CURRICULUM VITAE

1. PERSONAL DETAILS

NAME PLANT, Jane Ann

ADDRESSES Department of Earth Sciences and Engineering

Imperial College (IC) London SW7 2EZ

UK

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E-mail: jane.plant@imperial.ac.uk

STATUS Married – three children

DATE OF BIRTH 1 February 1945

AGE 65

NATIONALITY British

3. ACADEMIC QUALIFICATIONS

1977 PhD, Geochemistry

1967 BSc Honours, Geology (special geochemistry), Class 1

1966 BSc, Geology (Ordinary with distinction)

2. EDUCATION AFTER SCHOOL

1973-1977 University of Leicester (Part-time PhD while working at the British

Geological Survey (BGS))

1963-1967 University of Liverpool

4. SENIOR POSITIONS

4.1 Present position

2005- Professor of Geochemistry, Imperial College, London

4.2 Former senior positions

2000 – 2005 Chief Scientist, British Geological Survey (BGS) (Natural

Environment Research Council)

2001 -2005 Professor of Geochemistry (Department of Environmental Science &

Technology (DEST) & the Department of Earth Sciences &

Engineering (DESE)), Imperial College London

2000-2002	Chief Scientist, Head of Geoscience Resources and Facilities
	Directorate (GRDF).
1990-2000	Assistant Director (AD), Minerals, Environment & Geochemical
	Surveys Division (MEGSD).
1995-1997	Deputy to Director, BGS
1989-1990	Head, of Applied Geochemistry Group.
1988-1989	Sabbatical year to work in industry in North America. Vice President
	of Middleton Exploration (40 employees).
1983	Senior Principal Scientific Officer (Individual Merit Promotion). To
	research the geochemistry of the British Caledonides in relation to their
	geological and metallogenic evolution.

5. PRIZES, HONOURS AND AWARDS

2012	Fellowship of the Royal Academy of Engineering
2009	Coke Medal of the Geological Society
2006	Prize for best paper in the Transaction of the Institution of Mining and Metallurgy in 2005, awarded for <u>Plant, J.A.</u> , Reeder, S., Smith, B. and Voulvoulis N. 2005. Chemicals in the environment: implications for global sustainability. Trans. Instn. Min. Metall. Vol. 114: B65-97.
2005	Fellowship of the Royal Society of Medicine
2005	Honorary Degree of Doctor of Science from University of Leicester for contribution to science
2005	Honorary Degree of Doctor of Science from Keele University for contribution to science and technology and in particular Earth Sciences in the UK
2005	Honorary Doctorate from Åbo Akademi, Finland
2003	Honorary Degree from Kingston University for services to Environment and Earth Sciences
2002	Fellowship of the Royal Society of Edinburgh
2001	Honorary Doctorate of the University of Exeter for services to Earth Sciences
2000	Fellowship of the Royal Society of Arts
1999	Freeman of the City of London
1999	Lord Lloyd of Kilgerran Award of the Foundation of Science & Technology for the application of science and technology for the benefit of society (previous winners include Tim Berners-Lee, inventor of the world wide web and Ian Wilmut, creator of Dolly the Sheep)
1997	CBE for Services to Earth Sciences
1997	Honorary Doctorate of the Open University (for academic and scholarly distinction)
1985	Murchison Fund of the Geological Society
1971	Consolidated Goldfields Premium Award
1967	Liverpool and Manchester Geological Society Prize

6. OTHER SENIOR APPOINTMENTS AND TEMPORARY POSTS

2005 - Honorary Research Fellow of the Natural History Museum

2003	Honorary Research Fellow of the Macaulay Institute
2003	Adviser to United Kingdom Nirex Limited

PROFESSIONAL ASSOCIATIONS AND MEMBERSHIP OF LEARNED 7. **SOCIETIES**

Water Bailiff and Member of the Worshipful Company of Water Conservators Fellow of the Institution of Materials, Minerals and Mining (FIMMM)

Fellow of the Geological Society (FGS)

Fellow of the Association of Exploration Geochemists (AEG)

Fellow of the Royal Geographical Society (RGS)

Chartered Engineer (CEng)

Chartered Geologist (CGeol)

Member of the Mineralogical Society (MinSoc)

Member of the Society of Environmental Geochemistry & Health (SEGH)

Member of Society for Geology Applied to Mineral Deposits (SGA)

Member of the Irish Association of Exploration Geochemists (IAEG)

8. OTHER APPOINTMENTS AND TEMPORARY POSTS

2008 – 2007-2008 2003	Member of the College of Medicine and its Scientific Committee Trustee of the Prince's Foundation for Integrated Health Technical Advisor to the Integrational Atomic Energy Agency penal
2003	Technical Advisor to the International Atomic Energy Agency panel on Natural Background of Radioactivity associated with Uranium deposits.
2001 -	Member of the Council of the Parliamentary and Scientific Committee
2001 -	Member of the All-Party Parliamentary Group for Earth Sciences
2001 -2008	Chairman of the DEFRA Advisory Committee on Hazardous
	Substances
2001 -2008	Member of the Chemical Stakeholder Forum
2001	Tetelman Fellowship at Yale University
1999 -2005	Member of the Royal Commission for Environmental Pollution
1997-2003	Visiting Professor, University of Nottingham, School of Chemical,
	Environmental and Mining Engineering
1993 -2005	Visiting Professor, University of Liverpool, Department of Earth
	Sciences
1992-94	Distinguished lecturer for Association of Exploration Geochemists
1988-89	Vice President Middleton Exploration Services Inc, Canada and a
	Director of Glen Auden Resources plc (sabbatical year to work in industry)
1985-87	Visiting Professor of Economic Geology, University of Strathclyde
1985	Visiting Professor, University of Berne, Switzerland

COMMITTEES, LEARNED SOCIETIES, ACADEMIC ACTIVITIES AND 9. SOME MAJOR INTERNATIONAL MEETINGS

9.1. Learned Societies

2003 <u>-</u>	Member of Institute of Materials, Minerals & Mining Council and
2002 -	Management Board Associate Editor, 'Episodes', the journal of the International Union of
00	Geological Sciences
2001-2002	President of the Institution of Mining and Metallurgy (IMM)
2000-2001	President Elect IMM
2000 - 2005	Councillor, International Union of GeoSciences
1999 -	Vice President, IMM
1999 -	IMM Council Member (Vice Chairman, Library and Information subcommittee)
1998-2001	Member of Council, Minerals Industry Research Organisation
1998	Member, Awards Committee of the Geological Society
1997	Honorary Advisory Committee member, Society for Geology Applied to Ore Deposits
1997-2001	Associate Editor Episodes, the journal of the International Union of
2004-	Geological Sciences
1995	Member, Geological Society Working Group on Women Geologists
1992-1994	Member Council of the Institution of Mining and Metallurgy
1992-1994	Distinguished Lecturer of Association of Exploration Geochemistry,
	(world-wide remit to deliver lectures with funding from the
1006 1000	Association)
1986-1988	Member, Council of the Geological Society
1985-1989	Associate Editor, Applied Geochemistry
1985-1987 1982-1999	Member, Promotions Board, Geological Society, London Member, Editorial Board of the Institution of Mining and Metallurgy.
1982-1999	Member, Mineralogical Society Geochemistry Sub-Committee
1982	Convenor of Mineralogical Society meeting on Uranium Mineralogy
	and the Geochemistry of Natural Radioelements in Crystalline Rocks
1980-1983	Member, Council of Mineralogical Society
1977-1982	Sub-editor for geochemistry; Mineralogical Abstracts
1977-1987	Member of the Geochemistry and Cosmochemistry Sub-Committee of the Royal Society
1974-1981	Treasurer, Geochemistry Group Committee of the Mineralogical Society

9.2. Government and National Committees other than as stated under 6

1000 2000	NO 1 OF 11 1 F 1N 1F 1
1999-2000	Member of Foresight panel on Energy and Natural Environment
1999	Member of OST/Research Assessment Exercise 2001 Earth &
	Environmental Sciences
1999	Member of Tomorrow Project – A 3-year programme of research and
	consultation about people's lives by 2020
1998-2001	Member of DTI LINK/TCS Board
1998 -	Member of Parliamentary & Scientific Committee
1998-2001	Associate of The Conservation Foundation (Chairman, David Bellamy)
1998-2003	Member of Science Panel, National Museums and Galleries of Wales
1997	Leader of NERC-MRC Environment & Health Initiative
1997 -2000	Member of NERC URGENT Thematic Programme Steering
	Committee

1997	Chairman, OST, Environment Means Business, Conference, London
1996-1999	Member of OST Natural Resources & Environment (NRE)
	Technology Foresight Panel
1996	Co-chairman of the OST NRE Sustainable Resource & Environment
	Management Sub-Group
1996	Member of OST Health & Life Sciences Technology Foresight Panel
1996 -1999	Member of Organising Committee, CBI UK Minerals '98 Event
1996	Member, Parliamentary Minerals Group
1996	Co-organiser and Panel Chairman, UK Minerals Industry Forum
1996	Contribution on Draft Statutory Guidance on Contaminated Land,
	London
1995	Member, NERC Environmental Diagnostics sub-committee
1994-2000	Member, CBI Minerals Committee
1993-1996	Member, DTI Mineral Resources Investigation Review Committee
1987	Member, NERC Deep Drilling Working Party
1987	Member, NERC Chemistry Review Panel
1980-1982	Member of the Royal Society Ordnance Survey Scientific Committee.
1979-1982	Member, Royal Society working group on Environmental
	Geochemistry and Health.

9.3. Some other academic and international activities

	2010	Chair on behalf of DEFRA, of Workshop on Safe Storage and Disposal of Redundant Mercury, Oxford University
Ī	2008	Convened and delivered keynote lectures at the 2008 International Geological Congress in Oslo sessions on Geomedicine and Environmental Geochemistry
	2007	Chaired IMM meeting on CO ₂ disposal, London
	2005	Co-chairman, International Symposium on Uranium Production and Raw Materials for the Nuclear Fuel Cycle - Supply and Demand, Economics, the Environment and Energy security, IAEA-CN-128, Vienna. Topic 3, Session 1.
	2004	Member of Scientific and Management Audit of the National
	2004	Environmental Council Centre for Ecology and Hydrology
	2004	Co-Convenor of two Geochemistry Sessions, International Geological
		Conference, Florence
	2003	External PhD examiner, Bristol University
	2003	
	2000-2003	-External Examiner MSc course on Environmental Sciences, Lancaster University
		External PhD examiner, University of Surrey
	2000-2002	Member of Advisory Board of The Science in the Total Environment (STOTEN)
	2000	Member of committee reviewing Australian coptive research centre on
		landscape evolution
	2000	Leader of interpretation team for FOREGS geochemical mapping programme

2000	Member of Editorial Board for the Journal of Applied Earth
1999 -	Observation and Geoinformation Member of editorial board of International Journal of Applied Earth
1777	Observation and Geoinformation
1999-2003	Reviewer / panel member on EU 5 th Framework Programme
1999	Member of Appointment Committee for Professor of Earth Sciences,
	University of Trondheim, Norway
1999	Member of UNESCO International Union of GeoScientists (IUGS)
1000	Strategy Group Momber of international panel of experts to evaluate report on Valsady
1999	Member of international panel of experts to evaluate report on Kakadu National Park, on behalf of the International Council of Science
1998	Member of organising committee of 2 nd Conference on Environmental
1770	Geochemical Baseline Mapping in Europe, September 1999, Vilnius
1998-2002	External Examiner, Lancaster University
1998 -	Member of Advisory Panel for Centre for Earth & Environmental
	Science Research, Kingston University
1997	Member of Individual Merit Panel for scientist of Norwegian
	Geological Survey
1997	External Examiner, PhD, Wageningen, Holland
1997	External Examiner, MSc course, University of Cape Town
1996 -	Honorary President of the Environment Society, Nottingham
1006	University Markon of appointment penal for Professor of Factoria Coolean
1996	Member of appointment panel for Professor of Economic Geology, Trondheim, Norway
1996	External examiner, University of Helsinki
1996	Leader of the Scientific Committee for, Environmental Geochemical
1990	Baseline Mapping in Europe, Conference, Slovakia
1996	Co-convenor, AEG International Workshop on Legislative uses of
	Geochemical Baseline Data for Sustainable Development, Norway
1995-1998	External examiner, University of Leicester
1995	Chairman of session on sediment-hosted ore deposits, international
	SGA meeting, Prague
1995	Advisor on Geochemistry Course, Hull University
1995 -2004	Co-Leader, International Geological Correlation Programme (IGCP)
	Project 360, Global Geochemical Baselines; now International Union
	Geosciences/International Association Geochemistry and
	Cosmochemistry Continental Geochemical Baselines Programme (adopted by UN committee on land resources)
1995-1997	Chairman, Forum of European Geological Surveys (FOREGS)
1775-1771	Geochemistry Task Group
1994-1997	Referee of proposals on Training and Mobility for Researchers, EU
1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	programmes (1994-1998)
1994	Member of panel of referees of European Science Foundation
	concerned with economic geology
1994	Co-chairman (with head of London Metal Exchange), of Mining &
	Metal Agency of Japan (mineral resources section of MITI, Japan)
1004 15:	MMAJ Forum'94 on the global minerals market, London
1991-1994	External Examiner, MSc Course, University of Leicester
1991	Co-convenor with Professor Bjorklund, Finland, of session on
	Environmental Geochemistry and Health, International Symposium on

	Environmental Geochemistry, Uppsala
1989	Ontario Geological Survey: member of review team on the Minerals
	and Geochemistry Programmes
1989-1994	Co-ordinator of EU countries activities for IGCP 259 (World
	Geochemical Atlas)
1989-1995	Member of Western European Geological Surveys (WEGS)
	programme to prepare Geochemical Maps of Western Europe
1988-1993	Member of Steering Group of IGCP 259 (World Geochemical Atlas)
1988-1993	Member of Field Methods Committee, IGCP 259
1987	Co-Chairman, Anomaly Selection Criteria Workshop at 12th
	International Geochemical Exploration Symposium, Orleans, France
1985	Chairman. Regional geochemistry session at 11th International
	Geochemical Exploration Symposium, Toronto, Canada
1985	Co-convenor, Royal Society Discussion Meeting on Environmental
	Geochemistry
1983	United Kingdom representative on Geochemical Exploration Working
	Group of International Association of Geochemistry and
	Cosmochemistry
1982	Chairman, Lithogeochemistry Session, 9th International Geochemical
	Exploration Symposium, Saskatchewan, Canada
1982	Consultant to Finnish Geological Survey with Professor W S Fyfe FRS
	on Interpretation of Geochemical Data
1974-1978	Member of International Working Group on Global Exchange and
	Processing of Information (GEPIC) (IGCP project No. 154. National
	correspondent for 'GEPIC' and 'IGCP' project No. 154

10. INVITED LECTURES/LECTURE SERIES/PRESENTATIONS

British and overseas universities and research institutes including: Shell London Lecture, Geological Society of London, 2012; the Hatfield Lecture, Sheffield; the Horstmann Lecture, Bristol University; the Goldschmidt lecture, Trondheim, Norway; the Norwegian Geological Survey; the University of Turku and the University of Helsinki, Finland; Geological Survey of Denmark & Greenland, Copenhagen; the Free University and the Technical University, Berlin; the University of the West Indies, Jamaica; University College Dublin and University College Galway; the Universities of Berne and Zurich, Switzerland; the Geological Survey of Canada; the Ontario Geological Survey, Canada; the United States Geological Survey; the Geoinstitute, Belgrade; the Hahn Meitner Institute, Berlin; Eidgenossische Technische Hochschule (ETH), Zurich; the University of Aveiro, Portugal; Commonwealth, Scientific & Industrial Research Organisation, Sydney and Perth; Bureau de Recherches Geologiques et Minieres, France; BGR, Hannover; Institute of Geology, Chinese Academy of Sciences, Beijing; Beijing University; Geological Surveys of Zimbabwe; Geological Survey of South Africa; Cape Town University; KIGAM, Taejon, Korea; Seoul National University, Korea; University of Perth, Australia; University of Toronto; Wyndhoek University, Namibia;

In addition, more than forty lectures were presented internationally as part of the AEG Distinguished Lectureship.

Imperial College (many), University College, Bedford and Royal Holloway New College and Chelsea College, London, Liverpool (many), Oxford, Oxford Brookes, Cambridge, Edinburgh, Birmingham, Bristol, Hull, Leicester (several), Nottingham (several) and Leeds Universities; the Atomic Energy Research Establishment (AERE), Harwell; select committees of the House of Lords; the Prince of Wales Committee; learned societies including the Royal Society of Edinburgh and the Royal Society; Royal Museum of Scotland, Edinburgh; Macaulay Land Use Research Institute, Scotland; National Radiological Protection Board, Harwell.

Keynote Lecture, International meeting on the environment, Hong Kong; Invited keynote paper on geochemistry of gold deposits, AEG International Symposium on Geochemical Exploration, Prague; Keynote address on Regional Geochemical Exploration, Exploration '87 Symposium, Toronto, Canada (Chair of Session); Keynote address on the geochemical classification of metalliferous granites, SGA-EEC Meeting, Aachen, West Germany.

Recent invited lectures include: two keynote lectures at the International Geological Congress, Oslo 2008, the distinguished lecture of the Royal Society of Chemistry (2005), the Tercentennial Tetelman Lecture (Yale University 2001); Ireland, Moscow and Irkutsk; Turku, Finland; Vail, Colorado; Oxford University; Toronto; Potsdam, Germany; and Kazakhstan; Morocco (representatives from most government departments), Parliamentary & Science Committee.

Presentations at Meetings - 2009

William Smith Meeting 2009 – London, England, 2009, Co-Convenor

• J. Plant, V. Ragnarsdottir, E. Valsami-Jones, 2009, The anthropocene and chemicals in the environment.

19th Annual VM Goldschmidt Conference, Davos, Switzerland, 21 Jun 2009

Misra SK, Dybowska AD, Berhanu D, Boccaccini AR, Luoma SN, Plant JA, Valsami-Jones E, 2009, The solubility and reactivity of silica nanoparticles.

Geological Society - Anglo American Environmental Geochemistry Poster Competition, London, England, October 5, 2009, Hosted by Baroness Jenny Tonge

• Christian Ihlenfeld, Christopher Oates, Jane Plant, 2009, Anglo American, Global Mining, Sustainable Environmental Performance.

Oxford Workshop : Safe Storage and Disposal of Redundant Mercury, October $14^{\text{th}}\ 2009$

• Chair on behalf of Oxford University and UK DEFRA, Professor Jane Plant

11. OTHER LINKS WITH USER COMMUNITY

Professional and trade associations including the Institute of Quarrying, Minerals Industry Research Organisation; British Association for Construction Minerals Industries; Mining Association of Great Britain; Soil and Groundwater Technology Association and the Chemical Industries Association; Royal Institution of Chartered Surveyors; Eurometaux, International Atomic Energy Agency, relevant sections of DTI, DEFRA, MoD, DoH; many staff of UK, International and European-based companies, universities and geological survey organisations.

12 RECENT PHD PROJECTS SUPERVISED

Rob Lewis

PhD thesis: Low Temperature Formation of Ferric Arsenate.

Rebecca McKinlay

PhD thesis: Risk Assessment of Endocrine Disrupting Pesticides in Biological Systems.

Jilang Pan

PhD thesis: Environmental risk assessment of inorganic chemicals in mining environment.

Claudia Columbo

The Speciation and Bioavailability of Platinum, Palladium and Rhodium in the Environment

Carmina Jorquera –

Geochemical Baselines of stream sediments and waters for environmental studies. Anglo American Plc mining districts in Central Chile as a case study

Khareen Singh -

Mine Chemical Risk

Current PhD Students

Aisha Gloudon - Start date: 2009

Geochemical baseline using rocks and soils for environmental studies. AAplc mining areas in the Los Bronces and Collahuasi Districts, Chile as a case study

13. PUBLIC UNDERSTANDING OF SCIENCE

Internet Conference on behalf of OST; lecture for SET '97 week; two presentations to the British Association for the Advancement of Science; two television programmes for the Open University; articles/reference in magazines and newspapers including RTZ in-house magazine; Times Higher Educational Supplement; Daily Telegraph; Times; BBC and BBC World

Service. Lectures averaging 50 a year to amateur societies and adult education groups.

Several popular books on health topics – the latest with the Professor of Cancer Biology at Imperial College entitled *Beat Cancer*.