

Klaas Wynne

Work address

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Positions

2017-	Associate Editor Journal of the American Chemical Society (JACS)
2010-	Chair of chemical physics, University of Glasgow, School of Chemistry
2012-2014	Visiting professor in the Department of Chemical and Process Engineering at Strathclyde
2007-2010	Professor of chemical physics, University of Strathclyde, Department of Physics
2003-2007	Reader, University of Strathclyde, Department of Physics
1999-2003	Senior lecturer, University of Strathclyde, Department of Physics
1996-1999	Lecturer, University of Strathclyde, Department of Physics
1996-2010	Co-director of the femtosecond research centre, Strathclyde, Department of Physics
1991-1996	Postdoc, U. of Pennsylvania, Dept. of Chemistry, with Prof. Robin M. Hochstrasser
1987-1991	Teaching assistant, University of Amsterdam, Laboratory for Physical Chemistry.

Education

1990	PhD chemistry	Awarded by the University of Amsterdam on September 21, 1990 on the thesis entitled ' <i>Time resolved Raman spectroscopy in simple liquids</i> '. Advisors: Joop van Voorst, Douwe Wiersma, and Ad Lagendijk
1987	MSci chemistry	Awarded by the University of Amsterdam on February 18, 1987

Marks of esteem

2018	Most read / spot-lighted	My article in JPC Lett. "The Mayonnaise Effect" (doi: 10.1021/acs.jpcllett.7b03207) most read article in December 2017. Spotlighted by the journal (doi: 10.1021/acs.jpcllett.7b03289).
2017	JACS	Appointed Associate Editor JACS
2015	FRSE	Elected Fellow of the Royal Society of Edinburgh (FRSE)
2013	Faraday	Elected Member of Faraday Division Council
2012	EAB JPC	Elected member of the editorial advisory board of the Journal of Physical Chemistry B
2012	EPSRC College	Elected a member of the EPSRC college of peer reviewers
2012	Advisory Committee	Elected member of the scientific advisory committee of the annual general meeting of the European Molecular Liquids Group and Japanese Molecular Liquids Group (Lille, France, 2013)
2012	Symposium organiser	Invited with Mischa Bonn (Director MPI for Polymer Research) to organise session on biomolecular terahertz spectroscopy (SPIE Photonics West, BIOS, San Francisco, 2013).
2012	Top 10 most read	PCCP 14 , 6154 (2012) second most read PCCP article in April 2012.
2012	Guest editor PCCP	Guest editor with Neil Hunt for special issue on <i>Ultrafast Chemical Dynamics</i> in PCCP published volume 14 issue 18, 2012 .
2012	News & views	The UCP 2011 meeting was the subject of a "news & views" article in the March 2012 issue of Nature Chemistry (doi:10.1038/nchem.1282)
2012	Visiting Professor	Appointed visiting professor in the Department of Chemical and Process Engineering, University of Strathclyde
2012	Board of Chemical Physics	Elected member of the board of Chemical Physics (Elsevier)
2011	Faraday Discussion	Invited to organise a Faraday Discussion Meeting on "Mesosstructure and dynamics in liquids and solutions" to be held in 2013

2010	Top 1%	J. Am. Chem. Soc. 131 , 11140 (2009) was cited 19 times in the first 12 months since publication placing it comfortably in the top 1% of all papers in chemistry (according to Thomson Reuters Science Watch).
2010	JCP Spotlight Collection	JCP 119 , 464 (2003) chosen as highlighted reference in the JCP Spotlight Collection on ionic liquids, March 2010.
2010	Editors' Choice & Most downloaded	JCP 131 , 201101 (2009) 3 rd most downloaded JCP paper in December 2009. Selected JCP editors' choice as one of the most innovative and influential articles in the field of Chemical Physics in 2009.
2010	Teaching excellence	Strathclyde Teaching Excellence Awards 2010, Certificate of Recognition awarded in recognition of outstanding teaching
2009	Plenary lecturer	EMLG-JMLG Meeting 2009, Salzburg, Austria
2009	International organising committee	Elected member of the international organising committee of the conference on Time-Resolved Vibrational Spectroscopy
2008	Editors' Choice & Most downloaded	JCP 128 , 161102 (2008) Editors' Choice in Science 320 , 987 (2008) and the 7th most downloaded JCP paper in May 2008
2006	FRSC	Elected Fellow of the Royal Society of Chemistry
2005	FInstP	Elected Fellow of the Institute of Physics
2001	Editors' Choice	APL 79 , 2130 (2001) Editors' Choice in Science 294 , 267 (2001)
2001	E.C. Stoner Lecturer	University of Leeds
1999	Plenary lecturer	Int. Conference on Time-Resolved Vibrational Spectroscopy
1998	Plenary lecturer	23 rd International Conference on Infrared and Millimeter Waves
1991	Fellowship	NATO research fellowship with Robin Hochstrasser

Research grants

Period	Grant #	Title	PI (£ FEC)	CI (£ FEC)	Investigators
2017-2019	MRC MR/P025501/1	<i>Development of a new tool for malaria mosquito surveillance to improve vector control</i>		664k	H. Ferguson, K. Wynne, H. Ranson, F. Okumu
2016-2019	EPSRC EP/N007417/1	<i>Mapping and controlling nucleation</i>	562k		K. Wynne, D. France
2016	STFC SM14699	<i>Frustration of crystallisation by a liquid-crystalline phase (9 shifts beamtime)</i>	45k		K. Wynne
2015-2016	EPSRC EP/N508792/1	<i>A Dynamic Perspective on Biomolecular Function and Reactivity</i>	14k		K. Wynne, A. Laphorn, B.O. Smith, N.T. Hunt, M. Fedorov
2015	STFC SM11285	<i>Liquid crystalline states frustrating crystallisation (2 shifts beamtime)</i>	15k		K. Wynne
2013-2016	EPSRC EP/K034995/1	<i>Solvation dynamics and structure around proteins and peptides: collective network motions or weak interactions</i>	546k		K. Wynne, A. Laphorn, S. Kelly
2012-2013	UKIERI	<i>Proposal for holding joint Symposia on 'Structure and Dynamics' between Indian Institute of Science Education and Research, Pune, India and University of Glasgow, Glasgow, UK</i>	15k	16k	K. Ganesh, K. Wynne
2012-2015	EPSRC EP/J00975X/1 EP/J009733/1	<i>The structure and dynamics of water confined in nanoscale pools: the dynamic crossover</i>	523k		K. Wynne, N. Hunt
2011-2012	EPSRC	<i>Bridging the Gap-EPSRC: Ultrafast chemical physics equipment sharing</i>	27k		K. Wynne, Craig Murray, Hans Senn
2012-2015	EPSRC EP/J004790 EP/J004812 EP/J014478	<i>Liquid-liquid transitions in molecular liquids: from supramolecular structure to phase separation</i>	664k		K. Wynne, J. Sefcik (J. Chapman)

2013	RSC	<i>Faraday Discussion Meeting "Mesostructure and dynamics in liquids and solutions"</i>			K. Wynne, A. Soper (RAL), A. Angel (Arizona State U.), K. Seddon (Queen's U.), S. Meech (UEA), H.E. Stanley (Boston U.)
2010	ISIS1010269	<i>A liquid-liquid transition in supercooled Gallium (3 days on SANDALS)</i>			K. Wynne, F. Demmel, W.S. Howells, D.A. Turton
2008-2013	EPSRC EP/F06926X	<i>Two-dimensional terahertz-IR spectroscopy: a unique probe of ultrafast hydrogen-bond dynamics of liquid water and model systems</i>	691k		K. Wynne, J. Karolin, D.J.S. Birch
2007-2012	EPSRC EP/E046541	<i>Terahertz spectroscopy of aqueous ionic solutions to understand the role of hydrogen-bond network breaking and strengthening in the Hofmeister series</i>	562k		K. Wynne, N.T Hunt
2006-2011	EPSRC EP/D062861	<i>Nanometrology for Molecular Science, Medicine and Manufacture</i>		318k	Birch, Pickup, Faulds, O'Donnell, Smith, Martin, Wynne, Dawson, Girkin, Graham, Gnudi, Rolinski
2006-2011	SFC	<i>Nanometrology for Molecular Science, Medicine and Manufacture</i>		1150k	Birch, Pickup, Faulds, O'Donnell, Smith, Martin, Wynne, Dawson, Girkin, Graham, Gnudi, Rolinski
2004-2007	EPSRC GR/S95510	<i>A comparison of the THz-frequency vibrational spectra of (chiral) liquids obtained through ultrafast infrared and Raman spectroscopies</i>	252k		K. Wynne
2004-2005	Wolfson Foundation	<i>Nanometrology of colloidal particles</i>		449k	Birch, Wynne, Smith, Graham
2004-2009	Leverhulme Trust F/00273/E	<i>Surface-enhanced ultrafast Kerr-effect spectroscopy of dynamics in biomolecules</i>	125k		K. Wynne, D.J.S. Birch
2004-2007	EPSRC GR/S75369	<i>Understanding the structural and dynamic basis of kinetics in biomolecules using novel ultrafast Raman techniques</i>	330k		K. Wynne, D.J.S. Birch, W.E. Smith, D. Graham, J.O. Karolin
2004-2005	SHEFC SRIF	<i>Materials preparation and characterisation equipment, and solid-state ultrafast laser sources (SHEFC, Science Research Investment Fund)</i>		470k	Several investigators including D.J.S. Birch and K. Wynne
2003-2006	EPSRC GR/S48110 & GR/S48127	<i>Single Molecule Sensing in Clinical Medicine (EPSRC Adventure Fund)</i>		528k	Birch, Pickup, Smith, Wynne, Graham, Gnudi, Rolinski
2003-2006	EPSRC GR/R97566	<i>Using electromagnetic pulses emitted by ultrafast molecular currents for studying charge-transfer reactions</i>	211k		K. Wynne, D.A. Jaroszynski
2002-2006	EPSRC GR/R88090	<i>Basic technology: Developing laser-plasma accelerators and coherent radiation sources as tools for time-resolved studies</i>		4270k	Jaroszynski, Burnett, Cairns, Dangor, Gillespie, Wark, Bingham, Poole, Norreys, Wynne, Hooker, Krushelnick, Walmsley
1999-2001	EPSRC GR/M75600	<i>Ultrafast electron-energy loss/gain spectroscopy (fs-EELS/EEGS)</i>	78k		K. Wynne, D.A. Jaroszynski
1999-2002	SHEFC RDG	<i>X-ray to infrared sources for Strathclyde Terahertz to Optical Pulse Source (TOPS)</i>		570k	D.A. Jaroszynski, A.D.R. Phelps, K. Wynne
1999-2003	PRF 34344 - AC6	<i>Chemical reaction control with high-power femtosecond electrical pulses</i>	40k		K. Wynne
1999-2002	EPSRC GR/M52090	<i>Study of superradiance and short pulse propagation in an underdense plasma</i>		406k	D.A. Jaroszynski, A.D.R. Phelps, K. Wynne
1999-2003	RS A20172	<i>Femtosecond field emitter</i>	10k		K. Wynne
1999-2002	SHEFC	<i>Strathclyde Synchronised Electron and High Power Ultra-Short Terahertz to Optical Pulse</i>		530k	D.A. Jaroszynski, A.D.R. Phelps, K. Wynne

		Source (TOPS)			
1999-2002	EPSRC GR/M39312	<i>The solvent response to chemical reactions</i>	190k		K. Wynne
1997-1999	EPSRC GR/L91627	<i>T-Ray near-field imaging</i>	51k		K. Wynne
1997-1999	EPSRC GR/K88002	<i>Temporal and spectral dynamics of phonons in crystals excited using subpicosecond optical pulses</i>		193k	T.P.J. Han, K. Wynne
1996-1997	Strathclyde	<i>Ultrafast reaction dynamics in proteins</i>	20k		K. Wynne
1997-1999	EPSRC GR/K88972	<i>Fluorescence dynamics in confined water: application to the structure of silica hydrogels</i>		198k	D.J.S. Birch, K. Wynne
			£4971k	£12562k	

Administrative responsibilities

1. Deputy head of School of Chemistry (**2016-2017**).
2. Director of Research Chemistry (**2016-2017**).
3. Deputy director WestCHEM (**2016-2017**).
4. Member of the WestCHEM management group (**2012-2017**).
5. Member of the School Management Group (**2011-2017**).
6. Member of the college research & knowledge transfer committee (**2011-2017**).
7. REF champion in the School of Chemistry (**2011-2017**).
8. Member of the Glasgow University Senate (**2011-present**).
9. Principal web publisher of the School of Chemistry (**2011-present**).
10. Member of the college web committee (**2011-present**).
11. Head of the dynamics & structure section (**2015-2016**).
12. Head of the physical chemistry section (**2012-2014**).
13. Champion dynamics & structure grouping (**2012-2014**).
14. Deputy research convenor in the School of Chemistry (**2011-2016**).
15. Class Head for Chemical Physics (**2012-2016**).
16. Class Head for Chemistry and Mathematics (**2012-2016**).
17. Member of teaching committee (**2012-2016**).

Recent professional activities

Editorial

1. Associate editor of the Journal of the American Chemical Society (JACS), impact factor 13.9 (**2017-present**).
2. Member of the Editorial Board of the Elsevier journal Chemical Physics (**2012-present**).
3. Member of the editorial advisory board of the Journal of Physical Chemistry (**2012-2015**).

Panels, committees

4. STFC Central Laser Facility (CLF) Octopus / Ultra access panel (**2016-present**).
5. Member appointment panel Tenured Lecturer position (Serra Hunter Programme) at the University of Barcelona (**2016**).
6. Member of the Faraday Division council of the RSC (**2013-2016**).
7. Member of the EPSRC college of peers (**2012-present**).
8. Member of the committee of the 'Liquids and Complex Fluids Group' of the IoP (**2011-2013**).
9. Member of the SUPA Physics And Life Sciences (PALS) committee (**2006/7**).

Conference organisation

10. Co-organiser of the international conference on Time-Resolved Vibrational Spectroscopy (TRVS), **2017**, Cambridge, UK.

11. Organiser of a Faraday Discussion meeting 167 on '*Mesostructure and dynamics in liquids and solutions*' (Bristol, September **2013**).
12. Member of the local organising committee of the SU2P Symposium (Glasgow, April **2013**).
13. Member of the scientific advisory committee of the annual general meeting of the European Molecular Liquids Group (EMLG) and Japanese Molecular Liquids Group (**2012-2015**).
14. Organiser with Mischa Bonn (Director MPI for Polymer Research) of a session on Biomolecular Terahertz Spectroscopy (SPIE Photonics West, BIOS, San Francisco, **2013**).
15. Member of the local organising committee of the '*European Conference of Crystal Growth*' ECCG4, Glasgow, June **2012**.
16. Chair for '*Perspectives in Multidimensional Spectroscopy*' in honour of Prof Robin Hochstrasser, University of Pennsylvania, March **2011**.
17. Co-organiser of the '*International workshop on ultrafast chemical physics 2011*', December **2011** in Glasgow. Organising committee: Neil Hunt (Strathclyde), Klaas Wynne (Glasgow), David Klug (Imperial), Helen Fielding (UCL), Steve Meech (UEA), and Julia Weinstein (Sheffield). The UCP 2011 meeting was the subject of a "news & views" article in the March 2012 issue of Nature Chemistry ([doi:10.1038/nchem.1282](https://doi.org/10.1038/nchem.1282)).
18. Member of the international organising committee of the international conference on Time-Resolved Vibrational Spectroscopy, TRVS (**2009-present**).
19. Member programme committee for SPIE Photonics West (ultrafast phenomena in semiconductors and nanostructures), San Francisco, USA. (**2009-2015**)
20. Organiser of the '*International Workshop on Ultrafast Chemical Physics 2008*' held 30/31 October **2008** in Glasgow with nearly 100 attendees. Organising committee: Klaas Wynne, Neil Hunt (Strathclyde), Steve Meech (UEA), David Klug (Imperial), and Angus Bain (UCL).

Other

21. Project monitor for 2014 BP Trust Fellow (Royal Society of Edinburgh) Dr Olof Johansson (**2015-2020**).
22. Interviewed on air by Michael de Leonardis of KPFT-FM, Houston radio about the Nature Comm. paper on protein dynamics, 19 June **2014**.
23. Initiated a collaboration between the Indian Institute of Science Education and Research (IISER), Pune, India and the University of Glasgow in the area of *dynamics and structure* leading to a bilateral meeting in December 2012 in Pune attended by 9 academic staff from Glasgow and in June 2013 in Glasgow attended by 9 academic staff from Pune (**2012-2013**).
24. Visiting professor in the Department of Chemical and Process Engineering at Strathclyde (**2012-2014**).
25. Guest editor with Neil Hunt for special issue on '*Ultrafast chemical dynamics*' of PCCP published April **2012**.
26. Assessor of the '*Atomic and Molecular Physics: Technical Innovation*' group in the Department of Physics, University of Reading, **2005**
27. Member ESF network '*Ultrafast Structural Dynamics in Physics, Chemistry, Biology, and Material Science (DYNA)*', **2005-2008**

Learned societies

Royal Society of Edinburgh (FRSE), Royal Society of Chemistry (FRSC), Institute of Physics (IOP), and American Chemical Society.

Other activities

Mountaineering, hill running, climbing.

Visitors, postdocs, & students

Assistant

1. Kathryn Allan (JACS editorial assistant), from April 2017.

Postdocs

1. Judith Reichenbach, June-August 2017.
2. Francesco Baldini (with Heather Ferguson), from April 2017.
3. Gopakumar Ramakrishnan, February 2014 – March 2017.
4. Mario González Jiménez (ORCID: 0000-0002-8853-0588), from December 2013.
5. Chris Symes, October 2012 – June 2016.
6. David A. Turton, August 2004-November 2013.
7. Marco Candelaresi, August 2009 – November 2010.
8. Kitsakorn Locharoenrat, July 2008 – May 2009
9. Neil T. Hunt, November 2004 – October 2006
10. Andrew R. Turner, September 2004 – September 2006
11. John J. Carey, 2001-2006
12. Gerard Giraud, 2002 – 2003

PhD students

1. John Boling, October 2017-present.
2. Andrew Farrell, October 2016-present.
3. Finlay Walton, October 2015-present.
4. Judith Reichenbach, 'Structure and Dynamics in Ionic Liquids and Concentrated Salt Solutions: An Ultrafast Spectroscopy Study', 2013-2017.
5. Joanna Mosses, '*Phase transitions and mesophases in molecular liquids and solutions: spectroscopic and imaging studies*', 2010-2017.
6. Thomas Harwood (effectively taken over from E. Ellis in 2012, University of Strathclyde), '*The Use of Terahertz Spectroscopy for Biomolecular Analysis*', October 2011-March 2016.
7. Marc A. White, October 2010-October 2011.
8. Scott Campbell, December 2007-December 2011.
9. Johan Lundahl, November 2004 – October 2007.
10. Gregor Welsh, '*Understanding and control of ultrafast currents for terahertz pulse generation*', October 2004 – March 2008.
11. Gerard Giraud, '*The solvent response to chemical reactions*', July 1999 – June 2002.
12. John J. Carey, '*Near-field effects studied with T-Rays*', September 1998 – 2001. Ph.D. December 2002.
13. Justyna Zawadzka, '*Ultrafast Electron-Energy Loss and Gain Spectroscopy (fs-EELS/EEGS)*', September 1998 – 2001. Ph.D. February 2003.

Senior visitors

1. Dr Olof Johansson, University of Edinburgh, visiting researcher, 2013.
2. Prof Edward W. Castner Jr., Rutgers University, visiting professor, 2010-2013.
3. Prof Robin M. Hochstrasser, Donner Professor of Physical Sciences, Department of Chemistry, University of Pennsylvania. Visiting professor at Strathclyde January 2006-December 2011.

Current collaborators

1. Prof. **Roderick Murray-Smith**, Dr **Simon Rogers** (Computing Science), Dr. **David France**, and Dr. **Adrian Laphorn** (Chemistry) – Machine learning in chemistry.
2. Dr **Lisa Ranford-Cartwright** (Institute of Infection, Immunity and Inflammation, GU), Dr **Heather Ferguson** and Dr **Francesco Baldini**, and Dr **Simon Babayan** (Institute of Biodiversity Animal Health and Comparative Medicine, GU), Prof **Richard Hogg** and Dr **David Childs** (School of Engineering, GU), Prof **Hilary Ranson** (Dept. of Vector Biology, U. Liverpool), Dr **Abdoulaye Diabaté** (Institut de Recherche en Sciences de la Santé, Burkina Faso), Dr **Fredros O. Okumu** (Ifakara Health Institute, Tanzania) – spectroscopy of mosquitoes.
3. Dr **Neil Hunt** (SU, Physics), Dr **Glenn Burley** (SU, Chemistry), Dr **Gregory Greetham**, Dr **Paul Donaldson**, **Michael Towrie**, **Anthony Parker** (STFC Central Laser Facility) – DNA dynamics.
4. Dr **Olga Shebanova** (Diamond Light Source) – Microfocus SAXS/WAXS of liquids.
5. Prof **Johannes Kiefer** (Technische Thermodynamik, U. Bremen), Hyung Kim (Dept. Chem., Carnegie Mellon) – Ionic liquids.

6. Dr **Elizabeth Ellis** (Strathclyde University), **Adrian Laphorn** (Glasgow), **Sharon Kelly** (Glasgow), and **Hans Senn** (Glasgow) — protein and DNA dynamics.
7. Prof **Richard Buchner** (U. Regensburg, Germany), Prof **Glen Hefter** (Murdoch U., W.A.), Dr **Markus Walther** (U. Freiburg, Germany), Dr **Natalia Plechkova** (Queen's Belfast) — dielectric relaxation experiments, ionic liquids. Six papers published. Visiting PhD students 2011/2012.

Undergraduate teaching

1. Class Head for Chemical Physics (2012-2016).
2. Class head for Chemistry and Maths (2012-2016).
3. Level 1 - Thermodynamics (2012-present).
4. Level 4 - A6 – '*Dynamics of molecular clusters and fluids*' (2011-present).
5. 1st year Quant lab
6. 2nd year Quant workshop
7. 2nd year tutorials
8. 3rd year PChem tutorials
9. MSci placement talks

Received the **Strathclyde Teaching Excellence Awards** 2010 Certificate of Recognition awarded in recognition of outstanding teaching.

Knowledge exchange and impact

I initiated a collaboration on the study of malaria-carrying mosquitos using infrared spectroscopy and neural-network data analysis (deep learning) with Dr **Lisa Ranford-Cartwright** (Institute of Infection, Immunity and Inflammation, GU), Dr **Heather Ferguson**, Dr **Francesco Baldini**, and Dr **Simon Babayan** (Institute of Biodiversity Animal Health and Comparative Medicine, GU), Prof **Richard Hogg** and Dr **David Childs** (School of Engineering, GU), Prof **Hilary Ranson** (Dept. of Vector Biology, U. Liverpool), Dr **Abdoulaye Diabaté** (*Institut de Recherche en Sciences de la Santé*, Burkina Faso), and Dr **Fredros O. Okumu** (Ifakara Health Institute, Tanzania). This has led (a) to the funding of a two-year £664k GCRF grant (MRC MR/P025501/1) to develop the technique and to implement it in Tanzania, (b) effected a policy change at the Ifakara Health Institute, Tanzania, where an infrared spectrometer has been purchased and our technique is now being implemented for malaria control with our assistance. Malaria as well as additional important mosquito-borne diseases including Dengue, Zika, Rift Valley Fever, and Chikungunya are affecting >3.2 billion people. For malaria alone, the death toll is >400,000 per year. The first steps have been made by Ferguson to get our new screening technique accredited by the WHO. This project is still developing but is one of the potential impact case studies of the School of Chemistry for REF 2021.

Furthermore, I contribute to the dissemination of scientific information by being responsible for the organisation of conferences. For example, I am a co-organiser of the international conference on Time-Resolved Vibrational Spectroscopy (TRVS) to be held in **2017**.

1. Speaker in the ACS on Campus United Kingdom Roadshow, University of Cambridge, February **2018**.

Publications

<http://www.researcherid.com/rid/B-7993-2008>, <http://orcid.org/0000-0002-5305-5940>

Papers in refereed journals

1. K. Wynne, 'Reply to "Comment on *The Mayonnaise Effect*"', J. Phys. Chem. B. **X**, XXX (2018). (<https://doi.org/10.1021/acs.jpch.8b01428>)
2. P.D. Lane, J. Reichenbach, A.J. Farrell, L. Ramakers, K. Adamczyk, N.T. Hunt, and K. Wynne, "*Nanophase segregation of aqueous salt solutions due to the liquid-liquid transition in water*", J. Phys. Chem. (2017).
3. F. Walton, K. Wynne, "*Control over phase separation and nucleation using a laser-tweezing potential*", Nature Chemistry **in press** (2018) (<https://doi.org/10.1038/s41557-018-0009-8>)
4. K. Wynne, "*The Mayonnaise Effect*", J. Phys. Chem. Lett. **8**, 6189-6192 (2017). (<http://doi.org/10.1021/acs.jpcl.7b03207>) Most read December 2017. Spotlighted (doi: 10.1021/acs.jpcl.7b03289).

5. G. Ramakrishnan, M. González-Jiménez, A.J. Laphorn, and K. Wynne, "Spectrum of slow and super-slow (picosecond to nanosecond) water dynamics around organic and biological solutes", *J. Phys. Chem. Lett.* **8**, 2964-2970 (2017). (<http://dx.doi.org/10.1021/acs.jpcllett.7b01127>)
6. J. Reichenbach, S.A. Ruddell, M. González-Jiménez, J. Lemes, D.A. Turton, D.J. France, and K. Wynne, "Phonon-like hydrogen-bond modes in protic ionic liquids", *JACS* **139**, 7160-7163 (2017). (<http://dx.doi.org/10.1021/jacs.7b03036>)
7. N.R. Dhumal, J. Kiefer, D. Turton, K. Wynne, and H.J. Kim, "Dielectric Relaxation of the Ionic Liquid-1-Ethyl-3-methylimidazolium Ethylsulfate: Microwave and Far-IR Properties", to *J. Phys. Chem. B* **121**, 4845-4852 (2017). (<http://dx.doi.org/10.1021/acs.jpcb.7b00160>)
8. G. Hithell, M. González-Jiménez, G.M. Greetham, P.M. Donaldson, M. Towrie, A.W. Parker, G.A. Burley, K. Wynne, N.T. Hunt, "Ultrafast 2D-IR and Optical Kerr Effect Spectroscopy Reveal the Impact of Duplex Melting on the Structural Dynamics of DNA", *PCCP* **19**, 10333 (2017). (<http://dx.doi.org/10.1039/C7CP00054E>)
9. C.D. Syme, J. Mosses, M. González Jiménez, Finlay Walton, and K. Wynne, "Frustration of crystallisation by a liquid-crystal phase", *Sci. Rep.* **7**, 42439 (2017). (<http://dx.doi.org/10.1038/srep42439>)
10. M. González-Jiménez, G. Ramakrishnan, T. Harwood, A.J. Laphorn, S.M. Kelly, E.M. Ellis, and K. Wynne, "Observation of coherent delocalised phonon-like modes in DNA under physiological conditions", *Nature Commun.*, **7**, 11799 (2016). (<http://dx.doi.org/10.1038/ncomms11799>)
11. T. Sonnleitner, D.A. Turton, G. Hefter, A. Ortner, S. Waselikowski, M. Walther, K. Wynne, and R. Buchner, 'An Ultra-Broadband Dielectric and Optical Kerr-Effect Study of the Ionic Liquids Ethyl- and Propylammonium Nitrate', *J. Phys. Chem. B* **119**, 8826-8841 (2015). (<http://dx.doi.org/10.1021/jp502935t>)
12. J. Mosses, C.D. Syme, and K. Wynne, 'The order parameter of liquid-liquid phase transitions', *J. Phys. Chem. Lett.*, **6**, 38-43 (2015). (<http://dx.doi.org/10.1021/jz5022763>)
13. J. Mosses, D.A. Turton, L. Lue, J. Sefcik, and K. Wynne, 'Crystal templating through liquid-liquid phase separation', *Chem. Commun.* **51**, 1139-1142 (2015). (<http://dx.doi.org/10.1039/c4cc07880b>)
14. D.A. Turton, H.M. Senn, T. Harwood, A.J. Laphorn, E.M. Ellis, and K. Wynne, 'Terahertz underdamped vibrational motion governs protein-ligand binding in solution', *Nature Commun.* **5**, 3999 (2014). (<http://dx.doi.org/10.1038/ncomms4999>)
15. D.A. Turton, K. Wynne, 'Stokes-Einstein-Debye Failure in Molecular Orientational Diffusion: Exception or Rule?', *J. Phys. Chem. B* **118**, 4600-4604 (2014). (<http://dx.doi.org/10.1021/jp5012457>)
16. T. Sonnleitner, D.A. Turton, S. Waselikowski, J. Hunger, A. Stoppa, M. Walther, K. Wynne, R. Buchner, 'Dynamics of RTILs: A Comparative Dielectric and OKE study', *J. Mol. Liq.* **192**, 19-25 (2014). (<http://dx.doi.org/10.1016/j.molliq.2013.09.019>)
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102. G. Haran, K. Wynne, C.C. Moser, P.L. Dutton, R.M. Hochstrasser, '*Femtosecond Infrared Studies of Photosynthetic Reaction Centers: New Charge Transfer Bands and Ultrafast Energy Redistribution*', in: '*Ultrafast Phenomena X*', Eds. P.F. Barbara, J. Fujimoto, W.H. Knox, W. Zinth (Springer Verlag, Berlin, 1996, p.326).
103. K. Wynne, G. Haran, G.D. Reid, C.C. Moser, G.C. Walker, S. Maiti, P.L. Dutton, R.M. Hochstrasser, '*Femtosecond Infrared Spectroscopy on Reaction Centers of Rb. Sphaeroides*', in: '*Time-Resolved Vibrational Spectroscopy VII*', Eds. R.B. Dyer, M.A.D. Martinez, A. Shreve, W.H. Woodruff (Los Alamos, 1997), p. 191.
104. K. Wynne, G. Haran, G.D. Reid, C.C. Moser, G.C. Walker, S. Maiti, P.L. Dutton, R.M. Hochstrasser, '*Femtosecond Infrared Spectroscopy on Reaction Centers of Rb. Sphaeroides*', in: '*The Reaction Center of Photosynthetic Bacteria: Structure and Dynamics*', Ed.: M.-E. Michel-Beyerle (p. 281-286, Springer Verlag, Berlin, 1996).
105. G.C. Walker, S. Maiti, K. Wynne, G.D. Reid, C.C. Moser, R.S. Pippenger, B.R. Cowen, P.L. Dutton, R.M. Hochstrasser, '*Femtosecond Infrared Spectroscopy of the Photosynthetic Reaction Center*', in '*Ultrafast Phenomena IX*', Eds. P.F. Barbara, W.H. Knox, G.A. Mourou, A.H. Zewail (Springer Verlag, Berlin, 1994, p. 439).

106. R.M. Hochstrasser, B.R. Cowen, P.L. Dutton, C. Galli, S. LeCours, S. Maiti, C.C. Moser, D. Raftery, M. Therien, G. Walker, K. Wynne, 'Vibrational Dynamics in Condensed Phases and Proteins,' in: 'Time-Resolved Vibrational Spectroscopy VI' (Springer Verlag, Berlin, 1994, p. 191).
107. K. Wynne, C. Galli, P.J.F. De Rege, M.J. Therien, R.M. Hochstrasser, 'Vibrational Coherence in Charge Transfer,' in 'Ultrafast Phenomena VIII,' Eds. J.-L. Martin, A. Migus, G.A. Mourou, A.H. Zewail (Springer Verlag, Berlin, 1993, p. 71).
108. K. Wynne, M. Müller, J.D.W. Van Voorst, 'High Time Resolution with Incoherent Light in the Raman Fringe Decay,' in 'Ultrafast Phenomena in Spectroscopy,' Eds. E. Klose, B. Wilhelmi (Springer Verlag, Berlin, 1990).
109. M. Müller, K. Wynne, J.D.W. Van Voorst, 'High Time Resolution and Coherence Effects with Incoherent Light in the Raman Fringe Decay,' in 'Ultrafast Phenomena VII,' Eds. C.B. Harris, E.P. Ippen, G.A. Mourou, A.H. Zewail (Springer Verlag, Berlin, 1990).

Oral presentations

Conferences

1. 26th International Conference on Raman Spectroscopy, August **2018**, Jeju, Korea (**invited**).
2. 1st Ultrafast Chemical Physics in Scotland meeting, March **2018**, Edinburgh (**invited**).
3. 2nd Southampton Symposium on Water, 21 February **2018** (**invited**).
4. 1st Samsung Global Research Symposium on Structure, Dynamics, and Thermodynamics of Biomolecular Networks, 2-4 November **2017**, Seoul, Korea (**invited**).
5. 8th International Discussion Meeting on Relaxations in Complex Systems, July **2017**, Poland (**invited**).
6. International Conference on Time Resolved Vibrational Spectroscopy (TRVS), July **2017**, Cambridge, UK.
7. WaterSpain 2017, July **2017**, Zaragoza, Spain.
8. 253rd ACS National Meeting, April **2017**, San Francisco, USA (**invited**).
9. EMLG/JMLG annual meeting, September **2016**, Crete, Greece (**invited**).
10. Gordon Research Conference on Water & Aqueous Solutions, August **2016**, Holderness NH, USA, discussion leader and introduction (**invited**).
11. Optics within Life Sciences (OWLS 2016), March **2016**, Mumbai, India (**invited**).
12. EMLG/JMLG annual meeting, September **2015**, Rostock, Germany.
13. EMLG/JMLG annual meeting, September **2013**, University of Lille 1, France.
14. International Conference on Time Resolved Vibrational Spectroscopy, May **2013**, Beppu, Japan.
15. SPIE Photonics West, February **2013**, San Francisco, USA (**invited**).
16. Advanced Photonics Techniques in Soft Matter and Biology, January **2013**, London (**invited**).
17. Symposium on Structure and Dynamics, December **2012**, IISER Pune, India (**invited**).
18. 23rd International Conference on Raman Spectroscopy, August 2012, Bangalore, India (**invited**).
19. Ultrafast Chemical Physics 2011, December **2011**, Glasgow, UK (**invited**).
20. EMLG/JMLG meeting 'New outlook on molecular liquids', September **2011**, Warsaw, Poland (**invited plenary lecture**).
21. Mini-conference on liquid-liquid transitions in water, Boston University, July **2011**, Boston, USA (**invited**).
22. International Conference on Time Resolved Vibrational Dynamics, June **2011**, Switzerland.
23. 6th WestCHEM Research Day, June **2011**, Glasgow (**invited**).
24. Faraday Discussion 150: Frontiers in Spectroscopy, April **2011**, Basel, Switzerland.
25. Gordon Research Conference on Vibrational Spectroscopy, 1-6 August **2010**, Biddeford, ME, USA (**invited**).
26. SPIE Photonics West, San Francisco, California, USA, 23-28 January **2010**.
27. UK Workshop on Ultrafast Dynamics, Belfast, 12 January **2010** (**invited**).
28. EMLG-JMLG Meeting 2009 on Intermolecular Interactions and Liquid Structure, 6-10 September **2009**, Salzburg, Austria (**invited plenary lecture**).
29. 14th International Conference on Time-Resolved Vibrational Spectroscopy, 9-14 May **2009**, Meredith, NH, USA.
30. 16th International Conference on Ultrafast Phenomena, 9-13 June **2008**, Stresa, Italy.
31. SPIE Photonics West, 19-24 January **2008**, San Jose, CA, USA (**invited**).

32. Quantum, Atomic, Molecular, and Plasma Physics Conference, September **2007**, UCL (**invited**).
33. Femtochemistry and Femtobiology 8, 22-27 July **2007**, Magdalen College, Oxford (**invited**).
34. 13th Internat. Conf. on Time-Resolved Vibrational Spectrosc., May **2007**, Freising, Germany (**invited**).
35. Telluride Science Workshop on 'Nonlinear ultrafast spectroscopy in fluids', June **2005**, USA (**invited**).
36. 11th Internat. Conf. on Time-Resolved Vibrational Spectrosc., May **2003**, Italy (**invited**).
37. LEOS Scottish Chapter meeting, Heriot-Watt University, May **2002**, Edinburgh (**invited**).
38. 13th Annual LEOS Meeting, November **2000**, Puerto Rico, USA (**invited**).
39. Gordon Conf. on Vibrational Spectroscopy and Molecular Dynamics, August **2000**, USA (**invited**).
40. SPIE symposium on Terahertz Spectroscopy and Applications, June **1999**, Germany (**invited**).
41. 9th Int. Conf. on Time-Resolved Vibrational Spectrosc., May **1999**, USA (**invited plenary lecture**).
42. 23rd Int. Conf. on Infrared and Millimeter Waves, September **1998**, UK (**invited plenary lecture**).
43. March Meeting of the American Physical Society, Los Angeles, CA, USA, March **1998** (**invited**).
44. 61st Okazaki Conf. on Liq. Dyn. Studied by TR Vibr. Spectrosc., Japan, January **1998** (**invited**).
45. 1996 Annual Meeting of the SNF-Center, Århus, Denmark, November **1996** (**invited**).

Departmental

1. Dept. of Materials Science and Engineering, University of Sheffield, 7 March **2018**.
2. Materials and Engineering Research Institute, Sheffield Hallam University, November **2015**.
3. School of Chemistry, University of Edinburgh, October **2015**.
4. Max Born Institute, Berlin, 30 April **2014**.
5. Dept. of Chemistry, Ludwig-Maximilians-Universität München, 11 April **2014**.
6. Debye Institute, University of Utrecht, 12 December **2013**.
7. Dept. of Chemistry, École Normale Supérieure, Paris, 31 May **2013**.
8. Dept. of Physical Chemistry, Fritz Haber Institute of the Max Planck Society, Berlin, 13 May **2013**.
9. School of Engineering, Physics, and Mathematics, University of Dundee, 5 April **2013**.
10. Department of Chemistry, University of Amsterdam, 29 November **2012**.
11. Leiden Institute of Chemistry, University of Leiden, 25 October **2011**.
12. Department of Chemistry, University of Leicester, 5 October **2011**.
13. School of Chemistry, University of Nottingham, 16 March **2011**.
14. School of Chemistry, St Andrews University, 16 February **2011**.
15. School of Chemistry and the Photon Sciences Institute, University of Manchester, 6 October **2010**.
16. Department of Chemistry, University of Glasgow, April **2010**.
17. Chemistry Department, Yale University, January **2008**.
18. Advanced Technology Institute, University of Sussex, February **2005**.
19. Department of Physics and Astronomy, University College London, December **2004**.
20. Department of Chemistry, University of Glasgow, November **2004**.
21. Institut de Chimie Moléculaire et Biologique, L'Ecole Polytechnique Fédérale de Lausanne, June **2004**.
22. Department of Physics, Open University, Milton-Keynes, February **2004**.
23. E.C. Stoner Colloquium, Department of Physics & Astronomy, University of Leeds, March **2001**.
24. Department of Chemistry, University of Nottingham, May **2000**.
25. Max Born Institute, Berlin, Germany, March **1999**.
26. IEEE Lecture at the City University, London, UK, September **1998**.
27. National Physics Laboratory, Teddington, UK, May **1998**.
28. School of Physics and Astronomy, University of St. Andrews, St. Andrews, UK, February **1998**.
29. Department of Chemistry, Emory University, Atlanta GA, USA, May **1997**.
30. Department of Physics, University of Strathclyde, April **1997**.
31. Department of Chemistry, University of Leeds, January, **1997**.
32. Max Planck Institut für Biophysikalische Chemie, Göttingen, Germany, December **1996**.
33. University of Pittsburgh, Department of Chemistry Colloquium, June **1996**.