

# Curriculum Vitae

## Philip G. Jessop

### Work Address

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### Education

- 1986 - 1991 **University of British Columbia, Ph. D.** in Inorganic Chemistry supervised by Dr. B. R. James. Determined the kinetics of reactions of ruthenium complexes with sulfur-containing organics.
- 1981 - 1986 **University of Waterloo, Honours B. Sc.** in Chemistry. Co-operative program included six 4-month work terms.

### Distinctions

- 2023 Named a Fellow of the American Chemical Society, USA
- 2019 NSERC Brockhouse Canada Prize for Interdisciplinary Research in Science and Engineering (with P. Champagne, M. Cunningham, and W. Mabee)
- 2017 Science 60<sup>th</sup> Anniversary Alumni of Honour Award, University of Waterloo
- 2015 Named a Fellow of the Royal Society of Chemistry, UK
- 2014-27 Canada Research Chair, Tier I (renewed 2021)
- 2013-14 Landolt & Cie Professor in Innovations for a Sustainable Future, Ecole Polytechnique Fédérale de Lausanne
- 2013 Eni Award for New Frontiers for Hydrocarbons (Upstream)
- 2013 Elected a Fellow of the Royal Society of Canada
- 2012 Canadian Green Chemistry & Engineering Award, Chemical Institute of Canada
- 2012 Named a member of Canada's Clean50, by Delta Management Group Corporation
- 2010-12 Killam Research Fellowship
- 2010 Prize for Excellence in Research, Queen's University
- 2009 Named a top innovator by *New Technology Magazine*
- 2008 The NSERC John C. Polanyi Award

- 2008 Switchable Surfactants discovery listed in *Canadian Chemical News* as one of the top 20 discoveries of the past 100 years
- 2004 Canadian Catalysis Lectureship Award, Canadian Catalysis Foundation
- 2003 Canada Research Chair, Tier II (renewed 2008)
- 1999 Outstanding Faculty Advisor, UC Davis
- 1986 - 1990 NSERC Postgraduate Scholarship
- 1986 - 1990 McDowell Fellowship, Chemistry Dept., University of British Columbia
- 1986 University of British Columbia Graduate Fellowship
- 1985 Chemical Institute of Canada Prize, University of Waterloo
- 1984 Canada Packers Inc. Award, University of Waterloo
- 1984 Dean's Honours List, Faculty of Science, University of Waterloo
- 1982 - 1985 Chemistry Upper Year Scholarships, University of Waterloo
- 1981 - 1982 University Research Assistantship, University of Waterloo

## Employment

- 2018 to present **Executive Research Director, Forward Water Technologies.** Mississauga, Canada. This new company is commercializing the forward osmosis water purification technology developed in the Jessop lab at Queen's University.
- 2009 to 2020 **Technical Director, GreenCentre Canada.** Kingston, Canada. This is a National Centre of Excellence designed to promote the commercialization of green chemistry inventions from Canadian universities.
- 2003 to present **Professor and Canada Research Chair, Queen's University,** Department of Chemistry, Kingston, Canada. Associate Professor (2003-2007), Professor (2007-present)
- 1996 to 2003 **Assistant Professor, University of California, Davis, USA.**
- 1993 to 1996 **Contract Researcher, ERATO Molecular Catalysis Project, Research Development Corporation of Japan (JRDC),** Nagoya, Japan, with Dr. R. Noyori (Nobel Laureate, 2001): Supercritical fluids as solvents for homogeneously catalyzed reactions.
- 1991 to 1992 **Postdoctoral Fellow, Chemistry Department, University of Toronto,** Canada: Postdoctoral position with Dr. R. H. Morris: Research on a) the stability of deuterated polymers, and b) chemistry of hydrogen complexes.
- Summer 1986 **Research Assistant, Shell Canada Oakville Research Centre,** Oakville, Ontario: Confidential research into heterogeneous catalysis.

- Summer 1985 **Research Assistant, Dalhousie University**, Halifax, Nova Scotia, research with Dr. M. A. White: Synthesis and properties of clathrate hydrate crystals.
- Winter 1985 **Research Assistant, University of Waterloo**, Ontario with Dr. G. L. Rempel: Kinetics of homogeneous hydrogenation.
- Fall 1983 & summer 1984 **Research Assistant, Coal Research Labs, CANMET**, Edmonton, Alberta: Scanning electron microscopy and X-ray microbeam analysis of frozen oil/water emulsions.
- Winter 1983 & summer 1982 **Research Assistant, Energy Research Labs, CANMET**, Ottawa, Ontario: Coal liquefaction research.

### Service Contributions and Board Membership

- 2019-21 Member, Advisory Board, Global Green Chemistry Initiative, UNIDO, United Nations International Development Organization.
- 2019-21 Organizer, "Green Solvents" symposium, IUPAC World Congress, Montreal, Canada, 2021.
- 2018-19 Co-chair, 23<sup>rd</sup> Annual Green Chemistry & Engineering Conference and 9<sup>th</sup> International Conference on Green and Sustainable Chemistry, Reston, Virginia, USA, June 2019.
- 2017-18 Member, International Scientific Committee, 16<sup>th</sup> International Conference on Carbon Dioxide Utilization (ICCDU XVI), Rio de Janeiro, Brazil, August 2018.
- 2017-22 Chair, Editorial Board, *Green Chemistry* (RSC journal)
- 2016-17 Panelist, Expert Panel on the State of Science and Technology and Industrial Research and Development in Canada, Council of Canadian Academies and Innovation, Science and Economic Development Canada.
- 2016-17 Member, Industrial Chemistry Program Committee, Canadian Chemistry Conference and Exhibition, Toronto, May 2017.
- 2015-17 Member, International Scientific Advisory Committee, 8<sup>th</sup> International Green and Sustainable Chemistry Conference, Melbourne, Australia, July 2017.
- 2015-16 Member, Scientific Committee, International Green Process Engineering Congress, Mt. Tremblant, Québec, June 2016.
- 2014-15 Member, International Advisory Board, 7<sup>th</sup> International Conference on Green and Sustainable Chemistry, Japan, July 2015.
- 2014-16 Member, Editorial Board, *Green Chemistry* (RSC journal)
- 2013-16 Member, Selection Committee 1504 (Chemistry), Discovery Grants, Natural Sciences and Engineering Research Council, Canada.
- 2012-14 Member, Executive Committee, 2<sup>nd</sup> International Conference on Ionic Liquids in Separation and Purification (ILSEP), Toronto, Summer 2014.
- 2012-13 Member, International Scientific Committee, 2<sup>nd</sup> International Symposium on Green Chemistry, May 2013.
- 2012-17 Member, Governing Board, Green Chemistry Institute, ACS.

- 2012-16 Member, Editorial Advisory Board, *ACS Sustainable Chemistry & Engineering* (ACS journal)
- 2012- Advisory Editor, *J. CO<sub>2</sub> Utilization* (Elsevier journal)
- 2012-15 Member, International Advisory Board, *ChemSusChem* (Wiley journal)
- 2011-12 Member, International Organizing Committee, 4<sup>th</sup> IUPAC Conference on Green Chemistry, August 2012.
- 2011-12 Member, International Scientific Advising Committee, 10th International Symposium on Supercritical Fluids, May 2012.
- 2009-12 Member, International Advisory Board, and Rotating Member, Board of Directors, FQRNT Centre in Green Chemistry and Catalysis, Québec.
- 2009-13 Member, Advisory Board, *Green Chemistry* (RSC journal)
- 2008-10 Chair, 3<sup>rd</sup> IUPAC Conference on Green Chemistry, August 2010.
- 2008 Member, Toxics Reduction Expert Panel, Ministry of the Environment, Government of Ontario
- 2008-17 Member, IUPAC Subcommittee on Green Chemistry
- 2007- Member, Board of Directors, Canadian Green Chemistry & Engineering Network
- 2007 Co-chair, CHEMRAWN-XVII and ICCDU-IX Conference on Greenhouse Gases. Also served as chair of the scientific program committee.
- 2007 Member, Focus Group on Clean Technologies, Conference Board of Canada
- 2007 Member, International Organizing Committee, 2<sup>nd</sup> International Congress on Ionic Liquids
- 2007 Member, Grant Selection Panel, U.S. Dept. of Energy, Basic Energy Sciences
- 2006 Chair, Green Chemistry and Engineering Subdivision, American Chemical Society
- 2006 Member, Grant Selection Panel, NSF
- 2005 Member, International Scientific Committee, International Symposium on Supercritical Fluids
- 2005 Member, International Scientific Committee, 8<sup>th</sup> International Conference on Carbon Dioxide Utilization
- 2005 Organizer, "Reaction Chemistry of CO<sub>2</sub> in Catalysis" symposium, and "Organic Reactions in Neoteric Media" symposia, Pacifichem
- 2005 Chair, referee team, Ontario Graduate Scholarships
- 2004-5 Member, Site Visit Team, ERC Program, NSF
- 2004 Organizer, "Green Catalysis" symposium, Canadian Symposium on Catalysis
- 2004 Member, Site Visit Team, NSF
- 2001- Member, International Scientific Committee for the International Conferences on Carbon Dioxide Utilization (ICCDU)

## Journal Publications and Reports

211. Y. Zhang; S. El Sayed; L. Kang; M. Sanger; T. Wiegand; P. G. Jessop; S. DeBeer; A. Bordet; W. Leitner, "Adaptive Catalysts for the Selective Hydrogenation of

- Bicyclic Heteroaromatics using Ruthenium Nanoparticles on a CO<sub>2</sub>-Responsive Support”, *Angewandte Chemie* (2023) *accepted*.
210. R. Benedix, H. Poole, D. Zauser, N. Preisig, P. G. Jessop, and C. Stubenrauch, “Surface and foaming properties of an anionic CO<sub>2</sub>-switchable tail surfactant”, *Tenside Surfactants Detergents* (2023) *60*, 269-276.
  209. R. D. Jansen-van Vuuren, S. Naficy, M. Ramezani, M. Cunningham, P. G. Jessop, “CO<sub>2</sub>-Responsive Gels”, *Chem. Soc. Rev.* (2023) *52*, 3470-3542.
  208. V. S. Liberato, T. F. Ferreira, A. MacDonald, B. D. Ribeiro, M. A. Zarur Coelho and P. G. Jessop, “A CO<sub>2</sub>-responsive method for separating hydrophilic organic molecules from aqueous solutions: solvent-assisted switchable water”, *Green Chem.* (2023) *25*, 4705-4712.
  207. R. Benedix, S. Botsch, N. Preisig, V. Kovalchuk, P. G. Jessop, and C. Stubenrauch, “Influence of a CO<sub>2</sub>-switchable additive on the surface and foaming properties of a cationic non-switchable surfactant”, *Soft Matter* (2023) *19*, 2941-2948
  206. R. Lee, B. A. Smith, H. M. Roy, G. B. Leite, P. Champagne, and P. G. Jessop, “Extraction of lipids from microalgal slurries with liquid CO<sub>2</sub>”, *Algal Research* (2023) *70*, 103002.
  205. V. Sapone, A. Iannone, A. Alivernini, A. Cicci, P. G. Jessop, and M. Bravi, “An innovative simplified one-pot process for Astaxanthin purification from *Paracoccus carotinifaciens*”, *Separation and Purification Technology* (2023) *308*, 122843.
  204. M. J. Madden, S. N. Ellis, A. Riabtseva, A. D. Wilson, M. F. Cunningham, and P. G. Jessop, “Comparison of Vapour Pressure Osmometry, Freezing Point Osmometry and Direct Membrane Osmometry for Determining the Osmotic Pressure of Concentrated Solutions”, *Desalination* (2022) *539*, 115946.
  203. M. F. Cunningham and P. G. Jessop, “Carbon Dioxide Switchable Polymers – Recent Developments and Emerging Applications”, *Macromolecular Reaction Engineering* (2022) *16*, 2200031.
  202. Z. Shahrabaki, F. Oveissi, S. Farajikhah, M. B. Ghasemian, R. Jansen-van Vuuren, P. Jessop, J. Yun, F. Dehghani, S. Naficy, “The Electrical Response of Poly(N-[3-(Dimethylamino)Propyl] Methacrylamide) to CO<sub>2</sub> at a Long Exposure Period”, *ACS Omega* (2022) *26*, 22232-22243.
  201. H. Poole, P. G. Jessop, and C. Stubenrauch, “Foaming and defoaming properties of CO<sub>2</sub>-switchable surfactants”, *J. Surfactants Detergents* (2022) *25*, 467-475.
  200. I. T. Cunha, M. McKeeman, M. Ramezani, K. Hayashi-Mehedy, A. Lloyd-Smith, M. Bravi, and P. G. Jessop, “Amine-free CO<sub>2</sub>-switchable hydrophilicity solvents and

- their application in extractions and polymer recycling”, **Green Chem.** (2022) 24, 3704-3716.
199. T. M. de Winter, J. Ho, C. J. Alridge, and P. G. Jessop, “CO<sub>2</sub>-assisted asymmetric hydrogenation of prochiral allylamines”, **RSC Advances** (2022) 12, 6755-6761.
198. H. Jin, P. G. Jessop, and M. F. Cunningham, “CO<sub>2</sub>-switchable PMMA latexes with controllable particle size prepared by surfactant-free emulsion polymerization”, **Colloid Polym. Sci.** (2022) 300, 375-385.  
<https://doi.org/10.1007/s00396-022-04953-7>
197. A. Bordet, S. El Sayed, M. Sanger, K. J. Boniface, D. Kalsi, K. L. Luska, P. G. Jessop, and W. Leitner, “Selectivity control in hydrogenation through adaptive catalysis using ruthenium nanoparticles on a CO<sub>2</sub>-responsive support”, **Nat. Chem.** (2021) 13, 916-922. <https://doi.org/10.1038/s41557-021-00735-w>.
196. A. Riabtseva, S. Ellis, P. Champagne, P. Jessop, M. Cunningham, “CO<sub>2</sub>-responsive branched polymers for forward osmosis applications: the effect of branching on draw solute properties”, **Ind. Eng. Chem. Res.** (2021) 60, 9807-9816.
195. J. Vanderveen and P. G. Jessop, “An Exercise Demonstrating the Selection of Greener Compounds for a Specified Application”, **J. Chem. Educ.** (2021) 98, 2341-2346.
194. I. T. Cunha, H. Yang, and P. G. Jessop, “High pressure switchable water: an alternative method for separating organic products from water”, **Green Chem.** (2021) 21, 3996-4007.
193. B. A. Smith, P. Champagne, and P. G. Jessop, “A semi-batch flow system for the production of 5-chloromethylfurfural”, **Chemistry - Methods** (2021) 1, 438-443.
192. S. N. Ellis, M. F. Cunningham, and P. G. Jessop, “A Forward Osmosis Hydrogel Draw Agent That Responds to Both Heat and CO<sub>2</sub>”, **Desalination** (2021) 510, 115074.
191. S. Haseeb, J. R. Vanderveen, D. Elamaldeniya, J. Harris, K. J. Boniface, R. Lee, P. Champagne, and P. G. Jessop, “Conversion of lignin pyrolysis oil to cyclohexyl methyl ethers as a promising biomass-derived solvent”, **Green Chem.** (2021) 23, 2457-2463.
190. R. D. Jansen-van Vuuren, G. D. Vilela, M. Ramezani, P. H. Gilbert, D. Watson, N. Mullins, A. K. Lucas, A. J. Giacomini, M. F. Cunningham, and P. G. Jessop, “CO<sub>2</sub>-responsive Superabsorbent Hydrogels Capable of >90% Dewatering When Immersed in Water”, **ACS Appl. Polym. Mat.** (2021) 3, 2153-2165.

189. R. Kandel, G. Schatte, L. Laverdure, N. Mosey, P. G. Jessop, "Synthesis and Coordination of a Neutral Phosphaguanidine and Comparison of its Basicity with a Guanidine", **Can. J. Chem.** (2021) 99, 277-285.
188. Y. Li, H. Chang, H. Yan, S. Tian, P. G. Jessop, "Reversible Absorption of Volatile Organic Compounds by Switchable-Hydrophilicity Solvents: A Case Study of Toluene with *N,N*-Dimethylcyclohexylamine", **ACS Omega** (2021) 6, 253-264.
187. P. G. Jessop, "Gambatte!", **Green Chem.** (2021) 23, 17.
186. J. Arredondo, N. Woodcock, O. Garcia-Valdez, P. G. Jessop, P. Champagne, M. F. Cunningham, "Surface modification of cellulose nanocrystals via RAFT polymerization of CO<sub>2</sub>-responsive monomers - tuning hydrophobicity", **Langmuir** (2020) 36, 13989-13997.
185. M. A. Affan, G. Schatte, P. G. Jessop, "Formylation of Amines by CO<sub>2</sub> Hydrogenation Using Preformed Co(II)/Nickel(II) Complexes", **Inorg. Chem.** (2020) 59, 14275-14279.
184. X. Su, Y. Jiang, P. G. Jessop, M. F. Cunningham, Feng, Y. "Photoinitiated TERP Emulsion Polymerization: A New Member of the Large Family of Preparation Approaches for CO<sub>2</sub>-Switchable Latexes", **Macromolecules** (2020) 53, 6018-6023.
183. H. Liu, X. Yuan, J. Ho, M. F. Cunningham, R. D. Oleschuk P. G. Jessop, "A CO<sub>2</sub>-Switchable Surface on Aluminium", **Appl. Surf. Sci.** (2020) 525, 146630.
182. P. G. Jessop, "Evidence of a Significant Green Advance in Green Chemistry", **Green Chem.** (2020) 22, 13-15.
181. J. Glasing, P. G. Jessop, P. Champagne, W. Y. Hamad, M. F. Cunningham, "Microsuspension Polymerization of Styrene using Cellulose Nanocrystals as Pickering Emulsifiers: on the Evolution of Latex Particles", **Langmuir** (2020) 36, 796-809.
180. S. N. Ellis, A. Riabtseva, R. R. Dykeman, S. Hargreaves, T. Robert, P. Champagne, M. F. Cunningham, P. G. Jessop, "Nitrogen Rich CO<sub>2</sub>-Responsive Polymers as Forward Osmosis Draw Solutes", **Ind. Eng. Chem. Res.** (2019) 58, 22579-22586.
179. H. Poole, J. Gauthier, J. Vanderveen, P. G. Jessop, R. Lee, "Use of a switchable-hydrophilicity solvent as both solvent and catalyst in aldol condensation", **Green Chem.** (2019) 21, 6263-6267.
178. X. Su, P. G. Jessop, M. F. Cunningham, "Versatility of Organocatalyzed Atom Transfer Radical Polymerization and CO<sub>2</sub>-switching for Preparing Both Hydrophobic and Hydrophilic Polymers with Recycling of Photocatalyst", **Macromolecules** (2019) 52, 6725-6733.

177. M. Cunningham, P. G. Jessop, "Carbon dioxide switchable polymers: where are the future opportunities?", *Macromolecules* (2019) 52, 6801-6816.
176. K. Viner, H. M. Roy, R. Lee, O. He, P. Champagne, P. G. Jessop, "Transesterification of soybean oil using a switchable-hydrophilicity solvent, 2-(dibutylamino)ethanol", *Green Chem.* (2019) 21, 4786-4791.
175. R. Kandel, G. Schatte, P. G. Jessop, "Rh(I) and Ru(II) phosphamidate and phosphoguanidate (1,3-P,N) complexes and their activity for CO<sub>2</sub> hydrogenation", *Dalton Trans.* (2019) 48, 12512-12521.
174. T. Hurst, J. Deichert, L. Kapeniak, R. Lee, J. Harris, P. G. Jessop, V. Snieckus, "Sodium Methyl Carbonate as an Effective C-1 Synthone. Synthesis of Carboxylic Acids, Benzophenones and Unsymmetrical Ketones", *Org. Lett.* (2019) 21, 3882-3885.
173. A. Darabi, A. R. Shirin-Abadi, R. Abbas, S. Avar, P. Jessop, M. Cunningham, "Surfactant-Free Emulsion Copolymerization of Styrene and Methyl Methacrylate for Preparation of Water-Redispersible Polymeric Powders", *J. Polym. Sci. A: Polym. Chem.* (2018) 56, 2376-2381.
172. A. Cicci, G. Sed, P. G. Jessop, M. Bravi, "A novel switchable-hydrophilicity, natural deep eutectic solvent (NaDES)-based system for bio-safe biorefinery", *RSC Adv.* (2018) 8, 37092-37097.
171. X. Su, P. G. Jessop, M. F. Cunningham, "ATRP Catalyst Removal and Ligand Recycling Using CO<sub>2</sub>-Switchable Materials", *Macromolecules* (2018) 51, 8156-8164.
170. K. Viner, P. Champagne, P. G. Jessop, "Comparison of cell disruption techniques prior to lipid extraction from *Scenedesmus* species slurries for biodiesel production using liquid CO<sub>2</sub>", *Green Chem.* (2018) 20, 4330-4338.
169. J. R. Vanderveen, J. Geng, S. Zhang, P. G. Jessop, "Diamines as switchable-hydrophilicity solvents with improved phase behaviour", *RSC Adv.* (2018) 8, 27318-27325.
168. A. Cicci, G. Sed, P. G. Jessop, M. Bravi, "Circular Extraction: An Innovative Use of Switchable Solvents for the Biomass Biorefinery", *Green Chem.* (2018) 20, 3908-3911.
167. J. Harris, K. Viner, P. Champagne, P. G. Jessop, "Advances in microalgae lipid extraction for biofuel production: a review", *Biofuels, Bioproducts & Biorefining* (2018) 12, 1118-1135.



166. A. R. Shirin-Abadi, M. Gorji, S. Rezaee, P. G. Jessop, M. F. Cunningham "CO<sub>2</sub>-Switchable-Hydrophilicity Membrane (CO<sub>2</sub>-SHM) Triggered by Electric Potential: Faster Switching Time along with Efficient Oil/Water Separation", **Chem. Commun.** (2018) 54, 8478-8481.
165. J. Glasing, P. G. Jessop, P. Champagne, M. F. Cunningham, "Graft-modified cellulose nanocrystals as CO<sub>2</sub>-switchable Pickering emulsifiers", **Polymer Chem.** (2018) 9, 3864-3872.
164. M. Bluow, L. Barreto, C. Beaudry, D. Brooks, M. Jean, P. Jessop, C. Lajeunesse, S. Liang, R. Luke, D. Peers, J. M. Thompson, A. Whitelaw, D. A. Wolfe, E. Mongin, R. D. Berry, W. Zych, A. Maxwell, "*Competing in a Global Innovation Economy: The Current State of R&D in Canada*", Expert Panel on the State of Science and Technology and Industrial Research and Development in Canada, *Council of Canadian Academies*, Ottawa, 2018.
163. J. Ho, B. Mudraboyina, C. Spence-Elder, R. Resendes, M. F. Cunningham, P. G. Jessop, "Water-borne coatings that share the mechanism of action of oil-based coatings", **Green Chem.** (2018) 20, 1899-1905.
162. S Ge, S. Qiu, D. Tremblay, K. Viner, P. Champagne, and P. G. Jessop, "Centrate wastewater treatment with *Chlorella vulgaris*: Simultaneous enhancement of nutrient removal, biomass and lipid production", **Chem. Eng. J.** (2018) 342, 310-320.
161. J. R. Vanderveen, S. Burra, J. Geng, A. Goyon, A. Jardine, H. E. Shin, Tamer Andrea, P. J. Dyson, and P. G. Jessop, "Characterizing the Effects of a Switchable Water Additive on the Aqueous Solubility of Small Molecules", **ChemPhysChem** (2018) 19, 2093-2100.
160. P. G. Jessop and L. M. Reyes, "GreenCentre Canada: An Experimental Model for Green Chemistry Commercialization", **Physical Science Reviews** (2018) 3(6) doi:10.1515/psr-2017-0189.
159. X. Yuan, B. Richter, K. Jiang, K. Boniface, A. Cormier, C. Sanders, C. Palmer, P. G. Jessop, M. Cunningham, R. Oleschuk, "Carbonated water for the separation of carboxylic compounds: a chromatography approach", **Green Chem.** (2018) 20, 440-448.
158. M. A. Affan, G. Schatte, P. G. Jessop, "Synthesis, Characterization and Catalytic Studies of two Ni(II) Complexes of Pentane-2,4-dionate", **Inorg. Chim. Acta** (2018) 471, 777-781.
157. P. G. Jessop, "Fundamental properties and practical applications of ionic liquids: concluding remarks", **Faraday Discussions** (2018) 206, 587-601.

156. J. Glasing, J. Bouchard, P. G. Jessop, P. Champagne, and M. F. Cunningham, "Grafting well-defined CO<sub>2</sub>-responsive polymers to cellulose nanocrystals via nitroxide-mediated polymerisation: effect of graft density and molecular weight on dispersion behaviour", *Polymer Chem.* (2017) 8, 6000-6012.
155. O. Garcia-Valdez, T. Brescacin, J. Arredondo, J. Bouchard, P. G. Jessop, P. Champagne, and M. F. Cunningham, "Grafting CO<sub>2</sub>-responsive polymers from cellulose nanocrystals via nitroxide-mediated polymerisation", *Polymer Chem.* (2017) 8, 4124-4131.
154. M. A. Affan, P. G. Jessop, "Catalytic Formylation of Primary and Secondary Amines with CO<sub>2</sub> and H<sub>2</sub> using Abundant Metal Catalysts", *Inorg. Chem.* (2017) 56, 7301-7305.
153. J. Arredondo, P. G. Jessop, P. Champagne, J. Bouchard, M. F. Cunningham, "Synthesis of Carbon Dioxide Responsive Cellulose Nanocrystals by Surface-Initiated Cu(0)-Mediated Polymerisation", *Green Chem.* (2017) 19, 4141-4152.
152. A. R. Shirin-Abadi, P. G. Jessop, M. Cunningham, "In situ use of aqueous RAFT prepared poly (2-(diethylamino)ethyl methacrylate) as a stabilizer for preparation of CO<sub>2</sub> switchable latexes", *Macromol. React. Eng.* (2017) 11, 1600035.
151. X. Yuan, E. G. Kim, C. A. Sanders, B. E. Richter, M. F. Cunningham, P. G. Jessop, and R. D. Oleschuk, "CO<sub>2</sub> Modified Solvents for Chromatographic Separation", *Green Chem.* (2017) 19, 1757-1765.
150. X. Su, P. G. Jessop, M. F. Cunningham, "Preparing Artificial Latexes Using a Switchable Hydrophilicity Solvent", *Green Chem.* (2017) 19, 1889-1894.
149. A. Darabi, J. Glasing, P. G. Jessop, M. Cunningham, "Preparation of CO<sub>2</sub>-Switchable Latexes Using Dimethylaminopropyl Methacrylamide (DMAPMAm)", *J. Polym. Sci. A: Polym. Chem.* (2017) 55, 1059-1066.
148. P. G. Jessop, W. Leitner, "Green Chemistry in 2017", *Green Chem.* (2017) 19, 15-17.
147. M. Cunningham, P. G. Jessop, A. Darabi, X. Su, "Carbon Dioxide Switchable Polymers and Processes in Polymer Reaction Engineering", *Macromol. Symp.* (2016), 370, 92-98.
146. A. R. Shirin-Abadi, R. Abbas, A. Darabi, P. G. Jessop, M. Cunningham, "Tuning the aggregation and redispersion behavior of CO<sub>2</sub>-switchable latexes by a combination of DMAEMA and PDMAEMA-b-PMMA as stabilizing moieties," *Polymer* (2016), 106, 303-312.

145. M. Bluow, L. Barreto, C. Beaudry, D. Brooks, M. Jean, P. Jessop, C. Lajeunesse, S. Liang, R. Luke, D. Peers, J. M. Thompson, A. Whitelaw, D. A. Wolfe, E. Mongin, R. D. Berry, W. Zych, A. Maxwell, "Preliminary Data Update on Canadian Research Performance and International Reputation", *Council of Canadian Academies*, Ottawa, 2016.
144. R. Lee, J. Harris, P. Champagne, P. G. Jessop, "CO<sub>2</sub>-catalysed conversion of carbohydrates to 5-hydroxymethyl furfural", *Green Chem.* (2016) *18*, 6305-6310.
143. R. Lee, J. R. Vanderveen, P. Champagne, P. G. Jessop, "CO<sub>2</sub>-catalysed aldol condensation of 5-hydroxymethylfurfural and acetone to a jet fuel precursor", *Green Chem.* (2016) *18*, 5118-5121.
142. X. Su, K. Nishizawa, E. Bultz, M. Sawamoto, M. Ouchi, P. Jessop, M. Cunningham, "Living CO<sub>2</sub> Switchable Latexes Prepared Via Emulsion ATRP And AGET Miniemulsion ATRP", *Macromolecules* (2016) *49*, 6251-6259.
141. S. Farag, B. P. Mudraboyina, P. G. Jessop, and J. Chaouki, "Impact of the Heating Mechanism on the Yield and Composition of a Bio-oil from Pyrolysis of Kraft Lignin", *Biomass & Bioenergy* (2016) *95*, 344-353.
140. S. Siankevich, Z. Fei, R. Scopelliti, P. Jessop, J. Zhang, N. Yan, and P. J. Dyson, "Direct Conversion of Mono- and Polysaccharides into 5-Hydroxymethylfurfural Using Ionic-Liquid Mixtures", *ChemSusChem* (2016) *9*, 2089-2096.
139. A. K. Alshamrani, J. Vanderveen, P. G. Jessop, "A Guide to the Selection of Switchable Functional Groups for CO<sub>2</sub>-Switchable Compounds", *PhysChemChemPhys* (2016) *16*, 19276-19288.
138. A. Darabi, P. G. Jessop, and M. F. Cunningham, "CO<sub>2</sub>-responsive polymeric materials: Synthesis, self-assembly, and functional applications", *Chem. Soc. Rev.* (2016) *45*, 4391-4436.
137. S. Ge, P. Champagne, H. Wang, P. G. Jessop, and M. F. Cunningham, "Microalgae Recovery from Water for Biofuel Production under Environmentally Relevant Conditions Using CO<sub>2</sub>-Switchable Crystalline Nanocellulose", *Env. Sci. Technol.* (2016) *50*, 7896-7903.
136. R. Kandel, K. Huynh, L. Dalgliesh, R. Wang, and P. G. Jessop, "Contrasting Connectivity of Amidine and Phosphaamidine (1,3-P,N) Cu(I) complexes", *Inorg. Chim. Acta* (2016) *445*, 117-123.
135. P. G. Jessop, "The use of auxiliary substances (e.g. solvents, separation agents) should be made unnecessary wherever possible and innocuous when used", *Green Chem.* (2016) *18*, 2577-2578.

134. P. Dyson and P. G. Jessop, "Solvent effects in catalysis: rational improvements of catalysts via manipulation of solvent interactions", *Catal. Sci. Tech.* (2016), 6, 3302-3316.
133. J. Großeheilmann, J. R. Vanderveen, P. G. Jessop and U. Kragl, "Switchable-Hydrophilicity Solvents for Product Isolation and Catalyst Recycling in Organocatalysis", *ChemSusChem* (2016), 9, 696-702.
132. Y. Y. Lau, T. Andrea, P. G. Jessop, and J. H. Horton, "The Effect of Switchable Additives on Colloidal Interactions Found in Oil Sands as Measured by Chemical Force Spectrometry", *Can. J. Chem.* (2016) 94, 482-489.
131. B. P. Mudraboyina, S. Farag, A. Banerjee, P. G. Jessop and J. Chaouki, "Supercritical Fluid Rectification of Lignin Pyrolysis Oil Methyl Ether (LOME) and Its Use as a Bio-derived Aprotic Solvent", *Green Chem.* (2016) 18, 2089-2094.
130. M. Cunningham and P. G. Jessop, "An introduction to the principles and fundamentals of CO<sub>2</sub>-switchable polymers and polymer colloid", *Eur. Polymer J.* (2016) 76, 208-215.
129. K. J. Boniface, H.-B. Wang, R. R. Dykeman, A. Cormier, S. M. Mercer, G. Liu, M. F. Cunningham and P. G. Jessop, "CO<sub>2</sub>-switchable drying agents", *Green Chem.* (2016) 18, 208-213.
128. J. R. Vanderveen, R. I. Canales, Y. Quan, C. Chalifoux, M. A. Stadtherr, J. F. Brennecke and P. G. Jessop, "Non-random two-liquid modelling of switchable-hydrophilicity solvent systems: *N,N*-dimethylcyclohexanamine, water, and toluene", *Fluid Phase Equilibria*, (2016) 409, 150-156.
127. M. T. C. Ang, L. Phan, A. K. Alshamrani, J. R. Harjani, R. Wang, G. Schatte, N. J. Mosey and P. G. Jessop, "Contrasting Reactivity of CS<sub>2</sub> with Cyclic Amidines versus Acyclic Amidines", *Eur. J. Org. Chem.* (2015) 7334-7343.
126. J. Vanderveen, L. Patiny, C. Chalifoux, M. J. Jessop, P. G. Jessop, "A Virtual Screening Approach to Identifying the Greenest Compound for a Task: Application to Switchable-Hydrophilicity Solvents", *Green Chem.* (2015) 17, 5182-5188.
125. R. Lee, P. G. Jessop, P. Champagne, "CO<sub>2</sub> pressure-induced coagulation of microalgae", *Philosophical Trans. Royal Society: A* (2015), 373, 20150016; DOI: 10.1098/rsta.2015.0016.
124. H.-D. Wang, P. Jessop, J. Bouchard, P. Champagne, M. Cunningham, "Cellulose Nanocrystals with CO<sub>2</sub>-Switchable Aggregation and Redispersion Properties", *Cellulose* (2015) 22, 3105-3116.
123. A. Darabi, P. Jessop, M. Cunningham, "One-Pot Synthesis of Poly((Diethylamino)ethyl Methacrylate-co-Styrene)-*b*-Poly(Methyl Methacrylate-co-

- Styrene) Nanoparticles via Nitroxide-Mediated Polymerization", *Macromolecules* (2015) 48, 1952-1958.
122. P. G. Jessop, F. Ahmadpour, M. A. Buczynski, T. J. Burns, N. B. Green II, R. Korwin, D. Long, S. K. Massad, J. B. Manley, N. Omidbakhsh, R. Pearl, S. Pereira, R. A. Predale, P. G. Sliva, H. VanderBilt, S. Weller, M. H. Wolf, "Opportunities for Greener Alternatives in Chemical Formulations", *Green Chem.* (2015), 17, 2664-2678.
  121. A. Darabi, A. Shirin-Abadi, P. G. Jessop, M. F. Cunningham, "Nitroxide-Mediated Polymerization of 2-(Diethyl) aminoethyl methacrylate (DEAEMA) in Water", *Macromolecules* (2015), 48, 72-80.
  120. P. G. Jessop, "Switchable Solvents as Media for Synthesis and Separations", *Aldrichimica Acta* (2015) 48(1), 18-21.
  119. A. Shirin-Abadi, A. Darabi, P. Jessop, M. Cunningham, "Preparation of Redispersible Polymer Latexes using Cationic Stabilizers based on 2-Dimethylaminoethyl Methacrylate Hydrochloride and 2,2'-Azobis[2-(2-imidazolin-2-yl)propane]dihydrochloride", *Polymer* (2015) 60, 1-8.
  118. J. Durelle, J. R. Vanderveen, Y. Quan, C. Chalifoux, J. E. Kostin, P. G. Jessop, "Extending the Range of Switchable-Hydrophilicity Solvents", *PhysChemChemPhys* (2015) 17, 5308-5313.
  117. A. Paudel, M. J. Jessop, S. H. Stubbins, P. Champagne, and P. G. Jessop, "Extraction of Lipids from Microalgae using CO<sub>2</sub>-expanded Methanol and Liquid CO<sub>2</sub>", *Bioresource Technology* (2015) 184, 286-290.
  116. B. P. Mudraboyina, D. Fu, and P. G. Jessop, "Supercritical Fluid Rectification of Lignin Microwave-Pyrolysis Oil", *Green Chem.* (2015) 17, 169-172.
  115. A. Darabi, A. R. Shirin-Abadi, J. Pinaud, P. G. Jessop, and M. F. Cunningham, "Nitroxide-mediated surfactant-free emulsion copolymerization of methyl methacrylate and styrene using poly (2-(diethyl) aminoethyl methacrylate-costyrene) as a stimuli-responsive macroalkoxyamine", *Polymer Chem.* (2014) 5, 6163-6170.
  114. J. Durelle, J. R. Vanderveen, P. G. Jessop, "Modelling the Behaviour of Switchable-Hydrophilicity Solvents", *PhysChemChemPhys* (2014) 16, 5270-5275.
  113. S. Farag, D. Fu, P. G. Jessop, J. Chaouki, "A Detailed Compositional Analysis and Structural Investigation of a Bio-oil from Microwave Pyrolysis of Kraft Lignin", *J. Anal. Appl. Pyrolysis*, (2014) 109, 249-257.
  112. M. F. Cunningham, P. G. Jessop "CO<sub>2</sub>-Switchable Materials", *Green Materials*, (2014) 2, 53.

111. X. Su, P. G. Jessop, M. F. Cunningham "Switchable Surfactants at the Polystyrene-Water Interface: Effect of Molecular Structure", **Green Materials**, (2014) 2, 69-81.
110. D. Fu, S. Farag, J. Chaouki, P. G. Jessop, "Extraction of phenols from lignin microwave-pyrolysis oil using a switchable hydrophilicity solvent", **Bioresource Tech.**, (2014) 154, 101-108.
109. J. R. Vanderveen, J. Durelle, P. G. Jessop, "Design and Evaluation of Switchable-Hydrophilicity Solvents", **Green Chem.**, (2014) 16, 1187-1197.
108. E. Ceschia, J. R. Harjani, C. Liang, Z. Ghoshouni, T. Andrea, R. S. Brown, and P. G. Jessop "Switchable Anionic Surfactants for the Remediation of Oil-Contaminated Sand by Soil Washing", **RSC Advances**, (2014) 4, 4638-4645.
107. X. Su, M. Cunningham, P. G. Jessop, "Use of a Switchable Hydrophobic Associative Polymer to Create an Aqueous Solution of CO<sub>2</sub>-Switchable Viscosity", **Polymer Chem.** (2014) 5, 940-944.
106. X. Su, C. Fowler, C. O'Neill, J. Pinaud, E. Kowal, P. Jessop, M. Cunningham, "Emulsion Polymerization using Switchable Surfactants: A Route Towards Water Redispersible Latexes", **Macromol. Symp.** (2013) 333, 93-101.
105. M. A. Affan, P. G. Jessop, M. A. Salam, S. N. B. A. Halim, E. R. T. Tiekink, "2-(Benzothiazol-2-yliminomethyl)-6-methoxyphenol - a new monoclinic polymorph", **Acta Cryst. E** (2013) 69, o1273.
104. A. R. Boyd, P. G. Jessop, J. M. Dust, E. Buncel, "Switchable polarity solvent (SPS) systems: probing solvatoswitching with a spiropyran (SP) - merocyanine (MC) photoswitch", **Organic & Biomolecular Chem.** (2013) 11, 6047-6055.
103. S. Jahangiri, S. Mercer, P. Jessop, G. Peslherbe, "Computational Investigation of the Hydration of Alkyl Diammonium Chlorides and their Effect on THF/Water Phase Separation", **J. Phys. Chem. B** (2013) 117, 8010-8017.
102. P. M. Mathias, K. Afshar, F. Zheng, M. D. Bearden, C. J. Freeman, T. Andrea, P. K. Koech, I. Kutnyakov, A. Zwoster, A. R. Smith, P. G. Jessop, O. G. Nik, and D. J. Heldebrant "Improving the Regeneration of CO<sub>2</sub>-Binding Organic Liquids with a Polarity Change", **Energy Env. Sci.** (2013) 6, 2233-2242.
101. K. Huynh, K. Napolitano, R. Wang, P. G. Jessop, and B. R. Davis, "Indirect hydrolysis of sodium borohydride: Isolation and crystallographic characterization of methanolysis and hydrolysis by-products", **Int. J. Hydrogen Energy**, (2013) 38, 5775-5782.
100. X. Su, M. F. Cunningham, and P. G. Jessop, "Switchable Viscosity Triggered by CO<sub>2</sub> using Smart Worm-like Micelles in Water", **Chem. Commun.** (2013) 49, 2655-2657.

99. X. Su, T. Robert, S. M. Mercer, C. Humphries, M. F. Cunningham and P. G. Jessop, "A Conventional Surfactant Becomes CO<sub>2</sub>-Responsive with "Switchable Water": Destabilization and Re-stabilization of Anionic Latexes and Emulsions Triggered by CO<sub>2</sub>", **Chem Eur. J.** (2013) *19*, 5595-5601.
98. J. Jiang, Y. He, L. Wan, Z. Cui, Z. Cui and P. G. Jessop, "Synthesis of CdS nanoparticles in switchable surfactant reverse micelles", **Chem. Commun.** (2013) *49*, 1912-1914.
97. C. O'Neill, C. Fowler, P. G. Jessop, and M. F. Cunningham "Redispersing Aggregated Latexes Made with Switchable Surfactants", **Green Materials** (2013), *1*, 27-35.
96. C.-S. Chen, Y. Y. Lau, S. M. Mercer, T. Robert, J. H. Horton and P. G. Jessop "The Effect of Switchable Water Additives on Clay Settling", **ChemSusChem** (2013) *6*, 132-140.
95. J. Pinaud, E. Kowal, P. Jessop, M. Cunningham, "2-(Diethyl)aminoethyl methacrylate as a CO<sub>2</sub>-switchable co-monomer for the preparation of readily coagulated and redispersed polymer latexes", **ACS Macro Lett.** (2012) *1*, 1103-1107.
94. P. G. Jessop, "Are you ready for a green wave", **Canadian Chemical News** (2012) *February*, p. 7.
93. T. Robert, S. M. Mercer, T. J. Clark, B. E. Mariampillai, P. Champagne, M. F. Cunningham, and P. G. Jessop "Nitrogen-Containing Polymers as Potent Ionogens for Aqueous Solutions of Switchable Ionic Strength: Application to Separation of Organic Liquids and Clay Particles from Water", **Green Chem.** (2012), *14*, 3053-3062.
92. H-B Wang, P. G. Jessop, and G. Liu "Support-Free Porous Polyamine Particles for CO<sub>2</sub> Capture", **ACS Macro Lett.** (2012), *1*, 944-948.
91. A. Holland, D. Wechsler, A. Patel, B. M. Molloy, A. R. Boyd and P. G. Jessop "Separation of Bitumen from Oil Sands using a Switchable Hydrophilicity Solvent", **Can. J. Chem.** (2012) *90*, 805-810.
90. A. R. Boyd, P. Champagne, P. J. McGinn, K. M. MacDougall, J. E. Melanson, and P. G. Jessop "Switchable Hydrophilicity Solvents for Lipid Extraction from Microalgae for Biofuel Production", **Bioresource Technology** (2012) *118*, 628-632.
89. S. M. Mercer, T. Robert, D. V. Dixon, and P. G. Jessop "Recycling of a Homogeneous Hydroformylation Catalyst using Switchable Water", **Catal. Sci. Technol.** (2012) *2*, 1315-1318.

88. L. M. Scott, T. Robert, J. R. Harjani, and P. G. Jessop "Designing the Head Group of CO<sub>2</sub>-Triggered Switchable Surfactants", **RSC Advances** (2012) 2, 4925-4931.
87. A. Carrier, D. Dean, V. R. Little, J. Vandersleen, B. Davis and P. G. Jessop "Towards an Organic Thermally Regenerative Fuel Cell for Truck Engines", **Energy & Env. Sci.** (2012) 5, 7111-7123.
86. C. I. Fowler, P. G. Jessop and M. F. Cunningham, "Aryl Amidine and Tertiary Amine Switchable Surfactants and Their Application in the Emulsion Polymerization of Methyl Methacrylate", **Macromolecules** (2012) 45, 2955-2962.
85. P. G. Jessop, D. A. Jessop, D. Fu and L. Phan, "Solvatochromic Parameters for Solvents of Interest in Green Chemistry", **Green Chem.** (2012) 14, 1245-1259.
84. S. M. Mercer, T. Robert, D. V. Dixon, C.-S. Chen, Z. Ghoshouni, J. R. Harjani, S. Jahangiri, G. H. Peslherbe and P. G. Jessop "Design, Synthesis, and Solution Behaviour of Small Polyamines as Switchable Water Additives", **Green Chem.** (2012) 14, 832-839.
83. P. G. Jessop, S. M. Mercer, and D. J. Heldebrant "CO<sub>2</sub>-Triggered Switchable Solvents, Surfactants, and Other Materials", **Energy & Env. Sci.** (2012) 5, 7240-7253.
82. X. Su, P. G. Jessop, and M. F. Cunningham "Surfactant-Free Polymerization Forming Switchable Latexes That Can Be Aggregated and Redispersed by CO<sub>2</sub> Removal and then Re-addition", **Macromolecules** (2012) 45, 666-670.
81. C. Liang, J. R. Harjani, T. Robert, E. Rogel, D. Kuehne, C. Ovalles, V. Sampath, and P. G. Jessop "Use of CO<sub>2</sub>-Triggered Switchable Surfactants for the Stabilization of Heavy Crude Oil-in-Water Emulsions", **Energy & Fuels** (2012) 26, 488-494.
80. T. Arthur, J. Harjani, P. G. Jessop, and P. V. Hodson "Effects-Driven Chemical Design: The Acute Toxicity of Switchable Surfactants to Rainbow Trout can be Predicted from Octanol-Water Partition Coefficients", **Green Chem.**, (2012) 14, 357-362.
79. S. Mercer, J. Andraos, and P. G. Jessop "Choosing the Greenest Synthesis: A Multivariate Metric Green Chemistry Exercise", **J. Chem. Educ.** (2012) 89, 215-220.
78. M. Mihara, M. Cunningham, and P. G. Jessop "Redispersible Polymer Colloids using Carbon Dioxide as an External Stimulus", **Macromolecules** (2011) 44, 3688-3693.
77. C. I. Fowler, C. Muchemu, R. E. Miller, L. Phan, M. F. Cunningham, and P. G. Jessop "Emulsion Polymerization of Styrene and Methyl Methacrylate using Cationic Switchable Surfactants", **Macromolecules** (2011) 44, 2501-2509.



76. J. R. Harjani, C. Liang, P. G. Jessop, "A Synthesis of Acetamidines", **J. Org. Chem.** (2011) 76, 1683-1691.
75. P. G. Jessop, L. Kozycz, Z. Ghoshouni Rahami, D. Schoenmakers, A. R. Boyd, D. Wechsler, and A. M. Holland, "Tertiary Amine Solvents having Switchable Hydrophilicity", **Green Chem.** (2011) 13, 619-623.
74. P. G. Jessop, "Searching for Green Solvents", **Green Chem.** (2011) 13, 1391-1398. A *Highly-Cited Paper* according to Web of Science.
73. D. Dean, B. Davis, P. G. Jessop, "The effect of temperature, catalyst and sterics on the rate of N-heterocycle dehydrogenation for hydrogen storage", **New J. Chem.** (2011) 35, 417-422.
72. J. Wang, X. Su, P. G. Jessop, Y. Feng, "CO<sub>2</sub> Switchable Solvents, Solutes and Surfactants: State of the Art", **Progress in Chemistry** (2010) 22, 2099-2105.
71. Y.-S. Uh, A. Boyd, V. R. Little, P. G. Jessop, K. D. Hesp, J. Cipot-Wechsler, M. Stradiotto, R. McDonald, "Rhodium Phosphino-enolate Complexes as Chemo- and Regioselective Catalysts for the Hydroformylation of Styrenes", **J. Organomet. Chem.** (2010) 695, 1869-1872.
70. S. M. Mercer, P. G. Jessop, "Switchable Water: Aqueous Solutions of Switchable Ionic Strength", **ChemSusChem** (2010) 3, 467-470.
69. P. G. Jessop, L. Phan, A. Carrier, S. Robinson, C. J. Dürr and J. R. Harjani, "A Solvent having Switchable Hydrophilicity", **Green Chem.** (2010) 12, 809-814.
68. D. J. Heldebrant, P. K. Koech, T. Ang, C. Liang, J. E. Rainbolt, C. R. Yonker, and P. G. Jessop, "Reversible Zwitterionic Liquids, The Reaction of Alkanol Guanidines, Alkanol Amidines, and Diamines With CO<sub>2</sub>", **Green Chem.** (2010) 12, 713-721.
67. D. Wechsler, B. Davis, P. G. Jessop, "The Dehydrogenation of Combined Organic and Inorganic Hydrogen Storage Carriers", **Can. J. Chem.** (2010) 88, 548-555.
66. P. G. Jessop, "Reactions with a Reverse Gear", **Nature Chemistry** (2009) 1, 350-351.
65. D. J. Heldebrant, C. R. Yonker, P. G. Jessop, L. Phan, "CO<sub>2</sub>-Binding Organic Liquids (CO<sub>2</sub>BOLs) for Post-Combustion CO<sub>2</sub> Capture", **Energy Procedia** (2009) 1, 1187-1195.
64. E. A. Mitchell, P. G. Jessop, and M. C. Baird, "A Kinetics Study of the Oxidative Addition of Bromobenzene to Pd(PCy<sub>3</sub>)<sub>2</sub> (Cy = cyclohexyl) in a Non-polar Medium; the Influence on Rates of added PCy<sub>3</sub> and Bromide Ion", **Organometallics** (2009) 28, 6732-6738.

63. D. M. Norton, E. A. Mitchell, N. R. Botros, P. G. Jessop, and M. C. Baird, "A Superior Precursor for Palladium(0)-based Cross-Coupling and Other Catalytic Reactions", *J. Org. Chem.* (2009) 74, 6674-6680.
62. A. D. Getty, C. Tai, J. C. Linehan, P. G. Jessop, M. M. Olmstead and A. L. Rheingold, "Hydrogenation of Carbon Dioxide Catalyzed by Ruthenium Trimethylphosphine Complexes: A Mechanistic Investigation Using High-Pressure NMR Spectroscopy", *Organometallics* (2009) 28, 5466-5477.
61. D. J. Heldebrant, C. R. Yonker, P. G. Jessop, L. Phan, "Reversible Uptake of COS, CS<sub>2</sub> and SO<sub>2</sub>: Ionic liquids with O-alkylxanthate, O-alkylthiocarbonyl and O-alkylsulfite Anions", *Chem. Eur. J.* (2009) 15, 7619-7627.
60. L. Phan, P. G. Jessop, "Switching the Hydrophilicity of a Solute", *Green Chem.* (2009) 307-308.
59. L. Phan, H. Brown, J. White, T. Peterson, A. Hodgson and P. G. Jessop, "Soybean Oil Extraction and Separation using Switchable or Expanded Solvents", *Green Chem.* (2009) 53-59.
58. D. Wechsler, Y. Cui, D. Dean, B. Davis, P. G. Jessop, "Production of H<sub>2</sub> from Combined Endothermic and Exothermic Hydrogen Carriers", *J. Am. Chem. Soc.* (2008) 130, 17195-17203.
57. B. J. Flowers, R. Gautreau-Service, P. G. Jessop, "β-Hydroxycarboxylic Acids from Simple Ketones by Carboxylation and Asymmetric Hydrogenation", *Adv. Synth. Catal.* (2008) 350, 2947-2958.
56. D. J. Heldebrant, C. R. Yonker, P. G. Jessop, L. Phan, "Organic Liquid CO<sub>2</sub> Capture Agents With High Gravimetric CO<sub>2</sub> Capacity", *Energy & Env. Sci.* (2008) 1, 487-493.
55. Y. Cui, S. Kwok, A. Bucholtz, B. Davis, R. A. Whitney, P. G. Jessop, "The effect of substitution on the utility of piperidines and octahydroindoles for reversible hydrogen storage", *New J. Chem.* (2008) 32, 1027-1037.
54. L. Phan, D. Chiu, D. J. Heldebrant, H. Huttenhower, E. John, X. Li, P. Pollet, R. Wang, C. A. Eckert, C. L. Liotta, P. G. Jessop, "Switchable Solvents Consisting of Amidine/Alcohol or Guanidine/Alcohol Mixtures", *Ind. Eng. Chem. Res.* (2008) 47, 539-545.
53. L. Phan, J. R. Andreatta, L. K. Horvey, C. F. Edie, A.-L. Luco, A. Mirchandi, D. J. Darensbourg, P. G. Jessop, "Switchable-Polarity Solvents Prepared from a Single Liquid Component", *J. Org. Chem.* (2008) 73, 127-132.
52. P. G. Jessop and B. Subramaniam, "Gas-Expanded Liquids", *Chem. Rev.* (2007) 107, 2666-2694. A *Highly-Cited Paper* according to Web of Science.

51. D. Vinci, M. Donaldson, J. P. Hallett, E. A. John, P. Pollett, C. A. Thomas, P. G. Jessop, C. A. Eckert, C. L. Liotta, "Piperylene Sulfone: A Labile and Recyclable DMSO Substitute" **Chem. Commun.** (2007) 1427-1429.
50. Y. Liu, P. G. Jessop, M. Cunningham, C. A. Eckert, C. L. Liotta, "Switchable Surfactants" **Science** (2006) 313, 958-960. This paper was highlighted by *New Scientist*, *Chemical and Engineering News*, *Technology Review*, *Science News*, *ICIS*, *Chemistry World*, *Spektrum der Wissenschaft*, *Financial Times Deutschland*, *New York Times*, *Toronto Star*, *Zürcher Oberländer*, *Edmonton Journal* and *Regina Leader-Post*. A *Highly-Cited Paper* according to Web of Science.
49. D. J. Heldebrant, H. N. Witt, S. M. Walsh, T. Ellis, J. Rauscher, P. G. Jessop, "Liquid Polymers as Solvents for Catalytic Reductions" **Green Chem.** (2006) 8, 807-815.
48. P. G. Jessop, "Homogeneous Catalysis using Supercritical Fluids: Recent Trends and Systems Studied" **J. Supercrit. Fluids** (2006) 38, 211-231.
47. P. G. Jessop, D. J. Heldebrant, X. Li, C. A. Eckert and C. L. Liotta, "Reversible Nonpolar-to-Polar Solvent" **Nature** (2005) 436, 1102. This paper was highlighted by *Chemical & Engineering News*, *Science News*, *Chemistry World*, *Process Engineering*, *Canadian Chemical News*, and *United Press International*.
46. C. D. Ablan, D. Sheppard, E. J. Beckman, M. M. Olmstead, and P. G. Jessop, "Solubility of Several Analogues of Triphenylphosphine in Carbon Dioxide" **Green Chem.**, (2005) 7, 590 - 594.
45. D. J. Heldebrant, P. G. Jessop, C. A. Thomas, C. A. Eckert, C. L. Liotta, "The Reaction of 1,8-Diazabicyclo-[5.4.0]-undec-7-ene (DBU) with Carbon Dioxide" **J. Org. Chem.** (2005) 70, 5335-5338.
44. M. D. Baumann, A. J. Daugulis, P. G. Jessop, "Phosphonium Ionic Liquids to Multi-Phase Biocatalysis" **Appl. Microbiol. Biotechnol.** (2005) 67, 131-137.
43. P. G. Jessop, "Recent Advances in the Homogeneous Hydrogenation of Carbon Dioxide" **Prepr. Pap.-Am. Chem. Soc., Div. Fuel Chem.** (2004) 49, (1) 1-2. [http://www.anl.gov/PCS/acsfuel/preprint%20archive/Files/49\\_1\\_Anaheim\\_03-04\\_0795.pdf](http://www.anl.gov/PCS/acsfuel/preprint%20archive/Files/49_1_Anaheim_03-04_0795.pdf)
42. P. G. Jessop, F. Joó, C.-C. Tai, "Recent Advances in the Homogeneous Hydrogenation of Carbon Dioxide" **Coord. Chem. Rev.** (2004) 248, 2425-2442.
41. C. D. Ablan, J. P. Hallett, K. N. West, R. S. Jones, C. A. Eckert, C. L. Liotta, P. G. Jessop "Use and Recovery of a Homogeneous Catalyst with Carbon Dioxide as a Solubility Switch" **Chem. Commun.** (2003) 2972-2973.

40. C.-C. Tai, T. Chang, B. Roller, P. G. Jessop, "High Pressure Combinatorial Screening of Homogeneous Catalysts: Hydrogenation of Carbon Dioxide" **Inorg. Chem.** (2003), *42*, 7340-7341. This paper was highlighted by *Chemical & Engineering News*.
39. D. J. Heldebrant, P. G. Jessop, "Liquid Poly(Ethylene Glycol) and Supercritical Carbon Dioxide: A Benign Biphasic Solvent System for Recycling of Homogeneous Catalysts" **J. Am. Chem. Soc.** (2003) *125*, 5600-5601. This paper was highlighted by *Nature* and *Chemical & Engineering News*.
38. P. G. Jessop, R. Stanley, R. A. Brown, C. A. Eckert, C. L. Liotta, T. T. Ngo, P. Pollet "Neoteric solvents for asymmetric hydrogenation: supercritical fluids, ionic liquids, and expanded ionic liquids" **Green Chem.** (2003), *5*, 123-128.
37. P. G. Jessop, "Homogeneous Catalysis and Catalyst Recovery using Supercritical Carbon Dioxide and Ionic Liquids" **J. Synth. Org. Chem.** (2003), *61*, 484-488.
36. P. Munshi, D. J. Heldebrant, E. P. McKoon, Patrick A. Kelly, C.-C. Tai, P. G. Jessop, "Formanilide and Carbanilide from Aniline and Carbon Dioxide" **Tetrahedron Letters** (2003) *44*, 2725-2727.
35. C.-C. Tai, M. J. Huck, E. P. McKoon, T. Woo, P. G. Jessop, "Low Temperature Synthesis of Tetraalkylureas from Secondary Amines and Carbon Dioxide" **J. Org. Chem.**, (2002) *67*, 9070-9072.
34. P. Munshi, A. D. Main, J. Linehan, C.-C. Tai, P. G. Jessop, "Hydrogenation of carbon dioxide catalysed by ruthenium trimethylphosphine complexes: the accelerating effect of certain alcohols and amines," **J. Am. Chem. Soc.**, (2002) *124*, 7963-7971.
33. D. F. Parsons, B. I. Boone, P. G. Jessop, S. C. Tucker, "Electrostriction effects on competing transition states in supercritical fluorofom," **J. Supercrit. Fluids**, (2002) *24*, 173-181.
32. P. G. Jessop, R. A. Brown, M. Yamakawa, J. L. Xiao, T. Ikariya, M. Kitamura, S. C. Tucker, R. Noyori, "Pressure-dependent enantioselectivity in the organozinc addition to aldehydes in supercritical fluids," **J. Supercrit. Fluids**, (2002) *24*, 161-172.
31. P. G. Jessop, M. M. Olmstead, C. Ablan, M. Grabenauer, D. Sheppard, C. A. Eckert, C. L. Liotta, "Carbon dioxide as a solubility "switch" for the reversible dissolution of highly fluorinated complexes and reagents in organic solvents," **Inorg. Chem.**, (2002) *41*, 3463-3468. This paper was highlighted by *Today's Chemist*.
30. C.-C. Tai, J. Pitts, A. D. Main, J. Linehan, P. Munshi, P. G. Jessop, "In-situ formation of ruthenium catalysts for the homogeneous hydrogenation of carbon dioxide." **Inorg. Chem.**, (2002) *41*, 1606-1614.

29. R. A. Brown, P. Pollet, E. McKoon, C. A. Eckert, C. L. Liotta, and P. G. Jessop "Asymmetric Hydrogenation and Catalyst Recycling using Ionic Liquid and Supercritical Carbon Dioxide," *J. Am. Chem. Soc.*, (2001) **123**, 1254-1255. This paper was highlighted by *Chemical and Engineering News*.
28. C. A. Thomas, R. J. Bonilla, Y. Huang, and P. G. Jessop "Hydrogenation of Carbon Dioxide Catalysed by Ruthenium Trimethylphosphine Complexes: Effect of Gas Pressure and Additives on Rate in the Liquid Phase," *Can. J. Chem.*, (2001) **79**, 719-724.
27. D. Wynne, M. M. Olmstead, and P. G. Jessop "Supercritical and Liquid Solvent Effects on the Enantioselectivity of Asymmetric Cyclopropanation with Tetrakis[1-(4-tert-butylphenyl)sulfonyl]-(2S)-pyrrolidinecarboxylate]dirhodium(II)." *J. Am. Chem. Soc.*, (2000) **122**, 7638-7647.
26. R. J. Bonilla, B. R. James, and P. G. Jessop "Colloid-Catalysed Arene Hydrogenation in Aqueous/Supercritical Fluid Biphasic Media" *Chem. Commun.*, (2000) 941-942.
25. P. G. Jessop, S. DeHaai, and D. C. Wynne "Carbon Dioxide Gas Accelerates Solventless Synthesis" *Chem. Commun.*, (2000) 693-694. This paper was highlighted by *Nature*, *Chemistry and Industry*, and *Chemical Innovations*.
24. S. Poh, R. Hernandez, M. Inagaki, and P. G. Jessop "Oxidation of Phosphines by Supercritical Nitrous Oxide." *Org. Lett.*, (1999) **1**, 583-584.
23. D. Wynne and P. G. Jessop "Cyclopropanation Enantioselectivity is Pressure Dependent in Supercritical Fluoroform." *Angew Chem. Int. Ed. Engl.*, (1999) **38**, 1143-1144.
22. P. G. Jessop, T. Ikariya, R. Noyori, "Homogeneous Catalysis in Supercritical Fluids." *Chem. Rev.*, (1999) **99**, 475-493.
21. P. G. Jessop, B. R. James, "Intramolecular Protonation and Other Mechanisms for Substitution Reactions of Hydrido(Thiolato)- and Di(Thiolato)-Ruthenium(II) Phosphine Complexes," *Inorg. Chim. Acta*, (1998) **280**, 75-86.
20. P. G. Jessop, "Homogeneously-Catalyzed Syntheses in Supercritical Fluids," *Top. Catal.*, (1998) **5**, 95-103.
19. P. G. Jessop, G. Rastar, B. R. James, "Substitution Reaction Mechanisms of Dihydrido-Ruthenium(II) Complexes: Hydride Basicity and Molecular Hydrogen Intermediates," *Inorg. Chim. Acta*, (1996) **250**, 351-357.
18. J. Xiao, S. C. A. Nefkens, P. G. Jessop, T. Ikariya, R. Noyori, "Asymmetric Hydrogenation of  $\alpha,\beta$ -Unsaturated Carboxylic Acids in Supercritical Carbon Dioxide," *Tetrahedron Lett.*, (1996) **37**, 2813-2816.

17. P. G. Jessop, Y. Hsiao, T. Ikariya, R. Noyori, "Homogeneous Catalysis in Supercritical Fluids: Hydrogenation of Supercritical Carbon Dioxide to Formic Acid, Alkyl Formates, and Formamides," **J. Am. Chem. Soc.**, (1996) **118**, 344-355.
16. P. G. Jessop, T. Ikariya, R. Noyori, "Homogeneous Catalysis in Supercritical Fluids," **Science**, (1995) **269**, 1065-1069.
15. P. G. Jessop, T. Ikariya, R. Noyori, "Homogeneous Hydrogenation of Carbon Dioxide," **Chem. Rev.**, (1995) **95**, 259-272.
14. P. G. Jessop, Y. Hsiao, T. Ikariya, R. Noyori, "Methyl Formate Synthesis by Hydrogenation of Supercritical Carbon Dioxide in the Presence of Methanol," **J. Chem. Soc., Chem. Commun.**, (1995) 707-708.
13. T. Ikariya, P. G. Jessop, R. Noyori, "Chemical Reactions in Supercritical Fluids," **J. Synth. Org. Chem.**, (1995) **53**, 358-369.
12. P. G. Jessop, T. Ikariya, R. Noyori, "The Selectivity for Hydrogenation or Hydroformylation of Olefins by Hydridopentacarbonylmanganese(I) in Supercritical Carbon Dioxide," **Organometallics**, (1995) **14**, 1510-1513.
11. T. Ikariya, P. G. Jessop, M. Tokunaga, R. Noyori, "Homogeneous Hydrogenation of Carbon Dioxide with Transition Metal Complexes," **J. Synth. Org. Chem.**, (1994) **52**, 1032-1043.
10. T. Ikariya, P. G. Jessop, R. Noyori, "Molecular Catalysis in Supercritical Fluids," **Shokubai**, (1994) **36**, 558-564.
9. P. G. Jessop, Y. Hsiao, T. Ikariya, R. Noyori, "Catalytic Production of Dimethylformamide from Supercritical Carbon Dioxide," **J. Am. Chem. Soc.**, (1994) **116**, 8851-8852.
8. P. G. Jessop, T. Ikariya, R. Noyori, "Homogeneous Catalytic Hydrogenation of Supercritical Carbon Dioxide," **Nature**, (1994) **368**, 231-233. This paper was highlighted by *Chemical and Engineering News*.
7. P. G. Jessop, R. H. Morris, and H. Azizian, "The Effect of Deuteration on the Stabilities of *cis*-Polyacetylene and Polystyrene," **Polymer**, (1994) **35**, 1952-1956.
6. P. G. Jessop and R. H. Morris, "The H/D Exchange Reactions of an Iridium Dithiol Complex," **Inorg. Chem.**, (1993) **32**, 2236-2237.
5. G. Jia, S. D. Drouin, P. G. Jessop, A. J. Lough, and R. H. Morris, "Use of the New Ligand P(CH<sub>2</sub>CH<sub>2</sub>PCy<sub>2</sub>)<sub>3</sub> in the Synthesis of Dihydrogen Complexes of Fe(II) and Ru(II)", **Organometallics**, (1993) **12**, 906-916.

4. P. G. Jessop and R. H. Morris, "Reactions of Transition Metal Dihydrogen Complexes," **Coord. Chem. Rev.**, (1992) **121**, 155-284.
3. P. G. Jessop, C.-L. Lee, G. Rastar, B. R. James, C. J. L. Lock, and R. Faggiani, "Hydrido Mercapto and Bis(mercapto) Derivatives of Ruthenium(II) Phosphine Complexes", **Inorg. Chem.**, (1992) **31**, 4601-4605.
2. P. G. Jessop, S. J. Rettig, C.-L. Lee, and B. R. James, "(Hydrido)thiolato- and Thiolato-carbonylphosphine Complexes of Ruthenium(II)", **Inorg. Chem.**, (1991) **30**, 4617-4627.
1. P. G. Jessop, S. J. Rettig, and B. R. James, "A Thiolate-Bridged Diruthenium-Disodium Complex", **J. Chem. Soc., Chem. Commun.**, (1991) 773-774.

#### Citations (calculated using data from Google Scholar)

- Total citations = 24,506. h-index = 70. 1,657 citations per year (in 2021)
- 48 articles have been cited  $\geq 100$  times each.

#### Social Media Outreach

- 21 videos (so far) on TikTok under the general title "Jessop's Which is Greener?".
- over 100,000 views
- <https://www.tiktok.com/@philipgjessop?lang=en>

#### Books

4. P. G. Jessop (author), **A Historical Walking Tour of Camden East**, self-published, 2022, 78 pages.
3. P. G. Jessop and M. F. Cunningham (authors), **CO<sub>2</sub>-Switchable Materials: Solvents, Surfactants, Solutes and Solids**, Royal Society of Chemistry, 2021, 240 pages.
2. W. Leitner, P. G. Jessop (Eds), **Supercritical Fluids**, Vol. 4 of the *Handbook of Green Chemistry*, Paul Anastas (series editor), Wiley-VCH, 2010, 508 pages.
1. P. G. Jessop and W. Leitner (Eds.), **Chemical Synthesis using Supercritical Fluids**, VCH/Wiley, Weinheim, 1999, 480 pages.

#### Book Chapters

18. P. G. Jessop and L. M. Reyes, "GreenCentre Canada: An Experimental Model for Green Chemistry Commercialization", in **Green Chemistry in Industry**, M. Benvenuto, H. Plaumann, Ed., deGruyter, 2018, p 7-22.

17. M. F. Cunningham, P. G. Jessop, A. Darabi, "Stimuli-Responsive Latexes Stabilized by Carbon Dioxide Switchable Groups", in ***Advances in Polymers Science***, Springer, 2017, p 1-17.
16. P. G. Jessop, "Green/Alternative Solvents", in ***Encyclopedia of Sustainable Technologies***, M. Abraham, Ed., Elsevier, 2017, 611-619.
15. R. Marriott, P. G. Jessop, M. Barnes, "CO<sub>2</sub>-Based Solvents", in ***Carbon Dioxide Utilisation: Closing the Carbon Cycle***, P. Styring and A. Quadrelli, Eds., Elsevier, 2014.
14. P. G. Jessop, W. Leitner, "Introduction", in ***Supercritical Fluids***, W. Leitner, P. G. Jessop (Eds), Vol. 4 of the *Handbook of Green Chemistry*, Paul Anastas (series editor), Wiley-VCH, 2010, 1-29.
13. U. Hintermair, W. Leitner, P. G. Jessop, "Expanded Liquid Phases in Catalysis: Gas-Expanded Liquids and Liquid / Supercritical Fluid Biphasic Systems", in ***Supercritical Fluids***, W. Leitner, P. G. Jessop (Eds), Vol. 4 of the *Handbook of Green Chemistry*, Paul Anastas (series editor), Wiley-VCH, 2010, pages 103-188.
12. P. G. Jessop "Does CO<sub>2</sub> Utilization Help in the Fight Against Global Warming?" in ***Greenhouse Gases: Mitigation and Utilization***, E. Bunzel (Ed.), CHEMRAWN, Kingston, ON, 2009.
11. P. G. Jessop, S. Trakhtenberg, J. Warner, "The Twelve Principles of Green Chemistry" in ***Innovations in Industrial and Engineering Chemistry. A Century of Achievements and Prospects for the New Millennium***, W.H. Flank, M.A. Abraham, M.A. Matthews (Eds.), Washington, ACS Symposium Series, 2008.
10. J. P. Hallett, P. G. Jessop, C. A. Eckert, C. L. Liotta, "Ionic Liquids as Vehicles for Reactions and Separations" in ***Ionic Liquids IV: Not Just Solvents Anymore***, R. Rogers, J. F. Brennecke, K. R. Seddon (Eds.), Washington, ACS Symposium Series No. 975, 2007, Chapter 14.
9. P. G. Jessop, "Homogeneous Hydrogenation of Carbon Dioxide" in ***Handbook of Homogeneous Hydrogenation***, H. de Vries, K. Elsevier (eds.), Wiley-VCH, Weinheim, 2007, Vol. 1, 489-511.
8. P. G. Jessop, "SCFs and Liquid Polymers" in ***Multiphase Homogeneous Catalysis***, B. Cornils et al. (eds.), Wiley-VCH, Weinheim, 2005, pp. 676-688.
7. P. G. Jessop and D. J. Heldebrant, "Green Biphasic Homogeneous Catalysis" in ***Environmental Catalysis***, V. Grassian (ed.), Marcel Dekker, NY, 2005, pp. 627-648.
6. P. G. Jessop, "The Utility of Carbon Dioxide in Homogeneously-Catalyzed Organic Synthesis" in ***Carbon Dioxide Utilization for Global Sustainability***, S.-E. Park (Ed.), Elsevier, Amsterdam, 2004, pp. 355-362.



5. P. G. Jessop, C. D. Ablan, C. A. Eckert, C. L. Liotta, "Crystallization of A Highly Fluorinated Compound from a CO<sub>2</sub>-Expanded Liquid Solvent" in **Handbook on Fluorous Chemistry**, J. Gladysz, D. P. Curran, I. T. Horvath (eds.), Wiley-VCH, Weinheim, 2004, pp 466-468.
4. P. G. Jessop, "Asymmetric Catalysis in Supercritical Fluids" in **Supercritical Fluid Technology for Drug Development**, P. York, B. Kompella, B. Y. Shekunov (eds.), Marcel Dekker, New York, 2004, pp 461-495.
3. P. G. Jessop, C. A. Eckert, C. L. Liotta, R. J. Bonilla, J. S. Brown, R. A. Brown, P. Pollet, C. A. Thomas, C. Wheeler, D. Wynne, "Catalysis using supercritical or subcritical inert gases under split-phase conditions" in **Clean Solvents**, L. Moens and M. A. Abraham (Eds.), Washington, ACS Symposium Series No. 819, 2002, pp 97-112.
2. Jessop, P. G. and W. Leitner, "Metal-complex-catalyzed reactions" in **Chemical Synthesis using Supercritical Fluids**, P. G. Jessop and W. Leitner (Eds.), Weinheim, Wiley-VCH, 1999, pages 351-387.
1. Jessop, P. G. and W. Leitner, "Supercritical fluids as media for chemical reactions" in **Chemical Synthesis using Supercritical Fluids**, P. G. Jessop and W. Leitner (Eds.), Weinheim, VCH/Wiley, 1999, pages 1-36.

### Patents and Patent Applications

24. P. G. Jessop, "Anionic Switchable Hydrophilicity Solvents", U.S. provisional patent application 63317478 (filed 7 March 2022).
23. P. G. Jessop, "Forming a Treated Switchable Polymer and Use Thereof in a Forward Osmosis System", U.S. provisional patent application 62/722,275 (filed 24 August 2018). PCT application PCT/CA2019/051166 filed 23 August 2019. Int. Pat. Appl. WO 2020/037432 published 27 Feb 2020. US20210323844 published 21 Oct 2021.
22. P. G. Jessop, "Systems Having Modulatable Osmotic Pressures, Methods and Uses Thereof", U.S. provisional patent application 62/175,009 (filed 12 June 2015).
21. R. Resendes, P. G. Jessop, M. Cunningham, B. P. Mudraboyina, "CO<sub>2</sub>-Switchable, Homogeneous Water-Based Paint or Coating", U.S. provisional patent application 62/171,141 (filed 4 June 2015) and U.S. provisional patent application 62/242,643 (filed 16 Oct 2016). US Application 15/579424 filed 4 Dec 2017. EPO application 16802310.9 filed 4 Dec 2017, published as EP3303479A1. Canadian application 2,988,183 filed 4 Dec 2017. WO2016191890A1 filed 6 June 2016.
  - US Patent 11236250 B2 granted 1 Feb 2022.

20. P. G. Jessop, K. J. Boniface, P. Champagne, M. Cunningham, H.-D. Wang, O. G. Valdez, "Switchable Polysaccharides, Methods and Uses Thereof", U.S. provisional patent application 62/136,050 (filed 20 March 2015). Canadian patent application CA2918904A filed 26 Jan 2016. WO2016149815A1 filed 21 May 2016.
19. P. G. Jessop, M. Cunningham, S. Mercer, R. Resendes, T. Robert, T. Clark, B. Mariampillai, K. Boniface, "Switchable Materials, Methods and Uses Thereof", U.S. Provisional patent application 61/879,486 (filed 18 Sept 2013). PCT and Canadian patent application PCT/CA2014/050897 (filed 18 Sept 2014).
18. P. G. Jessop, S. Xu, M. Cunningham, "Micellar Composition having Switchable Viscosity", U.S. Provisional patent application 61/679,055 (filed 8 Feb 2012), PCT and Canadian patent application CA2013/050603 filed 8 Feb 2013).
17. M. Cunningham and P. G. Jessop "Tertiary Amine-Based Switchable Cationic Surfactants and Methods and Systems of Use Thereof", U.S. Provisional Patent Application 61/591,660 (filed Jan 2012), U.S. Patent Application 13/751,963 and Canadian patent application 2,803,732 filed 28 Jan 2013, published as US 20130200291A1.
16. X. Su, M. Cunningham and P. G. Jessop "Redispersible Polymer Latex and Methods and Composition for Manufacture Thereof", U.S. Provisional Patent Applications 61/584,757 (filed Jan 2012) and 61/593,924 (filed Feb 2012).
15. P. Jessop, P. Thornton, S. M. Decker, D. Pratt, F. Zheng, D. L. Leger "Preparation of Thiosulfonates as Antioxidants", Patent Application WO 2013075253 A1, filed Nov 2012, published 30 May 2013; U.S. Provisional Patent Application 2011-563356P filed Nov 2011; U.S. Provisional Patent Application.
14. P. G. Jessop, S. M. Mercer, T. Robert, R. S. Brown, T. J. Clark, B. E. Mariampillai, R. Resendes, D. Wechsler, "Systems and Methods for use of Water with Switchable Ionic Strength", Provisional U. S. Patent Application 61/423,458 filed 15 Dec 2010, International Patent application PCT/CA2011/050777 filed 15 Dec 2011, published 21 June 2012, US Application 2014/0076810 A1.
  - South Africa patent No. 2013/04437 issued 27 Jan 2016
  - Australia patent No. 2011342287 issued 17 Aug 2015
  - Chinese Patent No. CN103459439B issued 12 Sept 2017.
  - Israel Patent No. IL226915 issued 29 Mar 2018.
  - Japan Patent No. JP2014501168 issued 11 Oct 2019.
  - US Patent No. 10,377,647 B2 issued 13 Aug 2019.
  - Mexican Patent No. MX/a/2013/006797 issued 26 Mar 2019
  - Canadian Patent No. CA2821789 issued 28 Dec 2020.
  - Brazil Patent No. BR112013014972 issued 29 Dec 2020
13. P. G. Jessop, S. Mercer, R. S. Brown, T. Robert, "Aqueous Solvents with Reversibly Switchable Ionic Strength", Provisional U. S. Patent Application 61/303,170, filed February 2010. "Water with Switchable Ionic Strength", International Patent application PCT/CA2011/050075 filed 10 Feb 2011, published

- 18 August 2011, US Application 2013/0105377 A1. Hong Kong application 201180065159.6.
- Australia patent No. 2011214865B2 issued 5 Nov 2015
  - Chinese patent CN102892713B issued 4 May 2016.
  - Canadian patent CA2789498C issued 2 April 2019.
  - Japanese patent JP6431658B2 issued 28 Nov 2018.
  - European patent 2534106 issued 16 Oct 2019.
  - Mexican patent No. MX/a/2012/009296 issued 22 Apr 2019
  - Israel patent No. IL221391 issued 26 Sept 2019
  - Indian patent 7032/DELNP/2021 issued 29 July 2021
  - Brazil Patent No. BR112012020112 issued 24 Aug 2021
  - US Patent No. 11498853 B2 issued 15 Nov 2022
12. A. Carrier, B. Davis, and P. G. Jessop, "Catalyst and Liquid Combination for a Thermally-Regenerative Fuel Cell", Provisional U. S. Patent Applications 61/332,395 and 61/419,681, filed 2010. U.S. Patent Application No. 13/102,840, filed 2011.
  11. P. G. Jessop, C. G. Liang "Anionic Switchable Surfactants Comprising Carboxylate Salts," U.S. Provisional Patent Application No. 61/312,583 filed March 2010.
  10. P. G. Jessop, C. G. Liang, J. Harjani "Switchable Anionic Surfactants and Methods of Making and Using Same," U.S. Provisional Patent Application No. 61/272,598 filed 2009. Formal U.S. Patent Application 12/901,189, filed 2010.
  9. P. G. Jessop, L. N. Phan, A. J. Carrier, R. Resendes, D. Wechsler, "Switchable Hydrophilicity Solvents and Methods of Use Thereof," Canadian and U.S. Patent Applications filed 2009. PCT/CA2010/001707, Canadian 2,683,660, and U.S. Patent Applications 12/914,948. filed 2010.
    - U.S. patent 8,580,124 issued 2013.
    - U.S. patent 8,900,444 issued 2014.
    - Mexican patent No. 329,618 issued 23 April 2015
    - Australian patent No. 2010312290 issued 12 May 2016
    - Chinese patent No. ZL201080053784.4 issued 29 June 2016
    - Canadian patent No. 2,683,660 issued 4 July 2017
    - Japanese patent No. 5972792 issued 22 July 2017
    - European patent EP2493849B1 granted 8 Dec 2021 (France, Germany, UK and the Netherlands)
  8. P. G. Jessop, B. Davis, "Hydrogen Storage System and Method," Provisional Patent Application filed 2008.
  7. P. G. Jessop, C. A. Eckert, C. L. Liotta, "Switchable Solvents and Methods of Use Thereof," U.S. Provisional Patent Application 60/781,336, filed 2006. Canadian Patent Application No. 2,539,418, filed 2006, granted 2013. U.S. Patent Application 11/717,172, filed 2007.
    - US patent 7,982,069 issued 2011
    - US patent 8,513,464 issued 2013

- US patent 8,710,265 issued 2014
  - Canadian patent CA2539418C issued 2013.
6. P. G. Jessop, "Reversibly Switchable Surfactants and Methods of Use Thereof," U.S. Provisional Patent Application No. 60/736,507 and 60/736,840, filed 2005. Canadian Patent Application No. 2,527,144, filed 2005. International Patent Application No. PCT/CA2006/001877, filed 2006.
    - U.S. patent 8,283,385 issued 9 October 2012
    - Canadian patent CA2527144C issued 29 April 2014
  5. P. G. Jessop, C. A. Eckert, C. L. Liotta, "Methods for Solubilizing and Recovering Fluorinated Compounds," U. S. Provisional Patent Application filed 30 May 2001, International Patent Application filed 2002, published WO 02/096550 A1, U.S. Patent Application 2005/0015936 published 2005.
    - U.S. patent 7,404,943 issued 29 July 2008.
  4. T. Ikariya, Y. Hsiao, P. G. Jessop, R. Noyori, "A Method for Producing Formic Acid or its Derivatives," European Patent Application number 94308144.8, filed 1994, published 1995, patent publication number EP 652 202 A1.
    - US patent 5,639,910 issued 17 Jun 1997
    - German patent DE69403610D1 issued 10 July 1997
    - Canadian patent CA002135138C issued 14 Mar 2006
    - Danish patent DK0652202T3 issued 22 Dec 1997
  3. T. Ikariya, P. G. Jessop, R. Noyori, "The Production of Methyl Formate," Japan Tokkai 6-125401, patent application 1994, published 1995,
    - Japanese patent No. 7-330666 issued 28 July 1999.
  2. T. Ikariya, P. G. Jessop, Y. Hsiao, R. Noyori, "The Production of Dimethylformamide," Japan Tokkai 6-125402, patent application 1994, published 1995,
    - Japanese patent No. 7-330698 issued 12 Oct 1999.
  1. T. Ikariya, P. G. Jessop, R. Noyori, "The Production of Formic Acid," Japan Tokkai 5-274721, patent application 1993, published 1995,
    - Japanese patent No. 7-173098 issued 9 July 1998

### **Invited University, Industry, and Government Presentations**

155. COST Action, Happy Hour webinar, Germany, 17 March 2023
154. University of Lisboa, Portugal, 4 January 2023
153. CORC CO<sub>2</sub> Online Research Talk, Novo Nordisk, Denmark, 14 December 2022
152. Boehringer-Ingelheim, Kentucky, 22 November 2022
151. University of Louisville, Kentucky, 28 October 2022
150. DuPont, series of 6 webinars about green chemistry, May-June 2021.
149. Millipore Sigma, St. Louis, MO, USA, 19 May 2020.
148. HATCH Ltd., Mississauga, Ontario, 5 May 2020.
147. Tsinghua University, Beijing, China, 15 Nov 2019.
146. Institute of Chemistry, Chinese Academy of Sciences, Beijing, China, 14 Nov 2019.

145. Northeast Normal University, Changchun, China, 12 Nov 2019.
144. Changchun Institute of Applied Chemistry, Changchun, China, 12 Nov 2019.
143. Tianjin University of Technology, Tianjin, China, 10 Nov 2019.
142. Queen's University, Kingston, Ontario, Canada, 11 October 2019.
141. Université de Rennes, Rennes, France, 20 May 2019
140. Dalhousie University, Halifax, Canada, 6 April 2018
139. Royal Society of Chemistry, Cambridge, England, 22 March 2018
138. Dalhousie University, Halifax, Canada, 5 April 2018
137. University of Toronto (Lectures at the Leading Edge, Chemical Engineering), Toronto, 10 Jan 2018
136. Otago University, Dunedin, New Zealand, 14 Dec 2017
135. University of Canterbury, Christchurch, New Zealand, 13 Dec 2017
134. Victoria University of Wellington, New Zealand, 12 Dec 2017
133. Technische Universität Graz, Austria, 22 Nov 2017
132. Trent University, Peterborough, Canada, 14 Nov 2017
131. Arkema, King of Prussia, PA, USA, 9 June 2017.
130. CIPO (Canadian Intellectual Property Organization, Ottawa, Canada, 19 April 2017
129. Università degli Studi di Napoli Federico II, Naples, Italy, 23 May 2017.
128. House of Commons, Standing Committee on the Environment, Government of Canada, Ottawa, 14 June 2016.
127. General Accountability Office (US Senate) and the National Academy of Sciences, 24 May 2016.
126. Sherwin-Williams, 21 October 2015.
125. PPG, 21 October 2015.
124. Tohoku University, Sendai, Japan, 10 July 2015.
123. Nagoya University, Nagoya, Japan, 3 July 2015.
122. Vlisco Netherlands Group, Helmond, The Netherlands, 10 December 2014.
121. Rochester University, Rochester, NY, USA 10 December 2014.
120. Yale University, Connecticut, USA, 3 December 2014.
119. The Llandolt Public Lecture, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, 12 November 2014.
118. Universitat Autònoma de Barcelona, Spain, 21 May 2014.
117. Paul Scherrer Institute, Villigen, Switzerland, 24 April 2014.
116. Universidad de Zaragoza, Spain, 11 April 2014.
115. RWTH Aachen, Germany, 25 March 2014.
114. University of Cologne, Germany, 24 March 2014.
113. Queen's University, Belfast, Northern Ireland, 18 March 2014.
112. Imperial College of London, England, 13 March 2014.
111. Durham University, England (Evonik Lecture), 12 March 2014.
110. University of York, England, 11 March 2014.
109. University of Basel, Switzerland, 28 February 2014.
108. Natural Sciences Research Center, Hungarian Academy of Sciences, 12 Feb 2014
107. University of Debrecen, Hungary, 10 February 2014.
106. ETH Zurich, 4 February 2014.
105. ICES, Singapore, 20-24 January 2014.
104. University of Neuchâtel, Switzerland, 15 January 2014.
103. Lund University, Sweden, 11 December 2013.
102. Arkema, Colombes, France, 2 December 2013.
101. Université de Bourgogne, Dijon, France, 29 November 2013.
100. University of Bern, Switzerland, 28 November 2013.
99. Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland, 26 November 2013.
98. Università degli Studi di Napoli Federico II, Naples, Italy, 26 June 2013.
97. UQAM, 6 May 2013

96. University of Oregon, 8 March 2013
95. University of Toronto, 7 February 2013.
94. University of Northern British Columbia, 31 January 2013.
93. University of Edinburgh, 5 April 2012.
92. University of Calgary, 12 March 2012.
91. Pacific Northwest National Lab, USA, 9 March 2012.
90. U of Toledo, Ohio, 27 February 2012
89. NSERC Oil Sands Science Kiosk on the Hill, The Senate, Houses of Parliament, Ottawa, January 2012.
88. Indian Institute of Technology, Bombay, India, 7 December 2011
87. Memorial University of Newfoundland, 20 October 2011
86. "Bacon & Eggheads" session for Members of Parliament and Senators, Ottawa, 4 October 2011
85. U of Prince Edward Island, 30-31 March 2011
84. Royal Military College, 3 March 2011
83. Laval University, 2 March 2011
82. University of New Mexico, USA, 4 Feb. 2011
81. Dow Chemical, Texas, USA, 2 Feb. 2011
80. Guelph University, 26 Jan. 2011
79. Simon Fraser U, 24 Nov. 2010
78. UBC, 23 Nov. 2010
77. U of Victoria, 22 Nov 2010
76. U of Sherbrooke, 17 Nov 2010
75. U of California, Berkeley, 25 Oct. 2010
74. McMaster University, 30 Sept. 2010
73. Queen's University, Dept. of Chem. Eng., 23 Sept. 2010
72. Health Canada, 10 Sept. 2010
71. Environment Canada, 9 Sept. 2010
70. U of Zurich, 21 May 2010
69. U of Alberta, Dept of Chemistry, 14 April 2010
68. U of Alberta, Dept of Agriculture, Food & Nutritional Sci., 13 April 2010
67. U of Ottawa, 10 Feb 2010
66. Nova Chemicals, 14 January 2010
65. Fielding Chemicals, 17 Dec 2009
64. Chinese Academy of Sciences, Beijing, 22 May 2009
63. Xerox Research Centre, Mississauga, 20 April 2009
62. DuPont Canada, 3 March 2009
61. Georgia Institute of Technology, 3 February 2009
60. Science in Action Symposium, Ministry of the Environment, Toronto, Ontario, 12 Mar 2009.
59. Toxics Reduction Scientific Expert Panel, Ministry of the Environment, Toronto, Ontario, 21 May 2008.
58. Georgia Institute of Technology, 8 February, 2008.
57. UOP, 12 November 2007
56. Eastman Chemicals, 7 November 2007
55. Merck, 15 May 2007
54. U of Illinois, Urbana-Champaign, 12 April 2007
53. DuPont, Wilmington, Delaware, 5 April 2006.
52. DuPont Canada, Kingston, 1 November 2005.
51. Merck, Rahway, NJ, 24 May 2005.
50. University of Toronto, 15 April 2005.
49. University of Western Ontario, 23 March 2005.
48. Dalhousie University, 20 February 2005.
47. St. Mary's University, 10 February 2005.

46. University of Prince Edward Island, 9 February 2005.
45. University of New Brunswick, 7 February 2005.
44. University of Calgary, 21 January 2005.
43. University of Alberta, 20 January 2005.
42. University of Saskatchewan (Chemical Engineering), 19 January 2005.
41. Tung Hai University, Taiwan, 19 November 2004.
40. Fu-Jen Catholic University, Taiwan, 18 November 2004.
39. National Taiwan University, Taiwan, 17 November 2004.
38. Tamkang University, Taiwan, 15 and 18 November 2004, *three seminars*.
37. Brantford Chemicals, Brantford, Ontario, 10 September 2004.
36. Nagoya University, Japan, 9 July 2004.
35. Osaka Prefecture University, Japan, 7 July 2004.
34. Kyoto University, Japan, 2 July 2004.
33. University of Nevada, Reno, 6 December 2002.
32. San Francisco State University, San Francisco, 1 November 2002.
31. University of Nottingham, Nottingham, UK, 10 October 2002.
30. University of Liverpool, Liverpool, UK, 9 October 2002.
29. McGill University, 3 October 2002.
28. Queen's University, 2 May 2002.
27. University of California, San Diego, 26 April 2002.
26. University of California, Irvine, 25 April 2002.
25. University of California, Los Angeles, 24 April 2002.
24. Chinese University of Hong Kong, 25 Sept 2001.
23. University of British Columbia, 3 July 2001.
22. Texas A&M University, 3 May 2001.
21. University of Pittsburgh, 1 May 2001.
20. Carnegie Mellon University, 30 April 2001.
19. SUNY Buffalo, 27 April 2001.
18. Massachusetts Institute of Technology, 25 April 2001.
17. University of the Pacific, 5 Dec. 2000.
16. University of Colorado, Boulder, 13 Nov. 2000.
15. University of California, Berkeley, 13 Oct 2000.
14. University of California, Santa Cruz, 25 Sept. 2000
13. Forschungszentrum Karlsruhe, Germany, 23 May, 2000.
12. Universität Dortmund, Germany, 22 May, 2000.
11. Universität Göttingen, Germany, 19 May, 2000.
10. Institut für Technische Chemie der Rheinisch-Westfäl., Aachen, Germany, May, 2000
9. Pacific Northwest National Laboratory, 28 Oct 1999
8. University of Puget Sound, 27 Oct. 1999
7. University of Washington, Seattle, 26 Oct 1999
6. University of Kansas, 28 April, 1999
5. Georgia Institute of Technology, 18 Sept. 1998
4. California State University, Sacramento, 20 Mar. 1998
3. Merck Co., Rahway, NJ, 26 Feb. 1998
2. University of Idaho, 23 Oct 1997
1. University of California, Santa Barbara, 4 Dec 1996.

### Plenary, Keynote, and Invited Lectures at Conferences and Public Events

158. P. G. Jessop, "CO<sub>2</sub>-Switchable Materials", 20<sup>th</sup> International Conference on Carbon Dioxide Utilization, Bari, Italy, 26 June 2023, **Keynote Lecture**.

157. P. G. Jessop and A. R. MacDonald, "How Hotspot Identification Can Guide Biomass Conversion Research", 19<sup>th</sup> International Conference on Renewable Resources and Biorefineries, Riga, Latvia, 31 May 2023, **Plenary Lecture**.
156. P. G. Jessop, "How Systems Thinking and Hotspot Analysis Affect Green Chemistry Research", 2<sup>nd</sup> Commonwealth Chemistry Congress, St. Augustine, Trinidad and Tobago, 25 May 2023, **Plenary Lecture**.
155. P. G. Jessop, "How Life Cycle Assessment and Hotspot Analysis Can Guide Green Chemistry Research", 8<sup>th</sup> Annual Green Chemistry Initiative Annual Symposium, Toronto, Ontario, 18 May 2023, **Invited Lecture**.
154. P. G. Jessop, "Which is Greener? Green Decision-Making for Consumers", Lennox & Addington Museum, Napanee, Ontario, 15 November 2022, **Invited Public Lecture**.
153. P. G. Jessop, "Separating Organic Products from Water Using CO<sub>2</sub> as a Trigger", Gordon Research Conference on Separations, Ventura, CA, USA, 5 October 2022, **Invited Lecture**.
152. P. G. Jessop, "Removing Water is an Energetic Bottleneck for the Conversion of Biomass", 2<sup>nd</sup> International Conference on Materials for Humanity, Singapore (virtual), 21 September 2022, **Invited Lecture**.
151. P. G. Jessop, "CO<sub>2</sub>-Switchable Materials can Help in Biomass Conversion", 9<sup>th</sup> International Conference on Green Chemistry, Athens, 8 September 2022, **Plenary Lecture**.
150. P. G. Jessop, "Creativity and Invention in Chemistry" CIRCUIT Summer School, Québec City, 3 August 2022, **Invited Lecture**.
149. P. G. Jessop and M. F. Cunningham, "The Chemistry and Applications of CO<sub>2</sub>-Switchable Polymers", MACRO 2022 The 49<sup>th</sup> World Polymer Congress, **Invited Lecture**.
148. P. G. Jessop, "Identifying the Greenest Synthesis", ACS Green Chemistry Summer School, Golden, CO, USA, July 2022, **Invited Lecture**.
147. P. G. Jessop, "Green Solvents", ACS Green Chemistry Summer School, Golden, CO, USA, July 2022, **Invited Lecture**.
146. P. G. Jessop, "Why Systems Thinking Made a Chemist Worry about Separations", 5<sup>th</sup> ChIR Symposium – Building Capacity in Chemical Safety and Sustainability, Bologna, Italy, 4 July 2022, **Keynote Lecture**.
145. P. G. Jessop, "Why Systems Thinking Made a Chemist Worry about Separations", 26<sup>th</sup> Green Chemistry & Engineering Conference, Reston, VA, USA, 8 June 2022, **Plenary Lecture**.



144. A. Bongers, P. G. Jessop, "Barriers and Solutions for the Integration of Green & Sustainable Chemistry into the Undergraduate Curriculum", ACS National Meeting, San Diego, California (virtual), 22 March 2022, **Invited Lecture**.
143. P. G. Jessop, "Water Removal for Biomass Conversion: New Strategies", 9<sup>th</sup> International Conference Fuel Science from Production to Propulsion, Aachen, Germany (virtual conference due to COVID-19), 23 June 2021, **Keynote Lecture**.
142. P. G. Jessop, "Let's Put that Waste Gas to Work: Using CO<sub>2</sub> to Solve Environmental Problems", Biennial Meeting of the GDCh Division of Sustainable Chemistry, Leverkusen, Germany (virtual conference due to COVID-19), 5 October 2020, **Invited Lecture**.
141. P. G. Jessop, "CO<sub>2</sub>-Switchable Materials", Green Chemistry Summer School, Venice, Italy (virtual conference due to COVID-19), 6-10 July 2020, **Invited Lecture**.
140. P. G. Jessop, "Reducing Environmental Impact by Green Design of Molecules and Processes", National Conference of CO<sub>2</sub> Utilization, Tianjin, China, 25-29 Aug 2019, **Invited Lecture**.
139. P. G. Jessop, "CO<sub>2</sub> as a Trigger for Controlling the Properties of Surfaces and Coatings", ACS National Meeting, San Diego, CA, USA, 25-29 Aug 2019, **Invited Lecture**.
138. P. G. Jessop, "Green Solvents", ACS Green Chemistry Summer School, Golden, CO, USA, July 2019, **Invited Lecture**.
137. P. G. Jessop, "Choosing the Greenest Synthesis", ACS Green Chemistry Summer School, Golden, CO, USA, July 2019, **Invited Lecture**.
136. P. G. Jessop, "CO<sub>2</sub> as a Trigger for Controlling the Properties of Surfaces and Coatings", NanoTech 2019, Boston, Maine, USA, 17-19 June 2019, **invited lecture**.
135. P. G. Jessop, "Challenges and Opportunities in Commercializing Green Chemistry Technologies from Academia", International Symposium on Green Chemistry, La Rochelle, France, 15 May 2019, **keynote lecture**.
134. P. G. Jessop, Train the Facilitator (5-day short course on green chemistry), sponsored by the United Nations Industrial Development Office, Cairo, Egypt, 7-11 April 2019, **primary presenter (18 hours of lectures)**.
133. P. G. Jessop, "Green Chemistry and Useful Products from Lignin and Cellulose", BC Tech Summit, Vancouver, Canada, 11 March 2019, **Keynote lecture**.

132. P. G. Jessop, "Green Solvents", Green Chemistry Conference: Smart and Sustainable Europe, EU Trio Presidency, Vienna, Austria, 5 November 2018, **Invited Lecture**.
131. P. G. Jessop, P. Champagne, A. Cormier, M. Cunningham, S. Ellis, A. Holland, H. Honeyman, R. van Vuuren, "CO<sub>2</sub>-Switchable Ionogens for Water Recycling and Purification", 68th Canadian Chemical Engineering Conference, Toronto, Canada, 30 October 2018, **Keynote Lecture**.
130. P. G. Jessop, "Green Chemistry Made Possible by Carbonated Water", ICCDU International Conference on Carbon Dioxide Utilization, Rio de Janeiro, Brazil, 28 August 2018, **Invited Lecture**.
129. P. G. Jessop, "Controversies and Challenges in Green Chemistry Research and Publishing", Gordon Research Conference, Casteldelfels, Spain, 2 August 2018, **Invited Lecture**.
128. P. G. Jessop, "Identifying the Greenest Solution to a Problem", Gordon Research Seminar, Casteldelfels, Spain, 29 July 2018, **Invited Lecture**.
127. P. G. Jessop, "Green Solvents", ACS Green Chemistry Summer School, Golden, CO, USA, July 2018, **Invited Lecture**.
126. P. G. Jessop, "Choosing the Greenest Synthesis", ACS Green Chemistry Summer School, Golden, CO, USA, July 2018, **Invited Lecture**.
125. P. G. Jessop, "Green Chemistry: How To Do It", Science Atlantic Chemistry Conference, Halifax, 8 June 2018, **Invited Lecture**.
124. P. G. Jessop, "Using CO<sub>2</sub>-Switchable Materials to Facilitate Separations", A Research Agenda for a New Era in Separations Science, Public Data Gathering Meeting, National Academies of Science, Engineering, and Medicine, Irvine, California, USA, 7 May 2018, **Invited Lecture**.
123. P. G. Jessop, "Chemicals in Society", "Fundamentals of Green Chemistry", and "Areas of Research in Green Chemistry", Green Chemistry Awareness Raising Workshop, sponsored by the United Nations Industrial Development Office, Cairo, Egypt, 3 May 2018, **Workshop presenter**.
122. P. G. Jessop, "Can Chemistry be Green?", Atlantic Basin Chemistry Conference, Cancun, Mexico, 25 January 2018, **Invited Lecture**.
121. P. G. Jessop, "Addressing Environmental Issues with CO<sub>2</sub>-Switchable Materials", Green Chemistry New Zealand, Auckland, New Zealand, 7 December 2017, **Keynote Lecture**.

120. P. G. Jessop, "Can Chemistry be Green?", Stairs Public Lecture, Peterborough, Ontario, 14 November 2017, **Invited Public Lecture**.
119. P. G. Jessop, "Closing Words: Where are We Going?", Faraday Discussions on Ionic Liquids, Cambridge, England, September 2017, **Invited Closing Lecture**.
118. P. G. Jessop, "CO<sub>2</sub>-Switchable Surfaces", International Conference on Green Chemistry, Melbourne, Australia, July 2017, **Plenary Lecture**.
117. P. G. Jessop, "CO<sub>2</sub>-Switchable Polymeric Materials", 46<sup>th</sup> IUPAC World Chemistry Congress, Green Chemistry & Biotechnology Symposium, Sao Paulo, Brazil, July 2017, **Keynote Lecture**.
116. P. G. Jessop, "Green Solvents", ACS Green Chemistry Summer School, Golden, CO, USA, June 2017, **Invited Lecture**.
115. P. G. Jessop, "Choosing the Greenest Synthesis", ACS Green Chemistry Summer School, Golden, CO, USA, June 2017, **Invited Lecture**.
114. P. G. Jessop, "Strategies & barriers for commercialization of green chemistry technologies", Green Chemistry and Engineering Conference, Virginia, USA June 2017, **Invited Lecture**.
113. P. G. Jessop, "Roles for CO<sub>2</sub> in Obtaining Chemical Products from Biomass", Green Chemistry Horizon, Karman Conference, Aachen, Germany, 3 February 2017, **Invited Lecture**.
112. P. G. Jessop, "Applications of CO<sub>2</sub> in Catalysis", Core-to-Core Joint Symposium (Nagoya, Kyoto, Münster, Berlin, Queen's, Kingston, 29 June 2016, **Invited Lecture**.
111. P. G. Jessop, "Green Solvents", ACS Green Chemistry Summer School, Golden, CO, USA, June 2016, **Invited Lecture**.
110. P. G. Jessop, "Choosing the Greenest Synthesis", ACS Green Chemistry Summer School, Golden, CO, USA, June 2016, **Invited Lecture**.
109. P. G. Jessop, "CO<sub>2</sub>-Switchable Solvents for Facilitated Separations", InPrompt 2016 – Tunable Solvents for Green Processing, Berlin, Germany, June 2016, **Invited Lecture**.
108. P. G. Jessop, "Switchable Materials: Benign Design and Applications", Innovations in Chemistry Toward Sustainable Urban Living, Toronto, 12 May 2016, **Invited Lecture**.
107. P. G. Jessop, "Chemistry in Supercritical Fluids", CREATE in Green Chemistry Summer School, Montreal, 11 May 2016, **Invited Lecture**.

106. P. G. Jessop and M. F. Cunningham, "CO<sub>2</sub>-Switchable Materials", Green Chemistry Symposium, Universidad Nacional Autónoma de México, Mexico City, 5 April 2016, **Invited Lecture**.
105. P. G. Jessop, "Designing Chemistry for Performance and the Environment", Sustainable Innovation through Green Chemistry: Workshop and Case Competition, Montreal, January 2016, **Invited Lecture**.
104. P. G. Jessop, M. F. Cunningham, "Applications of Switchable Solvents in Energy Production and Water Purification", Pacificchem, Honolulu, Dec. 2015, **Invited Lecture**.
103. P. G. Jessop, "Design and Application of CO<sub>2</sub>-Switchable Solvents", DECHEMA Infoday Switchable Solvent Systems, Frankfurt, Germany, 28 Sept. 2015, **Plenary Lecture**.
102. P. G. Jessop, M. F. Cunningham, "CO<sub>2</sub>-Switchable Surfaces", Symposium on Green and Sustainable Chemistry, York, England, 4 Sept. 2015, **Plenary Lecture**.
101. P. G. Jessop, M. F. Cunningham, "Designing Solvents to Facilitate Post-Reaction Separations", 17<sup>th</sup> International Symposium on Relations between Homogeneous and Heterogeneous Catalysis, Utrecht, Netherlands, 12-15 July 2015, **Keynote Lecture**.
100. P. G. Jessop, M. F. Cunningham, "CO<sub>2</sub>-Switchable Surfaces", 7<sup>th</sup> International Conference on Green and Sustainable Chemistry, Tokyo, Japan, 8 July 2015, **Keynote Lecture**.
99. P. Jessop, "Choosing the Greenest Synthesis", ACS Green Chemistry Summer School, Golden, CO, USA, June 2015, **Invited Lecture**.
98. P. Jessop, "Green Solvents", ACS Green Chemistry Summer School, Golden, CO, USA, June 2015, **Invited Lecture**.
97. P. G. Jessop and M. F. Cunningham, "Design and Application of Water-Soluble CO<sub>2</sub>-Switchable Polymers", 14 June 2015, 98<sup>th</sup> Canadian Chemical Conference and Exhibition, Ottawa, **Invited Lecture**.
96. P. G. Jessop, "Switchable Solvents and the Future of Green Chemistry", 21 May 2015, Green Chemistry Summit, The Heritage Group, Indianapolis, USA, **Invited Lecture**.
95. P. G. Jessop, "Past Challenges and Future Opportunities in Green Chemistry", 21 April 2015, Chemistry 2015: Safe. Secure. Sustainable, Chemical Industry Association of Canada, Toronto, Canada, **Invited Lecture**.

94. P. G. Jessop, "CO<sub>2</sub>-Based Solvents for Extractions from Biomass", 14 April 2015, Supercritical Fluids – Green Solvents for Green Chemistry" Discussion Meeting, Royal Society, London, UK, **Invited Lecture**.
93. P. G. Jessop, "Switchable-Hydrophilicity Solvents: Design for Applications and the Environment", 24 March 2015, ACS National Meeting, Denver, Colorado, **Invited Lecture**.
92. P. G. Jessop, "Metrics of Green-ness", 16 January 2015, Sustainable Innovation through Green Chemistry: Workshop and Case Competition, Montreal, **Invited Lecture**.
91. P. G. Jessop, "Green Solvents", 24 October 2014, Sustainable Chemistry and Engineering School, Anglet, France, **Invited Lecture**.
90. P. G. Jessop, "Switchable Hydrophilicity Solvents and Switchable Water", 21 October 2014, 7<sup>th</sup> Green Solvents Conference, Dresden, Germany, **Keynote Lecture**.
89. P. Jessop, "Choosing the Greenest Synthesis", ACS Green Chemistry Summer School, Golden, CO, USA, July 2014, **Invited Lecture**.
88. P. Jessop, "Green Solvents", ACS Green Chemistry Summer School, Golden, CO, USA, July 2014, **Invited Lecture**.
87. P. G. Jessop and R. Resendes, "The Path to Commercialization for a Broad Technology", 12 July 2014, Innovation in Green Chemistry Round Table, Fusion Conferences, Chicago, USA, **Invited Lecture**.
86. P. G. Jessop, "Switchable Solvents for Extractions and Separations", 1 July 2014, 2<sup>nd</sup> International Conference on Ionic Liquids in Separation and Purification Technology, Toronto, Canada, **Keynote Lecture**.
85. P. G. Jessop, "CO<sub>2</sub>-Related Solvents for the Extraction of Products from Biomass", 5 June 2014, 97<sup>th</sup> Canadian Chemical Conference and Exhibition, Vancouver, BC, **Invited Lecture**.
84. P. G. Jessop, "Sustainability through Better Green Chemistry", 3 June 2014, 97<sup>th</sup> Canadian Chemical Conference and Exhibition, Vancouver, BC, **Invited Lecture**.
83. P. G. Jessop, "Switchable Solvents", 9 April 2014, 4<sup>th</sup> International Congress on Green Process Engineering, Seville, Spain, **Plenary Lecture**.
82. P. G. Jessop, "Using CO<sub>2</sub> to Trigger Changes in the Properties of Fluids", Scottish Dalton Meeting, 19 March 2014, St. Andrews, Scotland, **Invited Lecture**.
81. P. G. Jessop, "Switchable Solvents", Enzymatic and Sustainable Biomass Valorisation Workshop, 11 December 2013, Lund, Sweden, **Invited Lecture**.

80. P. G. Jessop, "Switchable Solvents", 10<sup>th</sup> Green Chemistry Conference, 5-7 November 2013, Barcelona, **Invited Lecture**.
79. P. G. Jessop, "CO<sub>2</sub>-Triggered Switchable Solvents and Surfactants", GDCh-Wissenschaftsforum Chemie, Darmstadt, Germany, 1-4 September 2013, **Keynote Lecture**.
78. P. G. Jessop, "Switchable Water", 6<sup>th</sup> International Conference on Green and Sustainable Chemistry, Nottingham, UK, August 2013, **Keynote Lecture**.
77. P. Jessop, "Life Cycle Assessment as a Crucial Part of Green Chemistry Education", Sustainable Chemistry Summit, Montréal, June 2013, **Invited Lecture**.
76. P. Jessop, "Green Chemistry 101", Sustainable Chemistry Summit, Montréal, June 2013, **Short Course**.
75. P. Jessop, "Switchable Water: Aqueous Solutions of Switchable Ionic Strength", 2<sup>nd</sup> International Symposium on Green Chemistry, La Rochelle, France, May 2013, **Keynote Lecture**.
74. P. Jessop, "CO<sub>2</sub>-Triggered Switchable Solvents and Surfactants", QAFCO-TAMUQ Chemistry Conference, Doha, Qatar, January 2013, **Invited Lecture**.
73. P. Jessop, "Green Chemistry and the Development of Switchable Aqueous Solutions", 40<sup>th</sup> Ontario-Québec Physical Organic Mini-Symposium, Kingston, Canada, November 2012, **Invited Lecture**.
72. P. Jessop, "CO<sub>2</sub>-Triggered Switchable Solvents and Surfactants", Canadian Chemical Engineering Conference, Vancouver, Canada, October 2012, **Award Lecture**.
71. P. Jessop, "CO<sub>2</sub> as a Trigger for Switchable Fluids", Society for Petroleum Engineers, SPE Forum Series, Advanced Chemicals and Fluids for the Oilfield, Algarve, Portugal, October 2012, **Invited Lecture**.
70. P. Jessop, S. M. Mercer, T. Robert, C. Humphries, T. J. Clark, and M. F. Cunningham, "Switchable Water", 4<sup>th</sup> International IUPAC Conference on Green Chemistry, Foz de Iguaçu, Brazil, August 2012, **Invited Lecture**.
69. P. Jessop, "Choosing the Greenest Synthesis", ACS Green Chemistry Summer School, Golden, CO, USA, June 2012, **Invited Lecture**.
68. P. Jessop, "Green Solvents", ACS Green Chemistry Summer School, Golden, CO, USA, June 2012, **Invited Lecture**.
67. P. Jessop, "Can Chemistry be Green?", Canadian Association of the Club of Rome, Ottawa, 14 June 2012, **Invited Lecture**.

66. P. Jessop, "Controlling the Stability of Suspensions with CO<sub>2</sub>", ChemCon 2012, Sydney, Nova Scotia, 15 May 2012, **Keynote Lecture**.
65. P. Jessop, "Controlling the Stability of Suspensions and Emulsions with CO<sub>2</sub>", Centre in Green Chemistry & Catalysis, 2012 Annual Meeting, Montréal, 10 May 2012, **Invited Lecture**.
64. P. Jessop, "CO<sub>2</sub> as a Trigger for Switchable Materials", CO<sub>2</sub>Chem Network Meeting, Sheffield, England, 3 April 2012, **Invited Lecture**.
63. P. Jessop, "Green Chemistry: From Need to Market", Commerce and Engineering Environmental Conference, Kingston, Ontario, 3 March 2012, **Invited Lecture**.
62. P. Jessop, "CO<sub>2</sub>-Based Solvents", Industrial Green Chemistry World Conference, Mumbai, 4-6 December 2011, **Invited Lecture**.
61. P. Jessop, "Can Chemistry be Green?", Royal Canadian Institute for the Advancement of Science, 30 October 2011, **Invited Lecture**.
60. P. Jessop, "Green Chemistry 101", Sustainable Chemistry Summit, Kingston, October 2011, **Invited Lecture**.
59. P. Jessop, "A Question of Green Chemistry", World Chemistry Leadership Meeting, IUPAC, San Juan, Puerto Rico, August 2011, **Invited Lecture**.
58. P. Jessop, "Choosing the Greenest Synthesis", ACS Green Chemistry Summer School, Montreal, QC, June 2011, **Invited Lecture**.
57. P. Jessop, "Green Solvents", ACS Green Chemistry Summer School, Montreal, QC, June 2011, **Invited Lecture**.
56. P. Jessop, "Integrating Green Chemistry into the Undergraduate Curriculum", Chemistry – Our Life, Our Future, Nelson Education Workshop, Toronto, February 2011, **Invited Lecture**.
55. P. Jessop, S. Mercer, L. Phan, L. Kozycz, C. J. Dürr, "Switchable Solvents Incorporating Water", International Chemical Congress of Pacific Basin Societies, Honolulu, USA, December 2010, **Invited Lecture**.
54. P. Jessop, "Separations using Switchable Solvents", American Institute for Chemical Engineers Annual Meeting, Salt Lake City, USA, November 2010, **Invited Lecture**.
53. P. Jessop, "The Search for Green Solvents", Green Solvents for Synthesis Conference, Bechtesgaden, Germany, October 2010, **Invited Lecture**.
52. P. Jessop, "Separations with Switchable Solvents", Gordon Research Conference on Green Chemistry, Davidson, NC, USA, July 2010, **Invited Lecture**.

51. P. Jessop, "Choosing the Greenest Synthesis", ACS Green Chemistry Summer School, Golden, CO, USA, July 2010, **Invited Lecture**.
50. P. Jessop, "Green Solvents", ACS Green Chemistry Summer School, Golden, CO, USA, July 2010, **Invited Lecture**.
49. P. Jessop, "Persuading CO<sub>2</sub> to be Useful", DOE/BES Catalysis Sciences Meeting, Annapolis, MD, USA, June 2010, **Invited Lecture**.
48. P. Jessop, M. Cunningham, "Switchable Surfactants for the Preparation of Polymers", 93<sup>rd</sup> Canadian Chemistry Conference and Exhibition, Toronto, Canada, May 2010, **Invited Lecture**.
47. P. Jessop, "Switchable Chemistry", First Annual Meeting, Centre en Chimie Verte et Catalyse, Université de Montréal, Montréal, Canada, December 2009, **Invited Lecture**.
46. P. Jessop, "CO<sub>2</sub> Utilization", Conference Universitaire de Suisse Occidentale (Swiss Summer School on Inorganic Chemistry), Villars, Switzerland, September 2009, **Invited Lecture**.
45. P. Jessop, "Green Solvents", Conference Universitaire de Suisse Occidentale (Swiss Summer School on Inorganic Chemistry), Villars, Switzerland, September 2009, **Invited Lecture**.
44. P. Jessop, "Green and Sustainable Chemistry", Conference Universitaire de Suisse Occidentale (Swiss Summer School on Inorganic Chemistry), Villars, Switzerland, September 2009, **Invited Lecture**.
43. P. Jessop, "Choosing the Greenest Synthesis", ACS Summer School on Green Chemistry and Sustainable Energy, Golden, Colorado, July 2009, **Invited Lecture**.
42. P. Jessop, "Green Solvents", ACS Summer School on Green Chemistry and Sustainable Energy, Golden, Colorado, July 2009, **Invited Lecture**.
41. P. Jessop, "Innovation in Green Chemistry", Innovation Day, Apotex Pharmachem, Brantford, Ontario, June 2009, **Invited Lecture**.
40. P. Jessop, "Switchable Chemicals for Green Chemistry", NSERC Polanyi Award Ceremony, Ottawa, January 2009, **Invited Lecture**.
39. P. Jessop, "Green Chemistry", Opportunities for Innovation in Green Chemistry and Engineering in Ontario, Ministry of the Environment Workshop, Toronto, January 2009, **Invited Lecture**.
38. P. Jessop, "Creativity: Odd Ideas are Important for Green Chemistry", Green Chemistry Summer School, Venice, October 2008, **Invited Lecture**.



37. P. Jessop, J. Warner, "Green Chemistry 1908-2008", 236<sup>th</sup> ACS National Meeting, Philadelphia, August 2008, **Invited Lecture**.
36. P. Jessop, "Catalysis and Separations using CO<sub>2</sub>", Int. Conference on Organometallic Chemistry, Rennes, France, July 2008, **Invited Lecture**.
35. P. Jessop, "Catalysis and Separations using CO<sub>2</sub>", Int. Symposium on Homogeneous Catalysis, Florence, Italy, July 2008, **Invited Lecture**.
34. P. Jessop, "Switchable Solvents and Catalysts", Canadian Symposium on Catalysis, Kingston, ON, June 2008, **Invited Lecture**.
33. P. Jessop, "CO<sub>2</sub>: A Green and Renewable Feedstock and Process Aid", 33<sup>rd</sup> Annual APICS/CIC Undergraduate Chemistry Conference, Halifax, Canada 8-11 May 2008, **Keynote Lecture**.
32. P. Jessop, "Green Chemistry: How Challenging Basic Assumptions Can Help the Environment", Queen's University Earth Resources Conference, 2 April 2008, **Keynote Lecture**.
31. P. Jessop, "CO<sub>2</sub> Fixation: Both Dream and Reality", Dream Reactions Conference, Arbeitsgemeinschaft Nachhaltige Chemie, Aachen, Germany, April 2008, **Invited Lecture**.
30. P. Jessop, "The Future of Energy: Lessons Learned from Green Chemistry", Financial Times Future of Energy Forum, London, England, April 2008, **Invited Lecture**.
29. P. Jessop, "The Utility of CO<sub>2</sub> in Organic Synthesis," 90<sup>th</sup> Canadian Chemistry Conference and Exhibition, Winnipeg, Manitoba, May 2007, **Invited Lecture**.
28. P. Jessop, "CO<sub>2</sub>: a Green and Renewable Feedstock and Process Aid," Presidential Green Chemistry Symposium, American Chemical Society 39<sup>th</sup> Middle Atlantic Regional Meeting, Collegeville, PA, May 2007, **Invited Lecture**.
27. P. Jessop, C. Liotta, C. Eckert, "Switchable Solvents and Surfactants," Green Solvents for Processes, Friedrichshafen, Germany, October 2006, **Keynote Lecture**.
26. P. Jessop, C. Liotta, C. Eckert, "Switchable Solvents and Surfactants," 13<sup>th</sup> International Process Development Conference, Newport, Rhode Island, September 2006, **Plenary Lecture**.
25. P. G. Jessop, "Switchable Solvents and Surfactants," Gordon Research Conference on Green Chemistry, Oxford, UK, August 2006, **Invited Lecture**.

24. P. Jessop, C. Liotta, C. Eckert, "Switchable Solvents and Surfactants," 10<sup>th</sup> Green Chemistry and Engineering Conference, Washington, June 2006, **Plenary Lecture**.
23. P. Jessop, C. Liotta, C. Eckert, "Switchable Solvents and Surfactants," 89<sup>th</sup> Canadian Chemistry Conference and Exhibition, Halifax, May 2006, **Invited Lecture**.
22. P. G. Jessop, "New Roles for CO<sub>2</sub> in Homogeneous Catalysis," 8<sup>th</sup> International Conference on Carbon Dioxide Utilization, Oslo, Norway, June 2005, **Invited Lecture**.
21. P. G. Jessop, D. Heldebrant, Li Xiaowang, J. Lu, J. Hallett, R. Jones, P. Pollet, C. Thomas, C. Liotta, C. Eckert "Switchable solvent systems for catalysis and catalyst recovery", ACS National Meeting, San Diego, March 2005, **Invited Lecture**.
20. P. G. Jessop "The Utility of Carbon Dioxide in Homogeneous Catalysis", Workshop on Science for an Environmentally Sustainable Development, Accademia Nazionale Lincei, Rome, Italy, October, 2004, **Invited Lecture**.
19. P. G. Jessop, C. A. Eckert, C. L. Liotta "Supercritical Fluids and Expanded Liquids for Homogeneous Catalysis and Catalyst Recovery", 11<sup>th</sup> International Symposium on Supercritical Fluid Chromatography, Extraction and Processing, Pittsburgh, USA, August 2004, **Invited Lecture**.
18. P. G. Jessop "Green Solvents for Homogeneous Catalysis", International Symposium on Integrated Synthesis, Awaji-shima, Japan, July 2004, **Invited Lecture**.
17. P. G. Jessop, "Homogeneous Catalysis and Catalyst Recovery using Environmentally Benign Solvents", NSF Workshop on Catalysis for Biorenewables, April 2004, Washington, DC, **Invited Lecture**.
16. P. G. Jessop, "Applications of CO<sub>2</sub> in Homogeneous Catalysis", ACS National Meeting, Anaheim, CA, March 2004, **Keynote Lecture**.
15. P. G. Jessop, C. A. Eckert, C. L. Liotta, "Pressurized CO<sub>2</sub> – A Versatile Tool for Green Homogeneous-Catalysis", Asymmetric Synthesis with Chemical and Biological Methods, 7<sup>th</sup> Sonderforschungsbereich Symposium, Jülich, Germany, October 2003, **Invited Lecture**.
14. P. G. Jessop, C. A. Eckert, C. L. Liotta, "Supercritical CO<sub>2</sub> and CO<sub>2</sub>-Expanded Liquids as media for Homogeneous Catalysis and Catalyst Recovery" 7<sup>th</sup> International Conference on Carbon Dioxide Utilization, Seoul, South Korea, October 2003, **Invited Lecture**.

13. P. G. Jessop, C. A. Eckert, C. L. Liotta, "CO<sub>2</sub> as a Solvent and Reagent for Homogeneous-Catalysis" 226<sup>th</sup> ACS National Meeting, New York, USA, September, 2003, **Invited Lecture**.
12. P. G. Jessop, "Applications of CO<sub>2</sub> in Green Homogeneous Catalysis", 2003 Gordon Research Conference on Inorganic Chemistry, Newport, Rhode Island, USA, July 2003, **Invited Lecture**.
11. P. G. Jessop, C. A. Eckert, C. L. Liotta, "Pressurized CO<sub>2</sub> – A Versatile Tool for Green Homogeneous-Catalysis" Saskatchewan Green Chemistry Conference, Regina, Canada, May, 2003, **Invited Lecture**.
10. P. G. Jessop, C. D. Ablan, C.-C. Tai, R. R. Stanley, D. J. Heldebrant, J. P. Hallett, C. A. Eckert, C. L. Liotta, "Pressurized CO<sub>2</sub> – A Versatile Tool for Homogeneously-Catalyzed Green Chemistry" ACS Midwest Regional Meeting, Lawrence, Kansas, October 2002, **Invited Lecture**.
9. P. G. Jessop, "Homogeneous Catalysis in Supercritical Fluids and Other Neoteric Solvents," 13<sup>th</sup> International Symposium on Homogeneous Catalysis, Tarragona, Spain, September, 2002, **Invited Lecture**.
8. P. G. Jessop, "Supercritical Fluids as Environmentally Benign Media for Homogeneous Catalysis," Green Chemistry Workshop, Tokyo, Japan, Sept 2001, **Invited Lecture**.
7. P. G. Jessop, "Homogeneous Catalysis in Neoteric Solvents", 17<sup>th</sup> North American Catalysis Society Meeting, Toronto, Ontario, June, 2001, **Keynote Lecture**.
6. P. G. Jessop, "Homogeneous Hydrogenation and Other Reactions in Neoteric Solvents", 84<sup>th</sup> CSC Conference and Exhibition, Montreal, Québec, May 2001, **Invited Lecture**.
5. P. G. Jessop, J. Bonilla, R. Brown, E. McKoon, C. Thomas, "Supercritical and Subcritical Gases as Solvent Substitutes for Homogeneous Hydrogenation", 42<sup>nd</sup> Rocky Mountain Conference on Analytical Chemistry, Broomfield, Colorado, Aug. 2000, **Invited Lecture**.
4. P. G. Jessop, "Complex or Colloid-Catalysed Hydrogenation Using Supercritical Fluids", COST-10 Workshop on Activation of Hydrogen for Catalytic Chemical Synthesis in Supercritical Reaction Media, Mülheim, Germany, May, 2000, **Invited Lecture**.
3. P. G. Jessop, "Homogeneous Catalysis in Supercritical Fluids," 5<sup>th</sup> Conference on Supercritical Fluids, Garda, Italy, June, 1999, **Plenary Lecture**.
2. P. G. Jessop, "Homogeneous Catalysis in Supercritical Fluids," 8th International Symposium on Supercritical Fluid Chromatography and Extraction, St. Louis, July 1998, **Invited Lecture**.

1. P. G. Jessop, R. Brown, D. Wynne, T. Ikariya, R. Noyori, "Homogeneous Catalysis in Supercritical Carbon Dioxide and Fluoroform," 215th ACS National Meeting, Dallas, March 1998, **Invited Lecture**.