Curriculum Vitae: Douglas W. Stephan FRSC, FRS

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Home Address 47 St. Clair Ave. W., Suite 302,
Toronto, ON. M4V 3A5; Home: 416-619-5901

Personal Born in Hamilton, Ontario, CANADA July 27 1953, married (Dianne L. Gunn) two adult children (David and Kathryn)

Citizenship Canadian

Education Ph.D 1980 (University of Western Ontario),
B.Sc. 1976 (McMaster University, summa cum laude)

Positions Held

2018-present	University Professor, University of Toronto
2008-2018	Professor, University of Toronto
2016-2019	Chair, Editorial Board of Chemical Society Reviews
2016-2018	Einstein Visiting Fellow, TU Berlin.
2011-2017	Associate Editor, Chemical Society Reviews
2006 (Oct)	International Research Guest Professor, WW-Universitaet Muenster
2008-2021	Canada Research Chair in Catalysis and New Materials (UToronto)
2005-2007	Canada Research Chair in Catalysis and New Materials (UWindsor)
2003-2006	Head, Department of Chemistry & Biochemistry
2002-2007	University Professor, University of Windsor
2002-2003	Humboldt Senior Awardee, WW-Universitaet Muenster
2001-2006	NSERC/NOVA Chemicals Corporation Industrial Research Chair
1995	DAAD Visiting Scientist, Muenster, Germany (declined)
1995	NSERC/DFG Visiting Scientist, WW-Universitaet Muenster.
1992-2002	Professor, Chemistry, University of Windsor
1990-1991	Research Professor, Chemistry, University of Windsor
1985-1992	Associate Professor, Chemistry, University of Windsor
1982-1985	Assistant Professor, Chemistry, University of Windsor
1980-1982	NATO Postdoctoral Fellow, Chemistry, Harvard University
1976-1980	NSERC Postgraduate Scholar, Chemistry, University of Western Ontario

International Awards

2014-2017	Thomson Reuters Highly Cited Researcher (one of 4 in Canada in chemistry)
2015	World's Most Influential Scientific Minds (1 of 5 Cdn Chemists)
2015	Distinguished Adjunct Professor, King Abdulaziz University
2014	Applied Catalysis Award (Royal Society of Chemistry, UK)
2014	Corresponding Member of North-Rhein-Westfaelia Academy of the Sciences and Arts (Germany)
2013	Honorary Member of the Israeli Chemical Society
2013	Fellow of The Royal Society (London, UK)
2012	Ludwig Mond Award (Royal Society of Chemistry, UK)
2011	Humboldt Foundation Research Award Re-invitation (Forschungpreis)
2010	Fellow of the Royal Society of Chemistry (UK)

2004	Ciapetta Lectureship Award (North American Catalysis Society)
2002-2003	Humboldt Foundation Research Award (Forschungpreis)
1975	ACS Undergraduate Award in Analytical Chemistry.

National Awards

2014	Canadian Green Chemistry and Engineering Award
2014	CIC Medal (Chemical Institute of Canada)
2013	Henry Marshall Tory Medal (Royal Society of Canada)
2009-2011	Killam Research Fellowship
2007	Paper (ref 106) in 20 most cited papers in *Organometallics* 1997-2007 (top 1%).
2006	Publication named to Top 50 NSERC Discoveries of 2006
2005	LeSueur Memorial Award (Society for Chemical Industry)
2005	Fellow of the Royal Society of Canada
2003	Synergy Award (with NOVA Chemicals from NSERC of Canada)
2003	Senior Award for Scholarship & Research (University of Windsor)
2001	Alcan Award (Canadian Society for Chemistry)
1994	Fellow of the Chemical Institute of Canada.
1976	Ontario Graduate Scholarship (declined).
1972	Ontario Scholarship, SHS Student Council Scholarship

Distinctions: Lectures

2018	Keynote Lecturer, International Conference on Coordination Chemistry Sendai
2018	Plenary Lecturer, Boron of the Americas, Boston
2018	Plenary Lecturer, PAC Stifting Meeting, Netherland Student Conf. Utrecht,
2018	Plenary Lecturer, The Netherland Catalysis and Chemistry Conference
2018	Plenary Lecturer, 1st Atlantic Basin Conference on Chemistry, Cancun, Mexico.
2017	Plenary Lecturer, OMCOS-19 South Korea
2017	Plenary Lecturer, Intl Conference on Heterocyclic Chemistry, Vancouver, BC
2017	Plenary Lecturer, *12th Int. Conference on Heteroatom Chemistry*, Vancouver
2016	Anton Burg Lecture University of Southern California
2016	Anthony J. Arduengo, III Endowed Lecture Series, U of Alabama.
2016	Plenary Lecturer, ICOMC, Melbourne Australia
2016	Plenary Lecturer, National Meeting of Mexico
2015	Plenary Lecturer, Inorganic Rings, International symposium
2015	Plenary Lecturer, Heidelberg Forum of Molecular Catalysis
2015	Plenary Lecturer, Unicat Summer school, Berlin (2 Lecturers)
2015	Plenary Lecturer, IFOC (Tokyo)
2015	Plenary Lecturer, Kyoto Symposium on Organic Chemistry
2014	Laird Lecture, University of British Columbia
2014	Dow Lecture on Sustainable Chemistry, Colorado State University
2014	Plenary Lecturer, Singapore Chemical Society
2014	Plenary Lecturer, Fusion Conference, Chicago
2013	Moses Gomberg Lecture, University of Michigan
2013	Plenary Lecturer, Maritime IDW
2013	Plenary Lecturer, Phosi-net, Regensburg
2012	Plenary Lecturer at Buergenstock Meeting Switzerland
2012	Plenary Lecturer, Intl Conf. Phosphorus Chem.
2012	Plenary Lecturer, Intl Conf. Homogeneous Catalysis
2012	Kohler lecture, University of California Riverside
2011	Distinguished Catalysis Lecture, Pacific Northwest National Laboratories
2011	Dow Lecture, University of Minnesota

2010 University of Bonn (GDCh Lecture)
2010 Plenary Lecturer, Swiss-German-French Organic Symp. Plenary (2 lectures)
2009 Plenary Lecturer, Chemistry of Organoelement Compounds, Moscow
2009 Plenary Lecturer, Zing Main Group Conference
2008 Plenary Lecturer, Intl Conf. on Boron Chem. Spain
2006 Plenary Lecturer, Maritime IDW
2004 Plenary Lecturer, Int'l Congress on Organometallic Chemistry (Vancouver)
2004 Plenary Lecturer, Canadian Catalysis Symposium, (Montreal)
2004 Plenary Lecturer, Western States Catalysis Club (Provo UT)
2003 Universitaet Muenster (GDCh Lecture)
1994 Closs Lectureship, University of Chicago

Distinctions: Editing

2017 Guest Editor, Canadian-German Issue of Angew. Chem. 2017.
2017 Guest Editor, Canadian Issue of Chem. Soc. Rev.
2017 Guest Co-editor of FLP Issue for Philosophical Transactions (with G. Erker)
2016-present Member of the scientific advisory board of CHEM (Springer Publishing)
2016 Cited as Highly Prolific Author by ACS Organometallics: http://journalstars.acs.org/organic-inorganic/journal/organometallics
2016 Guest Editor Dalton Transactions, Main group Chemistry issue.
2014-2019 Member of the Editorial Board of Philosophical Transactions A (Royal Society)
2013 Research Highlighted in Silverberg, *Chemistry, 1st Canadian Edition*
2012-2016 Member of the Advisory Board of Chemical Communications
2012-2014 Member of the Editorial Advisory Board of Dalton Transactions
2012 Guest Editor, Dalton Trans. issue on FLPs.
2009-2016 International Advisory Board, Z. Allgem. Anorg. Chem.
2010-2012 Member of the Editorial Board of Chem. Soc. Rev.
2010 Guest Editor, Chem. Commun., web issue on Hydrogen Activation
1997-2000 Member, Editorial Board of Organometallics
1997-2000 Member, Editorial Board of Can. J. Chem.

Distinctions: Conferences

2016-2017 Chair, Fund Raising CSC National Meeting
2016-2017 Chair: National CSC Inorganic Mixer
2012 Chair, Int. Symp. For Adv. Chem. Sci. (ISACS 8, Toronto)
2016-17 Canadian Advisory Board of ICHAC-12 (Vancouver BC)
2010 Program Chair, CSC National Meeting
2003 CSC/IUPAC Symposium Organizer
1997 Program Chair, National CIC Meeting (Windsor)
1992 Symposium Organizer Canadian Chemical Congress, Edmonton
1988-1989 member of the Local Organizing Committee, 14th ICOMC, Detroit.
1987 Coordinator: 20th Inorganic Discussion Weekend, Ontario, Windsor,.

Professional Service: Grants

2015-2018 European Science Foundation, College of Expert Reviewers
2015-2018 Member of the NSERC Chemistry Evaluation Committee
2015 Vanier Scholarship Ranking Committee, U of Toronto
2015-2018 Royal Society Fellowship grants Evaluation committee, Royal Society London
2014 European Research Commission, Research Grants Committee
2012 DFG Excellence Initiative External Panel
2012-2018 ANR (France) External reviewer
2014-2017 Advisory Board Member: Berlin-Potsdam Cluster of Excellence in Catalysis

2012	Green Centre of Canada Technical Advisory Board
2009-present	Technical Advisory Committee for GreenCentre Canada
2013	Member of Graduate Program Review Team McMaster University
2009	OCGS review committee Brock University, Chemistry
2008	External Review Committee SFU, Chemistry
2006-2009	Member, nominations committee for Physical Sciences of RSC
2003	Member of Evaluation College for EPSRC (UK)
2000-present	Member of Evaluation College for Canada Research Chairs
2003-2004	NSERC AGENO Committee
2001-2004	Inorganic Division Rep., Board of Directors of the CSC
2001-2004	Member, Board of Directors of the Canadian Society for Chemistry
2000,2001	Member, Steacie Selection Committee NSERC of Canada.
1999-2001	Member, Chemistry ME/MI Grants Selection Committee NSERC
1998-1999	Past Chair, Inorganic Division of the Chemical Institute of Canada
1996-98	Chair, Inorganic Division of the Chemical Institute of Canada
1994-95	Vice Chair, Inorganic Division of the Chemical Institute of Canada
1993-1996	Member, Chemistry Grants Selection Committee NSERC of Canada.
1993-1995	Pacifichem Symp. Organizer: "Early Transition/Group 15,16 Chemistry".
1993	Contributing Editor for Inorg. Chem. to The Canadian Chemical News.
1993-96	Review Panel for ACS Award in Organometallic Chemistry
1986-1987	Vice-President of the Essex-Kent Section of the CIC
1984-86	Secretary of the Essex-Kent Section of the CIC
1980-present	Member of the Chemical Institute of Canada and American Chemical Society

Publications:
Web of Science: H factor: 74 Total Citations: 23,056; **Google scholar**: H index 83 citations: 27,796

Books edited
B1. ***Topics in Current Chemistry: Frustrated Lewis Pairs I*** Ed: G. Erker, D.W. Stephan; Springer Press **2013**. (27391 downloads 2013-2016)
B2. ***Topics in Current Chemistry: Frustrated Lewis Pairs II*** Ed: G. Erker, D.W. Stephan; Springer Press. **2013**. (32433 downloads 2013-2016)

Book Chapters
B3. C.B. Caputo, D.W. Stephan, Non-Conventional Lewis Acids and Bases in Frustrated Lewis Pair Chemistry ***Structure and Bonding*** **2017,** 171, 1-29**.** DOI: 10.1007/430_2015_177 *(invited, 100th Anniversary of Lewis Acid Base Chemistry).*
B4. D.W. Stephan, Frustrated Lewis Pairs, Activation of H_2 and Other Small Molecules, ***Comp. Inorg. Chem. II***. Eds: J. Reedijk, K. Poeppelmeier, Elsevier, Oxford, **2013**, *1*, 1069-1103*. (invited)*
B5. D.W. Stephan, G. Erker, Frustrated Lewis Pairs Mediated Hydrogenations, ***Topics in Current Chem.: Frustrated Lewis Pairs I,*** Ed: D.W. Stephan, G. Erker, Springer Press **2013**, 85-110.
B6. D.W. Stephan, Discovery of Frustrated Lewis Pairs: Intermolecular FLPs for Activation of Small Molecules, ***Topics in Current Chem.: Frustrated Lewis Pairs I,*** Ed: D.W. Stephan, G. Erker, Springer
B7. D.W. Stephan, "Frustrated Lewis Pairs": A Metal-Free Strategy to Hydrogenation Catalysis, in "***Catalysis without Precious Metals***" Wiley-VCH, Ed. M. Bullock. (Invited) **2010**, 261-276.
B8. D.W. Stephan, S. Smith, Titanium, ***Comp. Coord. Chem. 2nd*** Ed. **2003**, Editor: J. McCleverty, Elsevier Science, UK, 4, 31-104.
B9. D.W. Stephan, E. Hollink, Zirconium/Hafnium, ***Comp. Coord. Chem. 2nd*** Ed. **2003**, Editor: J. McCleverty, Elsevier Science, UK, 4, 105-173.

Book Reviews

BR10. D.W. Stephan, Book Review: "Beyond Oil and Gas: The Methanol Economy, 2nd Edition." by G.A. Olah, A. Goeppert, G.K. S. Parkash, ***Energy Technology***, **2013**, 1, 777.

Highlights

H11. D.W. Stephan, Dogma-Breaking Catalysis ***Nature*** **2018**, *553,* 160-161. (invited News and Views).
H12. D.W. Stephan, A Metal-free Landmark, ***Nat. Chem.*** **2014**, 6, 1026 (invited News and Views).
H13. D.W. Stephan, A Step Closer to the "Methanol Economy" ***Nature*** (invited highlight). **2013**, 495, 85-89.
H14. D.W. Stephan, "Breaking the Rules": A Planar Phosphonium Cation, (invited Highlight) *Angew. Chem.* **2000**, *112,* 511-512. *Angew. Chem. Int. Ed.* **2000**, *39,* 501-502.

Editorials

E15. G. Erker, D.W. Stephan, Frustrated Lewis Pair Chemistry, ***Phil. Trans. R. Soc A. 2017*** 375: 20170239. *(invited).*
E16. M. Lautens, D.W. Stephan, Celebrating Canadian Chemistry, ***Angew. Chem. Int. Ed. 2017,*** *accepted.* (invited editorial) doi: 10.1002/anie.201702437.
E17. R.L. Melen, D.W. Stephan, Main Group Transformations, ***Dalton Trans.*** **2016**, *45, (invited editorial for guest Editors)*
E18. D.W. Stephan, G. Erker, Frustrated Lewis Pairs, Editorial ***Israel J. Chem.*** **2015,** DOI: 10.1002/ijch.201510002 *(invited)*
A19. D.W. Stephan, G. Erker (2013). Frustrated Lewis Pairs I Uncovering and Understanding ***Topics in Current Chem.: Frustrated Lewis Pairs I,*** Ed: D.W. Stephan, G. Erker, Springer Press. **2013**,(332),
A20. D.W. Stephan, G. Erker (2013). Frustrated Lewis Pairs II Expanding the Scope Preface. ***Topics in Current Chem.: Frustrated Lewis Pairs II,*** Ed: D.W. Stephan, G. Erker, Springer Press. **2013**, (334).
E21. D.W. Stephan, Nothing Frustrating about "Frustrated Lewis Pairs" ***Dalton Trans.*** **2012**, *41,* 9055. (among top 10 downloaded Dalton Trans. Articles in June & July 2012).

Enclopedia Entries

EE22. D.W. Stephan, [2,3,5,6-tetrafluorophenyl][bis(2,4,6-trimethylphenyl)phosphonium][4-[bis (2,3,4,5,6-pentafluorophenyl)borohydride], ***Encycl. Reag. Org. Syn.*** **2011,** DOI: 10.1002/047084289X.rn01333 (invited).
EE23. D.W. Stephan Frustrated Lewis Acid and Base Pair Reactions, ***McGraw Hill 2011 Yearbook of Science & Technology*** **2011,** https://doi.org/10.1036/1097-8542.YB110009 (invited)
EE24. D.W. Stephan, Metal-Free Hydrogen Activation and Catalysis, 2009 Yearbook of Science and Technology https://doi.org/10.1036/1097-8542.YB090008 (invited)

Refereed Publications published/In Press A: article, C: communication, R: review.

2018

A470. T.C. Johnstone, D.W. Stephan, The Crystal, Molecular, and Electronic Structure of Tris(pentafluorophenyl)borane, ***Organometallics***, *submitted.*
A469. M. Vogler, L. Süsse, J.H.W. LaFortune, D.W. Stephan, M. Oestreich, Electrophilic Phosphonium Cations as Lewis-Acid Catalysts in Diels–Alder Reactions and Nazarov Cyclizations, ***Organometallics***, *submitted.*
A468. J. Zhou, L.L. Liu, L.L. Cao, D.W. Stephan, The η^5-Pentamethylcyclopentadienyl Phosphorus Dication: $[(\eta^5\text{-Cp*})P]^{2+}$: A Phosphorus Super Acid, ***CHEM***, *under revision.*
A467. C. Schneider, J.H.W. LaFortune, R.L. Melen, D.W. Stephan Lewis and Brønsted Basicity of Phosphine-Diazomethane Derivatives, ***Dalton Trans.***, *under revision.*

R466. J. Lam, K. Szkop, E. Mosaferi, D.W. Stephan FLP Catalysis: Main Group Hydrogenations of Organic Unsaturated Substrates ***Chem. Soc. Rev.*** *accepted.*

A465. J.H.W. LaFortune, K.M. Szkop, F.E. Farinha, T.C. Johnstone, S. Postle, D.W. Stephan, Probing Steric Influences on electrophilic phosphonium cations: A comparison of $[3,5\text{-}((CF_3)_2C_6H_3)_3PF]^+$ and $[(C_6F_5)_3PF]^+$, ***Dalton Trans.*****, 2018**, DOI: 10.1039/C8DT02594K.

C464. L.L. Cao, D.W. Stephan, Reversible 1,1-hydridoaluminations and C-H activation in reactions of a cyclic alkyl amino carbene with alane, ***Chem. Comm***. **2018, *54,*** 8407–8410. DOI: 10.1039/C8CC05013A

C463. M. Xu, A. R. Jupp, Z-W. Qu, S. Grimme, D.W. Stephan, Alkali-Metal Species in The Reversible Activation of H_2 ***Angew. Chem. Int. Ed.*** *accepted.*

C462. L. Fan, A.R. Jupp, D.W. Stephan, Remote Stereochemistry of a Frustrated Lewis Pair Provides Thermal and Photochemical Control of Reactivity, ***J. Am. Chem. Soc.*** **2018**, 140, 8119–8123 DOI: 10.1021/jacs.8b05176

C461. L.L. Liu, J. Zhou, R. Andrews, D.W. Stephan, A Room-Temperature-Stable Phosphanorcaradiene ***J. Am. Chem. Soc.*** **2018, 140**, 7466-7470. DOI: 10.1021/jacs.8b04930

C460. K.M. Szkop, D. Zhu, L.E. Longobardi, J. Heck, D.W. Stephan, Interception of Intermediates in Phosphine Oxidation by Frustrated Lewis Pairs ***Dalton Trans.*** **2018, 47**, 8933-8939. DOI: 10.1039/C8DT01717D.

C459. A. Waked, R.O. Memar, D.W. Stephan Nitrogen-Based Lewis Acids derived from Phosphonium diazo cations, ***Angew. Chem. Int. Ed.*** *accepted.* DOI: 10.1002/anie.201804183

C458. L.L. Liu, L.L. Cao, J. Zhou, D.W. Stephan, Homolytic Cleavage of Peroxide Bond via a Single Electron Transfer of Frustrated Lewis Pair, ***Chem. Commun.*** **2018, *54***, 7431–7434, DOI: 10.1039/C8CC03522A

A457. J. Zhou, L.L. Liu, D.W. Stephan, N-N Coupling and Cleavage: Loss of N_2 from Magnesium Diazomethane Derivatives ***Chem. Eur. J.*** **2018** doi.org/10.1002/chem.201802138

A456. A.R. Jupp, T.C. Johnstone, D.W. Stephan, The Global Electrophilicity Index as a Metric for Lewis Acidity, ***Dalton Trans.*** **2018,** *47*, 7029-7035, DOI: 10.1039/C8DT01699B

C455. T.C. Johnstone, G.N. J. H. Wee, D.W. Stephan, Accessing FLP Chemistry from a Spectroscopically Stable Classical Lewis Acid-Base Adduct, ***Angew. Chem. Int. Ed.*** **2018**, *57*, 5881-5884. DOI: 10.1002/ange.201802385.

C454. S. Chitnis, F. Kirscher, D.W. Stephan, Catalytic Hydrodefluorination of C-F bonds by air-stable P(III) Lewis acids, ***Chem. Eur. J.*** **2018**, 4,6543 –6546. 10.1002/chem.201801305.

A453. S.S. Eaton, T. Ngendahimana, G.R. Eaton, A. Jupp, D.W. Stephan, Electron spin relaxation of a ^{10}B-containing heterocyclic radical, ***J. Mag. Res.*** **2018**, *290*, 78-84.

C452. J. Zhou, L. L. Liu, L.L. Cao, D.W. Stephan Cyclic (Alkyl)(Amino)Nitrenium: A Nitrogen Lewis Acid with Enhanced Electrophilicity, ***Angew. Chem. Int. Ed.*** **2018,** 57, 3322–3326. doi.org/10.1002/anie.201713118.

C451. L. L. Cao, K.L. Bamford, L.L. Liu, D.W. Stephan, Zinc-Containing Radical Anions via Single Electron Transfer to Donor-Acceptor Adducts, ***Chem. Eur. J.*** **2018**, 24, 3980-3983. doi.org/10.1002/chem.201800607.

C450. J. Zhou, L.L. Liu, LL. Cao, D.W. Stephan, An Umpolung of Lewis Acidity/Basicity at Nitrogen by Deprotonation of A Cyclic (Amino)(Aryl)Nitrenium Cation, ***Chem. Comm.*** **2018,** 54, 4390-4393, (invited cover) DOI: 10.1039/c8cc01331d.

C449. L. Liu, J. Zhou, L.L. Cao, R. Andrews, R. L. Falconer, C. A. Russell, D.W. Stephan, A Transient Vinylphosphinidene via a Phosphirene-Phosphinidene Rearrangement. ***J. Am. Chem. Soc.*** **2018,** 140, 147–150. DOI: 10.1021/jacs.7b11791.

C448. L. L. Liu, D. W. Stephan, An Imine-Gallium Lewis Pair Stabilized Oxophosphinidene via an Unexpected Phosphirene Rearrangement, ***Chem. Commun.*** **2018**, **54**, 1041-1044. DOI: 10.1039/C7CC09090K

C447. V. Fasano, J. H. W. LaFortune, J. M. Bayne, M. J. Ingleson, D. W. Stephan, Air- and water-stable Electrophilic Phosphonium Cations: synthesis and reactivity of P-trifluoromethyl phosphonium salts, ***Chem. Commun.*** **2018**, **54**, 662-665 DOI: 10.1039/C7CC09128A

C446. F.A. Tsao, D.W. Stephan, Synthesis and Reactions of 4-H-1,4-Telluraborine, ***Chem. Commun.*** **2018**, **54**, 208-211. DOI: 10.1039/C7CC08765A

2017

C445. J.H.W. LaFortune, J.M. Bayne, T.C. Johnstone, L. Fan, D.W. Stephan, Catalytic double hydroarylation of alkynes to 9,9-disubstituted 9,10-dihydroacridine derivatives by an electrophilic phenoxyphosphonium dication, ***Chem. Commun.*** **2017, 53,** 13312-13315, DOI: 10.1039/C7CC08037A. (cover invited).

C444. K. Sato, T.T.Y. Tan, F. Schäfers, F.E. Hahn, D.W. Stephan Imidazole-stabilized, electron-deficient boron cations, ***Dalton Trans.*** 2017, **46**, 16404-16407. DOI: 10.1039/C7DT04030J.

C443. C. Tang, Q. Liang, A.R. Jupp, T.C. Johnstone, R.C. Neu, D. Song, S. Grimme, D.W. Stephan, 1,1-Hydroboration and Borane Adduct of Diphenyldiazomethane: A Prelude to FLP-N_2 Chemistry? ***Angew. Chem. Int. Ed.*** **2017*, 56,*** 16588-16592 (Highlighted in *Angew. Chem.* as VIP)

C442. I. Mallov, A.J. Ruddy, Hui, S. Grimme, D.W. Stephan, C-F Bond Activation by Silylium/Phosphine Frustrated Lewis Pairs: Mono-Hydrodefluorination of $PhCF_3$, $PhCF_2H$ and Ph_2CF_2, ***Chem. Eur. J.*** **2017*, 23***, 17692-17696. DOI: 10.1002/chem.201705276

A441. A.G. Barrado, J.M. Bayne, M. Alcarazo, D.W. Stephan, Cyclopropenium- and pyridinium-substituted phosphonium salts: Lewis acid catalysts for Mukaiyama-Aldol Reaction, ***Dalton Trans.***, 2017, ***46***, 16216-16228.

A440. M. Mehta, T.C. Johnstone, J. Lam, A. Hermannsdorfer, M. Dreiss, D.W. Stephan, Synthesis and Oxidation of Phosphine Cations, ***Dalton Trans.*** **2017**, **46**, 14149-14157, DOI: 10.1039/C7DT03175K.

C439. K.M. Szkop, A.R. Jupp, R. Suter, H. Grützmacher, D.W. Stephan, Borane-Stabilized Isomeric Dimers of the Phosphaethynolate Anion, ***Angew. Chem. Int. Ed.*** 2017, **56**, 14174-14177 https://doi.org/10.1002/anie.201708646.

C438. M. Xu, A.R. Jupp, D.W. Stephan, Stoichiometric Reactions of CO_2 and Indium-Silylamides and Catalytic Synthesis of Ureas, ***Angew. Chem. Int. Ed.*** **2017**, 56, 14277–14281. https://doi.org/10.1002/anie.201708921.

A437. S.J. Geier, J.H.W. LaFortune, D. Zhu, S.C. Kosnik, C.L.B. Macdonald, D.W. Stephan, S.A. Westcott, The Phosphinoboration of Carbodiimides, Isocyanates, Isothiocyanates and CO_2 ***Dalton Trans.*** **2017**, *46*, 10876-10885.

A436. L.L. Cao, D.W. Stephan. Homolytic Cleavage Reactions of a Neutral Electron-Precise Doubly-based stabilized Diborane(4), ***Organometallics*** **2017**, DOI:. 10.1021/acs.organomet.7b00522

C435. F.A. Tsao, A. Sathaseevan, G. Erker, D.W. Stephan, Stoichiometric and catalytic isomerization of alkenylboranes using bulky Lewis bases ***Chem. Commun.*** **2017**, **53**, 9458-9461. DOI: 10.1039/C7CC04904H

A434. L. Liu, L.L. Cao, Y.Shao, D.W. Stephan, Single Electron Delivery to Lewis Pairs: Small Molecules Activation to Novel Anions, ***J. Am. Chem. Soc***. **2017**, 39, 10062-10071 doi/10.1021/jacs.7b05120.

A433. I. Mallov, T. C. Johnstone, D. C. Burns, D. W. Stephan A Model for C-F Activation by Electrophilic Phosphonium Cations ***Chem. Commun***. **2017**, **53**, 7529-7532, DOI: 10.1039/C7CC04057A.

C432. F.A. Tsao, D.W. Stephan, Avenues for Derivatization of Te-B based Heterocycles, ***Chem. Commun.*** **2017**, **53**, 6311-6314. DOI: 10.1039/C7CC03648E

A431. F. G. Fontaine, D.W. Stephan, On The Concept of Frustrated Lewis Pairs ***Philisoph. Trans. A.*** **2017**, *accepted.* (*Invited*)

C430. J. Zhou, L.L. Cao, L. Liu, D.W. Stephan, FLP reactivity of $[Ph_3C]^+$ and $(o\text{-tolyl})_3P$ and the capture of a Staudinger reaction intermediate, ***Dalton Trans.*** **2017**, **46**, 9334 – 9338 DOI: 10.1039/C7DT01726J (*invited cover*)

A429. L. Liu, L.L. Cao, Y. Shao, G. Ménard and D.W. Stephan, A Radical Mechanism for Frustrated Lewis Pair Reactivity, ***CHEM,*** **2017**, 3, 259-267. *(invited cover)*

A428. M. Xu, J. Possart, A. Waked, J. Roy, W. Uhl, D.W. Stephan, Halogenated Triphenyl and Indium in Frustrated Lewis Activations and Hydrogenation Catalysis, ***Phil. Trans. R. Soc. A*** **2017**, 375: 20170014. (Invited)

A427. K.L. Bamford, L.E. Longobardi, L. Liu, S. Grimme, D.W. Stephan, FLP Reduction and Hydroborations of Phenanthrene o-Iminoquinones and α-Diimines, ***Dalton Trans.*** **2017**, ***46***, 5308-5319. DOI: 10.1039/C7DT01024A

A426. K.M. Szkop, D.W. Stephan, Metal Free Pincer Chemistry: PNP Pincer-based Polycationic Phosphonium Lewis Acids, ***Dalton Trans.***, **2017**, **46**, 3921–3928. DOI: 10.1039/C7DT00441A.

R425. D.W. Stephan, A Tale of two Elements: The Lewis Acidity/Basicity Umpolung of Boron and Phosphorus ***Angew. Chem. Int. Ed.*** **2017,** ***56***,5984 –5992.

C424. H. Jin, C. Mück-Lichtenfeld, A. Hepp, D.W. Stephan, F. E. Hahn, Small Molecule Activation with N,NR-MIC Platinum Complexes, ***Chem. Eur. J.*** **2017**, *accepted.*

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1984
13.H.P.Berends, D.W.Stephan, Copper(I) and Copper(II) Complexes of Biologically Relevant Tridentate Ligands ***Inorg. Chim. Acta*** **1984**, *93*, 173-178.
12. D.W.Stephan, Iridium Complexes of Diphenylphosphinoethanethiol, Crystal and Molecular Structure of $[IrH(SCH_2CH_2PPh_2)(HSCH_2CH_2PPh_2)(CO)]Cl$: A New and Novel Example of Thiol Coordination ***Inorg. Chem.*** **1984**, *23,* 2207-2210.
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1983

8. D.W.Stephan, G.C.Papaefthymiou, R.B.Frankel, R.H.Holm, Analogues of the [4Fe-4S] Site of Reduced Ferredoxins: Structural and Spectroscopic Properties of $[Et_4N]_3[Fe_4S_4(S\text{-}p\text{-}C_6H_4Br)_4]$ in Crystalline and Solution Phases ***Inorg. Chem.*** **1983**, *22*, 1550-1557.

1982

7. K.S.Hagen, D.W.Stephan, R.H.Holm, Metal Atom Exchange Reactions in Cage Molecules: The Systems $[M_{4-n}M'_n(SPh)_{10}]^{2-}$ M,M' = Fe(II), Co(II), Zn(II), and Cd(II) with Adamantane-Like Stereochemistry and the Structure of $[Fe_4(SPh)_{10}]^{2-}$ ***Inorg. Chem.*** **1982**, *21*, 3928-3936.

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5. N.C.Payne, D.W.Stephan, Asymmetric Hydrosilation of Ketones Catalyzed by Rhodium Complexes containing Chiral Chelate Ligands, Crystal and Molecular Structure of (Bicyclo[2.2.1]hepta-2,5,diene) [(S)-N,N-dimethyl-1-(o-(diphenylarsino)- phenyl)-ethylamine] Rhodium(I) Perchlorate ***Inorg. Chem.*** **1982**, *21*, 182-188.

1981

4. N.C.Payne, D.W.Stephan, Studies in Enantiomeric Discrimination 1 : Chiral Phosphine Complexes of Platinum ***J. Organometal. Chem.*** **1981**, *221*, 223-230.

3. N.C.Payne, D.W.Stephan, The Preparation and 31P Nuclear Magnetic Resonance Studies of Platinum Complexes of Some Chiral Bidentate Phosphines ***J. Organometal. Chem.*** **1981**, *221*, 203-221.

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1980

1. N.C.Payne, D.W.Stephan, Preparation and ^{31}P Nuclear Magnetic Resonance Studies of Chiral Phosphines ***Can. J. Chem.*** **1980**, *58*, 15-21.

Patents

1. Novel Zirconium Compounds, Their Preparation and Their Use as Catalysts, D.W. Stephan, **1998**, USA Patent (issued) 5,726,335.

2. Stephan, D.W., Stewart, J.C., Brown, S.J., Swabey, J.W., High Temperature Solution Polymerization Process, **1998**, Canadian Patent 2,206,944.

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4.Ibid. **1998**, Mexico Application 984217.

5. Ibid. **1998**, Finland Application 981073.

6. Ibid. **1998**,, Norway Application P982460.

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16. Ibid. **1999**, USA Patent (issued) 5,965,677.

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20. Ibid. **1998**, Japan Application 192881/98.

21. Ibid. **1998**, India Application.

22. Ibid. **1998**, Finland Application 981/04.

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Canada: pending application
31. Brazil: pending application
32. China: pending application
33. European Patent Office: application
34. India: pending application
35. Japan: pending application
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39. Brazil: pending application
40. China: pending application
41.European Patent Office: application
42. India: pending application
43. Japan: pending application
44. Korea, South: pending application
45.USA: issued patent no. 6,239,238
46. USA-Divisional: pending application
47.Aluminum-Phosphinimine Complexes As Catalysts for The Co-Polymerization of Ethylene **1999**, Canada Patent Application 2,254,601.
48. Ibid. **1999**, USA 6,239,061.
49. Hydrocarbyl Phosphinimine/Cyclopentadienyl Complexes of Group IV Metals and Preparation Thereof Canada: patent application pending
50. Brazil: patent application pending
51. EPO: patent application pending
52. India: patent application pending
52. Japan: patent application pending
53.Korea, South: patent application pending
54. USA: issued patent no. 6,440,890
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56 US Provisional (US2006-865684P), D.W. Stephan, Hydrogen Splitting Composition Nov 14th 2006.
57. PCT application (PCT/IB2007/004577) D.W. Stephan, Hydrogen Splitting Composition November 14, 2007.
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59. Canadian Patent App. 2669545 Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, May 14, 2009..
60. Mexican Patent 310705 MX/a/2009/005127 Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, Application May 14, 2009..granted June 20, 2013.
61. European Patent App no 07873357.3 Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, May 14, 2009..
62. Australian Patent App 2007350983 Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, May 14, 2009..
63. Japanese Patent App 2009-536823 Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, May 14, 2009..
64, Chinese Patent App. 200780042370.X Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, May 14, 2009..
65. South Korean Patent App 7010781/2009 Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, May 14, 2009..
66. Indian Patent App CHENP/2009 Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, May 14, 2009..
67 Brazilian Patent App P10716462-9 Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, May 14, 2009..
68. Singapore Patent App 200903319-2 Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, May 14, 2009..

69. Hong Kong Patent App. 10100239.9 Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, May 14, 2009.
70. D.W. Stephan, R. Neu, P. Chase, J. Hendry Derivatization of Electrophilic Boranes **2011**, US Patent App. # 61/493,690, 61/494,203. July 15 2011.
71. D.W. Stephan, R. Cariou, T. Graham, S. Resanovic, M. Sgro, C. Ong. J. Mueller, New Transition Metal Complexes, **2011**, US App. # 61568694. (LANXESS) Dec 9, 2011.
72. D.W. Stephan, C. Lund, M. Sgro, R. Cariou, Ru-based Complex Catalysts, **2011**, USPTO App. 61523555, (LANXESS). Aug. 15 2011.
73. D.W. Stephan, J. Farrell, Borenium Frustrated Lewis pair Catalysts, USPO App# 61652634, May 29, 2012 (Green Centre of Canada).
74. J. Thompson, P. Chase, D.W. Stephan, Scrubbing Agents for metal-free or FLP Catalysts (Green Centre of Canada). USPTO: 61/670163, July 11, 2012.
75. Hydrogen Splitting Composition D.W. Stephan, P. Chase, G.C. Welch, Oct 13 2012. (US Patent App 12/514,901). . US Patent 8,299,284.
76. D.W. Stephan, A. McKinty, C. Lund, C. Ong Novel transition metal complexes, novel transition metal complex catalysts, their preparation and use (LANXESS), USPO App. 61821729. May 24, 2013.
77. D.W. Stephan, C. Lund, M. Sgro, F. Dahcheh, C. Ong, Ruthenium-based complex catalysts (LANXESS). USPO App. 61827152 May 24, 2013.
78. D.W. Stephan, J. Morton, H. Shammari-Al Bis(2-indenyl) Metallocene Complexes (SABIC) EPO App. EP13001241 June 6, 2013.
79. D.W. Stephan, J. Farrell, Borenium Frustrated Lewis pair Catalysts, PCT App# PPCT21851, May 29, 2013 (Green Centre of Canada).
80. D.W. Stephan, C. Lund, M. Sgro, F. Dahcheh, C. Ong, Ruthenium-based complex catalysts (LANXESS).EP 13175095.2 on July 4, 2013 and EP 13184655.2 on September 17, 2013.
81 D.W. Stephan, A. McKinty, C. Lund, C. Ong Novel transition metal complexes, novel transition metal complex catalysts, their preparation and use (LANXESS), EP 131725093.7 on July 4, 2013.
82. D.W. Stephan, J. Morton, H. Shammari-Al, Olefin-bridged bis (2-indenyl) metallocene catalysts for copolymerizing of ethylene with alpha-olefins" (int. ref 12POLY0050-EP-EPA) EPO 11 March 2013.
83. D.W. Stephan, J. Morton, H. Shammari-Al, Olefin-bridged bis (2-indenyl) metallocene catalysts for copolymerizing of ethylene with alpha-olefins" GN60014US USPO Jan. 2014.
84. G. Welch, J.S.J. McCahill, D.W. Stephan, Frustrated Lewis Pair Processes (FLP and Olefins) US Patent 8299284 Feb 4 2014.
85. B.Bagh, A.M. McKinty, D.W. Stephan, 1,2,3-Triazolylidene Ruthenium(II) Complexes: Olefin Selective Hydrogenation Catalysts, (LANXESS-Disclosure) EPO: EP14166024.1, April 25, 2014
86. C.Pranckevicius, D.W. Stephan, Cyclic Bent Allene Hydrido-Carbonyl Complexes of Ruthenium: Highly Active Catalysts for Olefin Hydrogenation, (LANXESS-Disclosure). EP 14 170 031.0, May 27, 2014.
87. H. Shammari-Al, Y. Sun, D.W. Stephan, H. Salah, J.Zhu, Boron-bridged 2-indenyl metallocene complexes for olefin polymerizations EPO 14184193.2-1451. Sept 10 2014.
88. H, Al-Shammari, ,J. Morton, D.W. Stephan, S. Al Hubish, Thermoplastic Elastomers based on Olefin-Bridged bis(2-Indenyl) Metallocene catalysts (SABIC Project Number "15POLY0083). To be submitted to EP.
89. H. Shammari-Al, Y. Sun, D.W. Stephan, H. Salah, J.Zhu, Boron-bridged 2-indenyl metallocene complexes for olefin polymerizations USSN 62/212,626 filed Sept 1 2015.
90. L. Fan, D.W. Stephan, S. Dastgir, Matthias Beller, F. Ferretti, Hydrogenation of CO_2 derived lactone and lactone derived feedstocks Disclosure Status: D2017-0018.

Invited Lectures

2020

325. PACIFICHEM, Honolulu

2019

324.

323. SILQCOM, Cartagena de Indias, Colombia

322. University of Missouri

321. Northwestern University

320. Harvard/MIT

2018

319. University of Amsterdam

318. University of Manchester

317. Int. Conf. Coord. Chem. Sendai, (keynote)

316. BORAM, Boston, (Plenary)

315. ACS Symposium (D. Seferos), New Orleans

314. University of Groeningen

314. PAC Stifting Meeting, Utrecht, (Plenary)

313. The Netherland Catalysis and Chemistry Conference (Plenary)

312. 1st Atlantic Basin Conference (Plenary)

2017

312. TU Berlin

311. Aachen University

310. Inorganic Chemistry Gordon Conference

309. Intl Conference on Heterocyclic Chemistry (Plenary)

308. OMCOS-19 South Korea (Plenary)

307. University of Alberta

306. Saarland University

2016

305. Univ. of Goettingen (Roesky-80th Birthday)

304. Mount Alison University

303. UC- Santa Barbara

302. Univ. Southern California (Anton Burg Lect)

301. National Meeting of Mexico, (Plenary)

300. Texas A&M University

299. ICOMC Melbourne (Plenary)

298. Boron of the Americas, Kingston ON.

297. University of Budapest

296. University of Rostock

295. University of Braunschweig

294. University of Alabama (Public Lecture)

293. University of Alabama (Arduengo Lecture)

292. ACS San Diego (Gabbai Symp.)

291. University of Illinois at Chicago

290. Susphos, Berlin

289. University of Western Ontario

2015

288. Pacifichem, Honolulu (FLP Symposium)

287. Pacifichem, Honolulu (P-Symposium)

286. Chuo University

285. IFOC (Tokyo)

284. Kyoto Symposium on Organic Chemistry

283. Yale University

282. QEERI, Qatar

281. Regensburg, IRIS (Plenary)

280. Unicat Summer school, Berlin part 1

279. Unicat Summer school, Berlin part 2

278. Heidelberg Forum of Molecular Catalysis (Plenary)

277. Upsala University

276. Stockholm University

275. Baylor University

274. York University NJC Symposium

273. Pavia University (Italy)

272. St Andrews

271. Cambridge University

270. Imperial College

269. Cardiff University

268. Washington State University

267. Boston College

2014

266. Singapore Chemical Society (Keynote)

265. University of Victoria

264. Simon Fraser University

263. UBC (*Laird Lecture*)**.**

262. Nankai University

261. King Abdulaziz University (Saudi Arabia)

260. ACS FLP Catalysis (San Francisco)

259. Fusion Conversion Chicago (Plenary)

258. MEXT (Canada/Japan) meeting Ottawa

257. CSC Vancouver (CIC Medal Lecture)

256. ISACS Dublin (Plenary)

255. Heidelberg University

254. ACS Inorganic Award Symposium (Dallas)

253. Brock University

252. Colorado State University (*Dow Lecture*)

2013

251. BASF (Ludwigshafen)

250. Technion University (Israel)

249. Green Chemistry and Catalysis Symp. McGill

248. Eur. Symp. Org. Chem. (Marsailles)

247. Royal Society (London)

246. Sustainability Summit Montreal

245. CSC (Pincer Symp) Quebec City

244. CSC (Main Group Symp) Quebec City

243. ICIQ (Tarragona, Spain) (Declined)

242. ACS FLP Symposium, New Orleans
241. Harvard University
240. Cornell University
239. Moses Gomberg Lecture, U of Michigan
238 Maritime IDW (plenary)
237. Phosi-net (Plenary Lecture), Regensburg
236. University of Nottingham
235. University of Strathclyde
234. University of Cardiff
233. University of Sussex
232. University of Bristol
231. UCSD
230. UC Irvine
229. UC Berkeley.
228. California Institute of Technology
227. UCLA

2012

226. ICOMC (Lisbon)
225. Intl Conf. Homogeneous Catalysis. (plenary)
224. Intl Conf. Phosphorus Chem. (plenary)
223. LANXESS, Germany,
222. Inorg. Gordon Conference
221. CSC Symposium, Main Group
220. CSC Symposium, Solar Fuels Generation
219. Karlsruhe University
218. Buergenstock Conference (plenary, highlighted in *Chem. Commun.*, 2012, 48, 11597–11600; *Angew. Chem. Int. Ed.* 2012, 51, 8151; *Chimia* 2012, 66, 873.
217. Groningen University
216. Rennes France
215. San Diego ACS Symposium
214. Eastman Chemical Co
213. Princeton University
212. *Distinguished Catalysis Lecture* PNNL

2011

211. University of Southern California
210. *Kohler lecture*, UC Riverside
209. *Dow Lecture*, University of Minnesota
208. University of Illinois
207. Rutgers (Newark)
206. IUPAC Main Group Chemistry
205. Oxford University
204. RSC Main Group Forum (plenary)
203. CSC Montreal (Harrod Symp)
202. CSC Montreal (Main group)
201. McMaster University
200. Exxon Corp.
199. Max Plank Muelheim
198. University of Frankfurt
197. Swiss Chemical Meeting
196. University of Louisville
195. Brandeis University

2010

194 Pacifichem (transition metal)
193 Pacifichem (main group)
192. Xerox Canada
191. University of Rochester
190. University of Wisconsin
189 Virginia Tech
188.University of Bielefeld
187. University of Bonn (GDCh Lecture)
186 Universitaet Muenster
185. Columbia University
184.Swiss-German-French Organic Symp. Plenary (2 lectures)
183. IUPAC Green Chemistry Conference
182. SABIC (Riyadh) (2 lectures)
181. Beihang University
180. Fudan University
179. Chinese Chemical Society, Xiamen
178. Organometallic Gordon Conf
177. Green Chemistry Gordon Conf.
176. Rutgers University
175. ACS-Symposium, Fluorine Chemistry
174. York University

2009

173. Universitaet Muenster (2 lectures)
172. Universitaet Freiburg
171. University of Toulouse
170. Ecole Polytechnique (Paris)
169. RIKEN (Japan)
168. Nagoya University
167. University of Tokyo
166. Harvard University/MIT
165.Chemistry of Organoelement Compounds, Moscow (Plenary Lecture)
164. Laval University
163. CSC Hamilton (Green Chemistry)
162. CSC Hamilton (Transition Metal)
161. CSC Hamilton (Main Group)
160. Bowling Green University
159. University of Chicago

158. University of Vermont
157. McGill University
156. Queens University
155. UC Santa Barbara
154. UC Berkeley
153. Zing Main Group Conf. (Plenary)
2008
152. D.H.Farrar Lecture University of Toronto
151. Kent State University
150. National Chem. Soc Meeting (Korea)
149. SK Industries
148. Dague University
147. KAIST
146. Korea University
145. Intl Conf. on Boron Chem. (Plenary) Spain
144. CSC, Edmonton (Main Group)
143.CSC, Edmonton (B. Graham)
142. Mount Alison
141. Dalhousie University
140. St. Marys University
139. University of Waterloo
138. University of Saskatchewan
137. University of Toledo
136. Texas A&M
2007
135. Michigan State University
134. University of Michigan
2006
133. John Carroll University
132. Case Western University
131. Universitaet Muenster
130. York University
129. University of Toronto
128. Symyx, San Jose CA
127. CSC Halifax (TM symp.)
126. CSC Haliifax (main group symp.)
125. Maritime IDW (Plenary Lecture).
2005
124. West Virginia ACS Section
123. Dow Chemicals, West Virginia
122. University of Ulm
121. University of Freiburg
120. Universitaet Muenster
119. Lanxess, Leverkusen
2004
118. Simon Frazer University
117. University of Victoria
116. North Illinois University
115. Exxon, New Jersey
114. Catalysis Society Met. New York
113. Int'l Congress on Organometallic Chemistry (Vancouver) Plenary Lecture
112. Canadian Catalysis Symposium (Montreal) Plenary Lecture
111. Texas A&M University
110. Southwest Catalysis Society
109. University of British Columbia
108. University of Western Ontario
107. Western States Catalysis Club (Provo UT) Plenary Lecture
2003
106. University of Ottawa
105. McMaster University
104. St. F. of Xavier University
103. St. Marys University
102. University of New Brunswick
101. Acadia University
100. Dahousie University
99. University of Strassbourg
98. University of Leipzig
97. University of Wuerzburg
96. University of Bonn
95. University of Mainz
94. University of Marburg
93. University of Ulm
92. University of Oxford
91. University of Sussex
90. Imperial College
89. University of East Anglia
88. University of Durham
87 Universitaet Muenster (GDCh Lecture)
2002
86. COST meeting Lecture (Zurich)
85. Technical University of Munich
84. University of Goetingen
83. University of Muenster
82. Queens University
81. University of Alberta
80. University of Calgary
79. University of Lethbridge
78. Dow Chemicals, Midland Michigan
2001

77. Bayer Inc. (Sarnia)
76. ACS Regional Meeting, Grand Rapids
75. Alcan Award Lecture, CSC meeting
74. Indiana University
2000
73. BASF, Ludwigshaven, Germany
72. Wayne State University
71 University of Ottawa
70. Ohio State
69. Pac-Basin 2000 Honolulu
68. National ACS Meeting, San Francisco
1999
67. National ACS Meeting, New Orleans
66. University of California at Irvine,
65. University of California at San Diego
64. California Institute of Technology,
63. University of Southern California.
62. University of California at Los Angeles,
61. University of Montreal
1998
60. ICOMC, Munich
59. Central Regional ACS Meeting, Cleveland
58.University of Muenster
57. University of Bochum
56. University of Kaiserlautern
55.University of Wuerzberg
1997
54.University of Calgary .
53.University of Waterloo,.
52. Technical University of Munich
51. University of Munich
50. University of Karlsruhe
49. University of Goettingen
1996
48. University of Ottawa
47. Oakland University
46. University of Winnipeg
45. National ACS, New Orleans
1995
44. Dalhousie University
43. St. Mary's University
42. Acadia University
41. Institute for Catalysis (Spain).
40. University of Alcala (Spain)
39. University of Castilla La Mancha, (Spain)
38. Westfalische Wilhelms Universitaet,
37. University of Oslo (Norway).
36.Canadian Chemical Congress, Guelph
1994
35. *Closs Lecture*, University of Chicago
34. University of Washington.
33.University of British Columbia.
32. University of Victoria
31. Memorial University
30. Simon Fraser University
29.Organometallic Gordon Conference
1993
28. University of Louisville
27. University of Western Ontario.
26. Wayne State University
1992
25. McMaster University
24. Canadian Chemical Congress, Edmonton
23. Central Regional, ACS, Cincinnati
22. University of Toledo
21. University of Ottawa
20. University of Michigan
19. Oakland University .
1990
18. *Canada Year Lecture* Ball State University
17. University of Toronto.
1989
16. New York University
15. Canadian Chemical Congress Victoria
1986
14. University of Waterloo.
13. University of Western Ontario
12. University of California at Santa Cruz
11.18th Central Regional Meeting ACS, Bowling Green University
10. University of Michigan
9. Dalhousie University
8. University of Winnipeg
1984.
7. Wayne State University
1983
6. University of Windsor
1982
5. University of Windsor
1981
4. Queens University
3. University of Waterloo.

1980 **1**. University of Western Ontario
2. University of Toronto

Research Grants and Contracts
Applications Pending

Current Operating Funds

2017	$25,000 **NSERC ENGAGE** (Inkbox Ink.) FLP Approaches to New Dyes
2017-2020	$237498 (3 yr) **NSERC CRD** (PI: D. Song) (Digital Chemicals) Synthesis of New Precursors for Cobalt andGroup 13/15 Thin Films
2017-2020	$ 95,250 (3 yr) **Digital Chemicals (**PI: D. Song) (Digital Chemicals) Synthesis of New Precursors for Cobalt and Group 13/15 Thin Films
2016-2019	449.990 € (3 yr) **Einstein Foundation**, **Germany** (with M Oesterich, M Dreiss) Small-Molecule Activation with Main-Group Lewis Acids and Bases
2015-2018	$150,000 (3 yr) **NSERC Strategic** (with D. Seferos) Tellurium-Based Donor-Acceptor Materials
2015-2018	$900,000 (3 yr) **Qatar National Priority Research Program (with S. Dastgir)** Capturing and Utilization of CO_2 as a Chemical Feedstock
2014-2017	$41,701 (3 yr) **NSERC CRD (LANXESS)**, Hydrogenation catalysis for Latex.
2014-2017	$40,000 (3 yr) **LANXESS**, Hydrogenation catalysis for Latex
2014-2021	$1,400,000 **Canada Research Chair in Catalysis and New Materials**
2014-2019	$775,000 **NSERC Discovery**, Metal-free Synthesis and Catalysis.
2008-2021	$70,000 (7 yr) **UToronto** Chair Support

Past Operating Funds

2014-2016	$449,400 (3yr) **NSERC Strategic** (with C. Crudden) Asymmetric Borenium Cations in Catalysis
2013-2016	$100,000 (3 yr) **Digital Specialty Chemicals** PI: D. Song, with H. Ruda (Digital Chemicals) Novel Main Group and Transition Metal Precursors for Atomic Layer and Chemical Vapor Deposition
2013-2016	$ 149,687 (3 yr) **NSERC CRD** PI: D. Song, with H. Ruda (Digital Chemicals) Novel Main Group and Transition Metal Precursors for Atomic Layer and Chemical Vapor Deposition
2015	$14,000 **NSERC I2I MA,** Market Assessment Olefin Metathesis Catalysis
2014-2015	$125,000 **NSERC I2I**, Olefin Metathesis catalysis
2014-2015	$484,000 (2 yr) **SABIC Research Contract** High Performance Catalyst Technologies for Olefin Polymerization: Molecular Design, Optimization and Utilization
2015-2021	$1,400,000 (7 yr) Canada Research Chair in Catalysis and New Materials (UToronto)
2015	$15,000 **Pfizer Student Collaboration (**FLP Hydrogenations
2013-2014	$25,000, **NSERC ENGAGE,** (with Altranex) Producing Biodiesel via Olefin Metathesis
2009-2014	$775,000 (5 yr) **NSERC (Discovery)** Frustrated Lewis Pairs, A new Paradigm for reactivity and Catalysis.
2010-2015	$5,240,000 (5 yr) NSERC, Strategic Network (**PI: J. Kadla** (UBC), and 13 others) "Biomaterials and Chemicals Strategic Network
2008-2015	$1,400,000 (7 yr) Canada Research Chair in Catalysis and New Materials (UToronto)
2009-2012	$105,000 (3 yr) **PI: D. Song, OCE (Digital)** New Process and Product Technologies for Organophosphorus Compounds

2009-2012	$90,000 (3 yr) **PI: D. Song, Digital Chemicals** New Process and Product Technologies for Organophosphorus Compounds
2009-2012	$150,000 (3 yr) **PI: D. Song, NSERC CRD (Digital)** New Process and Product Technologies for Organophosphorus Compounds
2012-2013	$484,000 (2 yr) **SABIC Research Contract** High Performance Catalyst Technologies for Olefin Polymerization: Molecular Design, Optimization and Utilization
2012	$70,000 PI: E. Kumacheva, A. Guenther, D. Stephan, **Canaught Innovation Fund**, An automated integrated microfluidic platform for screening formulations for the sequestration of Carbon Dioxide
2011	$60,000 NSERC (I2I Phase 1b) Metal Free Hydrogenation to Amines
2011	$50,000 Green Centre Canada POP funding: Electrophilic Boranes
2011-2012	$268,000 (2 yr) **Carbon Management Canada**, Frustrated Lewis Pairs: A New Approach to CO_2 Capture and Utilization
2010-2013	$435,000 (3yr) **NSERC Strategic Project** Chemistry of Greenhouse Gases: Capture and Use of CO_2 and N_2O by Frustrated Lewis Pairs
2010-2013	$466,200 (3yr) **NSERC Strategic Project** (PI: C. Crudden, Queens) Metal-free methods for the reduction of organic compounds
2011-2014	$345,000 (3yr) **OCE**(**LANXESS)**,, New Catalysts for Rubber and Elastomeric Polymers
2011-2014	$294,000 (3 yr) **NSERC CRD(LANXESS)**,, New Catalysts for Rubber and Elastomeric Polymers
2011-2014	$345,000 (3 yr) **LANXESS**, New Catalysts for Rubber and Elastomeric Polymers
2008-2011	$450,000 (3 yr) **NSERC Strategic Project** Frustrated Lewis Pairs in Hydrogen Storage Materials: A New Paradigm
2008-2011	$726,000 (3 yr) **SABIC Research Contract** High Performance Catalyst Technologies for Olefin Polymerization: Molecular Design, Optimization and Utilization
2008-2011	$345,000 **OCE**(**LANXESS)**, New Catalysts for Hydrogenation and Metathesis of Butyl Rubber
2008-2011	$345,000 **LANXESS**, New Catalysts for Hydrogenation and Metathesis of Butyl Rubber
2008-2011	$300,000 **NSERC CRD(LANXESS)**, New Catalysts for Hydrogenation and Metathesis of Butyl Rubber
2009-2010	$125,000 **NSERC (I2I)** Frustrated Lewis Pairs, A new Paradigm for reactivity and Catalysis
2007-2009	$345,000 **NSERC SRO** Metal-Free Small Molecule Activation: A Breakthrough in Catalysis
2008	$10,000 Conaught Fund
2006-2008	$225,000 (3 yr) **NOVA Chemicals** High Temperature Polymerization Catalysts.
2006-2008	$210,000 (3 yr) **NSERC CRD(NOVA Chemicals)** High Temperature Polymerization Catalysts
2004-2009	$365,000 (4 yr) **NSERC (Discovery)** E-H Bond Activation
2005-2007	$510,000 (3 yr) Canada Research Chair in Catalysis and New Materials (UWindsor)
2003-2006	$900,000 **NSERC CRO** Advanced Molecular Materials from Catalysis: A German-Canadian Collaboration (4 other Canadians)
2001-2006	$750,000 **NOVA Chemicals** Industrial Research Chair in Olefin Polymerization
2001-2006	$973,000 **NSERC** Industrial Research Chair in Olefin Polymerization
2001-2006	$1,220,000 **ORDCF** Centre for Catalysis and Materials Research
2000-2004	$332,000 (4 yrs) ***NSERC (Op)*** E-H Bond Activation
1999-2000	$66,240 (1yr)***NSERC (Op)*** Inorganometallics

1997-2001 $360,000 (3 yr) **Research Contract** (Nova Chemical)
1997-2000 $60,000 (3 yr) **NSERC CRD** (Imperial Oil) New Phosphorus-chalcogenide additives.
1997-2000 $30,000 (3 yr) **Imperial Oil Research Grant**, New Phosphorus-chalcogenide additives.
1998-1999 $30,000 per yr **Research Contract** (Imperial Oil)
1996-1998 $72,000 (3 yr) **Research Grant** Ortho McNeil, Copper Oxidation in IUD's
1996-1998 $72,000 (3 yr) **NSERC CRD**(Ortho McNeil), Copper Oxidation in IUD's
1995-1999 $248,248 (4 yr) ***NSERC (Op)*** Inorganometallics
1995-1997 $10,000 **NATO Collaborative Grant**, Metal Mediated Synthesis of Organo-sulfur Compounds
1993-95 $50,000(US) **PRF(ACS)**, The Synthesis and Chemistry of Early Metal Phosphinidenes.
1992-95 $157,500 (3 yr) **NSERC Operating**,The Chemistry of Early/Late Heterobimetallics.
1992 $2,000(US) **DOE (U.S.)** Summer Research Support , Towards Electrochemical Sensors.
1992 $5,000(US) **PRF(ACS)**, Summer Supplement
1991-93 $40,000(US) **PRF (ACS)**, Early Metal Dithiolate Complexes: Macrocyclic Metalloligands.
1989-92 $34881 per year **NSERC (Op)** The Chemistry of Early/Late Heterobimetallics.
1986-89, $72,000 (3 yr) **NSERC**, Organometallic and Bioinorganic Bimetallic Systems.
1985-86 $25,000 (1 yr) **NSERC (Op)** Bimetallic Complexes in Organometallic and Bioinorganic Systems.
1984-85 $22,053, **NSERC (Op)** Bimetallic Complexes in Organometallic/ Bioinorganic Systems.
1983-84 $15,900 **NSERC (Op)** The Synthesis and Chemistry of Heterometallic Binuclear Complexes.

Equipment Grants

2014 $50,000 Ontario Research Fund Tools for Synthesis and Characterization
2014 $50,000 Canada Foundation for Innovation, Tools for Synthesis and Characterization
2014 $120,175 NSERC RTI with D. Song, G. Ozin, R. Morris, U. Fekl, Low Temperature Facility for EPR Spectrometer
2010 $148,494 NSERC-RTI Catalyst Assessment System.
2008 $450,000 UToronto Start-up Funds
2008 $400,000 OIT CRC Equipment (UToronto)
2008 $400,000 CFI CRC Equipment (UToronto)
2005 $202,000 CFI/OIT Canada Research Chair, Catalysis Equipment
2003-2004 $149,131 NSERC-RTI: Diffractometer upgrade
2002-2003 $2,008,430 Centre for Catalysis and Materials Research, CFI/OIT
2000 $1,186,650 Laboratories for Solid State Studies, CFI/OIT 593
1997-98 $80,100 GC-MS NSERC
1996-97 $600,000 Major Installation, 500 MHz NMR, NSERC
1995-96 $49,500 Inert Atmosphere Box, NSERC
1994-95 $75,400 Goniometer, NSERC
1992 $36,960 X-ray Generator NSERC
1990-91 $23,202 Inert Atmosphere Box Upgrade, NSERC.
1989-90 $149,375, X-ray Crystallography, NSERC
1986-87 $374,000 Superconducting NMR Spectrometer, NSERC
1985-86 $20,870, Electrochemistry Unit, NSERC

Contributions to Highly Qualified Personnel
MSc Students

1. Connie Tang, 2017, MSc, 1,1-Hydroboration and Borane Adduction with Diphenyldiazomethane,
2. Jay Chi, MSc 2017, Microfluidic Investigations of CO_2 and H2 Activation by Lewis Pairs,
3. Kelly Firth 2016 MSc, Palladium Complexes with Pendant Electrophilic Phosphonium Cations, Law Student, Victoria BC
4. Alessandra Augurusa 2016 MSc, Catalytic Investigations a Facile Route to N-trifluoroethyl Substituted Compounds, B.Ed. student
5. Vitali Podgorny 2016 MSc, Electrophilic Phosphenium and Phosphonium Cations: Synthesis and Reactivity of Perfluoro- & Perchloroaryl Phosphorus Systems, Calgary Chemist.
6. Erika Daley 2016 MSc, Exploring Low-Coordinate Aluminum-Based Lewis Acids for Small Molecule Activation Green Chemist, San Diego, CA.
7. Julie Roy 2015, MSc, The Use of $Ga(C_6F_5)_3$ in Frustrated Lewis Pair Chemistry,
8. Rashi Hiranandani, 2015,MSc, Synthesis and Reactivity of Highly Electrophilic Phosphonium Cations, Medical student at Ottawa
9. Sarah Weicker, 2015, MSc, Exploring Tetracoordinate Silicon Lewis Acids for Frustrated Lewis Pair Chemistry, Medical Student at UBC
10. Daniel Dalessandro, 2014, MSc, Studies into the Reactivity of Frustrated Lewis Pairs containing N-N Bases with Hydrogen, Teacher, Toronto.
11. Sanja Resanovic, 2011, MSc, Chromium and Neodymium Complexes of bis-Phosphinimine Pincer Ligands and Their Behaviour in 1,3-Butadiene Polymerization, Teacher, Toronto
12. Cheryl Tanur, 2011, MSc, Exploring New Synthetic Routes to Frustrated Lewis Pairs, Project Manager, Toronto.
13. Kanwarpal Multani, 2010, MSc, Group 4 Metal Complexes with Ferrocenyl Amidinates, Medical Student.
14. Erin Gwynne, 2010, MSc, Synthesis, Characterization and Hydrogenation Activity of Group 10 metal Complexes Featuring Bulky Phosphine Ligands, Lawyer, Kingston
15. Travis Ancelet, 2008, MSc, Synthesis, Characterization and Metathesis Activity of Group 8 Metal Complexes Featuring Hemilabile Tridentate Ligands, Graduate Student, New Zealand
16. Shamola Labeodan, 2008, MSc, Synthesis and Reactivity of Early Transition Metal "Frustrated Lewis Pairs"
17. Krishan Yadav, 2007, MSc, Titanium Complexes of Phosphinimide Ligands with Pendant Hemilabile Donor, MD, United Kingdom
18. Lourisa Cabreara, 2004, MSc, Lewis Acid-Base Interactions in the Synthesis of Titanium Phosphinimide Cations,Research Scientist, UNAM, Mexico
19. Steve Clemens, 2003, MSc, Olefin Polymerization Using Titanium Phosphinimide Catalysts, Scientist, NOVA Chemicals, Calgary
20. Ramadan Altwier, 2003, MSc, Group 8 and 10 Complexes of Pyridylphosphinimines and Chiral Bis-Diiminophosphoranes, Research Scientist, Lecturer,
21. Katie Chan, 2003, MSc, Metalled Group IX and Group X Phosphinimine Complexes, Biovail Scientist, Toronto
22. Liam Spencer, 2002, MSc, Syntheses and Applications of Group VI and VIII-X Heterocyclic-Phosphinimine Complexes, Research Scientist, Dow Chemicals.
23. Nancy Yue, 2000, MSc, Chemistry of Group (IV) Phosphinimide Complexes
24. Hilde Paulina Berends, 1986, MSc, Studies of Cu(II) Hemocyanin Molecules, Teacher, Waterloo
25. Evelyn Marie Kinsch, 1985, MSc, Studies of Gold-Sulfur Chemistry, Chef, Waterloo, Chef, Waterloo

PhD Students

1. Louie Fan 2018, PhD, Ruthenium-Based Hydrogenation and Frustrated Lewis Pair Chemistry
2. Fu An (Judy) Tsao, 2017, PhD, Group 16 Elements in Frustrated Lewis Pair Chemistry,
3. Meera Mehta, 2017, PhD, Exploring the Synthesis and Reactivity of Electrophilic Phosphonium Salts, PDF Oxford, (Royal Society Newton International fellowship)
4. Shawn Postle, 2017 PhD, Fluorophosphonium Chemistry: Applying Strategies Learned from Boron to Phosphorus, NMR Staff U of T.
5. Ian Mallov, 2017 PhD, Synthesis of Boron, Silicon, and Phosphorus Lewis Acids and Frustrated Lewis Pair Complexes for C=O and C-F Bond Activations, PDF York University
6. Lauren Longobardi 2016 PhD, The Synthesis and Reactivity of Main Group Heterocycles via
7. Frustrated Lewis Pair Chemistry NSERC/Humboldt PDF at MPI Muelheim.
8. Conor Pranckevicius, 2016 PhD, Strong Electron Donor Ligands and their Catalytic Applications, NSERC/Humboldt PDF at Uni-Wuerzburg.
9. Tayseer Mahdi 2015, PhD, Hydrogenation and Hydroamination Reactions Using Boron Based Frustrated Lewis Pairs, Research Scientist at Intel, USA.
10. Chris Caputo 2015, PhD, Electrophilic Fluorophosphonium Cations – The Transition from Boron to Phosphorus Lewis Acids in Frustrated Lewis Pair Chemistry, NSERC PDF at Harvard
11. Adam McKinty, 2014, PhD, Lewis Acid Activated Olefin Metathesis Catalysts, Business Owner, Toronto.
12. Jeff Farrell, 2014, PhD, Hydrogen Chemistry of N-Heterocyclic Carbene-Borenium Ions, Humboldt PDF, University of Wuerzburg, Germany.
13. Fatme Dahcheh, 2014, PhD, Carbenes in Ruthenium Based Olefin Metathesis Catalysts and Stabilization of Low Coordinate Boron Species, Research Scientist, Green Center of Canada
14. Mike Boone 2013 PhD, Reactivity of Lewis Acids with Coordinated Ligands of Late Transition Metal Complexes, PDF University of Alberta
15. Gabriel Ménard, 2013, PhD, Small Molecule Activation and Transformation Using Aluminum-Based Frustrated Lewis Pairs, Assistant Professor, University of California at Santa Barbara
16. Mike Sgro, 2013, PhD, Strategic Ligand Design as a Route to Complexes for Small Molecule Activation and Catalysis, Law Student.
17. Rebecca Neu, 2012, PhD, The Activation of Small Molecules Employing Main Group and Transition Metal Based Frustrated Lewis Pairs, Grants officier MITACS
18. Chris Brown, 2012, PhD, P,N Pro-ligand Development Directed Towards Applications in Late Metal Catalysis, Research chemist, Digital Chemicals.
19. Xiaoxi Zhao, 2012, PhD, Bifunctional Systems in the Chemistry of Frustrated Lewis Pairs, Researcher, Tokyo
20. Meghan Dureen, 2010, PhD, Small Molecule Activation with Main Group Complexes, Lawyer, Ottawa
21. Stephen Geier, 2010, PhD, Transition Metal Complexes and Main Group Frustrated Lewis Pairs for Stoichiometric and Catalytic P-P and H-H Bond Activation, Research Staff, Mt Alison University
22. Sharonna Greenberg, 2009, PhD, New Routes to Pnictogen-Containing Polymers, Lecturer, Ryerson University
23. Jenny McCahill, 2008, PhD, "Frustrated" Lewis Pairs: Applications in Olefin Polymerization and Small Molecule Activation, Research Scientist, Calgary
24. Greg Welch, 2008, PhD, Frustrated' Lewis Pairs: From Lewis Acid-Base Addcuts to the Reversible, Metal-Free Activation of Hydrogen, Assistant Professor, CRC, University of Calgary

25. Osamah Alhomaidan, 2008, PhD, Main Group and Early Transition Metal Phosphinimide Complexes, Research Scientist, SABIC, Saudi Arabia
26. Jason Masuda, 2005, PhD, Sterically Bulky Nitrogen Based Ligands: New Chelate Complexes and Applications in Dehydrocoupling Catalysis, Associate Professor, St. Mary's University
27. Sarah Hawkeswood, 2005, PhD, Vanadium Phosphinimide Complexes for Ethylene Polymerization and the Chemistry of Phosphinimines and Phosphine Oxides with Borane Reagents, Teacher, Windsor
28. Chad Beddie, 2004, PhD, Titanium Phosphinimide Complexes for Ethylene Polymerization Catalysis: Synthetic, Computational and Polymerization Testing Investigations, Health Canada, Ottawa.
29. Emily Hollink, 2003, PhD, Group IV Phosphinimide Complexes in Catalysis, Health Canada, Ottawa.
30. Silke Courtenay, 2002, PhD, Synthesis and Application of Group 4, 5, 13 and 14 Phosphinimide Complexes, Research Scientist, HP, USA
31. Aaron Hoskin, 2001, PhD, Synthesis and Heteroatom-H Activation Studies of the Anionic Zirconocene Trihydride $[Cp^*_2ZrH_3]^-$, Research scientist, Health Canada
32. Christopher Ong 2001, PhD, Group 13 and 14 Imine and Phosphinimide Complexes, Plant Manager, LANXESS, Texas
33. Jeff Stewart, 1999, PhD, Phosphinimide Complexes of Titanium: Synthesis and Reactivity Studies of a New Family of Organometallic Compounds, IP Consultant, Toronto
34. Andrea V. Firth, 1998, PhD, Thermal Reactions of Monocyclopentadienyl Titanium Thiolate Complexes, Research Scientist, NRC Ottawa
35. Tricia L. Breen, 1996, PhD, Studies of Terminal Phosphinidene Complexes of Zirconium, Professor, University of Windsor
36. Jianwei Ho, 1994, PhD, Group IV Transition-Metal Complexes of Phosphides and Phosphinidenes, Research Scientist, California
37. T. Timothy Nadasdi, 1993, PhD, The Characterization and Chemistry of mono- and bis-
38. Cyclopentadienyl Titanium Thiolates, Research Scientist, Exxon, New Jersey
39. David George Dick, 1991, PhD, Early-Transition-Metal Phosphides and their Application Towards the Synthesis of Heterobimetallic Complexes, Staff Scientist, University of Northern British Columbia
40. Teresa Anne Wark, 1989, PhD, Thiolato-Bridged, Early/Late Heterobimetallic Complexes
41. Graham Sidney White, 1987, PhD, Studies of Early-Late Heterobimetallic Complexes, Health Canada, Ottawa
42. Lucio Gelmini, 1987, PhD, Synthetic Approaches Towards Early/Late Heterobimetallic Complexes, Faculty Grant McGewan College

Former Postdoctoral Fellows

1.	Adam Ruddy (Dal)	2014-16 PDF Cardiff.
2.	Jiangtao Zhu (SIOC)	2011-16 Chemist, Toronto
3.	Juri Mobus (Muenster, DFG)	2013-16 Chemist, Toronto
4.	Isaac García (Oviedo)	2015-16 PDF, Spain
5.	Adam McKinty (U Toronto)	2015 Business Owner (Toronto, ON)
6.	Alexander Pulis (Bristol)	2013-15 Lecturer, University of Manchester
7.	Thorsten vom Stein (Aachen, Humboldt)	2013-15 (Germany)
8.	Mike Boone (U Toronto)	2014 PDF, University of Alberta
9.	Michael Holthausen (U Muenster, Humboldt)	2013-15 Laboratory Manager, Evonik, Germany
10.	Daniel Winkelhaus (Bielefeld)	2013-15 CAT Catalytic Center – ITMC, Aachen, Germany
11.	Manuel Pérez Vázquez (U Vigo)	2012-15 Research Chemist, Encycle Corp.
12.	Roman Dobrovetsky (Technion)	2011-14 Asst. Professor U. of Tel Aviv

13.	Li Pan (Changchun)	2014 Senior Researcher, Tianjin University, China
14.	Yunshun Sun (SIOC)	2011-2014 Research Scientist, Toronto Research Chemicals
15.	Lindsay Hounjet (U of A)	2011-13 Natural Resources Canada |
16.	Tongen Wang (UBC)	2010-13 Research Scientist, Digital Chemicals, Toronto
17.	Bidraha Bagh (U Sask)	2012-14 Assistant Professor at NISER, Bhubaneswar, India
18.	Jillian Hatnean (Windsor)	2011-13 Business Development Officer, MITACS
19.	Chris Garon (Laval)	2011-13 Production Supervisor, Faurecia (Brampton, ON)
20.	Katsuhiko Takeuchi (Tsukuba, JSPS)	2012-13 Assistant Professor, University of Kyoto.
21.	Phillip Jochmann (Aachen, Humboldt)	2012-14 Development Engineer, HILTI (Germany)
22.	Peter Dornan (U of T)	2013 (PDF Caltech
23.	Rebecca Melon (Cambridge)	2012-13 Lecturer, University of Cardiff
24.	Ahmed Abouletta (Wayne State)	2011-13
25.	Chunfang Jiang (UZurich)	2010-12 PDF Ottawa
26.	Liyuan Liang (Bordeaux)	2011-12 Assoc. Prof. INE Chongqing, China
27.	Jo Doemer (Muenster, Humboldt)	2009-11 Industrial Outreach U. Waterloo
28.	Renan Cariou (Imp. College)	2009-11 Research Scientist, Toronto Research Chemicals
29.	Zach Heiden (Illinois, Ontario PDF)	2009-11 Asst Prof. (Washington State U)
30.	Jason Morton (Cornell)	2009-11 Research Scientist, SABIC (Saudi Arabia)
31.	Clinton Lund (Sask)	2008-11 Research Scientist, LANXESS (London)
32.	Louisa Stanlake (UBC)	2009-10
33.	Sharonna Greenberg (Toronto)	2009-10 Lecturer, Ryerson, UTM
34.	Todd Graham (UofA)	2008-10 Research Scientist, Cytec (Niagara Falls)
35.	Edwin Otten (Groningen, NWO)	2008-10 Asst Professor, (Groningen)
36.	Birgit Birkmann (Muenster, DAAD)	2009-10 Research Scientist, BASF (Germany)
37.	Preston Chase (Calgary	2007-09 Research Scientist, Green Centre (Kingston)
38.	Ian Blackmore (Imp. College)	2007-10 Research Scientist, SABIC (Saudi Arabia)
39.	Matthais Ullrich (Muenster, Humboldt)	2007-09 Research Scientist, Evonik, (Asia)
40.	Alberto Ramos	2007-09 Research Chemist, INCAR, Oviedo Spain
41.	Consuelo Herrera	2007-09 Research Chemist, Mexico
42.	Raj Jain	2007-08 R&D Manager, InVisage Tech.
43.	Anjan Das	2005-08 Northern NanoTech (Toronto)
44.	Guangcai Bai (Goetingen)	2002-07 Windsor
45.	Ioan Ghesner (Calgary)	2005-06 Research Scientist, NOVA Chemicals (Calgary)
46.	Chuanbao Zhu	2005-06 Windsor
47.	Carsten Cornilssen (Muenster)	2004-06 Research Chemist, Sudchmie, Germany
48.	Andrew Fenwick	2004-05 Research Chemist, Honeywell, CT
49.	Peter Voth (Aachen)	2004-05 Germany
50.	Gema Martinez	2004-05 Research Chemist, Spain
51.	Pingrong Wei	2001-04 Scientist Staff, University of Georgia
52.	Chris Fraser	2003-04 Research Chemist, Knowlton Packg. Knowlton,
53.	Todd Graham (UofA)	2000-03 Research Scientist, Cytec (Niagara Falls)
54.	Denise Walsh (Dal)	2001-03 PDF University College Dublin
55.	Jim Kickham (Windsor)	1999-02 Research Chemist, Jamieson Inc. (Windsor)
56.	Charles Carrez (Bristol)	1998-01 Research Chemist, UK
57.	Luc LePichon	1998-00 PDF, Rennes
58.	Fred Guerin (UBC)	1999-00 Research Scientist, LANXESS, (Texas)

59.	Eva Witt (TUM)	1999 German Patent Office
60.	P. McKarns (Wayne St)	1998 Research Scientist Celenese (USA)
61.	Nola Etkin (UofA)	1995-97 Assoc. Professor UPEI
62.	Chris Fermin	1994-96 Chemist In the Philipines
63.	Rick Heyn (UCSD)	1994 Research Chemist SINTEF (Norway)
64.	Z. Hou	1992-93 Research Director at RIKEN (Japan).
65.	Yujin Huang	1991-93 Research chemist (California).

Previously Trained Undergraduates/Visiting Researchers (incomplete List)

2017	Felix Kirscher (Muenster)	Jennifer Moricke (Muenster)
	Hannes Backers (Muenster)	Kaoko Sato(Muenster)
	Arne Stepen (Padeborn)	Solomon Voldarsky (Tel Aviv)
	Andreas Hoffman (Aachen)	
	Jonathan Gross(Mainz)	Jenny Xiao (U of T)
	Rouzbeh O. Memar (U of T)	Catherine Yao (U of T)
	Ho Yin (Chris) Kum (U of T)	Anson Sathaseevan (U of T)
	Jingning (Yvonne) Zhou (U of T)	Farah Farinha (U of T)
2016	Roman Korol (U of T)	Lewis Wilkins (Cardiff)
	Reuben Mirzoyan	Simon Harris (U of T, 299)
	Sarah Hill (U of T, 299)	Xhoana Gjergji (U of T, 499)
	Brian Tsui (U of T, 499)	Ling Lu (U of T, 299)
	Jordan Hofmann (U of T, 299)	Edan Binyamin
	David Ripsman	Kevin Schwedtmann (Muenster)
	Josephine Possart (Muenster)	Hanpeng Jin (Muenster)
	Mirco Fliege (Muenster)	Johannes Backers (Muenster)
	Pavel Zatsepin (U Toronto)	Sarah Mathers (U Toronto)
2015		
	Fatma Türkyilmaz Münster	Kevin Schwedtmann Münster
	Rosalyn Falconer Bristol	Ibrahim Saleh A. Hayyan SABIC Saudi Arabia
	Benjamin Günther Cardiff	Sergej Tamke, Karlsruhe
	David Ripsman (U of T, NSERC)	Roy Posaratnanathan (U of T, Undergrad. Res. Fund)
	Brian Tsui (U of T, NSERC)	
	Xhaona Gjergji (U of T, NSERC)	Amanda Wolczanski (U of T, NSERC)
	Simon Harris (U of T)	Talia Schmool (U of T, 491)
	Julia Bersamm (Mainz)	Julien Heck (Mainz)
	Denise Peda (U of T, 299)	Jordan Hoffmann (U of T)
	Vitali Podgorny (U of T, 499)	Alessandra Augurusa (U of T, 499)
	Edan Binyamin (U of T)	Ruben Mirzoyan (U of T)
	Jeremy Hunt (High School Volunteer)	Sharmeila Cherla (High School Volunteer)
	Remi Free (U of T School)	Dr. Isaac Garcia de la Arada (Oviedo)
2014	Julia Bersamm (Mainz)	Julien Heck (Mainz)
	Roy Posaratnanathan (U of T)	Filip Nikacecvic (U of T)
	Scott Green (U of T)	Vitali Podgorny (U of T, 499)
	Ruben Mirzoyan (U of T)	David Ripsman (U of T)
	Alessandra Augurusa (U of T, 499)	Denise Peda (U of T, 299)
	Jordan Hoffmann (U of T, 299)	Roman Belli (U of T, 499)

	Remi Free (U of T School)	Judy Truong (U of T)
	Mariah Colussi (U of T, 299)	Heather Tang (U of T School)
	Abbna Sriskantharajah (Muenster)	
2013	Laura Rush (Bristol)	Arthur Cheung (U of T)
	Michael Pu (U of T)	Sergej Tamke (Karlsruhe)
	Connie Tang (U of T)	Rohan Ravindranath (U of T)
	Christina Eller (Muenster)	
2012	Jan Hilgert (Mainz)	Olga Ekkert (Muenster)
	Sophie Botte (Rennes)	Ryan Wareham (Mt.A)
	Roman Belli (U of T, 299)	Jon De Castillo (U of T, 299)
	Esther Riga (Mainz)	Ka Sing Cheung (U of T)
2011	Anne Kraft (Freiburg)	Yohan Gautier (Rennes)
	Christoph Kreitner (Mainz)	Lina Tran (U of T)
	Sarah Hughes (U of T)	Fred Chiu (U of T)
	Conor Pranckevicius (U of T)	Lutz Greb (Karlsruhe)
	Daniel Winkelhaus (Muenster)	
2010	Ilona Preuser (Muenster)	Fatme Dahcheh (U of T)
	Michael Schedler (Mainz)	Rob Di Lorenzo (U of T)
	Conor Pranckevicius (U of T)	Michael Schedler (Universitat Mainz)
	Eva Ouyang (U Toronto)	Silke Froemel (Universitat Muenster)
	Frederick Chiu (U Toronto)	Mikheil Gogiashvili (Universitat Muenster)
	Tayseer Mahdi (Ryerson University	
2009	Tanja Voss (Muenster)	Peter Sues (U Toronto)
	Juliette Berthe (U Paris)	Cheryl Tanur (Guelph)
	Veronika Beer (Universitat Mainz)	Eva Ouyang (U Toronto)
	Mike Jones (U Toronto)	Mengzhou Li (U Toronto)
	Marcus Klahn (Rostock)	Danny Hickie (U of T)
	2008 Erin Gwynne (Mt. Allison)	Xiaoxi Zhao (U Toronto)
	Kelvin Seto (U Toronto)	Miranda Skjel (U Victoria)
	Christoph Glotzbach (Muenster)	Lukas Reck (École Normale Supérieure)
2007	Andreas Notzon (Muenster)	Laura Ezeife (Windsor)
	Greg Gibson (U Victoria)	Thoresten Holtrichter-RõƁmann (Muenster)
	Titel Jurca (Ottawa)	
2006	Toria Piga (U Victoria)	Jennifer Fang (UBC)
	Hanna Thorup (U Victoria)	
2005	Kelsey Dewar (U Victoria)	Roberto Prieto (U Victoria)
2004	Paul Siu (U Victoria)	Gigi Chan (U Victoria)
	Gary Kalaci (U Windsor)	
2003	Louisa Stanlake (U Victoria)	Roopa Patel (Windsor)
	Pei Chun Hang (U Windsor)	Chris Lopez (U Windsor)
	Harsha Malempati (U Windsor)	

Previously Trained Technicians

Ebru Ekici	2004-2006	Germany
Rodica Leu	2003-2006	Undergraduate Teaching Technican, U of Windsor

Former Visiting Professors

2017

Yang, Xianghua (Associate Professor, Guangdong University of Technology)

2016

Yanhua Lu Institute of Aerospace Chem. Tech. China

J.J. Vittal (2016) Professor, National University of Singapore, Singapore

2014

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2013

Antonio F.Antinolo Garcia, Universad Castilla La Mancha

Chunmei Zhang (East China University, Shanghai, China) Sept 2013-Aug 2014

Atsushi Sanagawa (Osaka University) Oct-Dec 2013; sanagawa@chem.eng.osaka-u.ac.jp

Takashi Shigeta (Kyoto University)

2012

Yasutomo Segawa (Nagoya) July-Sept

Shin-ichi Matsuoka (Nagoya) July-Oct

Current Group Members

Postdoctoral Fellows

Tim Johnstone (MIT, NSERC)
Andy Jupp (Oxford, Banting)
Jiliang Zhou (SIOC)
Liu Leo Liu (XMU and UCSD)
Saurabh Chitnis (UVic)

Graduate Students

Karlee Bamford (UVic)	Gabriel Wee (U of T)	Ryan Andrews (UBC)
James Lafortune (Ott)	Chris Major (Ryerson)	Louie Fan (York)
Eliar Mosaferi (UBC)	Alex Waked (McGill)	Jolie Lam (U of T)
Julia Bayne (Ott)	Levy Cao (Sask)	Kevin Szkop (Manitoba)
Levy Cao (Sask)	Diya Zhu (Mt A)	Maotong Xu (U of T)

Co-supervised Graduate Students (TU Berlin)

Andre Hermannsdorfer	Maria Vogler	Lars Suesse
Marcel Luecke		

Undergraduates

Hlib Razumkov	Haley Cummings	Maegan Ong
Alvaro Briceno-Strocchia		

Visiting Students

Valerio Fasano (Manchester) Carolin Schneider (Aachen)

Visiting Professor