for atmospheric chemistry”; and “Kinetic, photochemical, and heterogeneous data evaluation for atmospheric chemistry”, because of their great impact on modeling the production and control of environmental pollutants, would be continued through the next biennium. It was also decided to continue the project “Kinetics data for chemical processes under extreme conditions”, with a focus on supercritical fluid kinetics. The general consensus was that there is now a clear need to proceed by organizing a workshop on data and application needs.

It was also felt that a brief document addressing data needs in the area of free radical thermochemistry from the point of view of the chemical kinetics user community would be extremely valuable. This undertaking might also be of use in initiating a new project with the Subcommittee on Theoretical Chemistry of Commission I.5 to deal with computational aspects and prediction of thermodynamic properties of small free radicals and other critical reaction intermediates.

Dr. M. Rossi was reelected as Chairman and Dr. J. Herron was reelected as Secretary. Profs. D. Baulch and J. Troe and Dr. R. Huie agreed to serve as Titular Members, and Profs. Tibor Bérczes and John Plane have agreed to serve as Associate Members through 2001. Prof. E. Breet was elected as a new Titular Member.

John Herron
Secretary, IUPAC Commission on Chemical Kinetics I.4

Commission on Biophysical Chemistry (I.7)

Summary of Minutes of Commission Meeting at IUPAC General Assembly, Berlin, Germany, 8–9 August 1999

“Recommendations for the presentation of NMR structures of proteins and nucleic acids” by J. L. Markley, A. Bax, Y. Arata, C. W. Hilbers, R. Kaptein, B. D. Sykes, P. E. Wright, and K. Wüthrich has been published in Pure and Applied Chemistry (Vol. 70, No. 1, pp. 117–142, 1998). To broaden its scientific impact, it has also been published in the Journal of Biomolecular NMR, the European Journal of Biochemistry, and Biochemistry. This important report will help to define how NMR results on macromolecules will be reported in the literature. Hans-Jürgen Hinz and Fred Schwarz reported on the status of their project “Recommendations for the measurement and analysis of results obtained by isothermal titration calorimetry (ITC)” and “Guidelines for the presentation of the results from computational chemistry.”

Productive, joint meetings were also held with Commission I.2 (Thermodynamics), Commission I.3 (Electrochemistry), Commission I.6 (Colloid, Surface Chemistry, and Catalysis), and Commission V.5 (Electroanalytical Chemistry). Kurt Wüthrich will succeed Helmut Hauser on 1 January 2000 as the Chairman of the Commission on Biophysical Chemistry (I.7).

Robert N. Goldberg
Secretary, IUPAC Commission on Biophysical Chemistry I.7

Commission on Atomic Weights and Isotopic Abundances (II.1)

Summary of Minutes of Commission Meeting at IUPAC General Assembly, Berlin, Germany, 8–10 August 1999

The Commission on Atomic Weights and Isotopic Abundances (II.1) met for three days of discussions under the chairmanship of Prof. Ludolf Schultz during the 40th IUPAC General Assembly in Berlin. The standard atomic weights of seven chemical elements have been changed significantly. Based on new determinations of isotopic abundances and reviews of previous isotopic abundances, the standard atomic weight of nitrogen was changed from 14.00674(7) to 14.0067(2), of sulfur from 32.06(6) to 32.065(5), of chlorine from...
of germanium from 72.61(2) to 72.64(1), of xenon from 131.29(2) to 131.293(6), of erbium from 167.26(3) to 167.259(3), and of uranium from 238.0289(1) to 238.02891(3). Many of these changes were adopted so that standard atomic-weight values more accurately reflect the values of these chemical elements in naturally occurring materials.

The changes in atomic-weight values will be reflected in the Table of Standard Atomic Weights 1999, which will be submitted for publication in Pure and Applied Chemistry (PAC) before the end of the year. Also planned for publication in PAC is a report on fourteen elements that show significant isotopic abundance variation in naturally occurring materials. This report demonstrates that the atomic weight of such elements can be significantly larger than the uncertainties of measurement. Publication of an element-by-element review was discussed and is planned for submission to PAC in 2000. The Commission discussed a glossary of definitions specific to atomic-weight and isotopic-abundance work in order that definitions generated would be submitted to nomenclature commissions for inclusion in future IUPAC documents. A large number of isotopic-abundance measurements in extraterrestrial materials is available; these data will be summarized and a draft will be available at the next General Assembly in Brisbane in 2001.

Tyler B. Coplen II
Chairman, IUPAC Commission II.1, Subcommittee on Natural Isotopic Fractionation

Commission on Nomenclature of Inorganic Chemistry (II.2)

Summary of Minutes of Commission Meeting at IUPAC General Assembly, Berlin, Germany, 9–11 August 1999

Commission II.2 (CNIC) reviewed two documents that had been completed in August of 1998 but were found not ready at that time for forwarding to Pure and Applied Chemistry. There were some questions concerning the use of “ido” and “ato” in the inorganic radical document by Prof. Wim Koppenol. These matters were resolved and Prof. Koppenol will modify the document to remove inconsistencies. The document by Prof. Koppenol concerning the naming of elements 110 and higher was brought into conformance with the one presented to the Commission in August 1998 by Prof. John Corish, Prof. G. J. Leigh, and Dr. Gerd Rosenblatt. The Commission agreed unanimously that, to avoid confusion in the literature and electronic searching, if a name has been used unofficially for an element and that name is not accepted as the official IUPAC name, then it should not be proposed for another element at a future date.

The publication date for Red Book II will depend upon how quickly arrangements are concluded with a publisher. A document on muon nomenclature, also by Prof. Koppenol, was revisited and, with minor revisions, was approved to go forward. It will be submitted to Commission V.7 (Radiochemistry and Nuclear Techniques) for comment before proceeding. The organometallic paper by Prof. Albrecht Salzer will be submitted to PAC after IDCNS review.

The revision of Red Book I continues under the direction of Prof. Neil Connelly. This revision will include the chapter on ligand abbreviations, errors will be removed, and the nomenclature will be made consistent for all chapters. A separate project was proposed and accepted for this update of Red Book I under the new IUPAC project-managed system. A progress report on computer-assisted nomenclature was presented, and it showed that it is possible to generate a number of unique structures for convex polyhedra. However, it was noted that purely mathematical solutions were unsatisfactory unless parameters were added to eliminate chemically improbable solutions. A joint meeting was held with the Commission on Nomenclature of Organic Chemistry (CNOC) to discuss common areas of concern. Members of both Commissions involved in computer-assisted nomenclature will meet to discuss common goals. At the joint meeting, it was agreed to continue a collaborative effort to produce a book on organometallic nomenclature. CNOC will work on main group elements, and CNIC will work on transition metals (Prof. Salzer’s document and metallacycles). Additionally, other chapters will be solicited. These two efforts, computer-assisted nomenclature and organometallic nomenclature, are expected to develop into separate projects under the project-funded system. A metallacyclic paper by Prof. Yohsuke Yamamoto was discussed, and further revisions will be made and circulated to the Commission members before the next meeting. The Commission will meet again in August 2000 in Dublin, Ireland.

James B. Casey
Associate Member, IUPAC Commission on Nomenclature of Inorganic Chemistry II.2