

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MINUTES OF 63rd BUREAU MEETING

Lisbon University, Portugal: 9th-10th August 1993

Present: Prof. A. J. Bard (President - Chairman), Prof. H. A. Staab (Vice-President), Prof. Y. P. Jeannin (Past-President), Prof. G. den Boef (Secretary General), Prof. J. M. Ward (Treasurer); Prof. M. T. Beck, Prof. R. D. Brown, Prof. A. Chakravorty, Prof. W.-Y. Huang, Prof. S. Itô, Prof. J. Jortner, Prof. G. Modena, Prof. I. Wadsö, Prof. K. I. Zamaraev (Elected Members); Prof. R. A. Alberty, Prof. K. L. Komarek, Prof. N. J. Leonard, Prof. W. Heitz, Prof. A. Hulanicki, Dr. P. S. Steyn, Prof. H. P. Lehmann, Prof. J. G. Topliss (Division/Section Presidents); Prof. A. E. Fischli (Chairman, Committee on Chemistry and Industry), Dr. A. Hayes (Chairman, CHEMRAWN Committee)

Absent: Dr. Mary Good (Elected Member)

In Attendance: Dr. E. D. Becker (Chairman, Committee on Publications) - in part, Dr. S. R. Heller (Chairman, Committee on Chemical Databases) - in part, Prof. I. M. Mills (Chairman, Interdivisional Committee on Nomenclature and Symbols) - in part, Dr. M. Williams (Executive Secretary)

1/93 INTRODUCTORY REMARKS AND FINALIZATION OF AGENDA

An apology for non-attendance was received from Dr. Good, because of her nomination as Undersecretary for Technology in the US Department of Commerce.

The following item was added to the agenda circulated by the Executive Secretary (93.07.23):

4.10 Council Item 16 - Proposed Changes to Statutes and Bylaws

In preparing the meeting files, attention had been paid to the wish of the Executive Committee [Minute 6.5(i)/93, 118th Meeting - Newark] to simplify the agenda and papers. No documents already distributed from the IUPAC Secretariat were included (reference was simply made to their original date of circulation). The circulated documents consisted of:

- a main file containing the agenda and papers, which needed to be read before the meeting
- a second file containing papers, which only needed to be read if a Bureau Member so wished

2/93 MINUTES OF 62nd MEETING OF BUREAU

2.1/93 Amendments and Approval

The Minutes of the meeting at Oxford (circulated 93.01.13) were approved.

2.2/93 Matters Arising from Minutes

There were no matters arising, which were not covered by items on the agenda.

3/93 MINUTES OF 118TH MEETING OF EXECUTIVE COMMITTEE

3.1/93 Receipt of Minutes

The Minutes of the meeting at Newark (circulated 93.06.24) were recorded as having been received officially by the Bureau.

3.2/93 Matters Arising

3.2.1/93 Computerization and Nomenclature (Minute 2.2.2/93)

Profs. Komarek and Leonard said that in 1992 the Commissions on Nomenclature of Inorganic Chemistry and of Organic Chemistry had both held discussions on the subject. At Lisbon progress had been reviewed by Dr. J. L. Wisniewski in the development of the AUTONOM programme (Beilstein Institut) for generation of a systematic name from an input structure (success rate of 75%); an updated version would be on the market later in 1993. A compilation of publications concerned with the inter-conversion of name and structure in organic chemistry (computerization of organic chemical nomenclature) had been produced and circulated. Also, an illustrated lecture had been delivered by Prof. A. Dress on his programme for mathematical analysis of polygons, such as those characterizing polyhedra found in cluster molecules. Prof. Leonard said that AUTONOM looked promising from an IUPAC point of view, especially in relation to Chemical Abstracts Service. He estimated five years to achieve a "100% successful" computerized nomenclature programme, in conjunction with the Inorganic Chemistry Division, with sections being furnished to the chemical profession at regular intervals.

3.2.2/93 Solubility Database (Minute 4.5.2/93)

The unsanctioned key-boarding, into a database in USA, of data critically evaluated by the Commission on Solubility Data, had been brought to the attention of the Standing Committee of the ICSU Press Publishing Service (Dr. D. F. Shaw: 93.06.29). This body had initiated a study on copyright protection and intellectual property content of digitally stored scientific texts (and other matter). However, the President understood that the solubility data copyright issues had been resolved at Lisbon.

3.2.3/93 Internal Audit of IUPAC Accounts (Minute 4.6.1/93)

A summary report (93.07.15) from the internal auditor, Dr. S. S. Brown, was tabled. The Bureau accepted the recommendation of the Executive Committee to continue with an internal audit for another two years after Lisbon. Unless anything new emerged during that time, any further continuation was unlikely to be warranted.

3.2.4/93 Chairmanship of Finance Committee
(Minute 4.6.10/93)

The Bureau accepted the recommendation of the Executive Committee, that Prof. Ward should serve as Treasurer and Chairman of the Finance Committee until the end of his present or extended term as Treasurer.

3.2.5/93 Publicity Brochure for IUPAC (Minute 4.7.1/93)

The Treasurer tabled a preliminary proposal (93.02.16), which had been presented to the Executive Committee at Newark. The minimum cost was USD 10 000, which would have to be taken from reserves. Prof. Fischli supported the proposal and said that, in principle, COCI accepted responsibility to raise the necessary funds from chemical industry on the

basis of mock-ups for a leaflet and brochure and detailed budgets. Profs. Staab and Modena also spoke in favour of the proposal. Prof. Brown stressed the need to include some striking examples of information and data generated by IUPAC, which were indispensable to chemical industry, trade and commerce. The Bureau agreed that the Union should proceed, as indicated, in conjunction with COCI. Prof. Ward would write urgently to IUPAC bodies to solicit examples for the brochure.

3.2.6/93 Distribution of Council Agenda by Registered Mail
[Minute 5.1.2(i)/93]

The Bureau accepted the recommendation of the Executive Committee to ask Council at Guildford to discontinue the requirement for the Council agenda to be distributed to NAOs by registered mail (Bylaw 2.25).

3.2.7/93 Terms of Reference of IUPAC Bodies (Minute 6.4/93)

Proposals from the Physical Chemistry Division (93.06.29), for redefined terms of reference for its Commissions on Thermodynamics, on Electrochemistry, on Molecular Structure and Spectroscopy, and on Colloid and Surface Chemistry including Catalysis, would be recommended by the Bureau for approval by Council at Lisbon.

3.2.8/93 Discontinuation of Nomenclature/Symbols Projects
More Than Ten Years Old (Minute 6.7/93)

Dr. Williams elaborated briefly on the revised listing of current projects begun in 1983 and earlier, which had been produced by the Deputy Executive Secretary and precirculated to the Bureau. The status of some projects, particularly from the Inorganic Chemistry and Organic Chemistry Divisions, was still under investigation at Lisbon. The Bureau resolved:

- (i) at the end of 1993 to discontinue any listed project, which was not ongoing nor clearly nearing completion/review/publication;
- (ii) to compile a list of current projects begun in 1985 for review at Guildford.

3.2.9/93 Revised Division/Section Rules (Minute 7.13/92, 62nd Bureau)
and particularly Macromolecular Division Rules (Minute 7.5.2/93, 118th Executive Committee)

- (i) The Bureau accepted the proposal of the Secretary General, that precirculated suggestions by the Deputy Executive Secretary to bring all existing Division/Section Rules in accord with the general policy of the Union and its Statutes and Bylaws (Stature 10.3) should be recommended for approval by Council at Lisbon.
- (ii) Noting that the President of the Macromolecular Division accepted suggestions by the Secretary General (especially replacement of Coopted by Associate Members), the Bureau approved as new principles for recommendation to Council at Guildford:
 - a) to simplify the Statutes and Bylaws and consequently Division-Section Rules/Guidelines, by only distinguishing between Members and Associate Members for all relevant IUPAC bodies;
 - b) to grant voting rights in scientific matters to Associate Members.

In response to an enquiry from Prof. Heitz, Prof. den Boef stressed that Associate Members would only have membership voting rights in the election of Division/Section Committee Members (and not Division/Section Officers nor Commission Members: cf. Bylaws 4.102, 4.103, and 4.303).

3.2.10/93 Future Membership of Committee on Affiliate Membership/
Review of Affiliate Membership Programme (Minutes 7.8.3
and 7.8.4/93)

- (i) The appointment of a successor to Prof. Staab as Chairman of CAM and of some replacement Members from the Bureau was deferred for consideration by the Bureau after the Council meeting at Lisbon.
- (ii) The Bureau accepted a proposal from the Executive Committee, that a small group, consisting of the Treasurer (Chairman), Prof. Komarek (new Chairman of the Division/Section Presidents Group), and Dr. D. H. M. Bowen (Publications Committee Member and USA National Affiliate Membership Secretary), should undertake a critical review of AMP. The review should be presented to the Bureau in 1994, with a view to making an appropriate recommendation to Council at Guildford about continuation of AMP.

3.2.11/93 IUPAC Representation at Meetings of International/
Regional Organizations (Minute 8.5 and Appendix B/93)

The President drew attention to the Guidelines for IUPAC Representation, which had been approved by the Executive Committee at Newark. A listing of official representatives (as at 93.06.24), drawn up by the Executive Secretary and summarizing the situation for 1993 (to date), 1992, and 1991, had been precirculated. Prof. Bard would be taking the listing into consideration at Lisbon, when he reviewed the IUPAC Representatives on Other Organizations (*IUPAC Handbook 1991-1993*, pages 15-16). Dr. Hayes stressed the need for each representative to be properly briefed before attending a meeting, and he offered to draft a relevant clause for the Guidelines.

4/93 ITEMS FROM AGENDA OF 37TH COUNCIL REQUIRING DISCUSSION, RESOLUTION,
OR RECOMMENDATION BY BUREAU

4.1/93 Council Item 1 - Recommendation on Assignment of Votes to
Delegations in Council at Lisbon

- (i) The Bureau agreed that the proposal of the Executive Committee [Minute 5.1.2(ii)/93, 118th Meeting] should be recommended for adoption by Council at Lisbon, namely that the assignment of votes should be on the same basis as at Hamburg: the number of votes would depend on the paid 1992 subscription, unless there was no payment for 1992, when it would depend on the payment for 1991.
- (ii) The Executive Secretary suggested that the Secretary General and Treasurer should review for the General Assembly at Guildford in 1995 the present votes/subscription bands, especially those for three and four votes.

4.2/93 Council Item 4 - N/E Committee Recommendations on Number of Elected Members of Bureau for 1994-5, for Filling Vacancies amongst Officers and in Bureau, and on Appointment of Tellers
[Minute 5.1.2(iii)/93, 118th Executive Committee]

The President reported on the recommendations of the N/E Committee, and the Bureau agreed to present them to Council:

- (i) The Tellers during all voting in Council should be
 - Prof. J. M. Ward (Bureau Member, Treasurer)
 - Prof. G. den Boef (Bureau Member, Secretary General)
 - Dr. D. J. Raber (Secretary, USA Delegation)
- (ii) Because of his industrial background, the vacancy for Vice-President should be filled by Prof. A. E. Fischli (Switzerland).
- (iii) During 1993-5 the total number of Elected Members of the Bureau (Statute 7.2) should be ten, and the number of vacancies was therefore six.
- (iv) Taking into consideration geographical distribution, IUPAC experience, and their fields of expertise, the six vacancies for Elected Members of the Bureau should be filled by
 - Prof. R. D. Brown (Australia)*
 - Dr. D. F. Eaton (USA)
 - Prof. N. N. Greenwood (UK)
 - Prof. J. W. Lorimer (Canada)
 - Prof. E. Maréchal (France)
 - Prof. Cunhao Zhang (China)

(* reelection for a further period of four years)

4.3/93 Council Item 5 - Recommendation on Time of Elections

The Bureau agreed to recommend to Council that, in accordance with recent practice, the Election of Officers of the Union and of Elected Members of the Bureau should take place at 10.00 hours on Thursday, 12th August 1993.

4.4/93 Council Item 6 - Recommendation on Appointment of Auditors for 1993-4

The Bureau agreed to recommend to Council, that Neutra Treuhand AG should be reappointed as auditors for 1993-4. However, a suggestion from Prof. Ward, that a significant financial saving might be made by reverting to a biennial audit, was referred for consideration by the Finance Committee. Dr. Hayes proposed that a serious review should be made every five years of the appointed auditors.

4.5/93 Council Items 7, 8, 9, 10, and 11

- (i) Restructuring of Union - The President spoke to a tabled draft Addendum to the document already circulated to Council on Restructuring. The draft had been prepared by the IUPAC Officers, following discussions with the Division/Section Presidents at their meeting in Lisbon (Minute 3.1/93). It constituted a more detailed modus operandi for the present pool of 18 TMs, and proposed an increase in size of the pool to 24 rather than 45 TMs at Guildford. Prof. Bard confirmed that allocations from the pool of 18 TMs would

operate from 94.01.01, but these positions must be returned to the pool for reallocation at Guildford (exceptionally they might be extended for two more years). To retain conformity with the Statutes, the Bureau should ratify the projects (TMs) for the biennium 1996-7, selected in September 1994 at a meeting of IUPAC Officers, Division/Section Presidents, and the Chairmen of the CHEMRAWN Committee and COCI. The Secretary General said that the modus operandi would need to be revised in the light of further experience, and the President of the Union should present a progress report on the overall programme at each Council meeting. Following a request for clarification from Prof. Alberty, Prof. den Boef said that "when the Executive Committee meets in the Spring following the General Assembly" meant, for example, Spring 1994 after Lisbon.

(ii) Vice-Presidential Critical Assessment of IUPAC Programmes and Projects

General - The President introduced two late papers, which had been tabled at the meeting:

- a) A time schedule for the Assessment, proposed by the IUPAC Officers, in order to avoid difficulties in future.
- b) A paper from the Physical Chemistry Division (93.08.08), requesting specific changes in the process of the Assessments, if these were to be continued.

There was general agreement that Statute 6.32 required the final Assessment to be submitted only to the Bureau, and not to the NAOs and Council. However, it could be made available to the Commissions. There was some support for a wider distribution of general remarks and suggestions concerning IUPAC activities in the Assessment (Part I). The Secretary General said that the Assessment was unlikely to please everyone, and it might be mentioned in the time schedule that a Division/Section President may submit to the Bureau a short response (not an addendum) to the Assessment.

On the assumption that the proposed time schedule would be accepted by the Bureau, Prof. Alberty withdrew the paper from the Physical Chemistry Division.

Critical Assessment of Vice-President Staab - In response to an invitation from the President to discuss specifically Prof. Staab's Assessment, Prof. Modena favoured a Critical Assessment if the Union was really serious about Restructuring. Prof. Jortner said that the work of Prof. Staab constituted an important contribution to maintaining the quality and standard of the scientific work of IUPAC. He suggested the establishment of a group to ensure that, in future, the Union was involved in the most important international projects, such as ethics. Input should be sought from distinguished non-IUPAC chemists, and the Union must involve better through ICSU in global aspects of science. Prof. Heitz had found Prof. Staab's Assessment valuable in his dialogue with the Commissions of the Macromolecular Division. Prof. Jeannin supported the critical remarks about the Medicinal Chemistry Section and he proposed its discontinuation, but there was no consensus support within the Bureau for such action at Lisbon. Prof. Topliss regretted the lack of information available to Prof. Staab on the activities of the Section. He would present a detailed account to Council, but Prof. Staab remained unconvinced about the viability of the Section.

In order for the Bureau to respond positively to Prof. Staab's Assessment, Dr. Hayes suggested that the Secretary General should draft a follow-up mechanism paper for consideration at the next meeting of the Executive Committee. For instance, each new IUPAC Vice-President might be responsible for following-up his predecessor's Assessment.

The Bureau responded with acclamation to a formal resolution from Prof. Jortner, thanking Prof. Staab for his Assessment.

(iii) Continuation/Dissolution of Existing IUPAC Bodies and Proposals for New Bodies

After the President had given some explanations, the Bureau agreed to recommend to Council that:

- a) all existing Commissions of the Union should be allowed to continue for the next two years (Bylaw 4.302).
- b) new permanent Commissions, with stated terms of reference, should be created from existing LLTCs on
 - Isotope Specific Measurements as References
 - Functional Polymers (Minute 6.3/93, 118th Executive Committee)
 - Environmental Analytical Chemistry
 - Separation Methods in Analytical Chemistry

A change in name from "Isotope Specific Measurements as References" to "Traceability of Chemical Measurements" was deferred, pending clarification by Prof. Komarek with the Commission. A request from Dr. Steyn for a change in name for the Commission on Water Chemistry to "Water and Soil Chemistry" was deferred until revised terms of reference could be provided. Meanwhile, the President encouraged the Commission to consider the feasibility of starting appropriate soil projects. Prof. Alberty tabled a proposal to establish a Commission on Biophysical Chemistry within the Physical Chemistry Division. The President recommended that it should be deferred for consideration by the Executive Committee, noting a request for the early involvement of the Organic Chemistry Division and that the Analytical Chemistry Division might also have some relevance.

4.6/93 Council Item 18 - Ratification of Dates and Place for 38th General Assembly and of Dates and Place/Scope of 35th Congress (1995)

- (i) The Bureau agreed that the recommendation of the Executive Committee (Minute 5.2/93, 118th Meeting) should be supported for adoption by Council, namely to ratify the University of Surrey at Guildford, UK, as the location and 4th-11th August 1995 as the dates for the 38th General Assembly.
- (ii) Noting its earlier consideration of suggested themes for the scientific programme (Minute 5.3/92, 62nd Meeting), the Bureau agreed to recommend Council to ratify Istanbul as the location, 14th-19th August 1995 as the dates, and the scope of the scientific programme

(Statute 13.1) as detailed in the recent Preliminary Announcement by the Turkish Chemical Society.

4.7/93 Council Item 19 - Recommended Budget Proposal and National Subscriptions for 1994-5

The Treasurer drew attention to forthcoming financial difficulties for IUPAC: it was vital to raise national subscriptions by 5% in each of 1994 and 1995, otherwise a reduction was inevitable in the biennial budget of money available for the scientific work of the Union. He had visited all Division/Section Committees at Lisbon to stress the seriousness of the situation. There was unanimous support from the Bureau for a 5% increase, and it would recommend Council to approve the proposed budget (as at 93.07.06). Prof. Itô asked that the chemical turnover implications for Japanese subscriptions should be considered by the Finance Committee.

4.8/93 Council Item 21 - Provisional Recommendations on Places for 39th General Assembly and 36th Congress (1997)

- (i) Despite the financial implications for the host country, Prof. Zamaraev preferred the Assembly and Congress to be held "back-to-back" in the same country. However, Prof. Modena pointed out that, in the case of a person attending both events, this required a long period of absence for a person from his place of employment. Prof. Jortner suggested that the Assembly and Congress might be held in alternate years, with the Bureau meeting in an even year in conjunction with the Congress. In the opinion of Prof. Wadsö, IUPAC Congresses were now outmoded: it was better to support smaller specialist meetings. Prof. Modena felt that, in future, the Congress should focus only on one or two themes. The President invited Profs. Jortner and Modena to prepare a position paper for consideration by the Executive Committee.
- (ii) On the basis of earlier considerations by the Executive Committee (Minutes 5.4/92, 117th Meeting - Dublin and 5.3/93, 118th Meeting) and a report from the Deputy Executive Secretary following a recent visit to Graz (satisfactory in terms of meeting rooms/Assembly operations and for living accommodation, especially price), the Bureau would recommend Council to accept provisionally the invitation from Austria to locate the Assembly at Graz. Prof. Itô indicated that Japan was interested to host a future Assembly, and it might be able to help financially with regard to travel expenses.
- (iii) Noting that 1997 would be the 75th anniversary of Associação Brasileira Química, the Bureau agreed to support the recommendation of the Executive Committee (Minute 5.3/93, 118th Meeting) for Council to accept provisionally an invitation from Brazil to host the Congress. Prof. Jeannin said that, following the recent visit of Prof. J. Rouxel to Brazil (Minute 8.3/93), it was clear younger chemists would welcome location of the Congress in their country.

4.9/93 Council Item 23 - Recommendations on AO Status for Chemical Heritage Foundation and on Continuation of Existing AOs

- (i) The Bureau agreed to support the recommendation of the Executive Committee (Minute 8.7.1/93, 118th Meeting) for Council to accept an application for AO status from the Chemical Heritage Foundation.
- (ii) A paper was considered, which summarized the status (as at 93.07.21) of the four-years review of existing AOs by the Secretary General and

Executive Secretary (Minute 8.7.2/93, 118th Executive Committee) and of payment of the AO service charge for 1993 (Minute 2.2.2/93, 118th Executive Committee). The Bureau agreed to recommend Council to continue the AO status for 24 organizations which had provided satisfactory reports and paid the service charge, to continue the AO status for 7 organizations subject to provision, as relevant, of a satisfactory report or payment of the service charge by 93.10.31, and to inform 6 organizations that their AO status would automatically be withdrawn unless they provided a satisfactory report and paid their service charge by 93.10.31.

4.10/93 Council Item 16 - Proposed Changes to Statutes and Bylaws

- (i) The Bureau endorsed an amendment from the UK-NAO (93.03.09), that the proposal to change the second sentence of Bylaw 4.305(i) should be altered to read:

"A Commission may coopt not more than one such representative from an Adhering Organization, but such representation shall not be permitted if the Commission already has a Titular or Associate Member from that Organization, unless exceptional circumstances are established and special permission granted by the Bureau."

- (ii) A late paper from the US National Committee (93.04.09) was tabled, endorsing the proposal from Canada for priority-ranking of Commissions, but suggesting an alternative method of achieving the same objectives. The Bureau expressed itself unanimously against the Canadian proposal to amend Statute 7.42 and Bylaw 4.302 (except for one abstention) and against the USA suggestion (except for five abstentions).

5/93 IUPAC BODIES

5.3/93 Matters Arising from Lisbon Meeting of Publications Committee
(Dr. Becker in attendance)

Dr. Becker drew attention to his precirculated report to Council, especially the significant income for the Union arising from its publications. BSP had not requested an increase in the subscription rates to PAC for 1994. The Committee would submit a written response to comments on publications by Prof. Staab in his Vice-Presidential Critical Assessment. The role of its three Editorial Advisory Boards [Minute 6.5(ii)/93, 118th Executive Committee] had been considered at Lisbon, and their continuation was recommended during 1993-5, with the status of CI-EAB to be decided after evaluation by the Bureau of the critical review of AMP [Minute 3.2.10(ii)/93]. When adopted by the Bureau (Minute 9.3/92, 62nd Meeting), the "Recommended Policies and Procedures for Handling Copyright in IUPAC Projects" should be considered at the initiation of each new project. The database of IUPAC reports published in PAC had been launched at Lisbon, and gratis copies with an instruction manual were available to all interested persons. An almost complete first draft of the "student-oriented" nomenclature book had been evaluated, and it was hoped to submit a final draft for IDCNS review in mid-1994.

In answer to an enquiry by Prof. Wadsö regarding the Vice-Presidential Critical Assessment comments on PAC and CI, Dr. Becker said that it was very doubtful if splitting PAC into parts would increase and would almost certainly decrease subscriptions (income); he reiterated his view that the future of CI could only be discussed after evaluation by the Bureau of the

review of AMP. Prof. Modena felt that a more critical approach was needed to publication in PAC of papers from IUPAC-sponsored symposia: fewer and only the best papers should be accepted. Prof. Staab supported these remarks, stressing the need for all such papers to be of high quality and of a critical overview in character. On the other hand, Prof. Staab conceded that recent issues of CI had been more appealing.

5.4/93 Matters Arising from Lisbon Meeting of CHEMRAWN Committee

Dr. Hayes drew attention to his report to Council and to some matters discussed at Lisbon. The perspectives and recommendations from CHEMRAWN VII (Baltimore, 1991) had been widely distributed. As a specific follow-up action, attention was being focussed on exploring with industry the possibility of strengthening and expanding existing international efforts to establish a high quality global monitoring network in developing countries, such as Brazil and/or Central Africa. There had been only a small attendance at CHEMRAWN VIII (Moscow, 1992), but many of the scientific papers had recently been published in the first issue of a new journal *Chemistry for Sustainable Development*. CHEMRAWN IX - on sustainable production, use, and disposal (including recycling) of materials - would probably be at Seoul in 1996, the 50th anniversary of the Korean Chemical Society. A possible joint CHEMRAWN conference was being discussed with UNESCO. Dr. Hayes was pleased to announce that Prof. R. Hamelin had agreed to serve as Secretary in addition to being a Committee Member.

Prof. Heitz hoped that the Macromolecular Division could launch its final report on recycling of plastics at CHEMRAWN IX. Regarding a future CHEMRAWN conference on decontaminating the large volumes of soil present in many polluted sites around the world, Dr. Steyn asked for an early dialogue to be initiated with the Commission on Water Chemistry, which was planning to expand its activities to cover soil chemistry. Profs. Wadsö and Staab stressed the need to publicize the involvement of IUPAC in CHEMRAWN conferences. Dr. Hayes agreed that cosponsors, which provided the financial support, tended to dilute the overall contribution of the Union. However, Prof. Fischli said that this had not been a problem in the case of the IUPAC regional workshops on safety in chemical production.

5.5/93 Matters Arising from Lisbon Meeting of Committee on Chemistry and Industry

Prof. Fischli drew attention to his precirculated report to Council, especially the current distribution of Company Associates, IUPAC Workshops on Safety in Chemical Production, events at the national and regional levels for the 1994 Chemistry for Life Programme, and the initiation with UNESCO and UNIDO of a fellowships programme for safety and environmental protection training for developing countries. Possible new activities included a 4th Workshop on Safety and the Environment in Saudi Arabia, a workshop on food production and health care, and a COCI study group on Challenges in Chemistry.

Prof. den Boef suggested that food production and health care might be incorporated into CHEMRAWN X, while Dr. Hayes indicated that the CHEMRAWN Committee might initiate a technology transfer component for CHEMRAWN X after the safety fellowships programme was well established. Prof. Bard hoped that the COCI study group might lead to proposals for restructuring the Union. Prof. Wadsö proposed that COCI should invite the CAs to inform IUPAC of areas where there was a need for critically evaluated data by chemical industry.

5.5.1/93 Recommendations from 2nd IUPAC Workshop on Safety in Chemical Production

Prof. Fischli elaborated briefly on the precirculated recommendations, which had been drawn up by the organizers of the 2nd Workshop (Yokohama, Japan: 93.05.31-06.04) and ratified by the participants. The Bureau approved, in principle, the recommendations and agreed that they could be distributed using IUPAC-channels.

5.6/93 Matters Arising from the Lisbon Meeting of Committee on Affiliate Membership

Prof. Staab regretted the absence of the Affiliate Affairs Secretary, who was unable to travel to Lisbon due to a serious eye inflammation. The deliberations of CAM had therefore been somewhat restricted, the main points being

- the total number of Affiliates was still decreasing, especially in USA, which should be investigated
- more information was needed about the existing Affiliates, such as their age and professional status
- a greater understanding was needed of AMP finances and its implications
- if AMP was discontinued at Guildford, IUPAC should not lose contact with developing countries

Prof. Leonard felt that the decrease of Affiliates in USA was due to the rise in the US-subscription. Prof. Itô was disappointed at the privileges granted to Affiliates: CI was not enough, and he advocated greater use of reduced fees for attendance at IUPAC-sponsored symposia. Prof. Staab was concerned that the requirement for Affiliates from East European countries to pay in USD in 1994 (Minute 4.6.6/93, 118th Executive Committee) would lead to difficulties.

5.7/93 Matters Arising from Lisbon Meeting of Committee on Chemical Databases (Dr. Heller in attendance)

Dr. Heller enlarged on some items from his precirculated report. Chemical Abstracts Service was working on a standard molecular data interchange format for chemical substances and queries (connection table), on which CCDB hoped to comment and make a recommendation to the Union. The stability constants database (Minute 4.5.1/93, 118th Executive Committee) had been launched formally at Lisbon by the President of the Union. Having resolved its copyright issues at Lisbon (Minute 3.2.2/93), the Commission on Solubility Data would prepare a plan to create an ASCII test version of its over fifty volumes of published data for examination by CCDB. The Committee would be cooperating in the 1994 International Conference on Chemical Thermodynamics, which would deal with computer applications in handling thermodynamic data. Dr. Heller would be visiting the IUPAC Secretariat later in the year to advise on hardware and software problems in development of its computer network.

5.8/93 Matters Arising from Lisbon Meeting of Interdivisional Committee on Nomenclature and Symbols (Prof. Mills in attendance)

From his precirculated report, Prof. Mills emphasized that the new procedure for comment and approval of IUPAC recommendations had been working well over

the past two years, and it had reduced publication delays. Wider compliance was needed with the rule that all camera-ready manuscripts should follow the universal convention for quantity symbols to be printed in an italic (sloping) font and unit symbols in a roman (upright) font. The long-standing problem of finding a more acceptable name for "amount of substance" had been considered in detail at Lisbon. The term "chemical amount" had been introduced as an alternative in the recently issued second edition of *Quantities, Units and Symbols in Physical Chemistry* (the Green Book, the 1988 edition of which had been sold out earlier this year), and the reaction of the chemistry community was awaited. The German term "Stoffmenge" might also find favour. To avoid ambiguity, the use of "percent (%)" and "part per million (ppm)" was being discouraged. The Executive Secretary suggested that Prof. Mills should draw attention to these proposals via a note in CI.

5.9/93 Matters Arising from Lisbon Meeting on Environmental Matters

The Secretary General said that it was important for the Union to maintain a high visibility on environmental matters to the outside world in general and to ICSU in particular. He reported that there had been a consensus for some kind of future coordination of environmental activities within the Union, not only to avoid any overlap, but also to identify projects which needed urgent treatment by IUPAC. As an environmental expert, Prof. J. G. Calvert was proposed to be responsible for such coordination. In addition, Prof. den Boef drew attention to a suggestion to create a Division of Environmental and Health Chemistry from the existing Divisions of Applied Chemistry and Clinical Chemistry and the Medicinal Chemistry Section. Dr. Steyn had agreed to prepare a position paper, in consultation with the relevant parties, for discussion at the 1994 meeting of the Bureau. For the time being, environmental activities in other Divisions preferred to remain outside the suggested new Division.

5.10/93 Report of Committee on Teaching of Chemistry

A precirculated report and a tabled addendum from Prof. K. V Sané were noted by the Bureau. Prof. Komarek urged the use of IUPAC recommendations on nomenclature and symbols by CTC, especially in its *International Newsletter on Chemical Education*.

5.11/93 Memberships Approved by Correspondence

The following appointments, which had been made through correspondence by the President since the 118th Executive Committee meeting, were ratified by the Bureau:

CHEMRAWN Committee

Prof. E. Buncel (Canada)	Member (1993-1996)
Prof. R. Hamelin (France)	Member (1993-1996)

Committee on Chemistry and Industry

Prof. A. E. Fischli (Switzerland)	Member (1993-1996), to replace Dr. D. Wyrsh, in addition to being Chairman
Dr. Johnsee Lee (Chinese Chemical Society located in Taipei)	Member (1993-1996), to replace Dr. P. T. K. Wu, resigned
Dr. S. E. Shatzmiller (Israel)	Member (1993-1996)

Finance Committee

Dr. E. P. Przybylowicz (USA)

Member (1994-1997), to replace
Dr. L. C. Krogh

6/93 RELATIONS WITH OTHER ORGANIZATIONS

6.1/93 Ethics in Modern Science

Prof. Jortner reported that the small subcommittee, proposed by the Executive Committee (Minute 8.2/93, 118th Meeting), had met briefly at Lisbon. Position papers on "Some Aspects of Ethics in Modern Science" and "Ethics in Modern Science: A Framework for Discussion" were to be circulated for comment by the subcommittee members, after which he would redraft the papers. In addition, a short article based on the first paper would be offered for publication in CI, and ICSU would be contacted to explore joint activity.

6.2/93 Academy of Sciences of Turkmenistan

An application for Observer Country status of the Union from the Academy of Sciences of Turkmenistan (93.03.15) on behalf of the chemical community in that country, accepted through correspondence by the President, was ratified by the Bureau.

7/93 SPONSORSHIP OF SYMPOSIA

7.1/93 Sponsorship of Symposia

7.2/93 Official Representatives to Sponsored-symposia

The sponsorships of symposia (Appendix A)/appointments of official representatives of IUPAC to its sponsored symposia (Appendix B), approved through correspondence by the Secretary General on behalf of the President/made on behalf of the President since the 118th Executive Committee meeting, were ratified by the Bureau. Prof. Jortner suggested to include the main organizing person in future in the list of sponsorships approved.

8/93 ANY OTHER BUSINESS

8.1/93 Applications for Allocations from Pool of 18 TMs

Prof. Lehmann was requested to discuss the proposal on quality systems in clinical chemistry with the IUPAC Officers.

8.2/93 Streamlining of Management Committees of the Union

Regarding the proposal of the Treasurer, which was not accepted by the Executive Committee at Newark [Minute 6.5(i)/93, 118th Meeting], Prof. Wadsö said that the Bureau was often neglected in reaching such policy decisions. Accordingly, Prof. Ward informed the Bureau briefly about his proposal to improve the efficiency of managing the affairs of the Union and to save money by replacing the Executive Committee and Bureau with a single body. The proposal was not favoured, because the Executive Committee considered that it would reduce the democratic process of managing the Union. Nevertheless, Prof. Wadsö was disappointed at the manner in which the Bureau business had been rushed through in Lisbon. On the other hand, the President felt that it should be possible to conduct the business of the Bureau and Council each in one day at the General Assembly.

Prof. Modena agreed with Prof. Wadsö, that better use should be made of the Elected Members of the Bureau, especially in respect of the restructuring discussions. The present structure format would otherwise inevitably continue, because Division/Section Presidents would preserve it through their vested interests. Prof. Modena asked specifically, that the Bureau should ratify the final allocations from the pool of 18 TMS made by the IUPAC Officers in Lisbon.

Prof. Jortner also felt that the Bureau should be more involved in the scientific policy of the Union. Dr. Steyn suggested that it was opportune to evaluate critically the top management of the Union, including the overall responsibility of Council, which was now out of touch with reality compared with its executive authority.

The President pointed out that three Executive Committee Members were, in fact, Elected Members of the Bureau, and that the other Elected Members should involve in policy matters by correspondence and oral presentations at Bureau meetings. He hoped that the initiative at the recent even-year meeting (Minute 6.3/93, 62nd Bureau - Oxford), for two Division/Section Presidents to present to the Bureau brief overviews on the most important scientific issues which had arisen in their fields, would continue.

8.3/93 IUPAC-UNESCO Initiative in Latin America
(Minute 3.1/93, 118th Executive Committee)

Prof. Jeannin said that Prof. J. Rouxel had duly visited Argentina and Brazil in June-July as a Visiting IUPAC Professor, and made several presentations on solid-state chemistry, which had been favourably received. The report of Prof. Rouxel recommended that the VIP scheme should be continued, and also mentioned the need in Latin America for provision of fellowships particularly for scientists to become acquainted with new techniques not yet developed in their countries. Prof. Jeannin endorsed these views, and urged the Executive Committee to approach UNESCO for a further contract.

8.4/93 ICSU Project 2000+

Prof. Jeannin reported briefly on his participation for the Union at an ICSU international forum (Paris, 93.07.06-11), opened by UNESCO Director General F. Major. The project was a major programme of action in science and technology education worldwide, within which governmental and non-governmental bodies were guided to cooperate and collaborate closely at the national level to improve scientific and technological literacy, especially at the secondary school level. Six focus areas were studied by panels at the forum, and the resulting report would be circulated as the basis for implementation of the actual programme. Prof. Jeannin was disappointed in the forum, but Profs. Modena and Brown felt that IUPAC and CTC should be actively involved.

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CHAIRMAN: 

DATE: 17. Sept. 1994

SPONSORSHIPS OF SYMPOSIA BY IUPAC APPROVED BY CORRESPONDENCE

SINCE 118TH EXECUTIVE COMMITTEE MEETING

17-22 July 1994. 13th International Conference on Chemical Thermodynamics.
Clermont-Ferrand, France.

17-22 July 1994. 15th IUPAC Symposium on Photochemistry. Prague, Czech
Republic.

22-26 August 1994. 14th International Conference on Raman Spectroscopy. Hong
Kong.

19-23 September 1994. Paris, France. 13th International Symposium on Medicinal
Chemistry.

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5-8 October 1994. Interlaken, Switzerland. International Conference on
Microbial Secondary Metabolism - Sponsorship not granted, because no
significant medicinal chemistry content and no international advisory committee.

OFFICIAL REPRESENTATIVES TO IUPAC-SPONSORED SYMPOSIA APPROVED

BY CORRESPONDENCE SINCE 118TH EXECUTIVE COMMITTEE MEETING

29 June-4 July 1993. 18th Colloquium Spectroscopicum Internationale. York, UK.

Prof. J. N. MILLER

12-15 July 1993. 33rd Microsymposium on Macromolecules: Optics and Dynamics of Polymers. Prague, Czechoslovakia.

Dr. J. STEJSKAL

19-22 July 1993. 34th Microsymposium on Macromolecules: Fluorinated Monomers and Polymers. Prague, Czechoslovakia.

Prof. W.-Y. HUANG

1-6 August 1993. 14th International Congress on Heterocyclic Chemistry. Antwerp, Belgium.

Prof. U. K. PANDIT

8-14 August 1993. International Conference on Applications of Mössbauer Effect. Vancouver, Canada.

LETTER OF GREETINGS

23-27 August. 11th International Symposium on Plasma Chemistry. Loughborough UK.

Dr. R. M. SMITH

30 August-3 September 1993. 5th International Symposium on Macromolecules-Metal Complexes. Bremen, Germany.

Prof. J. REEDIJK

5-11 September 1993. Euroanalysis VIII. Edinburgh, UK.

Prof. A. HULANICKI

6-9 September 1993. International Conference on Advanced Polymer Materials. Dresden, Germany

Dr. P. KRATOCHVIL

19-23 September 1993. 7th International Symposium on Organometallic Chemistry Directed Toward Organic Synthesis. Kobe, Japan.

Prof. IRINA P. BELETSKAYA

16-20 January 1994. 19th International Symposium on Chemistry of Natural Products. Karachi, Pakistan.

Prof. S. ITO

4-9 April 1994. 8th High Temperature Materials Chemistry Conference. Vienna, Austria.

Prof. C. N. R. RAO