

**Curriculum Vitae, Awards and Honours**  
**Professor Sir JOHN MEURIG THOMAS**

Date and Place of Birth 15th December 1932, Llanelli, Wales, UK

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**Present Positions Held:**

- Honorary Professor of Materials Science, University of Cambridge (2002-);
- Emeritus Professor of Chemistry, Davy Faraday Research Laboratory, Royal Institution of Great Britain, London (since 2002);
- Honorary Distinguished Professor of Materials Chemistry, Cardiff University, Wales (2005-13);
- Honorary Distinguished Professor of Chemistry and Nanoscience, University of York (2008-);
- Advisory Professor, Shanghai Jiao Tong University (2009-);
- Advisory Professor, Hokkaido University, Catalysis Center (2010-);

**Positions Formerly Held:**

- Director, Royal Institution of Great Britain and Davy Faraday Research Laboratory (1986-91);
- Fullerian Professor of Chemistry, Royal Institution (1988-1994);
- Distinguished Research Fellow in Materials Science, University of Cambridge (1993-2002);
- Head, Department of Physical Chemistry, University of Cambridge and Professional Fellow at King's College, Cambridge (1978-86);
- Master (Head) of Peterhouse (College), University of Cambridge (1993-2002);
- Deputy Pro-Chancellor, Federal University of Wales (1991-94);
- Professor of Chemistry and Head of Department, University College, Aberystwyth, Wales (1969-78);
- Assistant Lecturer, Lecturer, Reader in Chemistry, University of Wales, Bangor (1958-69)
- Visiting Professor of Nanoscience, University of South Carolina, USA (2005-10);
- Honorary Distinguished Professor of Materials Chemistry, University of Southampton (2006-10);

**National and International Awards:**

- 2015 Zewail/Elsevier Gold Medal and Prize for Molecular Science
- 2014 Blaise Pascal Medal for Materials Science, 2014, awarded by the European Academy of Sciences; Open Lecturer on Catalysis: The Royal Swedish Academy of Sciences; President, National Eisteddfod of Wales; (Festival of Music, Poetry, Drama and Science)
- 2013 Elected Hon Foreign Fellow of the Royal Swedish Academy of Sciences; Honorary Doctorate, University of South Carolina; Wilhelm-Manchot Lecturer, Technische Universität, München;
- 2012 600<sup>th</sup> Anniversary Lecturer, University of St Andrews, Scotland; Honorary Doctorate, University of St Andrews, Scotland Jayne Prize Lecturer, American Philosophical Society;
- 2011 Kapitza Gold Medal, Russian Academy of Natural Sciences; JJ Hermans Lecturer, University of North Carolina
- 2010 Ertl Prize Lecturer, Fritz-Haber Institut of Max Planck Gesellschaft, Berlin; Hassel Lectures, University of Oslo, Norway; Bragg Prize Lecturer, British Crystallographic Assoc; Sven Breggen Prize Lecturer, Royal Lund Academy of Science and Technology, Sweden;
- 2009 Ahmed H Zewail Gold Medal and Lectureship, Wayne State University;
- 2008 US Presidential Green Chemistry Challenge Award;
- 2007 The International Precious Metal Institute Distinguished Achievement Award “*for pioneering contributions to the field of heterogeneous catalysis using precious metals*”
- 2005 Sir George Stokes Gold Medal, Royal Society of Chemistry “*for pioneering and innovative electron based nanochemical analysis*” ;
- 2004 Giulio Natta Gold Medal, Italian Chemical Society “*for outstanding work in catalysis*” ;

- 2003 Linus Pauling Gold Medal, Stanford University “*for contributions to the advancement of science*” ;
- 1999 First recipient of American Chemical Society Award “*for creative research in heterogeneous and homogeneous catalysis*”;
- Elected Honorary Fellow of the Royal Academy of Engineering, FREng;
- 1997 Honorary Medal Krakow Academy of Knowledge Poland “*for distinguished public service*” ;
- 1996 Semenov Centenary Medal, Russian Academy of Sciences;
- Honorary Medal, Polish Academy of Sciences, Warsaw;
- Longstaff Medal, Royal Society of Chemistry;
- 1995 Willard Gibbs Gold Medal of the American Chemistry Society (first British chemist to be honoured in 80 years): “*for pioneering work in solid-state chemistry and materials science...His original work (on solids) has led to major advances in the science and technology of absorbents and catalysts*”.  
New mineral, meurigite, named in his honour by International Mineralogical Association to recognise his pioneering work in geochemistry;
- 1994 Davy Medal of the Royal Society (its premier medal in the Physical Sciences);  
Rutherford Memorial Lecturer of the Royal Society in New Zealand;
- 1992 Messel Gold Medal, Society of Chemical Industry, awarded biennially  
“*for meritorious distinction in science, literature, industry or public affairs*”;
- 1991 Elected Honorary Foreign Fellow of the Engineering Academy of Japan;
- 1990 Bakerian Lecturer of the Royal Society
- 1989 Faraday Medal, Royal Society of Chemistry (its premier medal, awarded every three years)  
Sesquicentenary Medal of the Royal Microscopical Society.

In 1991 John Meurig Thomas was knighted by Queen Elizabeth II for  
“*Services to Chemistry and the Popularisation of Science*”

Awarded Medal of the Honourable Society of Cymmrodorion (London) for services to Welsh culture and British public life (2003) – first scientist to be so honoured since its inception 160 years ago. Elected a Member of Gorsedd of Bards of Royal National Eisteddfod of Wales (1978).

### Other Medals:

- Hugo Muller Medal (1983), Solid-State Chemistry Medal (1978), Tilden Medal (1973), Corday Morgan Medal (1969) [all from the Royal Society of Chemistry];
- The Pettinos Prize (first recipient) American Carbon Society (1969);
- Bruce-Preller Prize Lectureship, Royal Society of Edinburgh (1989);
- Silver Medal “*for services to science celebrating 750th Anniversary of the University of Siena*” (2005);

### Honorary Doctorates from:

Wales (LLD); Council of National Academic Awards (DLitt); Heriot-Watt, Edinburgh (DSc); Birmingham (DSc); Open University (DUniv); Lyon, France, (DSc); Complutense, Madrid (DSc); Glamorgan (DSc); Western Ontario, Canada (DSc); Eindhoven, The Netherlands (DSc); Hull (DSc); Surrey (DUniv); Aberdeen (DSc); American University in Cairo (DSc); Turin, Italy (DSc); Clarkson, USA (DSc); Sydney, Australia (DSc); Osaka Prefecture University, Japan (DSc); Jilin University, China (DSc); Hong Kong Baptist University (DSc); Bangor University (DSc); St Andrews University (DSc), University of South Carolina, (DSc).

### Honorary Foreign Fellowships or Memberships:

- 2013, Royal Swedish Academy of Science
- 2006, European Academy of Sciences;
- 2005, Mendeleev Chemical Society, Moscow;
- 2004, Accademia Nazionale dei Lincei, Rome;
- 2003, Göttingen Academy of Sciences;
- 1999, Royal Spanish Academy of Sciences;
- 1994, Academy of Sciences of Venezuela;
- 1994, Russian Academy of Sciences;
- 1993, Royal Society of Edinburgh;
- 1992, American Philosophical Society;
- 1991, Engineering Academy of Japan;
- 1990, American Academy of Arts and Sciences;

- 1998, Polish Academy of Sciences;
- 1998, Hungarian Academy of Sciences;
- 1995, Third World Academy of Sciences, Trieste;
- 1989, Academia Europaea;
- 1985, Indian National Academy, New Delhi;
- 1981, Indian Academy, Bangalore.

John Meurig Thomas holds over forty honorary fellowships in universities and colleges in the UK and elsewhere in the world. A Fellow of the Royal Society since 1977, in 1999 he was elected Honorary Fellow of the Royal Academy of Engineering for work that “*has profoundly added to the science base of heterogeneous catalysis leading to the commercial exploitation of zeolites through engineering processes*”.

Served as Government Advisor on the Council on Applied Research and Development (1982-85) at the Cabinet Office, Whitehall, London.

Chairman of CHEMRAWN (Chemical Research Applied to World Needs) of the International Union of Pure and Applied Chemistry (1988-1992).

President of the Faraday Division of the RSC, and of the Chemistry Division of the British Association for Advancement of Science; of the London International Youth Science Festival; and a Trustee of the National Science Museum (1990-5) and of the Natural History Museum (1989-94). He is the vice-President of the Cambridge University Musical Society (1994-), and President (1993-) of the Llanelli branch of the Workers Educational Association.

In 2000, the Electron Microscopy and Microanalysis Society of the Americas held a three-day symposium in his honour at their annual convention in Philadelphia.

He has broadcast extensively on radio and television in the UK and abroad, and given numerous popular lectures to lay audiences worldwide and lunchtime lectures at the National Portrait Gallery, London.

### **Named Lectureships Abroad and in the UK:**

John Meurig Thomas has given over two hundred Named Lectures worldwide, including those named in honour of: Rutherford (New Zealand); Van't Hoff (Royal Academy Netherlands); Helmholtz (Berlin); Darwin (Cambridge); Debye (Utrecht); Pauling (Caltech, Stanford and Oregon); Larmor (Cambridge); Baker (Cornell); Woodward (Harvard and Yale); Pitzer (Berkeley); Krishnan (New Delhi); Bernal (London); Ziegler (Germany); Liversidge (Sydney); Polanyi (Toronto); Sunner (Lund, Sweden); Willard Gibbs (ACS, Chicago); Faraday (RSC, London); Birch (Canberra); Hund (Stuttgart); Watson (Caltech); Drickamer (Urbana); Taylor (Penn State); Guggenheim (Reading); Prettre (Lyon); Ipatieff (Northwestern); Schuit (Delaware); Rogers (Michigan); Shipley (Clarkson); Oersted (TU Denmark); Bakerian (Royal Society, London); Solvay (Free University, Brussels); English (American University, Cairo); Ertl (Max Planck Institutes and Universities of Berlin); Eyring (Arizona); Jayne (APS, Philadelphia); Gibbs Medal Centenary (ACS, Denver), JJ Hermans, (North Carolina); 600<sup>th</sup> Anniversary Lecturer (St Andrews).

In 1986 he was a plenary speaker, along with Professor Ken-ichi Fukui, at the Japan Key Technology event, Tokyo, to honour the sixtieth year of the reign of the Emperor of Japan.

In 2006, opening plenary speaker at Tercentenary Celebrations of birth of Benjamin Franklin, American Philosophical Society, Philadelphia.

### **Short-term Visiting Professorships:**

- Scuola Normale Superiore, Pisa;
- Technical University, Eindhoven;
- Max Planck Institute, Mülheim;
- Weizmann Institute of Science;
- University of California, Berkeley;
- Yale University;
- Indiana University;
- California Institute of Technology;
- University of Sydney;
- Pennsylvania State University;
- University of Florence;
- Ecole Nationale Superieure, Paris;
- Jawaharal Nehru Center for Advanced Studies, Bangalore;
- Universities of Western Ontario, McMaster and Calgary;
- Texas “A and M” University;
- Cornell University;
- Northwestern University;
- Manhot Research Prof at TU, München;

- American University in Cairo;
- Arizona State University;
- Osaka Prefecture University, Japan

- Ruprecht-Karls-Universität, Heidelberg;
- Hokkaido University, Japan

### **Membership of International Advisory Boards:**

At various times, John Meurig Thomas has been or is still a member of several Advisory Boards, including the following:

- EXSELENT (Extremely Selective and Enantioselective Materials for Controlled Sorption and Catalysis), Arrhenius Laboratory, University of Stockholm, Sweden;
- Berlin Catalysis Consortium (Unicat), Germany;
- Laboratory of Molecular Sciences, California Institute of Technology, USA.;
- Beroskov Institute of Catalysis, Siberian Branch of the Russian Academy of Sciences;
- National Institute of Informatics, Tokyo, Japan;
- Weizmann Institute and Beer Sheva University, Israel;
- Welsh Assembly Government;
- International Board Member, Zewail City of Science and Technology, Egypt
- Board of the Overseers, Chemical Heritage Foundation, Philadelphia;
- Member of the Royal Commission for the Exhibition of 1851 (1995-2005);
- Chairman of “1851 Commission” Research Committee (1996-2005)

John Meurig Thomas is the author of over a eleven hundred research papers on the materials and surface science of solids, and over 100 review articles on science, education and cultural issues. Over 50 of his papers have been published by *Nature*, over 90 by *Chemical Communications*, 9 by *Accounts of Chemical Research*, and over 40 by *Angewandte Chemie Intl. Ed.* and *Chemistry: An European Journal* – all high impact factor journals. As of early September 2014, the total number of citations to his papers (from 1972 onwards) was 30,640 with a H-index of 87. Average number of citations per paper 36.0. He is the co-author of 30 patents, two University texts on Heterogeneous Catalysis and a biographical-philosophical study of Michael Faraday, 1991 (Japanese Translation 1994; Italian Translation, 2007; Chinese Translation, 2014). With AH Zewail he completed a monograph on "*4D Electron Microscopy: Imaging in Space and Time*" published in 2010 by Imperial College Press. In 2008, the Royal Society of Chemistry published a 900 page book, celebrating his scientific and public life, entitled "*Turning points in Solid-State, Materials and Surface Science*" ISBN: 978-0-85404-114-5 (Foreword by Roald Hoffmann and Introduction by AH Zewail). His "*Design and Applications of Single-Site Heterogeneous Catalysts: Contributions to green Chemistry, Clean Technology and Sustainability*" was published in 2012, now in the process of being translated into Chinese. He has completed the Second Edition of "*Heterogeneous Catalysis: Principles and Practice*" [Wiley-VCH] first published in 1997; it is to appear n late 2014.

John Meurig Thomas has served as a consultant, mainly on matters catalytic, with the following companies: BASF, Bayer, BP, Borax (UK), Du Pont, EniChem, Exxon, WR Grace, Honeywell Union Carbide, IBM, Kodak, Mobil, NCB, RTZ (Borax), Shell, Unilever, Xerox