

## Curriculum Vitae for Professor Mark Stradiotto

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### **ACADEMIC HISTORY**

<b>Dalhousie University</b> , Department of Chemistry Halifax, Nova Scotia, Canada <i>Arthur B. McDonald Research Chair</i> (CRC Tier-I equivalent; 2020-2027) <i>Alexander McLeod Professor of Chemistry</i> (2013-present) <i>Professor</i> (2009-2013) <i>Associate Professor</i> (2006-2009) <i>Assistant Professor</i> (2001-2006)	2001-present
<b>University of California at Berkeley</b> , Department of Chemistry Berkeley, California, U. S. A. <i>Natural Sciences and Engineering Research Council of Canada Postdoctoral Fellow</i>	1999-2001
<b>McMaster University</b> , Department of Chemistry Hamilton, Ontario, Canada <i>Doctor of Philosophy</i>	1999
<b>McMaster University</b> , Faculty of Science Hamilton, Ontario, Canada <i>Bachelor of Science</i> , Honours Applied Chemistry (with distinction)	1995

### **SELECTED HONOURS (2010-present)**

<b>Canadian Governor General's Innovation Award</b> Government of Canada, Rideau Hall Foundation <i>for scientific innovations contributing to Canada's success and advancement</i>	2023
<b>Rio Tinto Award</b> Canadian Society for Chemistry <i>for distinguished contributions to the field of inorganic chemistry in Canada</i>	2021
<b>Faculty of Graduate Studies Distinguished Service Award</b> Dalhousie University <i>for distinguished contributions to advancing graduate studies programming</i>	2021
<b>Convocation Speaker (Dalhousie University)</b>	2018
<b>Faculty of Science Award for Excellence in Teaching</b>	2018
<b>Fellow of the Royal Society of Chemistry-UK</b>	2017-present
<b>Editorial Advisory Board for the RSC Journal "Catalysis Science &amp; Technology"</b>	2015-present
<b>Alexander McLeod Professor of Chemistry</b> Dalhousie University <i>for outstanding achievement in research</i>	2013
<b>Strem Chemicals Award for Pure or Applied Inorganic Chemistry</b> Canadian Society for Chemistry <i>for outstanding contributions to inorganic chemistry by an early career researcher</i>	2012
<b>Faculty of Science Killam Research Professorship</b> <i>for outstanding achievement in research</i>	2011-2016
<b>Editorial Advisory Board for the ACS Journal "Organometallics"</b>	2010-2013

## **RESEARCH**

**Overview.** Research efforts in the Stradiotto group are directed toward developing new classes of ancillary ligands/transition metal complexes that exhibit interesting and unusual reactivity patterns, with the goal of incorporating such reactivity into synthetically useful catalytic substrate transformations that can be employed by end-users in both academic and industrial settings. Our current research program is focused on the development of: highly effective ancillary ligands for use in challenging late metal-catalyzed cross-couplings and related substrate transformations, including multi-component reactions and hydroaminations; and Earth-abundant first-row metal catalysts, toward the development of more sustainable and environmentally friendly chemical syntheses. Central themes that link these various programs include: the establishment of innovative ligation strategies for use in constructing suitably reactive transition metal complexes; the evaluation of structure-activity relationships including mechanistic studies to guide the development of increasingly reactive complexes; and the development of new and synthetically useful substrate transformations. To date, more than 15 of our ‘DalPhos’ ligands and catalysts developed in the Stradiotto group have been commercialized, and this research has attracted funding from local, regional, national, international, and industrial sources.

### **Recent and Current Operating/Equipment Funding.** (all CDN\$, % usage by Stradiotto group given)

“Metal-Catalyzed Cross-Couplings for Enabling Sustainable Agrochemical Development”  
NSERC Alliance Grant with Bayer AG; \$162,000 (2023-2026); 100%

“Exploiting Nickel Cross-coupling Catalysis for the Practical Synthesis and Functionalization of Pharmaceutically Relevant Organic Molecules”  
NSERC Alliance Grant with Paraza Pharma; \$180,000 (2021-2024); 100%

“Pursuit of an Expedient Route to a Proprietary Agrochemical Intermediate Based on Chemoselective Metal-Catalyzed Alpha Arylation”  
NSERC Alliance Grant with Bayer AG; \$59,400 (2021-2023); 100%

“Multi-User, High-Throughput Facility for Compositional Analysis of Molecules and Materials”  
NSERC Research Tools and Instruments-1; \$108,875 (2020-2021); 15%

“Arthur B. McDonald Research Chair Research Grant (CRC Tier-I equivalent)”  
\$175,000 (2020-2027); 100%

“Nickel-Catalyzed Synthesis and N-Arylation of Biologically Active Sulfonamides”  
NSERC Engage Grant with Paraza Pharma; \$25,000 (2019); 100%

“Innovations in Cross-coupling via Mechanistically Guided Base-Metal Catalyst Design”  
NSERC Discovery Grant; \$630,000 (2019-2025); 100%

“Synthesis of an Irreversible Inhibitor of Polθ”  
MITACS Accelerate with Repare Therapeutics; \$15,000 (2019); 100%

“Multi-User Ultra High Performance Liquid Chromatography/Mass Spectrometry Instrument for High-Throughput Analysis”  
NSERC Research Tools and Instruments-1; \$150,000 (2017-2018); 25%

“Sustainable Base Metal/Main Group Catalysis for Pharmaceutical Applications”  
Dalhousie Innovation-based Undergraduate Research Funding; \$15,000 (2017); 100%

“High-Resolution Tandem Mass Spectrometer for Small Molecule and Bioanalysis Research”  
NSERC Research Tools and Instruments-1; \$150,000 (2016-2017); 10%

“PAD-DalPhos: A New Ligand Class for Nickel-Catalyzed Cross-Coupling”  
NSERC Idea to Innovation Grant; \$125,000 (2015-2017); 100%

### Curriculum Vitae for Dr. Mark Stradiotto (Professor)

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Halifax, Nova Scotia Canada B3H 4R2  
<https://www.dal.ca/sites/stradiotto.html>

7 October 2023

“Novel Nickel Catalysts for Commercially Relevant Organic Transformations”

Springboard Proof of Concept Funding; \$19,614 (2015); 100%

“Advancing Late Metal Catalysis: DalPhos Ligand Design, Mechanism, and New Reactivity”

NSERC Discovery Grant; \$420,000 (2014-2019); 100%

“Source and Probe to Enable Atmospheric Pressure Photon Ionization (APPI) Mass Spectrometry and the Mass Spectral Analysis of Solids”

NSERC Research Tools and Instruments-1; \$38,630 (2014-2015); 20%

“Application of a Proprietary Ligand Class”

Chevron Phillips Chemical; \$465,000 (2012-2019); 50% in collaboration with Laura Turculet

“Faculty of Science Killam Research Professorship”

Dalhousie University; \$10,000 (2011-2016); 100%

“Alexander McLeod Professor of Chemistry”

Dalhousie University; \$6,000/year research stipend (2013-retirement); 100%

“An Interdisciplinary Approach Towards the Development of a Disease-stabilizing Treatment for Alzheimer's Disease”

NSERC CHRP Program; \$451,000 (2012-2015); 50% in collaboration with Don Weaver

“Direct Preparation of Key Intermediates in Heterocycle Synthesis Employing Novel Pd-Catalyzed Alpha-Arylation”

NSERC Engage Program; \$24,500 (2012); 100%

“Phosphino silyl ether ligands for metal-catalyzed cross-coupling catalysis”

Springboard Innovation Mobilization Program Award; \$20,000 (2012-2013); 100%

“Phosphino silyl ether ligands for metal-catalyzed cross-coupling catalysis”

GreenCentre Proof-of-Principle Grant; \$20,000 (2012-2013); 100%

“Diagnostic and Medicinal Chemistry”

NSHRF Scotia Support Grant Application; \$50,000 (2013-2014); 12%

### **PATENTS**

(a) “Silanyloxyaryl Phosphine Ligand and Uses Thereof in C-N Cross-Coupling” PCT/CA2013/050315.

(b) “Novel Catalyst” PCT/US2011/061130 (*covers the P,N-DalPhos ligand family*). US 2013/0253185 A1.

(c) “Diversification of the Edaravone Structure via Palladium-Catalyzed Hydrazine Cross-Coupling with Application in Inhibiting Beta Amyloid Aggregation” US 61/811,136.

(d) “Olefin Hydroboration” US 2014/293,833 (with Chevron Phillips Chemical).

(e) “Ligand for Catalyst or Pre-catalyst and Method of Forming C(sp<sup>2</sup>)-N Bond” PCT/CA2016/050622 (publication number of application: WO2016191873 A1*covers PAd-DalPhos*).

### **BOOK CHAPTERS AND EDITORIAL ACTIVITIES**

(a) M. Stradiotto, “Ancillary Ligand Design in the Development of Palladium Catalysts for Challenging Selective Monoarylation Reactions” in *New Trends in Cross-Coupling: Theory and Application* (Ed.: T. J. Colacot), Royal Society of Chemistry, Cambridge, UK, **2014**, pp. 228-253.

(b) Co-Editor “*Ligand Design in Transition Metal Chemistry: Reactivity and Catalysis*” (**2016**, John Wiley & Sons).

**OUTREACH & EDI ACTIVITIES**

- (a) "Made-In-Canada Athena Swan Workshop: Prelude to Dimensions-EDI (workshop participant)" Dalhousie University, Halifax, NS (03 October 2018).
- (b) "Ask a Scientist" public information/out-reach session (during International Buskers Festival), Halifax, NS (03 August 2018).
- (c) "Forum on Embedding EDI in Teaching and Learning" (workshop participant), Dalhousie University, Halifax, NS (14 November 2019).
- (d) "Cultivating an Inclusive Environment" (workshop participant), Faculty of Science, Dalhousie University, Halifax, NS (15 November 2019).

**REFEREED PUBLICATIONS**

**A = Article; C = Communication/Letter; N = Note; R = Review; H = Highlight; I = Invited**

- (152) (**R**) "Advances in Nickel-Catalyzed O-Arylation of Aliphatic Alcohols and Phenols with (Hetero)aryl Electrophiles." K. M. Morrison and **Mark Stradiotto\*** (*Synthesis*, **2023**, *in press*).
- (151) (**A**) "Palladium-Catalyzed Chemoselective Mono- $\alpha$ -Arylation of *O*-Protected Hydroxyacetone: Efficient Access to a High-Value Synthetic Intermediate." J. W. M. MacMillan, T. Lundrigan, G. Volpin, S. J. Kaldas, P. Holstein, M. J. Ford, N. Guimond,\* and **Mark Stradiotto\*** (*Adv. Synth. Catal.*, **2023**, *365*, 2594-2600).
- (150) (**A**) "Nickel-Catalyzed Chemoselective Arylation of Amino Alcohols." K. M. Morrison, C. S. Yeung, and **Mark Stradiotto\*** (*Angew. Chem. Int. Ed.* **2023**, e202300686). For an article highlighting synthetic utility, see: *Org. Process Res. Dev.* **2023**, *27*, 1210–1219.
- (149) (**A,I**) "Nickel-Catalyzed *N*-Arylation of Optically Pure Amino Acid Esters with Activated (Hetero)aryl Electrophiles." T. Lundrigan, J. P. Tassone, and **Mark Stradiotto\*** (*Can. J. Chem.*, **2023**, *121*, 275-283). Invited contribution as an Award Lecture submission, *Rio Tinto Award, Canadian Society for Chemistry*.
- (148) (**A**) "Nickel-Catalyzed *N*-Arylation of Sulfinamides: A Comparative Study versus Analogous Sulfonamide Cross-Couplings." C. M. Simon, K. N. Robertson, P. L. DeRoy, A. A. Yadav, E. R. Johnson,\* and **Mark Stradiotto\*** (*Organometallics*, **2023**, *42*, 1704-1710). Invited contribution to Joint Special Issue: *Advances and Applications in Catalysis with Earth-Abundant Metals*.
- (147) (**C**) "Bisphosphine/Nickel-Catalyzed C-O Cross-Coupling of Phenols with Chloropyridine and Related Electrophiles." N. E. Bodé, R. T. McGuire, and **Mark Stradiotto\*** (*Org. Lett.*, **2022**, *24*, 8986-8989).
- (146) (**A**) "Comparative Screening of DalPhos/Ni Catalysts in C-N Cross-couplings of (Hetero)aryl Chlorides Enables Development of Aminopyrazole Cross-couplings with Amine Base." N. Martinek, K. M. Morrison, J. M. Field, S. A. Fisher, and **Mark Stradiotto\*** (*Chem. Eur. J.*, **2022**, *29*, e202203394).
- (145) (**N**) "Nickel-Catalyzed C-N Cross-Coupling of 4-Chloro-1,8-naphthalimides and Bulky, Primary Alkylamines at Room Temperature." J. P. Tassone, T. Lundrigan, T. D. Ashton, and **Mark Stradiotto\*** (*J. Org. Chem.*, **2022**, *87*, 6492-6498).
- (144) (**C**) "Organic Base Enabled Nickel-Catalyzed Mono- $\alpha$ -Arylation of Feedstock Solvents." J. W. M. MacMillan, R. T. McGuire, and **Mark Stradiotto\*** (*Chem. Eur. J.*, **2022**, *28*, e202200764).
- (143) (**A**) "Mapping 'Dual-Base'-Enabled Ni-Catalyzed Aryl Amidations: Application in the Synthesis of 4-Quinolones." R. T. McGuire, T. Lundrigan, J. W. M. MacMillan, K. N. Robertson, A. A. Yadav, and **Mark Stradiotto\*** (*Angew. Chem. Int. Ed.*, **2022**, *61*, e202200352). Highlighted as a *Hot Paper* by the journal editors.
- (142) (**C**) "Identification of a Nitrenoid Reductive Elimination Pathway in Nickel-Catalyzed C-N Cross-Coupling" C. M. Simon, S. L. Dudra, R. T. McGuire, M. J. Ferguson, Erin R. Johnson, and **Mark Stradiotto\*** (*ACS Catal.*, **2022**, *12*, 1475-1480).

- (141) (C) "CgPhen-DalPhos Enables the Nickel-Catalyzed *O*-Arylation of Tertiary Alcohols with (Hetero)Aryl Electrophiles" K. M. Morrison, R. T. McGuire, M. J. Ferguson, and **Mark Stradiotto\*** (*ACS Catal.*, **2021**, *11*, 10878-10884). For an article highlighting the synthetic utility, see: *Synfacts* **2021**, 17(11):1231.
- (140) (A) "Structural and Reactivity Comparisons of JosiPhos CyPF-Cy and a Simplified Variant ("CyPBn-Cy") in Nickel-Catalyzed C(sp<sup>2</sup>)-N Cross-Couplings." N. E. Bodé, J. P. Tassone, M. J. Ferguson, and **Mark Stradiotto\*** (*Organometallics*, **2021**, *40*, 2915–2922).
- (139) (C,I) "Nickel-Catalyzed N-Arylation of Amides with (Hetero)aryl Electrophiles using a DBU/NaTFA Dual-Base System." T. Lundrigan, J. P. Tassone, and **Mark Stradiotto\*** (*Synlett*, **2021**, *32*, 1665-1669). Invited contribution to the thematic cluster on modern aspects of nickel in catalysis.
- (138) (C) "Nickel-Catalyzed N-Arylation of Fluoroalkylamines." R. T. McGuire, A. A. Yadav, and **Mark Stradiotto\*** (*Angew. Chem. Int. Ed.*, **2021**, *60*, 4080-4084). For an article highlighting the synthetic utility, see: *Synfacts* **2021**, 17(02):0179.
- (137) (A) "Chromium N-Phosphinoamidine Ethylene Tri-/Tetramerization Catalysts: Designing a Step Change in 1-Octene Selectivity" T. Ogawa, F. Lindeperg, **Mark Stradiotto\***, L. Turculet,\* and O. L. Sydora\* (*J. Catal.*, **2021**, *394*, 444-450).
- (136) (A) "Synthetic Investigations of Low-Coordinate (N-Phosphino-amidinate) Nickel Chemistry: Agostic Alkyl Complexes and Benzene Insertion into Ni-H." C. M. Macaulay, M. Samolia, M. J. Ferguson, O. L. Sydora,\* D. H. Ess,\* **Mark Stradiotto\***, and L. Turculet\* (*Dalton Trans.*, **2020**, *49*, 4811–4816).
- (135) (C) "Ligand-Enabled Nickel-Catalyzed Cross-Coupling of Primary and Secondary Sulfonamides With (Hetero)aryl Chlorides." R. T. McGuire, C. M. Simon, A. A. Yadav, M. J. Ferguson, and **Mark Stradiotto\*** (*Angew. Chem. Int. Ed.*, **2020**, *59*, 8952-8956). For an article highlighting the synthetic utility, see: *Org. Process Res. Dev.* **2020**, *24*, 2428-2444.
- (134) (A) "Bulky 1,1'-Ferrocenyl Ligands Featuring Diazaphospholene or Dioxaphosphepine Donor Fragments: Catalytic Screening in Nickel-Catalyzed C-N Cross-Coupling" R. T. McGuire, J. S. K. Clark, A. V. Gatien, M. Y. Shen, M. J. Ferguson, and **Mark Stradiotto\*** (*Eur. J. Inorg. Chem.*, **2019**, 4112-4116). Highlighted as a *Very Important Paper* by the journal editors.
- (133) (C) "Nickel-Catalyzed C-N Cross-Coupling of Ammonia, (Hetero)anilines, and Indoles with Activated (Hetero)aryl Chlorides Enabled by Ligand Design" R. T. McGuire, J. F. J. Paffile, Y. Zhou, and **Mark Stradiotto\*** (*ACS Catal.*, **2019**, *9*, 9292-9297).
- (132) (C) "PAd2-DalPhos Enables the Nickel-Catalyzed C-N Cross-Coupling of Primary Heteroarylamines and (Hetero)aryl Chlorides" J. S. K. Clark, M. J. Ferguson, R. McDonald, and **Mark Stradiotto\*** (*Angew. Chem. Int. Ed.*, **2019**, *58*, 6391-6395).
- (131) (C) "PhPAd-DalPhos: Ligand-Enabled, Nickel-Catalyzed Cross-Coupling of (Hetero)aryl Electrophiles with Bulky Primary Alkylamines" J. P. Tassone, E. V. England, P. M. MacQueen, M. J. Ferguson, and **Mark Stradiotto\*** (*Angew. Chem. Int. Ed.*, **2019**, *58*, 2485-2489). For an article highlighting the synthetic utility, see: *Org. Process Res. Dev.* **2019**, *23*, 674-682.
- (130) (A) "A Comparative Analysis of Hydrosilative Amide Reduction Catalyzed by First-Row Transition Metal (Mn, Fe, Co, and Ni) N-Phosphinoamidinate Complexes" C. M. Macaulay, T. Ogawa, R. McDonald, O. L. Sydora,\* **Mark Stradiotto\***, and L. Turculet\* (*Dalton Trans.*, **2019**, *48*, 9581–9587).
- (129) (A) "Examining the Impact of Heteroaryl Variants of PAd-DalPhos on Nickel-Catalyzed C(sp<sup>2</sup>)-N Cross-Couplings" J. S. K. Clark, R. T. McGuire, C. M. Lavoie, M. J. Ferguson and **Mark Stradiotto\*** (*Organometallics*, **2019**, *38*, 167–175).
- (128) (A) "Probing the Influence of PAd-DalPhos Ancillary Ligand Structure on Nickel-Catalyzed Ammonia Cross-Coupling" C. M. Lavoie, J. P. Tassone, M. J. Ferguson, Y. Zhou, E. R. Johnson,\* and **Mark Stradiotto\*** (*Organometallics*, **2018**, *37*, 4015–4023).

- (127) (A) "Alkene Isomerization-Hydroboration Catalyzed by First-Row Transition Metal (Mn, Fe, Co, and Ni) *N*-Phosphinoamidinate Complexes: Origin of Reactivity and Selectivity" C. M. Macaulay, S. J. Gustafson, J. T. Fuller III, D.-H. Kwon, T. Ogawa, M. J. Ferguson, R. McDonald, M. D. Lumsden, S. M. Bischof,\* O. L. Sydora,\* D. H. Ess,\* **Mark Stradiotto**,\* and L. Turculet\* (*ACS Catal.*, **2018**, *8*, 9907-9925).
- (126) (R,I) "Bisphosphines: A Prominent Ancillary Ligand Class for Application in Nickel-catalyzed C-N Cross-coupling" C. M. Lavoie and **Mark Stradiotto**\* (*ACS Catal.*, **2018**, *8*, 7228-7250).
- (125) (A) "Application of Diazaphospholidine/Diazaphospholene-Based Bisphosphines in Room Temperature Nickel-Catalyzed C(sp<sup>2</sup>)-N Cross-Couplings of Primary Alkylamines with (Hetero)aryl Chlorides and Bromides" A. V. Gatien, C. M. Lavoie, R. N. Bennett, M. J. Ferguson, R. McDonald, E. R. Johnson, A. W. H. Speed,\* and **Mark Stradiotto**\* (*ACS Catal.*, **2018**, *8*, 5328-5339).
- (124) (A,I) "Probing the Effect of Donor-Fragment Substitution in Mor-DalPhos on Palladium-Catalyzed C-N and C-C Cross-coupling Reactivity" S. M. Crawford, C. A. Wheaton, V. Mishra, and **Mark Stradiotto**\* (*Can. J. Chem.*, **2018**, *96*, 578-586). Issue in honour of Professor Neil Burford.
- (123) (C) "Exploiting Ancillary Ligation to Enable Nickel-Catalyzed C-O Cross-Couplings of Aryl Electrophiles with Aliphatic Alcohols" P. M. MacQueen, J. P. Tassone, C. Diaz, and **Mark Stradiotto**\* (*J. Am. Chem. Soc.*, **2018**, *140*, 5023-5027). For an article highlighting the synthetic utility, see: *Org. Process Res. Dev.* **2018**, *22*, 657-666.
- (122) (A,I) "Developing Backbone-Modified Mor-DalPhos Ligand Variants for use in Palladium-Catalyzed C-N and C-C Cross-coupling" M. A. MacLean, C. A. Wheaton, and **Mark Stradiotto**\* (*Can. J. Chem.*, **2018**, *96*, 712-721). Issue in honour of the 200<sup>th</sup> anniversary of Dalhousie University.
- (121) (C) "(DPEPhos)Ni(mesityl)Br: An Air-Stable Pre-Catalyst for Challenging Suzuki-Miyaura Cross-couplings Leading to Unsymmetrical Biheteroaryls" R. S. Sawatzky and **Mark Stradiotto**\* (*Synlett*, **2018**, *29*, 799-804). Highlighted in the 'News' section of *Synform*.
- (120) (C) "A Manganese Pre-Catalyst for the Mild Reduction of Amides, Ketones, Aldehydes, and Esters" C. M. Kelly, R. McDonald, O. L. Sydora,\* **Mark Stradiotto**\* and L. Turculet\* (*Angew. Chem. Int. Ed.*, **2017**, *56*, 15901-15904).
- (119) (A) "Sequential One-pot Three-step Synthesis of Polysubstituted 4-(5-(trifluoromethyl)-1H-pyrazol-4-yl)-1H-1,2,3-triazole Systems" H. G. Bonacorso,\* G. M. Dal Forno, C. Wiethan, A. Ketzer, N. Zanatta, C. P. Frizzo, M. A. P. Martins, and **Mark Stradiotto** (*RSC Adv.*, **2017**, *7*, 43957-43964).
- (118) (A) "Bisphosphine-Ligated Nickel Pre-catalysts in C(sp<sup>2</sup>)-N Cross-Couplings of Aryl Chlorides: A Comparison of Ni(I) and Ni(II)" C. M. Lavoie, R. McDonald, E. R. Johnson\* and **Mark Stradiotto**\* (*Adv. Synth. Catal.*, **2017**, *359*, 2972-2980).
- (117) (A) "Nickel-Catalyzed *N*-Arylation of Cyclopropylamine and Related Ammonium Salts with (Hetero)aryl (Pseudo)halides at Room Temperature" J. P. Tassone, P. M. MacQueen, C. M. Lavoie, M. J. Ferguson, R. McDonald and **Mark Stradiotto**\* (*ACS Catal.*, **2017**, *7*, 6048-6059).
- (116) (A) "Exploring the Influence of Phosphine Ligation on the Gold-Catalyzed Hydrohydrazination of Terminal Alkynes at Room Temperature" N. L. Rotta-Loria, A. J. Chisholm, P. M. MacQueen, R. McDonald, M. J. Ferguson and **Mark Stradiotto**\* (*Organometallics*, **2017**, *36*, 2470-2475).
- (115) (C) "Nickel-Catalyzed Cross-coupling of Ammonia or Primary Alkylamines with (Hetero)aryl Sulfamates, Carbamates, or Pivalates" P. M. MacQueen and **Mark Stradiotto**\* (*Synlett*, **2017**, *28*, 1652-1656).
- (114) (A) "Ni and Cu-Catalyzed One Pot Synthesis of Unsymmetrical 1,3-Di(hetero)aryl-1H-indazoles from Hydrazine, o-Chloro(hetero)benzophenones, and (Hetero)aryl Bromides" C. Wiethan, C. M. Lavoie, A. Borzenko, J. S. K. Clark, H. G. Bonacorso\* and **Mark Stradiotto**\* (*Org. Biomol. Chem.* **2017**, *15*, 5062-5069).

- (113) (C,I) "Efficient Cross-Coupling of Secondary Amines/Azoles and Activated (Hetero)Aryl Chlorides Using an Air-Stable DPEPhos/Nickel Pre-Catalyst" R. S. Sawatzky, M. J. Ferguson and **Mark Stradiotto\*** (*Synlett*, **2017**, 28, 1586-1591). Invited follow-up contribution regarding *Thieme Chemistry journals award*.
- (112) (C) "Dehydrogenative B-H/C(sp<sup>3</sup>)-H Benzylic Borylation Within the Coordination Sphere of Platinum(II)" C. M. Kelly, J. T. Fuller, III, C. M. Macaulay, R. McDonald, M. J. Ferguson, S. M. Bischof, O. L. Sydora,\* D. H. Ess,\* **Mark Stradiotto\*** and L. Turculet\* (*Angew. Chem. Int. Ed.*, **2017**, 56, 6312-6316).
- (111) (A) "Evaluating 1,1'-Bisphosphinoferrocene Ancillary Ligand Variants in the Nickel-Catalyzed C-N Cross-Coupling of (Hetero)aryl Chlorides" J. S. K. Clark, C. N. Voth, M. J. Ferguson and **Mark Stradiotto\*** (*Organometallics* **2017**, 36, 679-686). Highlighted as an *ACS Editors Choice* and *Top Five Accessed Articles* for 2017.
- (110) (A) "Cobalt- and Iron-Catalyzed Isomerization-Hydroboration of Branched Alkenes: Terminal Hydroboration with Pinacolborane and 1,3,2-Diazaborolanes" T. Ogawa, A. R. Ruddy, O. L. Sydora,\* L. Turculet\* and **Mark Stradiotto\*** (*Organometallics* **2017**, 36, 417-423). For an article highlighting the synthetic utility, see: *Synfacts* **2017**, 13, 299.
- (109) (C) "Nickel-Catalyzed N-Arylation of Primary Amides and Lactams with Activated (Hetero)aryl Electrophiles" C. M. Lavoie, P. M. MacQueen, and **Mark Stradiotto\*** (*Chem. Eur. J.*, **2016**, 22, 18752-18755). For an article highlighting the synthetic utility, see: *Org. Process Res. Dev.* **2017**, 21, 142-152.
- (108) (A) "A Comparative Reactivity Survey of Some Prominent Bisphosphine Nickel(II) Pre-Catalysts in C-N Cross-Coupling" J. S. K. Clark, C. M. Lavoie, P. M. MacQueen, M. J. Ferguson and **Mark Stradiotto\*** (*Organometallics* **2016**, 35, 3248-3254).
- (107) (A) "Synthesis of Pyrazolo[1,5-*a*]quinoxalin-4(5H)-ones via One-pot Amidation/N-Arylation Reactions Under Transition Metal-Free Conditions" C. Wiethan, S. Z. Franceschini, H. G. Bonacorso\* and **Mark Stradiotto\*** (*Org. Biomol. Chem.* **2016**, 14, 8721-8727).
- (106) (A) "A Comparative Ancillary Ligand Survey in Palladium-Catalyzed C-O Cross-Coupling of Primary and Secondary Aliphatic Alcohols" R. S. Sawatzky, B. K. V. Hargreaves and **Mark Stradiotto\*** (*Eur. J. Org. Chem.* **2016**, 2444-2449).
- (105) (C) "Challenging Nickel-Catalyzed Amine Arylations Enabled by Tailored Ancillary Ligand Design" C. M. Lavoie, P. M. MacQueen, N. L. Rotta-Loria, R. S. Sawatzky, A. Borzenko, A. J. Chisholm, B. K. V. Hargreaves, R. McDonald, M. J. Ferguson and **Mark Stradiotto\*** (*Nature Comm.* **2016**, 7, 11073; doi: 10.1038/ncomms11073). For an article highlighting the synthetic utility, see: *Synform* 2016/08, A119-A121.
- (104) (A) "Synthesis of Tetra-substituted 5-Trifluoromethylpyrazoles via Sequential Halogenation/Palladium-Catalyzed C-C and C-N Cross-Coupling" C. Wiethan, W. C. Rosa, H. G. Bonacorso\* and **Mark Stradiotto\*** (*Org. Biomol. Chem.* **2016**, 14, 2352-2359).
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- (28) (A) "Synthesis and Crystallographic Characterization of New Mn(I) Complexes of Donor-Functionalized Indenes." J. Cipot, D. Wechsler, R. McDonald, M. J. Ferguson, and **Mark Stradiotto\***. (*Organometallics*, **2005**, *24*, 1737-1746).
- (27) (C) "Structurally Diverse Rh(I) and Mn(I) Complexes Derived from the New Ambidentate Indene Ligand, (1-{<sup>i</sup>Pr<sub>2</sub>P(S)}-2-{NMe<sub>2</sub>})C<sub>9</sub>H<sub>6</sub>." D. Wechsler, R. McDonald, M. J. Ferguson, and **Mark Stradiotto\***. (*Chem. Commun.*, **2004**, 2446-2447).
- (26) (A) "A New Fluorous Soluble Lewis Acidic Borane System." H. Luong, M. E. Eelman, and **Mark Stradiotto\***. (*Can. J. Chem.*, **2004**, *82*, 533-538).
- (25) (A) "The Divergent Isomerization Behavior and Rh(I) Coordination Chemistry of Indenyl Ligands Bearing Either One or Two Pnictogen Donor Fragments." J. Cipot, D. Wechsler, **Mark Stradiotto\***, R. McDonald, and M. J. Ferguson. (*Organometallics*, **2003**, *22*, 5185-5192).

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- (24) (C) "A Catalytically Active, Charge-Neutral Rh(I) Zwitterion Featuring a P,N-Substituted "Naked" Indenide Ligand." **Mark Stradiotto\***, J. Cipot, and R. McDonald. (*J. Am. Chem. Soc.*, **2003**, *125*, 5618-5619).
- (23) (A) "The Synthesis and Structural Characterization of Linear and Macrocyclic Bis(dinitrosyliron) Complexes Supported by Bis(phosphine) Bridging Ligands." L. Li\*, N. Reginato, M. Urschey, **Mark Stradiotto\***, and J. D. Liarakos. (*Can. J. Chem.*, **2003**, *81*, 468-475).
- (22) (R, I) " $\eta^1$ -Indenyl Derivatives of Transition Metal and Main Group Elements: Synthesis, Characterization and Molecular Dynamics." **Mark Stradiotto\*** and M. J. McGlinchey\*. (*Coord. Chem. Rev.*, **2001**, *219-221*, 311-378).
- (21) (A, I) "Generation and Reactivity of ( $i$ Pr<sub>2</sub>PCH<sub>2</sub>CH<sub>2</sub>P $i$ Pr<sub>2</sub>)RhPH(2,4,6- $t$ Bu<sub>3</sub>C<sub>6</sub>H<sub>2</sub>). Catalytic Carbon-Phosphorus Bond Formation *via* Intramolecular C-H/P-H Dehydrogenative Cross-Coupling." **Mark Stradiotto**, K. L. Furdala, and T. D. Tilley\*. (*Helv. Chim. Acta*, **2001**, *84*, 2958-2970; issue in honour of Luigi Venanzi).
- (20) (C) "Iridium(III) Complexes of the New Tridentate Bis(8-quinolyl)silyl ("NSiN") Ligand." **Mark Stradiotto**, K. L. Furdala, and T. D. Tilley\*. (*Chem. Commun.*, **2001**, 1200-1201).
- (19) (A) "Diels-Alder Adducts of 5-Alkynylcyclopentadienols with Tetracyanoethylene and Dimethyl Acetylenedicarboxylate: An X-Ray Crystallographic Study of Unexpected Rearrangement Products." J. A. Dunn, **Mark Stradiotto**, and M. J. McGlinchey\*. (*J. Org. Chem.*, **2000**, *65*, 4861-4863).
- (18) (A) "Reactions of C<sub>6</sub>F<sub>5</sub>Li with Tetracyclone and 3-Ferrocenyl-2,4,5-Triphenylcyclopentadienone: A <sup>19</sup>F NMR and X-Ray Crystallographic Study of Hindered Pentafluorophenyl Rotations." H. K. Gupta, **Mark Stradiotto**, D. W. Hughes, and M. J. McGlinchey\*. (*J. Org. Chem.*, **2000**, *65*, 3652-3658).
- (17) (A) "The Molecular Dynamics and Reactivity of Tris(inden-1-yl)silane: An NMR Spectroscopic and X-Ray Crystallographic Study." **Mark Stradiotto**, M. A. Brook\*, and M. J. McGlinchey\*. (*J. Chem. Soc., Perkin Trans. 2*, **2000**, 611-618).
- (16) (A) "Crystallographic Characterization of a Stable 7-Phosphanorbornadiene Oxide: 2,3-Benzo-1,4,5,6,7-pentaphenyl-7-phosphabicyclo[2.2.1]hept-5-ene-oxide." C. Gottardo\*, S. Fratpietro, A. N. Hughes, and **Mark Stradiotto**. (*Heteroatom Chem.*, **2000**, *11*, 182-186).
- (15) (A) "Probing the Effect of Organic and Organometallic Functionalization on [1,5]-Silicon Shifts in Indenylsilanes." **Mark Stradiotto\***, P. Hazendonk, A. D. Bain, M. A. Brook\*, and M. J. McGlinchey\*. (*Organometallics*, **2000**, *19*, 590-601).
- (14) (A) "Rhodium Acetylacetonate and Iron Tricarbonyl Complexes of Tetracyclone and 3-Ferrocenyl-2,4,5-triphenylcyclopentadienone: An X-Ray Crystallographic and NMR Study." H. K. Gupta, N. Rampersad, **Mark Stradiotto**, and M. J. McGlinchey\*. (*Organometallics*, **2000**, *19*, 184-191).
- (13) (A) "The Homo- and Cross-[2+2]-Cycloaddition of 1,1-Diphenylsilene and 1,1-Diphenylgermene. Absolute Rate Constants for Dimerization and the Molecular Structures and Photochemistry of the Resulting 1,3-Dimetallacyclobutanes." N. P. Toltl, **Mark Stradiotto**, T. L. Morkin, and W. J. Leigh\*. (*Organometallics*, **1999**, *18*, 5643-5652).
- (12) (A) "The Molecular Dynamics and Cycloaddition Chemistry of Tris(1-indenyl)allylsilane: Generation Of The First Crystallographically Characterized Tris(benzonorbornyl)silane." **Mark Stradiotto**, M. A. Brook, and M. J. McGlinchey\*. (*New J. Chem.*, **1999**, 317-321).
- (11) (N) "Hexacarbonylcobalt-Protected 1,3-Dioxa-2-Silacycloheptynes: Potential Precursors to Strained Heterocyclic Systems." M. A. Brook\*, J. Urschey, and **Mark Stradiotto**. (*Organometallics*, **1998**, *17*, 5342-5346).
- (10) (A) "A Synthetic and X-Ray Crystallographic Study of the Indenyl-Phosphine Complexes 1,3-(Ph<sub>2</sub>P=X)<sub>2</sub>(C<sub>9</sub>H<sub>6</sub>), (X = O, S) and ( $\eta^5$ -C<sub>9</sub>H<sub>5</sub>(Ph<sub>2</sub>P=S)<sub>2</sub>)[Mn(CO)<sub>3</sub>]: Versatile Ligands for the Preparation of Heteropolymetallic Complexes." **Mark Stradiotto**, C. Kozak, and M. J. McGlinchey\*. (*J. Organomet. Chem.*, **1998**, *564*, 101-108).

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- (9) (A) "The Electrochemical and IR-Spectroelectrochemical Studies of the Intermediates in the Catalytic Electrocarboxylation of Alkyl Halides with CO<sub>2</sub>." G. Zheng, **Mark Stradiotto**, and L. Li\*. (*J. Electroanal. Chem.*, **1998**, 453, 79-88).
- (8) (C, I) "Can Metal Clusters Assist Silicon Migrations? An NMR Spectroscopic and X-Ray Crystallographic Study." **Mark Stradiotto**, M. A. Brook, and M. J. McGlinchey\*. (*Inorg. Chem. Commun.*, **1998**, 1, 105-108).
- (7) (A) "Synthesis, X-Ray Crystal Structure, High Field NMR and Electrochemical Studies of a Novel Iron Dinitrosyl Complex, Fe(NO)<sub>2</sub>[P(OMe)<sub>3</sub>](η<sup>2</sup>-TCNE)." A. Horsken, G. Zheng, **Mark Stradiotto**, C. T. C. McCrory, and L. Li\*. (*J. Organomet. Chem.*, **1998**, 558, 1-9).
- (6) (A) "The Diels-Alder Dimerization of Cyclopenta[*l*]phenanthrene (Dibenz[e,g]indene) with Iso-dibenzindene: A Computational, NMR Spectroscopic, and X-Ray Crystallographic Study." S. S. Rigby, **Mark Stradiotto**, S. Brydges, S. Top, A. D. Bain, and M. J. McGlinchey\*. (*J. Org. Chem.*, **1998**, 63, 3735-3740).
- (5) (A) "The Fluxional Character of (η<sup>5</sup>-C<sub>5</sub>H<sub>5</sub>)Fe(CO)<sub>2</sub>(η<sup>1</sup>-C<sub>9</sub>H<sub>7</sub>): Evidence for the [4+2] Cycloaddition of a Metal-Substituted Isoindene with Tetracyanoethylene." **Mark Stradiotto**, D. W. Hughes, A. D. Bain, M. A. Brook, and M. J. McGlinchey\*. (*Organometallics*, **1997**, 16, 5563-5568).
- (4) (A) "Oligoalkynylsilanes: Templates for Inorganometallic Polymers." T. Kuhnen, **Mark Stradiotto**, R. Ruffolo, M. J. McGlinchey, and M. A. Brook\*. (*Organometallics*, **1997**, 16, 5048-5057).
- (3) (A) "Using Hydrosilylation to Assemble Organometallic Polymers Containing Combinations of Silicon-Based Functional Groups." T. Kuhnen, R. Ruffolo, **Mark Stradiotto**, M. J. McGlinchey, and M. A. Brook\*. (*Organometallics*, **1997**, 16, 5042-5047).
- (2) (C) "The Structure of 1-Styrylsilatrane." **Mark Stradiotto**\*, G. Crowe, R. Ruffolo, and M. A. Brook. (*Acta Cryst.*, **1997**, C53, 637-639).
- (1) (A) "Multi-Dimensional NMR Study on the Fluxional Behaviour of Tris(indenyl)methylsilane: Molecular Dynamics Mapped Onto a Hypercube." **Mark Stradiotto**, S. S. Rigby, D. W. Hughes, A. D. Bain, M. A. Brook, and M. J. McGlinchey\*. (*Organometallics*, **1996**, 15, 5645-5652).

### RESEARCH PRESENTATIONS (2001-present)

(P = Poster; O = Oral; I = Invited Oral)

- (105) (I) " 'DalPhos' Catalysts: Enabling More Sustainable Synthesis of Pharmaceuticals and Agrochemicals." **Mark Stradiotto**. St. Francis Xavier University, November 3, 2023. Antigonish, Nova Scotia, Canada.
- (104) (I) " 'DalPhos' Catalysts: Enabling More Sustainable Synthesis of Pharmaceuticals and Agrochemicals." **Mark Stradiotto**. University of New Brunswick, October 16, 2023. Fredericton, New Brunswick, Canada.
- (103) (I) " 'DalPhos' Catalysts: Enabling More Sustainable Synthesis of Pharmaceuticals and Agrochemicals." **Mark Stradiotto**. Clean Technology Research Institute (Dalhousie University), August 22, 2023. Halifax, Nova Scotia, Canada.
- (102) (I) "Exploiting Ancillary Ligation To Enable Nickel-Catalyzed C–O Cross-Couplings of Aryl Electrophiles with Aliphatic Alcohols and Phenols." **Mark Stradiotto**. 21<sup>st</sup> International Symposium on Organometallic Chemistry Directed Toward Organic Synthesis, July 24-28, 2023, Vancouver, British Columbia, Canada.
- (101) (I) "Plenary Lecture: Exploiting "DalPhos" Ligands to Enable Nickel-Catalyzed C-N, C-O, and C-C Cross-Couplings." **Mark Stradiotto**. Modern Ni-catalyzed reactions – presented by Thieme Chemistry, March 6, 2023 (virtual).
- (100) (I) "Exploiting "DalPhos" Ligands to Enable Nickel-Catalyzed C-N, C-O, and C-C Cross-Couplings" **Mark Stradiotto**. Concept Life Sciences, UK, March 2, 2023 (virtual).

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- (99) (I) "Made-In-The-Maritimes' Solution to Sustainably Assembling Pharmaceuticals." **Mark Stradiotto**. Cape Breton University, February 28, 2023. Sydney, Nova Scotia, Canada (virtual).
- (98) (I) "Exploiting "DalPhos" Ligands to Enable Nickel-Catalyzed C-N, C-O, and C-C Cross-Couplings" **Mark Stradiotto**. Pfizer (multi-site seminar, multiple UK and US participating locations), February 22, 2023 (virtual).
- (97) (I) "Exploiting "DalPhos" Ligands to Enable Nickel-Catalyzed C-N, C-O, and C-C Cross-Couplings" **Mark Stradiotto**. AstraZeneca-Sweden Research and Development, November 9, 2022, Mölndal, Sweden (virtual).
- (96) (I) "'Unplugged' Nickel-Catalyzed C-N Cross-Couplings: Ligand Design and Mechanistic Insights." **Mark Stradiotto**. Université de Montreal, November 2, 2022, Montreal, Quebec, Canada.
- (95) (I) "Plenary Lecture: Made-In-The-Maritimes' Solution to Sustainably Assembling Pharmaceuticals." **Mark Stradiotto**. ChemConn Undergraduate Research Conference, May 26-28, 2022. St. Francis Xavier University, Antigonish, Nova Scotia, Canada (virtual).
- (94) (I) "'Unplugged' Nickel-Catalyzed C-N Cross-Couplings: Ligand Design and Mechanistic Insights." **Mark Stradiotto**. Canada-UK Joint Symposium on Coordination Chemistry, May 30-June 1, 2022. St. Andrews, Scotland.
- (93) (I) "Exploiting "DalPhos" Ligands to Enable Nickel-Catalyzed C-N, C-O, and C-C Cross-Couplings" **Mark Stradiotto**. Boehringer-Ingelheim Pharmaceuticals, Inc., March 24, 2022, Ridgefield, CT, USA (virtual).
- (92) (I) "Exploiting "DalPhos" Ligands to Enable Nickel-Catalyzed C-N Cross-Couplings" **Mark Stradiotto**. Université Lyon 1, Institute of Chemistry and Biochemistry, July 8, 2021, Villeurbanne, France (virtual).
- (91) (I) "Exploiting "DalPhos" Ligands to Enable Nickel-Catalyzed C-N Cross-Couplings" **Mark Stradiotto**. Merck & Co., May 20, 2021. Cambridge, Massachusetts, USA (virtual).
- (90) (I) "Exploiting "DalPhos" Ligands to Enable Nickel-Catalyzed C-N Cross-Couplings" **Mark Stradiotto**. Walter and Elizabeth Hall Institute (WEHI), May 7, 2021, Parkville, Victoria, Australia (virtual).
- (89) (I) "Bisphosphine Ligand Design in Enabling Nickel-Catalyzed C-N Cross-Couplings of (Hetero)aryl Chlorides." **Mark Stradiotto**. Global Inorganic Discussion Weekday (GIDW-Virtual Oral Presentation), May 18, 2020.
- (88) (I) "Challenging Nickel-Catalyzed C-N/C-O Cross-Couplings Enabled by Tailored Ancillary Ligand Design." **Mark Stradiotto**. 5<sup>th</sup> International Conference on Organometallics and Catalysis at the Chinese University of Hong Kong, June 7-10, 2020. Hong Kong, China (declined/cancelled due to COVID-19).
- (87) (I) "Challenging Nickel-Catalyzed C-N/C-O Cross-Couplings Enabled by Tailored Ancillary Ligand Design." **Mark Stradiotto**. University of Edinburgh, June 12, 2020. Edinburgh, Scotland (declined/cancelled due to COVID-19).
- (86) (I) "Challenging Nickel-Catalyzed C-N/C-O Cross-Couplings Enabled by Tailored Ancillary Ligand Design." **Mark Stradiotto**. University of Strathclyde, June 11, 2020. Glasgow, Scotland (declined/cancelled due to COVID-19).
- (85) (I) "Challenging Nickel-Catalyzed C-N/C-O Cross-Couplings Enabled by Tailored Ancillary Ligand Design." **Mark Stradiotto**. Canada-UK Joint Symposium on Coordination Chemistry, June 15-17, 2020. St. Andrews, Scotland (declined/cancelled due to COVID-19).
- (84) (I) "Challenging Nickel-Catalyzed C-N/C-O Cross-Couplings Enabled by Tailored Ancillary Ligand Design." **Mark Stradiotto**. 44<sup>th</sup> International Conference on Coordination Chemistry, July 5-10, 2020. Rimini, Italy (declined/cancelled due to COVID-19).

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- (83) **(I)** "Developing Nickel-Catalyzed Cross-Couplings." **Mark Stradiotto**. Bayer AG Research & Development, Pharmaceuticals, October 8, 2019. Wuppertal, Germany (plenary workshop speaker).
- (82) **(O)** "Developing Nickel-Catalyzed C-N Cross-Couplings." **Mark Stradiotto**. St. Mary's University, September 13, 2019. Halifax, Nova Scotia, Canada.
- (81) **(P)** "CyPAd-DalPhos and PAd-DalPhos – Tailored Ancillary Ligands for Challenging Nickel-Catalyzed Cross-Coupling Reactions." J. P. Tassone, **Mark Stradiotto**. Gordon Research Conference: Organic Reactions and Processes, July 21-26, 2019. Easton, Massachusetts, USA.
- (80) **(I)** "Move Over Palladium: Developing PAd-DalPhos/Nickel-Catalysed C-N Cross-Couplings." **Mark Stradiotto**. Gilead Pharmaceuticals, May 7, 2019. Edmonton, Alberta, Canada.
- (79) **(I)** "Move Over Palladium: Developing PAd-DalPhos/Nickel-Catalysed C-N Cross-Couplings." **Mark Stradiotto**. University of Alberta, May 6, 2019. Edmonton, Alberta, Canada.
- (78) **(O)** "Move Over Palladium: Developing PAd-DalPhos/Nickel-Catalysed C-N Cross-Couplings." **Mark Stradiotto**. Queens' University, November 23, 2018. Kingston, Ontario, Canada.
- (77) **(O)** "Move Over Palladium: Developing PAd-DalPhos/Nickel-Catalysed C-N Cross-Couplings." **Mark Stradiotto**. McGill University, November 20, 2018. Montreal, Quebec, Canada.
- (76) **(O)** "Move Over Palladium: Developing PAd-DalPhos/Nickel-Catalysed C-N Cross-Couplings." **Mark Stradiotto**. St. Francis Xavier University, September 28, 2018. Antigonish, Nova Scotia, Canada.
- (75) **(O)** "Move Over Palladium: Developing PAd-DalPhos/Nickel-Catalysed C-N Cross-Couplings." **Mark Stradiotto**. Acadia University, September 27, 2018. Wolfville, Nova Scotia, Canada.
- (74) **(O)** "Move Over Palladium: Developing PAd-DalPhos/Nickel-Catalysed C-N Cross-Couplings." **Mark Stradiotto**. Mount Allison University, September 12, 2018. Sackville, New Brunswick, Canada.
- (73) **(O)** "Unusual Coordination Chemistry and Catalytic Reactivity of Late Metal Complexes Featuring *N*-Phosphinoamidinate Ligation." **Mark Stradiotto**, L. Turculet, O. L. Sydora, and D. H. Ess. 101<sup>st</sup> Canadian Society for Chemistry Conference and Exhibition, May 27-31, 2018. Edmonton, Alberta, Canada.
- (72) **(I)** "Nickel Catalyst Design Considerations for Application in the Cross-coupling of N-H Substrates and (Hetero)aryl Electrophiles." **Mark Stradiotto**. 101<sup>st</sup> Canadian Society for Chemistry Conference and Exhibition, May 27-31, 2018. Edmonton, Alberta, Canada.
- (71) **(I)** "Move Over Palladium: Developing PAd-DalPhos/Nickel-Catalysed C-N Cross-Couplings." **Mark Stradiotto**. University of Saskatchewan, October 27, 2017 (remote seminar given via internet).
- (70) **(O)** "Move Over Palladium: Developing PAd-DalPhos/Nickel-Catalysed C-N Cross-Couplings." **Mark Stradiotto**. St. Mary's University, October 13, 2017. Halifax, Nova Scotia, Canada.
- (68) **(P)** "Ancillary Ligand and Pre-Catalyst Design in Nickel-Catalyzed Amination Chemistry." **Mark Stradiotto**. Gordon Research Conference on Organometallic Chemistry, July 9-14, 2017. Salve Regina University, Newport, Rhode Island, USA.
- (67) **(I)** "Beyond Buchwald-Hartwig Amination: Catalyst Design Considerations for Nickel-Catalyzed Amine Arylation." **Mark Stradiotto**. University of Toronto, December 13, 2016. Toronto, Ontario, Canada.
- (66) **(I)** "Beyond Buchwald-Hartwig Amination: Catalyst Design Considerations for Nickel-Catalyzed Amine Arylation." **Mark Stradiotto**. Bristol-Myers Squibb, October 11, 2016. New Brunswick, New Jersey, USA.
- (65) **(I)** "Beyond Buchwald-Hartwig Amination: Catalyst Design Considerations for Nickel-Catalyzed Amine Arylation." **Mark Stradiotto**. 99<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 5-9, 2016. Halifax, Nova Scotia, Canada.
- (64) **(I)** "New Multicomponent Indole Synthesis Enabled by Catalyst Design." **Mark Stradiotto**. 98<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 13-17, 2015. Ottawa, Ontario, Canada.

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- (63) (I) "Developing Catalysts for Challenging Ammonia Monoarylations." **Mark Stradiotto**. 98<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 13-17, 2015. Ottawa, Ontario, Canada.
- (62) (I) "Developing Catalysts for Challenging Monoarylation Reactions: Ammonia and Beyond." **Mark Stradiotto**. University of Calgary, April 17, 2015. Calgary, Alberta, Canada.
- (61) (I) "Synthesis and Catalytic Applications of Low-Coordinate Late Metal Complexes Featuring Sterically Demanding *N*-Phosphinoamidinate Ligands." **Mark Stradiotto**. Chevron-Phillips Chemical Company, September 25, 2014. Kingwood, Texas, USA.
- (60) (O) "Addressing Unmet Reactivity Challenges in Buchwald-Hartwig Amination via Catalyst Design." **Mark Stradiotto**. Saint Mary's University, September 27, 2013. Halifax, Nova Scotia, Canada.
- (59) (I) "Catalyst Design as a Route to More Sustainable Chemical Synthesis." **Mark Stradiotto**. Simon Fraser University, November 7, 2012. Burnaby, British Columbia, Canada.
- (58) (I) "Catalyst Design as a Route to More Sustainable Chemical Synthesis (*Fisher Scientific Sustainability Lecture in Materials Science*)." **Mark Stradiotto**. University of British Columbia, November 6, 2012. Vancouver, British Columbia, Canada.
- (57) (I) "Catalyst Design as a Route to More Sustainable Chemical Synthesis." **Mark Stradiotto**. University of Victoria, November 5, 2012. Victoria, British Columbia, Canada.
- (56) (I) "Catalyst Design as a Route to More Sustainable Chemical Synthesis (*Faculty of Science Killam Professorship Lecture*)." **Mark Stradiotto**. Dalhousie University, September 14, 2012. Halifax, Nova Scotia, Canada.
- (55) (O) "Catalyst Design as a Route to More Sustainable Chemical Synthesis." **Mark Stradiotto**. Acadia University, September 13, 2012. Wolfville, Nova Scotia, Canada.
- (54) (O) "Catalyst Design as a Route to More Sustainable Chemical Synthesis." **Mark Stradiotto**. Mount Allison University, September 11, 2012. Sackville, New Brunswick, Canada.
- (53) (I) "Exploiting DalPhos Ligands in Challenging Palladium-Catalyzed Cross-Coupling Reactions." **Mark Stradiotto**. Amgen Inc., June 15, 2012. Thousand Oaks, California, USA.
- (52) (I) "New Strategies in P,N Ligand Design: Applications in Challenging Late Metal-Catalyzed Transformations." **Mark Stradiotto**. 95<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 26-30, 2012. Calgary, Alberta, Canada.  
*NOTE*: This was given as the 2012 *Strem Chemicals Award for Pure or Applied Inorganic Chemistry* lecture.
- (51) (I) "Exploiting DalPhos Ligands in Challenging Palladium-Catalyzed Cross-Coupling Reactions." **Mark Stradiotto**. University of Montreal, May 2, 2012. Montreal, Quebec, Canada.
- (50) (I) "Exploiting DalPhos Ligands in Challenging Palladium-Catalyzed Cross-Coupling Reactions." **Mark Stradiotto**. University of North Carolina, April 13, 2012. Chapel Hill, North Carolina, USA.
- (49) (I) "Exploiting DalPhos Ligands in Challenging Palladium-Catalyzed Cross-Coupling Reactions." **Mark Stradiotto**. Duke University, April 12, 2012. Durham, North Carolina, USA.
- (48) (I) "Exploiting DalPhos Ligands in Challenging Palladium-Catalyzed Cross-Coupling Reactions." **Mark Stradiotto**. Merck & Co., April 11, 2012. Rahway, New Jersey, USA.
- (47) (I) "Application of Mor-DalPhos in Chemoselective Buchwald-Hartwig Aminations." **Mark Stradiotto**. 243<sup>th</sup> American Chemical Society National Meeting, March 25-29, 2012. San Diego, California, USA.
- (46) (I) "Exploiting DalPhos Ligands in Challenging Palladium-Catalyzed Cross-Coupling Reactions." **Mark Stradiotto**. University of Ottawa, October 19, 2011. Ottawa, Ontario, Canada.  
*NOTE*: This seminar was broadcast by *Chemical and Engineering News* over the internet as a Webinar (sponsored by Sigma-Aldrich).

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- (45) (I) "Exploiting P,N-Ligands in Challenging Metal-Catalyzed C-N and C-C Bond-Forming Reactions." **Mark Stradiotto**. University of California at Berkeley, October 14, 2011. Berkeley, California, USA.
- (44) (I) "Exploiting P,N Ligands in Challenging Metal-Catalyzed C-N and C-C Bond-Forming Reactions." **Mark Stradiotto**. Gordon Research Conference on Organometallic Chemistry, July 10-15, 2011. Salve Regina University, Newport, Rhode Island, USA.
- (43) (I) "Exploiting P,N DalPhos Ligands in Challenging Metal-Catalyzed C-N and C-C Bond-Forming Reactions." **Mark Stradiotto**. 94<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 5-9, 2011. Montreal, Quebec, Canada.
- (42) (I) "DalPhos Ligands: Supporting State-of-the-Art Catalysts for Aryl Halide/Amine Cross-coupling" **Mark Stradiotto**. York University, March 17, 2011. Toronto, Ontario, Canada.
- (41) (I) "DalPhos Ligands: Supporting State-of-the-Art Catalysts for Aryl Halide/Amine Cross-coupling" **Mark Stradiotto**. University of Toronto, March 16, 2011. Toronto, Ontario, Canada.
- (40) (I) "Exploiting P,N-Ligands for the Palladium-Catalyzed Cross-coupling of Aryl Chlorides and Amines: Broad Substrate Scope, Chemoselectivity, and Novel Room Temperature Ammonia Arylation Chemistry." **Mark Stradiotto**. 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem), December 15-20, 2010. Honolulu, Hawaii, USA.
- (39) (P) "The Application of New Heterobidentate Ligands in Hydroamination Catalysis Employing Late Transition Metal Complexes." **Mark Stradiotto**. 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem), December 15-20, 2010. Honolulu, Hawaii, USA.
- (38) (I) "DalPhos Ligands: Supporting State-of-the-Art Catalysts for Aryl Halide/Amine Cross-coupling." **Mark Stradiotto**. Laval University, October 20, 2010. Quebec City, Quebec, Canada.
- (37) (I) "Exploiting P,N-Ligands for the Palladium-Catalyzed Cross-coupling of Aryl Chlorides and Amines: Broad Substrate Scope, Chemoselectivity, and Novel Room Temperature Ammonia Arylation Chemistry." **Mark Stradiotto**. 93<sup>rd</sup> Canadian Society for Chemistry Conference and Exhibition, May 29-June 2, 2010. Toronto, Ontario, Canada.
- (36) (O) "Zwitterionic Late Metal Complexes: Ancillary Ligand Participation in Silane Bond Activation." Kevin D. Hesp and **Mark Stradiotto**. 43<sup>rd</sup> Silicon Symposium, May 20-22, 2010. St. Louis, Missouri, USA.
- (35) (I) "New P,N-ligands for Use in Supporting Versatile Catalysts for the Cross-coupling of Aryl Chlorides and Amines." **Mark Stradiotto**. 239<sup>th</sup> American Chemical Society National Meeting, March 21-25, 2010. San Francisco, California, USA.
- (34) (I) "New Cationic and Zwitterionic Late Metal Complexes: Ancillary Ligand Participation in E-H Bond Activation." **Mark Stradiotto**. 92<sup>nd</sup> Canadian Society for Chemistry Conference and Exhibition, May 30-June 3, 2009. Hamilton, Ontario, Canada.
- (33) (O) "Iridium-Catalyzed Hydroamination of Unactivated Alkenes with Pendant Alkyl- and Arylamines." **Mark Stradiotto**. 92<sup>nd</sup> Canadian Society for Chemistry Conference and Exhibition, May 30-June 3, 2009. Hamilton, Ontario, Canada.
- (32) (O) "Designing New Classes of Highly Active Catalysts for the Transfer Hydrogenation of Ketones." **Mark Stradiotto**. St. Mary's University, October 10, 2008. Halifax, Nova Scotia, Canada.
- (31) (I) "The Design of Reactive Cationic and Zwitterionic Platinum-Group Metal Complexes: Applications in Bond Activation and Catalysis." **Mark Stradiotto**. Duquesne University, September 19, 2008. Pittsburgh, Pennsylvania, USA.
- (30) (I) "Designing New Classes of Highly Active Catalysts for the Transfer Hydrogenation of Ketones." **Mark Stradiotto**. Research and Development Division of Boehringer-Ingelheim (Canada) Ltd., June 20, 2008. Laval, Quebec, Canada.

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- (29) (I) "Ruthenium-mediated Double Geminal Si-H Bond Activation Involving Organosilanes Including the Observation of a Key Stoichiometric Step in the Glaser-Tilley Alkene Hydrosilylation Mechanism." **Mark Stradiotto**. 91<sup>st</sup> Canadian Society for Chemistry Conference and Exhibition, May 24-28, 2008. Edmonton, Alberta, Canada.
- (28) (I) "A New and Remarkably Active Family of Precatalysts for the Transfer Hydrogenation of Ketones that do not Feature an Ancillary Ligand N-H Functionality." **Mark Stradiotto**. 91<sup>st</sup> Canadian Society for Chemistry Conference and Exhibition, May 24-28, 2008. Edmonton, Alberta, Canada.
- (27) (I) "Double Geminal Si-H Bond Activation by Cp\*Ru( $\kappa^2$ -P,N)<sup>+</sup> Complexes: Observation of a Key Stoichiometric Step in the Glaser-Tilley Alkene Hydrosilylation Mechanism." **Mark Stradiotto**. 235<sup>th</sup> American Chemical Society National Meeting, April 6-10, 2008. New Orleans, Louisiana, USA.
- (26) (I) "New Design Strategies for the Construction of Reactive Transition Metal Complexes: Applications in E-H Bond Activation and Catalysis." **Mark Stradiotto**. Mount Saint Vincent University, April 3, 2008. Halifax, Nova Scotia, Canada.
- (25) (I) "Designing Reactive Transition Metal Complexes: The Intersection of Basic and Applied Research (*Killam Research Prize Lecture*)." **Mark Stradiotto**. Dalhousie University, January 25, 2008. Halifax, Nova Scotia, Canada.
- (24) (I) "New Design Strategies for the Construction of Reactive Transition Metal Complexes: Applications in E-H Bond Activation and Catalysis." **Mark Stradiotto**. Memorial University, January 23, 2008. St. John's, Newfoundland, Canada.
- (23) (O) "New Design Strategies for the Construction of Reactive Transition Metal Complexes: Applications in E-H Bond Activation and Catalysis." **Mark Stradiotto**. Acadia University, September 27, 2007. Wolfville, Nova Scotia, Canada.
- (22) (O) "New Design Strategies for the Construction of Reactive Transition Metal Complexes: Applications in E-H Bond Activation and Catalysis." **Mark Stradiotto**. Mount Allison University, September 20, 2007. Sackville, New Brunswick, Canada.
- (21) (I) "New Design Strategies for the Construction of Reactive Transition Metal Complexes: Applications in Bond Activation and Catalysis." **Mark Stradiotto**. Concordia University, January 26, 2007. Montreal, Quebec, Canada.
- (20) (I) "The Design of New Chiral Catalyst Complexes for Asymmetric Hydrogenation." **Mark Stradiotto**. 8<sup>th</sup> Organic Workshop for Leading Young Canadian Chemists, May 22-24, 2006. White Point Beach, Nova Scotia, Canada.
- (19) (I) "Ligand-Enabled Multiple C-H Bond Activation and Reversible  $\alpha$ -Hydride Elimination Within the Coordination Sphere of Cationic and Zwitterion Cp\*Ru Complexes." **Mark Stradiotto**. 2005 International Chemical Congress of Pacific Basin Societies (Pacifichem), December 15-20, 2005. Honolulu, Hawaii, USA.
- (18) (O) "New Design Strategies for the Construction of Reactive Transition Metal Complexes: Applications in Bond Activation and Catalysis." **Mark Stradiotto**. Brock University, November 4, 2005. St. Catherine's, Ontario, Canada.
- (17) (O) "New Design Strategies for the Construction of Reactive Transition Metal Complexes: Applications in Bond Activation and Catalysis." **Mark Stradiotto**. McMaster University, November 3, 2005. Hamilton, Ontario, Canada.
- (16) (O) "New Design Strategies for the Construction of Reactive Transition Metal Complexes: Applications in Bond Activation and Catalysis." **Mark Stradiotto**. The University of Waterloo, November 1, 2005. Waterloo, Ontario, Canada.

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- (15) (O) "New Design Strategies for the Construction of Reactive Transition Metal Complexes: Applications in Bond Activation and Catalysis." **Mark Stradiotto**. Queen's University, October 28, 2005. Kingston, Ontario, Canada.
- (14) (O) "New Design Strategies for the Construction of Reactive Transition Metal Complexes: Applications in Bond Activation and Catalysis." **Mark Stradiotto**. The University of Prince Edward Island, September 14, 2005. Charlottetown, PEI, Canada.
- (13) (O) "New Design Strategies for the Construction of Reactive Transition Metal Complexes: Applications in Bond Activation and Catalysis." **Mark Stradiotto**. The University of New Brunswick, September 12, 2005. Fredericton, New Brunswick, Canada.
- (12) (I) "Developing Zwitterionic Approaches to Cationic Homogeneous Catalyst Design." **Mark Stradiotto**. Research and Development Division of Boehringer-Ingelheim (Canada) Ltd., June 14, 2005. Laval, Quebec, Canada.
- (11) (O) "Developing Zwitterionic Approaches to Cationic Homogeneous Catalyst Design." **Mark Stradiotto**. Cape Breton University, October 14, 2004. Sydney, Nova Scotia, Canada.
- (10) (I) "Donor-Functionalized Indenes: Convenient Ligand Platforms for the Preparation of Neutral, Cationic, Zwitterionic, and Planar-Chiral Late Metal Catalyst Systems." **Mark Stradiotto**. 87<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 29-June 1, 2004. London, Ontario, Canada.
- (9) (O) "Charge-Neutral Zwitterions of the Platinum-Group Metals Featuring P,N-Substituted "Naked" Indenide Ligands: A New Ligand Design Strategy." **Mark Stradiotto**, Judy Cipot and Robert McDonald. 86<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, August 10-15, 2003. Ottawa, Ontario, Canada.
- (8) (I) "The Design and Construction of Reactive Late Metal Complexes: Bond Activation and Catalysis." **Mark Stradiotto**. The University of Western Ontario, January 16, 2003. London, Ontario, Canada.
- (7) (I) "Exploring the Reactivity of (dippe)Rh( $\eta^3$ -benzyl) with (2,4,6-tri-*tert*-butylphenyl)PH<sub>2</sub>: Stoichiometric and Catalytic Dehydrogenative P-H/C-H Cross-Coupling." **Mark Stradiotto**, Kyle L. Furdala and T. Don Tilley. 223<sup>rd</sup> American Chemical Society National Meeting, April 7-11, 2002. Orlando, Florida, USA (*postdoctoral work*; invited contribution to the ACS Organometallic Chemistry Award Symposium in Honour of T. Don Tilley).
- (6) (O) "Ligand Design, Bond Activation and Catalysis Using Organometallic Complexes." **Mark Stradiotto**. St. Francis Xavier University, January 30, 2002. Antigonish, Nova Scotia, Canada.
- (5) (O) "Ligand Design, Bond Activation and Catalysis Using Organometallic Complexes." **Mark Stradiotto**. Mount Allison University, January 17, 2002. Sackville, New Brunswick, Canada.
- (4) (O) "Ligand Design, Bond Activation and Catalysis Using Organometallic Complexes." **Mark Stradiotto**. The University of New Brunswick, November 19, 2001. Fredericton, New Brunswick, Canada.
- (3) (O) "Ligand Design, Bond Activation and Catalysis Using Organometallic Complexes." **Mark Stradiotto**. St. Mary's University, November 16, 2001. Halifax, Nova Scotia, Canada.
- (2) (O) "Ligand Design, Bond Activation and Catalysis Using Organometallic Complexes." **Mark Stradiotto**. The University of Prince Edward Island, November 14, 2001. Charlottetown, PEI, Canada.
- (1) (O) "Ligand Design, Bond Activation and Catalysis Using Organometallic Complexes." **Mark Stradiotto**. Acadia University, November 8, 2001. Wolfville, Nova Scotia, Canada.

### **CONTRIBUTIONS TO THE TRAINING OF HIGHLY QUALIFIED PERSONNEL**

I have continually succeeded in attracting excellent personnel to my group, which commonly consists of a diverse mix of undergraduate, MSc, PhD and postdoctoral researchers (many of whom hold NSERC or other competitive scholarships). I am very proud of the fact that a significant number of the undergraduates that I

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have supervised (several coming from equity-seeking groups) have gone on to graduate school in Chemistry and other professional programs (medicine, law), and many have been featured as co-authors on peer-reviewed publications from my group (e.g. most recently M. Field CEJ 2022-146). I believe strongly in mentoring the students in my laboratory, and have made a conscious effort to maintain my group at a size whereby I can maintain this mentoring interaction and foster a supportive, inclusive environment. This has proven to be a very successful approach in terms of developing “highly” qualified personnel. My group occupies a state-of-the-art organometallic research laboratory, which provides a world-class environment for the training of synthetic chemists. Personnel are involved in the preparation of publications and are encouraged to present their results at group meetings and conferences; over the past few years, my HQP have given **>100 oral and poster presentations** at regional, national, and international meetings, including at the *Atlantic Region Organic Symposium*, the *Maritime/Atlantic Inorganic Discussion Weekend*, the *Keith Fagnou Organic Chemistry Symposium*, *CSC Meetings*, the *International Conference on Organometallic Chemistry*, *Gordon Conferences on Organometallic Chemistry and Heterocycles*, and the *IUPAC International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis*. As demonstrated by my track-record, personnel trained in my research group are equipped with marketable research and other professional skills and are well-suited to take up high-profile positions in the academic, industrial, and government research sectors.

***Graduate Students and Postdoctoral Fellows – Principal Supervisor***

<b>Name</b>	<b>Years</b>	<b>Degree</b>	<b>Current activities</b>
Morrison, Kathleen	2023-present	Ph.D.	PDF (Bayer AG with Stradiotto group)
Fisher, Samuel	2022-present	M.Sc.	Ph.D. student
Fox, Peter	2022-present	Ph.D.	Ph.D. student
Cotnam, Michael	2022-present	M.Sc.	Ph.D. student
MacMillan, Joshua	2020-present	Ph.D.	Ph.D. student (NSERC CGSD)
Bode, Nicholas	2019-present	Ph.D.	Ph.D. student (NSERC CGSD)
Morrison, Kathleen	2019-2023	Ph.D.	Ph.D. student (NSERC PGSD); PDF (Stradiotto group)
Simon, Connor	2020-2022	M.Sc.	Medical School (Dalhousie University)
Bamford, Karlee	2021-2022	PDF	NSERC PDF, Stradiotto group); Senior Grants & Pre-Award Specialist, Dalhousie Research Services
Anderson, Timothy	2021-2022	PDF	unknown
Lundrigan, Travis	2020-2022	PDF	University Lecturer
Martinek, Nicole	2021-2022	M.Sc.	Teachers College (Mount Saint Vincent University)
McGuire, Ryan	2018-2022	Ph.D.	Ph.D. student (NSERC CGSD), Research Chemist, Treeline Biosciences (Cambridge, MA)
Tassone, Joseph	2016-2020	Ph.D.	NSERC-PDF, Yale; Ellman. National Winner of Award for Graduate Work in Inorganic Chemistry; Research Chemist, Incyte Biosciences (Wilmington, DE)
Gatien, Alex	2016-2018	M.Sc.	Project Manager, Biovectra (co-supervised with A. Speed)
Clark, Jillian	2016-2019	Ph.D.	Awarded Leffek Prize for top Chemistry PhD defence
Lavoie, Christopher	2014-2018	Ph.D.	(Banting PDF; Caltech; Reisman) Associate Consultant, CannDelta Inc.
Macaulay, Casper	2014-2019	Ph.D.	Ph.D. student (co-supervised with L. Turculet); PDF, University of Victoria; Manners – Sept 2020)
Ogawa, Takahiko	2014-2019	PDF	Postdoctoral Researcher, Dalhousie University
Borzenko, Andrey	2014-2015	PDF	Intermediate Chemist, AXYS Analytical Services Ltd.
Sawatzky, Ryan	2013-2017	Ph.D.	unknown
Rotta-Loria, Nicolas	2013-2017	Ph.D.	Sale Director, STEMCELL Technologies
MacQueen, Preston	2013-2018	Ph.D.	NSERC-PDF, MIT; Jamison. Scientist-II Process Chemistry, Millipore-Sigma

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Kelly, Colin	2012-2017	Ph.D.	Scientist, Solid State Pharma Inc. (Halifax, NS)
Cook, Earl	2011-2017	M.Sc.	M.Sc. student (withdrawn from program)
Alsabeh, Pamela	2009-2013	Ph.D.	(NSERC-PDF/Humboldt Fellow, Beller, LIKAT-Rostock, Germany) Associate Submission Manager at F. Hoffmann-La Roche Ltd (Canada)
Crawford, Sarah	2011-2013	PDF	Senior Research Scientist, DuPont (Kingston, ON)
Wheaton, Craig	2011-2013	PDF	(Killam Postdoctoral Fellow); Senior Development Scientist, GreenCentre Canada (Kingston, ON)
Lavery, Christopher	2009-2013	Ph.D.	Senior Research Scientist, Alberta Sulfur Research Ltd. (Calgary, AB)
MacLean, Mark	2011-2013	M.Sc.	Medical Resident, Dalhousie University
Tardiff, Bennett	2008-2012	Ph.D.	(PDF, Ottawa; Baker); Lead Researcher, BSA (Asphalt), Imperial Oil (Sarnia, ON).
Hesp, Kevin	2006-2010	Ph.D.	(NSERC-PDF, Berkeley/Yale; Ellman); Senior Medicinal Chemist at Pfizer USA (Groton, CT); currently Treeline Biosciences (Boston, MA)
Lundgren, Rylan	2006-2010	Ph.D.	(NSERC-PDF, MIT/Caltech; Fu); Associate Professor, University of Alberta*
Scully, Stephen	2007-2010	Ph.D.	Technical Staff, University of Prince Edward Island (Ph.D. not completed)
Rankin, Matthew	2003-2008	Ph.D.	(NSERC-PDF, MIT; Cummins)**; PDF, Baker, Ottawa; Senior Product Development Chemist, 3M Canada (Brockville, ON)
Wechsler, Dominik	2003-2007	Ph.D.	(PDF, Queen's University; Jessop); Process Development Scientist, DuPont (Kingston, ON)
Cipot-Wechsler, Judy	2002-2006	Ph.D.	(NSERC-PDF, Queen's University; Crudden); Senior Research Scientist, DuPont (Kingston, ON)
Wile, Bradley	2002-2006	Ph.D.	(PDF, Cornell; Chirik); Associate Professor, Ohio Northern University

\* Winner of the 2011 National Award for Graduate Work in Inorganic Chemistry (Chemical Institute of Canada) and honorable mention for the 2011 NSERC Innovation Challenge Award; \*\*Winner of the 2009 Dalhousie University Doctoral Thesis Award in the Natural Sciences and Engineering presented by the Faculty of Graduate Studies

***Undergraduate/Visiting Students – Principal Supervisor***

<b>Name</b>	<b>Year(s)</b>	<b>Activity in Group or Current activities (if known)</b>
Knight, Samantha	2022-2023	Undergraduate, Dalhousie
Abesteh, James	2022	Undergraduate, McGill University
Choi, Jonathan	2022-present	Undergraduate, Dalhousie
McMahon, Adam	2022	Undergraduate, University of Guelph
Field, Justin	2021	Undergraduate, Dalhousie
Rumsen, Adrian	2020	Undergraduate, Dalhousie
Masadeh, Bashar	2020	Undergraduate, Dalhousie
Ferguson, Luke	2020	Undergraduate, Dalhousie
Ranaei, Soroosh	2019	Undergraduate, Dalhousie
Dudra, Sam	2019	Graduate Student University of Toronto
Paffile, Julia	2019	Undergraduate, Dalhousie

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England, Emma	2018	Undergraduate, Dalhousie
Chen, Melody	2018	Visiting Graduate Student), Ph.D. program University of British Columbia (NSERC CREATE program)
McGuire, Ryan	2017-2018	Graduate Student, Dalhousie
Bennett, Raymond	2017	Graduate Student, University of Saskatchewan
Diaz, Carlos	2017	Visiting Graduate Student), Ph.D. program University of British Columbia (NSERC CREATE program)
Voth, Christopher	2016	Visiting Graduate Student), Ph.D. program University of British Columbia (NSERC CREATE program)
Cole, Laura	2016	Undergraduate, Dalhousie
Clark, Jillian	2015	Graduate Student, Dalhousie University
Hynes, Toren	2015	Undergraduate, Dalhousie University
Wiethan, Carson	2015	Visiting Graduate Student, PDF Universidade Estadual de Campinas
Power, Emma	2015	Undergraduate, Dalhousie University
Corsetti, Stephanie	2015	Undergraduate, Dalhousie University
Ellis, Carter	2015	Undergraduate, Dalhousie University
Green-Ryerson, Brooklyn	2015	Undergraduate, Dalhousie University
Chisholm, Alicia	2014-2015	Dentistry, McGill University
Roy, Alicia	2014	Undergraduate, Dalhousie
Charlton, Michael	2014	Graduate Student, Dalhousie University
Roberts, Megan	2014	Undergraduate, Dalhousie
Hargreaves, Breanna	2014-present	Graduate Student, Dalhousie University
Begum, Mahmuda	2013	Undergraduate, Dalhousie
Schranck, Johannes	2013	(Visiting Graduate Student), Ph.D. program LIKAT-Rostock (Germany), now Project Leader Catalysis, Solvias AG (Switzerland)
Mishra, Vinayak	2013	Osler, Hoskin & Harcourt LLP (Law firm)
Pettipas, Shauna	2012-2013	Research Scientist, Maxxam Analytics
Bow, John-Paul	2012-2013	Completed M.Sc., Western University
Rotta-Loria, Nicolas	2012-2013	(Completed Ph.D) Synthetic Organic Chemist, STEMCELL Technologies
Desveaux, Bligh	2012	Undergraduate, Dalhousie
Lapschies, Ryan	2012	Undergraduate, Dalhousie
Toulany, Joelle	2012	Undergraduate, Dalhousie
Leonard, Samantha	2011	Undergraduate, Dalhousie
Higginbotham, Alexa	2011	Undergraduate, Dalhousie
Harding, Kristen	2011	Undergraduate, Dalhousie
Bojinescu, Irina	2011	Undergraduate, Dalhousie
Machaalani, Elias	2010-2011	Materials Engineering, Dalhousie University
Longobardi, Lauren***	2010-2011	(completed Ph.D.) PDF, Max-Planck Institute
Peddle, Stephen	2010	Undergraduate, Dalhousie
Wallingford, Jessica	2010	Undergraduate, Dalhousie
Borycz, Iwona	2010	Undergraduate, Dalhousie
Peters, Brendan*	2009	Undergraduate, Dalhousie
Shin, Kyung Soo*	2008	M.Sc. program, Dalhousie University
Sapping-Kumankumah, Antonia*	2008	Completed medical school, University of British Columbia
Burford, Richard	2005	(completed Ph.D.) SWITCH Materials

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MacLean, Darren	2005-2006	(completed M.Sc.) Optometry, University of Waterloo
Myers, Anne	2004-2005	(completed M.Sc.) Ph.D. Program University of Toronto
Wolstenholme, David	2003-2004	(completed Ph.D.) Humboldt Fellow, Germany; PDF, UNB
Hodder, Mark	2002-2003	(completed B.Sc.) Research Scientist NRC, Halifax
Wechsler, Dominik	2002-2003	(completed Ph.D.) Process Development Scientist, DuPont (Kingston, ON)
Luong, Horace	2002-2003	(completed Ph.D.) Chemistry Instructor, University of Manitoba

**HQP Presentations (P = Poster; O = Oral; presenter in bold)** (2021 presentations canceled due to COVID)

(102) **(P)** "Bisphosphine/Nickel-Catalyzed C–O Cross-Coupling of Phenols with Chloropyridine and Related Electrophiles." **N. Bode** and Mark Stradiotto. 21<sup>st</sup> International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS 21), July 24-28, 2023. Vancouver, British Columbia, Canada.

(101) **(O)** "Modular Synthesis of Nickel Ligands for C-N Cross-coupling." **A. McMahon** and Mark Stradiotto. Inorganic Chemistry Exchange Seminar, August 20, 2022.

(100) **(P)** "Nickel-Catalyzed Cross-Coupling of Sulfonamides With (Hetero)aryl Chlorides." **R. T. McGuire**, Mark Stradiotto. Global Inorganic Discussion Weekday (GIDW) Virtual Poster Competition, July 9-10, 2020.

(99) **(P)** "CyPAD-DalPhos and PAd-DalPhos – Tailored Ancillary Ligands for Challenging Nickel-Catalyzed Cross-Coupling Reactions." **J. P. Tassone**, Mark Stradiotto. Gordon Research Conference: Organometallic Chemistry, July 7-12, 2019. Newport, Rhode Island, USA.

(98) **(P)** "PAd2-DalPhos Enables the Nickel-Catalyzed C-N Cross-Coupling of Primary Heteroarylamines and (Hetero)aryl Chlorides at Room Temperature." **J. S. K. Clark**, Mark Stradiotto. Gordon Research Conference: Heterocyclic Compounds, June 16-21, 2019. Newport, Rhode Island, USA.

(97) **(O)** "Mechanistically Driven Ligand Design for Nickel Catalyzed Csp<sup>2</sup>-N Cross-coupling." **C. M. Lavoie**, E. Johnson, Mark Stradiotto. ChemCon, June 7-9, 2018. Halifax, Nova Scotia, Canada. (*winner "Best Graduate Student Presentation - Inorganic"*)

(96) **(O)** "Nickel-Catalyzed C(sp<sup>2</sup>)-N Cross-Coupling Employing Diphosponites as Ancillary Ligands." **R. T. McGuire**, J. S. K. Clark, Mark Stradiotto. ChemCon, June 7-9, 2018. Halifax, Nova Scotia, Canada.

(95) **(P)** "Nickel-Catalyzed C(sp<sup>2</sup>)-N Cross-Coupling Employing Diphosponites as Ancillary Ligands." **R. T. McGuire**, J. S. K. Clark, Mark Stradiotto. 101<sup>st</sup> Canadian Society for Chemistry Conference and Exhibition, May 27-31, 2018. Edmonton, Alberta, Canada.

(94) **(O)** "New Avenues in Nickel-Catalyzed Cross-Coupling Enabled by Tailored Ancillary Ligands." **J. T. Tassone**, P. M. MacQueen, C. Diaz, Mark Stradiotto. 101<sup>st</sup> Canadian Society for Chemistry Conference and Exhibition, May 27-31, 2018. Edmonton, Alberta, Canada.

(93) **(O)** "The Design and Application of NHP-Based Ancillary Ligands for use in Nickel-Catalyzed C-N Cross-Coupling Reactions." **A. V. Gatién**, C. M. Lavoie, R. Bennett, M. J. Ferguson, R. McDonald, E. R. Johnson, A. W. H. Speed, Mark Stradiotto. 101<sup>st</sup> Canadian Society for Chemistry Conference and Exhibition, May 27-31, 2018. Edmonton, Alberta, Canada.

(92) **(O)** "Mechanistically Driven Ligand Design for Nickel Catalyzed Csp<sup>2</sup>-N Cross-coupling." **C. M. Lavoie**, E. Johnson, Mark Stradiotto. 101<sup>st</sup> Canadian Society for Chemistry Conference and Exhibition, May 27-31, 2018. Edmonton, Alberta, Canada.

(91) **(O)** "Developing Ancillary Ligand Structure-reactivity Trends in PAd-DalPhos/Ni-catalyzed C-N Cross-coupling." **J. S. K. Clark**, R. T. McGuire, Mark Stradiotto. 101<sup>st</sup> Canadian Society for Chemistry Conference and Exhibition, May 27-31, 2018. Edmonton, Alberta, Canada.

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- (90) (O) "PAd-DalPhos/Nickel-catalysed C-N Cross-coupling Catalysis: Reaction Development and Mechanistic Investigations." **C. M. Lavoie**, P. M. MacQueen, Mark Stradiotto. 100<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 28-June 1, 2017. Toronto, Ontario, Canada. "*Thieme Student Lecture Award*".
- (89) (O) "Metal Matters: Divergent Reactivity in Alkene Isomerization/hydroboration Catalyzed by Isostructural Three-coordinate Mn, Fe, Co, and Ni Complexes." **C. M. Macaulay**, T. Ogawa, C. Kelly, O. Sydora, Mark Stradiotto, L. Turculet. 100<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 28-June 1, 2017. Toronto, Ontario, Canada.
- (88) (O) "Tackling Challenging Amine Nucleophiles in Nickel Catalyzed C-N Cross-Coupling Through Tailored Ligand Design." **J. P. Tassone**, Mark Stradiotto. 100<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 28-June 1, 2017. Toronto, Ontario, Canada.
- (87) (O) "Nickel Catalyzed Amination of Phenol-Derived Electrophiles." **P. M. MacQueen**, Mark Stradiotto. 100<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 28-June 1, 2017. Toronto, Ontario, Canada.
- (86) (O) "A Comparative Study of Privileged Bisphosphine Ligands for Nickel Catalyzed C(sp<sup>2</sup>)-N Cross Coupling." **J. S. K. Clark**, C. M. Lavoie, P. M. MacQueen, C. N. Voth, Mark Stradiotto. 100<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 28-June 1, 2017. Toronto, Ontario, Canada.
- (85) (P) "Nickel-Catalyzed Monoarylation of Primary Amines at Room Temperature." **P. MacQueen**, Mark Stradiotto. Gordon Research Conference: Heterocyclic Compounds, June 19-24, 2016. Newport, Rhode Island, USA.
- (84) (O) "Xanthene-based Ligands For Use in First-Row Metal Cross-Coupling Catalysis." **R. S. Sawatzky**, Mark Stradiotto. 99<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 5-9, 2016. Halifax, Nova Scotia, Canada.
- (83) (O) "Synthesis and Reactivity of Low-Coordinate Nickel(II) Complexes Supported by *N*-Phosphinoamidinate Ligation." **C. M. Macaulay**, L. Turculet, Mark Stradiotto, O. Sydora. 99<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 5-9, 2016. Halifax, Nova Scotia, Canada.
- (82) (O) "PAd-DalPhos: A Versatile New Ancillary Ligand for Challenging Nickel-Catalyzed Amine Arylations." **C. M. Lavoie**, P. MacQueen, N. L. Rotta-Loria, R. S. Sawatzky, A. Borzenko, Mark Stradiotto. 99<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 5-9, 2016. Halifax, Nova Scotia, Canada.
- (81) (P) "A Competitive Reactivity Survey of Prominent Nickel Pre-catalysts in C-N Cross-Coupling." **J. S. K. Clark**, C. M. Lavoie, P. MacQueen, Mark Stradiotto. 99<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 5-9, 2016. Halifax, Nova Scotia, Canada. (*winner of poster prize*)
- (80) (O) "Nickel-Catalyzed Monoarylation of Primary Alkylamines at Room Temperature." **P. MacQueen**, C. M. Lavoie, N. L. Rotta-Loria, R. S. Sawatzky, A. Borzenko, Mark Stradiotto. 99<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 5-9, 2016. Halifax, Nova Scotia, Canada.
- (79) (O) "PAd-DalPhos: A Versatile New Ancillary Ligand for Challenging Nickel-Catalyzed Amine Arylations." **C. M. Lavoie**, P. MacQueen, N. L. Rotta-Loria, R. S. Sawatzky, A. Borzenko, Mark Stradiotto. ChemConn2016, June 2-4, 2016. Halifax, Nova Scotia, Canada. (*winner of best graduate oral presentation*)
- (78) (O) "A Competitive Reactivity Survey of Prominent Nickel Pre-catalysts in C-N Cross-Coupling." **J. S. K. Clark**, C. M. Lavoie, P. MacQueen, Mark Stradiotto. ChemConn2016, June 2-4, 2016. Halifax, Nova Scotia, Canada.
- (77) (O) "Palladium Catalyzed Mono-Alpha-Arylation of Acetone at Room Temperature." **P. MacQueen**, Mark Stradiotto. 98<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 13-17, 2015. Ottawa, Ontario, Canada.

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- (76) (O) "Nickel-Catalyzed Monoarylation of Ammonia Employing Heteroaryl Halides." **N. L. Rotta-Loria**, A. Borzenko, P. MacQueen, C. M. Lavoie, Mark Stradiotto. 98<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 13-17, 2015. Ottawa, Ontario, Canada.
- (75) (O) "Development of Air-Stable Pre-Catalysts for use in the Nickel-Catalyzed Monoarylation of Ammonia." **C. M. Lavoie**, A. Borzenko, N. L. Rotta-Loria, P. MacQueen, Mark Stradiotto. 98<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 13-17, 2015. Ottawa, Ontario, Canada.
- (74) (P) "Easy Access to Highly Substituted 5-Trifluoromethyl-Pyrazoles." **C. W. Wiethan**, H. G. Bonacorso, Mark Stradiotto. 98<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 13-17, 2015. Ottawa, Ontario, Canada.
- (73) (P) "Synthesis of Chiral Heterocycles via Pd- or Ni-Catalyzed Amination." **A. Borzenko**, Mark Stradiotto. 98<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 13-17, 2015. Ottawa, Ontario, Canada.
- (72) (O) "Synthesis and Catalytic Applications of Low-Coordinate Iron and Cobalt Complexes Featuring Sterically Demanding *N*-Phosphinoamidinate Ligands." **Adam J. Ruddy**, Mark Stradiotto, Laura Turculet, Brooke L. Small, Orson L. Sydora. 97<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 1-5, 2014. Vancouver, British Columbia, Canada.
- (71) (O) "Exploiting Mor-DalPhos/Pd-Catalyzed Monoarylation in the Modular, One-Pot Synthesis of Indoles." **Nicolas Rotta-Loria**, Andrey Borzenko, Pamela G. Alsabeh and Mark Stradiotto. 97<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 1-5, 2014. Vancouver, British Columbia, Canada.
- (70) (P) "Synthesis of 1,3-Diketones via the Palladium-Catalyzed Carbonylative  $\alpha$ -Arylation of Acetone." **Johannes Schranck**, Anis Tlili, Pamela G. Alsabeh, Helfried Neumann, Mark Stradiotto and Matthias Beller. 17<sup>th</sup> IUPAC International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS 17), July 28-August 1, 2013. Fort Collins, Colorado, USA. (**Wiley Poster Award Winner**)
- (69) (P) "Challenging Cross-coupling Reactions Employing the Pd/Mor-DalPhos Catalyst System." **Pamela G. Alsabeh** and Mark Stradiotto. 17<sup>th</sup> International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS 17), July 28-August 1, 2013. Fort Collins, Colorado, USA.
- (68) (O) "Synthesis of 1,3-Diketones via the Palladium-Catalyzed Carbonylative  $\alpha$ -Arylation of Acetone." **Johannes Schranck**, Anis Tili, Pamela G. Alsabeh, Helfried Neumann, Mark Stradiotto and Matthias Beller. 96<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 26-30, 2013. Quebec City, Quebec, Canada.
- (67) (O) "Challenging Cross-coupling Reactions Employing the Pd/Mor-DalPhos Catalyst System." **Pamela G. Alsabeh** and Mark Stradiotto. 96<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 26-30, 2013. Quebec City, Quebec, Canada.
- (66) (O) "A Single Ligand for the Pd-Catalyzed Amination of Aryl Halides with Amines, NH Heterocycles, Ammonia and Hydrazine." **Sarah M. Crawford**, Christopher B. Lavery and Mark Stradiotto. 96<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 26-30, 2013. Quebec City, Quebec, Canada.
- (65) (P) "Late Transition Metal Complexes Featuring *N*-Phosphinoamidine Ligands." **Colin Kelly**, Adam J. Ruddy, Mark Stradiotto, Laura Turculet, Brooke L. Small, Orson L. Sydora. 96<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 26-30, 2013. Quebec City, Quebec, Canada. (**Symposium Poster Presentation Prize Winner**)
- (64) (O) "Synthesis and Catalytic Applications of Transition Metal Complexes Featuring Sterically Demanding *N*-Phosphinoamidine Ligands." **Adam J. Ruddy**, Mark Stradiotto, Laura Turculet, Brooke L. Small, Orson L. Sydora. 96<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 26-30, 2013. Quebec City, Quebec, Canada.

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- (63) (O) "Synthesis and Utility of New Sterically Demanding Bidentate NHCs and Phosphines in Buchwald-Hartwig Amination Catalysis." **Craig A. Wheaton** and Mark Stradiotto. 96<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 26-30, 2013. Quebec City, Quebec, Canada.
- (62) (O) "Bippyphos: Application in the Palladium-Catalyzed Hydroxylation of Aryl Halides." **Christopher B. Lavery**, Nicolas L. Rotta-Loria and Mark Stradiotto. 96<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 26-30, 2013. Quebec City, Quebec, Canada.
- (61) (P) "Design of New NHC/Phosphine Ligands for use in Palladium-Catalyzed Cross-Coupling Reactions." **John-Paul Bow**, Craig A. Wheaton, and Mark Stradiotto. Atlantic Inorganic Discussion Weekend, March 22-23, 2012. Moncton, New Brunswick, Canada.
- (60) (O) "Synthesis and Application of New P,O-DalPhos Ligands." **Nicolas L. Rotta-Loria**, Christopher B. Lavery and Mark Stradiotto. Atlantic Inorganic Discussion Weekend, March 22-23, 2013. Moncton, New Brunswick, Canada.
- (59) (O) "Novel Cross-Coupling Reactions Employing the Pd/Mor-DalPhos Catalyst System." **Pamela G. Alsabeh** and Mark Stradiotto. Atlantic Inorganic Discussion Weekend, March 22-23, 2013. Moncton, New Brunswick, Canada.
- (58) (O) "Bippyphos: Application in the Palladium-Catalyzed Hydroxylation of Aryl Halides." **Christopher B. Lavery** and Mark Stradiotto. Atlantic Inorganic Discussion Weekend, March 22-23, 2013. Moncton, New Brunswick, Canada.
- (57) (O,I) "The Development of P,N-Ligands for Transition Metal-Catalyzed Transfer Hydrogenation and Cross-Coupling Reactions." **Rylan J. Lundgren** and Mark Stradiotto. 94<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 5-9, 2011. Montreal, Quebec, Canada. **\*\*Award Lecture, 2011 National Award for Graduate Work in Inorganic Chemistry** (Chemical Institute of Canada).
- (56) (O) "Pd-Catalyzed Synthesis of Indoles via Cross-Coupling/Alkyne Cyclization Chemistry involving Ammonia, Methylamine and Hydrazine." **Pamela G. Alsabeh**, Rylan J. Lundgren, Lauren E. Longobardi, and Mark Stradiotto. 94<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 5-9, 2011. Montreal, Quebec, Canada.
- (55) (O) "Chemoselective Diamine Synthesis via the Buchwald-Hartwig Amination of Aryl Chlorides Employing DalPhos Ancillary Ligands." **Bennett J. Tardiff** and Mark Stradiotto. 94<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, June 5-9, 2011. Montreal, Quebec, Canada.
- (54) (O) "Pd-Catalyzed Synthesis of Indoles via Cross-Coupling/Alkyne Cyclization Chemistry involving Ammonia, Methylamine and Hydrazine." **Pamela G. Alsabeh**, Rylan J. Lundgren, Lauren Longobardi and Mark Stradiotto. Atlantic Inorganic Discussion Weekend, March 19-10, 2011. Fredericton, New Brunswick, Canada.
- (53) (O) "Towards the Synthesis of New P-N and N-Heterocyclic Carbene ligands for Application in Buchwald-Hartwig Amination." **Lauren Longobardi**, Pamela G. Alsabeh, and Mark Stradiotto. Atlantic Inorganic Discussion Weekend, March 19-10, 2011. Fredericton, New Brunswick, Canada.
- (52) (P) "Toward the Development a Catalyst for the Buchwald-Hartwig Amination of Hydroxylamine." **Christopher B. Lavery** and Mark Stradiotto. Atlantic Inorganic Discussion Weekend, March 19-10, 2011. Fredericton, New Brunswick, Canada.
- (51) (O) "Chemoselective Diamine Synthesis via the Buchwald-Hartwig Amination of Aryl Chlorides Employing DalPhos Ancillary Ligands." **Bennett Tardiff** and Mark Stradiotto. Atlantic Inorganic Discussion Weekend, March 19-10, 2011. Fredericton, New Brunswick, Canada.
- (50) (P) "Indole Synthesis Employing New C-N Cross-coupling Protocols." **Lauren Longobardi**, Pamela G. Alsabeh, and Mark Stradiotto. Atlantic Region Organic Symposium, August 20-22, 2010. Halifax, Nova Scotia, Canada.

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- (49) **(P)** "Platinum-Catalyzed Intramolecular Hydroamination of Unactivated Amino Alkenes." **Christopher Lavery**, Kevin D. Hesp, and Mark Stradiotto. Atlantic Region Organic Symposium, August 20-22, 2010. Halifax, Nova Scotia, Canada.
- (48) **(P)** "Employing a New Phenylene P,N-Ligand in Ammonia Arylation." **Pamela G. Alsabeh**, Rylan J. Lundgren and Mark Stradiotto. Atlantic Region Organic Symposium, August 20-22, 2010. Halifax, Nova Scotia, Canada.
- (47) **(O)** "The Development of P,N-Ligands for Challenging Pd-Catalyzed C-N Cross-Coupling Reactions." **Rylan J. Lundgren** and Mark Stradiotto. Atlantic Region Organic Symposium, August 20-22, 2010. Halifax, Nova Scotia, Canada.
- (46) **(O)** "Iridium-Catalyzed Intramolecular Hydroamination of Aminoalkenes: Scope and Mechanism." **Kevin D. Hesp** and Mark Stradiotto. 93<sup>rd</sup> Canadian Society for Chemistry Conference and Exhibition, May 29-June 2, 2010. Toronto, Ontario, Canada.
- (45) **(O)** "Exploring the Utility of P,N Ligands in Chemoselective Buchwald-Hartwig Aminations." **Bennett J. Tardiff** and Mark Stradiotto. 93<sup>rd</sup> Canadian Society for Chemistry Conference and Exhibition, May 29-June 2, 2010. Toronto, Ontario, Canada.
- (44) **(P)** "Platinum-Catalyzed Intramolecular Hydroamination of Unactivated Amino Alkenes." **Christopher Lavery**, Kevin D. Hesp, and Mark Stradiotto. Keith Fagnou Organic Chemistry Symposium (KFOS), May 5-7, 2010. University of Ottawa, Ottawa, Ontario, Canada.
- (43) **(P)** "Employing a New Phenylene P,N-Ligand in Ammonia Arylation: Synthesis and Reactivity of Palladium-Ligand Intermediates and Application in Indole Synthesis." **Pamela G. Alsabeh**, Rylan J. Lundgren, and Mark Stradiotto. Keith Fagnou Organic Chemistry Symposium (KFOS), May 5-7, 2010. University of Ottawa, Ottawa, Ontario, Canada.
- (42) **(P)** "The Development of New Ligands for Use in Hydroamination Catalysis." **Iwona Borycz**, **Stephen Peddle**, **Jessica Wallingford**, Kevin D. Hesp and Mark Stradiotto. Dalhousie Integrated Science Program Research Workshop, April 6, 2010. Halifax, Nova Scotia, Canada.
- (41) **(O)** "Synthesis and Reactivity of Palladium-Ligand Intermediates in the Catalytic Cycle of Ammonia Arylation Employing a New Phenylene P,N-Ligand." **Pamela G. Alsabeh**, Rylan J. Lundgren, and Mark Stradiotto. Atlantic Inorganic Discussion Weekend, March 13-14, 2010. Halifax, Nova Scotia, Canada. **(Oral Presentation Prize Winner)**
- (40) **(P)** "Towards a Universal Catalysts System for the Cross-Coupling of Aryl Chlorides and Amines." **Rylan J. Lundgren** and Mark Stradiotto. Nuclear Magnetic Resonance Research Resource (NMR 3) 4<sup>th</sup> Annual Fall Workshop, November 14, 2009. Halifax, Nova Scotia, Canada.
- (39) **(P)** "Iridium-Catalyzed Intramolecular Hydroamination of Unactivated Alkenes with Primary and Secondary Alkyl- and Aryl-Amines: Scope and Mechanism." **Kevin D. Hesp** and Mark Stradiotto. Nuclear Magnetic Resonance Research Resource (NMR 3) 4<sup>th</sup> Annual Fall Workshop, November 14, 2009. Halifax, Nova Scotia, Canada.
- (38) **(P)** "An Improved Catalyst System for the Cross-Coupling of Aryl Chlorides and Ammonia." **Brendan Peters**, Rylan J. Lundgren and Mark Stradiotto. NSERC-USRA Research Forum at Dalhousie University, September 16, 2009. Halifax, Nova Scotia, Canada.
- (37) **(P)** "Towards a Universal Catalysts System for the Cross-Coupling of Aryl Chlorides and Amines." **Rylan J. Lundgren** and Mark Stradiotto. 15<sup>th</sup> IUPAC International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS 15), July 26-30, 2009. Glasgow, Scotland, UK.
- (36) **(P)** "Iridium-Catalyzed Intramolecular Hydroamination of Unactivated Alkenes with Primary and Secondary Alkyl- and Aryl-Amines: Scope and Mechanism." **Kevin D. Hesp** and Mark Stradiotto. Gordon Research Conference on Organometallic Chemistry, July 12-17, 2009. Newport, Rhode Island, USA.

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- (35) (O) "Iridium-Catalyzed Hydroamination of Unactivated Alkenes with Primary and Secondary Alkyl- and Aryl-amines." **Kevin D. Hesp** and Mark Stradiotto. Gordon Research Seminar on Organometallic Chemistry, July 11-12, 2009. Newport, Rhode Island, USA.
- (34) (O) "[Ir(COD)Cl]<sub>2</sub>-Catalyzed Intramolecular Hydroamination of Unactivated Alkenes with Secondary Alkyl- and Aryl-Amines." **Kevin D. Hesp** and Mark Stradiotto. Maritime Inorganic Discussion Weekend, March 14-15, 2009. Moncton, New Brunswick, Canada.
- (33) (O) "Towards a Universal Catalysts System for the Cross-Coupling of Aryl Chlorides and Amines." **Rylan J. Lundgren** and Mark Stradiotto. Maritime Inorganic Discussion Weekend, March 14-15, 2009. Moncton, New Brunswick, Canada.
- (32) (P) "Developing Catalysts for the Cross-Coupling of Aryl Chlorides and Amines." **Antonia Sapping-Kumankumah**, Rylan J. Lundgren and Mark Stradiotto. NSERC-USRA Research Forum at Dalhousie University, August 14, 2008. Halifax, Nova Scotia, Canada.
- (31) (P) "Developing Catalysts for the Intramolecular Hydroamination of Unactivated Alkenes." **Kyungsoo Shin**, Kevin D. Hesp and Mark Stradiotto. NSERC-USRA Research Forum at Dalhousie University, August 14, 2008. Halifax, Nova Scotia, Canada.
- (30) (P) "Divergent Reactivity Pathways for Cationic and Zwitterionic Cp\*Ir( $\kappa^2$ -P,S) Complexes Arising from Ancillary Ligand Involvement in Substrate Activation." **Kevin D. Hesp**, R. McDonald, M. J. Ferguson, and Mark Stradiotto. Dalhousie University Institute for Research in Materials Research Day, June 25, 2008. Halifax, Nova Scotia, Canada.
- (29) (P) "New Design Strategies in the Development of Highly Active Transfer Hydrogenation Catalysts." **Rylan J. Lundgren**, Matthew A. Rankin and Mark Stradiotto. Dalhousie University Institute for Research in Materials Research Day, June 25, 2008. Halifax, Nova Scotia, Canada.
- (28) (P) "Divergent Reactivity Pathways for Cationic and Zwitterionic Cp\*Ir( $\kappa^2$ -P,S) Complexes Arising from Ancillary Ligand Involvement in Substrate Activation." **Kevin D. Hesp**, R. McDonald, M. J. Ferguson, and Mark Stradiotto. 33<sup>rd</sup> Annual Atlantic Provinces Council on the Sciences/Chemical Institute of Canada Undergraduate Chemistry Conference, May 8-10, 2008. Halifax, Nova Scotia, Canada.
- (27) (P) "New Design Strategies in the Development of Highly Active Transfer Hydrogenation Catalysts." **Rylan J. Lundgren**, Matthew A. Rankin and Mark Stradiotto. 33<sup>rd</sup> Annual Atlantic Provinces Council on the Sciences/Chemical Institute of Canada Undergraduate Chemistry Conference, May 8-10, 2008. Halifax, Nova Scotia, Canada.
- (26) (P) "Neutral, Cationic, and Zwitterionic Ru(II) Atom Transfer Radical Addition Catalysts Supported by P,N-Substituted Indene or Indenide Ligands." **Rylan J. Lundgren**, Matthew A. Rankin and Mark Stradiotto. Maritime Inorganic Discussion Weekend, March 1-2, 2008. Moncton, New Brunswick, Canada. (**Oral Presentation Prize Winner**)
- (25) (P) "Ligand Enabled Bond Activation By Cp\*Ru Complexes Supported by Donor-Substituted Indene and Indenides." **Matthew A. Rankin** and Mark Stradiotto. Gordon Research Conference on Organometallic Chemistry, July 6-13, 2007. Newport, Rhode Island, USA.
- (24) (O) "A Remarkably Active, Formally Zwitterionic Ruthenium Pre-Catalyst for the Transfer Hydrogenation of Ketones that Does Not Feature an Ancillary Ligand N-H Functionality." **Rylan J. Lundgren**, Matthew A. Rankin, and Mark Stradiotto. 90<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 26-30, 2007. Winnipeg, Manitoba, Canada.
- (23) (O) "The Synthesis of Planar-Chiral Donor-Functionalized Indene Ligands." **Dominik Wechsler** and Mark Stradiotto. Maritime Inorganic Discussion Weekend, March 3-4, 2007. Sackville, New Brunswick, Canada.

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(22) (O) “A Formally Zwitterionic ( $\eta^6$ -arene)Ru( $\kappa^2$ -P,N) Precursor for Rapid Transfer Hydrogenation of Ketones.” **Matthew A. Rankin**, Rylan J. Lundgren, and Mark Stradiotto. Maritime Inorganic Discussion Weekend, March 3-4, 2007. Sackville, New Brunswick, Canada.

(21) (P) “Group 11 Catalyzed Reduction of Aldehydes with Hydrosilanes.” **Bradley Wile** and Mark Stradiotto. XXII International Conference on Organometallic Chemistry (ICOMC-2006), July 23-28, 2006. Zaragoza, Spain.

(20) (O) “Exploring the Utility of Rh(I) and Ir(I) Complexes Featuring a P(S),N-Substituted Indene Ligand as Catalysts for the Hydrosilylation of Styrene.” **Dominik Wechsler**, Anne Myers, and Mark Stradiotto. 89<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 27-31, 2006. Halifax, Nova Scotia, Canada.

(19) (O) “Silver Complexes as Catalysts for Transformations Involving E-H Bond Activation.” **Bradley Wile** and Mark Stradiotto. 89<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 27-31, 2006. Halifax, Nova Scotia, Canada.

(18) (O) “Structural and Reactivity Studies of Neutral, Cationic, and Zwitterionic Rh(I) and Ir(I) Coordination Complexes of Donor-Functionalized Indene Ligands.” **Judy Cipot** and Mark Stradiotto. 89<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 27-31, 2006. Halifax, Nova Scotia, Canada.

(17) (P) “Reactivity Investigations of a New Class of Cp\*Ru Complexes With Silanes.” **Darren MacLean**, Matthew Rankin, and Mark Stradiotto. 89<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 27-31, 2006. Halifax, Nova Scotia, Canada. **(Poster Prize Winner)**

(16) (O) “New Pt(II) and Au(III) Complexes for E-H Bond Activation.” **Bradley M. Wile** and Mark Stradiotto. Maritime Inorganic Discussion Weekend, March 4-5, 2006. Sackville, New Brunswick, Canada.

(15) (O) “Ligand-Assisted Bond Activation in Formally Cationic Cp\*Ru Complexes.” **Matthew A. Rankin**, Darren F. MacLean, and Mark Stradiotto. Maritime Inorganic Discussion Weekend, March 4-5, 2006. Sackville, New Brunswick, Canada.

(14) (O) “Exploring the Utility of Rh(I) and Ir(I) Complexes Featuring a P(S),N-Substituted Indene Ligand as Catalysts for the Hydrosilylation of Styrene.” **Dominik Wechsler**, Anne Myers, and Mark Stradiotto. Maritime Inorganic Discussion Weekend, March 4-5, 2006. Sackville, New Brunswick, Canada.

(13) (O) “Pt(II) and Au(III) Complexes Featuring a  $\kappa^2$ -P,N-Functionalized Indene Ligand.” **Bradley Wile** and Mark Stradiotto. 88<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 28-June 1, 2005. Saskatoon, Saskatchewan, Canada.

(12) (O) “Stability and Reactivity of Isostructural Cationic and Zwitterionic Ir(I) Coordination Complexes Derived from P,N-Functionalized Indenes.” **Judy Cipot** and Mark Stradiotto. 88<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 28-June 1, 2005. Saskatoon, Saskatchewan, Canada.

(11) (P) “Rh(I) and Ir(I) Complexes Featuring a New Ambidentate P(S),N Ligand: Applications in Catalytic E-H Bond Activation.” **Dominik Wechsler**, Anne Myers, and Mark Stradiotto. 88<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 28-June 1, 2005. Saskatoon, Saskatchewan, Canada.

(10) (O) “A Zwitterionic Crabtree Analogue: Assessing a P,N-Functionalized Indenide Ligand in the Design of New Ir(I) Coordination Complexes.” **Judy Cipot** and Mark Stradiotto. Maritime Inorganic Discussion Weekend, March 19-20, 2005. Sackville, New Brunswick, Canada. **(Oral Presentation Prize Winner)**

(9) (P) “Towards New Cationic and Zwitterionic Ru(II) Catalysts Featuring Donor-Functionalized Indene/Indenide Ligands.” **Matthew A. Rankin** and Mark Stradiotto. Maritime Inorganic Discussion Weekend, March 19-20, 2005. Sackville, New Brunswick, Canada. **(Poster Prize Winner)**

(8) (O) “Pt(II) Complexes Featuring a  $\kappa^2$ -P,N-Functionalized Indene Ligand.” **Bradley M. Wile** and Mark Stradiotto. Maritime Inorganic Discussion Weekend, March 19-20, 2005. Sackville, New Brunswick, Canada.

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(7) (O) "Rh(I) and Mn(I) Coordination Complexes of P,N-Functionalized Indenes: Towards New Cationic, Zwitterionic, and Planar-Chiral Catalyst Architectures." **Judy Cipot** and Mark Stradiotto. 87<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 29-June 1, 2004. London, Ontario, Canada.

(6) (P) "Towards New Cationic and Zwitterionic Ru(II) Catalysts Featuring Donor-Functionalized Indene/Indenide Ligands." **Matthew Rankin** and Mark Stradiotto. 87<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 29-June 1, 2004. London, Ontario, Canada.

(5) (P) "Recent Developments Regarding Group 10 Complexes of P,N-Functionalized Indene and Indenide Ligands." **Bradley Wile** and Mark Stradiotto. 87<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 29-June 1, 2004. London, Ontario, Canada.

(4) (P) "The Design and Synthesis of New Phosphine-Sulfide/Amide-Substituted Indenes and Their Use as Ligands in the Preparation of Mononuclear and Dinuclear Metal Complexes." **Dominik Wechsler** and Mark Stradiotto. 87<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, May 29-June 1, 2004. London, Ontario, Canada. (**Inorganic Poster Prize Winner**)

(3) (P) "Toward New Neutral & Zwitterionic Chelate Complexes Featuring Novel Multidentate Ligand Sets." **Bradley M. Wile, Judy Cipot** and Mark Stradiotto. 86<sup>th</sup> Canadian Society for Chemistry Conference and Exhibition, August 10-15, 2003. Ottawa, Ontario, Canada.

(2) (O) "The Pursuit of Donor-Functionalized Dibenzofulvalenes for Use as Ligands in the Preparation of New  $\pi$ -Conjugated Organometallic Polymers." Mark Stradiotto and **Dominik Wechsler**. 28<sup>th</sup> APICSAntlantic Student Chemistry Conference, May 16-18, 2003. Sydney, Nova Scotia, Canada.

(1) (O) "Towards Homogeneous Catalyst Release, Capture and Recycling Within a Fluorous Biphasic." **Horace Luong** and Mark Stradiotto. 28<sup>th</sup> APICS/CIC Atlantic Student Chemistry Conference, May 16-18, 2003. Sydney, Nova Scotia, Canada.

### ADMINISTRATIVE AND RELATED RESPONSIBILITIES

*On sabbatical leave 01 July 2011-30 June 2012; 01 July -31 Dec 2016*

#### Dalhousie University (Department of Chemistry)

Task	Duration
Faculty Search Committee (three positions), Department of Chemistry	2022
Undergraduate Recruitment and Retention Committee	2019-present
Undergraduate Studies Committee	2019-present
Departmental Administrator Search Committee	2017
Faculty Search Committee (three positions), Department of Chemistry	2015
Faculty Search Committee (three positions), Department of Chemistry	2014
Limited Term Appointment Faculty Search Committee, Department of Chemistry	2014
Computational Chemistry Faculty Search Committee, Department of Chemistry	2013
Part-Time Academics Search Committee (Freshman chemistry)	2013
Part-Time Academics Search Committee (Inorganic/Analytical)	2013
Part-Time Academics Search Committee (Organic)	2013
Departmental Graduate Studies Committee (Coordinator and Chair)	2009-2018
Part-Time Academics Search Committee	2011
Departmental Administrator Search Committee	2010
Glassblower Search Committee	2010
Departmental Graduate Studies Committee (Coordinator and Chair)	2009-2011
Executive Member of the Nuclear Magnetic Resonance Research Resource (NMR3)	2009-present

**Curriculum Vitae for Dr. Mark Stradiotto (Professor)**Dalhousie University, Department of Chemistry  
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Undergraduate Studies Committee	2008-2009
NSERC Industrial Research Chair Search Committee	2008-2009
Dalhousie Undergraduate Chemistry Mentoring Program	2007-2011
Departmental Health and Safety Committee (Chair) - chosen for 2007-2008 Health and Safety Award, in recognition of “significant laboratory safety accomplishments achieved by the committee”	2006-2009
Executive Member of the Atlantic Region Magnetic Resonance Center (ARMRC)	2005-2009
Killam Chair in Computational Chemistry Search Committee	2005
Physical Chemistry Instructor Search Committee, Department of Chemistry	2003
Graduate Studies Committee, Department of Chemistry - contributed to the development of a new graduate student funding strategy	2001-2006
Advisor to the Dalhousie University Undergraduate Chemistry Society - organized regional chemistry student symposia in October 2002 and September 2005 (approximately 100 participants each)	2001-2006
Teaching Equipment Committee, Department of Chemistry (Chair 2004-2006)	2001-2006

**Dalhousie University (Faculty or University Level)**

<b>Task</b>	<b>Duration</b>
Biological Chemistry Faculty Search Committee, Department of Chemistry (named the Equity, Diversity and Inclusion ‘Champion’ on this search team)	2020-2021
Unit Review Committee, Department of Economics	2019-2020
Faculty of Science Graduate Programs Committee (Chair)	2017-2018
(Dis)abilities Working Group	2017-present
Salary Anomalies Fund (Chair)	2016-present
University Research Sub-Committee	2015-present
Faculty of Graduate Studies Focus Group	2013
NSERC CGS-M Ranking Committee	2013-present
Faculty of Science Tenure and Promotion Committee	2013-2016
Killam Doctoral Award Ranking Committee	2013-present
Member of the PhD Defence Panel for the Faculty of Graduate Studies	2010-present
Unit Review Committee, Department of Biology	2009-2010
University Chemical Safety Committee Discussion Group	2009-2010
Strategic Vision Committee for the Faculty of Science	2008-2009
Dalhousie University Department of Community Health and Epidemiology Departmental Head Survey/Search Committee	2008-2009
DFA Representative on the Dalhousie Environmental Health & Safety Committee	2007-2009
NSERC PGS-D Ranking Committee (Chaired the committee in 2006)	2005-2009, 2012
MSc in Pharmaceutical Sciences, Internal Review Committee	2007-2008
Sumner Fellowship Ranking Committee	2005-2008
Faculty of Science Conference Travel Grant Committee	2005-2008

**National or International**

<b>Task</b>	<b>Duration</b>
Advisory Committee: 21 <sup>st</sup> International Symposium on Organometallic Chemistry Directed	2022-2023

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Toward Organic Synthesis (Vancouver, 2023)	
Judication committee Montreal Medal, Chemical Institute of Canada	2022
NSERC-Brockhouse/Herzberg Evaluation Committees	2019-present
Inorganic Program Coordinator, CSC-2016 Halifax	2015-2016
College of Reviewers, NSERC Industrial R&D Fellowships	2013-2015
Selection Committee (CSC Strem Chemicals Award, 2013 and 2014)	2012-2013
Treasurer, Inorganic Division of the Chemical Institute of Canada	2008-2011
Pacificchem-2010 Inorganic Chemistry Division Symposium Co-Organizer "Advances in Metal-Mediated Bond Activation" with Kenneth Caulton (USA) and Sanshiro Komiya (Japan)	2008-2010
89 <sup>th</sup> Canadian Society for Chemistry Conference and Exhibition (2006, Halifax NS) - volunteer coordinator and member of scientific program committee - organized "Ligand Design in Transition Metal Chemistry" symposium	2006

**MAJOR SCHOLARLY AND PROFESSIONAL ACTIVITIES**

Activity	Duration
Member of the Editorial Advisory Board for " <i>Catalysis Science &amp; Technology</i> "	2015-present
Member of the Editorial Advisory Board for " <i>Organometallics</i> "	2010-2013
Career Panelist, Gordon Research Seminar (Organometallic Chemistry)	2017
Fellow of the Royal Society of Chemistry (UK)	2017-present
Ph.D. External Examiner & Tenure/Promotion External Referee (16 institutions in Canada and the United States)	2008-present

**TEACHING EXPERIENCE AT DALHOUSIE UNIVERSITY**

Course	Title	Enrollment
CHEM 5102B-2002	"Organotransition Metal Chemistry"	5
CHEM 4102B-2002	"Advanced Transition Metal Chemistry"	10
CHEM 4901-2002/3	"Honours Research Project"	3
CHEM 5102B-2003	"Organotransition Metal Chemistry"	6
CHEM 4102B-2003	"Advanced Transition Metal Chemistry"	9
CHEM 3102B-2003	"Coordination Chemistry of the Transition Metals"	33
CHEM 4901-2003/4	"Honours Research Project"	1
CHEM 6199A-2004	"Advanced Topics in Inorganic Chemistry"	6
CHEM 5102B-2004	"Organotransition Metal Chemistry"	5
CHEM 4102B-2004	"Advanced Transition Metal Chemistry"	14
CHEM 3102B-2004	"Coordination Chemistry of the Transition Metals"	31
CHEM 5103A-2004	"Spectroscopic and Structural Methods"	5
CHEM 4901-2004/5	"Honours Research Project"	1
CHEM 6199B-2005	"Advanced Topics in Inorganic Chemistry"	1
CHEM 5102B-2005	"Organotransition Metal Chemistry"	1
CHEM 4102B-2005	"Advanced Transition Metal Chemistry"	11
CHEM 3102B-2005	"Coordination Chemistry of the Transition Metals"	35
CHEM 4901-2005/6	"Honours Research Project"	1
CHEM 5102B-2006	"Organotransition Metal Chemistry"	6
CHEM 4102B-2006	"Advanced Transition Metal Chemistry"	22
CHEM 1012B-2006	"General Chemistry II"	90

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CHEM 6105A-2006	“Inorganic and Organometallic Mechanisms and Syntheses”	6
CHEM 1011A-2006	“General Chemistry I”	310
CHEM 5103B-2007	“Spectroscopic and Structural Methods”	9
CHEM 1011A-2007	“Concepts in Chemistry: Structure and Reactivity”	350
CHEM 5120B-2008	“Advanced Organometallic Chemistry”	9
CHEM 6199B-2008	“Advanced Topics in Inorganic Chemistry”	3
CHEM 1011A-2008	“Concepts in Chemistry: Structure and Reactivity”	320
CHEM 6105A-2008	“Inorganic and Organometallic Mechanisms and Syntheses”	6
CHEM 6105A-2009	“Inorganic and Organometallic Mechanisms and Syntheses”	6
CHEM 4120B-2010	“Advanced Organometallic Chemistry”	20
CHEM 1012B-2010	“Concepts in Chemistry: Energy and Equilibrium”	300
CHEM 4901-2011	“Honours Research Project”	1
CHEM 1012B-2011	“Concepts in Chemistry: Energy and Equilibrium”	300
CHEM 4901-2012	“Honours Research Project”	1
CHEM 5102B-2012	“Organotransition Metal Chemistry”	5
CHEM 4102B-2012	“Advanced Transition Metal Chemistry”	14
CHEM 1012B-2013	“Concepts in Chemistry: Energy and Equilibrium”	700
CHEM 5102B-2013	“Organotransition Metal Chemistry”	4
CHEM 4102B-2013	“Advanced Transition Metal Chemistry”	15
CHEM 1012B-2014	“Concepts in Chemistry: Energy and Equilibrium”	700
CHEM 6152-2014	“Organometallic Reactivity”	6
CHEM 6153-2014	“Organometallic Characterization Methods”	6
CHEM 5102A-2014	“Organotransition Metal Chemistry”	9
CHEM 4102A-2014	“Advanced Transition Metal Chemistry”	14
CHEM 1012B-2015	“Concepts in Chemistry: Energy and Equilibrium”	740
CHEM 4102A-2015	“Advanced Transition Metal Chemistry”	20
CHEM 3801A-2016	“Experiential Learning”	1
CHEM 6153A-2016	“Organometallic Characterization Methods”	9
CHEM 6154A-2016	“Organometallic Catalysis”	1
CHEM 5120A-2016	“Advanced Organometallic Chemistry”	8
CHEM 4102B-2017	“Advanced Transition Metal Chemistry”	36
CHEM 5102B-2017	“Organotransition Metal Chemistry”	4
CHEM 4102B-2018	“Advanced Transition Metal Chemistry”	12
CHEM 5102B-2018	“Organotransition Metal Chemistry”	2
CHEM 4102A-2018	“Advanced Transition Metal Chemistry”	3
CHEM 5102A-2018	“Organotransition Metal Chemistry”	9
CHEM 1011A-2018	“Concepts in Chemistry: Structure and Reactivity” (Tutorials)	100
CHEM 1012B-2019	“Concepts in Chemistry: Energy and Equilibrium” (Tutorials)	100
CHEM 4102A-2019	“Advanced Transition Metal Chemistry”	4
CHEM 5102A-2019	“Organotransition Metal Chemistry”	10
CHEM 1011A-2019	“Concepts in Chemistry: Structure and Reactivity” (Tutorials)	85
CHEM 1012B-2020	“Concepts in Chemistry: Energy and Equilibrium” (Tutorials)	85
CHEM 6154B-2020	“Organometallic Catalysis”	8
CHEM 1012B-2021	“Concepts in Chemistry: Energy and Equilibrium” (Testing and Tutorials)	20
CHEM 4102A-2020	“Advanced Transition Metal Chemistry”	4
CHEM 5102A-2020	“Organotransition Metal Chemistry”	15
CHEM 4102A-2021	“Advanced Transition Metal Chemistry”	19

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CHEM 5102A-2021	“Organotransition Metal Chemistry”	9
CHEM 6153-2022	“Organometallic Characterization Methods”	10
CHEM 4102A-2022	“Advanced Transition Metal Chemistry”	8
CHEM 5102A-2022	“Organotransition Metal Chemistry”	14

Founding co-author of the first edition of the “*Concepts in Chemistry*” textbook used in all first-year natural sciences and engineering chemistry classes at Dalhousie University beginning in the fall of 2006.