Publications

Astra

Journal Publications

W. A. Bryan, S. L. Stebbings, E. M. L. English, T. R. J. Goodworth, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, I. C. E. Turcu, J. M. Smith, E. J. Divall, C. J. Hooker and A. J. Langley.
Geometry- and diffraction-independent ionization probabilities in intense laser fields: probing atomic ionization mechanisms with effective intensity matching
Phys. Rev. A **73** 013407 (2006)

J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, W. A. Bryan, E. M. L. English, S. L. Stebbings, W. R. Newell, I. C. E. Turcu, J. M. Smith, E. J. Divall, C. J. Hooker, A. J. Langley and J. L. Collier.
Ultrafast ionization study of N_2 in intense linearly and circularly polarized laser fields
Phys. Rev. A **73** 043401 (2006)

W. A. Bryan, S. L. Stebbings, J. McKenna, E. M. L. English, M. Suresh, J. Wood, B. Srigengan, I. C. E. Turcu, J. M. Smith, E. J. Divall, C. J. Hooker, A. J. Langley, J. L. Collier, I. D. Williams and W. R. Newell.
Atomic excitation during recollision-free ultrafast multi-electron tunnel ionisation
Nature Physics **2**, 379-383, Letters (2006)

W. A. Bryan, S. L. Stebbings, J. McKenna, E. M. L. English, M. Suresh, J. Wood, B. Srigengan, I. C. E. Turcu, I. D. Williams and W. R. Newell.
On the recollision-free excitation of krypton during ultrafast multi-electron tunnel ionization
J. Phys. B. At. Mol. Opt. Phys. In course of publication (Special Issue for ICOMP 2006)

T. R. J. Goodworth, W. A. Bryan, I. D. Williams and W. R. Newell
Reconstruction of atomic ionization probabilities in intense laser fields
J. Phys. B. At. Mol. Opt. Phys. **38** 3083-3089 (2005)

F. Y. Khattak, R. J. Clarke, E. J. Divall, M. Edwards, P. S. Foster, C. J. Hooker, A. J. Langley, P. Mistry, D. Neely, O. A. M. B. P. du Sert, J. Smith, C. Spindloe, G. Tallents, M. Tolley and D. Riley
Enhanced He-alpha emission from "smoked" Ti targets irradiated with 400nm, 45 fs laser pulses
Europhysica Letters **72** (2) 242-248 Oct 2005

S. P. D. Mangles, K. Krushelnick, Z. Najmudin, M. S. Wei, B. Walton, A. Gopal, A. E. Dangor, S. Fritzler, C. D. Murphy, A. G. R. Thomas, W. B. Mori, J. Gallacher, D. Jaroszynski, P. A. Norreys and R. Viskup
The generation of mono-energetic electron beams from ultrashort pulse laser-plasma interactions
Philiosophical Transaction of the Royal Society A 0 Mathematical Physical and Engineering Sciences **364** (1840) 663-677 Mar 15 2006

C. D. Murphy, R. Trines, J. Vieira, A. J. W. Reitsma, R. Bingham, J. L. Collier, E. J. Divall, P. S. Foster, C. J. Hooker, A. J. Langley, P. A. Norreys, R. A. Fonseca, F. Fiuza, L. O. Silva, J. T. Mendonca, W. B. Mori, J. G. Gallacher, R. Viskup, D. A. Jaroszynski, S. P. D. Mangles, A. G. R. Thomas, K. Krushelnick and Z. Najmudin
Evidence of photon acceleration by laser wake fields
Physics of Plasmas **13** (3) Art No 033108 Mar 2006

M. Suresh, J. McKenna, B. Srigengan, I. D. Williams, E. M. L. English, S. L. Stebbings, W. A. Bryan, W. R. Newell, E. J. Divall, C. J. Hooker and A. Langley
Multiple ionization of ions and atoms by intense ultrafast laser pulses
Nuclear Instruments & Methods in Physics Research Section B - Beam Interactions with Materials and Atoms **235** 216-220 Jul 2005

CONFERENCE INVITED TALKS

I. C. E. Turcu
Proposal for the development of the Astra Ultrafast Science Facility
invited talk at the "XUV High Field Science Community Meeting", Reading, September 2005.

CONFERENCE PRESENTATIONS

W. A. Bryan
Atomic excitation during recollision-free ultrafast multi-electron tunnel ionisation
10th ICOMP International Conference, Orford, Quebec, Canada, 2005

J. McKenna
H_2^+ and D_2^+ ions in intense ultrafast laser pulses
37th EGAS International Conference, Dublin, Ireland, 2005

J. McKenna
Interaction of few-cycle laser pulse with H_2: recent ASTRA experiment
CCLRC High Power Laser User Meeting, Abingdon, UK, 2005

J. McKenna
Molecular Ion Dynamics in Intense Laser Fields
AMIG Winter Meeting, Nottingham, UK, 2006

J. McKenna
D_2^+ Nuclear Dynamics in Intense Few-cycle Laser Pulses
AMIG Spring Meeting, Belfast, UK, 2006

I. D. Williams
Evidence for rescattering in molecular dissociation
24th ICPEAC International Conference, Rosario, Argentina, 2005

CONFERENCE POSTERS

ICPEAC
(20th – 26th July 2005, Rosario, Argentina)

J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, E. M. L. English, S. L. Stebbings, W. A. Bryan, W. R. Newell and I. C. E. Turcu.
Evidence for rescattering in molecular dissociation

E. M. L. English, J. Wood, S. L. Stebbings, W. A. Bryan, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams and I. C. E. Turcu.
Controlling non-sequential double ionization using elliptically polarized ultrafast laser pulses

W. A. Bryan, E. M. L. English, J. Wood, S. L. Stebbings, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, A. J. Langley and I. C. E. Turcu.
Strong-field tunnel ionization as a gauge of electron wavelength

W. A. Bryan, E. M. L. English, J. Wood, S. L. Stebbings, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, A. J. Langley and I. C. E. Turcu.
Observation of atomic excitation during ultrafast tunnel ionization

M. Suresh, J. McKenna, B. Srigengan, I. D. Williams, L.-Y. Peng, J. F. McCann, J. Wood, E. M. L. English, S. L. Stebbings, W. A. Bryan, W. R. Newell and I. C. E. Turcu.
Dissociation of fast pre-ionized H_2^+ in intense ultrafast laser pulses

I. D. Williams, J. McKenna, M. Suresh, B. Srigengan, J. Wood, E. M. L. English, S. L. Stebbings, W. A. Bryan, W. R. Newell and I. C. E. Turcu.
Laser driven electron-ion recombination in intense ultrafast pulses

J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, E. M. L. English, S. L. Stebbings, W. A. Bryan, W. R. Newell and I. C. E. Turcu.
Ultrafast intense field dissociative ionization study of N_2

J. Wood, E. M. L. English, S. L. Stebbings, W. A. Bryan, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, A. J. Langley and I. C. E. Turcu.
Diffraction in an arbitrary optical system: geometry-independent ionization probabilities in an high-intensity laser focus

EGAS
(03rd – 06th August 2005, Dublin, Ireland)

I. D. Williams, J. McKenna, M. Suresh, B. Srigengan, J. Wood, E. M. L. English, S. L. Watson, W. A. Bryan, W. R. Newell and I. C. E. Turcu.
Metastable Kr^+ ions in intense ultrashort laser pulses: evidence for recombination of the field-ionized electron

J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, E. M. L. English, S. L. Watson, W. A. Bryan, W. R. Newell and I. C. E. Turcu.
CO_2 in intense ultrashort laser pulses: evidence for nonsequential dissociation

M. Suresh, J. McKenna, B. Srigengan, I. D. Williams, L.-Y. Peng, J. F. McCann, J. Wood, E. M. L. English, S. L. Watson, W. A. Bryan, W. R. Newell and I. C. E. Turcu.
H_2^+ and D_2^+ ions in intense ultrashort laser pulses

E. M. L. English, J. Wood, S. L. Watson, W. A. Bryan, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, and I. C. E. Turcu.
Kr in intense ultrashort laser pulses: effects of ellipticity on nonsequential ionization

ICOMP
(03rd – 06th October 2005, Quebec, Canada)

I. C. E. Turcu, E. J. Divall, P. Bates, J. M. Smith, K. Ertel, J. L. Collier, J. S. Robinson, C. A. Howarth, J. P. Marangos, J. W. G. Tisch, E. M. L. English, J. Wood, W. A. Bryan, W. R. Newell, J. McKenna, B. Srigengan and I. D. Williams.
Ten-femtosecond laser pulse compression apparatus for Astra target areas

J. McKenna, B. Srigengan, I. D. Williams, W. A. Bryan, J. Wood, E. M. L. English, W. R. Newell and I. C. E. Turcu.
Intense field dynamics of H_2 with few-cycle laser pulses

J. Wood, E. M. L. English, S. L. Stebbings, W. A. Bryan, W. R. Newell. J. McKenna, M. Suresh, B. Srigengan, I. D. Williams. A. J. Langley and I. C. E. Turcu.
Probing atomic ionization mechanisms in intense laser fields by calculating geometry and diffraction independent ionization probabilities

E. M. L. English, J. Wood, W. A. Bryan, S. L. Stebbings, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, J. M. Smith, E. J. Divall, C. J. Hooker, A. J. Langley and J. L. Collier.
Controlling non-sequential double ionization using elliptically polarized ultrafast laser pulses

W. A. Bryan, E. M. L. English, J. Wood, S. L. Watson, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, A. J. Langley and I. C. E. Turcu.
Observation of atomic excitation during recollision-free ultrafast tunnel ionization

W. A. Bryan, E. M. L. English, J. Wood, S. L. Watson, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, I. C. E. Turcu, J. M. Smith, K. G. Ertel, E. J. Divall and C. J. Hooker.
Ultrafast laser-induced photodissociation dynamics of H_2^+: measuring adiabatic avoided crossing

CCLRC RAL Annual High Power Laser User Meeting
(03rd – 06th December 2005, Abingdon, UK)

I. C. E. Turcu, E. J. Divall, P. Bates, J. M. Smith, K. Ertel, J. L. Collier, J. S. Robinson, C. A. Howarth, J. P. Marangos, J. W. G. Tisch, E. M. L. English, J. Wood, W. A. Bryan, W. R. Newell, J. McKenna, B. Srigengan and I. D. Williams.
Ten-femtosecond laser pulse compression apparatus for Astra target areas

J. McKenna, B. Srigengan, I. D. Williams, W. A. Bryan, J. Wood, E. M. L. English, W. R. Newell and I. C. E. Turcu.
Intense field dynamics of H_2 with few-cycle laser pulses

J. Wood, E. M. L. English, S. L. Stebbings, W. A. Bryan, W. R. Newell. J. McKenna, M. Suresh, B. Srigengan, I. D. Williams. A. J. Langley and I. C. E. Turcu.
Probing atomic ionization mechanisms in intense laser fields by calculating geometry and diffraction independent ionization probabilities

E. M. L. English, J. Wood, W. A. Bryan, S. L. Stebbings, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, J. M. Smith, E. J. Divall, C. J. Hooker, A. J. Langley and J. L. Collier.
Controlling non-sequential double ionization using elliptically polarized ultrafast laser pulses

W. A. Bryan, E. M. L. English, J. Wood, S. L. Watson, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams, A. J. Langley and I. C. E. Turcu.
Observation of atomic excitation during recollision-free ultrafast tunnel ionization

Ultrafast Dynamic Imaging Workshop
(9-11 April 2006, Imperial College London, UK)

I. C. E. Turcu, E. J. Divall, O. Chekhlov, C. J. Hooker, P. Bates, J. M. Smith, K. Ertel, J. L. Collier, J. S. Robinson, C. A. Howarth, J. P. Marangos, J. W. G. Tisch, E. M. L. English, J. Wood, W. A. Bryan, W. R. Newell, J. McKenna, B. Srigengan and I. D. Williams.
Ten-femtosecond laser pulse compression apparatus for Astra Target Area One

W. A. Bryan, J. McKenna, E. M. L. English, J. Wood, I. C. E. Turcu, J. M. Smith, E. J. Divall, C. J. Hooker, A. J. Langley, J. L. Collier, I. D. Williams and W. R. Newell.
Atomic excitation during recollision-free ultrafast multi-electron tunnel ionization

C. R. Calvert, J. McKenna, I. D. Williams, W. A. Bryan, J. Wood, E. M. L. English, W. R. Newell, I. C. E. Turcu, A. J. Langley and J. L. Collier.
Coulomb explosion imaging of a dissociating D_2^+ nuclear wavepacket

E. M. L. English, W. A. Bryan, J. McKenna, J. Wood, C. R. Calvert, I. C. E. Turcu, J. M. Smith, K. Ertel, A. J. Langley, O. Chekhlov, E. J. Divall, C. J. Hooker, A. J. Langley, J. L. Collier, I. D. Williams and W. R. Newell.
Direct observation of sub-vibrational-period nuclear dynamics in H_2, D_2 and HD

J. McKenna, C. R. Calvert, D. Murphy, J. F. McCann, I. D. Williams, W. A. Bryan, J. Wood, E. M. L. English, W. R. Newell, I. C. E. Turcu, A. J. Langley and J. L. Collier.
Observation of vibrational revivals within a simple quantum system: comparison of experiment with theory

J. Wood, E. M. L. English, S. L. Stebbings, W. A. Bryan, W. R. Newell, I. C. E. Turcu, J. M. Smith, K. Ertel, E. J. Divall, C. J. Hooker and A. J. Langley.
A two pulse experiment on Xenon: a diagnostic for intense femtosecond laser pulses

J. Wood, E. M. L. English, J. McKenna, C. R. Calvert, W. A. Bryan, I. C. E. Turcu, I. D. Williams and W. R. Newell
At focus pulse diagnostics for few-cycle laser pulse: Pump - probe measurements of the ionization of Xenon

J. Wood, E. M. L. English, S. L. Stebbings, W. A. Bryan, W. R. Newell, J. McKenna, M. Suresh, B. Srigengan, I. D. Williams. A. J. Langley and I. C. E. Turcu
Probing atomic ionization mechanisms in intense laser fields by calculation geometry and diffraction independent ionization probabilities

THESES

Muthulingam Suresh (QUB, 2005)
Neutral and ionic atoms and molecules in femtosecond laser pulses

Sarah Stebbings (UCL, 2006)
Femtosecond laser interactions with dilute matter

Lasers for Science Facility

Journal Publications, Books and Published Proceedings

H. Adams, W. S. Alsindi, G. M. Davies, M. B. Duriska, T. L. Easun, H. E. Fenton, J. M. Herrera, M. W. George, K. L. Ronayne, X. Z. Sun, M. Towrie and M. D. Ward.
New members of the [Ru(diimine)(CN)$_4$]$^{2-}$ family: structural, electrochemical and photophysical properties
Dalton Transactions 39-50 (2006)

R. Baker, J. Smith, K. Rogers and N. Stone
Vibrational spectroscopic analysis of breast calcifications and surrounding tissue
Biomedical Vibrational Spectroscopy III. Advances in Research and Industry. Proceedings of SPIE 6093-32, (2006)

S. Barsberg, P. Matousek and M. Towrie
Structural analysis of lignin by resonance Raman spectroscopy
Macromolecular Biosciences **5** 743-752 (2005)

S. Barsberg, P. Matousek, M. Towrie, H. Jorgensen and C. Felby
Lignin radicals in the plant cell wall probed by Kerr-Gated resonance Raman spectroscopy
Biophysical Journal **90** 2978-2986 (2006)

R. H. Bisby, S. W. Botchway, S. Dad and A. W. Parker
Single- and mulit-photon excited fluorescence from serotonin complexed with ß-cyclodextrin
Photochemical Photobiological Sciences **5** 122-125 (2006)

A. M. Blanco Rodriguez, A. Gabrielsson, M. Motevalli, P. Matousek, M. Towrie, J. Sebera, S. Zalis and A. Vlček Jr
Ligand-to-diimine/metal-to-diimine charge-transfer excited states of [Re(NCS)(CO)$_3$(a-diimine)](a-diimine = 2,2' -bipyridine, di-'Pr-N, N-1,4-diazabutadiene). A spectroscopic and computational study
Journal of Physical Chemistry A **109** 5016-5025 (2005)

A. M. Blanco-Rodriguez, M. Busby, C. Gradinaru, B. R. Crane, A. J. Di Bilio, P. Matousek, M. Towrie, B. S. Leigh, J. H. Richards, A. Vlček Jr and H. B. Gray
Excited-state dynamics of structurally characterized [Re^1(CO)$_3$(phen)(HisX)$^+$ (X = 83, 109) pseudomonas aeruginosa azurins in aqueous solution
J Am Chem Soc **128** 13 4365-4370 (2006)

M. J. Booth, M. Schwertner, T. Wilson, M. Nakano, Y. Kawata, M. Nakabayashi and S. Miyata
Predictive aberration correction for multilayer optical data storage
App Phys Lett **88** 031109 1-3 (2006)

M. J. Booth, M. Schwertner and T. Wilson
Specimen-induced aberrations and adaptive optics for microscopy
Proc SPIE 5894 (2005)

S. W. Botchway, I. Barba, R. Jordan, R. Harmston, P. M. Haggie, S. P. Williams, A. M. Fulton, A. W. Parker and K. M. Brindle
A novel method for observing proteins in vivo using a small fluorescent label and multiphoton imaging
Biochem J **390** 787-790 (2005)

M. Brouard, A. Bryant, I. Burak, S. Marinakis, F. Quadrini, I. A. Garcia and C. Vallance
Depolarisation of OH (A) studied by Zeeman quantum beat spectroscopy
Mol Phys **103** 1693 (2005)

R. J. C. Brown, A. R. Kucernak and A. G. Taylor
Optical second harmonic generation at platinum phthalocyanine-modified platinum electrodes
Thin Solid Films **476** 373-378 (2005)

R. De Bruijn, K. N. Koshelev, S. V. Zakharov, V. G. Novikov and F. Bijerk
Enhancement of laser plasma extreme ultraviolet emission by shockwave-laser interaction
Phys of Plas **12** 042701 (2005)

P. Carcabal, L. C. Snoek and T. Van Mourik
A computational and experimental study of the gas-phase conformers of adrenaline
Mol Phys **103** 11-12 1633 (2005)

P. Carcabal, R. A. Jockusch, I. Hunig, L. C. Snoek, R. T. Kroemer, B. G. Davis, D. P. Gamblin, I. Compagnon, J. Oomens and J. P. Simons
Hydrogen bonding and cooperativity in isolated and hydrated sugars: Mannose, Galactose, Glucose and Lactose
J Am Chem Soc **127** 11414-11425 (2005)

P. Carcabal, I. Hunig, D. P. Gamblin, B. Liu, R. A. Jockusch, R. T. Kroemer, L. C. Snoek, A. J. Fairbanks, B. G. Davis and J. P. Simons
Building up key segments of N-Glycans in the gas phase: Intrinsic structural preferences of the α(1,6) dimannosides
J Am Chem Soc **128** 1976-1981 (2006)

P. Carcabal, T. Patsias, I. Hunig, B. Liu, C. Kaposta, L. C. Snoek, D. P. Gamblin, B. G. Davis and J. P. Simons
Spectral signatures and structural motifs in isolated and hydrated monosaccharides: phenyl α- and ß-L-fucopyranoside
PCCP **8** 129-136 (2006)

M. Consuelo Hart Prieto, P. Matousek, M. Towrie, A. W. Parker, M. Wright, A. W. Ritchie and N. Stone
Use of picosecond Kerr-gated Raman spectroscopy to suppress signals from both surface and deep layers in bladder and prostate tissue
J of Biomed Optics **10** 4 0440061-6 (2005)

S. Curtis, A. Boatwright, R. R. Wright and A. J. Stace
Evidence of a shift between one-and two-photon processes associated with benzene trapped in helium nanodroplets
Chem Phys Lett **401** 254-258 (2005)

S. Dad, R. H. Bisby, I. P. Clark, A. W. Parker
Formation of singlet oxygen from solutions of vitamin E
Free Radical Research **40** 3 333-338 (2006)

E. R. C. Draper, M. D. Morris, N. P. Camacho, P. Matousek, M. Towrie, A. W. Parker, A. E. Goodship
Novel assessment of bone using time-resolved transcutaneous Raman spectroscopy
J of Bone Min Res **20** 11 1968-1972 (2005)

A. Gabrielsson, P. Matousek, M. Towrie, F. Hartl, S. Zalis and A. Vlček Jr
Excited states of Nitro-polypyridine metal complexes and their ultrafast decay. Time-resolved IR absorption, spectroelectrochemistry, and TD-DFT calculations of fac-[Re(Cl)(CO)$_3$(5-nitro-1,10-phenanthroline)]
J Phys Chem A **109** 6147-6153 (2005)

A. Gabrielsson, A. M. Blanco-Rodriguez, P. Matousek, M. Towrie and A. Vlček Jr
Different Mechanisms of Photochemical Re-Me and Re-Et bond homolysis [Re^1(CO)$_3$(4,4'-dimethyl-2,2'-bipyridine)]. A time-resolved IR spectroscopic study ranging from picoseconds to microseconds
Organometallics **25** 2148-2156 (2006)

A. Gabrielsson, F. Hartl, H. Zhang, J. R. Lindsay Smith, M. Towrie, A. Vlček Jr and R. N. Perutz
Ultrafast charge separation in a photoreactive rhenium-appended porphyrin assembly monitored by picosecond transient infrared spectroscopy
J Am Chem Soc **128** 13 4253-4266 (2006)

E. A. Gooding, A. P. Ramajo, J. W. Wang, C. Palmer, E. Fouts and M. Volk
The effects of individual amino acids on the fast folding dynamics of α-helical peptides
Chem Commun 5985-5987 (2005)

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Correlation between side chain helix propensity and fast folding dynamics of α-helical peptides
Biophysical Journal **90** 169a 2006

C. J. Hammond, K. L. Reid and K. L. Ronayne
Observation of a simple vibrational wavepacket in a polyatomic molecule via time-resolved photoelectron velocity-map imaging. A prototype for time-resolved IVR studies
J Chem Phys **124** 2011021-4 (2006)

A. A. Jaye, D. Stoner-Ma, P. Matousek, M. Towrie, P. J. Tonge and S. R. Meech
Symposium-in-Print: Green fluorescent protein and homologs time-resolved emission spectra of green fluorescent protein
Photochem Photobiol **82** 373-379 (2006)

A. A. Jaye, D. Stoner-Ma, P. Matousek, M. Towrie, P. J. Tonge and S. R. Meech
Time-resolved emission spectra of green fluorescent protein
Photochemistry and Photobiology **82** 2 373-379 (2006)

M. K. Kuimova, K. C. Gordon, S. L. Howell, P. Matousek, A. W. Parker, X. Z. Sun, M. Towrie and M. W. George
Picosecond time-resolved infrared spectroscopic investigation into electron localisation in the excited states of Re(I) polypyridyl complexes with bridging ligands
Photochemical and Photobiological Sciences **5** 1 82-87 (2006)

M. K. Kuimova, A. J. Cowan, P. Matousek, A. W. Parker, X. Z. Sun, M. Towrie and M. W. George
Monitoring the direct and indirect damage of DNA bases and polynucleotides by using time-resolved infrared spectroscopy
PNAS **103** 7 2150-2153 (2006)

R. E. Littleford, D. Cunningham, P. Matousek, M. Towrie, A. W. Parker, I. Khan, D. McComb and W. E. Smith
Surface-enhanced resonance Raman scattering using pulsed and continuous-wave laser excitation
J of Raman spec **36** 600-695 (2005)

P. Matousek, E. R. C. Draper, A. E. Goodship, I. P. Clark, K. L. Ronayne and A. W. Parker
Noninvasive Raman spectroscopy of human tissue in vivo
App Spec **60** 7 (2006)

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Structure, electronic circular dichroism and Raman optical activity in the gas phase and in solution: a computational and experimental investigation
PCCP **7** 7 1432 (2005)

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B. Nolan, E. Gooding, S. Sharma and M. Volk
The helix coil transition of polyglutamic acid
Biophysical Journal **88** 34a (2005)

A. Pozo Ramajo, S. Petty and M. Volk
The effect of solvent additives and pH on the fast folding dynamics of alanine based α-helical model peptides
Biophysical Journal **90** 345a (2006)

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J Am Chem Soc **127** 13784-13785 (2005)

C. L. Sones, C. E. Valdivia, J. G. Scott, S. Mailis, R. W. Eason, D. A. Scrymgeour, V. Gopalan, T. Jungk and E. Soergel
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Applied Physics B-Lasera and optics **80** 3 341-344 (2005)

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A new polymorph of terpyridine: variable temperature X-ray diffraction studies and solid state photophysical properties
Cryst Eng Com **7** 269-275 (2005)

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International Reviews in Physical Chemistry **24** 3-4 489-531 (2005)

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Observation of excited-state proton transfer in green fluorescent protein using ultrafast vibrational spectroscopy
J Am Chem Soc **127** 2864-2865 (2005)

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BMC Cell Biology **6** 22 (2005)

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