

Professor Sir Robin W. Grimes FRS FREng FTSE CEng

Education University of Nottingham, B.Sc. July 1982, Mathematical Physics
Case Western Reserve University, USA, M.S. May 1985, Materials Science
University of Keele, Ph.D. August 1988, Chemistry

Current and Immediate Past Position

Nonexecutive Director, United Kingdom Atomic Energy Authority	from Nov 2023.
Foreign Secretary and VP, The Royal Society	Dec 2021 – Mar 2023.
Steele Professor of Energy Materials, Department of Materials, Imperial College, from Oct 2020.	
Honorary Professor Department of Mechanical Eng., University of New South Wales, from 2018.	
Honorary Professor Department of Science, Technology, Engineering and Public Policy, UCL, from 2018.	
Ministry of Defence, Chief Scientific Adviser (Nuclear),	April 2017 – Nov 2021.
Foreign & Commonwealth Office, Chief Scientific Adviser,	Feb 2013 – Aug 2018.

Past Positions

Director, Rolls Royce University Technology Centre, Nuclear Engineering,	May 2010 – Feb 2013.
Founding Director, Centre for Nuclear Engineering, Imperial College London,	Aug 2008 – Feb 2013.
Professor of Materials Physics, Department of Materials, Imperial College,	Oct 2002 – Sept 2020.
Bernd T. Matthias Scholar, Los Alamos National Laboratory (USA),	July 2000 – July 2001,
Continuing as consultant and visiting scientist to 2011 and then from 2019.	
Reader in Atomistic Simulation, Department of Materials, Imperial College,	Oct 1998 - Sept 2002.
Governors' Lecturer at the Department of Materials, Imperial College,	Jan 1995 - Sept 1998.
Assistant Director, Davy Faraday Research Laboratory, The Royal Institution,	Oct. 1990 - Dec. 1994.

Fellowships and Awards

Cahn Award, Nuclear Materials bi-annual meeting, Elsevier		2024
Knight Bachelor		2022
American Nuclear Society Mishima award		2021
Japanese Foreign Minister's Commendation for promotion of scientific and technological cooperation between Japan and the UK		2019
Luis Federico Leloir Award for International Cooperation in Science, Technology and Innovation, from the Argentinian Ministry of Science		2018
Fellow of the Royal Society	FRS	2018
Fellow Australian Academy of Technology and Engineering	FTSE	2016
Fellow Royal Academy of Engineering	FREng	2013
Institute of Materials Griffith Medal (2010) & Rosenhain Medal (2002)		
Engineering Council, Chartered Engineer	468894	CEng
		1995

Commissions of Trust (non-government department) from 2010

UK Liaison Officer to the IAEA International Nuclear Information System	2020 – 2024
International Science Council’s Committee on Freedom and Responsibility in Science, from 2019	
Member, British Council Education Advisory Group	2019 – 2025
Nuclear Industry Research Advisory Board, UK	2015 – 2021
Office of Nuclear Regulation Independent Advisory Panel, UK	2014 – present
Nuclear Decommissioning Authority Group Future Challenge Board	2011 – present

Activities representing the UK including as Departmental Chief Scientific Adviser

- **CSA:** I was responsible for providing science advice to government Ministers and officials and ensuring that policy was informed by and had access to the best scientific data & networks.
- **Ministry of Defense:** as CSA (Nuclear) I was principal adviser on nuclear science and technology matters and a member of the Investment Approvals Committee and Defense Nuclear Executive Board.
- **JCPOA** (the Iran deal): I was co-chair of the Arak Working Group (AWG) and AWG+1, the reactor modernisation project under the JCPOA and also chair of the technical working group, responsible for ensuring appropriate technical work on the reactor project is delivered by this international group.
- **Engagement with international agencies**, example IAEA: Led the delegation to the 58th and 60th General Conferences; co-wrote & delivered the UK annual statements that uniquely included a technical science focus. Chaired and gave the key-note for UK capabilities meetings in the margins 2013, 14, 15 & 16 and various bilateral negotiations taking forward agreements on nuclear safety and collaboration. I led the 2nd half of the 62nd GC and the Ministerial Conference in 2018.
- **UK delegations lead to international science meetings.** Examples: the Arctic conference, AgriTech, cyber security, big data, Comprehensive Test Ban Treaty Organisation, Global Initiative to Combat Nuclear Terrorism.
- **Providing science advice: example BREXIT science strategy** shaping the research and innovation relationship, chairing a cross-Whitehall group from DExEU, BEIS and DIT. This was informed partly through bilateral high-level official visits to science ministers across Europe.
- **Developing bilateral science relationships:** example, Argentina. I drafted the Ministerial brief including the headline "Science is one of the pillars of the new UK Argentina relationship" stated by Foreign Secretary Hammond and again by Minister Duncan, (while in Argentina). I then instigated and organised the Argentinian minister of science's visit to the UK, which resulted in 4 new science agreements (including one with the Royal Society). Building on this I chaired the UK-Argentina science council that included representation from the Argentinian Embassy in London, FCO, BEIS, RS and others to drive forward collaboration activities.
- **Engagement with US Government.** Technical examples with DoE include Advanced Actinide Fuels Panel Lead for the annual workshop; Member, Committee of Visitors, reviewing overall programme for Basic Energy Sciences; Keynote speaker for 2017 annual workshop. Science policy examples include: officials meetings with the Office of Science and Technology Policy, also with the President's Science Advisor; DOE Office for Science, including with the Secretary for Energy; Heads of five National Laboratories; State Department office of science. NNSA with regard to JCPOA.
- **Risk and Resilience:** I have attended the Scientific Advisory Group for Emergencies (SAGE) for a variety of situations beginning with Fukushima in 2011 up to and including Covid-19. I often chair nuclear practices, including bi-lateral joint exercises, evolving the UKs processes and protocols. Related to this I have championed the development of the Joint Agency Modelling product, which is now able to predict the evolution of a domestic or foreign nuclear accident event, hour to hour, enabling fast and more accurate response. From 2016-2018 I co-chaired an OECD expert group to report on "Science Advice: international cooperation & exchange of data & information during a transnational crisis".
- **Parliamentary engagement.** I have been specialist advisor to the Lords S&T select committee and have been called in front of the House S&T, Industry and Foreign Affairs committees on seven occasions most recently 2022 the Lords committee on European Affairs.

Current Research:

My focus is on materials for energy applications by characterizing behaviour at the atomic scale. Using simulation techniques, I identify those processes or structures that give rise to salient properties, often in collaboration with experimental effort. This has included an emphasis on nuclear materials where I have studied defect processes in fuel and waste forms, but I also made contributions to fuel cell, battery, solar and sensor systems. My current research group consists of 1 PDRAs and 2 students. I have been a Principle Investigator for three EPSRC National Programmes. Over 350 publications, over 14k citations, h-index 64.

Leadership of National and International Nuclear Academic Community

- Principal Investigator of the Engineering and Physical Sciences Research Council (EPSRC) initiative “Nuclear Champion” which has been co-ordinating and supporting academic nuclear energy research between UK universities since 2011. This includes supporting the nuclear research relationship between Research Councils and the UK government, also promoting opportunities for National Laboratories and the nuclear industry to engage with academia.
- Chair of the 1st UK Nuclear Academic Discussion Meeting held at St. Ann’s College Oxford, Sept 13/14 2012 and each subsequent annual meeting: Birmingham 2013, Leeds 2014, Sheffield 2015, Bristol 2016, Lancaster 2017, Liverpool 2018, Bangor 2019 & Cambridge 2020/21. Each year approximately 100 academics, industry, national lab and government department representatives gather to develop our national and international nuclear research engagement plan for the next year.
- Initiated, established and chaired (from 2012-2015) the National Nuclear Users Facility project, which provided £16.1M of DECC funding to the nuclear research community to purchase experimental facilities for active work and then with colleagues gained £84.6M (BEIS) to develop the project further.
- Designed and drove the nuclear community’s international research engagement strategy. A focus on US, Japan, India, France and Korea; chosen by the opportunity to realise sector advantages with UK capabilities, knowledge and opportunities for funded high quality science collaboration.
- Developed and led the bilateral UK-India RCUK-DAE nuclear research initiative signed in 2010. This has resulted in 30 projects and generated an on-going large body of co-authored open literature as well as many bilateral and multilateral meetings.
- Principal Investigator for the £6.4M research consortium “Keeping the Nuclear Option Open”, part of the overall programme “Towards a Sustainable Energy Economy”, which ran from 2005 to 2009 and re-established the UK nuclear academic community.
- Member of the UK Government Nuclear Research and Development Advisory Board 2012; recommendations concerning the future of civil nuclear research in the UK in the light of the HoL report. Also, convenor of the Sub-group reporting on International Issues.
- Specialist Advisor (2011) to the House of Lords Science and Technology Select committee review of nuclear research requirements. Final report “Nuclear Research and Development Capabilities” HL Paper 221.
- Work with the IAEA: post government appointment I have been a member of the committee for Level 3 Knowledge Management Assist visits for nuclear education programmes: Hungary 2021 and Switzerland 2023.
- Chair of Royal Society policy briefing group and report “Nuclear Cogeneration: civil nuclear in a low-carbon future” part of the low carbon energy programme 2020.
- Office of Nuclear Regulation, Member of the Technical Advisory Panel reporting to the Secretary of State (2011) on the implications for the UK nuclear industry of the Fukushima nuclear accident and European Stress Tests.
- For the US DOE: Advanced Actinide Fuels Panel Lead for the 2006 workshop “Basic Research Needs for Advanced Nuclear Energy Systems”; Member, Committee of Visitors 2012, reviewing overall programme for Basic Energy Sciences; Keynote speaker for 2017 workshop “Basic Research Needs for Future Nuclear Energy”. Continue work with US nuclear diaspora via LANL collaboration.
- For the Australian Nuclear Science and Technology Organization: The external representative and moderator for “Nuclear Power Technology Workshop” in 2007; Chair of Quadrennial Review of the Institute for Materials Engineering, 2012. Continue engagement with Australian nuclear diaspora via UNSW where I teach a Masters level course each year.
- For Khalifa University, Abu Dhabi, was a member of the Nuclear Technology Centre annual review committee 2018-2020 and external examiner reporting on education standards.