The Scottish Enlightenment meant much more than philosophy, rhetoric and political economy: the reputation of Edinburgh’s medicine and chemistry teaching was to spread throughout Europe and North America. In 1713, James Crawford was appointed the first professor and many distinguished chair-holders followed. Large numbers of students travelled from afar to attend the innovative lectures of William Cullen and the brilliant lecture demonstrations of Joseph Black (discoverer of carbon dioxide) later in the century. This tercentenary conference in conjunction with the University of Edinburgh considers the rise in the public’s curiosity for chemistry: how, exactly one century after Crawford’s appointment, the professor of chemistry was attracting 515 subscribers to his annual course of chemistry.

Tickets: £40
Free for undergraduate students (proof required)
Booking details:
Register online at: http://www.rse.org.uk/events/
Phone: 0131 240 2780
Conference Programme
Thursday, 24th October

08.45  Registration with tea / coffee

09.15  RSE Welcome
Sir John Arbuthnott MRIA PRSE
President, Royal Society of Edinburgh

09.25  Introduction / Overview
Chair: Professor Eleanor Campbell FRS CorrFRSE FRSC FInstP
Chair of Chemistry and Head of the School of Chemistry, University of Edinburgh

09.30  Science in the Athens of the North: The Development of the Sciences in Enlightenment Edinburgh
Professor John Henry
Director Science Studies, School of Social and Political Science,
University of Edinburgh

10.10  Q&A

10.15  Leyden Chemistry in Edinburgh: Herman Boerhaave, James Crawford and Andrew Plummer
Dr John C Powers
Department of History, Virginia Commonwealth University

10.55  Q&A

11.00  Tea / coffee

11.25  Chair: Professor Lesley Yellowlees FRSC FInstP FRSE
Professor of Inorganic Electrochemistry, Vice-Principal and Head of College of Science and Engineering, University of Edinburgh

11.30  From Plummer to Cullen: Novelty in Cullen’s Chemical Pedagogy
Dr Georgette Taylor
Department of Science and Technology Studies, University College London

12.10  Q&A

12.15  Professors and Students in the Age of the Chemical Revolution
John R.R. Christie
Faculty of History, University of Oxford; Associate Fellow, Centre for History of Medicine, University of Warwick; Research Affiliate, HPS Leeds

12.55  Q&A

13.00  Lunch
Programme continued

13.55  Overview of Afternoon
Chair: Professor Ewan Cameron FRHistS FSAScot
Sir William Fraser Professor of Scottish History and Palaeography,
University of Edinburgh

14.00  How to see a Diagram: Joseph Black and the Visual Anthropology of Chemistry
Dr Matthew Daniel Eddy
Department of Philosophy and Centre for Humanities Engaging Science and Society,
Durham University

14.40  Q&A

14.45  The Life and Death of Black’s House (short contribution)
Dr Peter Morris
Principal Curator of Science, London’s Science Museum

15.00  Thomas Charles Hope and the Legacy of Joseph Black
Dr Robert G W Anderson FRSE
Vice-President of Clare Hall, University of Cambridge

15.40  Q&A

15.45  Tea / coffee

16.05  Materia Chemica: Excavation of the Early Chemistry Stores at Old College,
University of Edinburgh
Mr Tom Addyman
Simpson & Brown/Addyman Archaeology

16.45  Q&A

16.50  Surviving 18th-century chemical apparatus in the National Museums of Scotland (short contribution)
Dr Alison Morrison-Low
Principal Curator Science, NMS

17.05  “A Golden Cage, but will the Birds Sing?”: Alexander Crum Brown, William Gregory and Lyon Playfair (short contribution)
Dr Andrew Alexander
Senior Lecturer in Chemical Physics, University of Edinburgh

17.20  Panel Discussion and Afterword
Chair: Professor Hasok Chang
Department of History and Philosophy of Science, University of Cambridge

18.00  Close of meeting
An Evening of Music and Opera
Inspired by Chemistry

20.00 on 24th October at Assembly Rooms, 54 George Street, EDINBURGH, EH2 2LR

Dr Julian Wagstaff
Composer in Residence, School of Chemistry, University of Edinburgh

This special concert is being presented as part of celebrations to mark 300 years of chemistry at the University of Edinburgh. Performed by professional musicians and singers, the concert will be of the highest quality. It will open with a performance of Dr Julian Wagstaff’s acclaimed piano trio *A Persistent Illusion*, commissioned by the Royal Society of Chemistry Local Section in 2011, followed by the premiere of a new short opera for three singers and three musicians, commissioned by Edinburgh University School of Chemistry and celebrating the history of the school in dramatic form. Please visit the University of Edinburgh webpage to book your place.

Tickets: £12, Student/unwaged: £6 (those who have registered for conference receive a discounted rate of £10, please provide conference booking ref number at time of booking).

**Bookings details:**
Register online at: http://www.chemistryopera.ed.ac.uk

Public Exhibition

2nd August–2nd November at University Main Library, George Square, EDINBURGH, EH8 9LJ

The exhibition will offer a fascinating journey into Edinburgh’s unique stamp on the development of chemistry as a modern independent science. We highlight the creativity of chemists who have either taught or studied Chemistry at the University of Edinburgh. Knowledge of chemistry is not required. To guide you, exhibits are arranged by three main themes: *Cradle of Chemistry, Discovery and Enlightenment* and *Economy*. Highlights include: Joseph Black’s chair; Charles Darwin’s chemistry lecture class card; the first model of sodium chloride made with knitting needles; proceedings from the oldest chemical society; original samples from the discovery of strontium oxide; Oertling early long-beam assay balance.

For more information on Chemistry 300 events please visit the website: http://www.300.chem.ed.ac.uk
Mr Tom Addyman

Partner, Simpson & Brown Architects

Tom Addyman is a partner of Simpson & Brown Architects, Leith, where he directs their archaeological division, Addyman Archaeology. He specialises in the analytical study of historic buildings, and their construction history, and works throughout Scotland, the UK and overseas. He has led major analytical and recording exercises at Queensberry House, Castle Fraser, Craigievar Castle, Pitmedden Garden, Newhailes House, Brodick Castle and Doune Castle, to name a few, and has published widely. Tom's current projects include advising the Government of India on the conservation and archaeology of the Govindgarh Fort, Amritsar, and the excavation and analysis of Mingary Castle, Ardnamurchan.

Dr Andrew Alexander

Senior Lecturer in Chemical Physics, University of Edinburgh

Dr Andy Alexander is a Senior Lecturer in Chemical Physics at the University of Edinburgh. Educated at Edinburgh, Oxford and Stanford Universities, he returned to Edinburgh to take up a Royal Society University Research Fellowship and Lectureship. His research interests are photochemistry and nucleation. Dr Alexander has been co-ordinating the events for the tercentenary celebrations, and is curator of the Cradle of Chemistry exhibition, currently on show to the public at the University Main Library in George Square.

Dr Robert G W Anderson FRSE

Vice-President of Clare Hall, University of Cambridge

John R.R. Christie received an undergraduate degree (MA History) and postgraduate research from the University of Edinburgh (PG research on William Cullen, Joseph Black and the role of heat in chemistry). Research Fellow, Division of History and Philosophy of Science, University of Leeds; Lecturer HPS Leeds; Senior Lecturer HPS Leeds, Chair HPS Leeds; Sub-Dean of Arts, Director Centre for Cultural History; Research Director Dept of Philosophy, University of Leeds 1973–2004. Since retiring from Leeds, now member of Faculty of History, University of Oxford; Associate Fellow Centre for History of Medicine University of Warwick; Research Affiliate HPS Leeds; Research Fellow Max Planck Institute for History of Science, Berlin 2010. Early research on science in the Scottish Enlightenment; further research on Paracelsan alchemy; and on literature and science. Current research: C18th London chemistry; chemistry in the C18th Atlantic world; science, the economy and enlightenment; and Joseph Priestley.
Dr Matthew Eddy has written extensively on the history and philosophy of science, paying particular attention to how science is valued, systematised and visualised by the academy, the public and industry. Based at Durham University, he has held fellowships at MIT, Harvard University, the Max Planck Institute for the History of Science in Berlin, UCLA and California Institute of Technology. His first book addressed the medical foundations of geoscience during the Enlightenment and his forthcoming book, The Patchwork Picture, investigates how children and adolescents were taught to visualize scientific knowledge during the 18th and 19th centuries.

Dr Matthew Daniel Eddy
Department of Philosophy and Centre for Humanities Engaging Science and Society, Durham University

Dr Matthew Eddy has written extensively on the history and philosophy of science, paying particular attention to how science is valued, systematised and visualised by the academy, the public and industry. Based at Durham University, he has held fellowships at MIT, Harvard University, the Max Planck Institute for the History of Science in Berlin, UCLA and California Institute of Technology. His first book addressed the medical foundations of geoscience during the Enlightenment and his forthcoming book, The Patchwork Picture, investigates how children and adolescents were taught to visualize scientific knowledge during the 18th and 19th centuries.

Professor John Henry
Director Science Studies, School of Social and Political Science, University of Edinburgh

Professor John Henry is Professor of the History of Science at Edinburgh University, and Director of its Science Studies Unit. He has published widely in the history of science and medicine, covering topics from the Middle Ages to the nineteenth century, from atomism to psychology, and from Jean Fernel to Hugh Miller. His latest book is A Short History of Scientific Thought (Basingstoke: Palgrave Macmillan, 2012), and he is currently editing the scientific works of Thomas Hobbes for inclusion in the new edition of his Collected Works (Oxford: Clarendon Press).

Professor Hasok Chang
Department of History and Philosophy of Science, University of Cambridge

Professor Hasok Chang is Hans Rausing Professor of History and Philosophy of Science at the University of Cambridge. He received his degrees from Caltech and Stanford, and has taught at University College London. He is the author of Is Water H₂O? Evidence, Realism and Pluralism (2012), and Inventing Temperature: Measurement and Scientific Progress (2004). He is currently the President of the British Society for the History of Science (BSHS).
Dr Peter Morris
*Principal Curator of Science, London’s Science Museum*

Dr Peter J. T. Morris is Keeper of Research Projects at the Science Museum in London. He has published widely on the history of chemistry and the chemical industry and is currently completing a history of the chemical laboratory between 1500 and 2000. Peter Morris was also Editor of the leading history of chemistry journal, *Ambix*, between 2001 and 2012. He was given the Edelstein Award for excellence in the history of chemistry by the American Chemical Society in 2006.

Dr John C Powers
*Department of History, Virginia Commonwealth University*

Dr John Powers is an Associate Professor of History at Virginia Commonwealth University (VCU), where he is also the Assistant Director of the Science, Technology and Society Program. He earned a PhD in History and Philosophy of Science from Indiana University and taught at Cornell University and Sarah Lawrence College before coming to VCU. His research centers on the history of early eighteenth-century chemistry, specifically the introduction of chemistry into European universities and how this process changed the field’s pedagogy, natural philosophy and practice. His book, *Inventing Chemistry: Herman Boerhaave and the Reform of the Chemical Arts* (Chicago, 2012), examines these themes at the University of Leiden.

Dr Alison Morrison-Low
*Principal Curator Science, NMS*

Dr Alison Morrison-Low is Principal Curator, Science, at National Museums Scotland. She has produced collaborative works on the historic scientific instrument trade in Scotland and Ireland, and her doctoral thesis, *Making Scientific Instruments in the Industrial Revolution* was published in 2007. This won the 2008 Paul Bunge prize. More recently, Dr Morrison-Low has produced an exhibition and book about the history of Scottish sea-marking; and she is currently working on exhibitions and publications celebrating the early history of photography. New science and technology galleries are being developed at National Museums Scotland, opening in 2016, and she is also working on these.
Dr Georgette Taylor

*Department of Science and Technology Studies, University College London*

Dr Georgette Taylor studied for her PhD at University College London. Her PhD Thesis, completed in 2006, was on the affinity theories that were so prevalent in the chemistry of the second half of the 18th century in Britain. Her research explored chemistry as it was taught in Scotland and England, in particular by William Cullen and Joseph Black and, by many of their ex-students. She won the 2008 Partington Prize awarded by the Society for the History of Alchemy and Chemistry for *Tracing Influence in Small Steps: Richard Kirwan’s Quantified Affinity Theory*. A post-doctoral fellowship followed with the project *Analysis and Synthesis in 19th-Century Chemistry: Towards a New Philosophical History of Scientific Practice*.

Professor Lesley Yellowlees FRSC FInstP FRSE

*Professor of Inorganic Electrochemistry, Vice Principal and Head of College of Science and Engineering, University of Edinburgh*

Professor Lesley Yellowlees is currently Vice Principal and Head of the College of Science and Engineering at the University of Edinburgh. She has worked with the Royal Society of Chemistry and became their first female President in July 2012. Among her current research interests are inorganic electrochemistry and spectroelectrochemistry, utilisation of CO₂, public engagement of science and promoting women in science. She was awarded an MBE in 2005 for services to science and was elected a Fellow of the Royal Society of Edinburgh in 2012.
Conference Organising Committee

Dr Robert Anderson FRSE
Vice-President of Clare Hall, University of Cambridge

Professor Eleanor Campbell FRS CorrFRSE FRSC FInstP
Head of School of Chemistry, University of Edinburgh

Professor Robert Donovan OBE FRSE FRSC
School of Chemistry, University of Edinburgh

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