# Curriculum Vitae Clare P. Grey

Department of Chemistry,

University of Cambridge,

Lensfield Road,

Cambridge,

CB2 1EW

E-mail: cpg27@cam.ac.uk

Tel: +44 1223 336509; Fax: +44 1223 336017

http://www.ch.cam.ac.uk/staff/cpg.html

#### **EDUCATION:**

D.Phil. in Chemistry, University of Oxford (1991)

Thesis title: A <sup>119</sup>Sn and <sup>89</sup>Y MAS NMR study of Rare-Earth Pyrochlores. Thesis advisor:

Prof. A. K. Cheetham

B.A. in Chemistry, *First Class Honours*, University of Oxford, (1987)

## PROFESSIONAL EXPERIENCE:

Head, Materials Research Interest Group (2010-present) and Inorganic Sector (2009 –2010) Cambridge University

Associate Director (2011-2014), Director and PI (2009-2011), Northeastern Chemical

Energy Storage Center, a Department of Energy Frontier Center, Stony Brook University

Geoffrey Moorhouse Gibson Professor in Materials Chemistry, University of Cambridge,

UK, (July 2009-present)

Visiting Professor, Université de Picardie Jules Vernes, Amiens, (2006-07; 2007-08)

Associate Director, NSF Center for Environmental Molecular Sciences, (2002-2009)

Professor, Department of Chemistry, State University of

New York at Stony Brook (Sept. 2001-present)

Visiting Professor, Université Louis Pasteur, Strasbourg, (2000)

Associate Professor, Department of Chemistry, State University of

New York at Stony Brook (Sept. 1997-Aug. 2001)

Assistant Professor, New York at Stony Brook (Jan. 1994-Aug. 1997)

Visiting Scientist at DuPont CR&D (Feb. 1992-Jan. 1994)

Royal Society Post-doctoral Fellow in the laboratory of Prof. W.S. Veeman, University of

Nijmegen (Jan. 1991-Feb. 1992)

Research Fellow, Balliol College, University of Oxford (Sept. 1990-Jan.1991).

### **AWARDS:**

Davy Prize from the Royal Society (2014)

Honorary PhD Degree from Lancaster University (2013)

Laukien Award from the Experimental NMR Conference (2013)

Research Award, International Battery Association (2013)

Honorary PhD Degree "Docteur Honaris Causa" from the University of Orleans (2012)

RS Kavli Medal and Lecture (2011)

Fellow of the Royal Society (2011)

Fellow of the International Society of Magnetic Resonance (2011)

RSC John Jeyes Award (2010)

AMPERE Award (2010)

Vaughan Lecturer (2008)

NYSTAR Award (2007)

Research Award of the Battery Division of the Electrochemical Society, (2007)

NSF POWRE Award (2000)

Camille and Henry Dreyfus Teacher-Scholar Award (1998)

Alfred P. Sloan Foundation Research Fellow (1998)

Cottrell Scholar (1997)

DuPont Young Professor Award (1997)

NSF National Young Investigator (1994)

Royal Society European Post-doctoral Fellowship (1991)

Junior Research Fellowship, Balliol College, University of Oxford (1990)

S.E.R.C. Quota Award (1987-1990)

Senior Scholarship, Christ Church, University of Oxford (1988)

Dixon Scholarship, Christ Church, University of Oxford (1987)

Open Scholarship, Christ Church, University of Oxford (1983)

#### **TEACHING:**

Stony Brook: Inorganic chemistry (for undergraduate majors + 1<sup>st</sup> semester graduate level); Designed and ran inorganic (and solid state) chemistry laboratory course for chemistry majors; Freshman (1st year) chemistry laboratory; Solid-State chemistry, crystallography, NMR and group theory (graduate level).

University of Picardie, Amiens: European Masters Course on Energy: Applications of NMR to Batteries and Fuel Cells.

Cambridge: 3<sup>rd</sup> year "Characterization methods for inorganic chemistry" – ESR and Magnetism. 4<sup>th</sup> year, magnetism and solid state chemistry.

## PROFESSIONAL SERVICES/ OTHER AWARDS AND HONORS:

Panelist, BBC World Service, "The future of renewable energy" for the programme, "the Forum", (<a href="http://www.bbc.co.uk/programmes/p01g94yj">http://www.bbc.co.uk/programmes/p01g94yj</a>), September 2013.

Member of the Emerging Technologies Panel for the World Economic Forum (2012 – present). Helped write "Energy Harnessing: New Solutions for Sustainability and Growing Demand" (Oct 2013, http://www.weforum.org/reports/energy-harnessing-new-solutions-sustainability-and-growing-demand).

Royal Society of Chemistry Roadmap Champion for Energy Conversion and Storage (2011-present)

Presentation to the Department of Energy and Climate Change (DECC) "Strategy Coffee Morning": "Challenges in Using Lithium Ion Batteries in Road Transportation", London, July

RSC Public Lecture, Burlington House, London, September: "Recharging the Planet: The Prospects and Chemical Challenges of using Batteries to Power a Low Carbon Economy" (http://thereaction.net/events/y2011/Recharging\_our\_future.aspx)

Kavli Public Lecture, The Royal Society, London, October: "Following function in real time: Towards the Next Generation of Batteries for Supercapacitors for Transport and Grid Storage" (http://royalsociety.org/events/Following-function-in-real-time/)

Presentation to National Academy, Solid State Sciences Committee, "New Materials and Challenges for Lithium-Ion Battery Research", April 2008

Department of Energy, Basic Energy Sciences: "Basic Research Needs for Electrical

Energy" Workshop, April 2007. Panel Lead and Writer. (Characterization)

US/Africa Workshop, "Frontiers in Materials Research and Education", Abuja, Nigeria, January 2007: Panel Lead, (Materials Chemistry)

National Science Foundation Workshop on "Sustainability and Chemistry," May-June 2006 Report "Chemistry for a Sustainable Future": Panel Lead (Energy) and Writer (Energy and Environmental Chemistry)

National Science Foundation Workshop, "The status of solid state chemistry and its impact in the physical sciences, May 2006, Workshop organizer

National Science Foundation Workshop, Approaches for Combating Terrorism, July 2005, Panel Lead and Writer, (Power Sources)

Editorial Board, Journal of the American Chemical Society, 2011-present

Editorial Board, Journal of Materials Chemistry, July 2009-present

Editorial Board, Chemistry of Materials, Jan. 2005-Jan. 2010

Editorial Board, Solid State Sciences, Jan 2002-present

Editorial Board, Journal of Magnetic Resonance, Jan 1999-present

Program Chair, Alpine NMR Meeting, Chamonix, 2009

Session Organizer, MRS Meeting, December 2005, Battery Session

Chair, NMR symposium of the 43<sup>rd</sup> Rocky Mountain Conference on Analytical Chemistry [Vice-chair 1999; committee member 1994-1999; Session organizer 1996-1999];

Advisory Board, Winton Programme for the Physics of Sustainability, Cambridge University, 2011-present

Advisory Board, Max Planck Institute for Polymer Physics, 2009-present

Advisory Board, Center for Functional Nanomaterials (CFN), Brookhaven National Laboratory, 2006-2012.

NY State Advanced Energy Center, Member, Research Committee (2006-present)

Advisory Board, Penn. State, Center for Environmental Kinetics Analysis (NSF EMSI), Dec. 2005-2010

Member of the Stony Brook University "Status of Women Faculty" Taskforce (representative for the physical sciences) (1999-2009); Member of the Stony Brook Women in Science and Engineering (WISE) Advisory Working Group (1994 -2009)

ECS Biannual Meeting, Educational Division Talk, "XYZ for the Rest of Us" Los Angeles, October 2005