INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MINUTES OF 60th BUREAU MEETING

Hamburg University, FRG: 12th-13th August 1991

Present: Prof. Y.P. Jeannin (Chairman), Prof. A.J. Bard, Prof. M.T. Beck, Prof. A. Björkman, Prof. R.D. Brown, Dr. Mary L. Good, Prof. W.-Y. Huang, Prof. S. Itô, Prof. J. Jortner, Prof. V.A. Koptyug, Prof. G. Modena, Prof. N. Sheppard, Prof. H.A. Staab, Prof. I. Wadsö, Prof. T.S. West, Prof. K.I. Zamaraev (Elected Members); Prof. G.M. Schneider, Prof. E. Fluck, Prof. Irina P. Beletskaya, Prof. W. Heitz, Prof. G. den Boef, Prof. C.G. Wermuth (Division/Section Presidents); Prof. J.M. Thomas (CHEMRAWN Committee) - in part, Dr. D. Wyrsch (Committee on Chemistry and Industry) - in part

Absent: Prof. A.J. Arviá

<u>In Attendance</u>: Prof. R.A. Alberty (Vice-President, Physical Chemistry Division), Dr. E.D. Becker (Chairman, Committee on Publications) — in part, Prof. A.E. Fischli (Secretary, Committee on Chemistry and Industry) — in part, Dr. A. Hayes (Vice-Chairman, CHEMRAWN Committee) — in part, Dr. S.R. Heller (Chairman, Committee on Chemical Databases) — in part, Prof. K.L. Komarek (Vice-President, Inorganic Chemistry Division), Prof. H.P. Lehmann (Secretary, Clinical Chemistry Division), Prof. N.J. Leonard (Vice-President, Organic Chemistry Division) — in part, Prof. C.N.R. Rao (Chief Coordinator, Coordinating Committee on Chemistry and Advanced Materials Programme) — in part, Prof. K.V. Sané (Chairman, Committee on Teaching of Chemistry) — in part, Dr. P.S. Steyn (Vice-President, Applied Chemistry Division), Prof. J.M. Ward (Chairman, Finance Committee), Dr. M. Williams (Executive Secretary), Miss A. Troughton (Deputy Executive Secretary) — in part

1/91 INTRODUCTORY REMARKS AND FINALIZATION OF AGENDA

The President drew attention to the deaths of Past-President G. Smets (91.01.28), Prof. N. Montalbetti (91.05.21: President of Clinical Chemistry Division), and Dr. L.E. Coles (91.08.11 at Hamburg: President of Applied Chemistry Division). The Bureau then stood in silence for a short period in remembrance of the colleagues deceased. It was approved that Dr. Steyn and Prof. Lehmann should deputize for Dr. Coles and Prof. Montalbetti, respectively, and that they should be granted the power of voting for that Bureau meeting.

The following items were added to the agenda circulated by the Executive Secretary (91.07.24):

- 3.2.8 Report of Committee on Affiliate Membership
- 4.14 Council Item 17 Proposals Formally Received from Czechoslovakia (Minute 3.8/91, 115th Executive Committee)

12.5 Nominations of New Members

In order to facilitate the participation of various persons at the meeting, the President indicated that some items would be taken out of order.

2/91 MINUTES OF 59th MEETING OF BUREAU

2.1/91 Amendments and Approval of Minutes

The Minutes of the meeting at Triuggio/Milan (circulated by the Executive Secretary 90.12.14) were approved, subject to:

- (i) Minute 3.2.1(i)/90, line 4, being amended to read
 - "... under the personal supervision of Prof. Jeannin at the request of the Director General of UNESCO. He would be meeting ..."
- (ii) Minute 8.2/90, second paragraph from bottom of page 14, being amended to read

"Prof. Jortner congratulated Prof. Bard on this significant document. He doubted whether cold fusion should have been included by Prof. Bard as a frontier area, in which IUPAC might have become involved. The publication procedure adopted at the initiation of this research area did not follow accepted norms of scientific publication. Furthermore, he wondered if norms and standards for scientific publications was a subject which should be considered by IUPAC."

2.2/91 Matters Arising

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

3/91 MINUTES OF 115th MEETING OF EXECUTIVE COMMITTEE

3.1/91 Receipt of Minutes

The Minutes of the meeting at Pretoria were recorded as having been received officially by the Bureau.

3.2/91 Matters Arising

3.2.1/91 <u>International Centre for Chemistry</u> (Minute 3.1/91 - Prof. Rao in attendance)

Prof. Rao said that the Steering Committee had met some time ago, and a few activities had been held. However, formalization of the structure was delayed due to financial considerations, though a small International Centre for Pure and Applied Chemistry had been started. Two booklets were now available on the umbrella research and training organization, the International Centre for Science and High Technology (ICS), established at Trieste in July 1988, and

its three associated institutes.

3.2.2/91 COCI Membership from China and USSR (Minute 3.2/91)

The Bureau noted with pleasure details of the three chemical enterprises in USSR, which had agreed to become Company Associates from the start of 1992. Prof. Koptyug anticipated that there would probably be more Soviet CAs after CHEMRAWN VIII had taken place in Moscow [Minute 11.3(ii)/91]. The President pointed out the conditions on which these particular 1992 CA subscriptions might be used as partial funding for CHEMRAWN VIII (his letter of 91.06.21 to Prof. Koptyug).

3.2.3/91 Proposed IUPAC-UNESCO Initiative in Latin America (Minute 3.5/91)

The President reported that, after several years of effort to establish such an initiative, on 91.07.12 he had signed a contract with UNESCO for FFR 64 500 in respect of an IUPAC visiting lectureship project for Latin American countries. This money had to be spent or committed by 91.12.31 or it would revert to UNESCO. Prof. Jeannin would be approaching national chemical societies in LA to collaborate in the project. He was anxious to ensure better involvement in future of the Union in UNESCO's basic science programme, and was therefore ready to act as a liaison representative during 1991-3. Prof. Wadsö agreed that IUPAC needed to adopt a more aggressive approach, but he wondered if tactically the Union should have gone through the UNESCO Regional Office in Montevideo rather than directly to the Director General in Paris.

The Secretary General drew attention to a suggestion (91.05.13) from the International Organization for Chemical Sciences in Development, an IUPAC-AO, for a joint Working Group on Analytical Chemistry/Environmental Chemistry to promote development of an analytical chemistry capacity in Third World countries. The Bureau approved the suggestion, and left it for the new Executive Committee to formalize the details.

3.2.4/91 Term of Service of President of Union (Minute 3.6/91)

Differing views were expressed by Bureau Members on Prof. Jeannin's redrafted position paper, from support for a two-years Presidential term with a possibility of re-election for a further two years (otherwise it might be difficult to find good quality, active candidates), to adoption of a three-years cycle of General Assemblies like ICSU (but this might slow down the scientific work of IUPAC), to greater involvement of the Vice-President (in addition to the biennial critical assessment of IUPAC projects and programmes) and/or the Past-President.

The Bureau agreed to recommend that the Past-President should be made an Officer of the Union, and Statute 6.1 should be changed accordingly. It rejected proposals for the term of service of the President to be changed to four years or to two years with a possibility of re-election for a further two years.

3.2.5/91 Macromolecular Division Rules (Minute 3.8/91)

A suggestion from Prof. Heitz, that the matter should be considered in conjunction with agenda item 4.14, was rejected by the President. Even if statutory changes were tabled at Lisbon, rules were needed for operation of the Macromolecular Division during the next biennium.

The Secretary General elaborated briefly on his suggestions for revised Macromolecular Division Rules, which had been precirculated. In order to retain the spirit of the suspended Rules, he had minimized the changes to bring them into conformity with the Statutes and Bylaws of the Union. Prof. Heitz indicated that the only difficulty for the Macromolecular Division was in respect of Rule 2. The Division wished to give status, including the right to vote, to Coopted Members. The latter were often more active than Associate Members of its Commissions, who were allowed to vote in the election of Division Committee Members.

On the suggestion of Prof. den Boef, the Bureau agreed to recommend the revised Macromolecular Division Rules for adoption by Council at Hamburg, subject to relevant changes to the Statutes and Bylaws being prepared by the Executive Committee (Bureau) for recommendation of adoption at Lisbon.

3.2.6/91 Computers and Chemistry (Minute 4.4.2/91)

In view of the financial difficulties foreseen for the Union in the next few years (see Minute 4.8/91), the President said that it was impossible to start any additional mission-oriented programmes at Hamburg. Further consideration of such a programme on computers and chemistry should therefore be deferred until Lisbon.

Prof. Jeannin referred to the need for the Commission on Nomenclature of Organic Chemistry to consider the problem of computerization of nomenclature, which would require careful attention from the new Bureau at Hamburg. Prof. Sheppard reported that, at Hamburg, the Commissions on Nomenclature of both Inorganic and Organic Chemistry had set up subcommittees on computerization, which IDCNS suggested should be combined and also involve representation from the Commission on Macromolecular Nomenclature. However, it was recognized that systematic organic nomenclature was probably a good starting point for this work, and a close relationship with the development of the Beilstein programme AUTONOM was the best way for IUPAC to become involved.

Dr. Wyrsch supported such action, and COCI recommended the Bureau to pursue the suggestion of Prof. Koptyug to enlarge the terms of reference of CCDB, so that it became an Interdivisional Committee on Chemistry and Computers. It was agreed to take up the suggestion with Dr. S.R. Heller under agenda item 7 (Minute 6/91).

Prof. Jortner saw "computers and chemistry" as a moving force in the restructuring of the Union. Prof. Fluck agreed to approach all outside organizations known to be involved in computerization of nomenclature for chemical compounds about the status of their work, and then to report back to the Bureau on what action was needed by IUPAC.

3.2.7/91 Proposed Assignment of Votes to Delegations in Council under a 1-8 Vote System [Minute 5.1.2(i)/91]

The Secretary General drew attention to his precirculated proposal, which had already been seen by the Executive Committee. Prof. Bard indicated that the US National Committee for IUPAC was happy with the concepts. Subject to Council at Hamburg approving the necessary change to Statute 5.1, the new Executive Committee should consider Prof. West's proposal in detail.

3.2.8/91 Report of Committee on Affiliate Membership

The Secretary General reported briefly on some points from the meeting of CAM at Hamburg. In order to increase membership numbers, it was essential to improve the benefits and attractiveness of AMP. Prof. Itô would try to discover why some Japanese Affiliates did not renew their subscriptions. Participation of Third World chemists was also important. Members of IUPAC bodies, who were Affiliates, should donate their second copy of CI to a Third World chemist. If such members were not Affiliates, they should be encouraged to join and to donate their second copy of CI accordingly. To make CI more attractive, more chemical information of a unique character should be included. A series of articles featuring recent chemistry developments in the member countries had been suggested. It was hoped to issue to Affiliates, on demand, the diskette containing the IUPAC Reports Database (Minute 10/91). NAOs should be invited to make greater efforts to recruit new Affiliates. For instance, Prof. West proposed that NAOs operating AMP might reduce their component (say by 50%) of the subscription for students, with IUPAC matching the reduction in its component. This would increase the involvement of young chemists in the Union.

The Bureau agreed that any delegates to Council, who were responsible for operating AMP in their respective countries, should be invited to sit in as observers at the meeting of CAM in Lisbon. Although CAM was a subcommittee of the Bureau and not a Standing Committee, the Bureau agreed that the composition and terms of office plus terms of reference, proposed for it at Triuggio/Milan (Appendix A to Minutes, 59th Bureau), should be included in the next IUPAC Handbook. Prof. West recommended that Prof. Staab should succeed him as Chairman of CAM. Other membership vacancies after Hamburg should be considered by the new Executive Committee (Bureau).

4/91 ITEMS FROM AGENDA OF 36th MEETING OF COUNCIL REQUIRING DISCUSSION, RESOLUTION, OR RECOMMENDATION BY BUREAU

4.1/91 Council Item 1 - Recommendation on Assignment of Votes to

Delegations in Council at Hamburg

[Minute 5.1.2(i)/91, 115th Executive Committee]

The Bureau agreed that the proposal of the Executive Committee should be recommended for adoption by Council at Hamburg, namely that the assignment of votes should be on the same basis as at Lund. It was noted that Peru had recently paid its subscription for 1989, and its voting rights had therefore been restored.

4.2/91 Council Item 4 - N/E Committee Recommendations

[Minute 5.1.2(iii)/91, 115th Executive Committee:
Profs. Staab, den Boef, and Wadsö absent in part]

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

- (i) During 1991-3 the total number of Elected Members of the Bureau (Statute 7.2) should be 10.
- (ii) The Tellers during all voting in Council should be

Prof. A. Björkman (Bureau Member)
Dr. Anne E. Alper (Secretary, Canadian Delegation)
Dr. D.J. Raber (Secretary, USA Delegation)

- (iii) The vacancy for Vice-President should be filled by Prof. H.A. Staab.
- (iv) The Union was most fortunate to have two eminent and able candidates proposed for the Secretary-Generalship, and the Bureau had found no reason to distinguish between Prof. G. den Boef and Prof. I. Wadsö.
- (v) The vacancy for Treasurer should be filled by Prof. J.M. Ward.
- (vi) The four vacancies for Elected Members of the Bureau should be filled by
 - * Prof. M.T. Beck (Hungary)
 * Prof. J. Jortner (Israel)
 * Prof. G. Modena (Italy)
 - * Prof. H.A. Staab (FRG)

(* re-election for a further period of four years)

If Prof. Staab was elected Vice-President and/or Prof. Wadsö (already re-elected at Lund as an Elected Member of the Bureau for 1989-1993) was elected Secretary General, the additional one/two vacancies should be filled by

Prof. N.N. Greenwood (UK) Prof. E. Marechal (France)

Prof. Jeannin confirmed to Prof. Brown, that the principle of fair geographical representation had been taken into consideration in respect of the recommendations for Profs. Greenwood and Marechal. Dr. Good felt that it was not worth preserving this principle in Statute 7.2, and it was agreed to take up the matter in the new Bureau.

4.3/91 Council Item 5 - Time of Elections

The Bureau agreed to recommend to Council, that the election of Officers of the Union and of Elected Members of the Bureau should take place at 10.00 hours on Thursday, 15th August 1991.

4.4/91 Council Item 8 - Appointment of Auditors

[Minute 4.2.6(i)-(iii)/91, 115th Executive Committee]

The Bureau agreed to recommend to Council, that Neutra Treuhand AG should be reappointed as auditors for 1991-2. In addition, the Bureau noted that the official office of the Treasurer was now located at the premises of Neutra Treuhand in Zürich, and that Schweizerische Bankgesellschaft should be retained as the IUPAC Banker for 1992-3.

4.5/91 Council Item 14 - Affiliate Membership Programme
[Minute 7.2/91, 115th Executive Committee]

The Secretary General drew attention to an increase in the IUPAC component of the Affiliate subscription for 1992-3 from USD 12.00 to 13.00. IUPAC's own approximately 1 500 copies of CI would cost USD 15.00 each instead of 7.5, and the library subscription would be USD 82.50.

- 4.6/91 Council Item 16 Continuation/Discontinuation of Existing IUPAC

 Bodies [Minutes 5.1.2(iv), 6.5, 6.6, and 8.5/91, 115th Executive Committee]
- (i) A position paper had been precirculated from the Vice-President on new Guidelines for IUPAC Programmes, which was to go into the next IUPAC Handbook. Prof. Bard suggested that a subcommittee might be appointed to consider the matter.
- (ii) A second position paper from the Vice-President suggested three approaches for annually surveying chemists outside the Union for ideas and recommendations on important areas for IUPAC projects. The Bureau approved the suggestions, and Prof. Bard agreed to discuss further action with the IUPAC Information Officer.
- (iii) A third position paper from the Vice-President tried to explain the motivation for the proposed amalgamation of Commissions. Prof. Jeannin reported, with regret, that at the meeting of Division/Section Presidents in Hamburg (91.08.08) there was unanimous opposition to the proposals. The Division/Section Presidents had preferred to accept a reduction in their budgets for 1992-3 rather than to amalgamate any Commissions at Hamburg.

In view of the serious warnings of the Finance Committee at Hamburg to make immediate costs savings (Minute 4.8/91), Prof. Jeannin recommended that:

- a. all Commissions, without exception, should be restricted to a maximum of seven Titular Members for the next biennium;
- b. all Division/Section Committees, without exception, should be restricted to a maximum of seven Members for the next biennium;
- c. no additional Limited Life Time Commissions should be created at Hamburg;
- $\ensuremath{\mathrm{d}}\xspace$. subcommittees and National Representatives should be rationalized as proposed in his tabled paper;

e. all non-nomenclature/symbols projects more than ten years old should be discontinued at Hamburg, and those relating to nomenclature/symbols should be discontinued no later than by Lisbon.

In respect of recommendations a and b, Prof. den Boef asked how to handle the outcome of elections already conducted at Hamburg. The President regretted that they would have to be conducted again, as necessary, by post. Prof. Fluck was happy to accept an even greater and immediate reduction in membership of Division/Section Committees, provided that there could be more flexibility in use of the total budget allocated to each Division/Section. Prof. Staab and Dr. Good expressed concern about the five recommendations of Prof. Jeannin and support for Prof. Fluck.

After further discussion, on the recommendation of the Officers of the Union it was decided by the Bureau to defer until Lisbon the recommendations that all Division/Section Committees and Commissions, without exception, should be restricted to a maximum of seven Members/Titular Members. However, the Bureau agreed reluctantly, that all ten-years old non-nomenclature/symbols projects should be eliminated from the IUPAC Handbook after Hamburg and no longer funded.

Prof. Jeannin elaborated on his tabled late paper (Appendix B), dealing with the rationalization of subcommittees and guidelines thereon. He was very concerned at the lack of statutory control, and hoped that the guidelines would be followed, in principle, after Hamburg, but become mandatory after Lisbon. Regarding guideline 5 - subcommittees should work at no cost to the Union - Prof. Schneider hoped that money might be provided to bring in outside experts to help initiate new projects and emerging fields. The President agreed that, exceptionally, some funds might be provided: the words "subject to the permission of the Officers of the Union" should be added to the guideline. Prof. Brown felt that guideline 3 - subcommittees should be chaired by a present or a recent-past active Titular Member of the Commission or Division/Section Committee - might be restrictive in respect of the leadership for a new activity. He suggested that it was only necessary for one Titular Member to be a member of the subcommittee. The Bureau agreed to reconsider the guidelines at its meeting in 1992.

Also, Prof. Jeannin expressed his concern about the proliferation of National Representatives on IUPAC bodies. They now significantly exceded in total the number of Titular Members, and they did constitute a service cost (USD 40-50) to IUPAC. The Bureau agreed to accept, in principle, at Hamburg and for statutory control at Lisbon, that a National Representative should only be appointed to an IUPAC body, if that body had no membership from the relevant country. Exceptions might be charged against Division/Section funds.

The Bureau agreed to recommend to Council, that all existing Commissions of the Union should be allowed to continue for the next two years (Bylaw 4.302).

- 4.7/91 Council Item 18 Location of 37th General Assembly and of Arrangements for/Scope of 34th Congress (1993)

 (Miss Troughton in partial attendance)
- (i) The Deputy Executive Secretary's report on her recent visit to Lisbon, in connection with the next General Assembly, had been precirculated (Minute 5.2/91, 115th Executive Committee). Most meetings would be held in air—conditioned rooms of new buildings at Lisbon University, with a few larger meetings to be accommodated in air—conditioned lecture theatres or large rooms with high ceilings (or even in air—conditioned hotel rooms if necessary). Her main concern was to locate sufficient reasonable—cost hotel rooms with air conditioning (two dormitories were available, but they had no air conditioning). The Treasurer was unable to anticipate a subsistence of less than USD 100 per day. Nevertheless, the Bureau agreed to recommend Council to ratify Lisbon as the location for the Assembly in 1993.
- (ii) The first circular for the 34th Congress was tabled, detailing the scientific programme as presented to the Bureau at Triuggio/Milan (Minute 5.3/90, 59th Meeting), but as modified by comments submitted by 90.12.31. The Bureau agreed to recommend Council to ratify Beijing as the location for the Congress in 1993 and to approve the scope of the scientific programme.
- $\frac{\text{Council Item 19 Budget Proposal 1992-3 and National Subscriptions}}{1992-3}$

The Treasurer invited Prof. Ward to introduce the item. He drew attention to his remarks on a four-year financial plan for the Union in the Finance Committee report to Council at Hamburg and to two tables, which had been omitted from the precirculated report. The Finance Committee unanimously recommended (Minute 16.3/91, Hamburg Meeting) an immediate major reduction in the excesses of expenditure over income in the budgets proposed for 1992 and 1993, rather than to wait to implement significant costs savings at Lisbon. Expenditure on IUPAC bodies should be limited to USD 400 000 in 1992 and on the General Assembly at Lisbon in 1993 to USD 500 000.

Prof. Björkman tabled his revised draft of the general purposes budgets for 1992-3 (see Appendix A to Minutes), having taken into consideration the recommendation of the Finance Committee. The Officers of the Union proposed that expenditure on IUPAC bodies should be set at USD 446 000 (Standing Committees - USD 148 000, with the 1992 Executive Committee meeting being restricted to IUPAC Officers; Divisions - USD 238 000, with the final allocations to be made by the IUPAC Officers after Hamburg and advised to Division/Section Presidents early in November 1991; and mission-oriented programmes - USD 60 000, with USD 40 000 for CEP and USD 20 000 for CAMP, these funds being at least partially available for relevant Divisional projects). This constituted a reduction of nearly 12% on the figure presented earlier to the Finance Committee at Hamburg (USD 506 000). It was worth noting that the corresponding figure approved at Lund for 1990-1 (USD 407 000), when inflated by 5% for each of the two following years, increased the figure to about USD 448 000. This justified the request for Council at Hamburg to increase national subscription income by 5% in each of 1992 and 1993.

The Treasurer had decreased the budget for the Lisbon General Assembly from USD 600 000 to 520 000. The outcome was that the budget proposal for 1992 was now in balance, and the proposal for 1993 showed an excess of expenditure over income of USD 52 000 (to be balanced from the sale of assets). Prof. Björkman regretted that he would be unable to provide final allocations to the Divisions and Standing Committees until a meeting of IUPAC Officers scheduled for 91.11.02.

There was a lively discussion on the latest budget proposals, in which several Members of the Bureau participated. Prof. Heitz observed that, in summary, the biennial situation had changed from a provision for IUPAC bodies at Pretoria of USD 441 000 and a deficit of USD 136 000 to a provision at Hamburg of USD 446 000 and deficit of USD 52 000. Prof. den Boef was concerned only that the Divisions were likely to suffer a disproportionately greater cut in their final allocations than were the Standing Committees. Prof. Brown stressed the importance of convincing Council that national subscription income must increase at least in line with inflation, otherwise the level of TUPAC activity would decrease progressively. Prof. Bard felt that it was essential in the next few years to add to the existing assets in order to maintain their level.

On the proposal of Prof. Staab, the Bureau agreed to recommend Council to accept the latest budget proposals for 1992 and 1993 (Appendix A).

4.9/91 Council Item 22 - Location of 38th General Assembly and 35th Congress (1995) [Minute 5.1.2(vi)/91, 115th Executive Committee]

The invitation from UK to host the General Assembly had now been reconfirmed (91.07.18). On the advice of the Executive Committee, the Bureau agreed to recommend Council to accept provisionally, that the General Assembly in 1993 should be located at the University of Surrey in Guildford, UK, and that the Congress should be in Turkey.

4.10/91 Council Item 23 - Readmission of Belgium
[Minute 9.1/91, 115th Executive Committee]

On the advice of the Executive Committee, the Bureau agreed to recommend Council, at the start of its meeting in Hamburg, to readmit Belgium immediately to membership of the Union and with full voting rights.

4.11/91 Council Item 24 - Associated Organization Status for EURACHEM and Calorimetry Conference of North America
[Minutes 9.7.1 and 9.7.2/91, 115th Executive Committee]

In view of its regional character, Dr. Good expressed reservations about accepting EURACHEM for AO status. The Bureau agreed that the Executive Committee should review the principle of accepting regional bodies for AO status. It then voted (13 in favour, 8 abstentions, 2 against) to recommend Council to accept the applications from EURACHEM and Calorimetry Conference to become AOs of the Union.

4.12/91 Council Item 25 - Language for Official Records during 1991-5

On the proposal of the President, the Bureau agreed to recommend to Council, that English should be the one language in which the official records of meetings of the Council, Bureau, and Executive Committee should be kept during 1991-5 (Statute 5.405).

4.13/91 Council Item 27 - Invitation from Brazil to Host 1997 General
Assembly and Congress [Minute 9.5/91, 115th Executive Committee]

The Secretary General said that, following previous practice, a solicitation of NAOs should be made in 1992 for invitations to host the General Assembly and Congress in 1997. Meanwhile, a preliminary invitation from Brazil [Minute 23(ii)/89, 35th Council - Lund] was noted by the Bureau.

4.14/91 Council Item 17 - Proposals Formally Received from Czechoslovakia (Minute 3.8/91, 115th Executive Committee)

The Secretary General drew attention to the tabled late papers on the matter and the previous history, plus the relevance of the Macromolecular Division Rules, which had been settled by the Bureau at Hamburg (Minute 3.2.5/91). Prof. West then went in detail through the letter from Czechoslovakia (90.08.15), concluding that it would be a major exercise to identify all necessary changes required to the Statutes and Bylaws and to the Rules of all Divisions of the Union.

Differing opinions were expressed by Bureau Members, regarding the proposal to introduce a new category of membership — Consultant — for IUPAC bodies. The Bureau decided to recommend Council to take no action on the proposals from Czechoslovakia. Prof. Heitz was told that he might comment on the matter during his verbal report on the Macromolecular Division to Council.

- 5/91 RESTRUCTURING OF IUPAC (Minutes 6.1, 6.5, and 6.6/91, 115th Executive Committee)
- 5.1/91 Report on Chemistry and Environment Programme (Minute 6.2/91, 115th Executive Committee)

Prof. Koptyug went briefly through his tabled review of the related IUPAC activities, mentioning:

- (i) the continuing good work of Prof. den Boef (Subcoordinator A/B for Analytical Procedures for Determination of Chemical Substances and for Measurement of Physicochemical Parameters related to the Environment),
- (ii) the start made at Hamburg by the late Dr. Coles (Subcoordinator C for Transfer and Transformation of Chemical Substances in the Environment),
- (iii) the discussions at Hamburg of Prof. Lehmann and himself with Prof. P.D. Hansen about collaboration of IUPAC with the Society of Environmental Toxicology and Chemistry (SETAC),

(iv) the programmes under Prof. Zamaraev and Dr. Wyrsch [Subcoordinators, respectively, for E (Prevention of Environmental Pollution using Chemical and Biochemical Methods) and F (Chemical Safety)] were to be merged.

The Bureau reconfirmed the decision of the Executive Committee, that CCCEP should be dissolved after Hamburg. Thereafter, Prof. Koptyug would continue as Chief Coordinator for CEP until Lisbon. He would attend the 1992 meeting of Division/Section Presidents to discuss environmental matters with them, and then report to the Bureau. The new Division Presidents of the Analytical Chemistry, Applied Chemistry, and Clinical Chemistry Divisions, respectively, would act as the Subcoordinators for programmes A/B, C, and D (Toxicology of Synthetic and Natural Substances), with the COCI Chairman responsible for programmes E/F and the CTC Chairman responsible for programme G (Ecological aspects of Education).

Prof. Koptyug said that, after Hamburg, it was desirable to issue a supplement to the 1990 booklet <u>Chemistry and the Environment: The IUPAC Programme</u>, to include projects subsequently completed/published, new projects approved, and with a subject index covering all the information. Also, it was desirable to consider establishing an IUPAC award for the best environmental project of the Union in the biennium before each General Assembly. The Executive Committee (Bureau) should prepare and publish in good time a memorandum to UNCED. Finally, he requested the provision of USD 20 000-25 000 to broaden CEP contacts outside the Union during the next biennium.

The Bureau invited Prof. Koptyug to draft the memorandum to UNCED for consideration by the Officers of IUPAC. The Treasurer indicated that the additional funds requested would have to be taken from the budget allocation in 1992-3 to CEP (provisionally USD 40 000). The Secretary General recommended that the combined programmes E/F should be retitled "Prevention and Clean-up of Environmental Pollution using Chemical and Biochemical Methods".

Report on Chemistry and Advanced Materials Programme (Minute 6.3/91, 115th Executive Committee: Prof. Rao in attendance)

Prof. Rao gave a brief account of the deliberations of CCCAMP at Hamburg:

- (i) It was hoped to publish a small booklet on the materials-related programmes of the Union. Besides listing the various projects, there would be contributions from the Divisional representatives to CCCAMP.
- (ii) In order to create the maximum effort and impact, there was a need for interdivisional collaboration in some of the existing and proposed new projects. If funds were available, CCCAMP could initiate some of this work, e.g., on clusters, composites, chemical vapour deposition.
- (iii) In collaboration with CTC, CCCAMP would like to publish a brief report, surveying international efforts and highlighting the main features of such efforts related to the teaching of chemistry of advanced materials.
- (iv) In conjunction with its meeting at Rome in 1992, the Commission on High

Temperature and Solid State Chemistry would be requested to organize a short workshop on the chemistry of ceramics, dealing especially with new aspects such as electroceramics. One or two experts should be invited to participate.

(v) In order to promote cross-fertilization of ideas and interdivisional collaboration within the Union, a half-day meeting on the chemistry of advanced materials should be arranged early on at the Lisbon General Assembly. One or two outside speakers might be invited to present survey talks.

Prof. Bard and Dr. Good stressed the need for CCCAMP to seek collaboration in its activities from the recently formed International Union for Materials Research Societies (Minute 6.2/90, 114th Executive Committee - Athens).

The President was concerned at the conservatism of the IUPAC structure in adapting to new emerging fields through creation of LLTCs. However, Prof. Schneider felt that this had been started, but the financial support to go further was not clear. Prof. Jeannin said that it was up to each Division/Section President to define her/his priorities.

5.3/91 Additional Mission-Oriented Programmes

[Minute 6.4(i)/91, 115th Executive Committee]

Because of the present financial difficulties of the Union, the Bureau agreed to defer until Lisbon any further consideration of a programme on chemistry and biosciences/biotechnology (cf. Minute 3.2.6/91).

6/91 REPORT OF COMMITTEE ON CHEMICAL DATABASES (Dr. Heller in attendance)

Dr. Heller announced that so far in 1991 nine copies of ENTVAPOR had been sold, which was encouraging in view of the limited interest in enthalpies of vaporization data. ACS was being contacted to see if it would be willing to sell ENTVAPOR as part of ACS software activities. A series of articles in CI from CCDB aimed to promote a higher awareness of computer applications in the management, dissemination, and uses of chemical data. The fourth article, on computerized spectroscopy databases, would be published later in the year (November issue). CCDB was taking a leading role in the current development of a standard format for the representation and exchange of chemical structures, i.e., two-dimensional connection tables. It was also working closely with the Publications Committee on the software programming techniques for the IUPAC Commission reports database. Progress was being made on several other database projects, particularly those on conductance, stability constants, solubility, and high temperature thermodynamic properties of the elements. Copyright problems associated with a database of thermodynamic data on compounds were being investigated. A set of database procedures guidelines was being provided to IUPAC bodies for their review.

The Treasurer enquired when Dr. Heller anticipated that the various IUPAC databases might generate significant income for the Union. Dr. Heller indicated that this would not be in the near future. Answering a question from Prof. Wadsö, he said that during 1990-1 CCDB had been allocated USD 9 000 for travel, subsistence, and administration expenses, and some USD 20 000-25 000

had been invested from IUPAC assets in databases development. Regarding a suggestion to enlarge the terms of reference of CCDB, so that it became an Interdivisional Committee on Chemistry and Computers (Minute 3.2.6/91), Dr. Heller regretted that CCDB was already fully extended with its present databases remit.

7/91 REPORT OF COMMITTEE ON CHEMISTRY AND INDUSTRY (Prof. Fischli in attendance)

Because Dr. Wyrsch could not be present at the meeting of Council in Hamburg, Prof. Fischli also presented the COCI report to the Bureau. Using overhead projection transparencies, he showed that the present 171 Company Associates were located largely in North America, Western Europe, and Japan. Representation needed to be improved from Eastern Europe, Latin America, Africa, and Asian countries other than Japan. The proceedings from the 1st IUPAC Workshop on Safety in Chemical Industry (Basel, 1990) would be available before the end of this year. One follow-up activity was the establishment with UNIDO (UN Industrial Development Organization) of a global network of training centres on safety in chemical production (GLONESA), with particular emphasis in Third World countries. Another development was that of small national/regional workshops, dealing with safety in chemical production. The first one was to be held in Beijing during October 1991, followed by one in Czechoslovakia. The 2nd IUPAC Workshop on Safety in Chemical Production, again with the involvement of UNIDO, was scheduled for Yokohama during 93.05.31-06.05, when there would again be a possibility to study safety matters within actual chemical plants.

COCI suggested that that the EIRMA (European Industrial Research Management Association) scheme might well be a useful instrument in the hands of the Vice-President of the Union for assessing the efficiency of the structure of IUPAC in connection with his biennial critical assessment. In addition and in order to celebrate the 75th anniversary of IUPAC, COCI proposed that in 1994 a focal point for activities of all IUPAC bodies might be to address the scientific and general public on the theme "Chemistry for Life".

Prof. Staab was strongly in favour of the proposal on "Chemistry for Life". Prof. Jeannin thanked Dr. Wyrsch for his positive impact as Chairman during the past four years in improving the activity and visibility of COCI.

8/91 REPORT ON TEACHING OF CHEMISTRY (Prof. Sané in attendance)

Prof. Sané said that, for some time, CTC had been concerned by the widening gap between the teaching and practice of chemistry in advanced and less developed countries throughout the world. Hence its major concentration over the past ten years on introducing an instrumentation culture in student laboratories through the design, fabrication, and use of locally produced equipment. Courses had been run in many countries, and a book had recently been published on Locally Produced Low Cost Equipment for Teaching of Chemistry.

The success of this work now made it possible for CTC to initiate several new

projects, using a similar approach:

- (i) Since a large number of students were still using a macro-scale approach, it was necessary to move the interface to micro-scale chemistry. This would help to cut costs, improve skills, and reduce hazards associated with toxic chemicals.
- (ii) A computerized instrumentation package, based on low-cost interfacing of low-cost instruments with a computer, in order to train students in modern methods of data acquisition and data processing.
- (iii) The design of a variety of sensors for chemical and biological experimentation. By coupling such sensors with computerized instrumentation, it would be possible for student laboratories to introduce experiments in environmental chemistry, pollution monitoring, clinical chemistry, etc.
- (iv) Distance education planning of curriculum packages for different areas of chemistry for use in open universities, and involving a combination of (i)-(iii) and video techniques.

In addition, CTC was now making an impact on teaching of chemistry in conjunction with various Divisions and Committees of the Union, e.g., book of simple experiments in photochemistry, book on teaching of solid state chemistry, student-oriented nomenclature book.

Prof. Zamaraev reminded Prof. Sané, that CTC had been invited to nominate a representative to the Monographs on Chemistry for the 21st Century-EAB (Minute 10.1.3/90, 59th Bureau). Answering a question from Prof. Sheppard, Prof. Sané said that physicists had been involved from the start of the low-cost equipment programme, and efforts were now being directed towards the biologists. Also, he confirmed to Prof. Wadsö that ICSU-COSTED had been involved initially in the programme, and he hoped it would contribute to the new interfacing projects.

9/91 REPORT OF INTERDIVISIONAL COMMITTEE ON NOMENCLATURE AND SYMBOLS

Prof. Sheppard said that a main preoccupation of IDCNS at Hamburg had been with expedition of its approval procedures. The present procedures, involving review by external experts, by IDCNS (twice), and by the world chemical community, had been designed to provide an effective filter to prevent dissemination of poor proposals, and to guard against unauthorized use of preliminary recommendations in the literature. It was accepted that these procedures were effective, but that the cost in terms of delays was probably too great. The Officers of IDCNS would be drafting new procedures for comment by IDCNS, and hopefully presentation to the Bureau in 1992. If accepted, Bylaw 2.11 might need to be amended.

Prof. Bard was concerned that the Union could take quicker action about nomenclature for newly emerging areas of chemistry, such as the fullerenes. Prof. Jeannin thanked Prof. Sheppard for his good work as Chairman of IDCNS during the past four years.

10/91 REPORT OF PUBLICATIONS COMMITTEE (Dr. Becker in attendance)

Dr. Becker reported that the number of subscriptions to PAC had been maintained in the face of a decrease for most journals. This was important, because PAC constituted the main source of royalty income to the Union. For 1992 an 8% increase in subscription (to USD 795 per annum) was recommended to the Bureau. BSP was making an effort to increase the sales of IUPAC books in North America through a special agreement with CRC Press. Subject to Bureau approval, it had been agreed to negotiate in future a price for each new book with BSP: 25-30 cents per page in general (Scientific Publications Secretary to handle), but above this range Dr. Becker must be consulted. Henceforth it was proposed to base book royalties on 15% of net receipts (rather than 10% of list prices), but there would be a 40% discount on list prices for IUPAC members and Affiliates. The BSP grant would be raised to USD 20 000 for each of 1992 and 1993. CI was not an income-generating publication, but an IUPAC publicity dissemination medium. No objections were raised by the Bureau to the various recommendations on changes in prices and royalties.

Progress was being made on three major projects:

- (i) Monographs on Chemistry for the 21st Century An index had been prepared for "Perspectives in Catalysis", and the monograph should be published at the end of the year. Prof. Rao had brought to Hamburg the manuscripts for "Chemistry of Advanced Materials", which should be published in 1992. Part of the BSP grant would be used to facilitate the coordinating work of Prof. Zamaraev.
- (ii) Student-oriented Nomenclature Book The book would introduce undergraduate students in particular to the language of chemistry and to the fundamental nomenclature and symbols needed. It was not simply a matter of repackaging the existing IUPAC nomenclature/symbols compendia. A subcommittee had met at Hamburg, and a restructured group was now being formulated to meet before the end of 1991 and to start the actual work. The group's costs would be met from the BSP grant. Meetings of some subgroups were foreseen for 1992, so that an outline draft text might be available for Lisbon, with publication aimed at 1995.
- (iii) Database of IUPAC Reports The database was now at an advanced stage, and would include all reports published in PAC during 1960-1991. It was easy to use, and would permit chemists worldwide to find out, via a personal computer, what IUPAC had said on a given topic. The Bureau had already agreed to provide USD 20 000 for dissemination within the Union (Minute 10.1.2/90, 59th Meeting), which was expected in 1992.

Prof. Jortner was concerned about the long-range implications for publishing: serious financial difficulties were preventing libraries from purchasing many books for their scientists. The way forward could only be through diskettes. Dr. Becker said that the Publications Committee was already discussing the matter, and plans were in hand at BSP to make PAC available on optical disk. In reply to a question from Prof. Schneider, Dr. Becker said that many IUPAC bodies had not responded to his recent invitation to check the database input relevant to them. Prof. Zamaraev outlined plans for further Monographs on

Chemistry for the 21st Century. Dr. Good recommended that at Lisbon the Bureau should make an in-depth investigation of the impact of the published Monographs and whether or not to continue them.

11/91 IUPAC BODIES

11.1/91 Ratification of Memberships Approved by Correspondence

The following appointments, made through correspondence by the President since the 115th Executive Committee meeting, were ratified by the Bureau:

CHEMRAWN Committee

Prof. P. Moyna (Uruguay)

- Associate Member (1991-1994)

Committee on Chemistry and Industry

Prof. A.E. Fischli (Switzerland)
Dr. R.-P. Martin (France)
Prof. F. Conti (Italy)

Ir. J.J.M. Mulderink (Netherlands)

- Chairman (1992-1995)

- Secretary (1992-1995)

- Member (1992-1995)

replacing Prof. G. Pregaglia

- Member (1992-1995)

replacing Prof. W.J. Mijs

11.2/91 Matters Arising from Finance Committee Meeting at Hamburg

The following matters (see also Minute 4.8/91) were mentioned by Prof. Ward:

- (i) Regarding the possible introduction of an annual service charge for Associated Organizations, the Finance Committee recommended [Minute 15(ii)/91, Hamburg Meeting] that, in future, only those AOs which wished to receive CI and the IUPAC Handbook should do so, and for a service charge of USD 100. No objections were raised by the Bureau.
- (ii) Regarding its Chairmanship, the Finance Committee recommended (Minute 14.2.4/91, Hamburg Meeting) that, in future, the Treasurer should simultaneously be the Committee Chairman. Also, the Chairman of the Division/Section Presidents Group should continue to participate as an observer at Finance Committee meetings until Lisbon.

With Prof. Ward out of the room, the President indicated that the matter of the Chairmanship had been under careful scrutiny by the Executive Committee and the Officers of the Union. The Officers now proposed that the Standing Orders from the Executive Committee for the Finance Committee should be suspended during the next biennium, that the Treasurer should act as Chairman of the Finance Committee, and that the experiment should be reviewed at Lisbon. After various Bureau members had commented on the proposal, it was put to a vote and carried (8 in favour, 3 against, 12 abstentions).

No objections were raised by the Bureau about the continued participation of the Chairman of the Division/Section Presidents Group.

(iii) The Finance Committee had declared itself unanimously against an internal audit of the IUPAC accounts (Minute 14.2.2/91).

With Prof. Ward out of the room, Prof. Björkman tabled his proposal for an internal audit, mentioning that no objection had been raised by the Executive Secretary. Prof. Jeannin observed that an internal audit would be unable to correct any errors in the accounts. However, the Secretary General and Dr. Good spoke strongly in favour of the proposal. It was put to a vote, and approved as a two-years experiment (19 in favour, 0 against, 3 abstentions).

- 11.3/91 <u>Matters Arising from CHEMRAWN Committee Meeting at Hamburg</u> (Prof. Thomas and Dr. Hayes in attendance)
- (i) Via the use of overhead projection transparencies, Prof. Thomas drew attention to the arrangements for CHEMRAWN VII (Baltimore, USA: 91.12.02-06; Minute 8.7.3/90, 59th Bureau). Financial contributions from chemical industry and government sponsors now amounted to USD 525 000. In order to deliver the recommendations and perspectives very quickly after the Conference, the Future Actions Committee had met already on 91.08.01.
- (ii) A completed Advance Information Questionnaire and Announcement Leaflet for CHEMRAWN VIII (Minute 4.5.3/91, 115th Executive Committee) had been precirculated. There had been some concern about the timing and finance, but the consensus view of the CHEMRAWN Committee was to go ahead. At least 50% of the budget was available (as roubles) inside USSR, and only about USD 200 000 needed to be raised from outside sources. On the recommmendation of the President, the Bureau granted the official sponsorship of the Union to the Conference, and guaranteed to cover any financial deficit should this arise.
- (iii) Future CHEMRAWN Conference themes under active consideration were a 2nd World Conference on Chemistry and World Food Supplies, a Young People's Conference on the Future of Chemistry, and a Conference on Biotechnology and the Environment.
- (iv) Prof. Thomas asked the Bureau to reconsider its decision (Minute 4.2/89, 57th Bureau Lund), that royalties arising from the Chemistry for the 21st Century Monograph on "Perspectives in Catalysis" should not be made available for CHEMRAWN purposes. Prof. Jeannin deferred such consideration for the Executive Committee.
- (v) The President announced that he was appointing Dr. A. Hayes as Chairman of the CHEMRAWN Committee, starting on 92.01.01, in succession to Prof. Thomas.

11.4/91 Proposal to Establish IUPAC Awards Programme

Prof. Bard spoke to the precirculated documentation on the proposal, and in particular the offer of Georg Thieme Verlag to establish a Thieme Prize in Synthetic Chemistry (91.06.14). The Secretary General drew attention to previous deliberations on proposals for IUPAC awards in chemical education (Minute 2.2.8/81, 97th Executive Committee - Villefrance-sur-Mer; Minute 2.7.1/86, IUPAC Officers - New Delhi), which concluded against such awards. Also, Prof. West was concerned at the potential additional work for the IUPAC

Secretariat. Dr. Steyn was concerned at the suggested criterion for selection of a scientist under forty years of age, whose research had made a major impact on the field of synthetic chemistry. Prof. Staab was against naming the award as the "Thieme Prize". He prefered that the sponsorship of Thieme should be acknowledged by such wording as "Synthesis Award, sponsored by Thieme". Prof. Jortner suggested that the award should be made at an IUPAC Congress. The President asked for a vote, and the Bureau declared itself substantially in favour (2 against, 4 abstentions) of accepting the award offered by Thieme, and it was left for Prof. Bard to work out the final details.

11.5/91 Nominations for New Members

A proposal was considered that Dr. A.J. Barrett (UK) should be appointed as a new IUPAC Member of the IUB-IUPAC Joint Commission on Biochemical Nomenclature from the start of 1992, and simultaneously succeed Dr. A Chester as the Secretary. Prof. Sheppard, as Chairman of IDCNS, preferred to discuss the nomination first with his colleagues (JCBN is attached to IDCNS within IUPAC). The Bureau approved the nomination, subject to a positive outcome of the IDCNS discussions.

12/91 RELATIONS WITH OTHER ORGANIZATIONS

12.1/91 ICSU Matters

The Secretary General reported on the following matters arising from the Pretoria meeting of the IUPAC Executive Committee:

- (i) Chemical Weapons (Minute 3.3/91, 115th Meeting) Prof. West drew attention to his precirculated letter (91.07.04). The ICSU Executive Board (Tokyo, 91.06.02-05) had accepted his proposal, for a small task group to look into the feasibility of setting up an ICSU programme to investigate and make pronouncements on the consequences of the use of biological, chemical, and nuclear weapons. The task group would report back to the 29th ICSU General Committee meeting (Oslo, 91.09.25-27). If ICSU decided to proceed, provision had been included in the IUPAC general purposes budgets for 1992-3 (Appendix A) for IUPAC to participate in the work.
- (ii) Chemistry and Energy Supplies [Minute 6.4(ii)/91, 115th Meeting] The ICSU Executive Board had expressed an interest in a possible interdisciplinary initiative on world energy supplies. Prof. West had been asked to present a short paper on the matter for consideration at the ICSU General Committee meeting.

The Bureau approved the IUPAC Executive Committee's initiatives on both matters.

12.1.1/91 Proposal for Creation of an Interdisciplinary Cooperative Network to Enhance Availability of Scientific and Scholarly Publications

The proposal from the ICSU Publishing Service (91.07.03) had been precirculated. The Bureau accepted the advice of Prof. West for IUPAC not to

support the proposal.

12.1.2/91 1992 ICSU Grants Programme

The Secretary General reported that, following his request (91.02.12) for financial assistance in 1992 from the ICSU Fund and UNESCO Subvention to ICSU, the following grants had been made:

Chemical quality assurance \$-\$ USD 10 400 Sampling and characterization of environmental particulates -\$ USD 5 200 Workshop on health and environmental aspects of pesticide use -\$ USD 12 600

Prof. West drew attention to a deadline of 92.02.01 for submission of requests for grants from ICSU in 1993. He invited Division/Section Presidents to provide more input for consideration of submission to ICSU in 1993.

12.2/91 <u>IUPAC-IUPAP Transfermium Working Group</u> (Minute 9.3/91, 115th Executive Committee)

Prof. Jeannin said that the Phase (ii) report, applying the published criteria from Phase (i) in detail to all the transfermium elements and presenting final conclusions on the discovery or present status of elements 101-112, was now completed. Despite not seeing the actual Phase (ii) report, the Bureau endorsed it, and agreed that publication should be undertaken by IUPAC in PAC and by IUPAP in an appropriate physics journal.

12.3/91 Appointment of Official Representatives on Other Organizations (Minute 9.4/91, 115th Executive Committee)

Prof. Bard reported that, having received advice from the Secretary General, he had almost finalized his list of official representatives of IUPAC to be appointed to other organizations for mid-1991 to mid-1993. The Bureau asked for the final listing to be attached as an appendix to the minutes of the meeting (Appendix C).

12.4/91 International Group for Correlation Analysis in Organic Chemistry

The Bureau noted the recent change in name of IGCAOC, an Associated Organization of IUPAC, to the International Group for Correlation Analysis in Chemistry (IGCAIC).

13/91 SPONSORSHIP OF SYMPOSIA

13.1/91 Ratification of IUPAC-sponsorships of Symposia

The sponsorships of symposia (Appendix D), approved through correspondence by the Secretary General on behalf of the President since the $115 \mathrm{th}$ Executive Committee meeting, were ratified by the Bureau.

$\frac{\text{Ratification of Official Representatives to IUPAC-sponsored}}{\text{Symposia}}$

The appointments of official representatives of IUPAC to its sponsored symposia (Appendix E), as made on behalf of the President since the 115th Executive Committee meeting, were ratified by the Bureau.

* * * * *

CHAIRMAN: Allen J. Bard

DATE: 12 Sept . 1992

IUPAC GENERAL PURPOSES BUDGET 1992 (as at 91.08.12: in USD)

EXPENDITURE					INCOME		
Office Expenses					<u>National Subscriptions</u> 5% increase on 1991 figure	530	000
IUPAC Officers IUPAC Secretariat	279						
Audit & Bank Fees	(275 000 <u>33 000</u>	•		000 000*)	Company Associates Service Charges	8	000
Expenses IUPAC Bodies					Interests & Dividends Earned	140	000
IUPAC Bodies Programmes		000 000*•)					
IUPAC Representatives on Other Organizations	15_	000		000			
-			(465	000*)	Grants from ICSU	28	000
Provision for Handbook 1993	1-93		16	000	Royal Soc. (UK) Contribution (from 1991 provision)	4	000
Contributions to ICSU & IC	SII				Transfer from Publications Budget	140	000
Committees	13	000					
Chemical Weapons	_ 5	000	18	000			
<u>Information Services/Develor</u> <u>Countries</u>	oping		15	000			
Other Expenses			20	000			
			850	000		850	000

^{*} Final allocations 91.09.16

[•] Standing Committees - 146 000, Divisions - 241 000, CEP/CAMP - 60 000, Letterheads - 3 000

IUPAC GENERAL PURPOSES BUDGET 1993 (as at 91.08.12: in USD)

EXPENDITURE			INCOME	
Office Expenses			National Subscriptions (5% increase in 1992 figure)	557 000
IUPAC Officers IUPAC Secretariat Audit & Bank Fees	8 000 292 000 _33 000	333 000	Company Associates Service Charges	8 000
Expenses IUPAC Bodies General Assembly IUPAC Representatives on Other Organizations	520 000		Interests & Dividends Earned Grants from ICSU	140 000
	<u>15 000</u>	535 000		28 000
			Transfer from Publications Budget	140 000
Contributions to ICSU & ICSU Committees 17 000 Chemical weapons 5 000			873 000	
		22 000		6/3 000
<u>Information Services/Devel</u> <u>Countries</u>	<u>oping</u>	15 000	Excess of Expenditure over Income*	52 000
Other Expenses		20 000		
		925 000		925 000

^{*} Loss to be balanced by the sale of assets

RATIONALIZATION AND GUIDELINES FOR SUBCOMMITTEES*

- 1. A subcommittee should be set up only with the approval of the relevant Division/Section Committee and on the basis of precise objectives.
- 2. The existence of each subcommittee should be reviewed at every General Assembly by the relevant Division/Section Committee, and the decision on continuation (or not) should be reported to the Bureau.
- 3. A subcommittee should be chaired by a present or a recent-past active Titular Member of the relevant Commission or Division/Section Committee.
- 4. Division/Section Presidents and Commission Chairmen are requested strictly to discontinue all members of subcommittees, who are not active.
- 5. Subcommitteess should work at no cost (travel and subsistence expenses) to IUPAC.
- 6. The twelve-years maximum service rule for IUPAC bodies should be applied by Division/Section Presidents and Commission Chairmen to members of subcommittees.
 - * Subcommittees (Statute 10.6) include subcommissions, steering committees, working parties, working groups, and subgroups.

OFFICIAL REPRESENTATIVES OF IUPAC TO OTHER ORGANIZATIONS

(as at 91.12.16)

ICSU General Committee

Prof. G. den Boef (1991-1993)

ICSU Committee on Application of Science to Agriculture, Forestry and Aquaculture (CASAFA)

Dr. P.C. Kearney (1991-1993)

ICSU Committee on Data for Science and Technology (CODATA)

Dr. K.N. Marsh (1987-1993)

ICSU Committee on Science and Technology in Developing Countries (COSTED)

No appointment 1991-1993

ICSU Committee on Space Research (COSPAR)

No appointment 1991-1993

ICSU Committee on Teaching of Science (CTS)

Prof. K.V. Sané (1991-1993)

ICSU Committee on Water Research (COWAR)

Dr. A.J. Dobbs (1987-1993)

ICSU Committee on Biotechnology (COBIOTECH)

Dr. J.L. Fox (1989-1993)

ICSU Committee on Genetic Experimentation (COGENE)

Dr. J.L. Fox (1989-1993)

ICSU Committee on Problems of the Environment (SCOPE)

Prof. V.A. Koptyug (1989-1993)

International Congress on Catalysis (ICC)

Prof. B. Delmon (1991-1993)

International Federation of Clinical Chemistry (IFCC)

Prof. H.P. Lehmann (1989-1993)

Dr. A. Kallner (1991-1993)

International Organization for Chemical Sciences in Development (IOCD)

Prof. C.N.R. Rao (1983-1993)

ISO/TC 12: Quantities, Symbols, Conversion Factors, and Conversion Tables

Prof. I.M. Mills (1989-1993)

IUPAP Commission on Symbols, Units, Nomenclature, Atomic Masses, and Fundamental Constants (SUNAMCO)

Prof. I.M. Mills (1989-1993)

International Union of Toxicology (IUTOX)

To be appointed

UN Food and Agriculture Organization (FAO)

Dr. P.S. Steyn (1991-1993)

UN World Health Organization (WHO)

Dr. H.G.J. Worth (1990-1993)

SPONSORSHIPS OF SYMPOSIA BY IUPAC APPROVED BY CORRESPONDENCE SINCE 115TH MEETING OF EXECUTIVE COMMITTEE

5th International Symposium on Biological and Environmental Reference Materials Aachen, FRG: 11th-14th May 1992

International Symposium on Calorimetry and Thermodynamics of Biological Processes Gullmarsstrand, Sweden: 15th-19th May 1992

3rd International Conference on Heteroatom Chemistry Riccione, Italy: 7th-12th June 1992

14th International Liquid Crystal Conference Pisa, Italy: 21st-26th June 1992

2nd International Symposium on Surface Chemistry, Adsorption and Chromatography
Moscow, USSR: 29th June-3rd July 1992

5th International Symposium on Solubility Phenomena Moscow, USSR: 8th-10th July 1992

14th International Symposium on Photochemistry Leuven, Belgium: 19th-25th July 1992

9th International Biotechnology Symposium Crystal City/Virginia, USA: 16th-21st August 1992

International Symposium on Macrocyclic Ligands for Design of New Materials Guildford, UK: 13th-15th September 1992

10th European Symposium on Polymer Spectroscopy Leningrad, USSR: 3nd-September 1992

8th International Symposium on Mycotoxins and Phycotoxins Mexico City, Mexico: 8th-12th November 1992

23rd International Conference on Solution Chemistry Leicester, UK: 15th-21st August 1993

Sponsorship not granted to:

5th International Colloquium on Solid Sampling Geel, Belgium: 18th-20th May 1992

OFFICIAL REPRESENTATIVES TO IUPAC-SPONSORED SYMPOSIA

APPROVED BY CORRESPONDENCE

SINCE 115TH EXECUTIVE COMMITTEE MEETING

14th Discussion Conference on Macromolecules: Rheology of Polymer Melts

Prague, Czechoslovakia: 15th-19th July 1991

DR. H. H. MEYER

10th Internatioal Symposium on Cationic Polymerization Balatonfüred, Hungary: 26th-29th August 1991

LETTER OF GREETINGS

9th International Conference on Positron Annihiliation Szombathely, Hungary: 26th-31st August 1991

LETTER OF GREETINGS

International Conference on Applications of Mössbauer Effect Nanjing, China: 16th-20th September 1991

LETTER OF GREETINGS

CHEMRAWN VII - World Conference on Chemistry of the Atmosphere: Its Impact on Global Change Baltimore/Maryland, USA: 2nd-6th December 1991

PROF. V. A. KOPTYUG