



GlassAC/Durham International 2014

10 September 2014 to 13 September 2014

Organised by

The Society of Glass Technology

Programme and Room Allocation




GlassAC - Arnold Wolfendale 1st Floor Calman Centre : Wednesday 10th September	
09:30 - 10:00	Opening Ceremony
10:00 - 10:20	Cat Moore MA Dissertation, Durham University : Medieval Window Glass from the Blackfriars Site in Newcastle upon Tyne – An Archaeological Assessment
10:20 - 10:40	Jonathan Prior : Ribbed Shells and the Roman Army
10:40 - 11:00	Joana Delgado*1,2,3, Márcia Vilarigues1,2, César A. T. Laia3, Luís Branco3 1 Department of Conservation and Restoration, FCT-UNL, Caparica, Portugal 2 Research Unit Vicarte – Vidro e Cerâmica para as Artes , FCT-UNL, Caparica, Portugal 3 Requite, FCT-UNL, Caparica, Portugal : Restoring medieval stained-glass transparency: luminescent ionic liquids for the removal of corrosion crusts
11:00 - 11:20	Refreshments & Poster Session - 4 th Floor Calman Centre
11:20 - 12:00	Stephen Koob Adhesives for Glass Conservation
12:00 - 12:20	Zuzana Zlámálová Čilová* & Irena Kucerová & Dagmar Micíková & Michaela Knížová Email: Zuzana.Zlamalova.Cilova@vscht.cz : Silane Hybrid Coatings for Protection of the Medieval Glass Mosaic
12:20 - 12:40	Alok Kumar Kanungo Humboldt Experienced Researcher, Humboldt-Universität zu Berlin Institut für Asien- und Afrikawissenschaften Zentralasien-Seminar Invalidenstrasse 118, Unter den Linden 6, 10099 Berlin : Mapping Papanaidupet - The Final Stage of the most Predominant Glass Bead Industry of the World
12:40 - 13:00	Elizabeth M. Foulds Durham University, Department of Archaeology, South Road, Durham, DH1 3LE : Glass in Iron Age Britain - Insights into the past
13:00 - 14:00	Lunch - 4th Floor Calman Centre

14:00 - 14:40	Dedo v Kerssenbrock-Krosigk : Art and Alchemy - The Mystery of Transformation
14:40 - 15:00	Sarah Paynter : Early glass in England: Analysis of the Late Bronze Age Glass Beads from Stotfold, Bedfordshire
15:00 - 15:20	Craig J. Kennedy* and K. Robin Murdoch Heriot Watt University, School of the Built Environment, Edinburgh, EH14 4AS : Understanding the historic management of window glass in Scotland using portable X-ray Fluorescence
15:20 - 15:40	Chloë N. Duckworth (a)* and David J. Govantes Edwards (b) (a) School of Archaeology and Ancient History, University of Leicester; (b) Independent Scholar : 'Like stars in the distance'(1): interdisciplinary approaches to the glass of al-Andalus
15:40 - 16:00	Barbara Birley Assistant Curator - Vindolanda Trust : Glass from Roman Vindolanda - Style on the Frontier
16:00 - 16:20	Refreshments & Poster Session - 4 th Floor Calman Centre
16:20 - 16:40	I. Coutinho ^{1*} , S. Coentro ¹ , T. Medici ^{1,3} , A. Lima ^{1,2} , L. C. Alves ⁴ , M. Vilarigues ^{1,2} 1Unidade de Investigação VICARTE - Vidro e Cerâmica para as Artes, Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa, Campus de Caparica, 2829-516 Caparica, Portugal 2 Dep. de Conservação e Restauro, Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa, Campus de Caparica, 2829-516 Caparica, Portugal 3 Dep. de História, Arqueologia e Artes - Secção de Arqueologia, Faculdade de Letras da Universidade de Coimbra, Largo da Porta Férrea, 3004-530 Coimbra, Portugal 4 CTN (Campus Tecnológico e Nuclear), IST/UL, Estrada Nacional 10, 2695-066 Bobadela, Portugal : Chemical analysis of late medieval and early modern glasses from the archaeological excavation at Avenida Miguel Fernandes in Beja
16:40 - 17:00	Dr Jessamy Kelly : Imitate: Milk Glass a medium for material imitation
17:00 - 17:20	Nick Dolan : Talk Of The Century - a 20th Century Pattern Book Revealed
18:15	Reception at the Oriental Museum
Science - Rosemary Cramp 2nd Floor Calman Centre : Wednesday 10th September	
09:30 - 10:00	Opening Ceremony
10:00 - 10:20	Ladislav Koudelka*, Ivana Rösslerová, Petr Mošner, Lionel. Montagne, & Bertrand. Revel Faculty of Chemical Technology, University of Pardubice, Pardubice, Czech Republic Université Lille Nord de France, USTL, Villeneuve d'Ascq, France : Structure and properties of lead borophosphate glasses modified with molybdenum oxide
10:20 - 10:40	Panighello S. 1,2, a,*, Orsega E.F. 1, van Elteren J.T. 2, Wood M. 3, Moretto M.L. 1 and Robertshaw P. 4 1 Dept. of Molecular Sciences and Nanosystems, University Ca' Foscari of Venice (Italy) 2 Analytical Chemistry Laboratory, National Institute of Chemistry, Ljubljana (Slovenia) 3 School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand, Johannesburg (South Africa) 4 Dept. of Anthropology, California State University, San Bernardino (USA) : Application of Laser Ablation ICP-MS depth profiling methods for the study of African glass beads
10:40 - 11:00	Wenlin Chen*, Edwin Flikkema Department of Mathematics and Physics, Aberystwyth University, United Kingdom : Computer simulation and visualization of glass-forming systems
11:00 - 11:20	Refreshments & Poster Session - 4 th Floor Calman Centre
11:20 - 11:40	Farid Modaresifar, Sheffield Hallam University : Thermal conductivity of refractory glass fibres: a study of materials, standards and test methods
11:40 - 12:00	Paul Rüffer*, Andreas Heft, Bernd Grünler, Arnd Schimanski : SiO_x-barrier layers preventing alkali and earth alkaline metal diffusion deposited by Combustion Chemical Vapor Deposition under atmospheric pressure
12:00 - 12:20	Jayakrishnan Chandrappan, ^{1*} Matthew Murray, 1 Tarun Kakkar, ¹ D.P.Steensohn, ² Animesh Jha, ¹ Gin Jose ¹ 1Institute for Materials Research, School of Process, Environmental and Material Engineering, Faculty of Engineering, University of Leeds, LS2 9 JT UK 2Institute of Microwave and photonics, Electronic and Electrical Engineering, Faculty of Engineering, University of Leeds, T : Rare earth doped telluro-silica glass fabrication by femtosecond pulsed laser process

12:20 - 12:40	Adrian C. Wright J.J. Thomson Physical Laboratory, University of Reading, : The Rigidity of Vitreous Networks: An Alternative Viewpoint
12:40 - 13:00	Maha Rai* and Gavin Mountjoy School of Physical Science, University of Kent, Canterbury, CT2 7NH, UK. : Molecular dynamics modelling of the structure of barium silicate glasses BaO-SiO2
13:00 - 14:00	Lunch - 4th Floor Calman Centre
14:00 - 14:20	P. Mošner*, M. Vorokhta ? L. Koudelka Faculty of Chemical Technology, University of Pardubice, Studentská 573, 532 10 Pardubice, Czech Republic : Structure and properties of Li2O-B2O3-P2O5- GeO2 glasses
14:20 - 14:40	James Lloyd*, Martin Stennett and Russell Hand ISL, Department of Materials Science and Engineering, University of Sheffield, Sir Robert Hadfield Building, Mappin Street, Sheffield. S1 3JD : Silicon Oxycarbide Glass for the Immobilisation of Irradiated Graphite from Nuclear Power Generation
14:40 - 15:00	Ferdinand Drünert(a)*, Manfred Friedrich(b) ² , Winfried Plass(b) ² , Lothar Wondraczek(b) & Doris Möncke(a) (a)Otto-Schott-Institute, Friedrich-Schiller-University Jena, Germany (b)IAAC, Friedrich-Schiller-University Jena, Germany : Quantitative Ion Speciation by Optical Spectroscopy: Classifying Functional Agents in Archaeological Glass Samples
15:00 - 15:20	Maximilian Fuchs ¹ , Saroash Shahid ² , Robert G. Hill ² , Delia S. Brauer ^{1,*} : Aluminium-free glass ionomer bone cements
15:20 - 15:40	Goshka Bialek : Inclusions of metals in glass for creative use
15:40 - 16:00	Michal Miekina and Russell J Hand ISL, Department of Materials Science & Engineering, University of Sheffield, Mappin Street, Sheffield, S1 3JD, UK : Increasing Mo incorporation in borosilicate glasses
16:00 - 16:20	Refreshments & Poster Session - 4 th Floor Calman Centre
16:20 - 16:40	Tavs Jorgensen* and Gayle Matthias* Falmouth University Academy for Innovation and Research (AIR), Penryn Campus, Treliever Road, Penryn, Cornwall, TR10 9EZ , UK +44 (0)1326253689 tavs.jorgensen@falmouth.ac.uk gayle.matthias@flamouth.ac.uk : Research into 3D Printed Glass Investment Casting Moulds
16:40 - 17:10	E.R. Barney ¹ , A.C. Hannon ² , D. Holland ³ , R. Dupree ³ ¹ Faculty of Engineering, University Park, University of Nottingham, Nottingham, UK ² ISIS, STFC, Rutherford Appleton Laboratory, Didcot, Oxfordshire UK ³ Department of Physics, University of Warwick, Coventry, UK Corresponding author: Emma.Barney@nottingham.ac.uk : New Materials for Optical Fibres: Using NMR to understanding the Effect of Modifier on Tellurite Glass Structure
GlassAC - Arnold Wolfendale 1st Floor Calman centre : Thursday 11th September	
09:00 - 09:20	Cristina Fornacelli ^{1,3*} , Susanna Bracci ² , Isabella Memmi Turbanti ³ , Marcello Picollo ⁴ 1. Department of Earth Science, University of Pisa, Italy . 2. Institute for Conservation and Valorization of Cultural Heritage (ICVBC), National Council of Research (CNR), Sesto Fiorentino, Florence, Italy. 3. Department of Physical sciences, Earth and environment, University of Siena, Italy. 4. Institute of Applied Physics "Nello Carrara" IFAC , National Research Council (IFAC-CNR), Sesto Fiorentino, Florence, Italy. : Galileo Chini and the Italian Liberty Style in glass production: Characterization of early XX century glasses by Fiber Optic Reflectance Spectroscopy
09:20 - 09:40	Douglas Hogg Ex head of stained/architectural glass course, Edinburgh College of Art : Archive and Legacy: a 20th Century Lineage - glimpses into the growth, nature and development of the Edinburgh School
09:40 - 10:00	Mark Hursty* & Dr. Kevin Petrie & Dr. Jeffrey Sarmiento : Capital Letters: techniques and creative implications of raised print in pressed glass.
10:00 - 10:20	Colin* & Sue Brain : Drinking glass design around 1670
10:20 - 10:40	Jianyong Guo : The art of inside painting on glass
10:40 - 11:00	Ms Francesca Giubilei : Glass, an imaginative impulse for contemporary art
11:00 - 11:20	Refreshments & Poster Session - 4 th Floor Calman Centre
11:20 - 12:00	Marco Verita : Renaissance enamelled Venetian glass

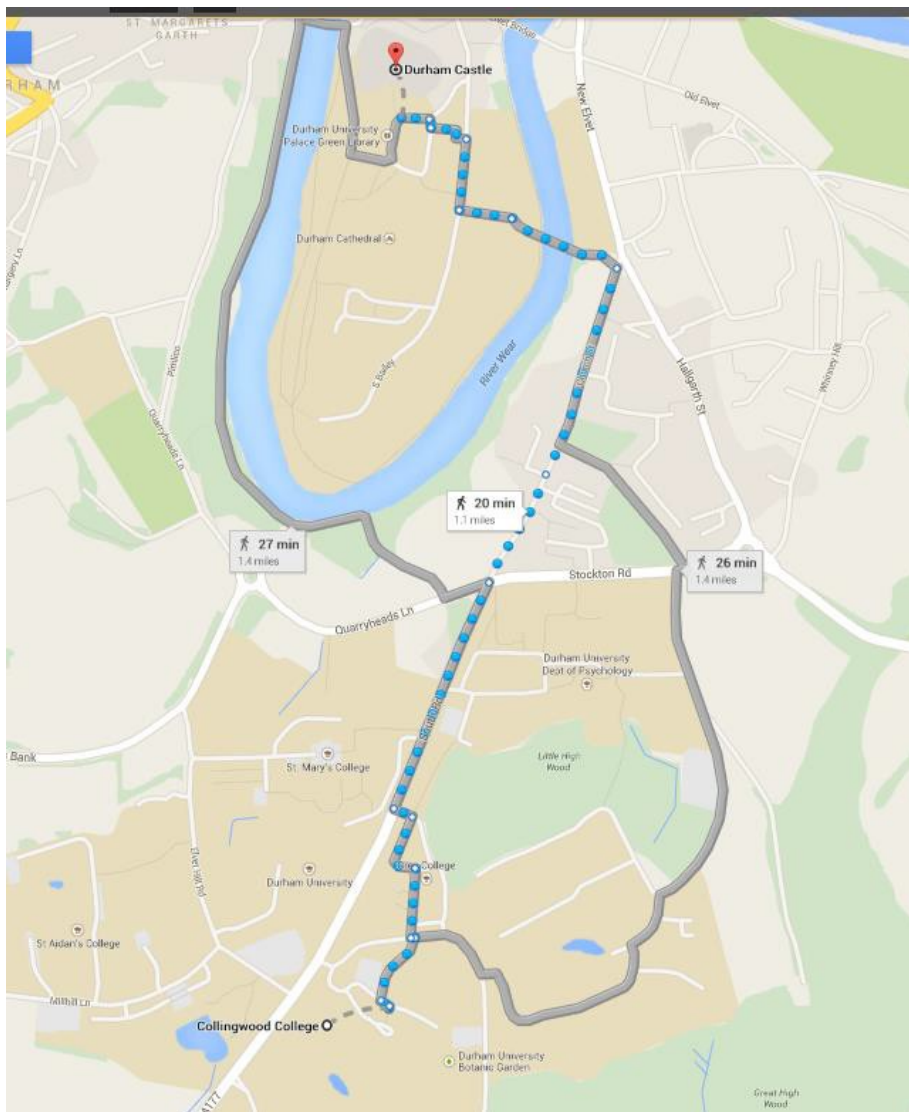
12:00 - 12:20	Alexandra Rodriguesa,*, Anísio Francob, Bruno Martinhoc & Márcia Vilariguesa a) Departamento de Conservação e Restauro, Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa, Portugal and Research unit, VICARTE - Glass and Ceramics for the Arts b) Museu Nacional de Arte Antiga, Lisboa, Portugal c) Parques de Sintra – Monte da Lua SA, Palácio Nacional da Pena : Venetian and faon-de-Venise glass objects of the Glass Collection of King Ferdinand
12:20 - 12:40	Elzbieta Greiner-Wronowa AGH- Technical University of Science and Technology Ave.Mickiewicz 30, Kraków, POLAND : Study Of Glass - Metal Joins Degradatio
12:40 - 13:00	Colin Rennie : Digital-Glass Interface
13:00 - 14:00	Lunch - 4th Floor Calman Centre
14:00 -16:00	Durham Cathedral and Historic Library
16:00 -16:20	Refreshments & Poster Session (4 th Floor Calman Centre)
17:15	Evensong at the Cathedral
Science - Rosemary Cramp 2nd Floor Calman centre : Thursday 11th September	
09:00 - 09:40	J. Henderson ¹ , S. Chenery ² , J. Kröger ³ , J. Evans ² , E. Faber ¹ and S Bertier ⁴ . 1. Department of Archaeology, School of Humanities, University of Nottingham, University Park, Nottingham, NG7 2RD, UK 2The British Geological Survey, Keyworth, Nottinghamshire, NG12 5GG, UK; srch@bgs.ac.uk 3. Bodestraße 1-3, 10178 Berlin, Germany 4. L.A.M.M., Aix en Provence, France : Chemical Evidence for Production and Trade of Islamic glass along the Silk Road
09:40 - 10:20	Georges Calas*, Laurence Galois, Laurent Cormier & Gérald Lelong Institute of Mineralogy, Physics of Materials and Cosmochemistry, University Pierre and Marie Curie and CNRS, Paris, France : Colored glasses: the eye's pleasure and much more.
10:20 - 11:00	John V. Hanna Department of Physics, University of Warwick, : The Advancements in Solid State NMR Experimentation, Methodologies and Instrumentation Impacting Upon Glass Science and Technology
11:00 - 11:20	Refreshments & Poster Session 4th floor Calman Centre
11:20 - 12:00	Mario Affatigato, Coe College, USA : Modern Techniques: Aerolevitation, Time of Flight Mass Spectrometry, and Bactericidal Glasses
12:00 - 12:40	Daniel William Hewak, Kevin C C Huang, Khouler Khan, Paul Bastock, Chris Craig and Edwin Weatherby, Optoelectronics Research Centre, University of Southampton, Southampton SO17 1BJ : Manufacturing High Purity Chalcogenide Glass
12:40 - 13:00	Questions/Answer Session all speakers
13:00 - 14:00	Lunch - 4th floor Calman Centre
14:00 - 16:00	EPSRC/NMR Facility
GlassAC - Arnold Wolfendale 1st Floor Calman centre : Friday 12th September	
09:00 - 09:40	Presidents Address
09:40 - 10:00	Wantana Klysubun : Characterization and replication of the 19th century yellow and blue mirrored glass of the Temple of Emerald Buddha, Bangkok, Thailand
10:00 - 10:20	Kevin Petrie : Recent developments in creative glass research – case studies from art and design
10:20 - 10:40	Jin Qu : Developing artworks using Chinese philosophical notion of 'non-action' through pâte de verre glass
10:40 - 11:00	Sophie Hylands : Turning the spotlight on Turner
11:00 - 11:20	Refreshments & Poster Session - 4th floor Calman Centre
11:20 - 12:00	Prof John Parker : Making Light Work

12:00 - 12:20	Andreia Machado* a), b) & Márcia Vilarigues a), b) a) Research Unit VICARTE - Vidro e Cerâmica para as Artes – FCT/UNL, Caparica, Portugal b) Department of Conservation and Restoration – FCT/UNL, Caparica, Portugal : Enamels in stained glass windows: a quest for blue
12:20 - 12:40	Myrtille Hunault1 *, Georges Calas1, Laurence Galois1, Claudine Loisel2, Fanny Bauchau2, Michel Hérold3 1 Institut de Minérlogie et de Physique des Matériaux et de Cosmochimie (IMPMC), University Pierre and Marie Curie, 75005 Paris, France 2 Laboratoire de Recherche des Monuments Historiques (LRMH), 77420 Champs sur Marne, France 3 Centre André Chastel, 75002 Paris France : Mediaeval Blue Stained Glasses: from spectroscopy to history
12:40 - 13:00	Eve Koha* & Liisi Junolainen Estonian Academy of Arts, Estonia Av. 7, 10147 Tallinn, Estonia; : The analysis of historic glass painting technology based on the conservation of coat of arms of the Great Guild head Johan Christopher Husen (1753) in St. Olaf's Church in Tallinn
13:00 - 14:00	Lunch - 4th floor Calman Centre
14:00 - 14:40	Sarah Brown : Looking for John Thornton in the Conservation of York Minster's Great East Window
14:40 - 15:00	Mathilda Larssona, Alexandra Rodriguesa, Andreia Machadoa, Bruno Martinhob, Luís C. Alvesc, Victoria Corregidorc, Rui C. da Silvac & Márcia Vilarigues* a) Departamento de Conservação e Restauro, Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa, Portugal and Research unit, VICARTE - Glass and Ceramics for the Arts, Torre da Caparica, Portugal b) Parques de Sintra – Monte da Lua SA, Palácio Nacional da Pena, Sintra, Portugal c) Departamento de Física, Instituto Tecnológico e Nuclear, Instituto Superior Técnico, Universidade Técnica de Lisboa, Sacavém, Portugal : The Stained-Glass Collection of King Ferdinand II
15:00 - 15:20	Susanna Bracci*1, Marcello Picollo2, Giovanni Bartolozzi2, Americo Corallini3 1-Institute for Conservation and Valorization of Cultural Heritage-CNR, Florence, Italy 2-Institute for Applied Physics "Nello Carrara"-CNR, Florence, Italy 3-Studio Fenice S.n.c., Bologna, Italy : Three stained glass windows from Santa Croce Basilica in Florence Materials comparison for understanding the history of production
15:20 - 15:40	Oksana Kondratyeva : Hidden Treasures of Ukrainian Stained Glass
15:40 - 16:00	Rachel Welford* & Cate Watkinson Rachel Welford – PhD Research Student, Glass and Ceramics Dept. Faculty of Arts, Design, & Media, University of Sunderland, National Glass Centre, Liberty Way, Sunderland SR6 OGL, UK Cate Watkinson, PhD Director of Studies, & Senior Lecturer, Glass and Ceramics Dept. Faculty of Arts, Design, & Media, University of Sunderland, National Glass Centre, Liberty Way, Sunderland SR6 OGL, UK : The Ephemeral in Glass Artworks
16:00 - 16:20	Refreshments & Poster Session - 4 th Floor Calman Centre
16:20 - 16:35	Alun Adams : Stained Glass in Non-Conformist Chapels - a Welsh Legacy
16:35 - 17:00	Jonathan & Ruth Cooke : Out of the Darkness: discovering late Georgian glass in Leeds
17:00 - 17:20	Jill Turnbull : Adding colour to Scottish Glass
17:20 - 17:40	Colin* & Sue Brain : English and Irish lead crystal glass in the 1670s: a reappraisal
Science - Rosemary Cramp 2nd Floor Calman Centre : Friday 12th September	
09:00 - 09:40	Roger Penlington : Presidents Address Arnold Wolfendale 1st Floor Calman Centre
09:40 - 10:00	Bo Jonson*1 Anna Ihr 2 1 Linnaeus University, Växjö, Sweden; 2 University of Gothenburg, Gothenburg, Sweden : Chemical analysis of glass and glazes found in the Swedish medieval settlement Lödöse
10:00 - 10:20	J. Kenneth Leap - Stained Glass Artist & Designer : Seeing Red: Lawrence Saint and the Quest for Medieval Striated Ruby

10:20 - 10:40	Hans Reiner Meindl, Glashütte Lamberts Waldsassen GmbH : Mouth blown glass with integrated UV protection
10:40 - 11:00	Laurence Galoisy, Mathieu Chassé & Georges Calas Insitut de Minéralogie, de Physique, des Matériaux et de Cosmochimie : Why are obsidians black?
11:00 - 11:20	Refreshments & Poster Session - 4 th Floor Calman Centre
11:20 - 11:40	Odile Majérus*, Victor de Seauve, Aurélie Tournié, Patrice Lehuédé, Isabelle Biron Daniel Caurant Institut de Recherche de Chimie Paris, CNRS-Chimie Paristech, CNRS UMR 8243, Ecole Nationale Supérieure de Chimie de Paris, 11 rue Pierre et Marie Curie, 75005, Paris, France Centre de Recherche et Restauration des Musées de France (C2RMF), Palais du Louvre, 14 quai François Mitterrand, 75001 Paris, France : Effect of Zn²⁺ and Cu²⁺-bearing salts on the dissolution of silicate and borosilicate glasses
11:40 - 12:00	Alex C. Hannon ^{1*} , Oliver L. G. Alderman ^{2,3} & Diane Holland ⁴ 1ISIS Facility, Rutherford Appleton Laboratory, Chilton, Didcot, Oxon OX11 0QX, UK 2Materials Development, Inc., Arlington Heights, IL 60004, USA 3X-ray Science Division, Advanced Photon Source, Argonne National Laboratory, Argonne, IL 60439, USA 4Department of Physics, University of Warwick, CV4 7AL, UK : Density and Packing in Germanate Glasses
12:00 - 12:20	Doris Möncke*(a), Matthias Müller(a), Manfred Friedrich(b), Doris Ehrt(a) etal (a)Otto-Schott-Institute, Friedrich-Schiller-University Jena, Germany (b)IAAC, Friedrich-Schiller-University Jena, Germany : Unusual Cobalt and Nickel Species in Glasses: Chemical Oxidation, Photoionization and Site Geometry Probed by ESR and UV-Vis Spectroscopy
12:20 - 12:40	Michelle Cowley & Adrian Gate* Sellafield Ltd, Seascale, Cumbria, CA20 1PG *National Nuclear Laboratory, Sellafield, Seascale, Cumbria, CA20 1PG : Factors that affect yellow phase formation during vitrification of highly active wastes
12:40 - 13:00	Edwin Fikkema, Aberystwyth Unviersity : Molecular Dynamics simulation of alkali-silicate glasses
13:00 - 14:00	Lunch - 4th floor Calman Centre
14:00 - 14:20	G. Jose, T. Kakkar, M. Murray, J. Chandrappan, T. T. Fernandez, A. Jha, R. Ajjan, P. Grant Institute for Materials Research, University of Leeds, Leeds LS2 9JT, United Kingdom : Femtosecond laser plasma processing of glass for biosensing
14:20 - 14:40	Fernando Barrera Betanzos : Tellurites for advanced optical glasses:Mapping structural changes in the TiO₂-Bi₂O₃-TeO₂ ternary system
14:40 - 15:00	Mike Harrison* 1 and Carl Steele 2 1 National Nuclear Laboratory, Sellafield, Cumbria, UK, CA20 1PG 2 Sellafield Ltd, Sellafield, Cumbria, UK, CA20 1PG : Increasing the Sodium Content of UK Vitrified High Level Waste
15:00 - 15:20	Nick R. Gribble ^{1*} Tracey Taylor ¹ & Carl J. Steele ² 1 National Nuclear Laboratory, Sellafield, United Kingdom; 2 Sellafield Ltd, Sellafield, United Kingdom : A Study of Rhenium Volatility During Simulated Highly Active Waste Vitrification
15:20 - 15:40	Matthew Murray*, Jayakrishnan Chandrappan, Tarun Kakkar, Robert Mathieson, Mehrdad Pasha, Billy Richards, Mojtaba Ghadiri and Gin Jose Institute for Materials Research, School of Chemical and Process Engineering, Faculty of Engineering, University of Leeds: Glass strengthening through plasma implantation
15:40 - 16:00	Dr Paul Bingham Sheffield Hallam University : Iron-rich oxide glasses: formation, structure and properties
16:00 - 16:20	Refreshments & Poster Session - 4 th Floor Calman Centre
	Scan this QR code for the abstracts
	

Directions to the banquet Thursday 4th Sept (reception at 19.00 Banquet 19.30) Please note this is a ticket only event

This is quite a steep walk on some cobbles, alternatively we can arrange a taxi for you.



- Leave Collingwood College and head past Grey College onto South Road. Turn Right onto South road follow until you get to the cross roads.
- Cross over and continue pass New Inn on Church Street Head
- Continue pass St Oswalds Infant School
- Continue pass the Church onto Church Street
- You should pass Seasons Gallery Framing
- Just before the traffic lights come off the road and turn left onto the path. This eventually crosses the River continue along this road onto Bow lane.
- Once you reach the end of Bow Lane turn right onto N Bailey Road followed by a left turn onto Dun Cow Lane. Continue to the top. Follow the road round to the castle