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EDUCATION

- 1999 Ph.D. in Chemistry (University of Wisconsin–Madison)
Research Advisor: Professor Edwin Vedejs
- 1991 Degree in Chemical Engineering (Riga Technical University, Latvia)

PROFESSIONAL EXPERIENCE

- 2014– Professor and R. A. Welch Chair in Chemistry (University of Houston)
- 2009–2014 Associate Professor of Chemistry (University of Houston)
- 2003–2009 Assistant Professor of Chemistry (University of Houston)
- 2000–2003 Postdoctoral Associate (University of North Carolina–Chapel Hill)
Research Advisor: Professor Maurice Brookhart
- 1994–1999 Research Assistant (University of Wisconsin–Madison)
- 1993–1994 Teaching Assistant (University of Wisconsin–Madison)
- 1991–1993 Research Assistant (Riga Technical University, Latvia)

HONORS AND AWARDS

- 1991 Graduated with Honors Diploma, Riga Technical University, Riga, Latvia
- 1996 S. C. Slifkin Scholarship, University of Wisconsin–Madison
- 2006 Synthesis-Synlett Journal Award
- 2007 NSF Career Award (declined in favor of NIH funding)
- 2008 A. P. Sloan Fellowship
- 2008 Camille Dreyfus Teacher-Scholar Award
- 2009 UH Excellence in Research and Scholarship Award at Assist. Prof. level
- 2010 UH Teaching Excellence Award
- 2011 Elected as a Foreign Member of Latvian Academy of Science
- 2013 Norman Hackerman Award in Chemical Research
- 2014 ACS Cope Scholar Award
- 2018 Nankai University Organic Lectureship, Tianjin, China
- 2018 Elected as AAAS Fellow
- 2019 Honorary Doctorate, Riga Technical University, Riga, Latvia
- 2022 Medal of the Academy of Sciences of Latvia

PEER-REVIEWED PUBLICATIONS OF WORK PERFORMED ELSEWHERE

1. "Enantioselective Acylations Catalyzed by Chiral Phosphines" Vedejs, E.*; Daugulis, O.; Diver, S. T. *J. Org. Chem.* **1996**, *58*, 430-431.
2. "Dual Activation in the Esterification of Hindered Alcohols with Anhydrides using MgBr₂ and a Tertiary Amine" Vedejs, E.*; Daugulis, O. *J. Org. Chem.* **1996**, *58*, 5702-5703.
3. "Generation of the 1,3-Phospha-silolene Skeleton from Ortho-Silylated Biarylphosphonates" Vedejs, E.*; Daugulis, O.; Diver, S. T.; Powell, D. R. *J. Org. Chem.* **1998**, *63*, 2338-2341.
4. "Chiral Phosphines as Enantioselective Acylating Agents; Phosphorus Configuration and the Search for Reactive Catalysts" Vedejs, E.*; Daugulis, O. *Latvijas Kimijas Zurnals* **1999**, *1*, 31.
5. "2-Aryl-4,4,8-trimethyl-2-phospha-bicyclo[3.3.0]octanes—Reactive Chiral Phosphine Catalysts for Enantioselective Acylation" Vedejs, E.*; Daugulis, O. *J. Am. Chem. Soc.* **1999**, *121*, 5813-5814.
6. "Enantioselective Acyl Transfer Using Chiral Phosphine Catalysts" Vedejs, E.*; Daugulis, O.; MacKay, J. A.; Rozners, E. *Synlett* **2001**, *10*, 1499-1505.
7. "Phosphinidene-Palladium Complexes for the Polymerization and Oligomerization of Ethylene" Daugulis, O.; Brookhart, M.*; White, P. S. *Organometallics* **2002**, *21*, 5935-5943.
8. "Polymerization of Ethylene with Cationic Palladium and Nickel Catalysts Containing Bulky Nonenolizable Imine-Phosphine Ligands" Daugulis, O.; Brookhart, M.* *Organometallics* **2002**, *21*, 5926-5934.
9. "Ethylene Polymerization Using Tetramethyl(2-methylthioethyl)cyclopentadienyl Complexes of Cobalt" Daugulis, O.; Brookhart, M.*; White, P.S. *Organometallics* **2003**, *22*, 4699-4704.
10. "A Comparison of Monocyclic and Bicyclic Phospholanes as Acyl Transfer Catalysts" Vedejs, E.*; Daugulis, O.; Harper, L. A.; MacKay, J. A.; Powell, D. R. *J. Org. Chem.* **2003**, *68*, 5020-5027.
11. "A Highly Enantioselective Phospha-bicyclooctane (PBO) Catalyst for the Kinetic Resolution of Benzylic Alcohols" Vedejs, E.*; Daugulis, O. *J. Am. Chem. Soc.* **2003**, *125*, 4166-4173.
12. "Desymmetrization of meso-Hydrobenzoin Using Chiral, Nucleophilic Phosphine Catalysts" Vedejs, E.*; Daugulis, O.; Tuttle, N. *J. Org. Chem.* **2004**, *69*, 1389-1392.
13. "Decarbonylation of Aryl Ketones Mediated by Bulky Cyclopentadienylrhodium bis-Ethylene Complexes" Daugulis, O.; Brookhart, M.* *Organometallics* **2004**, *23*, 527-534.

PEER-REVIEWED PUBLICATIONS FROM THE UNIVERSITY OF HOUSTON

14. "Catalytic Coupling of Haloolefins with Anilides" Zaitsev, V. G.; Daugulis, O.* *J. Am. Chem. Soc.* **2005**, *127*, 4156-4157.
15. "Anilide *ortho*-Arylation Using C-H Activation Methodology" Daugulis, O.*; Zaitsev, V. G. *Angew. Chem., Int. Ed.* **2005**, *44*, 4046-4048.
16. "Catalytic Coupling of C-H and C-I Bonds Using Pyridine as a Directing Group" Shabashov, D.; Daugulis, O.* *Org. Lett.* **2005**, *7*, 3657-3659.
17. "Highly Regioselective Arylation of sp³ C-H Bonds Catalyzed by Palladium Acetate" Zaitsev, V. G.; Shabashov, D.; Daugulis, O.* *J. Am. Chem. Soc.* **2005**, *127*, 13154-13155.
18. "Monomeric Ag(I) β-Diketiminato Complexes" Chiong, H. A.; Daugulis, O.* *Organometallics* **2006**, *25*, 4054-4057.
19. "*ortho*-Arylation of Benzamides" Shabashov, D.; Daugulis, O.* *Org. Lett.* **2006**, *8*, 4947.

20. "Direct Palladium-Catalyzed *ortho*-Arylation of Benzylamines" Lazareva, A.; Daugulis, O.* *Org. Lett.* **2006**, *8*, 5211-5213.
21. "Regioselective Functionalization of Unreactive C-H Bonds" Daugulis, O.*; Zaitsev, V. G.; Shabashov, D.; Pham, Q.-N.; Lazareva, A. *Synlett*, **2006**, *15*, 3382-3388. Invited account about our work at the University of Houston.
22. "Palladium-Catalyzed Arylation of Electron-Rich Heterocycles with Aryl Chlorides" Chiong, H. A.; Daugulis, O.* *Org. Lett.*, **2007**, *9*, 1449-1451.
23. "Two Methods for Direct *ortho*-Arylation of Benzoic Acids" Chiong, H. A.; Pham, Q.-N.; Daugulis, O.* *J. Am. Chem. Soc.*, **2007**, *129*, 9879-9884.
24. "Palladium-Catalyzed Anilide *ortho*-Arylation and Subsequent One-Pot Cyclization to Phenanthridines" Shabashov, D.; Daugulis, O.* *J. Org. Chem.* **2007**, *72*, 7720-7725.
25. "Copper-Catalyzed Arylation of Heterocycle C-H Bonds" Do, H.-Q.; Daugulis, O.* *J. Am. Chem. Soc.* **2007**, *129*, 12404-12405.
26. "Copper-Catalyzed Arylation and Alkenylation of Polyfluoroarene C-H Bonds" Do, H.-Q.; Daugulis, O.* *J. Am. Chem. Soc.* **2008**, *130*, 1128-1129.
27. "Carbon-Hydrogen Bond Functionalization Approach for the Synthesis of Fluorenones and *ortho*-Arylated Benzonitriles" Shabashov, D.; Maldonado, J. R. M.; Daugulis, O.* *J. Org. Chem.* **2008**, *73*, 7818-7821.
28. "Direct Transition-Metal-Free Intramolecular Arylation of Phenols" Bajracharya, G.; Daugulis, O. *Org. Lett.*, **2008**, *10*, 4625-4628.
29. "A General Method for Copper-Catalyzed Arylation of Arene C-H Bonds" Do, H.-Q.; Khan, R. K. M.; Daugulis, O.* *J. Am. Chem. Soc.* **2008**, *130*, 15185-15192.
30. "A Simple Base-Mediated Halogenation of Acidic sp² C-H Bonds under Noncryogenic Conditions" Do, H.-Q.; Daugulis, O.* *Org. Lett.* **2009**, *11*, 421-423.
31. "Palladium (II) Acetate-Butyl-di-1-Adamantylphosphine Catalyzed Arylation of Electron-Rich Heterocycles. Preparation of 5-Phenyl-2-Isobutylthiazole" Lazareva, A.; Chiong, H. A.; Daugulis, O.* *Org. Synth.* **2009**, *86*, 105.
32. "Palladium- and Copper-Catalyzed Arylation of Carbon-Hydrogen Bonds" Daugulis, O.*; Do, H.-Q.; Shabashov, D. *Acc. Chem. Res.* **2009**, *42*, 1074-1086. Invited review about our chemistry.
33. "Copper-Catalyzed Arene C-H Bond Cross-Coupling" Do, H.-Q.; Daugulis, O.* *Chem. Commun.* **2009**, 6433-6435.
34. "Direct Conversion of Carbon-Hydrogen to Carbon-Carbon Bonds by First Row Transition Metal Catalysis" Kulkarni, A. A.; Daugulis, O.* *Synthesis* **2009**, 4087-4109. Invited review.
35. "In Situ Generation and Trapping of Aryllithium and Arylpotassium Species by Halogen, Sulfur, and Carbon Electrophiles" Popov, I.; Do, H.-Q.; Daugulis, O.* *J. Org. Chem.* **2009**, *74*, 8309-8313.
36. "An Aromatic Glaser-Hay Reaction" Do, H.-Q.; Daugulis, O.* *J. Am. Chem. Soc.* **2009**, *131*, 17052-17053.
37. "Palladium and Copper Catalysis in Regioselective, Intermolecular Coupling of C-H and C-X Bonds" Daugulis, O. *Topics in Current Chemistry* **2010**, *292*, 57-84. Invited review.
38. "Nickel, Manganese, Cobalt, and Iron-Catalyzed Deprotonative Arene Dimerization" Truong, T.; Alvarado, J.; Tran, L. D.; Daugulis, O.* *Org. Lett.* **2010**, *12*, 1200-1203.
39. "Evolution of Catalysts Directed by Genetic Algorithms in a Plug-Based Microfluidic Device Tested with Oxidation of Methane by Oxygen" Kreutz, J. E.; Shukhaev, A.; Du, W.; Druskin, S.;

- Daugulis, O.;* Ismagilov, R. F.* *J. Am. Chem. Soc.* **2010**, *132*, 3128-3132.
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 41. "A General Method for Copper-Catalyzed Arylation of Acidic Arene C-H Bonds. Preparation of 2-Chloro-5-(3-Methylphenyl)Thiophene" Alvarado, J.; Do, H.-Q.; Daugulis, O.* *Org. Synth.* **2010**, *87*, 184-191.
 42. "Copper-Catalyzed Cyanation of Heterocycle Carbon-Hydrogen Bonds" Do, H.-Q.; Daugulis, O.* *Org. Lett.* **2010**, *12*, 2517-2519.
 43. "Iron-Catalyzed Heterocycle and Arene Deprotonative Alkylation" Tran, L. D.; Daugulis, O.* *Org. Lett.* **2010**, *12*, 4277-4279.
 44. "Palladium-Catalyzed Indole, Pyrrole, and Furan Arylation by Aryl Chlorides" Nadres, E. T.; Lazareva, A.; Daugulis, O.* *J. Org. Chem.* **2011**, *76*, 471-483.
 45. "Base-Mediated Intermolecular sp^2 C-H Bond Arylation via Benzyne Intermediates" Truong, T.; Daugulis, O.* *J. Am. Chem. Soc.* **2011**, *133*, 4243-4245.
 46. "Copper-Catalyzed Arylation of 1H-Perfluoroalkanes" Popov, I.; Lindeman, S.; Daugulis, O.* *J. Am. Chem. Soc.* **2011**, *133*, 9286-9289.
 47. "Transition-Metal-Free Alkynylation of Aryl Chlorides" Truong, T.; Daugulis, O.* *Org. Lett.* **2011**, *13*, 4172-4175.
 48. "A General Method for Copper-Catalyzed Arene Cross-Dimerization" Do, H.-Q.; Daugulis, O.* *J. Am. Chem. Soc.* **2011**, *133*, 13577-13586.
 49. "Intermolecular Direct Arylation of Five-Membered Ring Heterocycles by Non-Activated Aryl Chlorides" Daugulis, O. *Chem. Heterocycl. Compd.* **2012**, 21-26. Invited review.
 50. "Heterocycle Synthesis via Direct C-H/N-H Coupling" Nadres, E. T.; Daugulis, O.* *J. Am. Chem. Soc.* **2012**, *134*, 7-10.
 51. "Nonnatural Amino Acid Synthesis by Carbon-Hydrogen Bond Functionalization Methodology" Tran, L. D.; Daugulis, O.* *Angew. Chem., Int. Ed.* **2012**, *51*, 5188-5191.
 52. "Copper-Catalyzed Homodimerization of Nitronates and Enolates under an Oxygen Atmosphere" Do, H.-Q.; Tran-Vu, H.; Daugulis, O.* *Organometallics* **2012**, *31*, 7816-7818.
 53. "Directed Functionalization of C-H Bonds – now also *meta*-Selective" Truong, T.; Daugulis, O.* *Angew. Chem., Int. Ed.* **2012**, *51*, 11677-11679. Highlight.
 54. "Copper-Promoted Sulfenylation of sp^2 C-H Bonds" Tran, L. D.; Popov, I.; Daugulis, O.* *J. Am. Chem. Soc.* **2012**, *134*, 18237-18240.
 55. "Direct Intermolecular Aniline Arylation via Benzyne Intermediates" Truong, T.; Daugulis, O.* *Org. Lett.* **2012**, *14*, 5964-5967.
 56. "Divergent Reaction Pathways for Phenol Arylation by Arynes: Synthesis of Helicenes and 2-Arylphenols" Truong, T.; Daugulis, O.* *Chem. Sci.* **2013**, *4*, 531-535.
 57. "Directed Amination of Non-Acidic Arene C-H Bonds by a Copper-Silver Catalytic System" Tran, L. D.; Roane, J.; Daugulis, O.* *Angew. Chem., Int. Ed.* **2013**, *52*, 6043-6046.
 58. "Copper-Catalyzed, Directing Group-Assisted Fluorination of Arene and Heteroarene C-H Bonds" Truong, T.; Klimovica, K.; Daugulis, O.* *J. Am. Chem. Soc.* **2013**, *135*, 9342-9345.
 59. "Superhydrophobic Perfluorinated Metal-Organic Frameworks" Chen, T.-H.; Popov, I.*; Zenasni, O.; Daugulis, O.; Miljanić, O.* *Chem. Commun.* **2013**, *49*, 6846-6848.
 60. "Synthesis of Highly Branched Polyethylene Using "Sandwich" (8-p-Tolyl Naphthyl α -

- Diimine)Nickel(II) Catalysts" Zhang, D.; Nadres, E. T.; Brookhart, M.*; Daugulis, O.* *Organometallics* **2013**, *32*, 5136-5143.
61. "Scope and Limitations of Auxiliary-Assisted, Palladium-Catalyzed Arylation and Alkylation of sp^2 and sp^3 C-H Bonds" Nadres, E. T.; Santos, G. I. F.; Shabashov, D.; Daugulis, O.* *J. Org. Chem.* **2013**, *78*, 9689-9714.
62. "Copper-Catalyzed Carboxylation of Aryl Iodides with Carbon Dioxide" Tran-Vu, H.; Daugulis, O.* *ACS Catalysis* **2013**, *3*, 2417-2420.
63. "Copper-Catalyzed Etherification of Arene C-H Bonds" Roane, J.; Daugulis, O.* *Org. Lett.* **2013**, *15*, 5842-5845.
64. "Secondary Alkene Insertion and Precision Chain-Walking: A New Route to Semicrystalline "Polyethylene" from α -Olefins by Combining Two Rare Catalytic Events" Vaidya, T.; Klimovica, K.; LaPointe, A. M.; Keresztes, I.; Lobkovsky, E. M.; Daugulis, O.*; Coates, G. W.* *J. Am. Chem. Soc.* **2014**, *136*, 7213-7216.
65. "A General Method for Functionalized Polyaryl Synthesis via Aryne Intermediates" Truong, T.; Mesgar, M.; Le, K. K. A.; Daugulis, O.* *J. Am. Chem. Soc.* **2014**, *136*, 8568-8576.
66. "Cobalt-Catalyzed, Aminoquinoline-Directed sp^2 C-H Bond Alkenylation by Alkynes" Grigorjeva, L.; Daugulis, O.* *Angew. Chem., Int. Ed.* **2014**, *53*, 10209-10212.
67. "Cobalt-Catalyzed, Aminoquinoline-Directed Coupling of sp^2 C-H Bonds with Alkenes" Grigorjeva, L.; Daugulis, O.* *Org. Lett.* **2014**, *16*, 4684-4687. ACS Editors Choice for August 22.
68. "Cobalt-Catalyzed Direct Carbonylation of Aminoquinoline Benzamides" Grigorjeva, L.; Daugulis, O.* *Org. Lett.* **2014**, *16*, 4688-4690.
69. "Thermally robust and porous noncovalent organic framework with high affinity for fluorocarbons and Freons" Chen, T.-H.; Popov, I.; Kaveevivitchai, W.; Chuang, Y.-C.; Chen, Y.-S.; Daugulis, O.; Jacobson, A. J.; Miljanić, O.* *Nat. Comm.* **2014**, *5*, 5131.
70. "Living Polymerization of Ethylene and Copolymerization of Ethylene/Methyl Acrylate Using "Sandwich" Diimine Palladium Catalysts" Allen, K.; Campos, J.; Daugulis, O.; Brookhart, M.* *ACS Catalysis* **2015**, *5*, 456-464.
71. "Synthesis of Branched Ultra-High-Molecular-Weight Polyethylene Using Highly Active Neutral, Single-Component Ni(II) Catalysts" Chen, Z.; Mesgar, M.; White, P.; Daugulis, O.*; Brookhart, M.* *ACS Catalysis* **2015**, *5*, 631-636.
72. "Macrocyclic Embrace: Encapsulation of Fluoroarenes by *m*-Phenylene Ethynylene Host" Popov, I.; Chen, T.-H.; Belyakov, S.; Daugulis, O.; Wheeler, S. E.; Miljanić, O. S.* *Chem. Eur. J.* **2015**, *21*, 2750-2754.
73. "Cobalt-Promoted Dimerization of Aminoquinoline Benzamides" Grigorjeva, L.; Daugulis, O.* *Org. Lett.* **2015**, *17*, 1204-1207.
74. "Bidentate, Monoanionic Auxiliary-Directed Functionalization of Carbon-Hydrogen Bonds" Daugulis, O.*; Roane, J.; Tran, L. D. *Acc. Chem. Res.* **2015**, *48*, 1053-1064. Invited review about our work.
75. "Cobalt-Catalyzed, Aminoquinoline-Directed Functionalization of Phosphinic Amide sp^2 C-H Bonds" Nguyen, T. T.; Grigorjeva, L.; Daugulis, O.* *ACS Catalysis* **2016**, *6*, 551-554.
76. "A Career in Catalysis: Maurice Brookhart" Daugulis, O.; MacArthur, A.*; Rix, F.; Templeton, J. *ACS Catalysis* **2016**, *6*, 1518-1532. Account about research career of Prof. M. Brookhart.
77. "A General Method for Aminoquinoline-Directed, Copper-Catalyzed sp^2 C-H Bond Amination" Roane, J.; Daugulis, O.* *J. Am. Chem. Soc.* **2016**, *138*, 4601-4607.

78. "Synthesis of Branched Polyethylene with "Half-Sandwich" Pyridine-imine Nickel Complexes" Chen, Z.; Allen, K.; White, P.; Daugulis, O.*; Brookhart, M.* *Organometallics* **2016**, *35*, 1756-1760.
79. "Silyl Aryl Halides Can Replace Triflates as Aryne Precursors" Mesgar, M.; Daugulis, O.* *Org. Lett.* **2016**, *18*, 3910-3913.
80. "Synthesis and Properties of "Sandwich" Diimine-Coinage Metal Ethylene Complexes" Klimovica, K.; Kirschbaum, K.; Daugulis, O.* *Organometallics* **2016**, *35*, 2938-2943.
81. "Mechanistic Studies of Pd(II)-Catalyzed Copolymerization of Ethylene and Vinylalkoxysilanes: Evidence for a β -Silyl Elimination Chain Transfer Mechanism" Chen, Z.; Liu, W.; Daugulis, O.*; Brookhart, M.* *J. Am. Chem. Soc.* **2016**, *138*, 16120-16129.
82. "Oligomerization of Ethylene Using a Diphosphine Palladium Catalyst" Bézier, D.; Daugulis, O.*; Brookhart, M.* *Organometallics* **2017**, *36*, 443-447.
83. "Alkene Isomerization By "Sandwich" Diimine-Palladium Catalysts" Kocen, A.; Klimovica, K.; Brookhart, M.*; Daugulis, O.* *Organometallics* **2017**, *36*, 787-790.
84. "Palladium-Catalyzed Pyrazole-Directed sp^3 C-H Bond Arylation for the Synthesis of beta-Phenethylamines" Gulia, N.; Daugulis, O.* *Angew. Chem., Int. Ed.* **2017**, *56*, 3630-3634.
85. "Palladium-Catalyzed, Aminoquinoline-Directed Arylation of Phosphoramidate and Phosphinic Amide sp^3 C-H Bonds" Nguyen, T. T.; Daugulis, O.* *Chem. Commun.* **2017**, *53*, 4609-4611.
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87. "Understanding the Insertion Pathways and Chain Walking Mechanisms of α -Diimine Nickel Catalysts for α -Olefin Polymerization: A ^{13}C NMR Spectroscopic Investigation" O'Connor, K. S.; Lamb, J. R.; Vaidya, T.; Keresztes, I.; Klimovica, K.; LaPointe, A. M.; Daugulis, O.; Coates, G. W.* *Macromolecules* **2017**, *50*, 7010-7027.
88. "Polymerization of Ethylene Catalyzed by Phosphine-Iminophosphorane Palladium Complexes" Bézier, D.; Daugulis, O.*; Brookhart, M.* *Organometallics* **2017**, *36*, 2947-2951.
89. "Synthesis of 1,2-Bis-(Trifluoromethylthio)arenes via Aryne Intermediates" Mesgar, M.; Daugulis, O.* *Org. Lett.* **2017**, *19*, 4247-4250.
90. "Palladium-Catalyzed Alkene Chain-Running Isomerization" Kocen, A. L.; Brookhart, M.*; Daugulis, O.* *Chem. Commun.* **2017**, *53*, 10010-10013.
91. "Nickel-Catalyzed Copolymerization of Ethylene and Vinyltrialkoxysilanes: Catalytic Production of Cross-linkable Polyethylene and Elucidation of the Chain Growth Mechanism" Chen, Z.; Leatherman, M. D.; Daugulis, O.*; Brookhart, M.* *J. Am. Chem. Soc.* **2017**, *139*, 16013-16022.
92. "Cobalt-Catalyzed Coupling of Benzoic Acid C-H Bonds with Alkynes, Styrenes, and 1,3-Dienes" Nguyen, T. T.; Grigorjeva, L.; Daugulis, O.* *Angew. Chem., Int. Ed.* **2018**, *57*, 1688-1691.
93. "Dissecting Porosity in Molecular Crystals: Influence of Geometry, Hydrogen Bonding, and $[\pi \cdots \pi]$ Stacking on the Solid-State Packing" Le, H. T. M.; Chen, T.-H.; Yu-Sheng Chen, Y.-S.; Daugulis, O.; Hashim, M. I.; Hsu, C.-W.; Jacobson, A. J.; Kaveevivitchai, W.; Liang, X.; Makarenko, T.; Miljanić, O. Š.*; Popov, I.; Wang, X.; Wu, C.-H.; Wu, J. I. *J. Am. Chem. Soc.* **2018**, *140*, 6014-6026.
94. "Synthesis of Unsymmetrical 2,6-Diarylanilines by Palladium-Catalyzed C-H Bond Functionalization Methodology" Kwak, S. H.; Gulia, N.; Daugulis, O.* *J. Org. Chem.* **2018**, *83*, 5844-5850.
95. "New Hindered Amide Base for Aryne Insertion into Si-P, Si-S, Si-N, and C-C Bonds" Mesgar,

- M.; Nguyen-Le, J.; Daugulis, O.* *J. Am. Chem. Soc.* **2018**, *140*, 13703-13710.
96. "A Highly Active Ni(II)-Triadamantylphosphine Catalyst for Ultrahigh-Molecular-Weight Polyethylene Synthesis" Kocen, A. L.; Brookhart, M.*; Daugulis, O.* *Nature Commun.* **2019**, *10*, 438.
97. "Solvation-Dependent Switching of Solid-state Luminescence of a Fluorinated Aromatic Tetrapyrazole" Zhang, Z.; Lieu, T.; Wu, C.-H.; Wang, X.; Wu, J. I.-C.; Daugulis, O.; Miljanic, O.* *Chem. Commun.* **2019**, *55*, 9387-9390.
98. "1,2-Bis(arylthio)arene Synthesis via Aryne Intermediates" Mesgar, M.; Nguyen-Le, J.; Daugulis, O.* *Chem. Commun.* **2019**, *55*, 9467-9470.
99. "1-Aminopyridinium Ylides as Monodentate Directing Groups for sp³ C-H Bond Functionalization" Le, K. K. A.; Nguyen, H.; Daugulis, O.* *J. Am. Chem. Soc.* **2019**, *141*, 14728-14735.
100. "N-Aminopyridinium Ylide-Directed, Copper-Promoted Amination of sp² C-H Bonds" Kwak, S. H.; Daugulis, O.* *J. Org. Chem.* **2019**, *84*, 13022-13032.
101. "Ethylene Polymerization with Ni(II) Diimine Complexes Generated from 8-Halo-1-naphthylamines. The Role of Equilibrating Syn/Anti Diastereomers in Determining Polymer Properties" Wang, B.; Daugulis, O.*; Brookhart, M.* *Organometallics* **2019**, *38*, 4658-4668.
102. "New Neutral Nickel and Palladium Sandwich Catalysts: Synthesis of Ultra-High Molecular Weight Polyethylene (UHMWPE) via Living Polymerization and Mechanistic Studies of Chain Propagation" Tran, Q. H.; Brookhart, M.*; Daugulis, O.* *J. Am. Chem. Soc.* **2020**, *142*, 7198-7206.
103. "N-Iminopyridinium Ylide-Directed, Cobalt-Catalyzed Coupling of sp² C-H Bonds with Alkynes" Kwak, S. H.; Daugulis, O.* *Chem. Commun.* **2020**, *56*, 11070-11073.
104. "Unsaturated Alcohols as Chain-transfer Agents in Olefin Polymerization: Synthesis of Aldehyde End-capped Oligomers and Polymers" Han, X.-W.; Daugulis, O.*; Brookhart, M.* *J. Am. Chem. Soc.* **2020**, *142*, 15431-15437.
105. "N-Aminopyridinium Ylide-Directed, Copper-Promoted Thiolation of Arene C-H Bonds" Nguyen, H.; Daugulis, O.* *J. Org. Chem.* **2020**, *85*, 13069-13079.
106. "Cationic α -Diimine Nickel and Palladium Complexes Incorporating Phenanthrene Substituents: Highly Active Ethylene Polymerization Catalysts and Mechanistic Studies of Syn/Anti Isomerization" Tran, Q. H.; Wang, X.; Brookhart, M.*; Daugulis, O.* *Organometallics* **2020**, *39*, 4704-4716.
107. "2,4,6-Triphenylpyridinium: A Bulky, Highly Electron-Withdrawing Substituent Which Enhances Properties of Nickel(II) Ethylene Polymerization Catalysts" Janeta, M.; Heidlas, J. X.; Daugulis, O.*; Brookhart, M.* *Angew. Chem., Int. Ed.* **2021**, *60*, 4566-4569. Hot Paper.
108. "Synthesis of End-functionalized Poly(norbornene)s and Poly(ethylidene norbornene)s Using a Pd(II) Catalyst in Combination with Chain Transfer Agents" Han, X.-W.; Daugulis, O.*; Brookhart, M.* *Organometallics* **2021**, *40*, 2709-2715.
109. "In Situ ortho-Lithiation/Functionalization of Pentafluorosulfanyl Arenes" Le, T. V.; Daugulis, O.* *Chem. Commun.* **2022**, *58*, 537-540.
110. "Synthesis and Properties of Fluorinated Tetraphenylethylenes" Zhang, Z.; Lieu, T.; Wang, X.; Daugulis, O.; Miljanic, O.* *ChemPhotoChem*, in press.

Average Citations per article: 150; h-index: 60 (as of 12/6/2021 according to Web of Science)

INVITED ORAL PRESENTATIONS WHILE AT THE UNIVERSITY OF HOUSTON

1. Baltic Organic Symposium, Riga, Latvia June **2004**
2. Brandeis University, Waltham, MA October **2005**
3. Northeastern University, Boston, MA October **2005**
4. University of Chicago, Chicago, IL May **2006**
5. University of California-Berkeley, Berkeley, CA August **2006**
6. Rutgers University, Piscataway, NJ November **2006**
7. University of North Carolina-Chapel Hill, Chapel Hill, NC November **2006**
8. North Carolina State University, Raleigh, NC November **2006**
9. University of Illinois-Chicago, Chicago, IL November **2006**
10. Merck, Rahway, NJ February **2007**
11. NSF Workshop on Organic Synthesis and Natural Products Chemistry, Estes Park, CO June **2007**
12. Marquette University, Milwaukee, WI September **2007**
13. University of Wisconsin-Madison, Madison, WI September **2007**
14. Florida State University, Tallahassee, FL November **2007**
15. UT-Arlington, Arlington, TX February **2008**
16. University of Michigan, Ann Arbor, MI April **2008**
17. Wayne State University, Detroit, MI April **2008**
18. Canadian Society for Chemistry, Edmonton, Canada May **2008**
19. Scripps Research Institute, La Jolla, CA May **2008**
20. University of California-San Diego, San Diego, CA June **2008**
21. ACS NERM, Burlington, VT July **2008**
22. Syngenta, Basel, Switzerland October **2008**
23. University of Arkansas, Fayetteville, AR December **2008**
24. Abbott Labs, Chicago, IL May **2009**
25. University of Guanajuato, Guanajuato, Mexico May **2009**

26. Walden Symposium, Riga, Latvia October **2009**
27. University of Maryland, College Park, MD April **2010**
28. RWTH Aachen, Germany May **2010**
29. University of Cologne, Germany May **2010**
30. TU Dortmund, Germany May **2010**
31. University of Münster, Germany May **2010**
32. SUNY-Binghamton, Binghamton, NY October **2010**
33. University of Pennsylvania, Philadelphia, PA October **2010**
34. Temple University, Philadelphia, PA October **2010**
35. Amgen, Thousand Oaks, CA November **2010**
36. UC-Santa Barbara, CA November **2010**
37. Pacifichem, Honolulu, HI December **2010**
38. Texas A&M University, College Station, TX April **2011**
39. University of Ottawa, Ottawa, Canada July **2011**
40. University of Wisconsin-Madison, WI July **2011**
41. Sun Yat Sen University, Guangzhou, China August **2011**
42. South China University of Technology, Guangzhou, China August **2011**.
43. Shanghai Institute for Organic Chemistry, Shanghai, China August **2011**
44. Symposium "New Frontiers in Organic Chemistry", Beijing, China September **2011**
45. Walden Symposium, Riga, Latvia September **2011**
46. Cornell University, Ithaca, NY September **2011**
47. Pennsylvania State University, University Park, PA October **2011**
48. UTSW–Dallas, Dallas, TX November **2011**
49. Boston University, Boston, MA July **2012**
50. Boston College, Boston, MA July **2012**
51. Macalester College, St. Paul, MN September **2012**
52. TexSyn Symposium UT-Austin, Austin, TX May **2013**

53. Symposium "Bioheterocycles-2013", Riga, Latvia **May 2013**
54. University of New Mexico, Albuquerque, NM **October 2013**
55. Texas Tech University, Lubbock, TX **October 2013**
56. ACS SWRM, Baylor, TX **November 2013**
57. West Virginia University, Morgantown, WV **November 2013**
58. 247th ACS National Meeting, Dallas, TX **March 2014**
59. Modern Synthetic Methods and Chiral USA, Orlando, FL **May 2014**
60. 248th ACS National Meeting, San Francisco, CA (x2) **August 2014**
61. Texas Christian University, Fort Worth, TX **August 2014**
62. University of North Texas, Denton, TX **August 2014**
63. UIPUI, Indianapolis, IN **September 2014**
64. Colorado State University, Ft. Collins, CO **September 2014**
65. ICIQ, Tarragona, Spain **October 2014**
66. University of Lyon-1, Lyon, France **October 2014**
67. SUNY-Buffalo, Buffalo, NY **November 2014**
68. UT-San Antonio, San Antonio, TX **February 2015**
69. 249th ACS National Meeting, Denver, CO **March 2015**
70. High Throughput Chemistry & Chemical Biology Gordon Conference, New London, NH **June 2015**
71. Texas A&M University, College Station, TX (student invitation) **December 2015**
72. UT-Arlington, Arlington, TX **March 2016**
73. Organic Reactions and Processes Gordon Research Conference, Stonehill College, MA **July 2016**
74. University of Heidelberg, Germany **October 2016**
75. University of Mainz, Germany (GDCH Speaker) **November 2016**
76. University of Göttingen, Germany **November 2016**
77. University of Konstanz, Germany **November 2016**

78. University of Basel, Switzerland	November 2016
79. RWTH-Aachen, Germany	November 2016
80. Lamar University, Beaumont, TX	April 2017
81. Walden Symposium, Riga, Latvia	June 2017
82. ExxonMobil, Baytown, TX	September 2017
83. Nankai University, Tianjin, China	May 2018
84. Sichuan University, Chengdu, China	May 2018
85. Zhejiang University, Hangzhou, China	May 2018
86. Nanjing University, Nanjing, China	May 2018
87. SIOC, Shanghai, China	May 2018
88. Fudan University, Shanghai, China	May 2018
89. Shanghai University, Shanghai, China	May 2018
90. HCMC University of Technology, HCMC, Vietnam	May 2018
91. HCMC University of Science, HCMC, Vietnam	May 2018
92. UNC-Chapel Hill, Chapel Hill, NC	October 2018
93. Duke University, Durham, NC	October 2018
94. Wayne State University Frontiers seminar, Detroit MI	March 2019
95. CERM, Midland, MI	June 2019
96. University of Toledo, Toledo, OH	September 2019
97. Penn State, College Station, PA	September 2019
98. Dartmouth College, Dartmouth, NH	October 2019
99. Riga Technical University, Riga, Latvia	October 2019
100. Baltic Organic Symposium, Vilnius, Lithuania	to be presented in June 2022

RESEARCH MENTORING

Ph.D./M.S. Candidates

Hendrich Chiong (PhD 2007; Celanese, Florence KY)

Fall 2003–Fall 2007

Dmitry Shabashov (PhD 2010; Millipore Sigma OH)

Summer 2005–Spring 2010

Anna Lazareva (MS 2008; ExxonMobil, Baytown TX)	Fall 2006–Fall 2008
Hien-Quang Do (PhD 2011; Dow Freeport, TX)	Fall 2006–Summer 2011
Enrico Nadres (PhD 2012; 3V Sigma, Georgetown, SC)	Fall 2007–Summer 2012
Dieu Ly Tran (PhD 2013; Millipore Sigma OH)	Fall 2008–Spring 2013
Thanh Truong (PhD 2013; Professor, VNU-HCM, Vietnam)	Summer 2009–Summer 2013
Ilya Popov (PhD 2014; ORNL)	Summer 2009–Spring 2014
Tran Vu Hung (PhD 2015; PD at UH)	Fall 2010–Fall 2015
Kristīne Kļimoviča (PhD 2016; Ascendis Pharma Redwood Shores CA)	Fall 2011–Fall 2016
James Roane (PhD 2016; Merck South San Francisco CA)	Fall 2011–Fall 2016
Ky Khac Anh Le (MS 2017; ExxonMobil Baytown TX)	Summer 2013–Summer 2017
Milad Mesgar (PhD 2017; Momentive WV)	Fall 2012–Fall 2017
Tung Nguyen (PhD 2018; Asst. Prof., VNU-HCM, Vietnam)	Fall 2013–Summer 2018
Andrew Kocen (PhD 2019; Pall Corp, NY, NY)	Fall 2014–Summer 2019
Se Hun Kwak (PhD 2020; PD at Baylor College of Medicine)	Fall 2015–Summer 2020
Tran Hai Quan (PhD 2020; PD at UNC-Chapel Hill)	Fall 2015–Fall 2020
Julius Heidlas (PhD 2021; BASF Tuscon AZ)	Fall 2016–Spring 2021
Thien Lieu (PhD 2021; PD at UH)	Fall 2016–present
Hanh Nguyen (PhD 2021; Albany Molecular Research NY)	Fall 2016–Summer 2021
Sabrina Aderibigbe (PhD 2020; Corteva Agriscience Indianapolis IN)	Fall 2019–Fall 2020
Thanh Le Van	Fall 2019–present
Joseph Medina	Fall 2020–present
Girish Gowda Ramachandru	Fall 2021–present
Thushini Hemachandra	Spring 2022–present

Undergraduate Students

Quynh-Nhu Pham	Fall 2005–Summer 2006
Rana Kashif Khan (BMS in Cambridge, MA)	Fall 2006–Spring 2008

Roman Demerzhan	Spring 2007–Spring 2008
Rachel Lee	Spring 2007–Fall 2007
Jesus Rigoberto Molina Maldonado	Fall 2007
Akinyele Monsurat	Spring 2008–Summer 2008
Joseph Alvarado (Cleveland Clinic)	Summer 2009–Summer 2010
Reuben Santhan-Oommen	Fall 2010–Summer 2012
Ismael Palacios	Spring 2011–Spring 2013
Anayelsi Salinas Gomez	Summer 2011
Alexander Garcia Lopez	Summer 2011
Rojin Belganeh (Director of Frontier Laboratories North America)	Summer 2012
Laura Avena	Summer 2012
Loary Inclan	Fall 2013–Summer 2016
Justin Nguyen-Le (Custom Solutions Group)	Summer 2016–Spring 2019
Hiep Quang Ha	Fall 2018–Summer 2019
Vu Thanh Pham	Fall 2018–Summer 2019
Andrew Martinez	Summer 2019–present
Valeria Stevens	Summer 2021–present

Postdoctoral Associates

Vladimir Zaitsev (UH lab coordinator)	Fall 2003–Summer 2005
Anatolii Andreiko	Fall 2005–Summer 2006
Gan Bajracharya (faculty position in Nepal)	Fall 2007–Fall 2008
Amol Kulkarni (Assoc. Prof. at Howard University)	Fall 2008–Summer 2010
Liene Grigorjeva (Researcher at OSI, Latvia)	Fall 2013–Summer 2016
Nurbey Gulia (University of Wroclaw)	Fall 2014–Summer 2016
Xing-Wang Han	Spring 2019–Spring 2021
Mateusz Janeta	Summer 2019–Fall 2021

Alberto Feliciano Carmona Summer 2021–present
Zhi-Hao Chen Fall 2021–present

Visiting Faculty

Miguel Angel Vázquez Guevara (U of Guanajuato, Mexico) Summer 2010
Oleg Ozerov (Texas A&M College Station) Fall 2019

SERVICE ACTIVITIES

Departmental

Graduate Committee Fall 2003–Spring 2008
Organic Seminar Coordinator Fall 2003, Spring 2005, Fall 2012–Spring 2013
Departmental Seminar Coordinator Fall 2007–Spring 2008
Member of Executive Committee (Politburo) Fall 2009–present
Inorganic Search ChairPERSON Fall 2012, Fall 2013, Fall 2021
ChairPERSON of Organic Division Fall 2017–present

External

Ad hoc reviewer for NIH-NIGMS (SBCA/B study sections) February 2008, May 2014
Ad hoc reviewer for NSF-CHE March 2009, October 2010, January 2014,
September 2019

Reviewer of grants for NSF, PRF, DOE

Reviewer of articles for journals: *Organometallics*, *Journal of the American Chemical Society*, *Angewandte Chemie*, *Organic Letters*, *Journal of Organic Chemistry*, *Inorganic Chemistry*, *Chemical Reviews*, *Accounts of Chemical Research*, *Chemical Communications*, *ACS Catalysis*, *Chemical Science*, *Science*, *Nature*, *Nature-Chemistry*, *Nature Catalysis*, *Chemistry-A European Journal*, *Nature-Communications*, *ACS Applied Materials & Interfaces*

EVIDENCE OF STUDENT LEARNING

Students Earning Degrees under the Direction of Dr. Daugulis:

1. Hendrich A. Chiong, PhD in Organic Chemistry 2007
Thesis title: Structural and Catalytic Studies on Palladium and Silver Complexes

2. Rana Kashif M. Khan, Undergraduate Senior Honors Thesis 2007
Thesis title: Palladium-Catalyzed C-C Bond Formation Reactions
3. Anna Lazareva, MS in Organic Chemistry 2008.
Thesis title: Palladium-Catalyzed Arylation of Heterocycles with Aryl Chlorides
4. Dmitry Shabashov, PhD in Organic Chemistry 2010
Thesis title: Palladium-Catalyzed Formation of C-C Bonds Through C-H Bond Activation
5. Hien-Quang Do, PhD in Organic Chemistry 2011
Thesis title: Copper-Catalyzed Direct Conversion of Arene C-H Bonds to C-C Bonds
6. Enrico T. Nadres, PhD in Organic Chemistry 2012
Thesis title: Palladium-Catalyzed C-H Bond Functionalization of Heterocycles and Amines
7. Ly Dieu Tran, PhD in Organic Chemistry 2013
Thesis title: Investigations in Iron, Copper and Palladium-Catalyzed C-H Bond Functionalization
8. Thanh Truong, PhD in Organic Chemistry in 2013.
Thesis title: Carbon-Carbon and Carbon-Heteroatom Bond Formation Through C-H Bond Functionalization
9. Ilya Popov, PhD in Organic Chemistry in 2014
Thesis title: Synthetic and Methodological Studies in Copper and Palladium-Catalyzed Carbon-Carbon and Carbon-Heteroatom Bond Formation
10. Hung Tran-Vu, PhD in Organic Chemistry in 2015.
Thesis title: Carboxylic Acid Synthesis from Carbon Dioxide via First-Row Transition-Metal Catalysis and Copper-Promoted C(sp³)-H Functionalization
11. James Roane, PhD in Organic Chemistry in 2016
Thesis title: Copper Promoted C-H Bond Functionalization with Heteroatom Nucleophiles Enabled by a Removable Auxiliary
12. Kristine Klimovica, PhD in Organic Chemistry in 2017
Thesis Title: “Sandwich” Diimine Group 11 Metal and Nickel Complexes: Synthesis, Characterization, and Applications
13. Ky Khac Anh Le, MS in Organic Chemistry in 2017
Thesis Title: Palladium-Catalyzed C(sp³)-H Arylation Using Pyridinium Ylide As A Removable Directing Group
14. Milad Mesgar, PhD in Organic Chemistry in 2017
Thesis Title: New Methods in Aryne Chemistry
15. Tung Thanh Nguyen, PhD in Organic Chemistry 2018.
Thesis Title: Palladium and Cobalt-Catalyzed Functionalization of sp² and sp³ Carbon-Hydrogen Bonds
16. Andrew Kocen, PhD in Organic Chemistry 2019.
Thesis Title: Polymerization and Isomerization of Olefins using Late-Transition Metal Complexes

17. Se Hun Kwak, PhD in Organic Chemistry 2020.

Thesis Title: Carbon–Hydrogen Bond Functionalization using Removable Monodentate Directing Groups

18. Quan Hai Tran, PhD in Organic Chemistry 2020.

Thesis Title: New Nickel and Palladium Complexes: Synthesis, Polymerization Activity, and Mechanistic Investigations

19. Sabrina O. Aderibigbe, PhD in Organic Chemistry 2020.

Thesis Title: 1. C-C Bond Formation via Soft Enolization and Umpolung-like Chemistry. 2. Electrophilic Fluorination of Organozinc Reagents

20. Julius X. Heidlas, PhD in Organic Chemistry 2021.

Thesis Title: New Transition Metal Catalysts For Carbon-Carbon Bond Formation

21. Hanh Nguyen, PhD in Organic Chemistry 2021.

Thesis Title: Transition-Metal Catalyzed Carbon–Hydrogen Bond Functionalization Using Directing Groups

22. Thien Lieu, PhD in Organic Chemistry 2021.

Thesis Title: 1. Synthesis of New Polyfluoroaryl Materials. 2. New Transition Metal Catalysts for Enantioselective C–H Bond Functionalization