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Associate Member
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Education

1992-96	Research Associate, Ultrafast Phenomena Group Steacie Institute for Molecular Sciences, National Research Council of Canada
1989-92	Postdoctoral Fellow (Supervisor: Y.T. Lee) University of California, Berkeley
1988	PhD, University of Toronto (Supervisor: J.C. Polanyi)
1982	BSc, Queen's University, Kingston, ON

Employment

2014-	Canada Research Chair in Molecular Photonics. Professor of Chemistry & Physics. University of Ottawa.
2009-	Associate Member, Ottawa Institute for Systems Biology University of Ottawa
2007-2014	Adjunct Professor, Department of Physics University of Ottawa
2003-	Adjunct Professor, Department of Physics Queen's University, Kingston ON
1995-	Adjunct Professor, Department of Chemistry Queen's University, Kingston ON
1996-2014	Principal Research Officer & Group Leader, Steacie Institute for Molecular Sciences, National Research Council of Canada
1989	Visiting Scientist, Laser & Plasma Physics Group, Division of Physics National Research Council of Canada

Professional Society Membership

~ Amercian Physical Society ~
~ Optical Society of America ~
~ American Chemical Society ~

Honours & Awards

2020-2021	Chair, Div. of Chemical Physics Executive, American Physical Society
2019-2020	Chair-Elect, Div. of Chemical Physics Executive, American Physical Society
2018	John C. Polanyi Award, Canadian Society for Chemistry "F*or excellence by a scientist carrying out research in Canada in physical, theoretical or computational chemistry or chemical physics*".
2018-2019	Vice Chair, Div. of Chemical Physics Executice, American Physical Society
2017	Fellow, Max-Planck-uOttawa Centre for Extreme and Quantum Photonics
2017	Earle K. Plyler Prize for Molecular Spectroscopy & Dynamics, American Physical Society. "*For the development of methods for probing and controlling ultrafast dynamics in polyatomic molecules, including time-resolved photoelectron spectroscopy and imaging, strong field molecular ionization, and dynamic Stark quantum control.*"
2014	Distinguished Lecturer, Optical Society of America Travelling Lecturer Program
2013	Queen Elizabeth II Diamond Jubilee Medal. Canada
2012	FAST Fellow Visiting Professorship. ETH. Zürich, Switzerland
2011-12	Visiting Professor. Consejo Superior de Inv. Científicas, Madrid, Spain
2010	Visiting Professor. University of Rome 'La Sapienza'. Rome, Italy
2009	Fellow, Optical Society of America
2008	Fellow, American Physical Society
2008	Keith Laidler Award. Canadian Society for Chemistry *"For a distinguished contribution to the field of physical chemistry, recognizing early career achievement"*
2004	Visiting Professor. École Normale Superieure. Paris, France
2003	McElvain Lecturer. University of Wisconsin at Madison. WI, USA
2001	Barringer Award. Spectroscopy Society of Canada
1989-91	NSERC Postdoctoral Fellowship (U.C. Berkeley)
1987	University of Toronto Open Doctoral Fellowship
1983-86	Lash Miller Award. University of Toronto
1983-86	NSERC Postgraduate Scholarship
1980	R.T. Mohan Undergraduate Scholarship, Queen's University

Research Training

	Doctorate	Post-Doctoral
Conferred	5	17
Currently Supervising	4	3

Current University Research Grants:

2020	NSERC CRD Grant "Advanced Imaging Analytics for Gold Mining"	$80,000
2018	NSERC Engage Grant "Rapid Lithium Mineralogy Analyzer"	$25,000
2018-2022	Canadian Foundation for Innovation (Individual) "Multimodal Stimulated Raman Microscopy"	$1,411,726
2016-2021	NSERC Discovery Grant (Individual) "Ultrafast Molecular Sciences"	$540,000
2015-2019	Canadian Foundation for Innovation "Coherent X-ray Photonics" (jointly with P.B. Corkum)	$12,934,574

Committees & Appointments

2019: Optical Society of America. Member, William F. Meggers Award Committee
2019-22: Scientific Advisory Council. Helmholtz-Zentrum-Berlin. Germany
2018-21. Section Editor & Editorial Board Member, Journal of Physics B (IOP). Molecular Physics.
2018-19. NSERC Joint Prizes Selection Committee. Canada.
2017-18. NSERC Joint Prizes Selection Committee. Canada.
2017: Review Committee. 30th IEEE Photonics Conference. Florida USA.
2017: Scientific Program Chair. Photonics North 2017. Ottawa ON Canada.
2016-19: Scientific Advisory Council. Helmholtz-Zentrum-Berlin. Germany
2016-19. Supervisory Board Member & External Advisor, 'ASPIRE' EU International Training Network on Molecular Frame Photoelectron Angular Distributions.
2016. Organizing Committee. Canadian Association of Physicists. Annual Congress. Ottawa ON.
2016: Scientific Program Chair. Photonics North 2016. Quebec City QC Canada.
2015: Organizing Committee. 5th Inter. Conference on Attosecond Physics. St. Sauveur QC Canada.
2015: Symposium Organizer "Probing Non-adiabatic Dynamics" 98th Canadian Chemistry Conference. Ottawa ON Canada.
2015: Scientific Program Chair. Photonics North 2015. Ottawa ON Canada.
2015: Symposium Organizer. CLEO 2015, Optical Society of America. "OPA/OPCPA – Next Generation of Ultra-Short Pulse Laser Technology". San Jose, CA, USA.
2014-2017: Member, External Advisory Board. Stanford PULSE Institute. Stanford University, CA.
2013-2016: Member-at-Large. Executive Committee, Division of Laser Science, American Physical Society.
2013-2016: Member, International Scientific Committee, International Conference on Vacuum Ultraviolet and X-ray Physics.
2013: Co-organizer. "Optical and X-ray Imaging Techniques for Material Characterization" Materials Science & Technology 2013
2012-2013: Member, Program Committee. "New Techniques in Microscopy" Meeting. Optical Society of America.
2012-2013: Member, International Advisory Committee. XXV International Symposium on Molecular Beams. Prague CZ.
2012-2014: Member, Editorial Board. Journal of Chemical Physics. American Institute of Physics.

2011-2012: Member, International Steering Committee. International Conference on Raman Spectroscopy.
2011: Symposium Co-chair. “Attosecond & Strong Field Physics”. Laser Science XXVII Conference. American Physical Society. 16-20 October 2011.
2011-2012: Guest Editor, Journal of Physics B: Atomic, Molecular and Optical Physics. Special Issue on “Molecular-Frame Photoelectron Angular Distributions”.
2011: External Expert. Final Evaluation of European Science Foundation Project # MP0603: “Chemical imaging by means of CARS-microscopy (MicroCARS)”
2011- : Member, Editorial Advisory Board of the Journal of Raman Spectroscopy (Wiley)
2010- : Member, Ultrafast Optical Phenomena Technical Group. Optical Society of America.
2010: Guest Editor, IEEE Journal of Selected Topics in Quantum Electronics. Special Issue on Ultrafast Science and Technology.
2010-2013: Member, Proposal Review Panel. Linac Coherent Light Source, SLAC National Accelerator Laboratory. Stanford University.
2010-2013: Member, Editorial Board, Physical Chemistry Letters (American Chemical Society)
2010- : Member, Editorial Board, Chemical Physics (Elsevier)
2010: Member, Advisory Board, X-Ray Frontiers Program. Kavli Institute for Theoretical Physics. UC Santa Barbara, USA.
2010: Chair, Gordon Research Conference on Photoions, Photoionization & Photodetachment. Galveston TX 31 Jan. – 5 Feb., 2010.
2009- : Member, Program Committee, 17th International Conference on Ultrafast Phenomena.
2009: Co-Chair, “Dynamic Imaging”. LPHYS’09 18th International Laser Physics Workshop. July, 2009. Barcelona, Spain.
2009-2011: Member, Editorial Board, Journal of Physical Chemistry A (American Chemical Society).
2008: Scientific Program Co-Chair. NATO Advanced Study Institute. “Laser Control & Monitoring in New Materials, Biomedicine, Environment, Security & Defense” Nov.24 – Dec.5, 2008. Ottawa, Canada.
2008- : Member, Advisory Board, Munich-Centre for Advanced Photonics. Munich, Germany.
2007- : Member, Editorial Board, Journal of Biophotonics (Wiley VCH)
2007-2008: Member, Program Committee, 16th International Conference on Ultrafast Phenomena.
2006-2011: PhD Supervisor for Mr. Adrian Pegoraro, Dept. of Physics, Queen's University, Kingston, ON.
2005-2010: Member, Editorial Board, Chemical Physics Letters (Elsevier).
2005: Conference Co-Chair. Laser Science 2005, American Physical Society, Optical Society of America.
2004-2005: Member, Program Committee, International Quantum Electronics Conference IQEC2005.
2004-2005: Symposium Co-chair. Pacifichem 2005. “Photophysical Dynamics in Biological Molecules” 15-20 December, 2005. Honolulu, HI. USA
2004: Conference Co-Chair. 2004 Cross Border Workshop on Laser Science: “From Nonlinear Optics to Biophotonics”. May 6-8, 2004. Ottawa, ON, Canada.
2004- : Member, Editorial Board for ChemPhysChem (European Physical Societies, Wiley-VCH))
2003-2004: Symposium Co-chair. American Chemical Society Annual Meeting. Symposium on “Emerging Ultrafast Laser Spectroscopies: From Chemistry to Biophysics”. March 2004 Anaheim, CA, USA.
2003-2004: Member, Program Committee, XIV International Conference on Ultrafast Phenomena. Optical Society of America. July 2004. Niigata Japan.
2003-2004: Member of the International Advisory Board for 14th International Conference on Vacuum Ultraviolet Radiation Physics. July 2004. Cairns Australia.
2002-2010: PhD Supervisor for Mr. Rune Lausten, Dept. of Physics, Queen's University, Kingston, ON.

2002-2007: PhD Supervisor for Mr. Benjamin Sussman, Physics, Queen's University, Kingston, ON.
2000: Member, Canadian Photonics Experts Visioning Panel.
2000-2008: PhD Supervisor for Mr. Anthony Lee, Dept. of Chemistry, Queen's University, Kingston, ON.
2000-2006: Joint PhD Supervisor for Mr. Marc Smits, Dept. of Chemistry, University of Amsterdam.
1999: Member, Program Committee, XII International Conference on Ultrafast Phenomena.
1999- : Member, Advisory Panel for Gordon Conference on Multiphoton Processes.
1999: Member, Editorial Board of PhysChemComm (Royal Society Chemistry).
1999: Member, Organizing Committee, Cross Border Workshop on Laser Science, 20-22 May, Ottawa, Ontario.
1998: Member, NRC Forecasting Committee on Molecular Electronics.
1998: Member, Organizing Committee, NRC Workshop on Organic Materials for Microelectronics, 4-5 December, Ottawa, Ontario.
1997: Member, Sub-committee on Photophysics, Photochemistry & Photobiology, International Quantum Electronics Conference.
1996- : Member, Advisory Panel for Gordon Conference on Molecular Electronic Spectroscopy.

Publications in Refereed Journals (current Google Scholar *h*-index: = 53)

154. X. Ding, R. Forbes, M. Kübel, K.F. Lee, M. Spanner, A.Yu. Naumov, D.M. Villeneuve, A. Stolow, P.B. Corkum, A. Staudte
"Threshold photodissociation dynamics of NO_2 studied by time-resolved cold target recoil ion momentum spectroscopy"
Journal of Chemical Physics 151, 174301 (2019)

153. S.L. Horton, Y. Liu, R. Forbes, V. Makhija, R. Lausten, A. Stolow, P. Hockett, P. Marquetand, T. Rozgonyi, T. Weinacht
"Excited state dynamics of CH_2I_2 and CH_2BrI studied with UV pump VUV probe photoelectron spectroscopy"
Journal of Chemical Physics 150, 174201 (2019)

152. M.A.B. Larsen, T.I. Sølling, R. Forbes, A.E. Boguslavskiy, V. Makhija, K. Veyrinas, R. Lausten, A. Stolow, M.M. Zawadzki, L. Saalbach, N. Kotsina, M.J. Paterson, D. Townsend
"Vacuum ultraviolet excited state dynamics of small amides"
Journal of Chemical Physics 150, 054301 (2019)

151. C. Marceau, V. Makhija, P. Peng, M. Hervé, P.B. Corkum, A.Yu. Naumov, A. Stolow, D.M. Villeneuve
"Non-Born-Oppenheimer electronic wave packet in molecular nitrogen at 14 eV probed by time-resolved photoelectron spectroscopy"
Phys. Rev. A 99, 023426 (2019)

150. S.J. Baskey, M. Andreana, E. Lanteigne, A. Ridsdale, A. Stolow, M.E. Schweitzer
Pre-Clinical Translation of Second Harmonic Microscopy of Meniscal and Articular Cartilage Using a Prototype Nonlinear Microendoscope
IEEE J.Transl.Eng. Health Medicine 7, 1800211 (2018)

149. M-C. Kao, A.F. Pegoraro, D.M. Kingston, A. Stolow, W.C. Kuo, P.H. J. Mercier, A. Gogoi, F.J. Kao, A. Ridsdale
"Direct mineralogical imaging of economic ore and rock samples with multi-modal nonlinear optical microscopy"
Nature Scientific Reports 8, 16917 (2018)

148. M. Coates, M. Larsen, R. Forbes, S. Neville, A. Boguslavskiy, I. Wilkinson, T. Sølling, R. Lausten, A. Stolow, M. Schuurman
"Vacuum Ultraviolet Excited State Dynamics of the Smallest Ring, Cyclopropane: II. Time-Resolved Photoelectron Spectroscopy and Ab Initio Dynamics"
Journal of Chemical Physics 149, 144311 (2018)

147. S. Neville, A. Stolow, M. Schuurman
"Vacuum Ultraviolet Excited State Dynamics of the Smallest Ring, Cyclopropane: I. A Reinterpretation of the Electronic Spectrum and the Effect of Intensity Borrowing"
Journal of Chemical Physics 149, 144310 (2018)

146. R. Forbes, V. Makhija, J.G. Underwood, A. Stolow, I. Wilkinson, P. Hockett, R. Lausten
"Quantum Beat Photoelectron Imaging Spectroscopy of Xe in the VUV"
Physical Review A 97, 063417 (2018)

145. F. Schell, A.E. Boguslavskiy, C.P. Schulz, S. Patchkovskii, M. Vrakking, A. Stolow, J. Mikosch.
"Sequential and Direct Ionic Excitation in the Strong-Field Ionization of 1-butene Molecules"
Physical Chemistry Chemical Physics 20, 14708 (2018)

144. S.P. Neville, M.Chergui, A. Stolow. M.S. Schuurman.
"Ultrafast X-ray Spectroscopy of Conical Intersections".
Physical Review Letters 120, 243001 (2018)

143. W.J. Glover, T. Mori, M.S. Schuurman, A.E. Boguslavskiy, O. Schalk, A. Stolow, T.J. Martínez.
"Excited State Non-adiabatic Dynamics of the Smallest Polyene – trans 1,3-Butadiene. 2. Ab Initio Multiple Spawning Simulations".
Journal of Chemical Physics 148, 164303 (2018)

142. A.E. Boguslavskiy, O. Schalk, N. Gador, W.J. Glover, T. Mori, T. Schultz, M.S. Schuurman, T.J. Martínez, A. Stolow.
"Excited State Non-adiabatic Dynamics of the Smallest Polyene – trans 1,3-Butadiene. 1. Time-resolved Photoelectron-Photoion Coincidence Spectroscopy".
Journal of Chemical Physics 148, 164302 (2018)

141. M.S. Schuurman, A. Stolow.
"Dynamics at Conical Intersections".
Annual Review of Physical Chemistry 69, 427 (2018)

140. O. Schalk, D. Townsend, T.J.A. Wolf, D.M.P. Holland, A.E. Boguslavskiy, M. Szöri, A. Stolow.
"Time-resolved photoelectron spectroscopy of nitrobenzene and its aldehydes"
Chemical Physics Letters 691, 379 (2018)

139. C. Marceau, V. Makhija, D. Platzer, A.Yu. Naumov, P.B. Corkum, A. Stolow, D.M. Villeneuve, P. Hockett.
"Molecular Frame Reconstruction Using Time-Domain Photoionization Interferometry"
Physical Review Letters 119, 083401 (2017)

138. R. Forbes, A.E. Boguslavskiy, I. Wilkinson, J.G. Underwood, A. Stolow.
"Excited state wavepacket dynamics in NO_2 probed by strong-field ionization"
Journal of Chemical Physics 147, 054305 (2017)

137. R. Forbes, V. Makhija, K. Veyrinas, A. Stolow, J.W.L. Lee, M. Burt, M. Brouard, C. Vallance, I. Wilkinson, R. Lausten, P. Hockett.
"Time-resolved multi-mass ion imaging: femtosecond UV-VUV pump-probe spectroscopy with the PImMS camera".
Journal of Chemical Physics 147, 013911 (2017)

136. K. Wang, V. McKoy, P. Hockett, A. Stolow, M.S. Schuurman.
"Monitoring Non-adiabatic Dynamics in CS_2 with Time- and Energy-Resolved Photoelectron Spectra of Wavepackets"
Chemical Physics Letters 683, 597(2017)

135. M-A. Houle, R.C. Burruss, A. Ridsdale, D.J. Moffatt, F. Légaré, A. Stolow.
"Rapid 3D chemical-specific imaging of minerals using Stimulated Raman Scattering".
Journal of Raman Spectroscopy 48, 726 (2017)

134. S.P. Neville, V. Averbukh, M. Ruberti, R. Yun, S. Patchkovskii, M. Chergui, A. Stolow, M.S. Schuurman.
"Excited state X-ray absorption spectroscopy: Probing both electronic and structural dynamics".
Journal of Chemical Physics 145, 144307 (2016)

133. S.P. Neville, V. Averbukh, S. Patchkovskii, M. Ruberti, R. Yun, M. Chergui, A. Stolow, M.S. Schuurman.
"Beyond structure: ultrafast X-ray absorption spectroscopy as a probe of non-adiabatic wavepacket dynamics".
Faraday Discussions 194, 117 (2016)

132. G. Wu, S.P. Neville, O. Schalk, T. Sekikawa, M.N.R. Ashfold, G.A. Worth, A. Stolow.
"Excited state non-adiabatic dynamics of N-methylpyrrole: A time-resolved photoelectron spectroscopy and quantum dynamics study".
Journal of Chemical Physics 144, 014309 (2016)

131. S.P. Neville, Y. Wang, A.E. Boguslavskiy, A. Stolow, M.S. Schuurman.

"Substituent effects on dynamics at conical intersections: Allene and methyl allenes".
Journal of Chemical Physics 144, 014305 (2016)

130. M. Andreana, M-A. Houle, D.J. Moffatt, A. Ridsdale, E. Büttner, F. Légaré, A. Stolow.
"Amplitude and polarization modulated hyperspectral Stimulated Raman Scattering Microscopy"
Optics Express 23, 28119 (2015)

129. H.A. Ernst, T.J.A. Wolf, O. Schalk, N. González-García, A.E. Boguslavskiy, A. Stolow, M. Olzmann, A-N. Unterreiner.
"Ultrafast Dynamics of o-Nitrophenol: An Experimental and Theoretical Study".
Journal of Physical Chemistry A 119, 9225 (2015)

128. G. Wu, S.P. Neville, O. Schalk, T. Sekikawa, M.N.R. Ashfold, G.A. Worth, A. Stolow.
"Excited state non-adiabatic dynamics of pyrrole: A time-resolved photoelectron spectroscopy and quantum dynamics study".
Journal of Chemical Physics 142, 074302 (2015)

127. A. Ferre, A.E. Boguslavskiy, M. Dagan, V. Blanchet, B.D. Bruner, F. Burgy, A. Camper, D. Descamps, B. Fabre, N. Fedorov, J. Gaudin, G. Geoffroy, J. Mikosch, S. Patchkovskii, S. Petit, T. Ruchon, H. Soifer, D. Staedter, I. Wilkinson, A. Stolow, N. Dudovich, Y. Mairesse.
"Multi-channel electronic and vibrational dynamics in polyatomic resonant high-order harmonic generation"
Nature Communications 6, 5952 (2015)

126. A. Stolow.
"May the Electric Force Be With You"
Nature Chemistry 6, 759 (2014)

125. T.J.A. Wolf, T.S. Kuhlman, O. Schalk, T.J. Martinez, K.B. Møller, A. Stolow, A-N. Unterreiner.
"Hexamethylcyclopentadiene: time-resolved photoelectron spectroscopy and ab initio multiple spawning simulations"
Phys.Chem.Chem.Phys. 16, 11770 (2014)

124. I. Wilkinson, A.E. Boguslavskiy, J. Mikosch, J.B. Bertrand, H-J. Wörner, D.M. Villeneuve, M. Spanner, S. Patchkovskii, A. Stolow.
"Excited state dynamics in SO2. I. Bound state relaxation studied by time-resolved photoelectron-photoion coincidence spectroscopy"
Journal of Chemical Physics 140, 204301 (2014)

123. A.M. Barlow, A.D. Slepkov, A. Ridsdale, P.J. McGinn, A. Stolow.
"Label-free hyperspectral nonlinear optical microscopy of the biofuel micro-algae Haematococcus Pluvialis".
Biomedical Optics Express 5, 3391 (2014)

122. S.R. Leone, C.W. McCurdy, J. Burgdoerfer, L.S. Cederbaum, Z. Chang, N. Dudovich, J. Feist, C.H. Greene, M. Ivanov, R. Keinberger, U. Keller, M.F. Kling, Z.H. Loh, T. Pfeifer, A.N. Pfiefer, R. Santra, K. Schafer, A. Stolow, U. Thumm, M.J.J. Vrakking.
"What will it take to observe processes in 'real time' ?"
Nature Photonics 8, 162 (2014)

121. O. Schalk, M.S. Schuurman, G. Wu, P. Lang, M. Mücke, R. Feifel, A. Stolow.
"Internal Conversion versus Intersystem Crossing: What Drives the Gas Phase Dynamics of Cyclic α,β-Enones?"
Journal of Physical Chemistry A 118, 2279 (2014)

120. O. Schalk, A.E. Boguslavskiy, A. Stolow.
"Two-Photon Excited State Dynamics of Dark Valence, Rydberg, and Superexcited States in 1,3-Butadiene".
Journal of Physical Chemistry Letters 5, 560 (2014)

119. A.F. Pegoraro, A.D. Slepkov, A. Ridsdale, D.J. Moffatt, A. Stolow
"Hyperspectral multimodal CARS microscopy in the fingerprint region"
Journal of Biophotonics 7, 49 (2014)

118. O. Schalk, A.E. Boguslavskiy, M.S. Schuurman, R.Y. Brogaard, A.N. Unterreiner, A. Wronska-Piotrowicz, N.H. Werstiuk, A. Stolow.
"Substituent Effects on Dynamics at Conical Intersections: Cycloheptatrienes".
Journal of Physical Chemistry A 117, 10239 (2013)

117. N. Mazumber, R.K. Lyn, R. Singaravelu, A. Ridsdale, D.J. Moffatt, C.W. Hu, H.R. Tsai, J. McLaucklan, A. Stolow, F.J. Kao, J.P. Pezacki.
"Fluorescence Lifetime Imaging of Alterations to Cellular Metabolism by Domain 2 of the Hepatitis C Virus Core Protein".
PLOS ONE 8, e66738 (2013)

116. A. Stolow.
"The three pillars of photo-initiated quantum molecular dynamics".
Faraday Discussions 163, 9 (2013)

115. T.J.A. Wolf, O. Schalk, R. Radloff, G. Wu, P. Lang, A. Stolow, A.N. Unterreiner.
"Ultrafast photoinduced dynamics of halogenated cyclopentadienes: observation of geminate charge-transfer complexes in solution".
Physical Chemistry Chemical Physics 15, 6673 (2013)

114. J. Mikosch, C.Z. Bisgaard, A. Boguslavskiy, I. Wilkinson, A. Stolow.
"The Quantitative Determination of Laser-Induced Molecular Axis Alignment".
Journal of Chemical Physics 139, 024304 (2013)

113. P. Hockett, E. Ripani, A. Rytwinski, A. Stolow.

"Probing ultrafast dynamics with time-resolved multi-dimensional coincidence imaging: butadiene". Journal of Modern Optics 60, 1409 (2013)

112. A.M. Barlow, K. Popov, M. Andreana, D.J. Moffatt, A. Ridsdale, A.D. Slepkov, J.L. Harden, L. Ramunno, A. Stolow.
"Spatial-Spectral Coupling in Coherent Anti-Stokes Raman Scattering Microscopy".
Optics Express 21, 15298 (2013)

111. O. Schalk, S.L. Broman, M.Å. Petersen, D.V. Khakhulin, R.Y. Brogaard, M.B. Nielsen, A.E. Boguslavskiy, A. Stolow, T.I. Sølling.
"On the Condensed Phase Ring-Closure of Vinylheptafulvalene and Ring-Opening of Gaseous Dihydroazulene".
Journal of Physical Chemistry A 117, 3340 (2013)

110. T. Sekikawa, O. Schalk, G-R. Wu, A.E. Boguslavskiy, A. Stolow.
"Initial Processes of Proton Transfer in Salicylideneaniline Studied by Time-Resolved Photoelectron Spectroscopy".
Journal of Physical Chemistry A 117, 2791 (2013)

109. J. Mikosch, A.E. Boguslavskiy, I. Wilkinson, M. Spanner, S. Patchkovskii & A. Stolow
"Channel- and Angle-Resolved Above Threshold Ionization in the Molecular Frame"
Physical Review Letters 110, 023004 (2013)

108. A.C-T. Ko, A. Ridsdale. L.B. Mostaço-Guidolin, A. Major, A. Stolow & M.G. Sowa
"Nonlinear optical microscopy in decoding arterial diseases"
Biophysical Reviews 4, 323 (2012)

107. C. Weeraman, M. Chen, D.J. Moffatt, R. Lausten, A. Stolow, L. Johnston.
"A Combined Vibrational Sum Frequency Generation Spectroscopy and Atomic Force Microscopy Study of Sphingomyelin-Cholesterol Monolayers"
Langmuir 28, 12999 (2012)

106. R.C. Burruss, A.D. Slepkov, A.F. Pegoraro, A. Stolow
"Unraveling the complexity of deep gas accumulations with 3D multimodal CARS microscopy"
Geology 40, 1063 (2012)

105. R.Y. Brogaard, O. Schalk, A.E. Boguslavskiy, G.D. Enright, H. Hopf, V. Raev, E. Tarcoveanu, T.I. Sølling, A. Stolow
"The Paternò–Büchi reaction: importance of triplet states in the excited-state reaction pathway"
Physical Chemistry Chemical Physics 14, 8572 (2012)

104. M. Spanner, J. Mikosch, A.E. Boguslavskiy, M.M. Murnane, A. Stolow, S. Patchkovskii
"Strong-field ionization and high-order-harmonic generation during polyatomic molecular dynamics of N_2O_4"
Physical Review A 84, 033426 (2012)

103. A.E. Boguslavskiy, J. Mikosch, A. Gijsbertsen, M. Spanner, S. Patchkovskii, N. Gador, M.J.J. Vrakking, A. Stolow
"The multielectron ionization dynamics underlying attosecond strong field spectroscopies"
Science 335, 1336 (2012)

102. K.I. Popov, A.F. Pegoraro, A. Stolow, L. Ramunno
"Image formation in CARS and SRS: effect of an inhomogeneous nonresonant background medium"
Optics Letters 37, 473 (2012)

101. R. Livingstone, O. Schalk, A.E. Boguslavskiy, G. Wu, L.T. Bergendahl, A. Stolow, M.J. Paterson, D. Townsend
"Following the excited state relaxation dynamics of indole and 5-hydroxyindole using time-resolved photoelectron spectroscopy"
Journal of Chemical Physics 135, 194307 (2011)

100. D.C. Kennedy, C.S. McKay, M.C.B. Legault, D.C. Danielson, J.A. Blake, A.F. Pegoraro, A. Stolow, Z. Mester, J.P. Pezacki
"Cellular Consequences of Copper Complexes Used To Catalyze Bioorthogonal Click Reactions"
Journal of the American Chemical Society 133, 17993 (2011)

99. G. Wu, A.E. Boguslavskiy, O. Schalk, M.S. Schuurman, A. Stolow
"Ultrafast Non-adiabatic Dynamics of Methyl Substituted Ethylenes: the π3s Rydberg State"
Journal of Chemical Physics 135, 164309 (2011)

98. M. Spanner, J. Mikosch, A. Gijsbertsen, A.E. Boguslavskiy, A. Stolow
"Multielectron Effects and Nonadiabatic Electronic Dynamics in Above Threshold Ionization and High Harmonic Generation"
New Journal of Physics 13, 93010 (2011)

97. P.J. Bustard, G. Wu, R. Lausten, D. Townsend, I.A. Walmsley, A. Stolow, B.J. Sussman
"From Quantum Control to Quantum Technology with the Dynamic Stark Effect"
Faraday Discussions 153, 321 (2011)

96. G. Wu, P. Hockett, A. Stolow
"Time-Resolved Photoelectron Spectroscopy: from wavepackets to observables"
Physical Chemistry Chemical Physics 13, 18447 (2011)

95. O. Schalk, A.E. Boguslavskiy, A. Stolow, M.S. Schuurman
"Through-Bond Interactions and the Localization of Excited State Dynamics"
Journal of the American Chemical Society 133, 16451 (2011)

94. A.E. Boguslavskiy, M.S. Schuurman, D. Townsend, A. Stolow
"Non-Born–Oppenheimer wavepacket dynamics in polyatomic molecules: vibrations at conical intersections in DABCO"

Faraday Discussions 150, 419 (2011)

93. R.Y. Brogaard, A.E. Boguslavskiy, O. Schalk, G.D. Enright, H. Hopf, V.A. Raev, P.G. Jones, D.L. Thomsen, T.I. Sølling, A. Stolow
"Pseudo-Bimolecular [2+2] Cycloaddition Studied by Time-Resolved Photoelectron Spectroscopy"
Chemistry-A European Journal 17, 3922 (2011)

92. P. Hockett, C.Z. Bisgaard, O.J. Clarkin, A. Stolow
"Time-resolved imaging of purely valence-electron dynamics during a chemical reaction"
Nature Physics 7, 612 (2011)

91. K.I. Popov, A.F. Pegoraro, A. Stolow, L. Ramunno
"Image Formation in CARS Microscopy: Effect of the Gouy Phase Shift"
Optics Express 19, 5902 (2011)

90. A.D. Slepkov, A. Ridsdale, H-N Wan, M-H Wang, A.F. Pegoraro, D.J. Moffatt, J.P. Pezacki, F-J Kao, A. Stolow
"Forward-collected simultaneous fluorescence lifetime imaging and coherent anti-Stokes Raman scattering microscopy"
Journal of Biomedical Optics 16, 021103 (2011)

89. D. Townsend, B.J. Sussman, A. Stolow.
"A Stark Future for Quantum Control"
Journal of Physical Chemistry A 115, 357 (2011)

88. A.D. Slepkov, A. Ridsdale, A.F. Pegoraro, D.J. Moffatt, A. Stolow
"Multimodal CARS microscopy of structured carbohydrate biopolymers"
Biomedical Optics Express 1, 1347 (2010)

87. A. Pegoraro, A. Slepkov, A. Ridsdale, J.P. Pezacki & A. Stolow
"Single laser source for multimodal CARS microscopy"
Applied Optics 49, F10 (2010)

86. R.K. Lyn, D.C. Kennedy, A. Stolow, A. Ridsdale, J.P. Pezacki
"Dynamics of lipid droplets induced by the hepatitis C virus core protein"
Biochemical and Biophysical Research Communications 399, 518 (2010)

85 D.R. Blais, R.K. Lyn, M.A. Joyce, Y. Rouleau, R. Steenbergen, N. Barsby, L.F. Zhu, A.F. Pegoraro, A. Stolow, D.L. Tyrrell, J.P. Pezacki
"Activity-based Protein Profiling Identifies a Host Enzyme, Carboxylesterase 1, which Is Differentially Active during Hepatitis C Virus Replication"
Journal of Biological Chemistry 285, 25602 (2010)

84. L.B. Mostaço-Guidolin, M.G. Sowa, A. Ridsdale, A.F. Pegoraro, M.S.D. Smith, M.D. Hewko, E.K. Kohlenberg, B. Schattka, M. Shiomi, A. Stolow, A.C-T. Ko

"Differentiating atherosclerotic plaque burden in arterial tissues using femtosecond CARS-based multimodal nonlinear optical imaging"
Biomedical Optics Express 1, 59 (2010)

83. C. Weeraman, S.A. Mitchell, R. Lausten, L.J. Johnston, A. Stolow
"Vibrational sum frequency generation spectroscopy using inverted visible pulses"
Optics Express 18, 11487 (2010)

82. O. Schalk, A. Boguslavskiy, A. Stolow
"Substituent Effects on Dynamics at Conical Intersections: Cyclopentadienes"
Journal of Physical Chemistry A 114, 4058 (2010)

81. A.C.T. Ko, M.S.D. Smith, L.B. Mostaço-Guidolin, M.D. Hewko, E.K. Kohlenberg, B. Schattka, M.G. Sowa, A. Ridsdale, A.F. Pegoraro, A. Stolow, M. Shiomi
"Multimodal nonlinear optical imaging of atherosclerotic plaque development in myocardial infarction prone rabbits"
Journal of Biomedical Optics 15, 20501 (2010)

80. M.G. Sowa, L.B. Mostaco-Guidolin, M.S.D. Smith, E.K. Kohlenberg, A. Ridsdale, A. Stolow & A.C.T. Ko
"Nonlinear Optical Measurements of the Artery Wall: Parameters Related to the Progression of Atherosclerosis"
Measurement Science Review 9, 93 (2009)

79. A.F. Pegoraro, A. Ridsdale, D.J. Moffatt, J.P. Pezacki, A. Stolow, B.K. Thomas, L. Fu, L. Dong, M.E. Fermann
"All-fiber CARS microscopy of live cells"
Optics Express 17, 20700 (2009)

78. A.F. Pegoraro, A. Stolow, A. Ridsdale, D.J. Moffatt, J.P. Pezacki, Y. Jia
"CARS Microscopy Made Simple"
Biophotonics 18(8), 36 (2009)

77. A. Stolow
"Chemical Physics: Molecular Conformations Fielded"
Nature 461, 1063 (2009)

76. R.K. Lyn, D.C. Kennedy, S.M. Sagan, D.R. Blais, Y. Rouleau, A.F. Pegoraro, X.S. Xie, A. Stolow, J.P. Pezacki
"Direct imaging of the disruption of hepatitis C virus replication complexes by inhibitors of lipid metabolism"
Virology 394, 130 (2009)

75. A.F. Pegoraro, A. Ridsdale, D.J. Moffatt, J.P. Pezacki, A. Stolow
"CARS Microscopy Made Simple"
Photons 7, 50 (2009)

74. C.Z. Bisgaard, O.J. Clarkin, G. Wu, A.M.D. Lee, O. Geßner, C.C. Hayden & A. Stolow
"Time-resolved Molecular Frame Dynamics of Fixed-in-Space CS_2 Molecules"
Science 323, 1464 (2009)

73. A.F. Pegoraro, A. Ridsdale, D.J. Moffatt, Y. Jia, J.P. Pezacki & A. Stolow
"Optimally chirped multimodal CARS microscopy based on a single Ti:sapphire oscillator"
Optics Express 17, 2984 (2009)

72. C.Z. Bisgaard, H. Satzger, S. Ullrich & A. Stolow
"Excited-State Dynamics of Isolated DNA Bases: A Case Study of Adenine"
ChemPhysChem 10, 101 (2009)

71. A. Pegoraro A. Ridsdale R.K. Lyn J.P. Pezacki & A. Stolow
"Simple High Performance Multi-modal Coherent Anti-Stokes Raman Scattering (CARS) Microscopy Based on a Two-Photon Microscope"
Microscopy and Microanalysis 14 (Supplement S2), 758 (2008)

70. A. Stolow & J.G. Underwood
"Time-Resolved Photoelectron Spectroscopy of Non-adiabatic Dynamics in Polyatomic Molecules"
Advances in Chemical Physics 139, 497 (2008)

69. W. Li, R. Lock, S. Patchkovskii, A. Stolow, H.C. Kapteyn, M.M. Murnane
"Time-resolved Dynamics in N_2O_4 probed using High Harmonic Generation"
Science 322, 1207 (2008)

68. R. Lausten, O. Smirnova, B.J. Sussman, S. Gräfe, A.S. Mouritzen, & A. Stolow
"Time- and frequency-resolved coherent anti-Stokes Raman scattering spectroscopy with sub-25 fs laser pulses"
Journal of Chemical Physics 128, 244310 (2008)

67. B.J. Sussman, R. Lausten & A. Stolow
"Focusing of light following a 4-f pulse shaper: Considerations for quantum control"
Physical Review A 77 , 043416 (2008)

66. A.M.D. Lee, J.D. Coe, S. Ullrich, M.-L. Ho, S.-J. Lee, B.-M. Cheng, M.Z. Zgierski, I-C. Chen, T.J. Martinez, A. Stolow
"Substituent effects on dynamics at conical intersections: alpha,beta-enones"
Journal of Physical Chemistry A 111, 11948 (2007)

65. N. Gador, E. Samoylova, V.R. Smith, A. Stolow, D.M. Rayner, W. Radloff, I.V. Hertel, T. Schultz
"Electronic Structure of Adenine and Thymine Base Pairs Studied by Femtosecond Electron-Ion Coincidence Spectroscopy"
Journal of Physical Chemistry A 111, 11743 (2007)

64. H.R. Hudock, B.G. Levine, A.L. Thompson, H. Satzger, D. Townsend, N. Gador, S. Ullrich, A. Stolow, T.J. Martinez
"Ab Initio Molecular Dynamics and Time-Resolved Photoelectron Spectroscopy of Electronically Excited Uracil and Thymine"
Journal of Physical Chemistry A 111, 8500 (2007)

63. M. Noestheden, Q. Hu, L-L. Tay, A.M. Tonary, A. Stolow, R. MacKenzie, J. Tanha, J.P. Pezacki
"Synthesis and characterization of CN-modified protein analogues as potential vibrational contrast agents"
Bioorganic Chemistry 35, 284, (2007)

62. X-L. Nan, A.M. Tonary, A. Stolow, X.S. Xie, J.P. Pezacki
"Intracellular imaging of HCV RNA and cellular lipids by using simultaneous two-photon fluorescence and coherent anti-Stokes Raman scattering microscopies"
ChemBioChem 7 1895 (2006)

61. D. Townsend, H. Satzger, T. Ejdrup, A.M.D. Lee, H. Stapelfeldt & A. Stolow
"$^1B_2(^+\Sigma_u)$ Excited State Decay Dynamics in CS_2"
Journal of Chemical Physics 125, 234302 (2006)

60. K.F. Lee, D.M. Villeneuve, P.B. Corkum, A. Stolow & J.G. Underwood
"Field-free three-dimensional alignment of polyatomic molecules"
Physical Review Letters 97, 173001 (2006)

59. B.J. Sussman, D. Townsend, M. Yu. Ivanov & A. Stolow
"Dynamic Stark Control of Molecular Photodissociation"
Science 314, 278 (2006)

58. H. Satzger, D. Townsend, & A. Stolow
"Reassignment of the low lying cationic states in gas phase adenine and 9-methyl adenine"
Chemical Physics Letters 430, 144 (2006)

57. S.V. Levchenko, H. Reisler, A.I. Krylov, O. Gessner, A. Stolow, H. Shi, A.L.L. East
"Photodissociation dynamics of the NO dimer: I. Theoretical overview of the ultraviolet singlet excited states"
Journal of Chemical Physics 125, 084301 (2006)

56. H. Satzger, D. Townsend, M.Z. Zgierski, S. Patchkovskii, S. Ullrich & A. Stolow
"Primary processes underlying the photostability of isolated DNA bases: Adenine"
Proceedings of the National Academy of Sciences 103, 10196 (2006)

55. B. J. Sussman, J. G. Underwood, R. Lausten, M. Yu. Ivanov & A. Stolow
"Quantum control via the dynamic Stark effect: Application to switched rotational wave packets and molecular axis alignment"
Physical Review A 73, 053403 (2006)

54. O. Gessner, A.M.D. Lee, J.P. Shaffer, H. Reisler, S.V. Levchenko, A.I. Krylov, J. G. Underwood, H. Shi, A.L.L. East, D.M. Wardlaw, E.t-H. Chrysostom, C.C. Hayden & A. Stolow
"Femtosecond Multi-dimensional Imaging of a Molecular Dissociation"
Science 311, 219 (2006)

53. R. Lausten,. P. Rochon, M. Ivanov, P. Cheben, S. Janz, P. Desjardins, J. Ripmeester, T. Siebert & A. Stolow
"Optically reconfigurable azobenzene polymer-based fibre Bragg filter"
Applied Optics 44, 7039 (2005)

52. B.J. Sussman, M.Yu. Ivanov & A. Stolow
"Non-perturbative quantum control via the non-resonant dynamic Stark effect"
Physical Review A 71, 051401R (2005)

51. J.G. Underwood, B.J. Sussman & A. Stolow
"Field-free three dimensional molecular axis alignment"
Physical Review Letters 94, 143002 (2005)

50. M. Smits, C.A. de Lange, A. Stolow & D.M. Rayner
"Absolute ionization rates of multielectron transition metal atoms in strong infrared laser fields"
Physical Review Letters 93, 213003 (2004)

49. M. Smits, C.A. de Lange, A. Stolow & D.M. Rayner
"Dynamic polarization in the strong field ionization of small metal clusters"
Physical Review Letters 93, 203402 (2004)

48. A. Stolow & D.M. Jonas
"Multi-dimensional Snapshots of Chemical Dynamics"
Science 305, 1575 (2004)

47. O. Gessner, E.t-H. Chrysostom, A.M.D. Lee, D.M. Wardlaw, M-L. Ho, S-J. Lee, B-M. Cheng, M.Z. Zgierski, I-C. Chen, J.P. Shaffer, C.C. Hayden & A. Stolow
"Non-adiabatic intramolecular and photodissociation dynamics studied by femtosecond time-resolved photoelectron and coincidence imaging spectroscopy"
Faraday Discussions 127, 193 (2004)

46. S. Ullrich, T. Schultz, M.Z. Zgierski & A. Stolow
"Electronic relaxation dynamics in DNA and RNA bases studied by Time-Resolved Photoelectron Spectroscopy"
Phys. Chem. Chem. Phys. 6, 2796 (2004)

45. A.Stolow, A.E. Bragg, D.M. Neumark
"Femtosecond Time-resolved Photoelectron Spectroscopy"
Chemical Reviews 104, 1719 (2004)

44. S. Ullrich, T. Schultz, M.Z. Zgierski & A. Stolow
"Direct observation of Electronic Relaxation Dynamics in Adenine *via* Time-Resolved Photoelectron Spectroscopy"
Journal of the American Chemical Society (Commun.) 126, 2262 (2004)

43. M.Smits, C.A. de Lange, S. Ullrich, T. Schultz, M. Schmitt, J.G. Underwood, J. P. Shaffer, D.M. Rayner & A.Stolow
"Stable kHz rate molecular beam laser ablation sources"
Review of Scientific Instruments 74, 4812 (2003)

42. T.Schultz, J.Quenneville, B.Levine, A.Toniolo, S.Lochbrunner, M.Schmitt, J.P.Shaffer, M.Z.Zgierski & A.Stolow
"Mechanism and Dynamics of Azobenzene Photoisomerization"
Journal of the American Chemical Society (Commun.) 125, 8098 (2003)

41. J.G. Underwood, M. Spanner, M.Yu. Ivanov, J. Mottershead, B.J. Sussman & A. Stolow
"Switched Wavepackets: A Route to Non-perturbative Quantum Control"
Physical Review Letters 90, 223001 (2003)

40. A.Stolow
"Time-resolved Photoelectron Spectroscopy: Non-adiabatic Dynamics in Polyatomic Molecules"
International Reviews in Physical Chemistry 22, 377 (2003)

39. A.Stolow
"Femtosecond Time-resolved Photoelectron Spectroscopy of Polyatomic Molecules"
Annual Reviews of Physical Chemistry 54, 89 (2003)

38. S-H. Lee, K-C. Tang, I-C. Chen, M. Schmitt, J.P. Shaffer, T. Schultz, J.G. Underwood, M.Z. Zgierski & A. Stolow
"Substituent Effects in Molecular Electronic Relaxation Dynamics via Time-Resolved Photoelectron Spectroscopy: $\pi\pi^*$ States in Benzenes"
Journal of Physical Chemistry A 106, 8979 (2002)

37. M. Lezius, V. Blanchet, M. Yu. Ivanov & A. Stolow
"Polyatomic molecules in strong laser fields: Nonadiabatic multielectron dynamics"
Journal of Chemical Physics 117, 1575 (2002)

36. K.Resch, V.Blanchet, A.Stolow & T.Seideman
"Toward Polyatomic Wavepacket Decomposition: Final State Effects"
Journal of Physical Chemistry A 105, 2756 (2001)

35. S.Lochbrunner, T.Schultz, M.Schmitt, J.P.Shaffer, M.Z.Zgierski & A.Stolow
"Dynamics of excited state proton transfer systems via time-resolved photoelectron spectroscopy."
Journal of Chemical Physics 114, 2519 (2001)

34. V.Blanchet, M.Z.Zgierski & A.Stolow
"Electronic continua in time-resolved photoelectron spectroscopy.1. Complementary ionization correlations."
Journal of Chemical Physics 114, 1194 (2001)

33. M.Schmitt, S.Lochbrunner, J.P.Shaffer, J.J.Larsen, M.Z.Zgierski & A.Stolow
"Electronic continua in time-resolved photoelectron spectroscopy.2. Corresponding ionization correlations."
Journal of Chemical Physics 114, 1206 (2001)

32. M.Lezius, V.Blanchet, D.M.Rayner, D.M.Villeneuve, A.Stolow & M.Yu.Ivanov
"Non-adiabatic multi-electron dynamics in strong field molecular ionization"
Physical Review Letters 86, 51 (2001)

31. S.Lochbrunner, J.J.Larsen, J.P.Shaffer, M.Schmitt, T.Schultz, J.G.Underwood & A.Stolow
"Methods & applications of femtosecond time-resolved photoelectron spectroscopy"
Journal of Electron Spectroscopy and Related Phenomena 112, 183 (2000)

30. V.Blanchet, S.Lochbrunner, M.Schmitt, J.P.Shaffer, J.J.Larsen, M.Z.Zgierski, T.Seideman & A.Stolow
"Towards disentangling coupled electronic-vibrational dynamics in ultrafast non-adiabatic processes"
Faraday Discussions 115, 33 (2000)

29. M.Brooks, R.Brousseau, J.Luong, S.Charbonneau, J.Cook, M.D'Iorio, Y.Tao, Y.Deslandres, J.Dyment, P.Morley,
A.Stolow & D.D.M.Wayner
"A Perspective on Molecular Electronics"
Physics in Canada 55, 285 (1999)

28. V.Blanchet, M.Z.Zgierski, T.Seideman & A.Stolow
"Discerning vibronic molecular dynamics using time-resolved photoelectron spectroscopy"
Nature 401, 52, (1999)

27. M.Shapiro, M.J.J.Vrakking & A.Stolow
"Non-adiabatic wavepacket dynamics: Experiment and theory in IBr"
Journal of Chemical Physics 110, 2465, (1999)

26. P.J.Poole, J.Hong, A.Stolow & S.Charbonneau
"Time- and frequency-resolved photoluminescence upconversion using broadly tunable picosecond infrared pulses"
Review of Scientific Instruments 69, 1943 (1998)

25. V.Blanchet & A.Stolow
"Non-adiabatic dynamics in polyatomic systems studied by femtosecond time-resolved photoelectron spectroscopy"

Journal of Chemical Physics 108, 4371 (1998)

24. A.Stolow
"Applications of Wavepacket Methodology"
Philisophical Transactions of the Royal Society A 356, 345 (1998)

23. E.Constant, V.Taranukhin, A.Stolow & P.B. Corkum
"Methods for the measurement of the duration of high harmonic pulses"
Physical Review A56, 3870 (1997)

22. D.M.Villeneuve, I.Fischer, A.Zavriyev & A.Stolow
"Space Charge and Plasma Effects in Zero-Kinetic-Energy (ZEKE) Photoelectron Spectroscopy"
Journal of Chemical Physics 107, 5310 (1997)

21. J.Hong, A.D.O.Bawagan, S.Charbonneau & A.Stolow
"Simple, broadly tunable femtosecond pulse generation in the near- and mid-infrared"
Applied Optics 36, 1894 (1997)

20. M.Yu.Ivanov & A.Stolow
"Coherent control of Rydberg lifetimes using Wavepacket Technology"
Chemical Physics Letters 265, 231 (1997)

19. I.Sh.Averbukh, M.J.J.Vrakking, D.M.Villeneuve & A.Stolow
"Wavepacket Isotope Separation"
Physical Review Letters 77, 3518 (1996)

18. M.J.J.Vrakking, D.M.Villeneuve & A.Stolow
"Non-adiabatic wavepacket dynamics: predissociation of IBr"
Journal of Chemical Physics 105, 5647 (1996)

17. M.J.J.Vrakking, D.M.Villeneuve & A.Stolow
"Observation of Fractional Revivals in Molecular Wavepackets"
Physical Review A 54, 37R (1996)

16. A.Stolow
"GHz bandwidth ultrahigh vacuum 50Ω coaxial high voltage coupling capacitor for photoelectron spectroscopy"
Review of Scientific Instruments 67, 1777 (1996)

15. A.Stolow
"Minumum profile ultrahigh vacuum gate valve based on linear/rotary motion feedthrough"
Journal of Vacuum Science & Technology A 14, 2669 (1996)

14. I.Fischer, M.J.J.Vrakking, D.M.Villeneuve & A.Stolow

"Wavepacket Dynamics of the I_2 B-state Studied by Femtosecond Time-Resolved Photoionization and Zero-Kinetic-Energy Photoelectron Spectroscopy"
Chemical Physics 207, 331 (1996)

13. M.J.J.Vrakking, I.Fischer, D.M.Villeneuve & A.Stolow
"Collisional Enhancement of Rydberg Lifetimes observed in Vibrational Wavepacket Experiments"
Journal of Chemical Physics 103, 4538 (1995)

12. I.Fischer, D.M.Villeneuve, M.J.J.Vrakking & A.Stolow
"Femtosecond Wavepacket Dynamics Studied by Time-Resolved Zero-Kinetic-Energy (ZEKE) Photoelectron Spectroscopy"
Journal of Chemical Physics 102, 5566 (1995)

11. A.Zavriyev, I.Fischer, D.M. Villeneuve & A.Stolow
"Ponderomotive Effects in Zero-Kinetic-Energy (ZEKE) Photoelectron Spectroscopy with Intense Femtosecond Pulses"
Chemical Physics Letters 234, 281 (1995)

10. D.M. Villeneuve, I. Fischer & A.Stolow
"High Power Tunable Femtosecond Visible and Infrared Light from a Synchronized Ti:Sapphire/Nd:YAG Laser System by Difference Frequency Mixing"
Optics Communications 114, 141 (1995)

9. A.Stolow & Y.T. Lee
Photodissociation dynamics of CO_2 at 157.6nm by photofragment-translational spectroscopy"
Journal of Chemical Physics 98, 2066 (1993)

8. A.Stolow, B.A. Balko, E.F. Cromwell, J-S. Zhang & Y.T. Lee
"The Dynamics of H_2 Elimination from Ethylene"
Journal of Photochemistry & Photobiology 62, 285 (1992)

7. E.F. Cromwell, A. Stolow, M.J. Vrakking & Y.T. Lee
"Dynamics of ethylene photodissociation from rovibrational and translational energy distributions of H_2 products"
Journal of Chemical Physics 97, 4029 (1992)
6. B.A.Collings, J.C.Polanyi, M.A.Smith, A.Stolow and A.W.Tarr
"Observation of the Transition State $HD_2^{\ddagger}$ in Collisions; $H+D_2$"
Physical Review Letters 59, 2551 (1987); 63, 2160 (1989)

5. D.J.Donaldson, J.Parsons, J.J.Sloan and A.Stolow
"Vibrational Energy Partitioning in the Reaction of F Atoms with NH_3 and ND_3"
Chemical Physics 85, 47 (1984)

4. S.Wolfe, A.Stolow and L.J.LaJohn
"Stereoelectronic Effects in the Kinetic Acidities of Diastereotropic Hydrogens"

Canadian Journal of Chemistry 62, 1470 (1984)

3. S.Wolfe, A.Stolow and L.J.LaJohn
"A Theoretical Re-examination of Carbanions Adjacent to Sulphide, Sulphoxide and Sulphone Centers"
Tetrahedron Letters 24, 4071 (1983)

2. R.Sutcliffe, M.Anpo, A.Stolow and K.U.Ingold
"Kinetic applications of electron paramagnetic resonance.39. Bimolecular self-reactions of some N-alkylcarboxyamidyl, N-alkylsulfonamidyl, and N-alkyl-N-(alkoxycarbonyl)aminyl radicals. Intermolecular hydrogen atom abstraction by N-ethylpropionamidyl radical"
Journal of the American Chemical Society 104, 6064 (1982)

1. A.Garton, A.Stolow and D.M.Wiles
"Infrared Spectroscopic Characterization of Surface Coatings on Glass Fibers"
Journal of Material Science 16, 3211 (1981)

Conference Proceedings *(to date: 28)*

M-A. Houle, M. Andreana, A. Ridsdale, D. Moffatt, R. Lausten, F. Légaré, A. Stolow
"Polarization modulated background-free hyperspectral stimulated Raman scattering microscopy"
SPIE BiOS, p.97120K (2016)

A.M. Barlow, K. Popov, M. Andreana, D.J. Moffatt, A. Ridsdale, A.D. Slepkov, L. Ramunno, A. Stolow.
"Spatial-spectral coupling in hyperspectral CARS microscopy imaging"
in *"Three-Dimensional and Multidimensional Microscopy: Image Acquisition and Processing XX".* CJ Cogswell, TG Brown, JA Conchello, T. Wilson Eds.
Proceedings of SPIE 8589 (2013).

O. Schalk, A.E. Boguslavskiy, M.S. Schuurman, A. Stolow.
"The Dynamophore - Localization of Excited State Dynamics Studied by Time-Resolved Photoelectron Spectroscopy"
XVIIIth International Conference on Ultrafast Phenomena. Vol. 41. Lausanne CH. 2012.

O. Schalk, P. Lang, M.S. Schuurman, G. Wu, M. Bradler, E. Riedle, A. Stolow.
"Internal Conversion vs. Intersystem Crossing - What Drives the Dynamics of Cyclic alpha,beta-Enones?"
XVIIIth International Conference on Ultrafast Phenomena. Vol. 41. Lausanne CH. 2012.

T. Sekikawa, O. Schalk, G.R. Wu, A.E. Boguslavskiy, A. Stolow.
"Initial Processes of Proton Transfer in Salicylideneaniline Studied by Time-Resolved Photoelectron Spectroscopy"
XVIIIth International Conference on Ultrafast Phenomena. Vol. 41. Lausanne CH. 2012.

K.I. Popov, A.F. Pegoraro, A. Stolow, L. Ramunno
"Effect of the Nonresonant Background Medium in CARS and SRS Microscopy Image Formation"
Conference on Lasers & Electro-Optics (CLEO). San Jose, CA, USA. 2012.

R.C. Burruss, A.D. Slepkov, A.F.Pegoraro, A. Stolow
"Coherent anti-Stokes Raman scattering (CARS) microscopy of fluid inclusions: multimodal 3D, chemically selective imaging and spectroscopy"
in *European Current Research on Fluid Inclusions (ECROFI-XXI)*, Austria, August 2011. p. 54.

T. Sekikawa, O. Schalk, G. Wu, A.E. Boguslavskiy, A. Stolow
"Initial Process of Proton Transfer in Salicylideneaniline Studied by Time-resolved Photoelectron Spectroscopy"
in *European Quantum Electronics Conference (EQEC)*. Munich, Germany (2011).

A. Ridsdale, A. Cardenas-Blanco, A. Stolow, M.E. Schweitzer.
"A New Potentially in Vivo Imaging Technique: Direct Nondestructive Microscopy of Articular Cartilage"
in *Radiological Society of North America 2010. Personalized Medicine* (2010). Paper #SST14-07.

M.S.D. Smith, A.C.T. Ko, A. Ridsdale, B.Schattka, A. Pegoraro, M.D. Hewko, M. Shiomi, A. Stolow, M. G. Sowa
"A single-photon fluorescence and multi-photon spectroscopic study of atherosclerotic lesions"
in *"Biophotonics. Photonics North 2009"*. R. Vallée Ed.
Proceedings of SPIE 7386 73860I-1 (2009).

ACT Ko, A Ridsdale, AF Pegoraro, MSD Smith, LB Mostaco-Guidolin, MD Hewko, EK Kohlenberg, B Schattka, M Shiomi, A Stolow, MG Sowa
"Label-free imaging of arterial tissues using photonic crystal fibre (PCF) based nonlinear optical microscopic system"
in *"Imaging, Manipulation, and Analysis of Biomolecules, Cells, and Tissues VII"* DL Farkas, DV Nicolau, RC Leif Eds.
Proceedings of SPIE 7182 (2009).

W. Li, X. Zhou, R. Lock, S. Patchkovskii, A. Stolow, E. Gagnon, A. Sandhu, R. Santra, P. Ho, V. Sharma, C.W. Hogle, P. Ranitovic, C.L. Cocke, M. Murnane, H.C. Kapteyn
"Probing Coupled Electronic and Nuclear Dynamics Using Coherent Electrons and X-rays"
in OSA Technial Digest 'Laser Science 2009', Frontiers in Optics, Optical Society of America #LSTuI3

W. Li, XB Zhou, R Lock, S Patchkovskii, O. Smirnova, A. Stolow, M Murnane, H Kapteyn
"Probing Dynamics in Polyatomic Molecules Using High Harmonic Generation: the Role of Ionization Continua"
in *"Springer Series in Chemical Physics, Vol.92, Ultrafast Phenomena XVI"*, P. Corkum, S Desilvestri, KA Nelson, E Riedle. Eds. (Springer Verlag, Berlin, 2009) p.63.

A.F. Pegoraro, A. Ridsdale, D.J. Moffatt, J.P. Pezacki, A. Stolow, B.K. Thomas, L. Fu, L. Dong, M.E. Fermann
"All-fiber multimodal CARS microscopy of live cells"
CLEO Europe EQEC 2009, Postdeadline paper PDA.9 (2009).

O. Gessner, A.M.D. Lee, E.t-H. Chrysostom, C.C. Hayden & A. Stolow
"Femtosecond Multidimensional Imaging - Watching Chemistry from the Molecule's Point of View"
in *"Springer Series in Chemical Physics, Vol.88, Ultrafast Phenomena XV"*, P. Corkum, D. Jonas, R.D.J. Miller, A.M. Weiner. Eds. (Springer Verlag, Berlin, 2007) p.365.

H. Satzger, D. Townsend, M.Z. Zgierski & A. Stolow
"Direct Observation of Ultrafast Dynamics in DNA Bases"
in *"Springer Series in Chemical Physics, Vol.88, Ultrafast Phenomena XV"*, P. Corkum, D. Jonas, R.D.J. Miller, A.M. Weiner. Eds. (Springer Verlag, Berlin, 2007) p.486.

D-X Xu, P. Cheben, R. Lausten, M. Ivanov, S. Janz, B. Lamontagne, E. Post, J. Ripmeester, P.Rochon & A.Stolow,
"Holographic gratings in silicon-on-insulator waveguides with azo-polymer cladding"
ICO Topical Meeting on Optoinformatics and Information Processing, (St Petersburg, Russia 2006).

O. Gessner, E.t-H. Chrysostom, A.M.D. Lee, J.P. Shaffer, C.C. Hayden & A. Stolow
"Photodissociation dynamics studied via Time-Resolved Coincidence Imaging Spectroscopy"
in *"Springer Series in Chemical Physics, Vol.79, Ultrafast Phenomena XIV"*, T. Kobayashi, T.Okada, T. Kobayashi, K.A. Nelson, S. De Silvestri. Eds. (Springer Verlag, Berlin, 2005) p.496.

J.P. Shaffer, T. Schultz, J.G. Underwood, C.C. Hayden & A. Stolow
"Time-Resolved Photoelectron Spectroscopy: Charge & Energy Flow in Molecules"
in *"Springer Series in Chemical Physics, Vol.71, Ultrafast Phenomena XIII"*, R.D.Miller, M.M.Murnane, N.F.Scherer, A.M.Weiner Eds. (Springer Verlag, Berlin, 2003) p.71.

J.G.Underwood, A.Stolow, L.Misoguti, M.M.Murnane & H.C.Kapteyn, "Coherent femtosecond VUV generation via Guided Wave Phase Matched Parametric Generation" in *Ultrafast Optics 2001*, Montebello, Quebec 22-26 July 2001. Postdeadline Paper 2.

S.Lochbrunner, M.Schmitt, J.P.Shaffer, T.Schultz & A.Stolow
"Time-resolved photoelectron spectroscopy of excited state intramolecular proton transfer dynamics"
in *"Springer Series in Chemical Physics, Vol.66, Ultrafast Phenomena XII"*, T.Elsaesser, S.Mukamel, M.Murnane, N.Scherer, Eds. (Springer Verlag, Berlin, 2000).

J.P.Shaffer, T.Schultz, M.Schmitt, J.G.Underwood & A.Stolow
"Untangling π–π*/*n*-π* orbital interactions via time-resolved photoelectron spectroscopy"
in *"Springer Series in Chemical Physics, Vol.66, Ultrafast Phenomena XII"*, T.Elsaesser, S.Mukamel, M.Murnane, N.Scherer, Eds. (Springer Verlag, Berlin, 2000).

V.Blanchet & A.Stolow
"Time Resolved Configuration Interaction"
in *"Springer Series in Chemical Physics, Vol.63, Ultrafast Phenomena XI"*, T.Elsaesser, J.G.Fujimoto, D.A.Wiersma, W.Zinth, Eds. (Springer Verlag, Berlin, 1998), p.456.

I.Fischer, M.J.J.Vrakking, D.M.Villeneuve & A.Stolow
"Wavepacket Dynamics via Femtosecond Time-resolved Photoelectron & Photoionization Spectroscopy"
in *"Springer Series in Chemical Physics, Vol.62, Ultrafast Phenomena X"*
P.F.Barbara, J.G.Fujimoto, W.H.Knox & W.Zinth eds. (Springer Verlag, Berlin 1996).

I.Fischer, M.J.J.Vrakking, D.M.Villeneuve & A.Stolow
"Femtosecond Time-Resolved Zero-Kinetic-Energy Photoelectron & Photoionization Spectroscopy studies of Wavepacket Dynamics"
in *"Femtosecond Chemistry"*, M.Chergui ed. (World Scientific, Singapore 1996).

M.J.J.Vrakking, I.Fischer, D.M.Villeneuve & A.Stolow
"Lifetime Enhancement of Rydberg States observed in Vibrational Wavepacket Experiments"
in *"Femtosecond Chemistry"*, M.Chergui ed. (World Scientific, Singapore 1996).

A.Stolow & Y.T.Lee
"157nm Photodissociation Dynamics of CO_2 via Photofragment-Translational Spectroscopy"
S.P.I.E. Conference Proceedings, Los Angeles, California
Optical Methods for Time- and State-Resolved Chemistry
Vol.1638, p.197, 23-25 January, 1992.

A.Stolow, B.Balko, E.F. Cromwell, J.Zhang & Y.T.Lee
"The Dynamics of Hydrogen Elimination from Ethylene"
Mol. Dyn. Combust. Chem. 1-31 (1992)
Workshop Int. Inst. Pure Appl. Chem.
World Sci. Singapore

Book Chapters

M.S. Schuurman & A. Stolow
"Interrogation of Nonadiabatic Molecular Dynamics Via Time-Resolved Photoelectron Spectroscopy" in 'Conical Intersections: Theory, Computation and Experiment', Edited by W. Domcke, D. Yarkony, H. Köppel. Advanced Series in Physical Chemistry Vol. 17 (World Scientific, Singapore 2011).

A. Stolow & J.G. Underwood
"Time-Resolved Photoelectron Spectroscopy of Non-adiabatic Dynamics in Polyatomic Molecules"
Advances in Chemical Physics. Vol. 139, Edited by S.A. Rice, (Wiley, New York, 2008).

C.C. Hayden & A. Stolow
"Non-adiabatic Dynamics studied by Femtosecond Time-resolved Photoelectron Spectroscopy"
Advanced Physical Chemistry, Vol.10, Edited by C-Y Ng. (World Scientific Singapore, 2000).

Patents

A. Stolow, P.H.J. Mercier, A. Ridsdale. Provisional United States Patent. "Optical Imaging of Mineral Species using Hyperspectral Modulation Transfer Techniques". # U.S. 62/429,388 (2 Dec. 2016).

Invited Talks *(to date: 310)*

Seminar
Fritz-Haber-Institut der Max-Planck-Gesellschaft
Berlin, Germany
5 November, 2019
"Nuclear-Driven Electronic Coherences in Molecules"

Max-Planck-Institute for the Science of Light
Erlangen, Germany
30 October, 2019
"Broadband Stimulated Raman Microscopy using ANDi Fibres"

Colloquium
Department of Engineering Physics
Ecole Polytechnique, Montreal
26 September, 2019
"Coherent Raman Microscopy: From Biophotonics to Geophotonics"

14th Femtochemistry Conference
Shanghai, China
29 July 2019
"Nuclear-Driven Electronic Coherences in Molecules"

Theodor Maiman Seminar
Max-Planck-Institute for Quantum Optics
Garching, Germany
6 June 2019
"Nuclear Driven Electronic Coherences in Molecules"

Colloquium
Max-Born-Institute for Nonlinear Optics
Berlin, Germany
23 May 2019
"Nuclear Driven Electronic Coherences in Molecules"

International Conference on Ultrafast Science
Ecole Polytechnique Federale de Lausanne
Switzerland
29 November 2018
"Electronic Coherences in Molecules Driven by Nuclear Dynamics"

Departmental Colloquium, Chemistry
Dalhousie University
Halifax, NS, Canada
23 November 2018
“Coherent Nonlinear Optical Raman Microscopy”

ASPIRE EU Network Meeting.
Mainz, Germany.
“Electronic Coherences Driven by Nuclear Dynamics”
26 September 2018

American Chemical Society 2018 National Meeting
Symposium on Ultrafast Molecular Sciences by Femtosecond Photons & Electrons
Boston, MA, USA
21 August 2018
“Femtosecond Time-Resolved Photoelectron Spectroscopy: Femtochemistry of the Excited State”

American Chemical Society 2018 National Meeting
Symposium on Strong Field Chemistry
Boston, MA, USA
20 August 2018
“Time-resolved Excited State Dynamics using Strong Laser Fields”

American Chemical Society 2018 National Meeting
Symposium on Information Theory and Dynamics
Boston, MA, USA
19 August 2018
“Watching a Dissociating Molecule Sample its Available Phase Space”

Telluride Science Conference on “Quantum Frontiers in Molecular Science”
Telluride, CO, USA
20 June 2018
“Non-Perturbative Quantum Control and Strong Field Ionization of Molecules”

Tel Aviv University
Tel Aviv, Israel
11 June 2018
“Molecules in Laser Fields: Ultrafast Chemical Dynamics to Quantum Control to Strong Field Physics”

Weizmann Institute of Science
Rehovot, Israel
10 June 2018
“Electronic Dynamics in Molecules: From Strong Fields to X-Rays”

The Grand Challenges in the Chemical Sciences

Israel Academy of Sciences and Humanities
Jerusalem, Israel
5 June 2018
“Transition States in the Excited State: Dynamics at Conical Intersections”

Canadian Society for Chemistry. Polanyi Award Lecture.
Edmonton, Alberta
31 May 2018
“Dynamics at Conical Intersections: Towards Polanyi Rules for Polyatomics”

American Physical Society, DAMOP Meeting
Fort Lauderdale, FL, USA
28 May 2018
“Ultrafast Molecular Dynamics via Strong Field Ionization”

Symposium on Recollision Physics
Montebello, Quebec
10 May 2018
“The Life It Brings: Molecules in Laser Fields”

Symposium on Molecular Biradicals GRK2112
Würzburg, Germany
1 March 2018
“Conical Intersections: Transition States in the Excited State”

Gordon Research Conference on Photoionization & Photodetachment
Galveston, TX, USA
19 February 2018
“Time-Resolved Core Level Spectroscopy”

Gordon Research Seminar on Photoionization & Photodetachment
Galveston, TX, USA
17 February 2018
“Molecules in Laser Fields”

Scientific Opportunities with the Compact XFEL
Tempe, AZ, USA
5 Feburary 2018
“Ultrafast X-ray Spectroscopy of Conical Intersections”

4th International Conference on Ultrafast Structural Dynamics
Trieste, Italy
6 December 2017
“Ultrafast Nonadiabatic Molecular Dynamics via Time-resolved Valence and Inner Shell Spectroscopies”

Physics Colloquium
McGill University
17 November 2017
“Molecules in Laser Fields”

Chemistry Colloquium
University of Rochester
18 October 2017
“Watching Charge & Energy Flow in Excited Molecules”

NRC-Taiwan 20th Anniversary Celebration
National Research Council
16 October 2017
“Twenty Years of Canada-Taiwan Collaborations”

Max-Planck Centre for Extreme & Quantum Optics
University of Ottawa
11 October 2017
“Ultrafast Non-adiabatic Molecular Dynamics, Coherent Nonlinear Raman Microscopy”

13th International Conference on Femtochemistry.
Cancun, Mexico.
14 August 2017
“Ultrafast Electronic-Structural Dynamics in the Smallest Polyene: 1,3-butadiene”

Ringberg Workshop. Max-Planck-Institute for the Science of Light
Tegernsee, Germany
1 June 2017
“The Three Pillars of Ultrafast Molecular Science: Time, Phase, Intensity”

Colloquium. Max-Planck-Institute for the Science of Light
Erlangen, Germany
30 May 2017
“Coherent Raman Microscopy”

Plyler Prize Lecture
American Physical Society March Meeting
New Orlean LA, USA
15 March 2017
“Three Pillars of Ultrafast Molecular Science: Time, Phase, Intensity”

Colloquium, Department of Physics
Carleton University, Ottawa
31 January 2017
“Molecules in Laser Fields: Non-adiabatic Dynamics, Quantum Control, Strong Fields”

Colloquium, Department of Physics
University of Toronto Mississauga
18 January 2017
“Coherent Raman Microscopy: From Biophotonics to Geophotonics”

ASPIRE Network Meeting: Tutorial Lecture
Aarhus, Denmark
15 December 2016
“Time-resolved Photoelectron Spectroscopy

Max-Born-Institute for Nonlinear Optics
Berlin, Germany
4 November 2016
“Ultrafast Non-adiabatic Molecular Dynamics: From Photoelectron Spectroscopy to X-ray Absorption”

PULSE Institute, Stanford University
Menlo Park, CA, USA
8 October 2016
“Non-adiabatic Molecular Dynamics: Coupled Charge and Energy Flow”

Faraday Discussion on Ultrafast Imaging of Photochemical Dynamics
Edinburgh, Scotland, UK
31 August – 2 September 2016
“Beyond Structure: Ultrafast X-Ray Absorption Spectroscopy as a Probe of Non-Adiabatic Wavepacket Dynamics”

Gordon Research Conference on Molecular Interactions & Dynamics
Easton, MA, USA
10-15 July 2016
“Towards Polanyi Rules for Polyatomics: Vibrational Dynamics at Conical Intersections”

Gordon Research Conference on Multiphoton Processes
Andover, NH, USA
19-24 June 2016
“Probing Molecular Wavepacket Dynamics with Laser Fields”

Molecules and Laser Fields
Orford, Quebec
7 May 2016
“Molecules in Laser Fields”

Gordon Research Conference on Photoionization & Photodetachment
Il Ciocco, Italy
7-12 February 2016

"Direct Comparison of Photoelectron Spectroscopy, Strong Field Ionization and High Harmonic Generation as Probes of Molecular Dynamics"

Colloquium, Department of Physics
Stony Brook University
Stony Brook NY USA
24 November 2015
"Molecules in Laser Fields"

Reaction Dynamics Symposium 2015
Institute of Atomics & Molecular Sciences, Academia Sinica
Taipei, Taiwan
10 November 2015
"Towards Polanyi rules for Polyatomics: Vibrational dynamics at Conical Intersections"

International Max-Planck Research School on Physics of Light
Gösweinstein, Germany
8 October 2015
"Molecular Sciences: The Dynamical Perspective"

Workshop on Soft X-rays in Energy and Time
Berlin, Germany
21 August 2015
"Molecular Wavepacket Dynamics"

International Symposium on Molecular Beams
Segovia, Spain
29 June 2015
"The Dynamophore: Localization of Excited State Dynamics in Nonadiabatic Processes"

Brazilian Physical Society National Meeting.
Foz do Iguaçu, Brazil
26 May 2015
"Molecules in Laser Fields: Ultrafast Electronic Dynamics"

Advances in Biomedical Research Seminar
University of Ottawa
3 February 2015
"Coherent Nonlinear Raman Microscopy: Label-free, Molecule-Specific Imaging"

Coherence and Control in the Quantum World: Current and Future Trends
Weizmann Institute
15 December 2014
Rehovot, Israel
"Ultrafast Electronic-Nuclear Dynamics from the Molecule's Point of View"

29th Annual Ottawa-Carleton Institute of Physics December Symposium
Carleton University
10 December 2014
“Coherent Nonlinear Raman Microscopy”

Seminar. Institut Fresnel.
22 November 2014
Marseille, France
“Image Formation in Coherent Nonlinear Microscopy”

Colloquium. Department of Chemistry
Stanford University
21 October 2014
Stanford, CA, USA
“Watching Ultrafast Charge and Energy Flow in Molecular Dynamics”

Stereodynamics 2014
18-21 August, 2014
St. Petersburg, Russia
“Ultrafast Non-adiabatic & Laser-driven Molecular Dynamics”

Coherence and Control in the Quantum World: Moshe Shapiro Memorial Symposium
13-15 August, 2014
University of British Columbia
Vancouver, BC
“Polyatomic Molecules in Strong Laser Fields”

OSA Applied Industrial Optics: Spectroscopy, Imaging, and Metrology
7 July, 2014
Seattle, WA, USA
“Multimodal Coherent Nonlinear Optical Microscopy: From Biophotonics to Geophotonics”

Keynote Lecture, OSA Distinguished Travelling Lecturer Program
International OSA Network of Students
May 25, 2014
“Coherent Nonlinear Optical Microscopy: A New View on Life”

Colloquium. Department of Physics.
University of Central Florida.
4 April 2014
“Ultrafast Molecular Sciences”

Invited Lecturer. MicroCOR Winter School on Chemical Imaging by Coherent Raman and Nonlinear Microscopy

Les Houches, France
24 February 2014
“Raman Spectroscopy, Femtosecond CARS, Hyperspectral CARS Microscopy”

Invited Lecturer. MicroCOR Winter School on Chemical Imaging by Coherent Raman and Nonlinear Microscopy
Les Houches, France
25 February 2014
“Image Formation in NLO Microscopy: Spectral & Spatial Distortions in CARS & SRS Microscopy”

Colloquium. Max-Planck-Institute for the Physics of Complex Systems.
Dresden, Germany.
25 Nov 2013.
“Dynamics of Polyatomic Molecules in Laser Fields”

Department of Chemistry.
Warwick University, UK.
14 Nov 2013.
“Femtosecond Molecular Sciences: from Molecular Dynamics to Biophotonics”

Department of Chemistry
University of Durham, UK.
12 Nov 2013.
“Femtosecond Lasers, from Molecular Physics to Microscopy”

Department of Physics, Heriot-Watt University
Edinburg UK.
11 Nov 2013.
“Ultrafast Molecular Sciences”

International Conference on Attosecond Physics
Paris, FR
12 July 2013
“Sub-cycle Multielectron Physics of Polyatomic Molecules”

International Symposium on Molecular Beams.
Prague CZ.
10 June 2013.
“Molecular Beam PEPICO Studies of Strong Field Attosecond Processes in Molecules”

96th Canadian Chemistry Conference.
Symposium on Ultrafast Photochemistry and Quantum Control.
Quebec, QC.
30 May 2013.
“Polyatomic Molecules in Strong Laser Fields”

3rd Annual Workshop on Spectroscopic Imaging
Purdue University.
Lafayette, IN, USA.
May 23-24, 2013.
“Hyper-spectral CARS imaging in the fingerprint region”

Centre for Oil Sands Initiatives.
University of Alberta.
Edmonton, AB.
13 May 2013.
“Imaging the Microscopic Distribution of Organic Material in Oil Sands”

Department of Physics
Imperial College.
London, UK.
18 April 2013.
“Polyatomic Molecules in Laser Fields”

Introductory Lecture, Faraday Discussion on “Photoinduced Quantum Molecular Dynamics”
Nottingham, UK.
15-17 April 2013.
“The Three Pillars of Photoinduced Quantum Molecular Dynamics”

Lecturer. Workshop on “Unravelling the Interpretation of Attosecond Measurements”
U.S. Department of Energy.
Washington, DC, USA
26 March 2013
“Molecular Wavepacket Dynamics”

Department of Chemistry
Tulane University
New Orleans, LA, USA
4 March 2013
“CARS Microscopy Made Simple”

AMO Colloquium. Departments of Physics, Chemistry.
University of British Columbia
Vancouver, BC
17 January 2013
“Molecular Sciences: The Dynamical Perspective”

Colloquium. Department of Chemistry.
Simon Fraser University
Burnaby, BC

16 January 2013
"CARS Microscopy Made Simple: Label-free, Molecule-Specific Imaging"

Colloquium. Department of Chemistry.
University of British Columbia
Vancouver, BC
15 January 2013
"CARS Microscopy Made Simple: Label-free, Molecule-Specific Imaging"

Colloquium. Centre d'Optique, Photonique et Laser (COPL).
Laval University
Quebec, QC
11 December 2012
"CARS Microscopy Made Simple: Label-free, Molecule-Specific Imaging"

Colloquium. Department of Chemistry.
University of Sherbrooke
Sherbrooke, QC
21 November 2012
"CARS Microscopy Made Simple: Label-free, Molecule-Specific Nonlinear Microscopy"

Colloquium. Department of Chemistry & Biochemistry.
University of Colorado, Boulder.
Boulder CO USA
16 November 2012
"CARS Microscopy Made Simple: Label-free, Molecule-Specific Nonlinear Microscopy"

Schawlow-Townes Symposium on Photonics, University of Ottawa
Ottawa ON
9 November 2012
"Molecular Photonics: New Light on Molecular Sciences"

Annual Meeting. Geological Society of America.
Charlotte, NC, USA
7 November 2012
"Multimodal Coherent Raman Spectroscopy and 3D Microscopy: Nonlinear Optical Tools for Geoscience Research"

Lecturer, "Frontiers in X-ray Science".
Max-Planck Department for Structural Dynamics.
Centre for Free Electron Lasers (CFEL). DESY.
Hamburg, Germany.
12 October, 2012.
"Molecular Sciences: The Dynamical Perspective"

Institute Seminar.
École Polytechnique Fédérale de Lausanne.
Lausanne, Switzerland.
5 October, 2012
“CARS Microscopy Made Simple”

FAST Fellow Lecturer.
Institute of Quantum Electronics. Physics Department.
ETH Zurich. Switzerland.
1-4 October, 2012.
“Molecular Dynamics Lecture Series” (5 lectures, 10 hours).

Department of Chemistry. Universidad Autonoma.
Madrid, Spain
29 August 2012
“Dynamics of Polyatomic Molecules in Laser Fields”

Department of Chemistry. Universidad Complutense.
Madrid, Spain
28 August 2012
“Dynamics at Conical Intersections”

Gordon Research Conference on Electronic Spectroscopy & Dynamics.
Lewiston, ME, USA.
23 July 2012.
“The Dynamophore: Localization of Excited State Dynamics”

Photonics North 2012. Bio-Medical-Infection Conference.
Montreal, PQ.
7 June 2012.
“Broadly Tunable CARS Microscopy in the Fingerprint Region”

Keynote Seminar, Inaugural Symposium
Waitt Advanced Biophotonics Center
Salk Institute for Biological Studies
San Diego, CA, USA
May 4, 2012
“Multimodal CARS Microscopy: Label-free Live Cell Nonlinear Imaging”

Instrumentation Development Meeting.
Stanford Linear Coherent Light Source (LCLS II).
Stanford, CA, USA
March 22, 2012
“Time-resolved Photoelectron Spectroscopy”

Gordon Research Conference on Photoionization & Photodetachment
Galveston, TX, USA
February 16, 2012
“Polyatomic Molecules in Strong Laser Fields”

Institute Colloquium.
Max-Planck-Institute for Quantum Optics
Garching, Germany
January 13, 2012
“Molecular Sciences: The Dynamical Perspective”

Symposium on Chemical Physics.
University of Waterloo.
Waterloo, Ontario.
November 6, 2011.
“CARS Microscopy Made Simple”

Seminar. Department of Chemistry.
University of California, Berkeley.
Berkeley, California, USA
November 2, 2011.
“CARS Microscopy Made Simple”

Physical Chemistry Colloquium. Department of Chemistry.
University of California, Berkeley.
Berkeley, California, USA
November 1, 2011.
“Watching Ultrafast Charge & Energy Flow in Molecules”

Colloquium. Department of Physics.
Frei Universität Berlin.
Berlin, Germany.
25 October 2011.
“CARS Microscopy Made Simple”

Colloquium. Fritz-Haber-Institut der Max-Planck-Gesselschaft.
Berlin, Germany.
24 October 2011
“Dynamic Stark Control”

Colloquium. McGill Chemical Society. McGill University.
Montreal, PQ.
4 October 2011.
“CARS Microscopy Made Simple: Label-free, Chemical Specific Nonlinear Optical Imaging of Live Cells & Tissues”

Conference on Molecular Energy Transfer
Oxford, UK.
15 September 2011
“Towards Polanyi rules for polyatomics via time-resolved photoelectron spectroscopy”

American Chemical Society National Meeting.
Denver, CO, USA
1 September 2011
“Attosecond strong field dynamics of polyatomic molecules”

American Chemical Society National Meeting.
Denver, CO, USA
29 August 2011
“Multimodal CARS Microscopy using a simple femtosecond source”

Gordon Research Conference on Quantum Control of Light & Matter
Mount Holyoke College, MA, USA
3 August 2011
“Molecules in Intermediate to Strong Laser Fields”

Faraday Discussion 153: Coherence and Control in Chemistry”
Leeds, UK
26 July 2011
“From Molecular Control to Quantum Technology with the dynamic Stark Effect”

Colloquium. Max-Born-Institute for Nonlinear Optics
Berlin, Germany
22 July 2011
“Imaging the Ultrafast Electronic Dynamics of Polyatomic Molecules:
Molecular Frame Photoelectron Imaging, Quantum Control, Attosecond Strong Field Physics”

Colloquium. Institut de Ciencies Fotoniques
Barcelona, Spain
18 July 2011
“Dynamics of Polyatomic Molecules in Laser Fields”

The Madrid Conference on Femtochemistry
Madrid, Spain.
11 July 2011
“Reaction Dynamics”

Canadian Society for Chemistry
Montreal, PQ
9 June 2010

"Time-Resolved Imaging of Purely Valence Electron Dynamics During a Chemical Reaction"

Canadian Society for Chemistry
Montreal, PQ
8 June 2011
"A Pulse Shaping Approach to Broadband Infrared Sum Frequency Generation Spectroscopy"

Microscopical Society of Canada 38th Annual Meeting
Ottawa ON
7 June 2011
"Multi-modal CARS microscopy using a simple femtosecond source"

Information Photonics
Ottawa, ON
18 May 2011
"High Performance Multimodal CARS Microscopy using a Single Laser Source"

Photonics North
Ottawa, ON
16 May 2011
"CARS Microscopy Made Simple"

Focus On Microscopy Conference
Konstanz, Germany
20 April 2011
"CARS Microscopy for Hoi Polloi"

University of Bern
Bern, Switzerland
14 April 2011
"Multimodal CARS Microscopy using a Simple Femtosecond Source"

ETH Zürich
Zürich Switzerland
12 April 2011
"Polyatomic Molecules in Laser Fields: Dynamics, Control, Strong Fields"

Ecole Polytechnique Federale de Lausanne
Lausanne, Switzerland
11 April 2011
"Polyatomic Molecules in Laser Fields: Dynamics, Control, Strong Fields"

Faraday Discussions 150. "Frontiers in Spectroscopy"
Basel, Switzerland
7 April 2011

"Non-Born Oppenheimer wavepacket dynamics in polyatomic molecules: vibrations at conical intersections in DABCO"

Colloquium
Ottawa Institute of Systems Biology
Faculty of Medicine, University of Ottawa
29 March 2011
"Shining New Light on Live Cells: Nonlinear Optical Microscopy"

Beckman Laser Institute
University of California, Irvine
3 March 2011
"CARS Microscopy Made Simple"

Institute Colloquium. Center for Free-Electron Laser Science.
Hamburg, Germany.
19 January 2011
"Imaging the Dynamics of Polyatomic Molecules"

INRS - Énergie, Matériaux et Télécommunications
Varennes, Quebec.
5 November 2010
"Multi-modal CARS Microscopy Using a Simple Femtosecond Source"

Department of Engineering Physics.
Ecole Polytechnique de Montreal. Quebec.
4 November 2010
"CARS Microscopy Made Simple"

Department of Physics
University of Stockholm, Sweden
11 October 2010
"Polyatomic Molecules in Laser Fields: Non-adiabatic Dynamics, Quantum Control, Strong Field Physics"

International Conference on Raman Spectroscopy.
Boston, MA USA
12 August 2010
"Multi-modal CARS Microscopy Using a Simple Femtosecond Source"

Future Developments in Coherent Raman Microscopy.
Harvard University. Cambridge University.
7 August 2010
"CARS Microscopy for Hoi Polloi"

International Max Planck Research School of Advanced Photon Science. Munich-Centre for Advanced Photonics.
Wildbad Kreuth, Germany.
1 August 2010
"Ultrafast Molecular Dynamics"

Gordon Research Conference on Atomic & Molecular Interactions
Tilton, NH, USA
18 July 2010
"Dynamics and Control in the Molecular Frame"

Lecturer, Ultrafast X-ray Science Summer School. SLAC National Accelerator Laboratory. Stanford University.
Menlo Park, CA. USA
22 June 2010
"Dynamics in the Molecular Frame using Weak and Strong Laser Fields"

Lecturer, Ultrafast X-ray Science Summer School. SLAC National Accelerator Laboratory. Stanford University.
Menlo Park, CA. USA
22 June 2010
"Wavepacket Dynamics in Polyatomic Molecules: Creation, Evolution, Control and Detection"

Keynote Speaker. U.S. Department of Energy. 31st Annual Combustion Research Meeting.
Warrenton, VA USA
2 June 2010
"Ultrafast Dynamics and Quantum Control of Nonadiabatic Processes"

93rd Canadian Society for Chemistry Conference. Sympsoium on Coherence & Decoherence in Molecular Dynamics.
Toronto, ON
1 June, 2010
"Non-resonant, non-perturbative Dynamic Stark Control of Quantum Dynamics"

Department of Chemistry
University of Rome "La Sapienza"
Rome, Italy
29 April 2010
"Quantum Control, Molecules in Strong Laser Fields"

Department of Chemistry
University of Perguia
Perugia, Italy
27 April 2010
"Femtochemistry from the Molecule's Viewpoint"

Department of Chemistry
University of Rome “La Sapienza”
Rome, Italy
26 April 2010
“Femtosecond Pump-Probe Spectroscopy”

Sigma Xi Lecture
Ottawa, ON
17 February, 2010
“Shining New Light on Live Cells: Nonlinear Optical Microscopy”

Department of Chemistry, Stanford University
Stanford, CA, USA
4 December, 2009
“CARS Microscopy Made Simple”

The Future of Ultrafast Soft X-ray Science
Lawrence Berkeley Laboratory
Berkeley, CA, USA
2 December, 2009
“Time-Resolving Chemical Reaction Dynamics”

ACS 238th National Meeting. Symposium on 25 Years of ZEKE
Washington DC, USA.
17 August 2009
“Time-resolved photoelectron spectroscopy in the molecular frame”

ACS 238th National Meeting. Symposium on Biological Applications of Nonlinear Optical Imaging and Spectroscopy
Washington DC, USA.
19 August 2009
“Optimally chirped multimodal CARS Microscopy based on a single Ti:Sa oscilliator”

CSC2009 Canadian Society for Chemistry
Hamilton, ON
1 June 2009
“Time-Resolved Chemical Dynamics from the Molecule’s Perspective”

XIth Cross Border Workshop on Laser Science
Ottawa, ON
29 May 2009
“Optimally Chirped High Performance CARS Microscopy of Live Cells and Tissues”

Photonics North. Symposium on Photonics Design & Simulation.

Quebec City, QC
24 May 2009
"High Performance Multimodal CARS Microscopy using a Single Femtosecond Source"

40th Annual Meeting of the American Physical Society Division of Atomic, Molecular Optical Physics
Charlottesville, VA USA
21 May 2009
"Imaging Ultrafast Dynamics in the Molecular Frame"

Colloquium
Department of Chemistry & James Franck Institute
University of Chicago, Chicago IL USA
20 April 2009
"Ultrafast Travels and Detours along the Arrow of Chemistry"

The Canadian Laser Applications Network (CLAN) Meeting
Toronto, ON
11-12 March, 2009
"Chemical-specific, non-destructive material diagnostics via Coherent Nonlinear Raman Microscopy"

Ontario Institute for Cancer Research
MaRS Centre, Toronto, ON
9 February, 2009
"Label-free imaging of cells using CARS Microscopy""

Gordon Research Conference on Molecular Energy Transfer
Ventura, California USA
18-23 January 2009
"Nonadiabatic charge and energy flow in excited molecules: Dynamics & Control"

NATO Advanced Study Institute. "Laser Control & Monitoring in New Materials, Biomedicine, Environment, Security & Defense" Ottawa, Canada.
Nov.26, 2008
"CARS in Biomedicine – II: Microscopy"

NATO Advanced Study Institute. "Laser Control & Monitoring in New Materials, Biomedicine, Environment, Security & Defense" Ottawa, Canada.
Nov.25, 2008
"CARS in Biomedicine – I: Non-linear Optics & Coherent Control"

NRC-NSERC-BDC Workshop on Organic Photovoltaics
Laval University, Quebec City, Quebec
18 November 2008
"Characterization of Multiple Exciton Generation (MEG) in nanocrystals & composites"

Colloquium
Chemistry, Temple University
Philadelphia, PA, USA
23 October 2008
“Ultrafast Travels & Detours along the Arrow of Chemistry”

International Conference on Multiphoton Processes
Heidelberg, Germany
18-23 September 2008
“Probing Dynamics of Polyatomic Molecules: Photoelectron Spectroscopy and High Harmonic Generation”

Gordon Research Conference on Multiphoton Processes
Tilton, New Hampshire USA
8-13 June 2008
“Polyatomic Molecular Dynamics: High Harmonic Generation vs. Time-Resolved Photoelectron Spectroscopy”

Keith Laidler Award Lecture. Canadian Society for Chemistry
Edmonton, Alberta.
27 May 2008
“Non-adiabatic Dynamics and its Quantum Control”

ACFAS Symposium on Biophotonics
Quebec City, Quebec.
6 May 2008
“Coherent Anti-Stokes Raman Scattering (CARS) Microscopy of Live Cells”

American Chemical Society. National Meeting. Symposium on Optical Probes of Dynamics in Complex Systems.
New Orleans, LA. USA
4-10 April 2008
“Non-adiabatic Molecular Dynamics and it’s Quantum Control”

American Physical Society. March Meeting. Focus Session on Quantum Control
New Orleans, LA. USA
12 March 2008
“Non-resonant, non-perturbative Dynamic Stark Control of Quantum Dynamics”

48th Sanibel Symposium. Session on Non-adiabatic Phenomena
St. Simons Island, Georgia USA
26 Feb. 2008
“'Non-adiabatic Molecular Dynamics and its Quantum Control'”

University of Alberta. Department of Physics

Edmonton AB.
17 January 2008
“Molecular Physics in Strong Laser Fields”

University of Alberta. Department of Chemistry
Edmonton AB.
16 January 2008
“Ultrafast Molecular Science: From Femtochemistry to Biophotonics”

University of Calgary. Department of Chemistry
Calgary AB.
15 January 2008
“Ultrafast Molecular Science: From Femtochemistry to Biophotonics”

Ottawa-Carleton Institute of Physics
University of Ottawa
12 December 2007
“Ultrafast Molecular Sciences: from Quantum Dynamics to Biophotonics”

Canada-Taiwan Bilateral Workshop on “Emerging Photonic Applications in Medicine”
Taipei, Taiwan
13-14 November 2007
“Coherent Anti-Stokes Raman Scattering (CARS) Microscopy of Live Cells”

Workshop on “Science for a New Class of Soft X-Ray Light Sources”
University of California, Berkeley
8-10 October, 2007
“Non-adiabatic Dynamics in Polyatomic Molecules”

Institute of Optics & Department of Physics
Peking University
Beijing, China
26 September, 2007
“Ultrafast Molecular Physics in Laser Fields”

10th National Chemical Dynamics Meeting
Dalian, China
20-24 September, 2007
“Femtosecond Molecular Science: Time, Phase, Intensity”

Department of Physics
Imperial College
London UK
6 August 2007
“Polyatomic Molecules in Laser Fields”

Department of Physics
University College London
London UK
1 August 2007
“Polyatomic Molecules in Laser Fields”

Femtochemistry & Femtobiology 8
Magdalen College, Oxford University
Oxford UK
22-27 July, 2007
“Dynamics and Control of Ultrafast Non-adiabatic Processes”

Gordon Research Conference on Photochemistry
Bryant University, Smithfield RI, USA
8-13 July 2007
“Ultrafast Dynamics of Non-adiabatic Photochemistry and its Quantum Control”

American Physical Society Meeting, Division of Atomic, Molecular & Optical Physics.
Calgary, Alberta
5 – 9 June 2007
“Non-perturbative Quantum Control via the Non-resonant Dynamic Stark Effect”

International Symposium on Molecular Beams
Freiburg, Germany
27 May – 2 June 2007
“Ultrafast Non-adiabatic Molecular Dynamics and its Quantum Control”

Seminar, Department of Chemistry
University of Ottawa
Ottawa, ON
7 May, 2007
“Femtosecond Molecular Sciences: from Non-linear Optics to Biophotonics”

Colloquium, Department of Chemistry
University of Sherbrooke
Sherbrooke, QC
7 February, 2007
“Watching and Controlling Chemical Reactions”

Colloquium, Argonne National Laboratory
Argonne, IL USA
15 January, 2007
“Non-adiabatic Molecular Dynamics and its Quantum Control”

Physics of Quantum Electronics Conference
Snowbird, Utah, USA
5 January, 2007
“Quantum control via the Non-Resonant Dynamic Stark Effect”

International Conference on Trends in Chemical Dynamics 2006
Yi-Lan, Taiwan
12 December, 2006
“Femtosecond dynamics and quantum control in the gas phase”

Colloquium, Department of Chemistry
Boston College
Boston, MA USA
21 November 2006
“Watching ultrafast charge and energy flow during chemical rections”

International Conference on the Stereodynamics of Chemical Reactions 2006
Arcachon, France
14 November 2006
“Femtosecond molecular dynamics from the molecule’s point of view”

Colloquium
Max-Planck-Institute for Quantum Optics
Garching, Germany
20 June 2006
“The Three Pillars of Femtosecond Molecular Science”

Invited Lecturer
Tulip Summer School on “Modern Developments in Spectroscopy”
Noordwijk, The Netherlands
26 April 2006
“Frequency Domain Pictures of Femtosecond Pump-Probe and Coherent Control Experiments”
27 April 2006
“Dynamics and Control of Polyatomic Molecules in Strong Laser Fields”

Biophysical Chemistry Symposium
McGill University
16 May 2006
“Dynamical Aspects of DNA Photonics”

Department of Chemistry
University of Southern California
Los Angeles, CA USA
20 March 2006
“Femtochemistry: Both Sides Now”

Department of Physics
University of Ottawa
9 March 2006
“Three Pillars of Femtosecond Science: Time, Phase, Intensity”

Gordon Conference on Photoions, Photoionization and Photodetachment
Buellton, CA, USA
30 January 2006
“Time-resolved coincidence imaging spectroscopy of a complex dissociation”

PACIFICHEM.
Symposium on ‘Non-adiabatic phenomena and related dynamics: theory and experiment’.
Honolulu, HI, USA
17 December 2005
“Femtosecond time-resolved coincidence imaging spectroscopy of non-adiabatic photodissociation”

Optics Colloquium
Institute of Optics
University of Rochester
Rochester NY USA
9 November 2005
“Femtosecond Molecular Dynamics from the Molecule’s Point of View”

Department of Physics
University of British Columbia
3 November 2005
“Dynamics and Control of Polyatomic Molecules in Strong Non-resonant Laser Fields”

Department of Chemistry
University of British Columbia
2 November 2005
“Watching Charge and Energy Flow in Excited Molecules”

Symposium on ‘Ultrafast Photoelectron Spectroscopy’
Optical Society of America/American Physical Society Laser Science 2005
Tucson, AZ, USA
19 October 2005
“Time-Resolved Coincidence Imaging of Molecular Photodissociation”

12th Canadian Semiconductor Technology Symposium
Biophotonics and Bioelectronics Workshop
Ottawa
15 August 2005
“Dynamical Aspects of DNA Photonics: Photostability of the DNA Bases”

Femtochemistry VII
Washington DC, USA
18 July 2005
“The Behaviour of Polyatomic Molecules in Strong Laser Fields”

Colloquium
Department of Physics, University of Aarhus
Aarhus, Denmark
13 April 2005
“Three Pillars of Femtosecond Science: Time, Phase, Intensity”

Colloquium
Department of Chemistry, University of Copenhagen
Copenhagen, Denmark
11 April 2005
“Three Pillars of Femtosecond Chemistry: Time, Phase, Intensity”

Departmental Seminar
Department of Physics, Vrije Universiteit
Amsterdam, The Netherlands
23 February 2005
“Dynamics and Control of Polyatomic Molecules in Strong Laser Fields”

Institute Seminar
FOM Institute for Atomic and Molecular Physics
Amsterdam, The Netherlands
21 February 2005
“Watching Charge and Energy Flow in Ultrafast Molecular Dynamics”

Colloquium
Department of Chemistry, Wayne State University
Detroit MI, USA
9 February 2005
“The Three Pillars of Femtosecond Chemistry”

Laser Science Conference, Optical Society of America.
Symposium on Multi-dimensional Detection
Rochester NY, USA
13 October 2004
“Femtosecond time-resolved coincidence imaging spectroscopy of molecular photodissociation”

Laser Science Conference, Optical Society of America.
Symposium on Coherent Control of Matter
Rochester NY, USA

12 October 2004
"Nonperturbative coherent control via the Dynamic Stark Effect"

Colloquium
SPAM Institute
CEA, Saclay, France
July 1, 2004
"Time, Phase & Intensity: Three Pillars of Femtosecond Science"

D'Alembert Colloquium
D'Alembert Institute
Ecole Normale Superieure, Cachan, France
June 30, 2004
"Time, Phase & Intensity: Three Pillars of Femtosecond Science"

Colloquium
Department of Physics, IRSAMC
University of Toulouse, Toulouse, France
June 21, 2004
"Time, Phase & Intensity: Three Pillars of Femtosecond Science"

Seminar
Department of Physics, CELIA
University of Bordeaux, Bordeaux, France
June 21, 2004
"Time, Phase & Intensity: Three Pillars of Femtosecond Science"

Departmental Colloquium
Departments of Chemistry
Ecole Normale Superieure, Paris, France
June 8, 2004
"Time, Phase & Intensity: Three Pillars of Femtosecond Science"

Photonics Mini-Symposium
Departments of Physics, Electrical Engineering & Chemistry
Queen's University, Kingston
May 4, 2004
"Femtosecond Science"

Colloquium, Department of Chemistry
University of Pennsylvania
Philadelphia, PA, USA
January 15, 2004
"Time, Phase & Intensity: Three Pillars of Femtosecond Molecular Science"

Colloquium, Department of Chemistry
Michigan State University
East Lansing, MI, USA
December 2, 2003
"Time, Phase, Intensity: The Three Pillars of Femtosecond Chemistry"

McElvain Lecture in Physical Chemistry
Department of Chemistry
University of Wisconsin
Madison, WI, USA
November 25, 2003
"The Three Pillars of Femtosecond Chemistry: Time, Phase, Intensity"

"New Frontiers in Chemical Dynamics and Femtochemistry" Symposium
York Centre for Laser Spectroscopy and Photochemistry (YCLS)
Department of Chemistry
The University of York, UK
29 October 2003
"Time, Phase, Intensity: Three Pillars of Femtosecond Science"

Department of Chemistry
The University of York, UK
28 October 2003
"Frequency Domain Pictures of Femtosecond Pump-Probe and Coherent Control Experiments"

First Canadian Workshop on Ultrafast Dynamic Imaging: UFDI 2003
Orford, Quebec
2 October 2003
"Switched Wavepackets: A route to field-free 3D alignment of polyatomic molecules"

Gordon Research Conference on Quantum Control of Light and Matter
Mount Holyoke College
South Hadley, MA. USA
7 August 2003
"Non-perturbative Coherent Control: Switched Wavepackets"

Departmental Colloquium
Department of Chemistry
University of Virginia
Charlottesville, VA USA
15 April 2003
"Femtosecond Time-resolved Photoelectron Spectroscopy: Both Sides of the Arrow of Chemistry"

AMO Physics Colloquium
Department of Physics

University of Virginia
Charlottesville, VA USA
14 April 2003
"Molecules in Nonperturbative Laser Fields: Dynamics and Control"

2nd International SfB Workshop on "Analysis and control of ultrafast photoinduced reactions"
Free University Berlin
Berlin, Germany
20 March 2003
"Molecules in Non-Perturbative Laser Fields: Dynamics and Control"

Max-Born-Institute for Non-linear Optics
Berlin, Germany
19 March 2003
"Molecules in Non-Perturbative Laser Fields: Dynamics and Control"

Department of Chemistry
University of Würzburg
Würzburg, Germany
18 March 2003
"Time-resolved photoelectron spectroscopy: Both sides of the arrow of chemistry"

Department of Physics
University of Würzburg
Würzburg, Germany
17 March 2003
"Molecules in Non-Perturbative Laser Fields: Dynamics and Control"

Departmental Colloquium
Department of Chemistry
Queen's University
Kingston
7 February 2003
"Femtosecond Journeys along the Arrow of Chemistry: Both Sides Now"

Condensed Matter Physics Seminar
Department of Physics
Queen's University
Kingston ON
6 February 2003
"Molecules in Non-Perturbative Laser Fields"

Colloquium
Department of Physics
University of Waterloo

Waterloo ON
7 November 2002
“Molecules in Non-Perturbative Laser Fields”

Departmental Seminar
Department of Chemistry
Washington University
St. Louis, MO, USA
24 October 2002
“Shining New Light on Femtochemistry: Charge and Energy Flow in Molecules”

Gordon Conference on Multiphoton Processes
Tilton, NH USA
30 June–5 July 2002
“Polyatomic Molecules in Strong Laser Fields”

Optical Society of America. Ultrafast Phenomena XIII
Vancouver, BC
May 12-17 2002
“Charge and Energy Flow in Polyatomic Molecules: Time-Resolved Photoelectron Spectroscopy”

Optical Society of America. Interdisciplinary Laser Science Conference
Long Beach, CA USA
October 14-18 2001
“Ultrafast electronic relaxation processes in polyatomic molecules”

Femtochemistry V Conference
Toledo, Spain
September 2-6 2001
“New directions in Time-Resolved Photoelectron Spectroscopy: Excited State Proton Transfer, Model Molecular Switches, Coincidence Spectroscopy”

Spectroscopy Society of Canada
2001 Barringer Award Lecture
Toronto, ON
August 19 2001
“New Light on Femtosecond Chemistry: Time-resolved Photoelectron Spectroscopy”

Gordon Conference on Photoions, Photoionization & Photodetachment
Williams College, Williamstown MA, USA
July 8-13 2001
“The Use of Electronic Continua in Time-Resolved Photoelectron Spectroscopy”

56th International Symposium on Molecular Spectroscopy
Ohio State University

Columbus, OH USA
June 11-15 2001
"Towards Dynamical Pictures of Zeroth Order Vibronic States"

XIX International Symposium on Molecular Beams
Rome, Italy
June 4-8 2001
"Femtosecond Time-resolved Photoelectron Spectroscopy: Electronic Relaxation Dynamics in Polyatomic Molecules"

School of Chemistry
University of Bristol, UK
April 26, 2001
"Time-domain studies of non-adiabatic dynamics in polyatomic molecules"

Conference on Coherent Control of Molecular Processes
Imperial College, London UK
April 25, 2001
"Some Aspects of Control via Strong Non-resonant Laser Fields"

Department of Chemistry
King's College, London, UK
April 24, 2001
"Time-domain studies of non-adiabatic dynamics in polyatomic molecules"

School of Chemistry
University of Nottingham, UK
April 23, 2001
"New light on femtosecond chemical dynamics"

221st American Chemical Society Meeting
Symposium on Strong Field Chemistry
San Diego, CA USA
April 1-5, 2001
"Polyatomic molecules in strong fields: non-adiabatic multi-electron dynamics"

221st American Chemical Society Meeting
Symposium on Molecular Photoelectron Spectroscopy
San Diego, CA USA
April 1-5, 2001
"Using electronic continua in time-resolved photoelectron spectroscopy"

Department of Chemistry
Queen's University, Kingston, ON
January 30, 2001

"Dynamical Issues in Active Molecular Scale Electronics"

PACIFICHEM2000, International Chemical Congress of Pacific Basin Societies
Honolulu, HI, USA
December 16, 2000.
“The Role of Electronic Continua in Time-resolved Photoelectron Spectroscopy”

Department of Chemistry
University of Illinois Urbana-Champaign
Champaign, IL, USA
November 8, 2000
“Shedding Light on the Forces of Darkness: Time-Resolved Photoelectron Spectrosopy””

Department of Chemistry
University of Illinois Urbana-Champaign
Champaign, IL, USA
November 7, 2000
“Polyatomic Molecules in Strong Laser Fields: Non-adiabatic Multielectron Dynamics”

European Union TMR Network Meeting
Workshop on Imaging Techniques in Chemical Dynamics
Heraklion, Crete, Greece
22 October, 2000
“Applications of Femtosecond Time-resolved Photoelectron & Coincidence-Imaging Spectroscopy”

Department of Chemistry
California Institute of Technology
Pasadena, CA, USA
October 10, 2000
“Progress in Femtosecond Time-Resolved Photoelectron Spectroscopy”

Department of Chemistry
California Institute of Technology
Pasadena, CA, USA
October 9, 2000
“Polyatomic Molecules in Strong Laser Fields”

Department of Chemistry
Oberlin College
Oberlin OH, USA
September 20, 2000
“Shedding New Light on Femtochemistry: Time-resolved Photoelectron Spectroscopy”

Gordon Conference on Molecular Electronic Spectroscopy
Colby-Sawyer College, NH, USA

August 3, 2000
"Issues of Time, Phase & Intensity in Femtosecond Spectroscopy"

Gordon Conference on Multiphoton Processes
Tilton, NH, USA
June 20, 2000
"Coherent Control"

Faraday Discussion 115, Photoionization
University of York, U.K.
April 3, 2000
"Towards disentangling coupled electronic-vibrational dynamics in ultrafast non-adiabatic processes"

Condensed Matter Physics Seminar
Queen's University, Kingston
December 1, 1999
"Molecular Wavepackets: A Quantum Optics Workbench"

Ultrafast Phenomena in Spectroscopy '99
Taipei, Taiwan
October 25-29, 1999
"Time-Resolved Configuration Interaction Studies of Ultrafast Internal Conversion"

Institute of Atomic & Molecular Sciences, Academia Sinica
Taipei, Taiwan
October 22, 1999
"New Light on Femtosecond Chemistry: Time-Resolved Configuration Interaction"

Department of Chemistry, National Tsing-Hua University
Hsinchu, Taiwan
October 20, 1999
"Ultrafast Non-adiabatic Dynamics studied by Time-resolved Configuration Interaction"

Femtochemistry IV
Leuven, Belgium
July 18-22, 1999
'Time-resolved configuration interaction: Disentangling electronic from vibrational dynamics during non-adiabatic processes"

Canadian Society for Chemistry Conference
Toronto, Ontario
May 30 June 2, 1999
"Disentangling electronic from vibrational dynamics in ultrafast internal conversion"

217th Nat. Meeting American Chemical Society

Symposium on: Unimolecular Reactions and Intramolecular Dynamics
Anaheim, CA USA
March 21-26, 1999
"Non-adiabatic intramolecular and unimolecular dissociation dynamics in polyatomic molecules studied by Time-resolved Photoelectron Spectroscopy "

217th Nat. Meeting American Chemical Society
Symposium on: Linear Conjugated Polyenes
Anaheim, CA USA
March 21-26, 1999
"Time-Resolved Configuration Interaction in *all-trans* Decatetraene"

FOM AMOLF Institute
Amsterdam, Netherlands
23 July, 1998
"Femtosecond Time-Resolved Configuration Interaction"

Max-Planck-Institute for Quantum Optics
Garching, Germany
22 July, 1998
"Femtosecond Time-Resolved Configuration Interaction"

Institute for Physical & Theoretical Chemistry
Technical University of Munich
Garching, Germany
20 July, 1998
"Femtosecond Time-Resolved Configuration Interaction"

XIth International Conference on Ultrafast Phenomena
Garmisch-Partenkirchen, Germany
12-17 July, 1998
"Femtosecond Time-Resolved Configuration Interaction"

Canadian Society for Chemistry Conference
Whistler, BC
31 May -4 June, 1998
"Femtosecond Time-Resolved Configuration Interaction"

Fellows Lecture
Center for Ultrafast Optical Science
University of Michigan
Ann Arbor, MI, USA
22 May, 1998
"Femtosecond Time-Resolved Configuration Interaction: Non-adiabatic Dynamics in Molecules"

S.P.I.E. Conference on Laser Techniques for State-selected and State-to-state Chemistry
San Jose, CA, USA
Jan.29-31, 1998
"Non-adiabatic dynamics via time-resolved photoelectron spectroscopy"

Photonics Research Ontario, "Frontiers in Photonics" Lecture Series
University of Toronto
Jan.21, 1998
"Non-adiabatic dynamics via time-resolved photoelectron spectroscopy"

5th Chemical Congress of North America, Symposium on Laser Control of Electrons and Molecules
Cancun, Mexico
Nov.11-15, 1997
"Non-adiabatic dynamics via time-resolved photoelectron spectroscopy"

9th European Workshop on Molecular Spectroscopy and Photon Induced Dynamics
Toulouse, France
Nov.7-11, 1997
"Non-adiabatic photodissociation dynamics via femtosecond time-resolved photoelectron spectroscopy"

Gordon Conference on Molecular Electronic Spectroscopy
Oxford, UK
Aug.31- Sept.5, 1997
"Time-resolved Photoelectron Spectroscopy"

Department of Physical & Theoretical Chemistry
Oxford University, Oxford, UK
April 18, 1997
"Time-resolved Photoelectron Spectroscopy"

Royal Society Discussion Meeting on "Ultrafast Processes in Chemistry & Biology"
The Royal Society, London, UK
April 16-17, 1997
"Applications of Wavepacket Methodology"

NRC Solid State Colloquium
Institute for Microstructural Sciences, NRC
Mar. 24, 1997
"Quantum Wavepackets and Optical Control"

Colloquium, Department of Chemistry
York University
Toronto ON
Feb.27, 1997

"Wavepacketology: Optical Phase in Chemistry"

Physical Chemistry Seminar
Department of Chemistry
University of Toronto
Feb.25, 1997
"Towards Wavepacket Technology"

Joint Quantum Optics Colloquium
Department of Physics/Institute of Optics
University of Rochester, New York
Feb.11, 1997
"Towards Wavepacket Technology?"

Colloquium, Department of Chemistry & Biochemistry
University of Colorado, Boulder
Boulder CO USA
Feb.1, 1997
"Towards Wavepacket Technology?"

Seminar
Joint Institute for Laboratory Astrophysics (JILA)
NIST/ University of Colorado, Boulder
Boulder CO USA
Jan.31 1997
"Coherent Control and Femtosecond Pump-probe Experiments"

12th Regional Symposium on Chemical Physics
University of Waterloo
November 1, 1996
"Towards Wavepacket Technology?"

Departmental Seminar
Department of Chemistry
Brown Univeristy
Providence, RI USA
Oct.3, 1996
"Ultrafast Dynamics studied by Time-resolved Photoelectron Spectroscopy"

Departmental Seminar
Department of Chemistry
Queen's Univeristy
Kingston, Ont
Sept.30, 1996
"Chemical Dynamics studied by Time-resolved Photoelectron Spectroscopy"

Chemical Physics Seminar
Department of Chemistry
University of Aarhus,
Aarhus, Denmark
Sept.16, 1996
"Wavepacket Dynamics studied by Time-resolved Photoionization & Photoelectron Spectroscopy"

Nobel Symposium on Femtochemistry & Femtobiology:
Ultrafast Reaction Dynamics at Atomic Scale Resolution
Björkborn, Sweden
Sept. 9-12, 1996
Invited Participant

Gordon Conference on Multiphoton Processes
New London, NH USA
June 9-14, 1996
"Wavepackets, Rydberg States & Molecules"

Optical Society of America, Ultrafast Phenomena Topical Meeting
San Diego, California
May 28 - June 1, 1996
"Wavepacket Dynamics studied by Time-resolved Photoionization & Photoelectron Spectroscopy"

American Physical Society, Division of Atomic, Molecular & Optical Physics Annual Meeting
Ann Arbor, MI USA
May 15-18, 1996
"Molecular Dynamics via Femtosecond Time-resolved Photoelectron Spectroscopy"

211th Nat. Meeting American Chemical Society
Symposium on: State-to-state scattering studies in the production and reactivity of molecular ions
New Orleans, LA USA
March 25-28, 1996
"Femtosecond Time-resolved Photoelectron & Photoion Spectroscopy studies of Chemical Dynamics"

Chemical Physics Seminar
Weizmann Institute of Science
Rehovot, Israel
March 13, 1996
"Wavepackets, Rydberg States & Femtosecond Photoelectron Spectroscopy"

Bat-Sheva Seminar on Coherent Control
Neve Ilan, Israel
March 3-8, 1996
"Dynamics & Control via Femtosecond Time-resolved Photoelectron & Photoionization Spectroscopy"

Departmental Colloquium
Départment de Chimie, Université de Sherbrooke
Jan.31, 1996, Sherbrooke, Quebec
"A New Technique for Femtosecond Chemical Dynamics: Time-resolved Photoelectron Spectroscopy"

PACIFICHEM95 International Chemical Congress of Pacific Basin Societies
Symposium on: Structure, Dynamics, Control of Excited States
Dec.17-22, 1995, Honolulu HI USA
"Femtosecond molecular dynamics via time-resolved ZEKE photoelectron spectroscopy"

Chemical Dynamics Seminar
Department of Chemistry, University of California Berkeley
Dec.15, 1995, Berkeley, CA USA
"Femtosecond ZEKE Spectroscopy"

Sandia National Laboratory Technical Seminar
Dec.14, 1995, Livermore CA USA
"Wavepacket Studies of Chemical Dynamics with Photoionization/photoelectron spectroscopy"

Ottawa-Carleton Chemistry Institute Seminar
Nov.6, 1995, Carleton University
"Chemical Dynamics studied by Femtosecond Time-Resolved Photoelectron Spectroscopy"

European Research Conference on Very High Resolution Spectroscopy with Photoelectrons
Sept.23-28, 1995, Lenggries, Germany
"Chemical Dynamics via Femtosecond Time-Resolved ZEKE Photoelectron Spectroscopy"

European Research Conference on Very High Resolution Spectroscopy with Photoelectrons
Sept.23-28, 1995, Lenggries, Germany
Panel Member, Round Table Discussion on 'Origin of ZEKE States'
"New Experiments for Rydberg Molecule Stabilization"

S.P.A.M. Institute Seminar
Service des Photons, Atomes et Molecules, C.E.N. Saclay, France
Sept.20, 1995
"Molecules, ZEKE Rydberg States & Femtosecond Wavepacket Experiments"

Seminar, F.O.M. Institute for Atomic & Molecular Physics
Amsterdam, The Netherlands
Sept.13, 1995
"Molecular Wavepackets & Femtosecond Photoelectron Spectroscopy"

Femtochemistry: The Lausanne Conference
Université de Lausanne

Lausanne, Switzerland
Sept.4-8, 1995
"Femtosecond Molecular Dynamics via Time-Resolved Photoelectron Spectroscopy"

Seminar, Laboratorium für Organische Chemie der ETH Zürich
Zürich, Switzerland
Sept.1, 1995
"Femtosecond Time-Resolved Photoelectron Spectroscopy"

50th Canadian Association of Physicists Congress/CAM95
Laval University
Quebec, Quebec June 11-16, 1995
"Chemical Dynamics via Femtosecond Time-Resolved Photoelectron Spectroscopy"

78th Canadian Society for Chemistry Conference
University of Guelph
Guelph Ontario, 28 May - 1 June, 1995
"Femtosecond Molecular Dynamics via Time-Resolved ZEKE Photoelectron Spectroscopy"

Departmental Chemistry Seminar
University of Virginia
Charlottesville, VA, USA
April 28, 1995
"Chemical Dynamics via Femtosecond Time-Resolved Photoelectron Spectroscopy"

Laboratoire pour Photophysique Moleculaire, Seminar
Université Paris-Sud
Orsay, France, March 3 1995
"Femtosecond Molecular Dynamics via Time-Resolved Photoelectron Spectroscopy"

Laboratoire des Collisions Atomiques et Moleculaire, Seminar
Université Paris-Sud
Orsay, France, March 1 1995
"Femtosecond Molecular Dynamics via Time-Resolved Photoelectron Spectroscopy"

Departmental Chemistry Seminar
Queen's University, Kingston, January 25 1995
"Femtosecond Chemical Dynamics via Time-Resolved Photoelectron Spectroscopy"

10th Regional Symposium on Chemical Physics
University of Waterloo, November 6, 1994
"Femtosecond Pump-Probe ZEKE Photoelectron Spectroscopy"

Neil Snider Symposium, Department of Chemistry
Queen's University, Kingston

June 9, 1994
"Dynamics of H_2 Elimination from Ethylene"

Physical Chemistry Seminar
University of Toronto, June 10, 1993
"Photodissociation Dynamics of Ethylene"

Physical Chemistry Seminar
University of Southern California, March 30, 1993
"Photodissociation Dynamics of CO_2 "

8th Regional Symposium on Chemical Physics
University of Waterloo, 6-8 November, 1992
"Photodissociation Dynamics of CO_2 at 157nm"

Physical Chemistry Seminar
Carleton University, October, 1992
"Dynamics of H_2 Elimination from Ethylene"

S.P.I.E. Conference, Los Angeles, California
Optical Methods for Time- and State-Resolved Chemistry, January, 1992
"157nm Photodissociation Dynamics of CO_2 via Translational Spectroscopy"