40th IUPAC Council Meeting

Free University, Berlin, Germany, 13–14 August 1999

Election of Officers and Bureau Members

According to Statute 5.401, Council must elect:

- Officers of the Union
- Elected Members of the Bureau

Nominations for the various positions that fall vacant at the end of 1999 must be received by the Secretary General at the IUPAC Secretariat before 13 June 1999, i.e., two months before the start of the Council meeting (Bylaw 2.221). The situation for each position (as this issue went to press on 18 June) is set out below:

President

Dr. Alan Hayes (UK), Vice President and President-Elect, becomes President on 1 January 2000 (Statute 4.2).

Vice President—Vacancy

The vice president to be elected at the 40th Council Meeting will be president-elect, and will become president on 1 January 2002.

As a guideline, and following the practice of some national chemical societies, the Executive Committee considered in the past the possibility that the president of the Union might be elected alternately from academia and from industry (Minute 13.1/94, 120th Meeting, Oxford).

Nominations for vice president received (as of 18 June 1999) are as follows: Prof. Pavel Kratochvil (Czech Republic), Prof. Pieter S. Steyn (South Africa), and Prof. Leiv K. Sydnes (Norway).

Prof. Pavel Kratochvil (Czech Republic)

Prof. Pavel Kratochvil was born in Prague in 1930. He is a chief research fellow at the Institute of Macromolecular Chemistry of the Academy of Sciences of the Czech Republic, one of the major institutes devoted to basic research in polymer science worldwide. From 1990 to 1998, he served two four-year terms as the Institute's director. He is also a professor of macromolecular chemistry at the Institute of Chemical Technology in Prague.

In 1953, he became a Master of Science in chemical engineering at the Institute of Chemical Technology in Prague. Until 1957, he was a lecturer on physicochemical principles of technological processes at the Institute of Chemical Technology in Pardubice. In 1957, Prof. Kratochvil joined the Institute of Macromolecular Chemistry of the then Czechoslovak Academy of Sciences, where he has remained. In 1960, he obtained his Ph.D. and in 1968 a D.Sc., both from the Academy. His main field of activity is the physical chemistry of polymers, particularly the characterization and determination of molecular parameters of polymers and copolymers, and light scattering from polymer solutions.

Prof. Pavel Kratochvil

Prof. Kratochvil is the author of more than 190 original communications in international journals, ten reviews, one monograph, and five contributions to monographs. He has presented about 250 invited lectures and communications at international scientific meetings and lectures at foreign universities and research institutions.

Prof. Kratochvil is a Founding Member of the Learned Society of the Czech Republic; Fellow of the Royal Society of Chemistry, UK; and a member of numerous boards, both national and international, including the Czech National Committee for UNESCO and five editorial boards of international technical journals. He is holder of the Czechoslovak National Prize for Science in 1970, the Prize of the Czechoslovak Academy of Sciences in 1977, and of several other respected awards. He has spent his sabbatical leaves as a visiting scientist or visiting professor in Canada, Germany, India, Mexico, Russia, Sweden, and the United States.

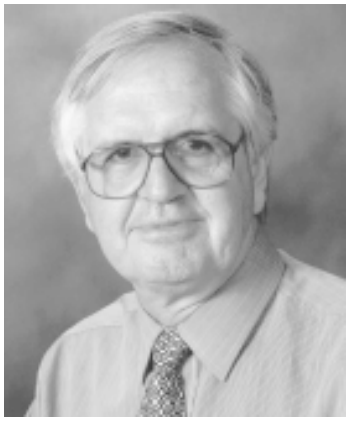
Within IUPAC, Prof. Kratochvil started his activities as an observer in the Commission on Macromolecular Nomenclature in 1977. He was elected a titular member of this Commission in 1979 and served as its chairman from 1985 to 1991. In the years from 1985 to 1995, he was a member of the Interdivisional Committee on Nomenclature and Symbols. He became a member of the Macromolecular Division Committee in 1994. He has been closely involved in various IUPAC-sponsored meetings in Prague, including the International Symposia on Macromolecules in 1965 and 1992 (he was chairman of the 1992 Symposium) and most of the Prague Meetings on Macromolecules (Microsymposia and Discussion Conferences) over the last 32 years. He acted as the IUPAC official representative at about ten meetings. Prof. Kratochvil is cur-

rently serving his second term as the chairman of the Czech National Committee for Chemistry, the IUPAC National Adhering Organization of the Czech Republic.

Prof. Pieter S. Steyn (South Africa)

Prof. Pieter Streicher Steyn was born on 5 January 1940 in Vryburg, Cape Province, Republic of South Africa. He is married with three children.

Education and Career: Prof. Steyn studied at the University of Stellenbosch (B.Sc., 1959; B.Sc., Honors, 1962; M.Sc., cum laude, 1963), and then at the University of South Africa (Ph.D., 1966). In 1967, he was awarded a postdoctoral fellowship at the School of Pharmacy of the University of Wisconsin, Madison, USA. He was appointed to the National Chemical Research Laboratory, CSIR, in 1964, where he became Head of the Division of Organic Chemistry in 1983. From 1986 to 1987, he was Chief Director of the National Food Research Institute, CSIR, and from 1987 to 1992, he was Director of the Division of Food Science Technology, CSIR. In December 1992, Prof. Steyn was appointed the first CSIR Fellow, this being the highest career position in science within the CSIR. In October 1993, he was appointed Head of the SASOL Centre for Chemistry, SASOL Professor of Chemistry, and Director of the SASOL Centre of Separation Technology, and recently promoted to Director of the School of Chemistry and Biochemistry at the Potchefstroom University for Christian Higher Education.



Prof. Pieter S. Steyn

Research Interests: Prof. Steyn's research career has been devoted to the isolation, analysis, structure elucidation, synthesis, and biosynthesis of mycotoxins and, to some extent, other toxic and medicinal substances from plants. This research has been undertaken with numerous groups within South Africa and with research groups in Australia, Europe, Japan, New Zealand, and the United States. Prof. Steyn has authored or coauthored 155 scientific papers and 27 reviews.

Offices and Assignments: Elected one of 54 Founder Members of the Academy of Science of South Africa (1994–present); Fellow of the Royal Society of South Africa (1997–present); Vice President of the South African Joint Council of Scientific Societies (1985–86); President of the South African Joint Council of Scientific Societies (1986–87); and President of the International Association for Cereal Science and Technology, Vienna (1992–94).

Since 1967, Prof. Steyn has given lectures at the Conventions of the South African Chemical Institute, at the Specialist Conference on Organic Chemistry, and at numerous international meetings.

IUPAC Activities: Member of the South African National Committee for IUPAC (1973–present); Associate Member of the Food Contaminants Commission (1973–1978); Titular Member of the Food Chemistry Commission V1.1 (1979–1987); Vice-Chairman of the Food Chemistry Commission VI.1 (1983–1987); Member of the Applied Chemistry Division Committee (1987–1997) and Vice President (1989–1991); Member of the Bureau (1991–1995); President of the Applied Chemistry Division (1991–1995); Member of the Division Committee of the Division of Chemistry and the Environment (1996–1999); Elected Member of the Bureau and the Executive Committee (1996–1999); Member of the Editorial Advisory Board of Chemistry in the 21st Century (1991–1999); Member of the Committee on Printed and Electronic Publications (1996–1999); Member of the Committee on the Teaching of Chemistry (1996–1999); Member of the International Scientific Advisory Committees for the IUPAC Mycotoxin Symposia held in Paris (1976), Lausanne (1979), Vienna (1982), Paris (1985), Tokyo (1988), Mexico City (1992), and Rome (1996); Chairman of scientific sessions at most IUPAC Mycotoxin Symposia; Member of the Organizing Committee of the 13th IUPAC Symposium on the Chemistry of Natural Products, Pretoria, August 1982, and Chairman of the Finance Committee; Chairman of the Organizing Committee of the Sixth IUPAC Symposium on Mycotoxins and Phycotoxins, Pretoria, 22–25 July 1985 and Chairman of the Finance Committee; Organizing Chairman of the IUPAC Symposium: A Sustainable Environment—National and International Perspectives, Pretoria, December 1996; Organizing Chairman of the IUPAC/AAPAC Workshop on the Role of Chemistry in the Development of Africa, Durban, 11 July 1998; Member of the South African Delegation to IUPAC Council Meetings at Munich, Germany (1973); Madrid, Spain (1975); Warsaw, Poland (1977); Davos, Switzerland (1979); Leuven, Belgium (1981); Lyngby, Denmark (1983); Lyon, France (1985); Boston, USA (1987); Lund, Sweden (1989); Hamburg, Germany (1991); Lisbon, Portugal (1993); Guildford, UK (1995); Geneva, Switzerland (1997); and Berlin, Germany (1999).

Awards: Raikes Gold Medal of the South African Chemical Institute (1975), Gold Medal of the South African Chemical Institute (1987), CSIR Merit Prize (1987)—top award of the CSIR, Havenga Gold Medal for Chemistry (1992) from *Die Suid-Afrikaanse Akademie vir Wetenskap en Kuns,* and Friedrich

Schweitzer Medal (1993) from the International Association for Cereal Science and Technology, Vienna.

Prof. Leiv K. Sydnes (Norway)
Date and place of birth: 9 July 1948 in Haugesund, Norway. Married, three children born in 1973, 1975, and 1977.

Education: Cand. mag., University of Oslo, December 1971; Cand. real., Organic Chemistry, University of Oslo, October 1974; Dr. philos., Organic Chemistry, University of Oslo, November 1978.

Employment: Research Associate, University of Oslo, 1974–1978; Postdoctoral Fellow, University of Western Ontario, Canada, 1978–1980; Associate Professor, University of Tromsø, 1980–1986; Visiting Professor, Iowa State University, USA, 1985–1986; Professor, University of Tromsø, 1987–1993; Adjunct Professor, University of Tromsø, 1993–1998; Visiting Fellow, Australian National University, Canberra, 1998; Adjunct Scientist, Norwegian Institute for Air Research, 1998 to present; Professor, University of Bergen, 1993 to present.

Research and Scientific Publications: The M.Sc. and Dr. philos. degrees were earned under the supervision of Prof. Lars Skattebøl, University of Oslo, on the basis of theses describing research in the field of *gem*-dihalocyclopropanes.

In Canada, he worked on organic photochemistry in the research group of Prof. Paul de Mayo, Photochemistry Unit, University of Western Ontario.

The academic year 1985–86 was devoted to organometallic chemistry, which was employed to synthesize prostaglandin derivatives in the group of Prof. Richard Larock, Iowa State University.

Prof. Sydnes's research is mainly concentrated on organic synthesis with emphasis on cyclopropane chemistry and photochemistry. Many of the problems currently investigated are related to the preparation of biologically active molecules. So far this research has resulted in 90 contributions in refereed publications. The research has also been presented in numerous lectures/poster presentations in Norway and abroad (more than 80 since 1987).

Nonscientific Publishing: Since 1976, Prof. Sydnes has also been involved in various kinds of nonscientific publishing related to chemistry. He has written more than 60 articles in national periodicals, including book reviews of foreign scientific books, papers about chemistry topics for nonspecialists, discussion papers about teaching, etc. He has written five books covering laboratory work in introductory and intermediate organic chemistry at the university level. He has published 19 high school textbooks in chemistry and two textbooks for chemical colleges. He has contributed one or more chapters to 18 technical or more general scientific reports.

Prof. Leiv K. Sydnes

Other Professional Activities: In addition to being involved in a large number of committees and boards at the University of Tromsø and now at the University of Bergen, Prof. Sydnes has been engaged in professional activities as follows: Chairman, Division of Teaching, Norwegian Chemical Society, 1976–78; Chairman, Northern Norway Section, Norwegian Chemical Society, 1981–83; Board Member, Norwegian Chemical Society, 1983–89; Vice President, Norwegian Chemical Society, 1989–92; President, Norwegian Chemical Society, 1992–96; Bureau Member, IUPAC, 1994 to present; Member of IUPAC Strategy Development and Implementation Committee (SDIC), 1997–98; Associate Member of IUPAC Organic Chemistry Division Committee, 1998–99; Member of IUPAC Subcommittee on Organic Synthesis, 1998 to present; Member of Project Committee of IUPAC Bureau, 1999–2001; Member, European Communities Chemistry Council (ECCC), 1994 to present; Vice-Chairman, ECCC, 1997 to present; Member, European Communities Registration Board (ECRB), 1996 to present; Executive Committee Member, Federation of European Chemical Societies (FECS), 1998 to present; Member, European Cooperation in the Field of Scientific and Technical Research (COST) D2 Management Committee (Selective Synthesis), 1992–97; Member COST D12 Management Committee (Organic Transformations: Selective Processes and Asymmetric Catalysis), 1998 to present; Member, International Association for the Promotion of Cooperation with Scientists from the New Independent States of the Former Soviet Union (INTAS) Assessment Panel, Brussels, 1994; Member, Editorial Board, *Acta Chemica Scandinavica*, 1989–94; Member, Editorial Board, Norwegian Journal of Chemistry (*Kjemi*), 1976 and 1989 to present; Organizer of the National Organic Chemistry Meeting in 1988, 1992, and 1996; Organizer of the Nordic Natural Products Meeting in Tromsø in 1982; Chairman, Organizing Committee of the National Laboratory and Chemical Fair in 1993, 1995, 1997, and 1999; Chairman of the Board, Unilab Analyse AS, 1988–92; Member/Vice-Chairman of the Board, Tromsø Research Park AS, 1990 to present.

Awards: Kyoto Institute of Technology Lectureship, 1990; Thaulow Prize, 1995; elected Member of the Norwegian Academy of Science and Letters, 1999.

Past-President

The retiring President, Prof. Joshua Jortner (Israel) will remain an officer (Statute 6.1) and a member of the Bureau for a period of two years (Statute 7.2).

Secretary General

Dr. Edwin D. Becker (USA), the present secretary general, completes four years (1996–1999) of service. He is eligible for re-election for a second four-year term.

Nominations for secretary general received (as of 18 June 1999) are as follows: Dr. Edwin D. Becker (USA).

Dr. Edwin D. Becker (USA)

Dr. Edwin D. Becker was born in 1930 and received his B.S. in chemistry from the University of Rochester, Rochester, NY, in 1952 and his Ph.D. from the University of California at Berkeley in 1955.

Dr. Becker has spent the major part of his career since 1955 at the National Institutes of Health near Washington, DC. He has been Chief of the Molecular Biophysics Section, 1961–72; Chief of the Laboratory of Chemical Physics, 1972–80; Associate Director for International Research, 1979–81; Associate Director for Research Services, 1980–88; Chief of the NMR Section in the Analytical Chemistry Laboratory, 1988–98; and Scientist Emeritus, 1998 to present. From 1959–97, Dr. Becker was a professorial lecturer at Georgetown University, Washington, DC, where he taught graduate-level courses.

Dr. Becker is internationally known for his research in molecular spectroscopy and nuclear magnetic resonance (NMR), and for his three books on NMR. He has published about 100 papers on vibrational spectroscopy and hydrogen bonding. He has extensive administrative experience at the National Institutes of Health, where for eight years he managed research services with about 1 300 employees and an annual budget in excess of USD 150 million.

IUPAC Activities: Dr. Becker has been active in IUPAC during the last 26 years, including service as: Member, 1973–75, and Chairman of the Commission on Molecular Structure and Spectroscopy, 1975–81; Member, 1977–81, and Secretary of the Physical Chemistry Division, 1981–85; Member, 1986–88, and Chairman of the Committee on Publications, 1988–94; and Member, 1979–84, and Chairman of the United States National Committee for IUPAC, 1984–86. He has served on a number of other committes and boards; of special note is his tenure as Chairman of the Committee on International Activities of the American Chemical Society from 1993–96. He has been Secretary General of IUPAC from 1996 to present. As secretary general, Dr. Becker has spearheaded many programs to strengthen IUPAC and has established international networks to bring the global chemistry community together to work toward a common goal.

Dr. Edwin D. Becker

Awards: Dr. Becker's awards include the Coblentz Prize in Vibrational Spectroscopy, 1966; Fellow of the American Association for the Advancement of Science, 1988; Bicentennial Medal, Georgetown University, 1989; and Foreign Fellow of the National Academy of Sciences, India, 1992.

Other Positions: American Chemical Society, Committee on International Activities, Member, 1987–96, Chairman, 1993–96; Joint Committee on Atomic and Molecular Physical Data, 1967–89, Chairman, 1978–81; Federal Executive and Professional Association Board, 1973–83, President, 1982–83; Editorial Board, *Journal of Magnetic Resonance*, 1969–98; and Section Editor, *Encyclopedia of Nuclear Magnetic Resonance*, 1992–96.

Treasurer—Vacancy

Prof. John M. Ward (UK), the present treasurer, completes eight years (1992–1999) of service and is not eligible for re-election (Statute 6.52).

Nominations for Treasurer received (as of 18 June 1999) are as follows: Dr. Christoph Buxtorf (Switzerland).

Dr. Christoph Buxtorf (Switzerland)

Dr. Christoph Buxtorf, born in 1937, studied chemical engineering in Burgdorf and finalized his education in 1965 in chemistry at the University in Fribourg, Switzerland. Afterwards, he worked as a postdoctoral fellow of the National Research Council of Canada at McGill University in Montreal.

In 1966, Dr. Buxtorf started with Sandoz Ltd. as a development chemist in the process research group of the Chemical Division. He then undertook leading assignments in the Investment Planning and Manufacturing departments. In 1980, Dr. Buxtorf became Plant Manager of Fair Lawn Chemical Manufacturing Operations. In 1981, he was assigned Head of all Manufacturing and Logistics Operations in the Colors and Chemicals Division in the United States. After his return to Switzerland, Dr. Buxtorf became responsible for the production of chemicals in Muttenz. In 1987, he became Head of Global Production and Manufacturing Logistics Operations for Sandoz Agro.

With the merger of Ciba and Sandoz to form Novartis, Dr. Buxtorf became Head of the Production and Technology Division of Novartis Crop Protection. He is a member of the Executive Committee and president of some of the boards in Novartis Crop Protection.

Bureau—Four Vacancies (Minimum)

According to Statute 7.2, the Bureau consists of the officers, the presidents of the Divisions/Sections, together with not less than ten other members elected by Council, who shall be known as "Elected Members". At the conclusion of the 39th Council in Geneva, there were ten elected members of the Bureau. At the 40th Council, the Bureau will make recommendations to Council as to the number of elected members (ten or more), who should be on the Bureau for the succeeding two years.

Elected members are elected for a period of four years, and they are eligible for election for a second period of four years.

No Adhering Organization shall have more than one elected member of the Bureau.

Statute 7.2 also states that "the principle of fair geographical representation of Members shall be taken into account".

Elected member of Bureau, retiring in 1999, who is not eligible for re-election, but may be nominated for another office:

Prof. A. Chakravorty (India).

Elected members of Bureau, retiring in 1999, who are eligible for re-election for a further four-year period:

Prof. H. Ohtaki (Japan); Prof. G. M. Schneider (Germany); Prof. P. S. Steyn (South Africa).

Elected members of Bureau, who were elected at the 39th Council until 2001:

Prof. E. J. Grzywa (Poland); Prof. J. W. Lorimer (Canada); Dr. E. P. Przybylowicz (USA); Prof. G. Somsen (Netherlands); Prof. L. K. Sydnes (Norway); Prof. C. H. Zhang (China).

At least four elected members of the Bureau must be elected at the 40th Council in Berlin, i.e., the minimum number of ten elected members (Statute 7.2) less the six elected members who continue in office until 1999.

Nominations for Bureau received (as of 18 June 1999) are as follows: Prof. S. Chandrasekaran (India), Prof. P. Kratochvil (Czech Republic), Prof G. J. Leigh (UK), Prof. N. J. Moreau (France), Prof. O. M. Nefedov (Russia), Prof. H. Ohtaki (Japan)—reappointment, Prof. G. M. Schneider (Germany)—reappointment, and Prof. P. S. Steyn (South Africa)—reappointment.

Prof. S. Chandrasekaran (India)

Prof. S. Chandrasekaran was born on 15 November 1941.

Education and Career: Prof. Chandrasekaran earned his B.Sc. (1965), M.Sc. (I rank, 1967), and Ph.D. (1972) degrees at Madras University in Madras, India. His doctoral supervisor was Prof. S. Swaminathan in the Department of Chemistry. He held postdoctoral fellowships/associateships in the laboratories of Prof. E. J. Corey at Harvard University, Cambridge, MA, USA (1973–75 and 1976–77) and Dr. J. A. Edwards at Syntex Research, Palo Alto, CA, USA (1975–76). From 1978 to 1989, he worked in the department of chemistry at the Indian Institute of Technology, Kanpur, India, where he served as Lecturer (1978–80), Assistant Professsor (1981–85), and Professor (1985–89). He has been a visiting professor at Australian National University, Canberra (1985); University of Karlsruhe, Germany (1987); RWTH, Aachen, Germany (1992); and University Paris Sud, France (1998). Prof. Chandrasekaran is currently Amrut Mody Chair Professor of Chemistry and Chairman of the department of organic chemistry at the Indian Institute of Science, Bangalore, India.

Prof. S. Chandrasekaran

Research Interests: Prof. Chandrasekaran's research has been concerned with development of new synthetic methodology, synthesis of natural products, organometallic chemistry, study of reaction mechanisms, and organic materials.

Offices and Assignments: Prof. Chandrasekaran has served as: Associate Editor, Proceedings of the Indian Academy of Sciences (Chemical Sciences, 1991–present); Member, Sectional Committee, Chemistry, Indian Academy of Sciences (1991–98); Editor, 10th International Conference on Organic Synthesis, Bangalore (1994); Member, Editorial Board, *Indian Journal of Chemistry* (1995–present); Member, Program Advisory Committee in Organic Chemistry, Department of Science and Technology (1995–present); Member, Research Committee on Chemistry and Technology, Council of Scientific and Industrial Research (CSIR, 1995–present); Member, Council of Indian National Science Academy (1998–2000); and Convenor, National Symposium in Chemistry, Bangalore (1999). He also sits as a member on the research councils of a num-

ber of CSIR laboratories and as a member on the boards of studies of a number of universities in India. Prof. Chandrasekaran has delivered more than 150 invited lectures and seminars at various national and international meetings, universities, and research institutions in India and overseas.

IUPAC Activities: Prof. Chandrasekaran served on the IUPAC Committee on Nomenclature of Organic Chemistry (1993–95) and is currently on India's IUPAC National Committee (1997–2000).

Awards: Prof. Chandrasekaran received the Basudev Banerji Medal and Prize from the Indian Chemical Society in 1988 and the Shanti Swarup Bhatnagar Prize from CSIR in 1989. He was Prof. A. B. Kulkarni Endowment Lecturer at the University of Bombay in 1992, Prof. N. Venkatsubramanian Endowment Lecturer at the University of Madras in 1993, Prof. T. R. Seshadri Memorial Lecturer at Delhi University in 1998, and Prof. Siddappa 60th Birthday Commemoration Lecturer at Dharward University in 1999. Prof. Chandrasekaran was appointed Research Fellow of the Indian National Science Academy (1985–87), Fellow of the Indian Academy of Sciences (1989), and Fellow of the Indian National Science Academy (1992).

Prof. Pavel Kratochvil (Czech Republic)
See above.

Prof. G . Jeffery Leigh (UK)
Prof. Leigh was born on 4 September 1934, and is married with two children.

Education and Career: Studied at University of London, King's College, graduating as top student in 1956, and taking his Ph.D. in silicon chemistry three years later. Appointed Lecturer in Chemistry in the Faculty of the University of Manchester Institute of Science and Technology (UMIST) in 1959, where he remained for six years, though one was spent on a sabbatical year as a CIBA fellow with Prof. E. O. Fischer at the University of Munich, Germany.

In 1965, he moved to the University of Sussex, to join the Nitrogen Fixation Unit recently established by Prof. Joseph Chatt. As a coordination chemist, he studied the complex chemistry of dinitrogen as a model for the chemistry of nitrogenases. Under his direct supervision, the chemistry group at the unit became the leading laboratory on dinitrogen chemistry, and Prof. Leigh has now published some 250 scientific papers and supervised about 25 doctoral students. He is probably the world's leading authority on dinitrogen complex chemistry. He left the Nitrogen Fixation Laboratory as Deputy Director in 1994 to become the first professor of environmental science in the University of Sussex. His work has been widely recognized, not least by Her Majesty the Queen by the award of an OBE for services to science. He has lectured in universities and at conferences all over the world, in English or in French, German, or Spanish when appropriate.


Prof. G . Jeffery Leigh

Related Professional Activities: Prof. Leigh has been involved in editing and publishing for many years, and he has acted as a deputy editor of the *Journal of Organometallic Chemistry*, and as Chairman of the Editorial Board of *Dalton Transactions.* He has also served the boards of *Inorganic Biochemistry, Inorganica Chimica Acta*, and *Reaction Kinetics and Catalysis Lectures*. Within the Royal Society of Chemistry, Prof. Leigh was instrumental in setting up the current system of editorial boards, and was founder chairman of the Inorganic Biochemistry Discussion Group. He has also been Vice President of the Dalton Division of the Royal Society of Chemistry.

IUPAC Offices and Assignments: Prof. Leigh has been involved in IUPAC activities for about 25 years, and has accumulated a wealth of experience at all levels of the organization. He joined the Commission for the Nomenclature of Inorganic Chemistry in the late 1960s, and served as associate and titular member before becoming secretary for eight years. His major achievement was editing the 1990 version of *Nomenclature of Inorganic Chemistry*. Subsequently, he moved to the Inorganic Division Committee, where he has been Secretary and Vice President for four-year terms and has recently finished a two-year term as President. He is editor of the recently published IUPAC book *Principles of Chemical Nomenclature*, written jointly with H. A. Favre and W. V. Metanomski, and was the IUPAC representative responsible for arranging the compromise proposal for the names of elements 104–109 that has now been adopted. He also has collected the material to be used in the adjudication over the names of elements 110–112.

Prof. Nicole J. Moreau (France)
Prof. Nicole Jeanne Moreau was born on 3 July 1941 in Perpignan, France. She is married with 2 children.

Education and Career: Prof. Moreau studied mathematics, physics, and chemistry (1958–61) at the University of Paris (Sorbonne), where she received her bachelor's degree in physical sciences and, subsequently, an M.S. in physical chemistry in 1961. She began work as a research scientist in the chemistry laboratory of the Ecole Polytechnique in 1961, and she ob-

Prof. Nicole J. Moreau

tained a doctorate in physical sciences (chemistry distinction) in 1967 from Orsay University, where the laboratory had been transferred and where she remained until 1971. Her thesis concerned synthesis of di- and triterpenes using NMR and mass spectroscopic approaches; she then moved to monosaccharide chemistry. In 1972, she joined the chemistry laboratory of Prof. Le Goffic at Ecole Normale Supérieure in Paris, where she worked until 1993. In 1973, she was a postdoctoral fellow in the laboratory of Dr. J. S. Pitton at the Medical Microbiology Institute in Geneva, Switzerland. Prof. Moreau began service with the Centre National de la Recherche Scientifique (CNRS) in 1962 and was successively appointed Attaché de Recherche (1963–67), Chargé de Recherche (1968–78), Directeur de Recherche (1979–92), and Full Professor at University Paris 6 (Pierre and Marie Curie), where she has served since 1993. She has held an appointment as Professor at the Laboratory of Molecular Research on Antibiotics, University Paris 6, since 1994.

Research Interests: Prof. Moreau successfully designed the first purification, using affinity chromatography, of enzymes that inactivate aminoglycoside antibiotics. Her research is at the interface of chemistry and life sciences, and she continues to study the mode of action of antibiotics and the way bacteria can resist them.

Offices and Assignments: Member of French Chemical Society (1963–present); Chargé de Mission, Ministere de la Recherche—Adjoint du chef du département "Médicaments" (1984–89); Member of French Microbiology Society (1987–present); Secretary (1989–97) and President (1997–1999) of EUCHEM (European Chemistry); President of GESA (Study Group of Structure–Activity Relationships, 1990); Member of French Biochemistry and Molecular Biology Society (1991–present); Chargé de Mission, Department of Chemical Sciences—CNRS (1993–1997); Secretary of the Maison de la Chimie Foundation International Prize (1994–present); Directeur Scientifique Adjoint, Department of Chemical Sciences—CNRS (1998–present).

IUPAC Activities: Prof. Moreau has served as vice president of the French National Committee for Chemistry (IUPAC NAO) since 1994 and as a member of the French National Committee of Chemistry Delegation at IUPAC since 1995.

Awards: Prof. Moreau was awarded the Prix de l'Académie de Pharmacie, Paris, in 1974.

Prof. Oleg M. Nefedov (Russia)

Prof. Oleg Matveyevich Nefedov was born in Dmitrov, Moscow Region, 25 November 1931. He is married with two children.

Education and Career: Prof. Nefedov graduated from the D. I. Mendeleev Institute of Chemical Engineering, Moscow, in 1954 and undertook graduate courses at the Mendeleev Institute of Chemical Technology, Moscow, between 1954 and 1957. In 1957, he became a candidate of sciences (Ph.D.) from the same institute, and in 1967 he became Doctor of Sciences (Organic Chemistry), N. D. Zelinsky Institute of Organic Chemistry, Moscow.

From 1957 to 1968, Prof. Nefedov was a research scientist at the Zelinsky Institute of Organic Chemistry, Moscow. Between 1959 and 1960, he held a postdoctoral fellowship at Heidelburg University, Germany, in the laboratory of Prof. Georg Wittig, and from 1965 to 1966 he was a postdoctoral fellow at the Free University in Brussels, Belgium. Since 1971, he has been a visiting professor at Pennsylvania State University, University Park, PA, USA. He has also held visiting professorships at Kyoto University in Japan (1976), at the University of Paris in Orsay, France (1981), and at Hamburg University in Germany (1984).

In 1968, Prof. Nefedov was appointed Head of the Laboratory of Carbene and Small-Ring Chemistry, Zelinsky Institute of Organic Chemistry, and Professor of Chemistry, Zelinsky Institute. In 1987, after serving as a corresponding member for eight years, Prof. Nefedov was made a full member (academician) of the USSR Academy of Sciences, subsequently the Russian Academy of Sciences. He became Vice President of the USSR Academy of Sciences (now Russian Academy of Sciences) in 1988. From 1988 to 1991, he served as Academician-Secretary (Head) of the Division of General and Technical Chemistry of the USSR Academy of Sciences. Since 1990, Prof. Nefedov has been Chairman of the Russian Academy of Sciences Higher Chemical College, and since 1996 he has served as Chairman of the National Committee of Russian Chemists. From 1992 to the present, Prof. Nefedov has been Supervisor of the National Scientific Technical Program "Ecologically Safe and Resource-Saving Processes of Chemistry and Chemical Technology".

Prof. Oleg M. Nefedov

Prof. Nefedov is editor-in-chief of a number of journals, namely, *Mendeleev Communications* (since 1990), Russian Chemical Bulletin (*Izvestiya Akademii Nauk.*

Seriya Khimicheskaya, since 1991), and the Russian Chemical Reviews (*Uspekhi khimii,* since 1995).

Prof. Nefedov is an organic chemist with special interests in physical organic chemistry, small-ring chemistry, organic synthesis, and organometallic chemistry. He has authored numerous scientific papers and books on organic and physical chemistry, chemical aspects of ecology, and social problems of science.

Honorary Degrees and Fellowships: Fellow of the Collegium Ramazzini, Bologna, Italy (1990–present); Honorary Fellow of the Royal Society of Chemistry, London, UK (1991–present); Member of the Academia Europaea, London, UK (1991–present); Member of the Academia Scientiarum et Artium Europaea, Salzburg, Austria (1991–present); Foreign Member of the Georgia Academy of Sciences (1996–present); Member of the Asia-Pacific Academy of Materials (APAM), Bangalore, India (1997–present).

Awards: USSR State Prize, Moscow, 1983 and 1990; Zelinsky Prize, Moscow, 1987; Prize of the USSR and Hungarian Academies of Sciences, Moscow, 1988; Semenov Prize, Moscow, 1991; Karpinsky Hamburg, 1993; and D. I. Mendeleev Gold Medal, Moscow, 1998.

IUPAC Offices and Assignments: Titular Member of the Commission on Physical Organic Chemistry (III.2), 1981–91, and Associate Member of the Commission on Physical Organic Chemistry, 1991–93. From 1981 on, Prof. Nefedov has regularly participated in all IUPAC General Assemblies. He also takes part in many IUPAC and other international conferences on organic chemistry, physical organic chemistry, organosilicon chemistry, and organometallic chemistry as a plenary or invited lecturer and as a member of international advisory committees.

Prof. Hitoshi Ohtaki (Japan)

Prof. Ohtaki was born 16 September 1932 in Tokyo.

Education and Career: Prof. Ohtaki graduated from the Faculty of Science, Nagoya University in 1955 and obtained M.Sc. and Dr.Sc. degrees in 1957 and 1961, respectively, from Nagoya University. He studied complex equilibria under Prof. L. G. Sillen, Royal Institute of Technology, Stockholm, Sweden, as a postdoctoral research fellow (1961 to 1964). After graduate school, Prof. Ohtaki was appointed Research Associate, Tokyo Institute of Technology (1959); Lecturer (1965) and then Associate Professor (1967), Nagoya University; Associate Professor (1970) and then Professor (1973), Tokyo Institute of Technology; Professor (1988) of the Institute for Molecular Science of the Okazaki National Research Institutes, Director of the Coordination Chemistry Laboratories of the Institute for Molecular Science, and also Dean of the School of Mathematical and Physical Science of the Graduate University for Advanced Studies. He was named Emeritus Professor of the Tokyo Institute of Technology and the Graduate University for Advanced Studies in 1993. He was appointed a professor at Ritsumeikan University in 1993 and Director of the Institute of Science and Engineering at Ritsumeikan University in 1994. Over the course of his career, Prof. Ohtaki has served as a visiting professor in Sweden, Austria, Thailand, and the Philippines.

Prof. Hitoshi Ohtaki

Awards: Prof. Ohtaki received the Matsunaga Prize in 1976, the Tejima Memorial Award in 1989, the Takei Prize of the Electrochemical Society of Japan in 1990, and the National Medal of Purple Ribbon in 1995.

IUPAC Offices and Assignments: Prof. Ohtaki was a member of the Commission on Equilibrium Data (V.6) of the Analytical Chemistry Division of IUPAC from 1975 to 1993 (Associate Member, 1975–79; Titular Member, 1979–85; Secretary, 1981–83**;** Chairman, 1983–85; National Representative, 1985–89; and Coopted Member of the Division 1989–93). He was also a member of the Inoganic Chemistry Division from 1987 to 1991. He is currently a bureau member of IUPAC, as well as a member of the Executive Committee.

Related Professional Activities: Prof. Ohtaki has been President of the Federation of Asian Chemical Societies since 1997, was formerly President of the Japanese Society of Coordination Chemistry, and also previously served as President of the Association of Japanese Solution Chemists, for which he is now an adviser. He is the chairman of the Committee for International Affairs of the Chemical Society of Japan. Prof. Ohtaki organized the 6th International Symposium on Solute–Solute–Solvent Interactions in 1982 at Minoo, Osaka, Japan. He was the chairman of the 2nd and 4th Eurasia Conferences on Chemical Sciences held in Seoul, Korea (1992) and Kuala Lumpur, Malaysia (1994), and, as Secretary General, he organized the 30th International Conference on Coordination Chemistry held in Kyoto, Japan (1994). He is the representative of the Chemical Society of Japan for the Federation of Asian Chemical Societies and the vice-chairman of the 1995 International Chemical Congress of Pacific Basin Societies (PACIFICHEM'95). He is also the chairman of the 26th International Conference on Solution Chemistry taking place in Fukuoka, Japan in July of 1999. Prof. Ohtaki is a member of the editorial boards of *J. Molecular Liquids, J. Solution Chemistry, J. Brazilian Chemical Society,* and *J. Malaysian Chemical Society*. He is a member of the Science Council of Japan (Vice President of Division 4, Natural Sciences).

Research Activities and Interests: Prof. Ohtaki's re-

search interests cover various areas of solution chemistry and coordination chemistry, especially structural chemistry of solutions, including solvents, solvated ions, and complexes existing in solution by means of solution X-ray diffraction. He has also employed EXAFS and neutron diffraction methods in his investigations. He has undertaken thermodynamic studies on solution equilibria; his molecular dynamics simulation studies on dissolution and nucleation processes of crystals have shed new light on the dynamic chemistry of ionic solvation and crystal growth. Recently, his interests are focusing on structural studies of supercritical water and other liquids and solvation structures of ions in supercritical fluids. He has recently been determining structures of short-lived reaction intermediates by the stopped-flow-EXAFS method newly developed by his group.

Prof. Ohtaki has published more than 300 research papers and reviews. He has authored and coauthored five books, and edited and coedited three more books. Prof. Ohtaki has authored chapters in more than 17 books. His book *Chemistry of Reactions in Solutions* has been translated into Chinese. He has translated into Japanese books written by Prof. Viktor Gutmann of Austria and by Prof. Kalman Burger of Hungary.

Prof. Gerhard M. Schneider (Germany)
Prof. Gerhard M. Schneider was born on 7 May 1932 in Neufechingen, Saarbrücken, Germany.

Education and Career: Prof. Schneider studied chemistry at the University of Saarbrücken (1951–54) and at the University of Göttingen (1954–56), where he obtained his diploma degree in 1956 and his Ph.D. in 1959. From 1961 to 1969, he did research and teaching in physical chemistry at the University of Karlsruhe, where he obtained his habilitation in 1965. He was a professor of chemistry at the University of Bochum, Germany, from 1969 to 1997, and he has been an emeritus professor there since then. Prof. Schneider twice served the department of chemistry as a dean and participated on a number of department and university committees for many years.

Research Interests: Prof. Schneider's main fields of research have been the thermodynamics of pure substances (with emphasis on phase equilibria) and of mixtures at high pressures, separation methods involving near-critical or supercritical fluids (supercritical fluid extraction, SFE; supercritical fluid chromatography, SFC), thermal high-pressure methods of analysis (differential thermal analysis, DTA; differential scanning calorimetry, DSC), and pressure-jump relaxation investigations (e.g., on the kinetics of phase separation). His most recent interests include phase equilibria of binary, ternary, and quaternary mixtures with at least one supercritical component, and the spectroscopic study of such mixtures. He has published more than 250 papers (including numerous review articles) in refereed journals, and presented more than 200 contributions (including many plenary and invited lectures) at international scientific meetings.


Prof. Gerhard M. Schneider

Prizes: Prof. Schneider was awarded the Nernst Prize of the Deutsche Bunsengesellschaft für Physikalische Chemie in 1969. He was Rossini Lecturer at the IUPAC Conference on Chemical Thermodynamics at Como, Italy in 1990, and Wilhelm Jost Lecturer of the Deutsche Bunsengesellschaft für Physikalische Chemie in 1994–95.

IUPAC Offices and Assignments: Prof. Schneider has been a Member (1973–77), Secretary (1977–81), and Chairman (1981–85) of the Commission on Thermodynamics (I.2). He has also been a Member (1981–85) and Secretary (1985–87) of the Physical Chemistry Division Committee and Vice President (1987–89) and President (1989–91) of the Physical Chemistry Division. Prof. Schneider has been an IUPAC Bureau member since 1996.

Related Professional Activities: Prof. Schneider has been a member of the advisory board of the *Journal of Thermodynamics* (Member, 1975–96; Chairman, 1980–90). He has also been a member of the editorial board of *Fluid Phase Equilibria* (1977–90). Since 1988, Prof. Schneider has been a member of the editorial board of the *Journal of Supercritical Fluids*.

Prof. Pieter S. Steyn (South Africa)
See above.

Report of IUPAC Activities: 1998

Executive Director's Report

1998 was an active year for IUPAC. Major events included adoption of a strategic plan and approval by the Bureau at its meeting in September of the recommendations from the Executive Committee regarding reorganization of the Union's scientific work. This restructuring will change the management of the Union's scientific work from one based on permanent commissions to one based on projects. Details can be found on the IUPAC web site, http://www.iupac.org. The Union's regular activities continued with the publication of 23 recommendations and reports in its official journal, *Pure and Applied Chemistry*, sponsorship of 27 symposia and conferences in 1998, publication of six books, and publication of six issues of the Union's news magazine, *Chemistry International*. Highlights are noted below. Lists of published recommendations and reports, published conference proceedings, and sponsored conferences are attached to this report. All of the special reports mentioned in the highlights below are available on the IUPAC web site.

- IUPAC adopted a strategic plan.
- The Strategy Development and Implementation Committee issued a report on the future management of the Union's scientific work.
- A joint meeting was held with the African Association of Pure and Applied Chemistry in Durban, South Africa. The report of this meeting was printed and distributed by IUPAC to interested parties.
- A report on chemistry in Africa was written under IUPAC–UNESCO sponsorship, and printed and distributed by IUPAC.
- A special issue of *Pure and Applied Chemistry* was produced on the topic of environmental estrogens.
- CHEMRAWN XI was held from 15–20 March 1998 in Montevideo, Uruguay. The subject of the conference was "Latin American Symposium on Environmental Analytical Chemistry".
- A Workshop on Environmental Analytical Chemistry was held in conjunction with CHEMRAWN XI. The workshop was organized by the IOCD and partly funded by an ICSU grant to IUPAC.
- The IUPAC web site was greatly expanded. The web site contains not only all the material in the IUPAC Handbook but also a list and description of the current projects being worked on by IUPAC Commissions and Committees, current contact information for members of IUPAC bodies, a complete list of IUPAC publications, title pages of recent issues of *Pure and Applied Chemistry*, and the complete text of recent issues of *Chemistry International*.
- Mailing lists have been set up to allow communication by e-mail with members of IUPAC bodies, National Adhering Organizations, and other groups affiliated with IUPAC.
- Twenty-three reports and recommendations were published in *Pure and Applied Chemistry*.
- Twenty-seven IUPAC-sponsored symposia and conferences were held.
- New editions of the *Compendium of Chemical Terminology* and the *Compendium of the Terminology of Analytical Chemistry* were published.
- Six books were published.
- The proceedings of 16 IUPAC-sponsored symposia and conferences were published in *Pure and Applied Chemistry*.
- The proceedings of six symposia were published in *Macromolecular Chemistry and Physics*.
- A project approval process was developed and approved, and is being implemented in 1999.
- *Chemistry International* continues to be supplied at no charge to 395 chemists in 21 developing countries. A list of countries participating in this program is attached.
- IUPAC added three new National Adhering Organizations in 1998: the Chemical Society of Pakistan, the Colegio de Químicos de Puerto Rico, and the Union of Yugoslav Chemical Societies.
- IUPAC added two new Observer organizations in 1998: the Sociedad Cubana de Quimica and the Pancyprian Union of Chemists.

John W. Jost
IUPAC Executive Director

Appendix to Executive Director's Report

Following are lists of IUPAC's 1998 publications, sponsored conferences, and memberships in the Affiliate Members Program:

Pure and Applied Chemistry

Reports and Recommendations

Nomenclature of Phase Diagrams with Particular Reference to Vapor–Liquid and Liquid–Liquid Equilibria (I.2). *Pure Appl. Chem.* 70(11), 2233–2257 (1998).

Spectroelectrochemistry: A Survey of *In Situ* Spectroscopic Techniques (I.3). *Pure Appl. Chem.* 70(7), 1395–1414 (1998).

Guidelines for Presentation of Methodological Choices in the Publication of Computational Results. A. *Ab Initio* Electronic Structure Calculations (I.5). *Pure Appl. Chem.* 70(4), 1015–1018 (1998).

Specification of Components, Methods, and Parameters in Fourier Transform Spectroscopy by Michelson and Related Interferometers (I.5). *Pure Appl. Chem.* 70 (10), 2039–2045 (1998).

Recommendations for the Presentation of NMR Structures of Proteins and Nucleic Acids (I.7). *Pure Appl. Chem.* 70(1), 117–142 (1998).

History of the Recommended Atomic-Weight Values from 1882 to 1997: A Comparison of Differences from Current Values to the Estimated Uncertainties of Earlier Values (II.1). *Pure Appl. Chem.* 70(1), 237–257 (1998).

Isotopic Compositions of the Elements 1997 (II.1). *Pure Appl. Chem.* 70(1), 217–235 (1998).

Nomenclature of Fused and Bridged Fused Ring Systems (III.1). *Pure Appl. Chem.* 70(1), 143–216 (1998).

Phane Nomenclature: Part I: Phane Parent Names (III.1). *Pure Appl. Chem.* 70(8), 1513–1545 (1998).

Guidelines for Publication of Research Results from Force-Field Calculations (III.2). *Pure Appl. Chem.* 70(10), 2047–2049 (1998).

Definitions of Terms Relating to the Non-Ultimate Mechanical Properties of Polymers (IV.1). *Pure Appl. Chem.* 70(3), 701–754 (1998).

Critically Evaluated Propagation Rate Coefficients in Free Radical Polymerizations—II. Alkyl Methacrylates (IV.2). *Pure Appl. Chem.* 70(7), 1415–1418 (1998).

Rheological and Mechanical Properties of Poly(α-methylstyrene-*co*-acronytrile)/poly(methyl methacrylate) Blends in Miscible and Phase Separated Regimes of Various Morphologies—I. Characterization of Constituents, Blend Preparation, and Overview on Blend Morphology (IV.2.1). *Pure Appl. Chem.* 70(8), 1547–1566 (1998).

Guidelines for Calibration in Analytical Chemistry—Part 1: Fundamentals and Single Component Calibration (V.1). *Pure Appl. Chem.* 70(4), 993–1014 (1998).

Determination of Tin Species in Environmental Samples (V.2). *Pure Appl. Chem.* 70(10), 2051–2064 (1998).

The Determination of Iodine Species in Environmental and Biological Samples (V.2). *Pure Appl. Chem.* 70(8), 1567–1584 (1998).

The Determination of Mercury Species in Environmental and Biological Samples (V.2). *Pure Appl. Chem.* 70(8), 1585–1615 (1998).

Nomenclature, Symbols, Units, and Their Usage in Spectrochemical Analysis—XIV. Laser-Based Atomic Spectroscopy: Proposal for a New Notation for Spectrochemical Processes (V.4). *Pure Appl. Chem.* 70(2), 517–526 (1998).

Analytical Aspects of Chemically Modified Electrodes: Classification, Critical Evaluation, and Recommendations (V.5). *Pure Appl. Chem.* 70(6), 1301–1318 (1998).

pH Measurements in Non-Aqueous and Mixed Solvents: Predicting pH(PS) of Potassium Hydrogen Phthalate for Alcohol–Water Mixtures (V.5). *Pure Appl. Chem.* 70(7), 1419–1422 (1998).

Bound Xenobiotic Residues in Food Commodities of Plant and Animal Origin, Pesticides Report 40 (VI.4). *Pure Appl. Chem.* 70(7), 1423–1447 (1998).

Glossary of Terms Used in Medicinal Chemistry (VII.M.1). *Pure Appl. Chem.* 70(5), 1129–1143 (1998).

Natural and Anthropogenic Environmental Oestrogens: The Scientific Basis for Risk Assessment. *Pure Appl. Chem.* 70 (9), 1617–1865 (1998).

Conferences

Biodiversity and Bioresources: Conservation and Utilization, International Conference on. *Pure Appl. Chem.* 70(11), 2065–2145 (1998).

Bioinorganic Chemistry, 8th International Conference on (ICBIC 8). *Pure Appl. Chem.* 70(4), 855–991 (1998).

Bioorganic Chemistry, 4th International Symposium on (ISBOC-4). *Pure Appl. Chem.* 70(1), 1–116 (1998).

Chemical and Biological Thermodynamics, International Conference on. *Pure Appl. Chem.* 70(3), 579–700 (1998).

Chemistry of Natural Products, 20th IUPAC Symposium on. *Pure Appl. Chem.* 70(2), 259–438 (1998).

CHEMRAWN XI Latin American Symposium on Environmental Chemistry. *Pure Appl. Chem.* 70(12), 2259–2336 (1998).

Coordination Chemistry, 32nd International Conference on. *Pure Appl. Chem.* 70(4), 755–854 (1998).

Degradation Processes in the Environment, IUPAC Symposium on. *Pure Appl. Chem.* 70(7), 1319–1394 (1998).

High-Temperature Materials Chemistry, 9th International Conference on (HTMC IX). *Pure Appl. Chem.* 70(2), 439–515 (1998).

Medicinal Chemistry Symposium, AFMC International (AIMECS 97). *Pure Appl. Chem.* 70(3), 527–577 (1998).

Organic Synthesis, 12th International Conference on (ICOS-12). *Pure Appl. Chem.* 70(8), 1449–1512 (1998).

Organometallic Chemistry Directed Towards Organic Synthesis, 9th IUPAC Symposium on (OMCOS-9). *Pure Appl. Chem.* 70(5), 1019–1128 (1998).

Photochemistry, 17th IUPAC Symposium on. *Pure Appl. Chem.* 70(11), 2147–2232 (1998).

Physical Organic Chemistry, 14th International Conference on (ICPOC-14). *Pure Appl. Chem.* 70(10), 1933–2038 (1998).

Plasma Chemistry, 13th International Symposium on (ISPC-13). *Pure Appl. Chem.* 70(6), 1145–1228 (1998).

Polymer Science and Technology, IUPAC International Symposium on Advances in (Macro'98). *Pure Appl. Chem.* 70(6), 1229–1299 (1998).

Solubility Phenomena, 8th International Symposium on *Pure Appl. Chem.* 70(10), 1867–1932 (1998).

Supramolecular Science and Technology, 1st International Conference on (1-ICSS&T). *Pure Appl. Chem.* 70(12), 2337–2408 (1998).

Macromolecular Symposia

38th Microsymposium on Recycling of Polymers; Prague, Czech Republic, July 14–17, 1997; Ed. Kahovec, J.; *Macromolecular Symposia* Vol. 135, 1998.

International Symposium on Ionic Polymerization; Paris, France, July 7–11, 1997; Eds. Vairon, J.-P., Cheradame, H., Hemery, P., and Sepulchre, M.; *Macromolecular Symposia* Vol. 132, 1998.

7th International Symposium on Macromolecule-Metal Complexes; Noordwijkerhout, the Netherlands, October 6–10, 1997; Ed. Driessen, W. L.; *Macromolecular Symposia* Vol. 131, 1998.

International Symposium on Molecular Architecture for Degradable Polymers: Molecular Design of Polymeric Materials of Tomorrow; Stockholm, Sweden, June 10–13, 1997; Eds. Albertsson, A.-C. and Karlsson, S.; *Macromolecular Symposia* Vol. 130, 1998.

12th Bratislava IUPAC International Conference on Polymers: Modified Polyolefins for Advanced Polymeric Materials; Bratislava, Slovak Republic, August 25–28, 1997; Ed. Borsig, E.; *Macromolecular Symposia* Vol. 129, 1998.

IUPAC International Symposium on New Approaches in Polymer Synthesis and Macromolecular Formation; St. Petersburg, Russia, June 16–20, 1997; Eds. Bilibin, A.Yu. and Skorokhodov, S. S.; *Macromolecular Symposia* Vol. 128, 1998.

Books

Atmospheric Particles, Series on Analytical and Physical Chemistry of Environmental Systems Vol. 5; Eds. Harrison, R. M. and van Grieken, R.; John Wiley & Sons, 1998 [ISBN 0-471-95935-9].

Compendium of Analytical Nomenclature (Definitive Rules 1997) - The Orange Book, 3rd Edition; Inczedy, J., Lengyel, T., and Ure, A. M.; Blackwell Science, 1998 [ISBN 0-86542-615-5].

IUPAC Handbook 1998–99; Blackwell Science, 1998 [ISBN 0-632-05276-7].

Nonlinear Spectroscopy for Molecular Structure Determination; Eds. Field, R. W., Hirota, E., Maier, J. P., and Tsuchiya S.; Blackwell Science, 1998 [ISBN 0-632-04217-6].

Principles of Chemical Nomenclature: A Guide to IUPAC Recommendations; Leigh, G. J., Favre, H. A., and Metanomski, W.V.; Blackwell Science, 1998 [ISBN 0-86542-685-6].

Structure and Surface Reactions of Soil Particles, Series on Analytical and Physical Chemistry of Environmental Systems Vol. 4; Eds. Huang, P. M., Senesi, N., and Buffle, J.; John Wiley & Sons, 1998 [ISBN 0-471-95936-7].

1998 IUPAC-Sponsored Conferences

Calorimetry and Chemical Thermodynamics, International Symposium on; Campinas, Brazil, 05-Apr-98

Carbohydrate Symposium, 19th International; San Diego, CA, USA, 09-Aug-98

Chemical Education: Chemistry and Global Environmental Change, 15th International Conference on; Cairo, Egypt, 09-Aug-98

Chemical Thermodynamics, 15th International Conference on; Porto, Portugal, 26-Jul-98

Chemistry Conference in Africa, 7th International; Durban, South Africa, 06-Jul-98

CHEMRAWN XI Latin American Symposium on Environmental Chemistry; Montevideo, Uruguay, 15-Mar-98

Coordination and Organometallic Chemistry of Germanium, Tin, and Lead, 9th International Conference on; Melbourne, Australia, 20-Sep-98

Coordination Chemistry, 33rd International Conference on; Florence, Italy, 31-Aug-98

Cuban Chemical Society, 3rd International Congress; Havana, Cuba, 01-Dec-98

Degradation Processes in the Environment, IUPAC Symposium on; Dubrovnik, Croatia, 24-May-98

Electrochemistry, 49th Annual Meeting of International Society of; Kitakyushu, Japan, 13-Sep-98

Excitonic Processes in Condensed Matter, 3rd International Conference on (EXCON'98); Boston, MA, USA, 02-Nov-98

Heteroatom Chemistry, 5th International Conference on; London, Ontario, Canada, 05-Jul-98

MACRO '98: 37th International Symposium on Macromolecules; Gold Coast, Australia, 13-Jul-98

Macromolecules: Mechanical Behavior of Polymeric Materials, 18th Discussion Conference on; Prague, Czech Republic, 20-Jul-98

Medicinal Chemistry, 15th International Symposium on; Edinburgh, Scotland, 06-Sep-98

Natural Products, 21st IUPAC International Symposium on Chemistry of; Beijing, China, 11-Oct-98

Novel Aromatic Compounds, 9th International Symposium on (ISNA-9); Hong Kong, China, 02-Aug-98

Organic Synthesis, 12th International Conference on (12-ICOS); Venice, Italy, 28-Jun-98

Pesticide Chemistry, 9th IUPAC International Congress of; London, England, 02-Aug-98

Photochemistry, 17th IUPAC Symposium on; Sitges, Spain, 19-Jul-98

Physical Organic Chemistry, 14th International Conference on (ICPOC-14); Florianopolis, Brazil, 21-Aug-98

Polymer Science and Technology (MACRO '98), IUPAC International Symposium on Advances in; Madras, India, 05-Jan-98

Solubility Phenomena, 8th International Symposium on; Niigata, Japan, 05-Aug-98

Supramolecular Science and Technology, 1st International Conference on (1-ICSS&T); Zakopane, Poland, 27-Sep-98

Trace Element Speciation in Biomedical, Nutritional, and Environmental Sciences, 1st International Conference on; Neuherberg/Munchen, Germany, 04-May-98

Participants in IUPAC-Sponsored Affiliate Membership Program

Asociación Química Argentina	Argentina	21
Ateneo de Manila University	Philippines	25
Bangladesh Chemical Society	Bangladesh	25
Brazilian Chemistry Committee for IUPAC	Brazil	1
Chemical Society of Cameroon	Cameroon	10
Chemical Society of Ethiopia	Ethiopia	25
Chemical Society of Nepal	Nepal	25
Chemical Society of Pakistan	Pakistan	25
Chemical Society of the West Indies - Trinidad	Trinidad	25
Chemical Society of Uruguay	Uruguay	6
Chemical Society of West Indies - Jamaica	Jamaica	15
Chinese Chemical Society	China	25
Colegio Panameño de Químicos	Panama	25
Ghanaian Chemical Society	Ghana	25
Indian National Science Academy	India	14
Institute of Chemistry, Ceylon	Sri Lanka	17
Pontifica Universidad Católica del Ecuador	Ecuador	7
Roumanian Academy of Chemical Sciences	Romania	25
Sociedad Chilena de Química	Chile	9
Sociedad Cubana de Química	Cuba	25
Türkiye Kimya Dernegi	Turkey	20
TOTAL		395

37th International Symposium on Macromolecules (MACRO '98), 13–17 July 1998, Gold Coast, Australia

This meeting was the IUPAC World Polymer Congress '98, and with 1 060 participants from 46 countries it had truly international representation. Three hundred sixty of the attendees were from Australia, and they made all participants very welcome.

Lecture rooms and poster areas based in the Conrad Jupiters Hotel, Gold Coast, Queensland were excellent, and the facilities were serviced efficiently. Accommodations were provided in the host hotel and in other hotels in the vicinity of the sea coast. As Gold Coast is a holiday area and the Congress was held in the off-season, convenient, excellent accommodations were plentiful and reasonably priced.

The opening ceremony was quite impressive with 46 national flags around the room. There were five plenary lectures, 540 contributed papers, 430 posters, and three workshops. Poster sessions and lectures were all well attended, discussions were lively, and the symposium was very active scientifically. Outstanding speakers included E. Rizzardo, CSIRO, Clayton South, Australia; W. J. Feast, University of Durham, England, UK; and A. R. Khokhlov, Moscow State University, Russia.

The social program was extremely well organized, with tours offered each day to the surrounding countryside. The welcoming evening and symposium banquet were outstanding. A memorial dinner for the late Professor J. H. O'Donnell, original founder and designer of the symposium, was a moving tribute.

Symposium Chairman Professor R. Gilbert and Organizing Committee Secretary Dr. P. Pomery are to be commended for presenting a Congress of the highest quality in terms of topics, speakers, and organization.

Professor Robert F. T. Stepto
University of Manchester
Vice President, IUPAC Macromolecular Division (IV)

18th Discussion Conference on Mechanical Behavior of Polymers, 20–23 July 1998, Prague, Czech Republic

This conference was the 56th meeting in the series of Prague Meetings on Macromolecules, organized by the Institute of Macromolecular Chemistry of the Academy of Sciences of the Czech Republic under the auspices of the IUPAC Macromolecular Division.

The aim of the conference was to provide a forum for both academic and industrial experts in the mechanical behavior of solid polymers, both synthetic and natural. Special emphasis was placed on structural understanding of macroscopic mechanical behavior.

Conference topics included the following:

- interrelations between structural hierarchy and mechanical behavior
- analysis of strength and toughness for composition and blends
- effects of degradation on mechanical properties
- new experimental approaches, including online structural characterization in mechanical testing, acoustic emission, fractoemission, and related techniques

These topics were covered in 10 plenary (main) lectures, 19 special lectures, and 74 poster contributions. In addition, 2 panel discussions were organized on:

- mechanical behavior of high-performance polymers (discussion leader: A. Hiltner, USA), and
- strength and toughness of oriented polymer systems, composites, and blends (discussion leader: H. H. Kausch, Switzerland)

The program committee, with Dr. Miroslav Raab as Conference Chairman, organized a very interesting scientific program with many well-known speakers. Attendees included 127 participants from 24 countries and 88 guests from abroad.

The main lectures covered many aspects of morphology, mechanical properties, and micromechanical mechanisms of polymers. Principal speakers and topics included the following:

- E. Baer, A. Hiltner (USA)
  Hierarchical Structure and Mechanical Properties of Polymeric Materials
- E. G. Clutton, L. J. Rose, G. Capaccio (UK)
  Structural Features and Fracture Phenomena in Polyethylene
- G. K. Elyashevich (Russia)
  Deformation Behavior and Mechanical Properties of Hard Elastic and Porous Films of Polyethylene
- M. Matsuo (Japan)
  Gelation/Crystallization Mechanism of Crystalline Polymer Solutions and Morphology and Drawability of Resultant Films

- A. Galeski, Z. Bartczak (Poland)
  Plastic Deformation of Crystalline Polymer Blends
- F. La Mantia (Italy)
  Mechanical Properties of Recycled Polymers
- P. J. Lemstra (Netherlands)
  Processing for Ultimate Properties
- M. Raab (Czech Republic)
  Feedback in Mechanical Behavior of Polymers
- S. Seidler, W. Grellmann (Austria/Germany)
  Application of Resistance Concept to Toughness Characterization of High-Impact Thermoplastic
- J. L. Kardos, J. C. Halpin (USA)
  Predicting Strength and Toughness of Short-Fiber Composites
- G. H. Michler (Germany)
  New Toughening Mechanisms of Polymers

The conference took place in an excellent, friendly atmosphere. In addition to the scientific program, there was a welcome reception, a very interesting excursion to historic places in the surroundings of Prague, a conference dinner, and a closing ceremony. All guests surely enjoyed this very succesful event in the series of the Prague Meetings.

Professor Dr. G. H. Michler
Associate Member, IUPAC Commission on Polymer Characterization and Properties (IV.2)

21st IUPAC International Symposium on the Chemistry of Natural Products (ISCNP-21), 11–16 October 1998, Beijing, China

This symposium was organized by the Chinese Chemical Society in Beijing. The meetings were held in the Modern Symposium Halls of the Beijing Friendship Hotel.

The scientific program of the meeting consisted of plenary lectures, invited session lectures, oral presentations, and posters. A broad range of aspects of natural product chemistry was discussed. Notably, the presentations dealt with structure determination by modern spectroscopic techniques, chemical and combined chemical/biocatalytic synthesis, and biological evaluation of diverse types of natural products. A plenary lecture by the Nobel laureate J.-M. Lehn, on the subject of "molecular recognition", in the broadest sense of the term, was a highlight of the symposium. The scientific level of the program was, on the whole, very good. A special reference must be made to the poster presentations, which were of impressive quality. The fact that many of the posters were contributed by young Chinese chemists attests to the high level of activity in the area of natural product chemistry that is in progress within the country.

Foreign participation, including accompanying persons, could be regarded as reasonable, considering the expense of traveling to the meeting from many parts of the world. The prospect of combining a touristic visit to China with a conference is always attractive, and that clearly appealed to many of the foreign participants.

Symposium facilities were of high quality. Meeting halls were comfortable, and the audiovisual arrangements were impeccable. Complimentary refreshments between sessions combined with the opportunity for facile contact between the participants provided a congenial atmosphere for scientific and social exchange. The organizers extended the proverbial Chinese hospitality during the days of the Symposium. All participants enjoyed and appreciated the official reception, the entertaining performance at the Acrobatic Theatre, and the symposium banquet in the famed Summer Palace. An excursion to the Great Wall and the Ming Tombs outside Beijing provided another highlight of the meeting. There was an excellent social program for accompanying persons, and there were pre- and post-symposium tours in which many participated.

I felt privileged to represent IUPAC at the symposium, to convey the greetings of President Jortner to the assembled audience, and to participate actively in the proceedings by presenting some of our own work. It is a pleasure for me to place on record the appreciation of IUPAC to the Chinese Chemical Society and especially to the Chairman, Professor Xiaotian Liang, to Professor Xibai Qui, who served as Secretary and Contact Point, and to their many active colleagues, for the successful organization of ISCNP-21.

On a personal note, this was the first visit to China for my wife and me, and it was an immensely enjoyable experience. We saw and learned much during the short stay, and we made new friends. We hope to come again another time.

Ed. Note: Manuscripts from ISCNP-21 will be published in *Pure Appl. Chem.* 71(6), June (1999).

Professor U. K. Pandit
President, IUPAC Organic Chemistry Division (III)

Highlights from the Web

www.iupac.org - A Site Tour

It has been more than a year since a column in ***Chemistry International*** was devoted to the IUPAC web site <http://www.iupac.org>. Over this time, the site has evolved, and a number of changes in its structure have been implemented. The map presented on the center pages (112–113) of this issue will help you navigate the site and quickly locate the information you need. The structure of the site closely reflects the structure and function of the Union. The information provided is an attempt to answer questions about IUPAC such as Who?, How?, and What?

From the home page, you can go to the following main sections: **News & Notices**, **Organizations & People**, **Standing Committees**, **Divisions**, **Projects**, **Reports & Recommendations**, **Publications**, **Symposia & Conferences, Affiliate Members Program**, and **Links of Interest**. These sections are accessible from anywhere on the site.

The **Organizations & People** section gives you access to the organization and the underlying bodies, including the Bureau, Executive Committee, Officers, National Adhering Organizations (NAOs), Associated Organizations (AOs), etc. A complete alphabetical index of members is accessible and leads to one page per member, including the member's address, e-mail address, status in the Union, and a link to recent projects. Please check your personal page, and let us know if any corrections should be made.

Independent sections are devoted to the **Standing Committees** and **Divisions** that carry out the scientific activities of the Union. By following the links, you can find a general description for each body, and access to the officers, membership, current projects, recent publications, reports, etc.

An entire section of the web site is devoted to **Projects**. Links provide information on or access to:

- Frequently Asked Questions (FAQs) on the project submission and approval process
- Project Submission Form and Guidelines for Completion
- Advice for Project Reviewers
- Current Projects
- New Projects

The Current Projects section is a compilation of all projects, listed by Division; a detailed description of each project is presented on a single page, including information on the chairman or coordinator, task group members, the project's objective, and recent progress. These compilations change as new projects are initiated and others are completed. These updates are presented respectively under **New Projects** and **Completed Projects** (page in preparation).

The results of the activities and projects undertaken by the so-called Working Parties, or Task Groups are combined into the **Reports** and **Publications** sections. The **Reports** section is divided by topics, with complete references, abstracts, and, where available, on-line versions of the documents. This section also includes a link to current **Provisional Recommendations**. The **Publications** section includes information on the Journal of *Pure and Applied Chemistry*, including instructions for authors and contents of current and past volumes, *Macromolecular Symposia*, *Chemistry International* on-line, and indexes of IUPAC books and references.

Other IUPAC activities include the sponsorship of major international symposia and conferences. The **Symposia** section is designed to keep you informed of coming events. Calendars from 1996 to 2001 are readily accessible. Past calendar entries are regularly updated to provide links to the corresponding publication in *Pure and Applied Chemistry* or *Macromolecular Symposia* and conference reports in *Chemistry International*. Links to recently sponsored events, sponsorship information and application forms, and non-IUPAC conference calendars are located in this area.

The **Affiliate Membership Program** section, as well as **News & Notices**, can also be reached from the home page. This latter section highlights important news from the Union. In the near future, a section entitled **What's New on the Site** will be offered, enabling shortcut access to newly posted items. Finally, for those who are familiar with the *IUPAC Handbook*, you can search the table of contents on-line and locate the corresponding information on the web site.

There is more on www.iupac.org than we can describe briefly in this article, and there is more to come. Take a look for yourself, and give us some feedback. E-mail your questions, comments, and/or suggestions to <fabienne@iupac.org>.

Fabienne Meyers
IUPAC Secretariat

Report of IUPAC's 1998 Accounts

Treasurer's Comments

When reading the bottom line of the income and expense account, the excess of income over expense, one must bear in mind that under the U.S. Generally Accepted Accounting Principles now being used, realized and unrealized gains on our investments must appear as income alongside the operating income. The actual excess of operating income over expense, the surplus, shown in capitals four lines from the foot of the table, is USD 327 612. This figure is some USD 80K better than budget, mainly due to an increase in Publications surplus of USD 48K, a decrease in Secretariat costs of USD 30K, and a decrease of USD 76K in Operation Expense (Divisions, Standing Committees, etc.). The budget figure for the surplus is large, USD 248K, because the Executive Director has been able to reduce by some USD 200K the Secretariat figure in the preliminary budget, which was based on Oxford costs. As a result, the budget for the 1998–99 biennium is USD 202K in surplus, rather than the preliminary break-even figure. This money has been set aside for new projects, and it is hoped that the Divisions and Standing Committees will be able to use at least part of it before the end of the biennium.

The total reserves (cash plus securities) increased over the year from USD 3 525 662 to USD 3 643 748, that is by 3.3%, but due to capital gains and an injection of cash, our marketable securities increased in value by 12.3%. Of the increase, 17.2% was from the equity portion of the portfolio, and 6.0% was from bonds and bond funds.

The reserve fund, that is, the total reserve less the Endownment Funds and the Southern Hemisphere Sinking Fund, is some USD 160K above the target-figure of expenses over the last two years.

So one can conclude that the Union's finances remain strong and give the financial freedom to make modifications needed to meet the changing needs of the chemical community.

Professor John Ward
IUPAC Treasurer

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Independent Auditors' Report

The Executive Committee
International Union of Pure and Applied Chemistry:

We have audited the accompanying statements of financial position of the International Union of Pure and Applied Chemistry ("IUPAC") as of December 31, 1998 and 1997, and the related statements of activities, cash flows, and functional expenses for the years then ended. These financial statements are the responsibility of IUPAC's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the International Union of Pure and Applied Chemistry as of December 31, 1998 and 1997, and the changes in its net assets and its cash flows for the years then ended in conformity with generally accepted accounting principles.

Batchelor, Tillery & Roberts, LLP

February 12, 1999

Balance Sheet

Assets	
Fixed Assets (2)	53 855
Cash in Banks (3)	209 506
Marketable Securities (4)	3 434 242
Subscriptions and Service Charges Outstanding (5)	139 116
Other Receivables (6)	378 353
Prepaid Expenses	49 564
	4 264 636

Liabilities	
Capital - General	3 544 524
Accounts Payable	169 086
Paulo Franzosini Fund	5 659
Temporarily Restricted Net Asset - ICSU Grant	20 000
Prepaid Subscriptions (7)	30 567
Excess of Income over Expenses	494 800
	4 264 636

Schedule of Income and Expenses

Income	
National Subscriptions and Service Charges	658 455
Interest and Dividends	90 639
Other Income	13 370
Publications	388 508
Affiliate Membership Program	58 989
Restricted Income (8)	51 395
Total Income	1 261 356

Expenses	
Governance Expense (9)	49 621
Administrative Expense (10)	425 318
Accounting Transactions (11)	20 997
Operations Expense:	
Standing Committees	109 674
Divisions	238 563
Chemistry International	28 277
General Assembly	8 028
Representatives on Other Bodies	12 023
Contingencies	-
Total Operations	396 565
Restricted Expenses (12)	41 243
Total Expenses	933 744
Net Income from Operations	327 612
Realized Gains on Securities	431 205
Unrealized Gains (Losses) on Securities	(264 017)
Net Income	494 800

Notes to Financial Statements

1. Nature of Organization and Significant Accounting Policies

The International Union of Pure and Applied Chemistry (IUPAC), founded in 1919, is a voluntary nongovernmental, nonprofit association of 43 national adhering organizations representing the chemists of their countries. Additionally, there are 15 observer countries, 32 associated organizations, and more than 140 company associates. The official headquarters of IUPAC are in Zurich, and the administrative headquarters are in Research Triangle Park, North Carolina.

a) *Basis of Presentation:* In accordance with the accrual basis of accounting, subscriptions and service charges are recorded when earned, and expenses are recorded when incurred.

b) *Fixed Assets:* Furniture, fixtures, and equipment and leasehold improvements are recorded at cost. Depreciation is provided over the estimated useful lives of the assets and is computed on the straight-line method.

c) *Leases:* Rents paid under operating leases are charged to expense on a straight-line basis over the period of the lease.

d) *Foreign Currencies:* Transactions in foreign currencies are recorded at the exchange rate ruling at the date of the transaction. Foreign currency differences are recorded as income or expense.

e) *Marketable Securities:* Investments in marketable securities are measured at fair value in the balance sheet. Investment income, including gains and losses on investments, interest, and dividends, is included in the schedule of income and expenses. Interest on bonds is recognized as income as received.

f) *Committed Expenses:* The IUPAC Council meets every two years at the General Assembly to set budgets for the following two years. Starting in 1994, seventy per cent of the budgeted expenses are charged to income and expense accounts in the first year following the General Assembly and thirty per cent in the General Assembly year.

g) *Income Taxes:* The legal domicile of the Union is accepted by the Canton of Zurich as an association under Swiss law. As such, the Union is exempt from any taxation on any net income arising from its activities.

2. Fixed Assets

Equipment, Furniture and Fixtures, and Leasehold Improvements	67 221
Accumulated Depreciation	(13 366)
	53 855

3. Cash in Banks

Merrill Lynch - Cash	(5 652)
Merrill Lynch - Money Market	44 145
Wachovia	171 013
	209 506

4. Marketable Securities

Cost	3 097 737
Unrealized Profit	336 505
Market Value	3 434 242
Designated Funds:	
Reserve Fund	2 500 837
Southern Hemisphere Sinking Fund	150 000
Endowment Fund	563 603
Endowment Reserve Fund	219 802
	3 434 242

5. Subscriptions and Service Charges Outstanding

National Organizations	151 323
Observer Countries	350
Company Associates	9 005
Associated Organizations	150
Affiliate Member Program	288
	161 116
Allowance for Uncollectable Accounts	(22 000)
	139 116
National Organizations - 1998:	
Belgium	14 900
Brazil	9 300
China - Beijing	32 600
Denmark	5 800
France	30 223
Greece	4 000
Pakistan	2 900
Puerto Rico	12 500
Spain	19 100
United States of America	20 000
	151 323
Observer Countries - 1998:	
Bangladesh	50
Hong Kong	50
Peru	50
Philippines	50
Romania	50
Singapore	50
Sri Lanka	50
	350
Company Associates - 1998:	
El-Nasr Pharmaceutical	450
Kato Soap and Detergents	450
Mining and Refractories	450
Institute for Reference Materials	900
Janssen Pharmaceuticals	450
Copene Petroquimica Nordeste	450
Shanghai Research Institute	450
Synthesia A/S	450
Haldor Topsoe A/S	850
Zambon Group	450
Isu Chemical Co	450
Eka Nobel AB	450
Thai Plastic & Chemical Co Ltd.	450
United Kingdom	1 655
United States	650
	9 005
Associated Organizations - 1998:	
Calorimetry Conference	50
Federation of Asian Chemical Societies	50
Intl. Association of Colloid & Interf.	50
	150
AMP - 1998:	
New Zealand Institute of Chemistry	288
Allowance for Uncollectible Accounts	(22 000)
Total Subscriptions Outstanding	139 116

6. Other Receivables

Blackwell	361 000
Montell Canada	4 050
IUTOX	6 225
Various - Publications	260
Merrill Lynch	6 818
	378 353

7. Prepaid Subscriptions

AMP	169
Associated Organizations	300
NAOs:	
Russia	6 468
Kuwait	30
Korea	800
Netherlands	18 800
Czech Republic	4 000
	30 567

8. Restricted Income

Blackwell Science Travel Grant	20 000
ICSU	20 000
JCAMP	1 730
Royal Society Contributions to Developing Countries	9 665
Total Restricted Income	51 395

9. Governance Expense

Officers	19 959
SDIC	7 064
Contributions to ICSU & ICSTI Committees	22 598
	49 621

10. Administrative Expense

General:	
Secretariat	296 622
Accounting, Audit, and Bank Fees	29 151
Handbook 1998/99	20 454
Compendia Books	20 576
Total General	366 803
Publications	9 374
Affiliate Members Program	49 141
Total Administrative Expense	425 318

11. Accounting Transactions

Exchange Rate Differences	492
Bad Debt Provision	11 200
Depreciation	9 305
Total Accounting Transactions	20 997

12. Restricted Expenses

ICSU	13 611
Blackwell Travel Grant - CPEP	6 119
JCAMP-DX	1 848
Royal Society Contributions	9 665
UNESCO Grant	10 000
	41 243

Schedule of Income and Expenses—Budget and Actual

	Budget 1998	Actual 12/31/98	Over/ (Under)
INCOME			
National Subscriptions	665 000	654 605	(10 395)
Service Charges	12 000	3 850	(8 150)
Interest and Dividends	110 000	90 639	(19 361)
Restricted Income	-	31 395	31 395
Other Income	11 000	13 370	2 370
	798,000	793 859	(4 141)
Publications:			
Blackwell	330 000	361 301	31 301
Other Publishers	10 000	27 207	17 207
BS Grant	20 000	20 000	-
	360 000	408 508	48 508
AMP:			
Contributions	60 000	58 969	(1 031)
Royalties	1 000	-	(1 000)
Ties and Scarves	100	20	(80)
	61 100	58 989	(2 111)
Total Operating Income	1 219 100	1 261 356	42 256
EXPENSES			
Governance Expense:			
Officers	8 000	19 959	11 959
SDIC	-	7 064	7 064
Contributions to ICSU & ICSU Committees	22 000	22 598	598
	30 000	49 621	19 621
Administrative:			
General:			
Secretariat	327 100	296 622	(30 478)
Accounting, Audit, and Bank Fees	15 000	29 151	14 151
Handbook 1998/99	-	20 454	20 454
Compendia Books	7 500	20 576	13 076
	349 600	366 803	17 203
Publications	30 000	9 374	(20 626)

Standing Committee Expenditures

	Actual 1999	Actual 1998	Actual 1998/99	Budget 1998/99	Over (Under)
Executive Committee:					
Administrative	$ -	$ 780.49	$ 780.49		
Leaflets and Printing	-	1 755.07	1 755.07		
Subsistence	-	1 102.57	1 102.57		
Travel	-	10 212.39	10 212.39		
Total	-	13 850.52	13 850.52	$ 27 600.00	$ (13 749.48)
Bureau:					
Administrative	-	352.50	352.50		
CPEC	-	4 556.09	4 556.09		
Leaflets and Printing	-	124.00	124.00		
Postage	-	311.50	311.50		
Subsistence	-	15 565.37	15 565.37		
Travel	-	23 968.03	23 968.03		
Total	-	44 877.49	44 877.49	30 600.00	14 277.49
CHEMRAWN:					
Administrative	-	615.08	615.08		
Subsistence	-	6 580.72	6 580.72		
Travel	-	11 634.57	11 634.57		
Total	-	18 830.37	18 830.37	22 900.00	(4 069.63)

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Standing Committee Expenditures (continued)

	Actual			Budget	Over
	1999	1998	1998/99	1998/99	(Under)
CPEP:					
Administrative	-	355.90	355.90		
Subsistence	-	3 335.00	3 335.00		
Travel	-	4 443.83	4 443.83		
Expense Recovery	-	(1 000.00)	(1 000.00)		
Total	-	7 134.73	7 134.73	10 500.00	(3 365.27)
CTC:					
Administrative	-	2 047.56	2 047.56		
Subsistence	-	1 075.33	1 075.33		
Travel	-	(2 156.32)	(2 156.32)		
Expense Recovery	-	(418.38)	(418.38)		
Total	-	548.19	548.19	14 300.00	(13 751.81)
Finance Committee:					
Administrative	-	455.24	455.24		
Leaflets and Printing	-	95.00	95.00		
Subsistence	-	1 066.21	1 066.21		
Travel	-	2 619.83	2 619.83		
Total	-	4 236.28	4 236.28	10 400.00	(6 163.72)
IDCNS:					
Administrative	-	1 307.82	1 307.82		
Subsistence	-	4 251.67	4 251.67		
Travel	-	7 892.56	7 892.56		
Total	-	13 452.05	13 452.05	13 400.00	52.05
JCBN:					
Administrative	-	209.88	209.88		
Subsistence	-	2 820.00	2 820.00		
Travel	-	3 714.85	3 714.85		
Total	-	6 744.73	6 744.73	10 200.00	(3 455.27)
Contingency	-	-	-	11 550.00	(11 550.00)
Total Standing Committees	$ -	$ 109 674.36	$ 109 674.36	$ 151 450.00	$ (41 775.64)

Schedule of Marketable Securities

Quantity	Security Description	Cost Per Books	Estimated Market Value	Unrealized Gain/Loss
CORPORATE BONDS:				
50 000	KOREA DEVELOPMENT BANK NOTES 7.0%, July 15, 1999	51 162.34	49 416.00	(1 746.34)
100 000	NIPPON TELEGRAPH & TELEPHONE 7.75%, NOV 18, 1999	109 652.78	101 625.00	(8 027.78)
100 000	SALOMON INCORPORATED NOTES 7.25%, JAN 15, 2000	105 108.88	101 722.00	(3 386.88)
100 000	SOUTHWESTERN BELL TEL CO NOTES 6.125%, MARCH 1, 2000	100 950.39	100 996.00	45.61
100 000	CIBA-GEIGY CORP 5.875%, MARCH 23, 2000	100 260.00	100 375.00	115.00

Continued on next page

Schedule of Marketable Securities (continued)

Quantity	Security Description	Cost Per Books	Estimated Market Value	Unrealized Gain/Loss
110 000	NM CHRYSLER FNCL CORP BE 5.875%, MARCH 19, 2001	110 000.000	110 393.00	393.00
110 000	EURO INVT BANK 6.125%, OCT 28, 2002	115 060.00	113 298.00	(1 762.00)
125 000	COUNCIL OF EUROPE 5.750%, JAN 14, 2003	129 062.50	126 880.00	(2 182.50)
100,000	ABBEY NATIONAL TREAS 6.50%, MAY 12, 2003	107 913.89	103 627.00	(4 286.89)
125 000	NM FORD MOTOR CDT CO BE 6.14%, MAY 23, 2005	125 000.00	127 463.00	2 463.00
180 000	CABLE & WIRELESS COM PLC NOTES 6.625%, MAR 6, 2005	184 470.05	181 452.00	(3 018.05)
2 000	NAB EXCHANGEABLE PFD TR 8.00% PERPETUAL NON-CUM	50 000.00	51 500.00	1 500.00
	TOTAL CORPORATE BONDS	1 288 640.83	1 268 747.00	(19 893.83)
MUTUAL FUNDS - EQUITY:				
5 007	AETNA EUROPEAN EQUITY FUND CLASS A	62 237.37	102 893.00	40 655.63
112 548	EQUITY INCOME FUND S&P MIDCAP TRUST DEFINED ASSET FUND (.1513 fractional share)	214 254.27	192 453.00	(21 801.27)
166 050	EQUITY INCOME FUND S&P 500 TRUST 2 DEFINED ASSET FUND (0.129 fractional share)	426 701.46	445 008.00	18 306.54
1 980	GAM SELECT EUROPEAN FUND CLASS A	345 450.60	296 564.00	(48 886.60)
	MFS MERIDIAN EMERGING GROWTH (.6340 fractional share)	-	17.00	17.00
6 247	ML BASIC VALUE CLASS A (.9960 fractional share)	150 231.30 -	193 407.00 30.00	43 175.70 30.00
7 337	ML BASIC VALUE PORT CL O	123 180.76	229 427.00	106 246.24
15 434	ML EURO EQUITY PORT CLASS O (.1310 fractional share)	247 020.59 -	452 061.00 3.00	205 040.41 3.00
2 760	PARVEST USA FD	170 181.60	173 079.00	2 897.40
	TOTAL MUTUAL FUNDS - EQUITY	1 739 257.95	2 084 942.00	345 684.05
MUTUAL FUNDS - FIXED INCOME				
6 230	MLBS USD FIXED INCOME PORTFOLIO CL B	69 838.30	80 553.00	10 714.70
	TOTAL MUTUAL FUNDS - FIXED INCOME	69 838.30	80 553.00	10 714.70
	TOTAL PORTFOLIO	3 097 737.08	3 434 242.00	336 504.92

New Books and Publications

IUPAC Publishes Review of Oil Spill Countermeasures, Technologies, and Response Methods

The International Union of Pure and Applied Chemistry (IUPAC) has published a special issue of its flagship journal *Pure and Applied Chemistry* (Volume 71, No. 1, 1999) that addresses the current state of knowledge in the field of oil spill response technology.

Although oil spills are not generally regarded as a pure or even applied chemistry issue, the environmental, physical, operational, and legal elements of every spill incident are related to the complex chemistry of the oil and its breakdown products released to the environment. The articles included in the special issue generally reflect and review the latest information available in their topic areas and are representative of the most recent surge in research and development activities, stimulated particularly by the *Exxon Valdez* spill in Prince William Sound, Alaska in 1989. The manuscripts have been contributed by recognized international experts in the major categories of oil spill response research, and they have received the benefit of peer review.

Topics covered include the following:

- oil fate and physico-chemical behavior
- mechanical countermeasure developments
- remote sensing for surveillance of spills and support in response actions
- separation of recovered oil and water in relation to response and disposal
- oil spill dispersants from an operational and environmental perspective
- burning of spilled oil as a response measure
- use and issues surrounding chemical countermeasures other than dispersants
- contribution of mineral fines and colloids
- occupational health aspects in response
- net ecological effectiveness of countermeasures and response actions
- bioremediation
- ice-covered waters as a special response environment
- orimulsion as a special case for response
- appropriate technology for oil spill management in developing nations

These articles, edited by F. R. Engelhardt (nidaconcanada@compuserve.com), serve to capture the applied chemistry knowledge and experience of practitioners in a complex field, the application of which remains essential for the development of improved oil spill countermeasures and their effective use in real spill situations.

For further information, visit the IUPAC web site at http://www.iupac.org/publications/pac/special/0199/, or contact the IUPAC Secretariat, P.O. Box 13757, Research Triangle Park, NC 27709-3757, USA. Tel: +1 919 485 8700; Fax: +1 919 485 8706; E-mail: secretariat@iupac.org.

From The Royal Society of Chemistry

The Age of the Molecule

This publication describes current cutting-edge research, as well as the excitement and achievements of chemistry in the past that have enabled molecular sciences to make a huge impact on progress in the 20th century. *The Age of the Molecule* is written in clear, accessible language (at the level of *Scientific American*) by leading young scientists for a nonspecialist audience. It covers topics of general interest, discusses probable applications for the next millennium, and will be an invaluable resource for schools and colleges. The Royal Society of Chemistry intends to send a copy of the publication to every secondary school, college, and university in the United Kingdom.

Contributions to the book include a foreword by Prime Minister Tony Blair and a conclusion from Nobel Prize winner Sir Harry Kroto FRS of the University of Sussex. Mr. Blair observes that "Advances in chemistry contribute directly to our everyday lives… *The Age of the Molecule* contains wonderful examples of the exciting achievements of chemists worldwide, as well as alerting us to the challenges that lie ahead". In his epilogue, Sir Harry Kroto comments that "Scientific breakthroughs have truly revolutionized all our lives… in each advance, chemistry in all its aspects has been involved".

Each of the 10 chapters in *The Age of the Molecule* examines ways in which different branches of the molecular sciences have directly affected our lives. Topics include the age of plastics, analysis and structure of molecules, chemical marriage brokers, chemistry of life, computational chemistry and the virtual laboratory, following chemical reactions, make me a molecule, new science from new materials, power of electrochemistry, and the world of liquid crystals. All chapters are illustrated with vivid images designed to reflect the central themes of the book.

Cost of the publication is GBP 19.50 for nonmembers of the Royal Society of Chemistry and GBP 15.00 for members.

For further information, contact Tracey Wells, Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN, UK.

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New Publications from the World Health Organization

Selected Chloroalkyl Ethers, Environmental Health Criteria, No. 201

1998, xviii + 95 pages (English with summaries in French and Spanish), ISBN 92 4 157201 9, CHF 26.-/ USD 23.40; In developing countries: CHF 18.20, Order no. 1160201. WHO distribution and sales, CH-1211 Geneva 27, Switzerland.

This book evaluates the risks to human health and the environment posed by exposure to bis(2-chloroethyl) ether (BCEE), bis(chloromethyl) ether (BCME), and chloromethyl methyl ether (CMME). These three ethers, which are part of the large class of chloroalkyl ethers, are used as solvents and in several industrial processes, including the manufacture of polymers. BCEE is also used in the textile industry, as an intermediate in the manufacture of pharmaceuticals and other chemicals, and as a soil fumigant, insecticide, and acaricide. While data on risks to the environment are limited, the report draws on a considerable body of evidence, from laboratory animals and epidemiological studies of exposed workers, indicating that BCME and CMME are potent human carcinogens.

A section on sources of these chemicals in the environment notes that BCEE may enter the environment as a by-product from the chlorination of waste streams containing ethylene or propylene, and as a contaminant in the fungicide metam-sodium. BCME and CMME are released, in small amounts, from industrial activities. Concerning environmental behavior, the report concludes that BCEE is rapidly volatilized from surface water, does not adsorb to soil or sediment, and may reach groundwater. The chemical may be persistent due to the relative stability of b-chloroalkyl ethers. The report found no evidence that BCEE bioaccumulates or biomagnifies to any significant extent. For BCME and CMME, evidence pointing to extremely short residence times supports the conclusion that levels in the environment are extremely low, if not nonexistent.

A section on sources of human exposure draws on limited data indicating that occupational exposure to BCEE may occur, via inhalation or dermal contact, in the dry cleaning and textile industries or during the processing of gum, lacquer, oil, paint, soap, and tar. For BCME and CMME, data suggest that occupational exposure may occur in laboratory and textile workers, and during the production of anion-exchange resins, selected organic chemicals, and polymers. In occupational settings where vapors of formaldehyde and hydrochloric acid coexist, BCME may form spontaneously in air. The report also found evidence that the general population may be exposed to BCME and CMME through the use of mosquito coils.

The most extensive section evaluates the large number of studies, in laboratory animals and *in vitro* test systems, conducted to assess toxic effects. BCEE is noted to be acutely toxic by the oral, inhalation, and dermal routes. Exposure via inhalation to high concentrations resulted in eye irritation and congestion, edema, and hemorrhage in the lungs. Inhalation of BCME resulted in irritation of the eyes and respiratory tract, and necrotizing bronchitis. Exposure to CMME produced similar effects. *In vitro* testing for mutagenicity produced positive results for all three chemicals. In carcinogenicity studies, animals exposed to BCME showed a significantly elevated incidence of pulmonary adenomas and respiratory tumors. Studies of CMME toxicity have shown increased incidence of tracheal metaplasia and bronchial hyperplasia in a dose-dependent manner.

The evaluation of effects on human health concentrates on evidence of an increased risk of lung cancer demonstrated in eight epidemiological studies of workers exposed to BCME and CMME. In all of these studies, the type of lung cancer, the standardized mortality ratios, the latency periods, and average age when lung cancer appeared were remarkably consistent. Moreover, the report notes that the type and incidence of lung cancer, seen in relatively young individuals after latency periods as short as two years, are distinct from those caused by tobacco. On the basis of this evidence, the report recommends that exposure to BCME and CMME should be eliminated.

Selected Nonheterocyclic Polycyclic Aromatic Hydrocarbons, Environmental Health Criteria, No. 202

1998, xxii + 883 pages (English with summaries in French and Spanish), ISBN 92 4 157202 7, CHF 174.-/ USD 156.60; In developing countries: CHF 121.80, Order no. 1160202.

This book evaluates the risks to human health and the environment posed by exposure to 33 nonheterocyclic polycyclic aromatic hydrocarbons (PAH), of which benzo[*a*]pyrene is the most extensively investigated. Compounds from this large class were selected for evaluation on the basis of abundant data documenting toxic effects, including carcinogenicity.

More than 2 000 references to the recent literature are included.

The book opens with a discussion of physical and chemical properties of PAH relevant to their toxicological ecotoxicological evaluation. Chapter 2, on sources of human and environmental exposure, notes that PAH are ubiquitous in the environment, with the largest emissions resulting from incomplete combustion of organic materials during industrial processes and other human activities. The most important sources are identified as coal coking; production of aluminum, iron, and steel; heating in power plants and residences; cooking; motor vehicle traffic; environmental tobacco smoke; and the incineration of refuse. Data on the environmental behavior of PAH are discussed in Chapter 3, which cites evidence that PAH accumulate in organisms in water and sediment and in their food, and that sediment and soil are the principal environmental sinks. Because most organisms have a high biotransformation potential for PAH, the report concludes that biomagnification is unlikely to occur.

A chapter on environmental levels and human exposure summarizes results from numerous studies aimed at detecting concentrations in the general environment, in indoor air, and in various occupational settings. For the general population, the main sources of exposure are identified as polluted ambient air, smoke from open fireplaces and cooking, environmental tobacco smoke, contaminated food and drinking water, and the use of PAH-contaminated products. Evidence shows that PAH are formed during food processing, roasting, frying, and baking. In occupational settings, exposure occurs via the lung and skin, with the highest exposures occurring during the processing and use of coal and mineral oil products, such as in coal coking, petroleum refining, road paving, asphalt refining, and impregnation of wood with creosotes. High concentrations have also been detected in the air of aluminum production plants using coal/pitch electrodes, and steel and iron foundries.

A review of data on kinetics and metabolism cites evidence that PAH are absorbed through the pulmonary tract, the gastrointestinal tract, and the skin, and are widely distributed throughout the organism following administration by any route. Although these lipophilic compounds have been detected in almost all internal organs, levels are highest in organs rich in lipids. Knowledge about the complex metabolism of PAH, which sheds light on mechanisms of carcinogenic action, is also considered in detail.

The most extensive chapters assess the large number of studies of toxic effects in laboratory mammals, *in vitro* test systems, and humans, giving particular attention to evidence of carcinogenicity. Findings from animal studies and *in vitro* tests confirm the carcinogenicity of 17 compounds. Many others are known to be mutagenic. While data indicate a relationship between the site of tumor development and the route of administration, PAH can induce tumors at other sites as well, because tissues such as the skin can metabolize PAH to their ultimate metabolites, and metabolites formed in the liver can reach various sites via the bloodstream. Current theoretical explanations for the carcinogenic action of PAH are considered in detail. The report also cites animal studies demonstrating the immunotoxic potential of a number of PAH.

In view of the paucity of data on human exposure to single, pure PAH, the chapter on health effects in humans draws on findings from epidemiological studies of occupational and environmental exposures to mixtures of PAH. These studies confirm the association between exposure to PAH and an increased risk of cancer in humans. Increased lung tumor rates linked to exposure were found in coke-oven workers, asphalt workers, and workers in Soderberg potrooms of aluminum reduction plants. The highest risk was found for coke-oven workers. In aluminum plants, adverse effects included increased risk of urinary bladder cancer, asthma-like symptoms, lung function abnormalities, and chronic bronchitis. Adverse effects on the immune system were also documented in several studies of exposed workers. The report further concludes that PAH are almost certainly one of the carcinogenic agents responsible for lung cancers in cigarette smokers.

Provisional Recommendations

IUPAC Seeks Your Comments

In this section, we publish synopses of IUPAC's latest provisional recommendations on nomenclature and symbols. All comments on these recommendations are welcome and will be taken into consideration. The final revised versions are published in *Pure and Applied Chemistry*, and synopses of these are published in *Chemistry International* as recent reports.

If you would like to comment on the provisional recommendations, please write to your nearest national/regional center to request a copy of the full report. Copies are not available from the IUPAC Secretariat. The most recent list of national/regional centers appeared in *Chemistry International* 1997, **17**, 141. This information is also available on the IUPAC web site: http://www.iupac.org/

Macromolecular Division. Commission on Macromolecular Nomenclature—Definitions of Basic Terms Relating to Low-Molar-Mass and Polymer Liquid Crystals

This document is the first published by the Commission on Macromolecular Nomenclature of IUPAC dealing specifically with liquid crystals. Due to the breadth of its scope, it has been prepared in collaboration with representatives of the International Liquid Crystal Society.

The document gives definitions of terms related to low-molar-mass and polymer liquid crystals. It relies on basic definitions of terms which are widely used in the field of liquid crystals and in polymer science. The terms are arranged in five sections dealing with basic definitions of liquid-crystalline and mesomorphic states of matter, types of mesophases, optical textures and defects of liquid crystals, their physical characteristics (including electro-optical and magneto-optical properties), and, finally, liquid crystal polymers. The terms which have been selected are those most commonly encountered in the conventional structural and associated thermal and electro-optical characterization of liquid-crystalline materials.

Comments by 31 December 1999 to Prof. Maximo Baron, Catedra de Fisica, Facultad de Ciencias Exactas y Naturales, Universidad de Belgrano, Villanueva 1324, 1426 Buenos Aires, Argentina. Tel.: +54-11-4511-4700; Fax: +54-11-4821-4887; E-mail: baron@ub.edu.ar.

Awards

James Lawrence Wins AOAC International's 1999 Harvey W. Wiley Award

AOAC International has named James Lawrence as the 1999 Harvey W. Wiley Award winner in recognition of his outstanding contributions to analytical methodology. Mr. Lawrence will accept this prestigious AOAC award at the opening session of the 113th AOAC International Annual Meeting & Exposition to be held in Houston, Texas, USA, 26–30 September 1999. He will also deliver the keynote address at the Wiley Award Symposium. The subject of his presentation is "Immunochemical Techniques in Food Contaminant Analysis"

Mr. Lawrence, head of the Food Additives and Contaminants Section in the Food Research Division of the Health Protection Branch of Health Canada, receives this award in acknowledgment of his work in food additives and contaminants, particularly high pressure liquid chromatography and residue analysis.

Mr. Lawrence has also been involved in a wide variety of professional associations, serving as president of the International Association for Environmental Analytical Chemistry, heading up the Canadian delegation to the Codex Alimentarius Committee on Methods of Analysis and Sampling, and working as editor for food composition and additives for the *Journal of AOAC International*. He also bridges the gap between government and academia by serving as an adjunct professor at Ottawa's Carleton University.

AOAC International, an association of scientists in the public and private sectors, is dedicated to promoting methods validation and quality measurements in the analytical sciences. The Harvey W. Wiley Award, AOAC International's most prestigious scientific award, is presented annually to recognize career achievements in advancing analytical methodology. The award was established in 1956 to honor Dr. Harvey W. Wiley, who was instrumental in the institution of laws regulating food quality. Dr. Wiley was a founder of AOAC International and served as AOAC President in 1886, Secretary from 1889 to 1912, and Honorary President until his death in 1930.

Conference Announcements

26th Exhibition-Congress and International Meeting on Chemical Engineering, Environmental Protection, and Biotechnology (ACHEMA 2000), 22–27 May 2000, Frankfurt am Main, Germany

This huge process industries gathering is expected to attract approximately 4 000 exhibitors and 250 000 attendees from more than 100 countries. General topics will focus on environmental protection and biotechnological equipment. A special show on synthesis, screening, and sequencing machines will reflect current developments in combinatorial chemistry and concurrent analysis and test methods. The final day of the meeting will be devoted to special presentations for technicians, laboratory assistants, and foremen.

More than 700 lectures will be presented on the following topics:

- new processes in chemical engineering and reaction technology
- mechanical and thermal process engineering
- bioprocess engineering
- molecular biotechnology
- pharmaceutical technology
- food technology
- environmental technology
- safety technology
- design developments in apparatus, mechanical, and plant engineering
- materials technology and testing
- packaging and production logistics
- laboratory and analytical techniques
- instrumentation, control, and automation techniques
- vocational and professional training
- international symposium on synthesis, screening, and sequencing machines

For further information, contact Deutsche Gesellschaft fur Chemisches Apparatewesen, Chemische Technik, und Biotechnologie e.V. (DECHEMA e.V.), P.O.B. 15 01 04, D-60061, Frankfurt am Main, Germany, E-mail: woice@dechema.de; *Tel: +49/(0)69/7564-0; Fax: +49/(0)69/7564-201; Web site: http://www.achema.de.*

1st International Conference on Porphyrins and Phthalocyanines (ICPP-1), 25–30 June 2000, Dijon, France

This new conference will include plenary lectures, keynote talks, short oral presentations, and posters on the chemistry, physics, biology, materials science, engineering, and medical or biomedical applications of porphyrins and phthalocyanines.

For further information, contact Symposium Secretariat, ICPP-1 DIJON, LIMSAG (UMR 5633), 6, Boulevard Gabriel, 21100 Dijon, France, Fax: +33 380-396117; E-mail: icpp@u-bourgogne.fr; Web site: http://www.u-bourgogne.fr/icpp.

26th Scientific Committee on Antarctic Research (SCAR) Meeting, 10–22 July 2000, Tokyo, Japan

For information, contact Dr. Peter D. Clarkson, SCAR Secretariat, Scott Polar Research Institute, Lensfield Road;, Cambridge CB2 1ER, United Kingdom, E-mail: execsec@scar.demon.co.uk *or* mjd52@cam.ac.uk; *Tel: +44 1223 362061; Fax: +44 1223 336549; Web site: http://www.nipr.ac.jp/SCAR-COMNAP-2000-TOKYO.*

Conference Calendar

Visit http://www.iupac.org for complete information and further links.

NEW *designates a new conference since the last issue.*

1999

Biodiversity and Bioresources

11–15 July 1999
2nd International Conference on Biodiversity and Bioresources—Conservation and Utilization, Belo Horizonte, Minas Gerais, Brazil.
Prof. Alaide Braga de Oliveira, Faculdade de Farmacia—UFMG, Av. Olegario Maciel 2360, 30.180-112 Belo Horizonte, Brazil.
Tel.: +55 31 339 7675
Fax: +55 31 339 7666
E-mail: fernao@dedalus.lcc.ufmg.br

Polymerization Methods

12–15 July 1999
39th Microsymposium, Advances in Polymerization Methods: Controlled Synthesis of Functionalized Polymers, Prague, Czech Republic.
Dr. Jaromir Lukas, Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Heyrovskeho nam. 2, 162 06 Praha 6, Czech Republic.
Tel.: +420 2 20403332
Fax: +420 2 367981
E-mail: sympo@imc.cas.cz

Advanced Materials

14–18 July 1999
1st IUPAC Workshop on New Directions in Chemistry. Workshop on Advanced Materials: Nanostructured Systems (IUPAC-WAM-1), Hong Kong.
Prof. M. A. El-Sayed, School of Chemistry and Biochemistry, Georgia Institute of Technology Atlanta, GA 30332-0400, USA.
Tel.: +1 404 894 0292
Fax: +1 404 894 0294
E-mail: mostafa.el-sayed@chemistry.gatech.edu

Organo-Metallic Chemistry

18–22 July 1999
10th IUPAC Symposium on Organo-Metallic Chemistry Directed Towards Organic Synthesis (OMCOS 10), Versailles, France.
Prof. J. P. Genet, Laboratoire de Synthese Selective Organique et Produits Naturels, E.N.S.C.P.—UMR CNRS 7573, 11 rue Pierre et Marie Curie, 75231 Paris Cedex 05, France.
Tel.: +33 1 44 276743
Fax: +33 1 44 071062
E-mail: genet@ext.jussieu.fr

Carotenoids

18–23 July 1999
12th International Symposium on Carotenoids, Cairns, Australia.
Prof. George Britton, School of Biological Sciences, The University of Liverpool, Crown Street, Liverpool, L69 3BX, UK.
Tel.: +44 (151) 794 4336
Fax: +44 (151) 794 4349
E-mail: G.Britton@liverpool.ac.uk

Rheology of Polymer Systems

19–22 July 1999
19th Discussion Conference on the Rheology of Polymer Systems, Prague, Czech Republic.
Dr. Jaromir Lukas, Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Heyrovskeho nam. 2, 162 06 Praha 6, Czech Republic.
Tel.: +420 2 20403332
Fax: +420 2 367981
E-mail: sympo@imc.cas.cz

Ionic Polymerization

19–23 July 1999
International Symposium on Ionic Polymerization, Kyoto, Japan.
Dr. Shiro Kobayashi, Department of Materials Chemistry, Graduate School of Engineering, Kyoto University, Kyoto 606-8501, Japan.
Tel.: +81 75 753 5628
Fax: +81 75 753 4911
E-mail: ip99@mat.polym.kyoto-u.ac.jp

Analytical Science

25–30 July 1999
Analytical Science into the Next Millennium (SAC 99), Dublin, Ireland.
Prof. Malcolm R. Smyth, School of Chemical Sciences, Dublin City University, Dublin 9, Ireland.
Tel.: +353 1 704 5308
Fax: +353 1 704 5032
E-mail: smythm@ccmail.dcu.ie

Solution Chemistry

26–31 July 1999
26th International Conference on Solution Chemistry, Fukuoka City, Kyushu, Japan.
Prof. Shin-ichi Ishiguro, Department of Chemistry, Faculty of Science, Kyushu University, 6-10-1 Hakozaki, Higashi-ku, Fukuoka, 812-8581, Japan.
Tel.: +81 92 642 2581
Fax: +81 92 642 2607
E-mail: 99icscc@mbox.nc.kyushu-u.ac.jp

Plasma Chemistry

2–6 August 1999
14th International Symposium on Plasma Chemistry, Prague, Czech Republic.
Prof. M. Hrabovský, Institute of Plasma Physics, Za Slovankou 3, P.O. Box 17, 182 21 Praha 8, Czech Republic.
Tel.: +420 2 824751
Fax: +420 2 8586389
E-mail: hrabov@ipp.cas.cz

IUPAC General Assembly

7–13 August 1999
IUPAC Secretariat.
Tel.: +1 919 485 8700
Fax: +1 919 485 8706
E-mail: secretariat@iupac.org

IUPAC Congress

14–19 August 1999
Frontiers in Chemistry: Molecular Basis of the Life Sciences, Berlin, Germany.
Gesellschaft Deutscher Chemiker– GDCh, PO Box 90 04 40, 60444 Frankfurt Am Main, Germany.
Tel.: +49 69 7917 358/360/366
Fax: +49 69 7917 475
E-mail: tg@gdch.de

Colloquium Spectroscopicum Internationale

5–10 September 1999
31st Colloquium Spectroscopicum Internationale 1999, Ankara, Turkey.
Prof. Dr. O. Yavuz Ataman, Department of Chemistry, Middle East Technical University, 06531 Ankara, Turkey.
Tel.: +90 312 210 3232
Fax: +90 312 210 1280
E-mail: xxxicsi@rorqual.cc.metu.edu.tr

Macromolecule-Metal Complexes

5–9 September 1999
8th International Symposium on Macromolecule-Metal Complexes (MMC-VIII), Tokyo, Japan.
Prof. Eishun Tsuchida, Department of Polymer Chemistry Waseda University Toyko 169-8555, Japan.
Tel.: +81 3 5286 3148
Fax: +81 3 3205 4740
E-mail: teruyuki@mn.waseda.ac.jp

Organic and Organoelement Chemistry

6–11 September 1999
Horizons of Organic and Organoelement Chemistry, to the memory of Prof. A. N. Nesmeyanov, on the 100th anniversary of his birth, Moscow, Russia.
Prof. Y. N. Bubnov, INEOS,

Vavilov str. 28, Moscow.
Tel.: +7 (095) 135 6165
Fax: +7 (095) 135 5085
E-mail: dir@ineos.ac.ru

Chemistry and the Internet

25–27 September 1999
ChemInt'99—Chemistry and the Internet, Georgetown University, Washington DC, USA.
Dr. Stephen R. Heller, NIST/SRD, 820 Diamond Avenue, Gaithersburg, MD 20899-2310 USA.
Tel.: +1 301 975 3338
Fax: +1 301 926 0416
E-mail: srheller@nist.gov

Toxicology

6–10 November 1999
4th Congress of Toxicology in Developing Countries, Antalya, Turkey.
Prof. Semra Sardas, Gazi University, Faculty of Pharmacy Toxicology Department, 06330, Hipodrom, Ankara, Turkey.
Tel.: +90 312 212 30 09
Fax: +90 312 222 23 26
E-mail: ek03-k@tr-net.net.tr

2000

Bio-Organic Chemistry

30 January–4 February 2000
5th IUPAC Symposium on Bio-Organic Chemistry (ISBOC-V), New Delhi, India.
Prof. S. Ranganathan, Biomolecular Research Unit, Regional Research Laboratory, Trivandrum 695 019, India.
Tel.: +91 471 491 459
Fax: +91 471 490 186

High Temperature Materials Chemistry

10–14 April 2000
10th International Conference on High Temperature Materials Chemistry, Aachen, Germany.
Prof. Klaus Hilpert, Forschungszentrum Julich GmbH, Institut fur Werkstoffe der Energietechnik (IWE 1), 52425 Jülich, Germany.
Tel.: +49 2461 61 3280
Fax: +49 2461 61 3699
E-mail: k.hilpert@fz-juelich.de

Polymer Based Technology

NEW
21–26 May 2000
9th International Conference on Polymer Based Technology (POC'2000), Tianjin, China.
Prof. Zhang Zhengpu
Institute of Polymer Chemistry
Nankai University
94 Weijin Road
Tianjin 300071, China
Tel.: +86 22 2350 1386
Fax: +86 22 2350 4853
E-mail: zhangzp@sun.nankai.edu.cn

Mycotoxins and Phycotoxins

21–25 May 2000
10th International IUPAC Symposium on Mycotoxins and Phycotoxins, Sao Paulo, Brazil.
Dr. Myrna Sabino, Instituto Adolfa Lutz, AV Dr. Arnaldo 355, Sao Paulo, Brazil, 01246-902.
Fax: +455 (11) 853 3505
E-mail: Myrna@Sti.COM.BR

Flow Analysis

25–29 June 2000
8th International Conference on Flow Analysis, Warsaw, Poland.
Prof. Marek Trojanowicz, Department of Chemistry, University of Warsaw, Pasteura 1, 02-093 Warsaw, Poland.
Tel/Fax: +48 22 822 35 32
E-mail: trojan@chem.uw.edu.pl

Chemical Sensors

NEW
25–29 June 2000
EUROSENSORS XIV & International Meeting on Chemical Sensors VIII (ES-IMCS' 2000), St. Petersburg, Russia.
Prof. Yuri Vlasov, Chairman
Dr. Andrey Legin, Secretary
St. Petersburg University, Universitetskaya nab. 7/9, St. Petersburg, 199034, Russia.
Tel./Fax: +7 812 328 28 35
E-mail: andrew@sensor.chem.lgu.spb.su

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Organic Synthesis

1–5 July 2000
13th International Conference on Organic Synthesis (ICOS-13), Warsaw, Poland.
Prof. M. Makosza, Institute of Organic Chemistry, Kasprzaka 44, 01-224 Warsaw 42, PO Box 58, Poland.
Tel.: +48 22 631 8788
Fax: +48 22 632 6681
E-mail: icho-s@ichf.edu.pl

Macromolecules

9–14 July 2000
38th International Symposium on Macromolecules (MACRO 2000), Warsaw/Lodz, Poland.
Prof. Stanislaw Penczek, Polish Academy of Sciences, ul. Sienkiewicza 112, 90363 Lodz, Poland.
Tel.: +48 42 81 9815
Fax: +48 42 684 7126
E-mail: spenczek@bilbo.cbmm.lodz.pl

Coordination Chemistry

9–14 July 2000
34th International Conference on Coordination Chemistry (34-ICCC), Edinburgh, Scotland.
Prof. P. Tasker, Chairman
Dr. John F. Gibson, Secretary
The Royal Society of Chemistry, Burlington House, London W1V OBN, UK.
Tel.: +44 171 440 3321
Fax: +44 171 734 1227
E-mail: gibsonj@rsc.org

Polymers in Medicine

17–20 July 2000
40th Microsymposium Polymers in Medicine, Prague, Czech Republic.
Dr. Jaromir Lukas, Institute of Macromolecular Chemistry, Academy of Science of the Czech Republic, Heyrovskeho nam. 2, 162 06 Praha 6, Czech Republic.
Tel.: +420 2360341
Fax: +420 2367981
E-mail: sympo@imc.cas.cz

Photochemistry

22–27 July 2000
18th IUPAC Symposium on Photochemistry, "Photochemistry into the New Century", Dresden, Germany.
Prof. Dr. Silvia E. Braslavsky, Max-Planck Institut fuer Strahlenchemie, Postfach 101365, D-45413 Muelheim an der Ruhr, Germany.
Tel: +49 (208) 306 3681
Fax: +49 (208) 306 3951
E-mail: braslavskys@mpi-muelheim.mpg.de

Solubility Phenomena

25–28 July 2000
9th International Symposium on Solubility Phenomena (9th ISSP), Hammamet, Tunisia.
Prof. Najia Kbir-Ariguib, National Institute for Scientific and Technical Research, P.O. Box 95, Hammam-Lif, 2050 Tunisia.
Tel: +216 1 430 215
Fax: +216 1 430 934
E-mail: ariguib@planet.tn

Chemical Thermodynamics

6–11 August 2000
16th IUPAC Conference on Chemical Thermodynamics, Halifax, Nova Scotia, Canada.
Prof. M. A. White, Department of Chemistry, Dalhousie University, Halifax, Nova Scotia B3H 4J3, Canada.
Tel.: +1 902 494 3894
Fax: +1 902 494 1310
E-mail: Mary.Anne.White@DAL.CA

Thermal Analysis and Calorimetry

14–18 August 2000
12th International Congress on Thermal Analysis and Calorimetry, Copenhagen, Denmark.
Dr. O. Toft Sorensen, Materials Research Department
Riso National Laboratory DK-4000, Roskilde, Denmark.
Tel: +45 4677 5800
Fax: +45 4677 5758
E-mail: o.toft.sorensen@risoe.dk

Biotechnology

3–8 September 2000
11th International Biotechnology Symposium, Berlin, Germany.
Prof. G. Kreysa, DECHEMA e.V.— c/o 11th IBS, Theodor-Heuss-Allee 25, 60486 Frankfurt/Main, Germany.
Tel.: +49 69 7564 241
Fax: +49 69 7564 201
E-mail: info@dechema.de

Natural Products

NEW
4–8 September 2000
22nd International Symposium on the Chemistry of Natural Products, Sao Paulo, Brazil.
Dr. M. Fátima das G.F. da Silva, Universidade Federal de Sao Carlos, Depto. de Quimica, Via Washington Luiz, km 235, CP676, Sao Carlos, Sao Paulo, Brazil.
Tel.: +55 16 274 8208
Fax: +55 16 274 8350
E-mail: dmfs@power.ufscar.br

Trace Elements in Food

9–11 October 2000
Warsaw, Poland.
Prof. B. Szteke, Chairman
Dr. R. Jedrzejczak, Secretary
Institute of Agricultural and Food Biotechnology
ul. Rakowiecka 36
02-532 Warsaw, Poland
Tel.: +48 22 606 3876
Fax: +48 22 4904 28
E-mail: jedrzejczak@ibprs.waw.pl

Food Packaging

8–10 November 2000
2nd International Symposium on Food Packaging—Ensuring the Safety and Quality Food, Vienna, Austria.
Dr. L. Contor, ILSI Europe, 83, Avenue E. Mounier, Box 6, B-1200, Brussels, Belgium.
Tel.: +32 (2) 771 0014
Fax: +32 (2) 762 0044
E-mail: laura@ilsieurope.be

Visas

It is a condition of sponsorship that organizers of meetings under the auspices of IUPAC, in considering the locations of such meetings, should take all possible steps to ensure the freedom of all bona fide chemists from throughout the world to attend irrespective of race, religion, or political philosophy. IUPAC sponsorship implies that entry visas will be granted to all bona fide chemists provided application is made not less than three months in advance. If a visa is not granted one month before the meeting, the IUPAC Secretariat should be notified without delay by the applicant.