganic Chemistry*, *European Journal of Organic Chemistry*, *Inorganic Chemistry*, *Inorganica Chimica Acta*, *Journal of Cluster Science*, *Journal of Coordination Chemistry*, *Journal of Organic Chemistry*, *Journal of Organometallic Chemistry*, *Nature Communications*, *Organic Letters*, *Organometallics*, *Phosphorus, Sulfur, and Silicon and the Related Elements*, *Tetrahedron*

Ohio Inorganic Weekend, co-organizer and host, University of Toledo, Nov. 7-8, 2008.

Proposals Reviewed for Funding Agencies (18)

Agencies: CRDF, Czech Science Foundation, NSF, PRF

Saturday Morning Science

Chair: F 2008 - S 2017

Co-chair: F 2006 - S 2008

## PUBLICATIONS (45)

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### **University of Toledo (24)**

- 1) Basiouny, M. M. I.; **Schmidt, J. A. R.** "Lanthanum-Catalyzed Double Hydrophosphinylation of Nitriles." *Organometallics*, **2017**, *36*, 721-729. <http://dx.doi.org/10.1021/acs.organomet.6b00919>
- 2) Tafazolian, H.; **Schmidt, J. A. R.** "Cationic [(Iminophosphine)Nickel(Allyl)]<sup>+</sup> Complexes as the First Example of Nickel Catalysts for Direct Hydroamination of Allenes." *Chem. Eur. J.*, **2017**, *23*, 1507-1511. <http://dx.doi.org/10.1002/chem.201605611>
- 3) Tafazolian, H.; **Schmidt, J. A. R.** "Selective Hydrosilylation of N-Allylimines Using a (3-Iminophosphine)palladium Precatalyst." *Catal. Sci. Technol.*, **2016**, *6*, 685-689. <http://dx.doi.org/10.1039/c5cy01859e>
- 4) Menon, S. R.; **Schmidt, J. A. R.** "Synthesis and Extraction Results of New Halide Terminated 2-Alkyl-p-tert-butylcalix[4]arenes Bearing Phosphine Oxides or Ketones on the Narrow Rim." *Tetrahedron*, **2016**, *72*, 767-774. <http://dx.doi.org/10.1016/j.tet.2015.12.038>
- 5) Tafazolian, H.; Samblanet, D. C.; **Schmidt, J. A. R.** "Electronic Role of 3-

- Iminophosphine Ligands in Palladium-Catalyzed Intermolecular Hydroamination.” *Organometallics*, **2015**, *34*, 1809-1817. <http://dx.doi.org/10.1021/om500792k>
- 6) Tafazolian, H.; **Schmidt, J. A. R.** “Highly Efficient Regioselective Hydrosilylation of Allenes Using a [(3IP)Pd(allyl)]OTf Catalyst; First Example of Allene Hydrosilylation with Phenyl- and Diphenylsilane.” *Chem. Commun.*, **2015**, *51*, 5943-5946. <http://dx.doi.org/10.1039/C4CC09804H>
  - 7) Beck, J. F.; Samblanet, D. C.; **Schmidt, J. A. R.** “Palladium Catalyzed Intermolecular Hydroamination of 1-Substituted Allenes: An Atom-Economical Method for the Synthesis of *N*-Allylamines.” *RSC Adv.*, **2013**, *3*, 20708-20718. <http://dx.doi.org/10.1039/c3ra43870h>
  - 8) Garcia, P.; Payne, P. R.; Chong, E.; Webster, R. L.; Barron, B. J.; Behrle, A. C.; **Schmidt, J. A. R.**; Schafer, L. L. “Easily Assembled, Modular *N,O*-Chelating Ligands for Ta(V) Complexation: A Comparative Study of Ligand Effects in Hydroaminoalkylation with *N*-Methylaniline and 4-Methoxy-*N*-methylaniline.” *Tetrahedron*, **2013**, *69*, 5737-5743. Invited contribution for Special Issue on “Development and Applications of Transition Metal-Catalyzed Bond-Forming Reactions.” <http://dx.doi.org/10.1016/j.tet.2013.04.070>
  - 9) Behrle, A. C.; **Schmidt, J. A. R.** “Insertion Reactions and Catalytic Hydrophosphination of Heterocumulenes using  $\alpha$ -Metallated *N,N*-Dimethylbenzylamine Rare-Earth-Metal Complexes.” *Organometallics*, **2013**, *32*, 1141-1149. Invited contribution for Special Issue on “Recent Advances in Organo-f-Element Chemistry.” <http://dx.doi.org/10.1021/om300807k>
  - 10) Zingales, N. C.; Shaffer, A. R.; **Schmidt, J. A. R.** “Investigation of Steric and Electronic Features of 3-Iminophosphine-Based Palladium Catalysts for Intermolecular Hydroamination.” *Organometallics*, **2013**, *32*, 578-586. <http://dx.doi.org/10.1021/om301102w>
  - 11) Samblanet, D. C.; **Schmidt, J. A. R.** “Efficient Aryl Amination of Bromoarenes using a 3-Iminophosphine Palladium(II) Chloride Catalyst.” *J. Organomet. Chem.*, **2012**, *720*, 7-18. <http://dx.doi.org/10.1016/j.jorganchem.2012.08.027>
  - 12) Beck, J. F.; **Schmidt, J. A. R.** “Isolation and Characterization of Main Group and Late Transition Metal Complexes using *ortho*Metallated Imine Ligands.” *Dalton Trans.*, **2012**, *41*, 860-870. <http://dx.doi.org/10.1039/C1DT11629K>
  - 13) Beck, J. F.; **Schmidt, J. A. R.** “Hydroamination of 1,1-Dimethylallene with Primary Aryl Amines under Mild Conditions: An Atom-Economical Route to *N*-(1,1-Dimethyl-2-propenyl)-anilines.” *RSC Adv.*, **2012**, *2*, 128-131. <http://dx.doi.org/10.1039/C1RA00795E>
  - 14) Behrle, A. C.; **Schmidt, J. A. R.** “Synthesis and Reactivity of Homoleptic  $\alpha$ -Metalated *N,N*-Dimethylbenzylamine Rare-Earth-Metal Complexes.” *Organometallics*, **2011**, *30*, 3915-3918. <http://dx.doi.org/10.1021/om200363z>
  - 15) Kuchenbeiser, G.; Shaffer, A. R.; Zingales, N. C.; Beck, J. F.; **Schmidt, J. A. R.** “Palladium(II) 3-Iminophosphine (3IP) Complexes: Active Precatalysts for the Intermolecular Hydroamination of 1,2-Dienes (Allenes) and 1,3-Dienes with Aliphatic Amines under Mild Conditions.” *J. Organomet. Chem.*, **2011**, *696*, 179-187. Invited contribution for Special Issue on “Catalytic Addition of E-H Bonds to Non-Activated

- Carbon-Carbon Multiple Bonds.” <http://dx.doi.org/10.1016/j.jorganchem.2010.08.033>
- 16) Neshat, A.; **Schmidt, J. A. R.** “Derivatization of Niobium Complexes Bearing Imido and Acetophenone Imine Ligands.” *Organometallics*, **2010**, *29*, 6219-6229. <http://dx.doi.org/10.1021/om100657r>
  - 17) Beck, J. F.; Neshat, A.; **Schmidt, J. A. R.** “Structural Characterization of Novel *ortho*-Lithiated Imines.” *Eur. J. Inorg. Chem.*, **2010**, 5146-5155. <http://dx.doi.org/10.1002/ejic.201000516>
  - 18) Hertel, M. P.; Behrle, A. C.; Williams, S. A.; **Schmidt, J. A. R.**; Fantini, J. L. “Synthesis of Amine, Halide, and Pyridinium Terminated 2-Alkyl-*p-tert*-butylcalix[4]arenes.” *Tetrahedron*, **2009**, *65*, 8657-8667. <http://dx.doi.org/10.1016/j.tet.2009.08.033>
  - 19) Beck, J. F.; Baiz, T. I.; Neshat, A.; **Schmidt, J. A. R.** “Titanium Imido Complexes Utilizing *Orthometallated* Derivatized Acetophenone and Piperonal Imine Ligands: Synthesis, Isolation and Characterization.” *Dalton Trans.*, **2009**, 5001-5008. <http://dx.doi.org/10.1039/B906461C>
  - 20) Neshat, A.; Seambos, C. L.; Beck, J. F.; **Schmidt, J. A. R.** “Mono-Anionic Acetophenone Imine Ligands: Synthesis, *Ortho*-Lithiation, and First Examples of Group (V) Metal Complexes.” *Dalton Trans.*, **2009**, 4987-5000. <http://dx.doi.org/10.1039/B903836A>
  - 21) Shaffer, A. R.; **Schmidt, J. A. R.** “Reactivity of (3-Iminophosphine)palladium(II) Complexes: Evidence of Hemilability.” *Organometallics*, **2009**, *28*, 2494-2504. <http://dx.doi.org/10.1021/om900066t>
  - 22) Shaffer, A. R.; **Schmidt, J. A. R.** “A Versatile Methodology for the Synthesis of  $\alpha,\beta$ -Unsaturated 3-Iminophosphines.” *Chem.-Eur. J.*, **2009**, *15*, 2662-2673. <http://dx.doi.org/10.1002/chem.200802310>
  - 23) Shaffer, A. R.; **Schmidt, J. A. R.** “Palladium(II) 3-Iminophosphine Complexes as Intermolecular Hydroamination Catalysts for the Formation of Imines and Enamines.” *Organometallics*, **2008**, *27*, 1259-1266. <http://dx.doi.org/10.1021/om701106q>
  - 24) Baiz, T. I.; **Schmidt, J. A. R.** “A Discrete Ortholithiated Acetophenone Imine Derivative: Isolation, Characterization, and Synthesis of Group IV Metal Complexes.” *Organometallics*, **2007**, *26*, 4094-4097. <http://dx.doi.org/10.1021/om700530z>
- Cornell University (3)**
- 25) **Schmidt, J. A. R.**; Lobkovsky, E. B.; Coates, G. W. “Chromium(III) Octaethylporphyrinato Tetracarbonylcobaltate: A Highly Active, Selective, and Versatile Catalyst for Epoxide Carbonylation.” *J. Am. Chem. Soc.*, **2005**, *127*, 11426-11435. <http://dx.doi.org/10.1021/ja051874u>
  - 26) Getzler, Y. D. Y. L.; **Schmidt, J. A. R.**; Coates, G. W. “Synthesis of an Epoxide Carbonylation Catalyst: Exploration of Contemporary Chemistry for Advanced Undergraduates.” *J. Chem. Educ.*, **2005**, *82*, 621-624. <http://dx.doi.org/10.1021/ed082p621>
  - 27) **Schmidt, J. A. R.**; Mahadevan, V.; Getzler, Y. D. Y. L.; Coates, G. W. “A Readily Synthesized and Highly Active Epoxide Carbonylation Catalyst Based on a Chromium Porphyrin Framework: Expanding the Range of Available  $\beta$ -Lactones.” *Org. Lett.*, **2004**, *6*,

373-376. <http://dx.doi.org/10.1021/ol036244g>

**University of California—Berkeley (15)**

- 28) Anderson, L. L.; **Schmidt, J. A. R.**; Arnold, J.; Bergman, R. G. “Neutral and Cationic Alkyl Tantalum Imido Complexes: Synthesis and Migratory Insertion Reactions.” *Organometallics*, **2006**, *25*, 3394-3406. <http://dx.doi.org/10.1021/om060081t>
- 29) Cui, C.; Shafir, A.; **Schmidt, J. A. R.**; Oliver, A. G.; Arnold, J. “Synthesis and Characterization of Mono  $\beta$ -Diketiminatosamarium Amides and Hydrocarbyls.” *Dalton Trans.*, **2005**, 1387-1393. <http://dx.doi.org/10.1039/B501437A>
- 30) Cui, C.; Giesbrecht, G. R.; **Schmidt, J. A. R.**; Arnold, J. “A Cationic Aluminum Methyl Complex Supported by an Anionic Tacn Ligand.” *Inorg. Chim. Acta*, **2003**, *351*, 404-408. [http://dx.doi.org/10.1016/S0020-1693\(03\)00124-5](http://dx.doi.org/10.1016/S0020-1693(03)00124-5)
- 31) **Schmidt, J. A. R.**; Giesbrecht, G. R.; Cui, C.; Arnold, J. “Anionic Triazacyclononanes: New Supporting Ligands in Main Group and Transition Metal Organometallic Chemistry.” *Chem. Commun.*, **2003**, 1025-1033. <http://dx.doi.org/10.1039/B208525A>
- 32) **Schmidt, J. A. R.**; Arnold, J. “First-Row Transition Metal Complexes of Sterically-Hindered Amidinates.” *Dalton Trans.*, **2002**, 3454-3461. <http://dx.doi.org/10.1039/B202737M>
- 33) Giesbrecht, G. R.; Cui, C.; Shafir, A.; **Schmidt, J. A. R.**; Arnold, J. “Divalent Lanthanide Metal Complexes of a Triazacyclononane-Functionalized Tetramethylcyclopentadienyl Ligand: X-Ray Crystal Structures of  $[C_5Me_4SiMe_2(Pr_2-tacn)]LnI$  ( $Ln = Sm, Yb$ ; tacn = 1,4-diisopropyl-1,4,7-triazacyclononane).” *Organometallics*, **2002**, *21*, 3841-3844. <http://dx.doi.org/10.1021/om020372b>
- 34) Arnold, J.; Knapp, V.; **Schmidt, J. A. R.**; Shafir, A. “Reactions of N,N,N'-trimethyl-1,4,7-triazacyclononane with Butyllithium Reagents.” *Dalton Trans.*, **2002**, 3273-3274. <http://dx.doi.org/10.1039/B205792C>
- 35) Cui, C.; **Schmidt, J. A. R.**; Arnold, J. “An Unsolvated Lithium Trihydroaluminate and the Corresponding Trialkynylaluminates Supported by an Anionic Triazacyclononane Ligand.” *Dalton Trans.*, **2002**, 2992-2994. <http://dx.doi.org/10.1039/B202238A>
- 36) **Schmidt, J. A. R.**; Arnold, J. “Reactions of a Triazacyclononane-Supported Tantalum-Lithium Bridging Alkylidene with Organic Substrates.” *Organometallics*, **2002**, *21*, 3426-3433. <http://dx.doi.org/10.1021/om020175c>
- 37) **Schmidt, J. A. R.**; Arnold, J. “Synthesis and Characterization of a Series of Sterically-Hindered Amidines and their Lithium and Magnesium Complexes.” *Dalton Trans.*, **2002**, 2890-2899. <http://dx.doi.org/10.1039/B202235B>
- 38) **Schmidt, J. A. R.**; Arnold, J. “Neutral and Cationic Aluminum Complexes Supported by Sterically-Bulky Amidinate Ligands.” *Organometallics*, **2002**, *21*, 2306-2313. <http://dx.doi.org/10.1021/om0201011>
- 39) **Schmidt, J. A. R.**; Arnold, J. “Reactivity of a Tantalum-Lithium Alkylidene Supported by an Anionic Triazacyclononane Ligand.” *J. Am. Chem. Soc.*, **2001**, *123*, 8424-8425. <http://dx.doi.org/10.1021/ja016143i>

- 40) **Schmidt, J. A. R.**; Chmura, S. A.; Arnold, J. “Alkyl and Alkylidene Tantalum-Lithium Complexes Supported by an Anionic Triazacyclononane Ligand.” *Organometallics*, **2001**, *20*, 1062-1064. <http://dx.doi.org/10.1021/om0010621>
- 41) Gebauer, A.; **Schmidt, J. A. R.**; Arnold, J. “Synthesis, Characterization, and Properties of a Lithium 21-thiaporphyrin Complex.” *Inorg. Chem.*, **2000**, *39*, 3424-3427. <http://dx.doi.org/10.1021/ic000202w>
- 42) **Schmidt, J. A. R.**; Arnold, J. “Mono-Amidinate Complexes Stabilized by a New Sterically-Hindered Amidine.” *Chem. Commun.*, **1999**, 2149-2150. <http://dx.doi.org/10.1039/A905620C>
- Kansas State University (3)**
- 43) Freitas, M. A.; O’Hair, R. A. J.; **Schmidt, J. A. R.**; Tichy, S. E.; Plashko, B. E.; Williams, T. D. “Gas-Phase Reactions of Glycine, Alanine, Valine and Their N-methyl Derivatives with the Nitrosonium Ion, NO+.” *J. Mass. Spectrom.*, **1996**, *31*, 1086-1092. [http://dx.doi.org/10.1002/\(SICI\)1096-9888\(199610\)31:10<1086::AID-JMS399>3.0.CO;2-H](http://dx.doi.org/10.1002/(SICI)1096-9888(199610)31:10<1086::AID-JMS399>3.0.CO;2-H)
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- 45) O’Hair, R. A. J.; Freitas, M. A.; Gronert, S.; **Schmidt, J. A. R.**; Williams, T. D. “Concerning the Regioselectivity of Gas-Phase Reactions of Glycine with Electrophiles – The Cases of the Dimethylchlorinium Ion and the Methoxymethyl Cation.” *J. Org. Chem.*, **1995**, *60*, 1990-1998. <http://dx.doi.org/10.1021/jo00112a020>

#### PATENTS

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- 1) Coates, G. W.; Kramer, J. W.; **Schmidt, J. A. R.** “Low Pressure Carbonylation of Heterocycles.” (Cornell Research Foundation, Inc.) U. S. Patent No.: US 7,875,734 B2. Date of Patent: Jan. 25, 2011.

#### PRESENTATIONS (107)

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##### **University of Toledo (97)**

- 1) Basiouny, Miriam; **Schmidt, J. A. R.**; Behrle, A. C. “Development of New Lanthanide-Based Hydrophosphination Catalysts.” Midwest Regional Meeting of the American Chemical Society, Manhattan, KS. Selected for Sci-Mix: Oct. 26, 2016; Inorganic Session: Oct. 27, 2016.
- 2) Basiouny, Miriam; **Schmidt, J. A. R.**; Behrle, A. C. “Development of New Lanthanide-Based Hydrophosphination Catalysts.” Gordon Research Conference on Organometallic Chemistry, Salve Regina University, Newport, RI, July 11-12, 2016.
- 3) Tafazolian, H.; **Schmidt, J. A. R.** “Nickel-catalyzed Hydroamination of Allenes Utilizing a Novel [(Iminophosphine)nickel(allyl)][OTf] Catalyst.” Central Regional Meeting of the American Chemical Society, Cincinnati, OH, May 20, 2016.
- 4) **Schmidt, J. A. R.** “Development of New Hydroamination and Hydrophosphination Catalysts.” Departmental Colloquium, Department of Chemistry, Cleveland State

University, Cleveland, OH, March 4, 2016.

- 5) Menon, S. R.; **Schmidt, J. A. R.** "Progress Towards New Calix[4]arene Based Stationary Phases Useful in the Separation of Rare Earth Metals." The International Chemical Congress of Pacific Basin Societies, Honolulu, HI, December 17, 2015.
- 6) Basiouny, M.; **Schmidt, J. A. R.** "Lanthanum Catalysed Hydrophosphinylation of Imines and Nitriles." Ohio Inorganic Weekend, Bowling Green State University, Bowling Green, OH, November 14, 2015.
- 7) Menon, S. R.; **Schmidt, J. A. R.** "Progress Towards New Calix[4]arene Based Stationary Phases Useful in the Separation of Rare Earth Metals." Ohio Inorganic Weekend, Bowling Green State University, Bowling Green, OH, November 13, 2015.
- 8) Thakuri, R.; **Schmidt, J. A. R.** "Synthesis of Sterically-Bulky (3-Iminophosphine)-palladium Complexes and Their Catalytic Hydroamination of Allenes with Secondary Amines." Ohio Inorganic Weekend, Bowling Green State University, Bowling Green, OH, November 13, 2015.
- 9) Tafazolian, H.; **Schmidt, J. A. R.** "Pd-Catalyzed Selective Hydrosilylation of Allylimines." 250<sup>th</sup> ACS National Meeting, Boston, MA, 250<sup>th</sup> ACS National Meeting, Boston, MA, August 19, 2015.
- 10) Menon, S. R.; **Schmidt, J. A. R.** "New Calix[4]arene Based Precursors for Stationary Phases Useful in Separation of Rare Earth Metals." 249<sup>th</sup> ACS National Meeting, Denver, CO, March 22, 2015.
- 11) **Schmidt, J. A. R.** "Development of Hydroamination and Hydrophosphination Catalysts Yielding Versatile Products with Two or More Complementary Functional Groups." Departmental Colloquium, Department of Chemistry, University of British Columbia, Vancouver, BC, March 12, 2015.
- 12) Tafazolian, H.; Samblanet, D. C.; **Schmidt, J. A. R.** "The Electronic Role of 3-Iminophosphine Ligands in Palladium-Catalyzed Allene Hydroamination." Ohio Inorganic Weekend, University of Michigan, Ann Arbor, MI, November 14, 2014.
- 13) Menon, S. R.; **Schmidt, J. A. R.** "New Calix[4]arene Based Precursors for Stationary Phases Useful in Separation of Rare Earth Metals." Ohio Inorganic Weekend, University of Michigan, Ann Arbor, MI, November 14, 2014.
- 14) Basiouny, M. M.; **Schmidt, J. A. R.** "Unprecedented Double Hydrophosphinylation of Nitriles." Ohio Inorganic Weekend, University of Michigan, Ann Arbor, MI, November 14, 2014.
- 15) Tafazolian, H.; **Schmidt, J. A. R.** "Regioselective Hydrosilylation of Allenes." Southeastern Regional Meeting of the American Chemical Society, Nashville, TN, October 19, 2014.
- 16) Menon, S.; **Schmidt, J. A. R.** "Synthesis and Characterization of New Calix[4]arene Based Precursors for Stationary Phases Useful in Separation of Rare Earth Metals." Ohio Inorganic Weekend, University of Dayton, Dayton, OH, November 16, 2013.
- 17) **Schmidt, J. A. R.** "New Catalysts for Atom-Efficient Transformations Including

- Hydroamination and Hydrophosphination.” Departmental Colloquium, Department of Chemistry, Indiana University Purdue University Fort Wayne, Fort Wayne, IN, November 8, 2013.
- 18) **Schmidt, J. A. R.** “New Catalysts for Atom-Efficient Transformations Including Hydroamination and Hydrophosphination.” Departmental Colloquium, Department of Chemistry, Ball State University, Muncie, IN, March 21, 2013.
  - 19) Beck, J. F.; **Schmidt, J. A. R.** “An Atom-Economical Route to *N*-Allylamines via the Hydroamination of Allenes.” Ohio Inorganic Weekend, Wayne State University, Detroit, MI, October 20, 2012.
  - 20) **Schmidt, J. A. R.** “Catalytic Hydrophosphination Using New Lanthanide Catalysts.” Ohio Inorganic Weekend, Wayne State University, Detroit, MI, October 19, 2012.
  - 21) Samblanet, D. S.; **Schmidt, J. A. R.** “3-Iminophosphine Palladium(II) Chloride as an Efficient New Aryl Amination Catalyst.” Ohio Inorganic Weekend, Wayne State University, Detroit, MI, October 19, 2012.
  - 22) **Schmidt, J. A. R.** “New Catalysts for Atom-Efficient Transformations Including Hydroamination and Aryl Amination.” Invited Colloquium, Northwest Central Ohio Local Section of the American Chemical Society, University of Findlay, Findlay, OH, October 17, 2012.
  - 23) **Schmidt, J. A. R.** “New Catalysts for Atom-Efficient Transformations Including Hydroamination and Hydrophosphination.” Departmental Colloquium, Department of Chemistry, University of Notre Dame, Notre Dame, IN, September 28, 2012.
  - 24) Behrle, A. C.; **Schmidt, J. A. R.** “Catalytic Hydrophosphination using New Lanthanide Catalysts.” International Symposium on Advancing the Chemical Sciences (ISACS8): Challenges in Inorganic and Materials Chemistry, Toronto, ON, July 20, 2012.
  - 25) Beck, J. F.; **Schmidt, J. A. R.** “An Atom-Economical Route to *N*-Allylamines via the Hydroamination of Allenes.” International Symposium on Advancing the Chemical Sciences (ISACS8): Challenges in Inorganic and Materials Chemistry, Toronto, ON, July 20, 2012.
  - 26) Samblanet, D. C.; **Schmidt, J. A. R.** “Catalytic Aryl Amination using 3-Iminophosphine Palladium Dichloride Complexes.” International Symposium on Advancing the Chemical Sciences (ISACS8): Challenges in Inorganic and Materials Chemistry, Toronto, ON, July 20, 2012.
  - 27) Behrle, A. C.; **Schmidt, J. A. R.** “Catalytic Hydrophosphination using New Lanthanide Catalysts.” Gordon Research Conference on Organometallic Chemistry, Salve Regina University, Newport, RI, July 11, 2012.
  - 28) Behrle, A. C.; **Schmidt, J. A. R.** “New Homoleptic Lanthanide Complexes Supported by Metalated Dimethylbenzylamine Ligands: Synthesis and Reactivity.” Central Regional Meeting of the American Chemical Society, Dearborn, MI, June 7, 2012.
  - 29) Zingales, N. C.; **Schmidt, J. A. R.** “3-Iminophosphine Palladium Complexes and their Use in Hydroamination.” Central Regional Meeting of the American Chemical Society,

- Dearborn, MI, June 7, 2012.
- 30) Samblanet, D. C.; **Schmidt, J. A. R.** "Catalytic Aryl Amination using 3-Iminophosphine Palladium Dichloride Complexes." Central Regional Meeting of the American Chemical Society, Dearborn, MI, June 7, 2012.
  - 31) Beck, J. F.; **Schmidt, J. A. R.** "An Atom-Economical Route to *N*-Allylamines via the Hydroamination of Allenes." Central Regional Meeting of the American Chemical Society, Dearborn, MI, June 7, 2012.
  - 32) **Schmidt, J. A. R.** "Development of New Palladium-Centered Catalysts for C-N Bond-Forming Reactions." Departmental Colloquium, Department of Chemistry, Western Michigan University, Kalamazoo, MI, November 14, 2011.
  - 33) Beck, J. F.; **Schmidt, J. A. R.** "3-Iminophosphine Palladium Complexes for the Hydroamination of Allenes with Primary and Secondary Amines." Ohio Inorganic Weekend, University of Cincinnati, Cincinnati, OH, October 28, 2011.
  - 34) **Schmidt, J. A. R.** "Development of New Palladium-Centered Catalysts for C-N Bond-Forming Reactions." Departmental Colloquium, Department of Chemistry, Oakland University, Rochester, MI, October 26, 2011.
  - 35) Behrle, A. C.; **Schmidt, J. A. R.** "Synthesis and Reactivity of Homoleptic Alpha-Metallated *N,N*-Dimethylbenzylamine Rare-Earth Metal Complexes." Gordon Research Conference on Organometallic Chemistry, Salve Regina University, Newport, RI, July 11, 2011.
  - 36) Shaffer, A. R.; Beck, J. F.; Kuchenbeiser, G.; Samblanet, D. C.; Zingales, N. C.; **Schmidt, J. A. R.** "Hydroamination Catalysis Utilizing 3-Iminophosphine Palladium Complexes." Gordon Research Conference on Organometallic Chemistry, Salve Regina University, Newport, RI, July 11, 2011.
  - 37) **Schmidt, J. A. R.** "Creating New Palladium-Based Catalysts: False Starts, Pitfalls, and Ultimately Success." Departmental Colloquium, Department of Chemistry, Bloomsburg University, Bloomsburg, PA, February 21, 2011.
  - 38) Shaffer, A. R.; Kuchenbeiser, G.; **Schmidt, J. A. R.** "3-Iminophosphine Palladium Catalysts for C-N Bond-Forming Reactions." The International Chemical Congress of Pacific Basin Societies, Honolulu, HI, December 16, 2010.
  - 39) Beck, J. F.; **Schmidt, J. A. R.** "Hydroamination of 1,2-Dienes (Allenes) Utilizing a Palladium(II) 3-Iminophosphine Precatalyst." Inorganic Discussion Weekend, University of Windsor, Windsor, ON, November 6, 2010.
  - 40) Behrle, A. C.; **Schmidt, J. A. R.** "Synthesis and Reactivity of Homoleptic Lanthanide Complexes Containing Ln-C Sigma Bonds." Inorganic Discussion Weekend, University of Windsor, Windsor, ON, November 6, 2010.
  - 41) Beck, J. F.; **Schmidt, J. A. R.** "Structural Characterization of Novel *ortho*-Lithiated Imines." Ohio Inorganic Weekend, The Ohio State University, Columbus, OH, October 29, 2010.
  - 42) **Schmidt, J. A. R.** "Development of New Palladium-Centered Catalysts for C-N Bond-

- Forming Reactions.” Departmental Colloquium, Department of Chemistry, Tulane University, New Orleans, LA, October 25, 2010.
- 43) Beck, J. F.; **Schmidt, J. A. R.** “Lewis Acidic Metal Complexes Utilizing *Ortho*-Metalated Imines.” Central Regional Meeting of the American Chemical Society, Dayton, OH, June 17, 2010.
  - 44) Beck, J. F.; **Schmidt, J. A. R.** “Ortho-metallated Acetophenone Imine Derivatives as Ligands for Group I, II, XI, and XII Metals.” Central Regional Meeting of the American Chemical Society, Dayton, OH, June 16, 2010.
  - 45) Beck, J. F.; Neshat, A.; Baiz, T. I.; **Schmidt, J. A. R.** “Utilization of Orthometalated Acetophenone Imine Derivatives in Group 4 and 5 Metal Chemistry.” 93<sup>rd</sup> Canadian Chemistry Conference and Exhibition, Toronto, ON, May 31, 2010.
  - 46) Beck, J. F.; **Schmidt, J. A. R.** “Ortho-metallated Acetophenone Imine Derivatives as Ligands for Group I, II, XI, and XII Metals.” 93<sup>rd</sup> Canadian Chemistry Conference and Exhibition, Toronto, ON, May 31, 2010.
  - 47) Behrle, A. C.; **Schmidt, J. A. R.** “Synthesis and Reactivity of Homoleptic Tri-Alkyl Lanthanide Complexes Using *N,N*-Dimethylbenzylamine as a Ligand Scaffold.” 93<sup>rd</sup> Canadian Chemistry Conference and Exhibition, Toronto, ON, May 30, 2010.
  - 48) Kuchenbeiser, G.; Shaffer, A. R.; **Schmidt, J. A. R.** “(3-Iminophosphine)palladium(II) Complexes: Active Catalysts for the Intermolecular Hydroamination of 1,2- and 1,3-Dienes.” 93<sup>rd</sup> Canadian Chemistry Conference and Exhibition, Toronto, ON, May 30, 2010.
  - 49) **Schmidt, J. A. R.** “Development of New Palladium-Centered Catalysts for C-N Bond-Forming Reactions.” Departmental Colloquium, Department of Chemistry and Physics, Indiana State University, Terre Haute, IN, March 30, 2010.
  - 50) Beck, J. F.; **Schmidt, J. A. R.** “Orthometallated Imines as Ligands of Transition and Main Group Metals.” Ohio Inorganic Weekend, Case Western Reserve University, Cleveland, OH, November 14, 2009.
  - 51) Behrle, A. C.; Hertel, M. P.; Williams, S. A.; Fantini, J. L.; **Schmidt, J. A. R.** “Functionalized Calix[4]arenes as Ligands for the Design of Lanthanide and Actinide Hydroamination Catalysts.” Ohio Inorganic Weekend, Case Western Reserve University, Cleveland, OH, November 13, 2009.
  - 52) **Schmidt, J. A. R.** “Development of New Palladium-Centered Catalysts.” Departmental Colloquium, Department of Chemistry, John Carroll University, Cleveland, OH, November 11, 2009.
  - 53) Neshat, A.; **Schmidt, J. A. R.** “Exploration of the Chemistry of Bidentate Acetophenone Imine Ligands with Group V Metals.” 238<sup>th</sup> ACS National Meeting, Washington, DC, August 17, 2009.
  - 54) Jones, A. W.; Kriatchkova, K. O.; Shaffer, A. R.; Beck, J. F.; and **Schmidt, J. A. R.** “Investigation of 3-Iminophosphine Palladium Complexes as Aryl Amination Catalysts.” 238<sup>th</sup> ACS National Meeting, Washington, DC, August 17, 2009. (Sci-Mix)

- 55) **Schmidt, J. A. R.** "Catalytic Coupling Reactions Employing 3-Iminophosphine Palladium Catalysts." Invited Presentation, Central Regional Meeting of the American Chemical Society, Cleveland, OH, May 21, 2009.
- 56) Neshat, A. and **Schmidt, J. A. R.** "Group V Metal Complexes of Mono-Anionic Bidentate Acetophenone Imine Ligands." Central Regional Meeting of the American Chemical Society, Cleveland, OH, May 20, 2009.
- 57) Shaffer, A. R. and **Schmidt, J. A. R.** "Reactivity of (3-Iminophosphine)Palladium(II) Complexes: Evidence of Hemilability." Central Regional Meeting of the American Chemical Society, Cleveland, OH, May 20, 2009.
- 58) Beck, J. F. and **Schmidt, J. A. R.** "New Titanium Imido Complexes Utilizing Chelating Orthometallated Imine Ligands." Central Regional Meeting of the American Chemical Society, Cleveland, OH, May 20, 2009.
- 59) **Schmidt, J. A. R.** "Catalytic Coupling Reactions Using Hemilabile Phosphino-Imine Chelated Palladium Complexes." Departmental Colloquium, Department of Chemistry and Biochemistry, University of Delaware, Newark, DE, April 22, 2009.
- 60) **Schmidt, J. A. R.** "The Early and Late Transition Metal Chemistry of New Low Symmetry Bidentate Imines." Departmental Colloquium, Department of Chemistry, University of Pennsylvania, Philadelphia, PA, April 21, 2009.
- 61) **Schmidt, J. A. R.** "Catalytic Coupling Reactions Using Hemilabile Phosphino-Imine Chelated Palladium Complexes." Industrial Visit and Seminar, Anatrace, Inc., Maumee, OH, April 15, 2009.
- 62) **Schmidt, J. A. R.** "The Early and Late Transition Metal Chemistry of New Low Symmetry Bidentate Imines." Departmental Colloquium, Department of Chemistry, Kansas State University, Manhattan, KS, April 2, 2009.
- 63) **Schmidt, J. A. R.** "New Early and Late Transition Metal Catalysts Supported by 3-Iminophosphine and Orthometallated Phenylimine Ancillary Ligands." Departmental Colloquium, School of Chemistry, University of Manchester, Manchester, UK, March 20, 2009.
- 64) **Schmidt, J. A. R.** "Catalytic Coupling Reactions Using Hemilabile Phosphino-Imine Chelated Palladium Complexes." Departmental Colloquium, Department of Chemistry, University of Liverpool, Liverpool, UK, March 19, 2009.
- 65) **Schmidt, J. A. R.** "Development of New Low-Symmetry Imine Ligands for Stoichiometric and Catalytic Reactions Utilizing a Wide Variety of Transition Metals." Departmental Colloquium, Department of Chemistry, University of Bath, Bath, UK, March 17, 2009.
- 66) **Schmidt, J. A. R.** "Unexpected Activity Trends in Catalytic Coupling Reactions Using Hemilabile Phosphino-Imine Chelated Palladium Complexes." Departmental Colloquium, School of Chemistry, University of Bristol, Bristol, UK, March 16, 2009.
- 67) **Schmidt, J. A. R.** "Unexpected Activity Trends in Catalytic Coupling Reactions Using 3-Iminophosphine Palladium Catalysts." Departmental Colloquium, Department of

Chemistry, University College London, London, UK, March 13, 2009.

- 68) **Schmidt, J. A. R.** “New Early and Late Transition Metal Catalysts Supported by 3-Iminophosphine and Orthometallated Phenylimine Ancillary Ligands.” Departmental Colloquium, Department of Chemistry, Imperial College London, London, UK, March 12, 2009.
- 69) **Schmidt, J. A. R.** “Development of New Low-Symmetry Imine Ligands for Stoichiometric and Catalytic Reactions Utilizing a Wide Variety of Transition Metals.” Departmental Colloquium, Department of Chemistry, University of Sussex, Falmer Brighton, UK, March 11, 2009.
- 70) **Schmidt, J. A. R.** “New Early and Late Transition Metal Catalysts Supported by 3-Iminophosphine and Orthometallated Phenylimine Ancillary Ligands.” Departmental Colloquium, Department of Chemistry, Oxford University, Oxford, UK, March 9, 2009.
- 71) **Schmidt, J. A. R.** “Development of New Low-Symmetry Imine Ligands for Stoichiometric and Catalytic Reactions Utilizing a Wide Variety of Transition Metals.” Departmental Colloquium, Department of Chemistry, Wright State University, Dayton, OH, February 27, 2009.
- 72) **Schmidt, J. A. R.** “Catalytic Coupling Reactions using Hemilabile Phosphino-Imines and Palladium.” Departmental Colloquium, Department of Chemistry, University of Rochester, Rochester, NY, February 20, 2009.
- 73) **Schmidt, J. A. R.** “New Early and Late Transition Metal Catalysts Supported by 3-Iminophosphine and Orthometallated Phenylimine Ancillary Ligands.” Departmental Colloquium, Department of Chemistry and Chemical Biology, Cornell University, Ithaca, NY, February 19, 2009.
- 74) **Schmidt, J. A. R.** “Catalytic Coupling Reactions using Hemilabile Phosphino-Imines and Palladium.” Departmental Colloquium, Department of Chemistry and Biochemistry, University of Colorado at Boulder, Boulder, CO, February 9, 2009.
- 75) Shaffer, A. R.; **Schmidt, J. A. R.** “Synthesis, Reactivity, and Catalysis Involving 3-Iminophosphine Palladium(II) Complexes.” Ohio Inorganic Weekend, University of Toledo, Toledo, OH, November 8, 2008.
- 76) Beck, J.; **Schmidt, J. A. R.** “Orthometallated Acetophenone Imines as Ligands For Early Transition and Main Group Metals: Isolation and Characterization.” Ohio Inorganic Weekend, University of Toledo, Toledo, OH, November 7, 2008.
- 77) Behrle, A. C.; Hertel, M. P.; Williams, S. A., Fantini, J. L., **Schmidt, J. A. R.** “Functionalized Calix[4]arenes as Ligands For the Design of Lanthanide and Actinide Hydroamination Catalysts.” Ohio Inorganic Weekend, University of Toledo, Toledo, OH, November 7, 2008.
- 78) Neshat, A.; Seambos, C. L.; **Schmidt, J. A. R.** “Synthesis and Characterization of New Niobium and Tantalum Complexes with Orthometallated Acetophenone Imine Type Ligands.” Ohio Inorganic Weekend, University of Toledo, Toledo, OH, November 7, 2008.
- 79) **Schmidt, J. A. R.** “New Palladium-Based Catalysts: False Starts, Pitfalls, and Ultimately

- Success.” Departmental Colloquium, Department of Chemistry, Syracuse University, Syracuse, NY, October 21, 2008.
- 80) **Schmidt, J. A. R.** “Development of New Palladium Catalysts: False Starts, Pitfalls, and Ultimately Success.” Departmental Colloquium, Department of Chemistry and Biochemistry, Lafayette College, Easton, PA, October 9, 2008.
  - 81) **Schmidt, J. A. R.** “Catalytic Coupling Reactions using Phosphino-Imine Chelated Palladium Complexes.” Departmental Colloquium, Department of Chemistry, Lehigh University, Bethlehem, PA, October 8, 2008.
  - 82) **Schmidt, J. A. R.** “Development of New Palladium Catalysts: False Starts, Pitfalls, and Ultimately Success.” Departmental Colloquium, Department of Chemistry, Kenyon College, Gambier, OH, September 18, 2008.
  - 83) Hertel, M. P.; Fantini, J. L.; Williams, S. A.; **Schmidt, J. A. R.** “Calixarene-Based Amine-Terminated Scorpionate Ligands for Lanthanides.” 235<sup>th</sup> ACS National Meeting, New Orleans, LA, April 8, 2008.
  - 84) **Schmidt, J. A. R.** “New N~P and N~C Chelating Ligands for Applications in Hydroamination Catalysis.” Departmental Colloquium, Department of Chemistry, Case Western Reserve University, Cleveland, OH, March 20, 2008.
  - 85) **Schmidt, J. A. R.** “New N~P and N~C Chelating Ligands for Stoichiometric and Catalytic Applications.” Departmental Colloquium, Department of Chemistry, University of Vermont, Burlington, VT, February 21, 2008.
  - 86) Beck, J. F.; Baiz, T. I.; **Schmidt, J. A. R.** “Orthometallated Zirconium Complexes Utilizing Acetophenone Imine Ligands: The Effect of Steric Bulk on Reactivity and Isomerization.” Ohio Inorganic Weekend, Miami University, Oxford, OH, November 9, 2007.
  - 87) Shaffer, A. R.; **Schmidt, J. A. R.** “3-Iminophosphine Palladium(II) Complexes as Intermolecular Hydroamination Catalysts for the Formation of Imines and Enamines.” Ohio Inorganic Weekend, Miami University, Oxford, OH, November 9, 2007.
  - 88) Hertel, M. P.; Fantini, J. L.; Williams, S. A.; **Schmidt, J. A. R.** “New Scorpionate Ligands from 2-Substituted Calix[4]arene.” Ohio Inorganic Weekend, Miami University, Oxford, OH, November 9, 2007.
  - 89) **Schmidt, J. A. R.** “New N~P and N~C Chelating Ligands for Applications in Hydroamination Catalysis.” Departmental Colloquium, Department of Chemistry and Biochemistry, Denison University, Granville, OH, September 27, 2007.
  - 90) Fantini, J. L.; Williams, S. A.; **Schmidt, J. A. R.**; Hertel, M. P. “Amine-Containing Calixarenes for Lanthanide Coordination.” 234<sup>th</sup> ACS National Meeting, Boston, MA, August 19, 2007.
  - 91) Shaffer, A. R.; **Schmidt, J. A. R.** “Development of Unsymmetrical N~P Ligands for Use in Late-Metal Catalysis.” Gordon Research Conference on Organometallic Chemistry, Salve Regina University, Newport, RI, July 12, 2007.
  - 92) **Schmidt, J. A. R.** “Design of New N~P and N~C Chelating Ligands for Applications in

Organometallic Catalytic Coupling Reactions.” Departmental Colloquium, Department of Chemistry, University of Dayton, Dayton, OH, April 13, 2007.

- 93) Baiz, T. I.; **Schmidt, J. A. R.** “Development of New Group IV Complexes Employing Bidentate Orthometallated Acetophenone Imine Ligands.” 233<sup>rd</sup> ACS National Meeting, Chicago, IL, March 27, 2007.
- 94) Shaffer, A. R.; **Schmidt, J. A. R.** “Synthesis and Reactivity of 3-Iminophosphine Palladium Complexes.” 233<sup>rd</sup> ACS National Meeting, Chicago, IL, March 25, 2007.
- 95) Shaffer, A. R.; **Schmidt, J. A. R.** “Synthesis and Reactivity of 3-Iminophosphine Ligands with Group X Metals.” Ohio Inorganic Weekend, Ohio University, Athens, OH, November 18, 2006.
- 96) Baiz, T. I.; Seambos, C. L.; **Schmidt, J. A. R.** “Development of New Group IV and V Catalysts Based on Orthometallated Acetophenone Phenyl Imine Derivatives.” Ohio Inorganic Weekend, Ohio University, Athens, OH, November 17, 2006.
- 97) **Schmidt, J. A. R.** “Development of Late-Metal Catalysts for Carbonylation and Hydroamination.” Departmental Colloquium, Department of Chemical Engineering, The University of Toledo, Toledo, OH, March 23, 2006.

#### **Cornell University (4)**

- 98) **Schmidt, J. A. R.**; Getzler, Y. D. Y. L.; Mahadevan, V.; Coates, G. W. “Catalytic Carbonylation of Three- and Four-Membered Organic Heterocycles.” Ohio Inorganic Weekend, The University of Akron, Akron, OH, November 12, 2004.
- 99) **Schmidt, J. A. R.** “Stoichiometric and Catalytic Reactions of Heterobimetallic Complexes.” Departmental Colloquium, The University of Toledo, Toledo, OH, March 1, 2004.
- 100) **Schmidt, J. A. R.**; Mahadevan, V.; Getzler, Y. D. Y. L. Coates, G. W. “New Catalysts for Carbonylation of Epoxides to Form  $\beta$ -Lactones.” 226<sup>th</sup> ACS National Meeting, New York, NY, September 9, 2003.
- 101) Getzler, Y. D. Y. L.; **Schmidt, J. A. R.**; Coates, G. W. “An Air-Free Teaching Lab that Benefits Research.” 226<sup>th</sup> ACS National Meeting, New York, NY, September 9, 2003.

#### **University of California—Berkeley (4)**

- 102) Giesbrecht, G. R.; **Schmidt, J. A. R.**; Anderson, L. L.; Bergman, R. G.; Arnold, J. “Reactivity of Complexes with New N-Donor Supporting Ligands.” 222<sup>nd</sup> ACS National Meeting, Chicago, IL, August 26, 2001.
- 103) **Schmidt, J. A. R.**; Arnold, J. “Reactivity of Alkyl and Alkylidene Tantalum-Lithium Complexes Supported by an Anionic Triazacyclononane Ligand.” 222<sup>nd</sup> ACS National Meeting, Chicago, IL, August 28, 2001.
- 104) **Schmidt, J. A. R.**; Giesbrecht, G. R.; Anderson, L. L.; Chmura, S. A.; Gebauer, A.; Arnold, J. “Bulky Amidinates and Related Species as Ancillary Ligands for Early Transition Metals.” Pacificchem 2000, Honolulu, HI, December 17, 2000.
- 105) **Schmidt, J. A. R.**; Arnold, J. “Reactivity of a Series of Sterically Hindered

Amidinate Ligands Incorporating Bulky Terphenyl Substituents.” 219<sup>th</sup> ACS National Meeting, San Francisco, CA, March 30, 2000.

**Kansas State University (2)**

- 106) **Schmidt, J. A. R.**; Gibson, H. W. “Hyperbranched Poly(Aryl Ester)s: Synthesis, Characterization, and Functionalization.” NSF Summer Undergraduate Research Program Annual Symposium, Blacksburg, VA, July 27, 1996.
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