

**INTRODUCTION***Contact Details*

Institut de Physique de Rennes (IPR)  
UMR 6251 du CNRS, Equipe Astrochimie Expérimentale  
Bât. 11c, Campus de Beaulieu, Université de Rennes I  
35042 Rennes Cedex, FRANCE

Tel: +33 2 23 23 69 18  
Fax: +33 2 23 23 67 86  
email: ian.sims@univ-rennes1.fr  
web: http://perso.univ-rennes1.fr/ian.sims/

*Personal Information*

*Marital status:* Married, 3 children

*Date of birth:* June 5, 1963

*Nationality:* British

*Place of birth:* Wimbledon, UK

*Skills, Qualifications and Awards*

Fluent in French.

C.Chem. M.R.S.C.<sup>1</sup> since 1992.

Awarded **CNRS Research Position** from September 1<sup>st</sup> 2008 (50% for 1 year).

Promoted from '**Professeur 2<sup>ème</sup> classe**' to '**Professeur 1<sup>ère</sup> classe**' from September 1<sup>st</sup> 2007.

Awarded '**Médaille de la Ville de Rennes**' in **January 2005** for contributions to the scientific reputation of the city.

Awarded a '**Marie Curie Chair**'<sup>2</sup> by the European Commission to run from **October 2004 to September 2007**. The total value of the award which contains elements of salary, charges, research costs and travel expenses is €416,000.

Appeared before Grand Jury in Brussels in **November 2000** to represent the combined Birmingham and Rennes low temperature teams, and was awarded one of the first **EU Descartes Prizes**. The Descartes Prize is the European Union's top prize '*for outstanding scientific and technological achievements resulting from European collaborative research*', and was awarded to the Birmingham team led by Professor Ian WM Smith and Dr Ian R Sims jointly with the research team at the Université de Rennes 1 led by Dr Bertrand Rowe and Dr André Canosa for collaborative research entitled '*Chemistry Close to Absolute Zero*'.

Awarded the position of '**Professeur Invité**' for the months of July 2002 and July 2003, working with the group of Dr Bertrand Rowe. Delivered lecture entitled: "*Kinetics and dynamics of gas-phase collisional processes at low energies*"

**EMPLOYMENT AND EDUCATION***Employment History*

Dates	Position	Department	Institution	Highlights
09.03—	Full Professor PR1 (PR2 09.03—08.07)	Institut de Physique de Rennes  (Physique des Atomes, Lasers, Molécules et Surfaces 2003-7)	Université de Rennes 1, France	Awarded EU Marie Curie Chair 10/2004 for 3 years, team leader for EU Marie Curie Research Training Network, 10/2004 for 4 years. Assistant Director of PALMS 2006-7. Assistant Director of the new Institut de Physique de Rennes. Major research grant from the Agence Nationale de Recherche, November 2006 (€268 000). <b>Article in Science, July 6, 2007</b> . Promoted to <b>PR1</b> , effective 01/09/07.
10.01—08.03	Senior Lecturer	School of Chemical Sciences	The University of Birmingham, UK	Major EPSRC <sup>3</sup> research grant obtained in 2001 as P.I.
10.98—09.01	Lecturer	School of Chemistry / Chemical Sciences	The University of Birmingham, UK	2 major EPSRC grants obtained. EU Descartes Prize, November 2000.
10.93—09.98	EPSRC Advanced Fellow (awarded for project " <i>Ultra-Low Temperature Studies of Gas-Phase Reactions</i> ")	School of Chemistry	The University of Birmingham, UK	Final assessment " <i>The Fellowship has evidently been extremely successful and the Fellow is to be congratulated. ... a prolific output of research papers, invited lectures and other presentations has been generated.</i> "
11.91—09.93	EU / CNRS (poste rouge) Postdoctoral Fellow (group of Dr Bertrand Rowe)	Département de Physique Atomique et Moléculaire	Université de Rennes 1, France	Undertook first ever measurements of the kinetics of neutral-neutral reactions at extremely low temperatures (down to 13 K)

<sup>1</sup> Chartered Chemist and Member of the Royal Society of Chemistry.

<sup>2</sup> Marie Curie Chairs are, according to the European Commission 'devoted to the promotion and recognition of scientific excellence'. They are 'a mechanism to highlight personal achievements of world-class researchers by offering them top-level appointments in Europe, with a view to supporting their future development and international recognition'.

<sup>3</sup> Engineering and Physical Sciences Research Council, UK research funding agency.

10.89—10.91	SERC <sup>4</sup> -NATO Postdoctoral Fellow (group of Pr Ahmed Zewail)	Chemistry	California Institute of Technology, USA	Worked on time-resolved (ultrafast) studies of bimolecular reactions. Ahmed Zewail was awarded the 1999 Nobel Prize for Chemistry.
03.89—08.89	EC Postdoctoral Fellow (group of Prof Dr Reinhard Zellner)	Institut für Physikalische Chemie	Universität Göttingen, Germany	Initiated experiment to study phenyl radical kinetics at high temperatures by long-path laser absorption.

### Higher Education

**PhD** entitled *State-Selected Kinetics of CN Radical Reactions*, under the supervision of Professor Ian WM Smith, FRS in the School of Chemistry, The University of Birmingham, 1985—1989. **M.A.** (1989), **B.A.** (1982—1985) in Natural Sciences (Chemistry) at the University of Cambridge, St John's College.

### RESEARCH

#### Publications and Presentations

**53 publications : 50 articles in peer-reviewed journals** **71 oral presentations** given personally including **28** (including three refereed conference proceedings), **two invited lectures.**  
**book chapters and one edited book.** “h-index” = **23** (verified by the “Web of Science”)

Please refer to my list of publications and presentations for further details.

#### Research Grants

I am currently P.I. for EU grants totalling **178 000 €** I am P.I. for grants from the Agence Nationale de la Recherche (268 000 € 11/2006—11/2009), the Region of Brittany (**147 500 €**, 2005-2008) and from Rennes Métropole (**80 000 €**, 2005-2008). Apart from these, I have been P.I. or Co-I. on UK EPSRC grants totalling £1.0 million as well as EU grants totalling €0.75 million.

#### Research Group

I have directed the research of 5 postdoctoral fellows, and supervised 7 past PhD students. I am currently supervising three PhD students, and one postdoctoral fellow (from January 1, 2008).

### TEACHING

#### Current Teaching Experience (Rennes)

During the period 2003-7, I have given lecture courses in Physics for Biologists (Year 1), Signals and systems in physics (Year 3), Chemical Thermodynamics and Kinetics (Year 4), and Physical chemistry in extreme environments: Astrochemistry (year 5 / PhD). In addition, I have given tutorials in the first two courses above, as well as a year 2 thermodynamics course. I am also responsible for a practical course in chemical thermodynamics and kinetics.

#### Previous Teaching Experience (Birmingham)

During my time at Birmingham, I gave lectures in years 1 to 4 of the undergraduate Chemistry degree course, in the general area of physical chemistry and chemical physics, including courses in Optical Spectroscopy, Advanced Kinetics and Reaction Dynamics and Chemistry in the Cosmos. I have also given postgraduate lectures in Error Estimation and Data Analysis. In addition I have given tutorials to years 1 to 3, and been responsible for physical chemistry practicals.

### ADMINISTRATION AND EXTERNAL ACADEMIC ACTIVITIES

#### Rennes Internal Administration

Elected to the Committee of the Institut de Physique de Rennes, 21 September 2004. Member of the Executive Committee 2004-2007

Assistant Director of the PALMS Research Laboratory 2006-7.

Assistant Director of the new Institut de Physique de Rennes (IPR) from 1 January 2008, co-organisation (with Dr Anne Renault, Director) of the External Evaluation of the new institute, 18-19 December 2006.

Member of the Recruitment Committee (Commission de Spécialistes) for the 28<sup>th</sup> and 30<sup>th</sup> Sections, 2006-

#### European Commission

Scientific Director for the Rennes team and President of the Board for the EC Marie Curie Research Training Network *The Molecular Universe*, 2004—2008. Network Co-ordinator for EC TMR Research Training Network *Astrophysical Chemistry*, 1997—2002.

#### Conference Organisation

*20th International Symposium on Gas Kinetics*, Manchester, UK, 20-25 July 2008, Member of the Scientific Organising Committee.

<sup>4</sup> Science and Engineering Research Council, predecessor to the EPSRC

*International Astrophysics and Astrochemistry Conference 'Molecules in Space and Laboratory'*, Observatoire de Paris, France, May 14-18, 2007, Member of the Scientific Organizing Committee (joined after accepting invitation to speak!)

*19th International Symposium on Gas Kinetics*, Orléans, France, 22-27 July 2006, **Chairman** of the Scientific Organising Committee.

*Chemical Evolution in the Universe*, **Co-Chairman** (with Professor David Williams, UCL) of Faraday Discussion 133, St Jacut-de-la-Mer, Bretagne, France, 24-26 April 2006, 129 participants and 25 invited speakers. I edited the Discussion Volume which was published in November 2006 (see <http://fd133.univ-rennes1.fr>)

*The Kinetics and Dynamics of Elementary Gas-Phase Reactions*, a Retirement meeting for Professor Ian W.M. Smith, September 16-18, 2002, (with Richard Tuckett and Jonathan Reid), with 120 participants and 18 invited speakers.

*Gas Kinetics and Astrophysical Chemistry*: joint meeting of the Gas Kinetics and Astrophysical Chemistry groups of the Royal Society of Chemistry, January 4, 2001 at the University of Birmingham, 45 registered participants and 2 invited speakers.

*TMR Network in Astrophysical Chemistry Inaugural Meeting, and Three Annual Network Meetings*: Birmingham 1998; Alcalá de Henares, Spain, 1999; Aarhus, Denmark, 2000; Perugia, Italy, 2002, all with in excess of 30 participants.

#### **Refereeing/Examining**

**External Examiner for 7 PhD students and 1 Habilitation**: Corinne Boursier, LPMAA Paris (HDR, Rapporteur 2007); Sally Taylor, University of Leeds (2007); Eric Hébrard, LISA, Université Paris VII, France (2006, Rapporteur); Hailey Kelso, Heriot-Watt University, Edinburgh (June 2005); Gavin Boakes, University College, London (2003); Vanessa Haverd, Trinity College, Oxford, (2002); Sébastien Le Picard, Université de Rennes 1, France (1998, Rapporteur). Pascal Bocherel, Université de Rennes 1, France, 19 June, (1995).

Member of EPSRC Chemistry College, 1998-2001; Referee for numerous grant applications to EPSRC, 1998-present; Member of EPSRC Structure, Bonding and Reaction Mechanisms Grant Awarding Panel, January and May 2000; US NSF external referee, 2000; Referee for the *Journal of Physical Chemistry*, *Physical Chemistry Chemical Physics*, *Chemical Physics Letters*, *The Astrophysical Journal*, *Astronomy and Astrophysics* and *Monthly Notices of the Royal Astronomical Society*

#### **External Committees**

RSC/RAS Astrophysical Chemistry Group, Secretary, 2002-2006, Chairman 2006- ; RSC Gas Kinetics Discussion Group, Secretary 2004-2005, Chairman 2006-2007; Member of RSC Faraday Council, 2003-2006; Member of the Scientific Committee of the CNRS Interdisciplinary Programme 'Origin of Planets and of Life' 2007-.; Member of the Health and Safety Committee of the CNRS Regional Delegation "Bretagne et Pays de la Loire"