

46th IUPAC Council Meeting

San Juan, Puerto Rico, 3-4 August 2011

Election of Officers and Bureau Members

According to IUPAC statutes, Council must elect officers of the Union and elected members of the Bureau. Nominations for the various positions that fall vacant at the end of 2011 had to be received by the Secretary General at the IUPAC Secretariat before 3 June 2011 (i.e., two months before the start of the Council meeting).

Professor Kazuyuki Tatsumi (Japan), Vice President and President-Elect will be president on 1 January 2012. The vice president to be elected will be president-elect on 1 January 2012 and will become president on 1 January 2014. The retiring president, Nicole Moreau (France), will remain an officer and a member of the Bureau for a period of two years. Secretary General David StC. Black (Australia) will retire after completing two four-year terms. Treasurer John Corish (Ireland) was elected to a four-year term 2008-2011 and is eligible for a second four-year term.

The nominations received for **Vice President** are as follows:

- Mark C. Cesa (USA) – *bio, see p. 7 ; statement, see p. 23*
- Natalia Tarasova (Russia) – *bio, see p. 21 ; statement, see p. 25*

The nominations received for **Secretary General** are as follows:

- René Deplanque (Germany) – *bio, see p. 13 ; statement, see p. 26*
- Anders Kallner (Sweden) – *bio, see p. 16 ; statement, see p. 28*

The nomination received for **Treasurer** are as follows:

- John Corish (Ireland) – *bio, see p. 10*

Elected Members of Bureau, retiring in 2011, who are not eligible for reelection, but may be nominated for another office:

- Anders Kallner (Sweden)
- Werner Klein (Germany)

Elected Members of Bureau, retiring in 2011, who are eligible for reelection for a further four-year period:

- Ram Lamba (Puerto Rico)
- Natalia Tarasova (Russia)

Elected Members of Bureau, who were elected at the 45th Council until 2013:

- Colin Humphris (UK)
- Stanislaw Penczek (Poland)
- Elsa Reichmanis (USA)
- Maria van Dam–Mieras (Netherlands)
- Itamar Willner (Israel)
- Qi-Feng Zhou (China/Beijing)

At least four Elected Members of the Bureau must be elected at the 46th Council in San Juan, i.e., the minimum number of ten Elected Members (Statute 7.2) less the six Elected Members who continue in office until 2013.

The nominations received for **Elected Members of the Bureau** are as follows:

- Russell J. Boyd (Canada) – *bio, see p. 5*
- Christopher M. A. Brett (Portugal) – *bio, see p. 6*
- Tavarekere K. Chandrashekar (India) – *bio, see p. 9*
- Francesco de Angelis (Italy) – *bio, see p. 12*
- Javier García-Martínez (Spain) – *bio, see p. 14*
- George Horvai (Hungary) – *bio, see p. 15*
- Venčeslav Kaučič (Slovenia) – *bio, see p. 17*
- Wolfram Koch (Germany) – *bio, see p. 18*
- Ram Lamba (Puerto Rico) – *reappointment – bio, see p. 19*
- Natalia Tarasova (Russia) – *reappointment – bio, see p. 21*

Candidates for Vice President and Secretary General had the opportunity to provide a statement regarding their plans if they are elected, describing their goals and objectives elected. These statements are reproduced starting page 23.

Vice President Candidates



Mark C. Cesa (USA)



Natalia Tarasova (Russia)

Secretary General Candidates



René Deplanque (Germany)



Anders Kallner (Sweden)

Treasurer Candidate



John Corish (Ireland)

Candidates as Elected Members of the Bureau



Russell J. Boyd
(Canada)



Christopher M. A.
Brett (Portugal)



Tavarekere K.
Chandrashekar (India)



Francesco de Angelis
(Italy)



Javier García-
Martínez (Spain)



George Horvai
(Hungary)



Venčeslav Kaučič
(Slovenia)



Wolfram Koch
(Germany)



Ram Lamba
(Puerto Rico)



Natalia Tarasova
(Russia)

Russell J. Boyd (Canada)

Russell Boyd is the Alexander McLeod Professor of Chemistry at Dalhousie University (founded in 1818) in Halifax, Nova Scotia. He received his B.Sc. from the University of British Columbia and his Ph.D. from McGill University. He was a National Research Council of Canada Postdoctoral Fellow with Charles Coulson at the University of Oxford. He joined the Department of Chemistry in 1975 and rose through the ranks to become a professor in 1985. Boyd served as chair of the Department of Chemistry from 1992 to 2005. In 2001, he became the seventh Alexander McLeod Professor, which was established in 1884 and is one of the oldest named professorships in Canada.

Boyd's service to the Canadian Society for Chemistry (CSC), a constituent society of the Chemical Institute of Canada (CIC), includes serving as president for 2007–2008. His many contributions to the CSC include being a principal organizer of the annual conferences in 1981, 1990, and 2006; chair of the Division of Physical and Theoretical Chemistry; and director of Accreditation. He is a fellow of the Chemical Institute of Canada and was the recipient of the 2009 Montreal Medal of the CIC in recognition of his distinguished contributions to the profession of chemistry in Canada. He has been elected to the CIC Board of Directors to serve as vice chair for 2011–2012 and chair for 2012–2013.

Boyd is a member of the Scientific Board of the World Association of Theoretical and Computational Chemists and many other professional boards. He has served on selection panels for the National Science Foundation of the USA and the Canada–U.S. Fulbright Program. His many professional activities include serving as editor for *Theoretical Chemistry of the Canadian Journal of Chemistry* from 1988 to 1998 and as a member of numerous committees of the Natural Sciences and Engineering Research Council of Canada. He has published about 250 peer-reviewed papers and 12 review chapters in computational and theoretical chemistry and co-edited in 2007 *The Quantum Theory of Atoms in Molecules*.

He has a long-standing interest in the advancement of the chemical sciences through his many activities relating to chemical education and research and the promotion of public awareness of chemistry. He is a member of the Canadian National Committee of IUPAC. His international activities include holding visiting professor positions in Australia, Germany, Spain, and Sweden; participation in international accreditation activities on behalf of the CSC; and leading a delegation of Canadian chemical professionals to China in 2008.

Christopher Brett (Portugal)

Christopher Brett is a professor of chemistry in the Faculty of Science and Technology, University of Coimbra, Portugal, where he has been since 1981, lecturing mainly on electrochemistry, physical chemistry, materials chemistry, and analytical chemistry.

He has gained extensive experience in IUPAC matters since 1994. He was president of the Physical and Biophysical Division (Division I) of IUPAC from 2006–2007, having been a titular member of the Division Committee since 2000 and vice president for 2004–2005. Before this, he was a member of the Electrochemistry Commission (Commission I.3) from 1994, having been Secretary in 1998–1989 and chairman from 2000–2001. He is currently a member of the Green Chemistry Subcommittee (since 2005) and of the Division I Advisory Subcommittee. He was also a member of the Chemistry Education Committee for 2002–2005. He has been, or is involved in, seven IUPAC projects and was a member of the ad hoc Committee on the Revision of the Statutes and Bylaws of IUPAC in 2007–2008.

From 2007–2008, he was president of the International Society of Electrochemistry (ISE)—an associated organization of IUPAC. He was a member of the ISE Executive Committee from 2003–2010; he is currently coordinator of the 2011 International Year of Chemistry activities of ISE. He was president of the Analytical Chemistry Division of the Portuguese Chemical Society (Sociedade Portuguesa de Química) in 1996–1999 and 2003–2005.

Research interests include new nanostructured electrode materials and modified electrode surfaces, electroactive polymers, corrosion and its inhibition, electrochemical sensors and biosensors, with applications in the environmental, food, and pharmaceutical areas. He is also director of an award-winning science-based incubator of new enterprises, Electroanalysis and Corrosion Laboratory, Instituto Pedro Nunes, Coimbra, the technological innovation link between the University of Coimbra and the industrial sector.

Mark C. Cesa (USA)

Mark C. Cesa is a physical organic/organometallic chemist with research interests in homogeneous and heterogeneous catalysis and organic reaction kinetics and mechanisms. His career in the chemical industry has focused on new catalytic reactions, polymerization, and chemical process optimization.

Cesa is a Process Chemistry Consultant with INEOS Nitriles in suburban Chicago, Illinois. In his 32-year career in the chemical industry he has held managerial and senior technical positions at INEOS Nitriles, the Standard Oil Company (Ohio), and BP Chemicals. He is responsible for process chemistry research and support for INEOS Nitriles manufacturing plants, where he develops improvements in the process for the manufacture of acrylonitrile. He also carries out a research program on molecular and kinetic modeling of catalytic reactions. He has taught courses in organic chemistry and catalysis at John Carroll University and Ursuline College.

Cesa holds 31 patents, has published 11 articles in scientific journals and *Chemistry International*, has made a number of external presentations, and has organized 8 scientific conferences at ACS meetings and IUPAC Congresses.

Cesa earned an A. B. (1974) in chemistry at Princeton University, where he carried out research under the supervision of Prof. Jeffrey Schwartz, and earned his M.S. (1977) and Ph.D. (1979) in organic chemistry at the University of Wisconsin-Madison under the supervision of Prof. Charles P. Casey.

IUPAC Involvement

- Committee on Chemistry and Industry:
Young Observer 1997–2008, Secretary 1999–2004, Vice Chair 2004–2005, Chair 2006–2009, Titular Member 2010–2011
- Division of Organic and Biomolecular Chemistry, Associate Member 2010–2011
- Subcommittee on Structural and Mechanistic Chemistry, Member 2010–2011
- CHEMRAWN, Emerging Environmental Issues in Africa, Organizing Committee Member 2011
- Delegation to UN Commission on Sustainable Development (with ICSU), New York, 2010
- Delegation to Meetings of SAICM (United Nations Strategic Approach to International Chemicals Management): Open-Ended Legal and Technical Working Group, Rome, 2008
- International Congress on Chemicals Management II, Geneva, 2009
- International Year of Chemistry Management Committee: Member 2009–present, Subcommittee for Fundraising, Member 2008–present.
- Global Experiment Executive Committee, Member 2010–present.
- World Chemistry Leadership Meeting, Organizing Committee 2007, 2011
- IUPAC Bureau, Member Ex-Officio 2006–2009
- Project Evaluation Committee, Member 2006–2009
- Statutes and Bylaws Review Committee, Member 2006–2009

Related Professional Activities

- U.S. National Committee for IUPAC: Member 2003–2005, Chair 2006–2007, Past Chair 2008–2009, Friend of the Committee 2010–present.
- U.S. Delegation to IUPAC Council: Member 2001, 2005, 2007 (Chair), 2009, 2011.
- U.S. National Research Council: Committee on Promoting Safe and Secure Chemical Management in Developing Countries, Member 2009.

American Chemical Society:

- Committee on Science: Associate Member 2007, Member 2008–present.
- Committee on Chemical Safety: Associate Member 2006-7, Member 2008.
- Division of Professional Relations: Member-At-Large 2007–2008.

Awards

- BP Chemicals Helios Award Commended Entry, 2004
- BP Chemicals Breakthrough Award, 1999, 2000
- BP Chemicals Outstanding Performer Award, 1996, 1997
- BP America Inventors Hall of Fame, 1995
- BP Chemicals Innovation Award, 1990, 1995

Tavarekere K. Chandrashekar (India)

Tavarekere K. Chandrashekar has been director of the National Institute of Science Education and Research (NISER) in Bhubaneswar, India, since 2008. Previously, he was director of the National Institute for Interdisciplinary Science and Technology in Trivandrum. Between 1986 and 2003, he was a lecturer, assistant professor, and then professor at IIT, Kanpur.

Chandrashekar received a Ph.D. in Bioinorganic Chemistry in 1982 from I.I.Sc, Bangalore. His research interest is the chemistry of tetrapyrrole pigments and related macrocycles for their use as photosensitizers for photodynamic therapy, model compounds for photosynthetic intermediates, molecular receptors for neutral, cationic and anionic substrates, catalysts for organic conversions, and supramolecular systems for molecular devices. During his 17 years of experience at the B.Tech., M.Sc., and Ph.D. levels, 16 Ph.D. students have obtained their degrees under his supervision and 26 students have completed projects under his supervision. He has approximately 120 research publications.

In addition to extensive international experience, he has actively participated in multiple societies and organizations. As a lifetime member of the Chemical Research Society of India and as a convener of its Kanpur Chapter, he has organized regional meetings for young researchers, organized lectures by eminent scientists, and promoted chemical education at all levels. As a member of the Indian Chemical Society, Chandrashekar has helped promote science and technology in underdeveloped urban and rural areas. For these efforts, he was awarded the P.R. Ray Memorial in 2002 by the Indian Chemical Society of Kolkata.

Chandrashekar is also a member of the American Chemical Society, Society for Porphyrins and Pthalocyanins (France), and the Society for Electron Paramagnetic Resonance (USA). He has also been an expert member on numerous committees.

As a post-doc, researcher, visiting scientist, and fellow, Chandrashekar has worked for periods in the USA, Germany, and Japan. In addition, he has delivered around three dozen invited lectures around the world and throughout India.

He has received a number of awards and honors, including, most recently, Fellow of Third World Academy of Science, Italy (2008); Platinum Jubilee Lecture award, Indian Science Congress (2008); CRSI Silver medal for significant contributions in Chemistry (2008); and the J.C. Bose National Fellowship for 2006.

John Corish (Ireland)

Elected as treasurer of IUPAC in 2007, John Corish has served IUPAC at many levels since 1979 and has extensive experience with its organization and function. He was secretary and chair of the former Commission on High Temperature Chemistry and Solid State Chemistry and president of the Inorganic Chemistry Division 1997–2001. He has served on Interdivisional Committees and on the Evaluation Committee and as chairman of the Subcommittee on Materials Chemistry and a member of the Union's Finance Committee. Since 1999, he has managed the process for adjudication on claims for the discovery of new elements and the subsequent naming process when this arises.

John Corish is a professor of physical chemistry and head of the School of Chemistry at Trinity College, University of Dublin, Ireland. Corish obtained his B.Sc. and Ph.D. degrees at University College Dublin and moved in 1969 to the University of Western Ontario as a postdoctoral fellow and lecturer. He returned to Ireland as a college lecturer at University College and was a staff member in the Department of Chemistry there for 11 years before being appointed in 1982 to the chair of Physical Chemistry at Trinity College. He was elected a fellow of Trinity College in 1986.

His research interests are wide and embrace both fundamental scientific and applied technological areas. The major connecting theme has been matter transport through solid materials with applications to solid-state electrochemistry, ionic crystals, electroactive polymers and advanced battery systems, the transdermal transport of drugs and other molecules, and the low and very high temperature corrosion of metals, alloys, and ceramics.

His most recent research interests lie in the evaluation and use of QSARs in risk assessment of the transdermal penetration of toxic molecules. Both experimental measurements and computational atomistic simulation techniques have been applied, where possible in complementary studies, to increase understanding of the fundamental transport processes in all of these systems. He has also worked on analytical chemistry associated with drug molecules and with volatile organic compounds. He has collaborated widely with academic colleagues, with research institutes, and with commercial partners, and has presented his work at universities, research institutes, conferences and symposia around the world. He has published in excess of 150 scientific papers and has supervised the research work of more than 35 postgraduate students and postdoctoral fellows. He holds a number of patents that resulted in a commercial product sold in 22 countries. He has chaired and served on assessment panels for research funding in Ireland in a number of European countries and in North America.

Corish has extensive experience in administration and budgetary control. He formerly held his current post as head of chemistry at Trinity College from 1985 to 1991. In the college he has also served as dean of its Faculty of Science, as its bursar (vice president finance) and as its first dean of research. In the latter post, he was responsible for the university's interaction with industry and for its innovative campus company program. He served on the Board of the college for 10 years and has wide experience in project management, having chaired a number of committees including the Business and Industry Committee, the High Performance Computing Development Committee, the Research Committee, and the building committees for two major buildings.

Outside the college he has been treasurer and a member of the Council of the Institute of Chemistry of Ireland, and was president of the Institute from 1990–1992. He has served on the Trades Council and Innovation and Technology Policy Committee of the Irish Business and Employers Confederation, as chair of the Chemical and Allied Products Industrial Training Committee of the Irish Industrial Training Authority, and as a member of the Royal Dublin Society’s Science Committee. He was elected a member of the Royal Irish Academy in 1986, was a member of its Council from 1998–2002, served as Academy vice president in 2000, and was elected as its secretary for International Relations in 2007.

Francesco De Angelis (Italy)

Francesco De Angelis was awarded the degree of chemistry maximum *cum laude* in 1974 at “Sapienza,” University of Roma. Associated in research at the same University, he then obtained the permanent position of senior researcher. In 1987 he accepted a position as associate professor of Organic Chemistry at the University of L'Aquila, where he became full professor in 2001. He has been a visiting scientist at the University of Cambridge (1981–1982) and a visiting professor at the Universities of Zurich and Warsaw. He has organized a large number of international and Italian conferences and schools. He is a consultant for industry as well as for Italian governmental bodies. His research interests are in the fields of organic synthesis, synthetic methodologies, structural elucidation of natural products and relevant biosynthetic pathways, and organic and biological mass spectrometry. He has been invited to give lectures at national and international congresses.

De Angelis was president of the Società Chimica Italiana for 2005–2007 and president of the Division of Mass Spectrometry for the term 1999–2001. He is designated as a European Chemist by EuCheMS. De Angelis is a member of ACS and the American Society for Mass Spectrometry and is a fellow of the RSC. He was a member of the editorial board of the *Journal of Mass Spectrometry* and editor in chief of *Annali di Chimica*. He is currently a member of the editorial board of *ChemSusChem*.

De Angelis is or has been a member of the following committees of international bodies: Governing Committee of the International Mass Spectrometry Society (2002–2004); Administrative Council of the European Chemistry Thematic Network Association (2009–present). In the European Association for Chemical and Molecular Sciences (EuCheMS), he was a member of the Strategy and Finance Committee; in 2009 he was appointed treasurer and is now a member of the Executive Board. He was co-chair of the Organizing Committee for the 2nd ECC (Torino 2008) and a member of the Scientific Committee of the 3rd ECC (Nuremberg 2008) and 4th ECC Congress (Prague 2012). His interest in publishing is reflected in his roles as a member of the Governing Committee of ChemPubSoc Europe (publishing eight international journals and a web-portal) and as president for the journals *ChemMedChem* and *ChemSusChem*.

Within IUPAC, De Angelis acted as co-chair of the International Advisory Board and of the Scientific Program Committee for the 41st IUPAC Congress (Torino 2007). In addition, he was representative of the Italian CNR at the 44th (Torino) and 45th (Glasgow) General Assemblies.

René Deplanque (Germany)

René Deplanque is a professor at the Technical University Berlin, a position he has had since 2000. In 1994, he became managing director of the Fachinformationszentrum CHEMIE GmbH in Berlin (FIZ CHEMIE BERLIN; the Chemistry Information Centre); a position he still holds.

Deplanque is a member of various national and international committees and he acts as adviser to several organizations and governments.

After completing his “Diplom” studies as a chemical engineer in Hamburg, he completed his Masters of Science degree in electrochemistry and his Masters of Philosophy degree in physical chemistry at Sir John Cass College, Guild Hall University London. After subsequently gaining his Doctor of Philosophy degree in engineering sciences in addition to his research activities, he taught electrochemistry and physical chemistry at the University of Cambridge.

After returning to Germany in 1983, he worked for Brown Boveri in Mannheim where he was Head of the Electrochemistry Laboratory and Head of the Computer Department for the company’s German operations. He was also assistant to the Board. In 1988, he moved to the Gmelin Institute of the Max Planck Gesellschaft and was head of the Gmelin-online project.

Javier García-Martínez (Spain)

Javier García-Martínez is an associate professor (professor titular) of inorganic chemistry at the University of Alicante, Spain. He is also the group leader of the molecular nanotechnology lab where he teaches at the undergraduate and graduate levels and conducts world-class academic research on nanomaterials for energy and environmental applications.

García-Martínez is the co-founder and board member of Rive Technology, Inc., in Cambridge, Massachusetts, USA, (2005–present). He invented the core technology, secured intellectual property, and devolved various applications in energy processes.

Within IUPAC, García-Martínez has been a member of the Inorganic Division and Materials Chemistry Subcommittee (2006–2011) and the IUPAC Committee on Chemistry Education (2007–2011). From 2010–2011, he was vice chair of the Emerging Technologies Council of the World Economic Forum.

In April–June 2011, he joined the Keller Center at Princeton University to advise and give seminars to faculty and students who want to commercialize their technologies. During this time he also collaborated with faculty in the Department of Chemical Engineering on nanotechnology for energy applications and gave several seminars.

García-Martínez received his Ph.D. in chemistry, Summa Cum Laude, in 2000 from the University of Alicante. In 2010 he completed an executive education program on Global Leadership and Public Policy for the 21st Century at the Kennedy School of Government at Harvard University.

Among the awards he has received are the Young Global Leader—World Economic Forum, (2009), TR35 Innovator of the Year—MIT (2007), and Silver Medal. European Young Chemist Award—EuChemS (2006).

In 2011, his fourth book was published: *The Chemical Element: Chemistry's Contributions to our Global Challenges* (Elena Serrano, Javier García Martínez, editor), Wiley-VCH Weinheim, Germany. García-Martínez holds a number of patents in the United States and Spain.

He is a member of the American Institute of Chemical Engineers, Royal Society of Chemistry (Member MRSC; Chartered Chemist CChm), European Association for Chemical and Molecular Sciences (Member, European Chemist, EurChem), Spanish Royal Society of Chemistry, International Zeolite Association, Fulbright Association, International Mesoporous Materials Association.

George Horvai (Hungary)

George Horvai is a full professor and head of the Department of Inorganic and Analytical Chemistry at the Budapest University of Technology and Economics. From 1997–2004, he was vice president for research and international affairs at the university.

Within IUPAC, Horvai was a titular member and secretary of Committee VI.1, a member of CCRF, and chairman of the Hungarian NAO.

Horvai has held leadership positions in a number of other organizations, including the Hungarian Chemical Society and the Hungarian Academy of Sciences, both as president of the Analytical Chemistry Division.

His research appointments have taken him to VTT, Finland; ETH-Zurich, Switzerland; University of Florida; University of Illinois; University of North Carolina; NIST, USA; and Abo Academy, Finland.

Horvai's research interests include physical chemistry and computer modeling of interfaces and applications of ion-selective electrodes; electrochemical detection in HPLC and FIA; automation in the wet / pharmaceutical analytical laboratory and environmental analysis; and molecularly imprinted polymers.

He has published more than 100 refereed papers in international journals and holds six patents. Among the honors he has received are the Széchenyi Prize of the President of the Republic of Hungary and Academy Prize of the Hungarian Academy of Sciences.

Anders Kallner (Sweden)

Anders Kallner was born, raised, and educated in Stockholm, Sweden. After finishing basic studies in chemistry at Stockholm University and special studies in organic chemistry at the Royal Technical Institute he embarked upon studying medicine. During those studies, he completed a Ph.D. degree in biochemistry. After completing his medical training, he worked in the USA at the Chemical Abstracts Service on the Substructure Search System project. Upon his return to Sweden, Kallner specialized in clinical chemistry. He eventually became an associate professor of clinical chemistry at Karolinska Institutet and Karolinska University Hospital, where he remained until retirement.

His major scientific interests have been in analytical biochemistry, epidemiology, and metrology. He is presently continuing experimental and standardization work in the laboratory.

He joined the International Federation of Clinical Chemistry as secretary in 1975 and eventually became vice president of the organization and an ex officio member of the IUPAC Chemistry and Human Health Division (Division VII), Clinical Chemistry Section. He participated actively in the reorganization of the division when IUPAC changed to a project-driven system and became the first president of the new division. After his term as division president, he was elected to the IUPAC Bureau where he has mainly been involved in the Project Committee, but also in the continuing reorganization of IUPAC. Kallner was eventually appointed a member of the Executive Committee and chair of the Evaluation Committee of IUPAC.

Kallner has also worked for the World Health Organization, particularly in the Middle East and Gulf States. After the Baltic States became independent in 1990 he was instrumental in organizing professional societies in these republics. In recent years, he has worked with CEN (European Standards Organization) and ISO to create standards in laboratory medicine, with particular emphasis on quality systems and quality management in laboratories.

Kallner is a member of the Swedish Society for Clinical Chemistry, Swedish Society for Chemistry, and the American Association for Clinical Chemistry. He is also co-editor of the *Scandinavian Journal of Clinical and Laboratory Investigation*.

Venčeslav Kaučič (Slovenia)

Venčeslav Kaučič, president of the Slovenian Chemical Society, has been active in teaching and research in chemistry for more than three decades. His research interests are focused on the synthesis, characterization, and application of materials with nanoporous structures such as zeolites, transition-metal silicates, aluminophosphates, and composites of zeolites and mesoporous silica. The characterization methods he has been particularly active in include the application of synchrotron radiation to several crystallographic problems (small single crystals, the utilization of anomalous dispersion to trace small amounts of metal atoms in framework silicates- and aluminophosphates structures) and solid-state NMR spectroscopy.

Education and career

Kaučič received his Ph.D. in chemistry from the University of Ljubljana, Slovenia in 1977. Since 1992 he has been full a professor of Inorganic Chemistry at the University of Ljubljana. In the early 80s he was a post-doc at the University of Leicester, England, for two years and in the early 90s a visiting professor at the University of Manchester, England. He has been on shorter and longer research visits at numerous universities throughout Europe and the United States. He is the author of over 150 scientific papers in SCI journals with over 1250 citations and 8 chapters in scientific monographs.

Since 1992, he has been head of the laboratory for Inorganic Chemistry and Technology at the National Institute of Chemistry in Ljubljana. Between 1984–1985 he was head of the R&D Department at Iskra Electronic Company, Ljubljana; from 1988–1989 he was secretary general of the Research Council of the Republic of Slovenia and from 1990–1991 he was under secretary of state in the Ministry of Science and Technology, Republic of Slovenia.

IUPAC Involvement

Kaučič has been active in IUPAC for over 15 years. As the president of the Slovenian Chemical Society he has attended IUPAC General Assemblies and Council Meetings since 1997. For two terms he served as a member of the Inorganic Chemistry Division Committee. In 2004, he organized the meeting of the IUPAC Bureau at Bled, Slovenia. In addition, he was a member of the ad hoc IUPAC Committee on National Subscriptions, a member of the Union Advisory Committee, and a member of the ad hoc Committee for Streamlining IUPAC Operations.

Related Professional Activities

Since 1996, Kaučič has been the president of the Slovenian Chemical Society and the president of the Science Council of the Slovenian Science Foundation. He is active in the European Science Foundation and served as a member of the Executive Council, a member of the Standing Committee for the Physical and Engineering Sciences, and as a member of the Finance and Audit Committee of the European Science Foundation. He has been active in COST for over 15 years; presently serving as a member of the Chemistry and Molecular Sciences and Technologies Domain Committee. In 1997, Kaučič received the Slovenian National Award for the Highest Achievements in Science.

Wolfram Koch (Germany)

Wolfram Koch is executive director of the Deutscher Zentralausschusses für Chemie (German NAO to IUPAC) and also is executive director of the Gesellschaft Deutscher Chemiker.

Koch is the author and co-author of some 190 papers in peer-reviewed journals, including ca. 10 contributions to books (e.g., in *Encyclopedia of Computational Chemistry*) and of numerous book reviews. He is a senior author of a textbook on density functional theory: W. Koch, M. C. Holthausen: *A Chemist's Guide to Density Functional Theory*, Wiley-VCH, Weinheim. 2000. In addition, he is co-editor of special issues of the *International Journal of Mass Spectrometry* and of *Molecular Physics*. He has been a reviewer for many scientific journals (e.g., *Angew. Chem.*, *J. Am. Chem. Soc.*, *Chem. Commun.*, *J. Chem. Phys.*, *Organometallics*) and international funding organizations.

Since 2004, he has been a member of the Executive Committee, the Steering Group, and the Policy Board of the European Association for Chemical and Molecular Sciences (EuCheMS). Since 2003, he has been a member of the Scientific Advisory Board of Norddeutscher Verbund für Hoch- und Höchstleistungsrechnen. Since 2002, he has been president of the owners' partnership for *Chemistry—A European Journal* and *ChemBioChem*, a member of the Supervisory Board and Owners Board of Fachinformationszentrum Chemie (Chemistry Information Center), Berlin; and a member of the Scientific Advisory Board of Fachinformations-zentrum Karlsruhe.

Since 2007, he has been a member of the Scientific Advisory Board of the DFG project "A Nation-Wide Online Information Portal On Open Access Issues."

In 2006, Koch was an IUPAC fellow and in 2003 he was a fellow of the Royal Society of Chemistry.

Koch received his Ph.D. in 1986 from the Institute of Organic Chemistry.

Ram S. Lamba (Puerto Rico)

Ram S. Lamba is seeking a second term as a member of the IUPAC Bureau. During his 40-plus-year academic career, he has held several leadership positions academia. Until September 2009, he served as the Chancellor of the University of Puerto Rico-Cayey. Most of his career was spent at the Inter American University of Puerto Rico as a professor of chemistry, but he also worked for Beaunit Corporation, once a subsidiary of Celanese Corporation as a superintendent of the Dying & Finishing Department. Lamba's research interests are making chemistry more understandable and interesting to students from K–16. In addition, he has developed over 40 chemistry experiments and activities for college and school levels using the guided inquiry approach.

Education and Career

Lamba obtained his B.Sc. (Hons.) in chemistry at the University of Delhi, India in 1962, and his M. Sc. in organic chemistry from the same university in 1964. In 1964–1965, he was appointed as a research fellow at the Council of Scientific and Industrial Research, Indian Institute of Petroleum, Dehradun, India. He finished his Ed.D. in the teaching of chemistry in 1973 at Texas A&M at Commerce, Texas in the area of inorganic chemistry with a fellowship from the Robert A. Welch Foundation. He was then awarded an Oak Ridge Fellowship for his postdoctoral fellowship in natural products in 1975 at the PR Nuclear Center. He was a visiting professor in 1983 at the University of Delhi.

Between 1969–1971 Lamba taught as a lecturer at the InterAmerican University of Puerto Rico and returned to the same institution as an assistant professor in 1973. He was appointed the head of the Department of Chemistry, Mathematics, and Physics and later of Natural Sciences from 1973 to 1977. In 1977, he was promoted to the rank of associate professor and appointed as the dean of academic affairs at the same university. He served as the dean until 1982, during which time he was promoted to professor and bestowed with the title of distinguished professor by the Board of Trustees.

From 1983 to 1997, Lamba was actively involved in developing inquiry-based chemistry experiments and lessons for K–16 levels. During his academic career, he obtained over 30 federal and local grants from agencies such as the U.S. Department of Education and the National Science Foundation, among others, to improve the teaching of chemistry at all levels. He has over 25 publications, book chapters, and a laboratory manual by John Wiley & Sons, Inc.

IUPAC Involvement

Lamba has served as a member of the IUPAC Bureau since 2007 and is actively involved as a member of the Project Committee. For the past three years, he has been in close contact with the ICSU Latin America and Caribbean Regional Office. In addition to being one of the national representatives for Puerto Rico since 1998, he has been a titular member of the Committee on Chemistry Education (CCE) since 2002 and has been involved in CTC-IUPAC formally and informally since 1992. He is a member of the Organizing Committee for the 43rd IUPAC Congress to be held in San Juan, PR. He was the organizer of the 13th ICCE held in 1994 in Puerto Rico. He chaired the Subcommittee on Chemistry Education of the CCE from 2004–2006 and is now a member. Lamba helped develop the Flying Chemist Program for the CCE. He was

one of the resource persons for the program for India and Sri Lanka. He has served as a member of the International Advisory Boards of multiple International Conferences on Chemical Education. Lamba was a member of the taskforce group that worked on the new mission of CCE during the transformation of CTC to CCE.

As a member of the Bureau and one of the national representatives of Puerto Rico, he keeps the NAO abreast of IUPAC activities and programs. He was instrumental in Puerto Rico becoming one of the NAOs of IUPAC.

Related Professional Activities

In 1986, Lamba was elected as president of the Puerto Rico section of the American Chemical Society (ACS), and the chairperson of the Northeast Section in 1997 and 1998. From 1995–1998, he was a member of the Board-Council Committee on International Activities of the ACS. For three years (1996–1998) he was the counselor for the ACS, PR Section. In addition, in 1996, he had a leading role in establishing a UNESCO/IUPAC International Center for the Development and Construction of Locally Produced Low Cost Equipment. He has served as an active member for several years in the Division of Chemical Education of ACS and chaired the Brasted Award Committee in 1996. He was a member of the Governor's Council for the Development and Maintenance of Public Policy of Science and Technology of Puerto Rico from 1995-2000. Lamba has served as a member in the Scientific Affairs Committee of the Industry University Research Consortium in PR for eight years (1990–1998). From 2001–2004, he was a member of the College Board Advisory Panel for Puerto Rico and Latin America Office.

He has been a consultant to the Department of Education of Puerto Rico and has served on several panels in the National Science Foundation for evaluation of grants in chemistry curriculum. He is a Chartered Scientist (CSci), Chartered Chemist (C Chem.), and Fellow of the Royal Society of Chemistry. Since 2004, he has served as a member of the scientific advisory board of the *Journal of Mathematics and Science*.

Awards

Lamba has received numerous awards, including the 1999 U.S. Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring given at the White House. In 1994, he was bestowed with the Catalyst Award for Excellence in Chemistry Teaching by the Chemical Manufacturer's Association. The same year, the NAO awarded Lamba the Oswaldo Ramirez Award, the highest award given by the organization. The Puerto Rico ACS chapter awarded Lamba the Excellence in Teaching award in 1991. In 2004, he was bestowed with the Ram Prasad Mitra Centennial Award at the University of Delhi. Lamba has been recognized for over 10 years at the IAU-PR and UPR-Cayey Campus for excellence in teaching.

Natalia Tarasova (Russia)

A native of Moscow, Natalia Tarasova graduated from the D.I. Mendeleev Institute of Chemical Technology (Moscow) in 1972 (now D.I. Mendeleev University of Chemical Technology of Russia). She received her Ph.D. in radiation chemistry in 1976 from the same institute.

Education and Career

In 1976, Tarasova began her career at D.I. Mendeleev University as a researcher in the Department of Radiation Chemistry. From 1979–1980 she worked with Prof. Claud Filliatre at the University of Bordeaux-I. In 1984, she received an M.Sc. degree in applied mathematics from the Moscow Institute of Electronic Machinery Building. In 1983 she became associate professor at the newly organized Department of Industrial Ecology at D.I. Mendeleev University (first in the USSR). In 1994, she obtained her Doctor of Sciences degree in inorganic chemistry from the same university.

Since 1995, Tarasova has been a professor of chemistry and head of the Department for the Problems of Sustainable Development. In 2000, she organized the Institute of Chemistry and Problems of Sustainable Development at D.I. Mendeleev University (the first in the Russian Federation and one of the first in the world) and was elected its director. The institute is established on the basis of international principles and includes eight departments, including the Higher College for the Rational Use of Natural Resources and the Higher Chemical College of the Russian Academy of Sciences. In 1997, Tarasova was elected to the Russian Academy of Sciences as a corresponding member.

Since she speaks fluent English and French, Tarasova has given a great number of lectures at research centers in Russia and abroad. She has been a visiting professor at Bowling Green State University (USA) and the University of York (UK). She received a Doctor of Science Honorary Degree from Bowling Green in 2003. Since 1998, she has been a faculty member of the International Programme on Managing Sustainability (the Netherlands). She is a fellow of the World Innovation Foundation and a member of the Steering Committee of the Balaton Group.

Tarasova is also a member of the Editorial and Advisory Boards of *Russian Chemical Reviews*, *Chemical Education International*, and *Journal of Industrial Safety*. She has been the honorary theme editor of *The Encyclopedia of Life Support Systems*, a UNESCO project, since 1996.

Tarasova made a profound contribution to the development of new approaches to chemistry education and education for sustainable development in Russia and in the world. She is the deputy-chair of the Higher Chemical College of the Russian Academy of Sciences and the organizer of the Higher College for the Rational Use of Natural Resources (in cooperation with the Division of Earth Sciences of the Russian Academy of Sciences). Numerous students of hers are working in research centers in Russia, other CIS countries, Europe, USA, Canada, and elsewhere. She has initiated the translation and adaptation of the following textbooks for Russian schools: *Chemistry in the Community* (joint project with ACS) and *Salter's Advanced Chemistry* (joint project with the University of York). She served as the scientific editor of the Russian editions.

Main Research Interests

Tarasova is a well-known scientist in the field of radiation chemistry and phosphorus chemistry. She is developing new methods of synthesis of polymeric forms of phosphorus (modified red phosphorus, phosphorus-sulfur co-polymers, polymeric phosphorus doped with metals, carbon, etc.) under high-energy irradiation. Another area of her research involves risk assessment and management.

Awards

Tarasova was decorated with the order “Sign of Honor” in 1986. She was awarded the President of Russian Federation Prize in Education in 2001, the Government of Russian Federation Prize in 2004 and 2006, and Prize of the Fund for the Support of Science in 2001.

IUPAC Involvement

Tarasova has been involved in IUPAC activities since 1996, first as the national representative to the Committee on Teaching Chemistry, and later as a titular member, and now as a titular member of the Committee on Chemistry Education. She is also a member of the IUPAC Bureau, Executive Committee, and the IYC Management Committee. She is chair of the subcommittee on Women in Science and a member of the Subcommittee on Green Chemistry. She is the deputy chair of the National Committee of Russian Chemists for IUPAC. In addition, she is the chair of the International Committee of the XIX Mendeleev Congress.

Tarasova has always applied an interdisciplinary approach to her research, thus allowing her to initiate and organize a number of seminars and conferences (e.g., a series of conferences on Chemistry Education and Sustainable Development (1997, 2001, 2005) that were supported by IUPAC. She has been working on the joint IUPAC–OPCW project on multiple uses of chemicals and organized a workshop on Chemical Synthesis—The Point of Bifurcation in Moscow in 2005. She also was one of the organizers of a series of workshops on small-scale chemical experiments in Russia and CIS countries. She has served as the member of the International Advisory Boards of multiple International Conferences on Chemical Education. Tarasova was a member of the taskforce group which worked on the new mission of CCE during the transformation of CTC to CCE. Now she is involved in organizing activities for the International Year of Chemistry.

2011 Vice President and Secretary General Candidates Statements

At the Beijing Council meeting in 2005 a number of delegates expressed a desire for candidates for IUPAC office to provide a statement regarding their plans if they are elected. The Executive Committee discussed this concept and decided that such a statement was suitable in the case of candidates for vice president. The VP and SG candidates have been asked to write a brief statement describing their goals and objectives.

Statement by Mark Cesa, VP candidate

It is an honor to be nominated as a candidate for IUPAC Vice President. I have been privileged to work in IUPAC in many capacities, and as an industrial scientist I have a deep appreciation for the value of fundamental science in chemical innovation, the contributions of the chemical industry to improving the well-being of humankind, and the role of IUPAC as the enabler of progress in global chemistry.

This is an exciting and challenging time for IUPAC. As it approaches its second century, IUPAC must expand the scope of its contributions and increase its influence. IUPAC needs to draw on the creativity and expertise of academic and industrial chemists around the world to discover and disseminate fundamental scientific knowledge and apply chemistry innovatively and safely to improve the quality of life. IUPAC must work at the interfaces between academia and industry and among the sciences to create valuable and exciting programs and initiatives.

Following are a set of priority issues that I believe IUPAC must address in order to reach these goals.

- The rapid growth of scientific research and chemical production around the world illustrates the increasing **globalization** of chemistry. IUPAC must maintain and enhance its unique and traditional strengths in **nomenclature, standardization, scientific conferences, and education** to serve the global chemistry community.
- Achieving **sustainable development** will require important contributions from scientists, including chemists, all over the world. Fundamental scientific knowledge and innovative technologies from both the academic and industrial communities will be needed. IUPAC must continue to work on initiatives such as the Safety Training Program and as a science NGO with SAICM and the United Nations Commission on Sustainable Development to deliver the objective scientific information that underpins sound policy and enables **capacity building**. The **World Chemistry Leadership Meetings** have been exemplary in identifying critical global needs and encouraging new IUPAC projects to address these needs through chemistry.
- IUPAC must build **collaborations with other scientific unions** as it has in ICSU and with UNESCO to develop effective programs to support its strategic plan. The future of chemistry lies at the interfaces between chemistry and other sciences, and IUPAC must continue to develop joint projects and programs at these interfaces. The successful **project system** must be publicized and nurtured so that creative ideas from the entire chemistry community can be brought forward.

- IUPAC must capitalize on the enthusiasm from all over the world for the **International Year of Chemistry**. The IYC has been a great success in promoting the public appreciation of chemistry; thousands of students and teachers are taking part in the Global Experiment, and hundreds of ideas for projects, publications, plays, videos, symposia, hands-on activities and other public events are prominently featured on www.chemistry2011.org. IUPAC must cultivate these initiatives well beyond 2011 and build on the prominent role of industry and academia in IYC to secure productive long-term collaborations.
- IUPAC must maximize its global reach and influence by expanding its membership and encouraging talented people everywhere to contribute to achieving its goals. IUPAC must help enable people around the world, particularly women and persons in developing countries, to pursue **careers in chemistry** to make their communities healthier, safer, and more productive. IUPAC must make its processes for **recruiting and retaining members** for Divisions and Standing Committees transparent, far-reaching, and inclusive, and it must apply the expertise of all its members to defining and achieving its goals. IUPAC must work to increase the number of **National Adhering Organizations**, and we must creatively encourage more of the chemical industry to participate as **Company Associates**. IUPAC can apply its **Regional Workshops** as a tool to communicate and collaborate with NAOs and industry.

I am continually excited by the capabilities and potential of IUPAC, I look forward to continuing to serve, and I ask for your support.

Statement by Natalia Tarasova, VP candidate

Dear colleagues,

Let me share with you some reflections about the areas in which I would like to concentrate my activities if elected the vice-president of IUPAC.

Chemistry is the music of nature, which, while playing with a limited number of elements, creates the infinite beauty of the Universe. To help the society to appreciate chemistry is one of the key goals for IUPAC. The analysis of the outcomes of the International Year of Chemistry should be carried out, and the leverage points determined, that might be used by IUPAC to get momentum in communicating to the society and helping it to hear the music of chemistry in the everyday life.

The second decade of the 21st century, according to the results of multiple futurological researches, will be crucial from the point of the limitation of the population, industry and pollution growth trends. It is still possible to alter these growth trends and to establish a condition of ecological and economic stability that is sustainable into the future. The strengthening of cooperation of IUPAC and chemical and related branches of industries through joint programs and projects is needed, so that collective, rather than self-centered goals might be adopted and the time horizon used in making choices, increased. IUPAC has a great potential in this domain, based on CHEMRAWN and COCI activities, as well as on joint programs of divisions and related branches of chemical industries. "Thinking in systems" approach might help to convert this potential into practical deeds and develop and promote sustainable indicators of success.

It is very important to preserve all kinds of diversity in the era of globalization. NAOs and ANAOs are the intrinsic source of the diversity. To collect and analyze their practical experience, help in sharing it, while increasing the number of NAOs, is seen by me as one of the priorities.

The last, but not the least, is the chemical education, and its interdisciplinary aspects. I see education as the non-genetic heredity of the humankind, which helps it mitigate the challenges and adapt to change. The IYC is demonstrating how consolidated the community of chemistry educators is. It is very important to translate the best educational practices IUPAC has developed, to other educational fields using the UNESCO networks. It might become a vital contribution to the UN Decade of Education for Sustainable Development.

Professor Natalia Tarasova,
Member of the Russian Academy of Sciences
Member of the IUPAC Bureau and Executive Committee,
Titular member of the IUPAC CCE,
Director
Institute of Chemistry and Problems of Sustainable Development
D. I. Mendeleev University of Chemical Technology of Russia

Statement by René Deplanque, SG candidate

Dear colleagues,

I am seeking your support for Secretary-General of the International Union of Pure and Applied Chemistry (IUPAC).

If elected, I will work constructively and tirelessly to ensure that we not only continue the great and important work as done, but that we will improve communication, build communities, ensure transfer of knowledge to those in need, help to built and guard our achievements and continue to improve all this in the future.

Our science will lead, but I would like to make sure that we are not more than a second behind.

IUPAC is not only the periodic table, (F. Meyers)

IUPAC is not only the Color Books

IUPAC is not only the General Assembly

IUPAC is all of this and more.

On the basis of our achievements we have to continue to enable the chemist to identify himself with the aims of IUPAC.

Chemistry is the only science in the world which has defined its own language. This language is understood all over the world and is independent of ethnic and cultural backgrounds.

We all are the guardians of this language and if I am elected I will work that this language will be spread and developed, so that it can cope with all the challenges of modern-day science.

Using the resources of my Institute and with the help of a group of people from IUPAC I have developed a new IUPAC communication and distribution platform and server. This will represent the online presentation for the IUPAC of the future and will be launched at this general assembly.

To achieve this complex task we had to analyze all organizational and information structures of IUPAC.

We had to design a general new structure. We had to make sure that our new designed structure will help to improve lines of communication and lead the way into a better future.

Organizing this task gave me the chance to develop a deep understanding of the working and the structure of IUPAC. On this basis it is possible for me to develop the future strategies and this without delay.

The world's change is dramatic. This speeds up research and discovery as never before in the past. Therefore the publication process changes dramatically.

IUPAC has to cope with this new world, without losing its quality and seniority to serve chemistry.

If I am elected, I will do my utmost to help to implement tools, structures and strategies that IUPAC can help to ensure and show societies and our chemists, what can be done and what should be done. This shall be achieved by improving discussion, speeding up information exchange and augmenting awareness and foremost helping our divisions and standing committees to do their important tasks and this in closest corporation will the IUPAC bureau.

We have to improve or implement knowledge transfer lines worldwide. This is to improve communication between chemists and especially to open new lines for transfer Information to the developing countries. to help their research and help to constitute equal opportunities.

For more than 30 years I am specialized in the area of science management in academia, industry, and am advising governmental departments in Europe, America and Asia. For this I have built up a very large international network of friends and services. Those I would like to put at your disposal, for the best of chemistry, our science

If I am elected I need the help of all of you to continue this tremendous task. IUPAC needs this commitment. As this commitment was given in the past, it is needed for the future.

Statement by Anders Kallner, SG candidate

I am very pleased that the Executive Committee of IUPAC has given the nominees a chance to present their profile and outline how we believe we can contribute to the operation of IUPAC.

My background is an MD and I have a PhD in organic chemistry and biochemistry at the Karolinska Institutet in Stockholm. After my formal training in internal medicine and surgery I have been working in the clinical laboratory at various hospitals in Sweden as head of laboratories and associate professor of clinical chemistry and later as Senior Consultant. I have had the opportunity to serve as Secretary, Treasurer and vice President of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC), Secretary and President of IUPAC Division VII (Chemistry and Human Health) and as an elected member of the IUPAC Bureau and Executive Committee. I have also served as a consultant to WHO, particularly to the Eastern Mediterranean Region Office (EMRO). Lately I have been active in standardization work with ISO, the European standards organization (CEN) and clinical Laboratory Standards Institute (CLSI, USA).

The tasks and responsibilities of the Secretary General are specified in the Statutes of the Union as “carrying out the business of the Council, Bureau, Executive Committee and President, and be responsible to keep its records and the administration of the Secretariat”. This may not leave too much room for own initiatives but the Secretary General is also a voting member of the Bureau and Executive Committee and it is therefore appropriate and justified to discuss a candidate’s major fields of interest and priorities beyond the statements in the Statutes.

My contact network and experience are mostly related to the biosphere and the effect of chemical compounds on life and environment and standards organization. This being said I will continue to work for developing standards and practices for a safe and rational use of known and unknown products of a chemical nature. Knowledge and technology is globally unevenly distributed and I believe IUPAC has a role to identify deficiency and assist in improving the situation wherever it is occurs. A crucial aspect is the education and training of new generations but also to encourage information to the public and the awareness of the advantages, disadvantages, hazards and benefits of what is commonly known as chemicals. I believe it will be important for IUPAC to follow up and continue the efforts made during the International Year of Chemistry. I believe it is important for the IUPAC to closely collaborate with law-making national governments and regional organizations to ensure that a sound balance between risk and benefits is established and maintained. This is very much within the realms of IUPAC and I believe it is essential to foster collaboration between academia, industry and governments to achieve these goals.