INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MINUTES OF 54th MEETING OF BUREAU

BOSTON UNIVERSITY, USA: 26th-27th AUGUST 1987

Prof. C. N. R. Rao (Chairman), Prof. A. J. Arvía, Prof. A. Björkman, Prof. A. D. Campbell, Dr. Mary L. Good, Prof. W.-Y. Huang, Prof. S. Itô, Prof. Y. P. Jeannin, Prof. V. A. Koptyug, Dr. W. G. Schneider, Prof. D. B. Tonks, Prof. A. A. Vlček, Prof. I. Wadsö, Prof. T. S. West (Elected Members); Dr. S. S. Brown, Prof. J. F. Bunnett, Dr. P. C. Kearney, Dr. D. R. Lide, Jr., Prof. G. H. Nancollas, Prof. T. Saegusa, Prof. Kazuo Saito (Division Presidents)

Absent: Prof. H. Gg. Wagner

<u>In Attendance</u>: Dr. A. Hayes (Interim Chairman, CHEMRAWN Committee) - in part; Dr. J. V. Kingston (UNESCO Division of Scientific Research and Higher Education) - in part; Dr. K. L. Loening (Chairman, Interdivisional Committee on Nomenclature and Symbols) - in part; Prof. C. G. Wermuth (Chairman, Provisional Section Committee on Medicinal Chemistry) - in part; Dr. I. A. Williams (Chairman, Publications Committee) - in part; Dr. D. Wyrsch (Chairman, Committee on Chemistry and Industry) - in part; Dr. M. Williams (Executive Secretary)

3/87 INTRODUCTORY REMARKS AND FINALIZATION OF AGENDA

The President reminded the meeting that, for medical reasons, Prof. Wagner was unfortunately unable to be present (cf. Minute 1/87, 53rd Bureau - Boston). The following items were added to the agenda circulated by the Executive Secretary (87.07.31):

- 2.2.2 Involvement of Chemistry in the Biosciences
- 14.1 Continuing Dispute between Commissions I.3 and V.5

4/87 MINUTES OF 52nd MEETING OF BUREAU

4.1/87 Amendments and Approval of Minutes

The Minutes of the meeting at Oxford (circulated by the Executive Secretary 87.02.25) were approved.

4.2/87 Matters Arising from Minutes

4.2.1/87 Legal Obligations of IUPAC (Minute 3.1/86)

The Bureau noted the further advice of Swiss lawyers Wehrli Wiget Lutz (87.08.05), discounting the concern of Prof. Jeannin that only the minimum annual subscriptions of member countries were limited and about the subscriptions of Affiliates.

4.2.2/87 Involvement of Chemistry in the Biosciences (Minute 3.5/86, page 5)

Prof. Wadsö tabled and elaborated on a proposal related to "Biological Chemistry - Possible Changes of IUPAC's Structure", particularly in the context of the discussion by the Bureau at the special meeting in Boston (87.08.19) and earlier on overall structure and functioning of the Union. Several Division

Presidents and Bureau Members took part in the ensuing debate, after which Prof. Rao requested Prof. Wadsö to act as Chairman of a Study Group on the matter. The three-person Group should have representation from the Applied Chemistry and Clinical Chemistry Divisions, and it should report to the Bureau no later than Summer 1988.

Also, Prof. Wadsö mentioned that the Working Party on Biophysical Chemistry had reported to the Physical Chemistry Division Committee at Boston. A stronger Division emphasis on the physical chemistry of biological systems was recommended.

$\frac{\text{MINUTES OF 108th AND 109th MEETINGS OF EXECUTIVE COMMITTEE AND MATTERS}}{\text{ARISING}}$

The Minutes of the meetings in Oxford and Veszprém were recorded as having been received officially by the Bureau.

5.1/87 Proposed Section on Medicinal Chemistry (Prof. Wermuth in part attendance)

Prof. Wermuth tabled a report on the recent discussions of the Provisional Section on Medicinal Chemistry (New Hampshire, USA: 87.08.06), in response to those of the Executive Committee at Veszprém (Minute 3.1.3/87, 109th Meeting). He and his colleagues were disappointed at the lack of progress. Several Members of the Bureau commented critically on various aspects of the report, stressing the need still for more detailed information on the proposed activities.

Further consideration was deferred until the second day, when copies of the material presented at Veszprém (proposed terms of reference for a definite Section, together with project outlines for working parties) were available. This material was received more favourably by the Bureau, especially that on computer-assisted molecular modelling. However, some doubts remained whether definitive Section status was yet warranted. A written resolution was presented by Prof. Bunnett in order to expedite progress.

Eventually, a recommendation from Prof. Rao was adopted (11 in favour, 7 against), that Council at Boston should establish a definite Section on Medicinal Chemistry. The Officers of the Section and a few other Members (up to a total of six) should be appointed after Boston by the new President of the Union, following consultations with COCI and chemical industry. The initial terms of reference should restrict the activity to modelling and perhaps drug design/synthesis, in order to permit the Section to demonstrate that it could quickly and successfully complete IUPAC-type project work.

$\frac{\text{Proposed IUPAC-UNESCO Initiative in Latin America}}{(\text{Dr. Kingston in attendance: Minute } 3.1.5/87, 109} \text{th Meeting})$

The Executive Secretary had duly met with Dr. Kingston and Mr. Baker, and his report (87.06.23) had been precirculated. Dr. Kingston did not share Prof. Rao's concern about involvement with UNDP: it constituted a promising approach for funding. Prof. West agreed to write and pledge IUPAC's enthusiastic continuing support for the project. In addition, the Secretary General would formally submit, via ICSU, an application for US-\$25 000 from the UNESCO Participation Fund in respect of the IUPAC Seminars/Visiting Professorships (IVPs) programme. He would also try to enlist the support of relevant NAOs.

Prof. Wadsö mentioned his participation on behalf of IUPAC at the Steering

Committee of the International Biosciences Network (Cochabamba, Bolivia: 87.03.14-16). In his opinion, it was important to finance an effective buildup of university chemistry departments in Bolivia, Colombia, and Peru, which had a poor level of academic competence. Dr. Kingston agreed, but he felt that the way forward, as in SE Asia, was by establishing regional chemistry networks and the use of IVPs. The latter should not merely involve lectures, but would also provide a focus of expertise and advice at specific places. Furthermore, he advocated training research students (M.Sc.) in their own countries/regions, instead of sending them elsewhere in the world.

The Bureau noted that COSTED was unable to allocate any funds for the IVPs programme in 1987. Applications to use the money already available to IUPAC were urged by the Executive Secretary. With Prof. Wagner completing his service on the Bureau at Boston, Prof. Rao had approved a suggestion for Prof. Campbell to coordinate future activity on IUPAC Seminars and IVPs.

5.3/87 Reformulation of Periodic Table (Minute 3.1.6/87, 109th Meeting)

Prof. Saito reported that the Inorganic Chemistry Division Officers had duly met with those of the Union present during CHEMRAWN VI (Tokyo, 87.05.19). After lengthy discussions, Prof. Rao eventually supported the IUPAC preference to label the columns of the periodic table with numbers 1 to 18. That and other forms of the periodic table in use would be shown in an appendix to Part I of the new edition of Nomenclature of Inorganic Chemistry (Red Book), which was being prepared for publication in 1988. Meanwhile, an article would be published in PAC (cf. Minute 3.9/86, 52nd Bureau), seeking comments from the chemistry community worldwide, before any ultimate recommendations on the format and family labelling of the periodic table were issued by the Union.

The Bureau noted that the IUPAP membership of the joint IUPAC-IUPAP Transfermium Element Working Group had now been finalized. Prof. Jeannin indicated that the first meeting was likely to be in France early during 1988, and it would start to establish criteria that must be satisfied for the discovery of new chemical elements to be recognized.

5.4/87 Possible Coordination of IUPAC Efforts for Developing Countries with COSTED (Minute 3.1.10/87, 109th Meeting)

The Executive Secretary tabled an inventory of relevant existing, but largely uncoordinated IUPAC activities. Dr. Schneider suggested that it might form the basis for discussion with COSTED on a joint approach to such activities.

5.5/87 Natural Products Research Network for Eastern and Central Africa (Dr. Kingston in attendance: Minute 8.3/87, 109th Meeting)

Dr. Kingston reported that various appeals were being made for funding the future work of the network. He had recently visited its headquarters at Addis Ababa University, and was extremely impressed by the opportunities for post-graduate study offered by the network. He recommended that IUPAC should send a letter of support plus a token financial donation. Although Prof. Rao preferred the use of other more specific money allocation in such cases, the Treasurer approved a donation of US-\$200.

6/87 MINUTES OF CHEMRAWN COMMITTEE MEETING (87.05.16-17) (Drs. Hayes and Wyrsch in attendance)

The Minutes of the meeting at Tokyo were recorded as having been received officially by the Bureau on behalf of the Executive Committee.

Dr. Hayes emphasized briefly various CHEMRAWN activities since Lyon. The proposals about the CHEMRAWN programme from UK to Council at Boston had been debated by and were acceptable to the CHEMRAWN Committee. At Boston attention had been turned to possible future topics and reports were expected at its Spring 1988 meeting on:

- chemistry and the atmosphere (Dr. Schneider)
- water as a resource (Prof. J. B. Donnet)
- CHEMRAWN II follow-up on food self-sufficiency (Dr. S. Varadarajan)
- chemical waste as a raw material (Prof. E. J. Grzywa)

Answering a question from Dr. Brown, Dr. Hayes felt that there had been significant governmental involvement in CHEMRAWN I, II and the II follow-up workshops in Sri Lanka and Argentina. How effective had been the involvement was not clear. Government involvement in Conferences III and IV was less obvious, but more so in VI.

6.1/87 Statement on Treasurer's CHEMRAWN Responsibilities (Minute 4.3/86, 52nd Bureau)

At the meeting in Tokyo Prof. Björkman's draft statement had been rediscussed and some modifications in the wording agreed for implementation of these responsibilities. A summary version of the statement (Appendix A), approved at Boston by the CHEMRAWN Committee and noted by the Finance Committee, was endorsed by the Bureau. Dr. Hayes agreed on the need for better financial control of all aspects of CHEMRAWN operations. The Treasurer pointed out that, for the first time, the biennial IUPAC accounts to be presented to Council at Boston included a statement of income and expenditure in respect of CHEMRAWN (CHEMRAWN Rolling Fund).

6.2/87 Plant Chemical Safety (Minute 3.2/86, 52nd Bureau)

Dr. Wyrsch reported on the outcome of joint CHEMRAWN Committee-COCI discussions at Boston (87.08.25). COCI was taking over responsibility for organizing an IUPAC World Conference on Chemistry and Safety in Production. It would concentrate on scientific and technological issues. The location would be Western Europe, probably Switzerland during 1989-1990, with specialists invited from third world countries. Contact should be established with regional chemical industry associations, assistance would be encouraged of experts from CAs, and close liaison must be retained with the CHEMRAWN Committee. Prof. West urged the active involvement of the Treasurer in the organizing committee, and he suggested that input from some Divisions might be useful.

7/87 ITEMS FROM AGENDA OF 34th MEETING OF COUNCIL REQUIRING DISCUSSION, RESOLUTION, OR RECOMMENDATION BY BUREAU

7.1/87 Council Item 3 - Nominations for Officers and Bureau Members

The President tabled the recommendations of the Nomination/Election Committee (87.08.19 - see Minute 3.1.1/87, 109th Executive Committee):

- (i) Since both candidates for the office of Vice-President were capable men, Council should be free to elect either of them.
- (ii) There should be eleven Elected Members of the Bureau during 1987-9.

(iii) The six vacancies for Elected Members of the Bureau should be filled by

Prof. A. J. Arvía (Argentina)

Prof. M. T. Beck (Hungary)

Prof. R. D. Brown (Australia)

Prof. N. Sheppard (UK)

Prof. H. A. Staab (FRG)

Prof. W. Zielenkiewicz (Poland)

(iv) A nomination for Prof. A. T. Balaban (Romania) as a Bureau candidate was judged to be invalid because of late arrival.

The recommendations were endorsed by the Bureau for presentation to Council, together with a proposal from Prof. Rao to appoint as Tellers for all voting in Council: Profs. Itô, Tonks, and Wadsö.

7.2/87 Council Item 4 - Time of Elections

The Bureau accepted Prof. Rao's recommendation that Council in future should start its deliberations at 09.00 hours on the second day, with the election of Officers of the Union and of Elected Members of the Bureau at 10.00 that day. Those considerations should also apply at Boston.

7.3/87 Council Item 7 - Appointment of Auditors

The Bureau agreed to recommend Council to reappoint Neutra Treuhand AG as auditors for the biennium 1987-8. However, the Treasurer gave notice that he might wish to suggest a change in the longer term.

7.4/87 Council Item 13 - Affiliate Membership Scheme

The Secretary General presented a mechanism for dealing with reduced registration fees for Affiliates attending IUPAC-sponsored symposia. The suggestions were acceptable to Prof. Itô (Minute 8/86, 52nd Bureau), who urged that they should be conveyed to organizers of existing and future sponsored symposia.

Prof. West drew attention to various recommendations in his report to Council, and advanced the view that AMS was approaching a viable number of supporting countries and Affiliates. Despite the rise for 1988 in the IUPAC component of the subscription fee, the biennial IUPAC Handbook would be an additional cost to Affiliates. Also, the Secretary General tabled draft standing orders for a Committee on Affiliate Membership (CAM), plus a proposed electoral system thereto.

During the wide-ranging debate which followed, some reservations were expressed about the recommendations:

- the rise in subscription for 1988 might adversely affect the number of Affiliates
- the Handbook might be considered more valuable than CI by Affiliates
- financial details were needed about the production costs of CI and the Handbook to make a proper judgement on possible publication packages for Affiliates
- there had been no opportunity to discuss nationally before Boston the proposed CAM and whether it was necessary or likely to be effective.

7.5/87 Council Item 14 - Dissolution of Existing IUPAC Bodies

The Bureau endorsed the recommendation to Council (Minute 7/87, 109th Executive Committee), that the Commission on Teaching in Clinical Chemistry should be allowed to continue to the end of 1988 in order to complete existing projects before dissolution. However, no new projects should be approved nor additional funds granted by IUPAC.

Dr. Brown enquired if the experiment of having Division Associate Members for the IUPAC Committee on Teaching of Chemistry until Boston was to be continued. It was agreed to extend the arrangement for the next two years, subject to a satisfactory report to the Spring 1988 meeting of the Executive Committee.

7.6/87 Council Item 15 - Revised Budgets for 1988-9

The Treasurer presented the latest version (see Appendix B) of the general purposes and AMS budgets, as agreed by the Officers subsequent to the Finance Committee meeting at Boston (87.08.23).

The forecast for the budget biennium was now:

1988 - surplus of US-\$49 640 1989 - deficit of US-\$86 000 Total - deficit of US-\$36 360

Some changes in and additional allocations to various IUPAC bodies had been decided by the Officers at Boston, following the provisional preallocation at Veszprém (Minute 4.1/87, 109th Executive Committee). In addition, Prof. Björkman planned to finance certain once-only expenditures by using assets. He pointed out that, if the increased IUPAC component of the Affiliate subscription was restricted to US-\$10 (instead of 12), there would be a further overall deficit on the AMS budgets of US-\$33 000 (16 000/1988, 17 000/1989).

7.7/87 Council Minute 16 - Proposals from NAOs

Noting the recommendation of the Executive Committee (Minute 5.1(vi)/87, 109th Executive Committee), the Bureau agreed to support the adoption by Council of the proposals from UK about the CHEMRAWN programme, especially that the Chairman of the CHEMRAWN Committee should be appointed an ex officio (non-voting) Member of the Bureau.

7.8/87 Council Item 17 - Important Matters Discussed by Bureau

If an opportunity did not arise elsewhere on the Council agenda, under this item the President would summarize the deliberations at the special meeting of the Bureau in Boston (87.08.19) on overall structure and functioning of IUPAC Commissions and Committees.

The Bureau noted that the Officers had subsequently (87.08.20) issued a memorandum to Division Presidents on Forward Planning Activity:

"I. Division Committees shall form Forward Activity Planning Groups (Think Tanks) to meet at Boston. Each Division Group shall prepare a brief paper suggesting new areas of activity that IUPAC might undertake (future directions for the Division and various interdisciplinary matters). These reports should be sent to the Secretariat by the end of February 1988 for discussion by the Executive Committee and subsequently by the Bureau in Oxford 1988.

2. In addition each Division Group shall consider which long-term Commissions could be dissolved in order to allow such new activities to be undertaken by short-term working groups."

Some initial reactions of Division Committees to the memorandum had been reported at the meeting of Division Presidents (Minute 8/87, 87.08.22). FPA groups had now been constituted in most Divisions, but not all of them had met at Boston. Commission V.1 was enlarging its scope immediately to "Reactions, Reagents, and Separations".

Dr. Kearney tabled a proposal for reorganization of the Applied Chemistry Division during 1988-9, with the existing Commissions grouped eventually under Environment, Agriculture, and Technology. A change in name to "Agrochemicals" was put forward now for the Commission on Pesticide Chemistry. There was, in fact, some similarity between drugs and pesticides, and the Division was ready to accommodate Medicinal Chemistry if that was worthwhile for the Union.

Dr. Tonks was not in favour of too much change in the existing structure of the Union. He preferred there to be a more flexible attitude in appointment of new Titular and Associate Members and for reappointments. Prof. West suggested that Council might be requested to suspend the relevant Bylaws until Lund, while the Bureau continued its deliberations on restructuring. However, Prof. Rao judged the consensus of opinion to be against such suspension at Boston: it should be considered by the Bureau in Summer 1988.

7.9/87 $\frac{\text{Council Item 19 - Locations and Dates for 1989 General Assembly and}}{\text{Congress}}$

Taking into account its previous considerations (Minutes 5.3 and 5.4/86, 52nd Meeting), the Bureau agreed to recommend Council to ratify Lund University during 89.08.09-18 and Stockholm during 89.08.02-07 as the locations and dates for the next General Assembly and Congress, and to approve the scope for the Congress as outlined in the recently available first circular. In the case of the Congress, approval should be subject to receiving a confirmation guarantee by the end of October 1987 of freedom of participation of bona fide scientists from throughout the world.

7.10/87 Council Item 20 - Locations for 1991 General Assembly and Congress

The Secretary General had obtained costs of moderate price hotels and university dormitory accommodation in respect of the invitations from China, Greece, and Hungary (Minute 5.2/87, 109th Executive Committee). No costs were available yet for a recent invitation (87.05.05) from Turkey to host the General Assembly in Istanbul. His conclusion, on grounds of finance and geographical proximity, was to hold the Congress in Budapest and the General Assembly in Athens. One meeting should follow directly after the other, probably in August 1991. The Bureau agreed to convey these suggestions as provisional recommendations to Council at Boston.

7.11/87 Council Item 21 - Applications for Membership of IUPAC

Noting that King Abdulaziz City for Science and Technology (KACST)/Saudi Arabia had recently been accepted for membership of ICSU, the Bureau approved proposals from the Executive Committee (Minutes 2.2.3 and 8.1/87, 109th Meeting) that Council at Boston should be recommended to accept applications for membership of the Union from Sociedad Chilena de Química and KAST.

7.12/87 Council Item 22 - Application for Associated Organization Status

An application for AO status from the International Conferences on Solution Chemistry (Minute 8.2/87, 109th Executive Committee) would be recommended by the Bureau for acceptance by Council at Boston.

7.13/87 Council Item 23 - Language for Official Records during 1987-1991

The Bureau decided to recommend to Council that English should be the one language in which the official records of the meetings of the Council, Bureau, and Executive Committee should be kept and published during the four years 1987-1991 (Statute 5.405).

8/87 REPORT OF COMMITTEE ON CHEMISTRY AND INDUSTRY (Drs. Wyrsch and Hayes in attendance)

Dr. Wyrsch reported briefly on the deliberations at Boston. COCI was ready to assist in recruitment of industrial experts for the Subcommittee on Risk Assessment established by the Commission on Toxicology. The aim of medicinal chemistry was to discover new drugs: IUPAC Section status was appropriate, but there was consensus that it should be characterized by a strong involvement of industry. The strengthening of applied chemistry within the Union was desirable: pure and applied chemistry should better reflect the actual situation in universities and industry. Recruitment of new CAs and contacts with existing CAs needed to be intensified, probably through the proposed World Conference on Chemistry and Safety in Production and medicinal chemistry. Prof. Wadsö indicated that Swedish chemical industry was not impressed by the article "Industry and IUPAC" (CI, 1986, 8 (1), pp. 24-27).

The Bureau would seek Council approval for the Chairman of COCI to be appointed an ex officio (non-voting) Member of the Bureau (Minute 3.1.11/87, 109th Executive Committee). Dr. Wyrsch felt that this would greatly facilitate his contact with Division Presidents and hence within their Divisions.

9/87 REPORT OF INTERDIVISIONAL COMMITTEE ON NOMENCLATURE AND SYMBOLS (Dr. Loening in attendance)

Dr. Loening said that there should be a smooth transition to the new Officers of IDCNS after Boston (Minute 10.1/87). The extended trial of the new mechanism for comment and approval of IUPAC recommendations on nomenclature and symbols (Minute 2.2.1/84, 49th Bureau - Oxford) was judged to have been successful, and it should now become permanent: the Bureau agreed. Promising sales were reported for the Compendium of Chemical Terminology (Gold Book), and financial support from the Union was now needed for its further development.

Regarding the new mechanism for recommendations, the Executive Secretary asked for clarification of exactly when the eight months period for comment started. Dr. Loening confirmed that it started officially from publication of the synopsis in CI (not in PAC), thereby facilitating the widest possible feedback. He was against a suggestion from Prof. Nancollas to save time by distributing the synopsis at the same time as the fifteen experts were approached for their comments.

10/87 IUPAC BODIES

10.1/87 Ratification of Memberships Approved by Correspondence

The following appointments, made through correspondence on behalf of the President since the 109th Executive Committee meeting, were ratified by the Bureau:

Interdivisional Committee on - Prof. N. Sheppard (UK)
Nomenclature and Symbols as Chairman after Boston

Dr. A. D. McNaught (UK)
 as Secretary after Boston

CHEMRAWN Committee - Prof. J. M. Thomas (UK) as Chairman after Boston

Publications Committee - Dr. E. D. Becker (USA) as Chairman from start of 1988

10.2/87 Chemistry International Editorial Advisory Board

The Secretary General said that the Board met in Boston on 87.08.22, but so far it was only moderately effective. Various Members had expressed their satisfaction at the way CI had developed over the past two years, and indicated they enjoyed its current style and content. The editor had invited the Board to contribute "Guest Editorials". Some Commissions and Committees neglected the opportunity of publicizing their work, through good "Summary Minutes", to a large audience of chemists (10 500 copies of each issue were now printed). The Secretary of the Committee on Chemical Databases had attended the meeting, and its Standing Orders should be amended to ensure CCDB representation in future on a regular basis. The amendment was accepted by the Bureau.

10.3/87 Matters Arising from Division Presidents Meeting at Boston (87.08.22)

Dr. Lide drew attention to the following matters:

- (i) Draft guidelines on functioning of National Representatives, prepared by the Secretary General, had been considered and the revised text was to be included with NR appointment letters after Boston.
- (ii) In future, the Secretariat would provide a Division President with a checklist of seven criteria together with the completed Advance Information Questionnaire for a symposium. If the Division President was dissatisfied on any point, granting of sponsorship would be deferred until better information became available.
- (iii) He was to discuss informally with the Chairman of the PAC Editorial Advisory Board how the Board might involve in a scientific review of IUPAC non-nomenclature/symbols reports without introducing too much bureaucracy into the Union.

11/87 RELATIONS WITH OTHER ORGANIZATIONS

11.1/87 ICSU Scientific Committee on Biotechnology

The Secretary General referred briefly to the precirculated report on the foundation meeting of COBIOTECH (87.06.11-12). Prof. M. Ringpfeil, Chairman of

the Commission on Biotechnology (VI.2), had represented IUPAC and was elected to the permanent steering group. Commission VI.2 should seek opportunities to help establish COBIOTECH project work and to nominate persons to participate therein.

11.2/87 ICSU International Geosphere-Biosphere Programme

On behalf of the US National Committee for IUPAC, a letter from Dr. Good (87.04.17) expressed concern that chemistry was not being included in the programme as much as was warranted. However, the Secretary General pointed out that he had already sent full details to Division Presidents (87.04.23), seeking advice on how chemistry and IUPAC should become involved. To date only the Commission on Atmospheric Chemistry had replied, and additional comments were urged as soon as possible from all Bureau Members.

11.3/87 Cooperation between ICSU and Third World Academy of Sciences

The Secretary General had asked Division Presidents (87.06.03) to provide names of possible speakers for the ICSU-TWAS lectureship programme and input for a proposed directory of institutions in developing countries. Prof. West did not feel that the Union could help much in the provision of books and journals to developing countries.

11.4/87 Requests for Grants from ICSU/UNESCO for 1988

The Secretary General had submitted four applications to ICSU (87.08.24) from amongst those projects proposed by Division Presidents:

Solubility Data — International Cooperation with China and USSR Critical Evaluation of Kinetic Data for Atmospheric Chemistry IUPAC Affiliate Membership Scheme
Pesticide Chemistry Workshop in China

11.5/87 Brazilian Membership of IUPAC

An application from Associação Brasileira de Química for readmission to the Union had been received (87.06.04), the annual subscription to be paid by the Nacional governmental office Conselho de Desenvolvimento Científico e Tecnológico. The Executive Secretary knew of no precedent for not applying the statutory requirement of at least six months advance application consideration of a national membership request by Council (Bylaw 1). However, the Secretary General proposed that, as a reaffiliating country, Bylaw 1 might be waived and Brazil allowed to rejoin IUPAC from 88.01.01 subject, however, to confirmation of the appointment of a broadly-based National Committee for Chemistry to act as the NAO. ABQ would presumably take a leading role within the National Committee for Chemistry, but other main chemical societies like Sociedade Brasileira de Química must be involved. The Bureau agreed that Prof. West could present his proposal to Council at Boston.

12/87 PUBLICATIONS

12.1/87 Matters Arising from Publications Committee Meeting at Boston (87.08.21-23) (Dr. I. A. Williams in attendance)

Referring to the precirculated report of the Publications Committee to Council, Dr. I. A. Williams said that there was a significant rise in royalty income under the Union's contract with its new official publisher, Blackwell Scientific Publications. However, there was a long-term problem of declining funds available to institutional libraries, both for books and journals.

- Dr. I. A. Williams tabled a document covering the following points:
 - (i) Minute 11.1(vi)/86, 52nd Bureau The Bureau took no action on a suggestion to change (ii) in the terms of reference for the PAC Editorial Advisory Board.
 - (ii) Minute 11.1(ix)/86, 52nd Bureau For the present, no change was recommended by the Publications Committee to revert to typesetting of PAC, which would increase significantly the subscription price.
- (iii) Minute 12.3/86, 52nd Bureau The Publications Committee was not in favour of asking all invited lecturers at each sponsored symposium to submit their papers for consideration of publication in PAC, which implied refereeing and would both alienate organizers and delay publication.
 - (iv) Minute 11.3/87, 109th Executive Committee The Publications Committee recommended that, for a two-years trial period and subject to a maximum of US-\$70 000, a sum of US-\$1 000 should be granted to each IUPAC-sponsored symposium, provided publication aspects were resolved to the Union's satisfaction. This would counteract the financial inducements of other publishers for traditional IUPAC material and hopefully attract additional high-quality meetings to the Union. A decision by the Bureau (Executive Committee) was deferred until 1988.
 - (v) Minute 11.1(iii)/86, 52nd Bureau The Publications Committee had recommended a smaller increase in pricing of books than requested by BSP for 1987, but it was now ready to accept in full the requested prices for 1988.
- (vi) Minutes 11.1(ix) and (x), 52nd Bureau BSP had accepted increases in fees for typing camera-ready copy and for symposium editors, to start in 1989.
- (vii) Minute 11.1(viii), 52nd Bureau Subscription price increases in 1988 for both PAC and CI were approved.
- (viii) Minute 11.1(xii), 52nd Bureau Agreement had been deferred on price increases in 1988 for volumes in the solubility data series, pending the receipt of various information requested from Pergamon and its analysis by IUPAC. The possibility was mentioned of giving notice at the end of 1987 to withdraw publication from Pergamon after 1988.
 - (ix) Some suggestions from the Publications Committee of candidates to fill membership vacancies at the end of 1987 were noted by Prof. Rao.
 - (x) The Publications Committee commended the editor of CI on its increasingly useful, informative, and entertaining contents.
 - (xi) The views of IDCNS and the Publications Committee on prepublication of material from Commission reports were noted by the Bureau.

Dr. Brown enquired about the level of sales and distribution of PAC, and Dr. I. A. Williams produced recent figures supplied by BSP.

12.2/87 US National Research Council Reports

Dr. Brown had duly visited WHO headquarters in Geneva (Minute 10.1/87, 109th Executive Committee), where there was a favourable reaction to the draft

NRC-IUPAC manual on chemical safety. A series of monographs on recommended laboratory procedures was planned in the WHO International Programme on Chemical Safety, including one on general laboratory safety. Involvement of the Union in that particular volume was proposed. The matter had been considered at Boston (87.08.26) by Drs. Brown, Good, and Williams with representatives from US-NRC, and it was recommended that IUPAC should accept an invitation to participate in an IPCS drafting group meeting (Helsinki, 87.10.26-29) to discuss the matter further. The Bureau approved the participation. Collaboration with WHO should ensure wide distribution of an eventual joint publication, especially in developing countries.

12.3/87 Future Financing of CI and IUPAC Handbook

Following his report to the Executive Committee at Veszprém (Minute 10.3 | 87, 109th Meeting), the Executive Secretary had taken professional advice about the involvement of advertising agencies in CI and the Handbook. Subsequently, he had approached three agencies in UK with experience in scientific and technical journals/magazines plus the agency in USA which acted as advertisement management for ACS publications. In respect of the Handbook, Dr. Williams had approached a UK agency with experience in annual chemical industry directories. The Bureau awaited the outcome with interest, noting that, in any case, IUPAC would still by contract next year receive 1 600 free copies of CI, thereby meeting internal IUPAC requirements. Further, the Treasurer had introduced a provision of US-\$15 000 into the general purposes budget for 1988 (see Appendix B), which should cover production of 1 600 copies of the Handbook required by the Union.

13/87 SPONSORSHIP

13.1/87 Ratification of IUPAC-sponsorship of Symposia

The sponsorships of symposia (see Appendix C), approved through correspondence by the Secretary General on behalf of the President since the 109th Executive Committee meeting, were ratified by the Bureau.

13.2/87 Official Representatives to IUPAC-sponsored Symposia in 1987

The appointments of official representatives of IUPAC to its sponsored symposia in 1987 (see Appendix D), as made on behalf of the President, were ratified by the Bureau.

13.3/87 Proposal for Deadline in Granting IUPAC Sponsorship to Symposia

The Executive Secretary reminded the Bureau that the then President of the Union, Prof. H. Zollinger (Minute 4/80, Division Presidents - Zürich), had introduced a deadline for receipt of a completed Advance Information Questionnaire by the Union of twelve months before a symposium. This was to ensure careful long-range preparation of the symposium and to facilitate implementation of the Union's policy of freedom of participation for bona fide chemists. Dr. Williams was, therefore, astonished that sponsorship had been granted on 87.07.07 (letter actually signed by Secretary General 87.07.14), just six weeks prior to the International Conference on Applications of the Mössbauer Effect (Melbourne, 87.08.17). Such late sponsorship by IUPAC, in his opinion, lacked credibility and made it impossible to apply the Union's "three months/one month" rule in respect of entry visas. Prof. Rao felt that six months in advance should be the latest for granting sponsorship, and the Secretary General agreed in future to follow that guideline.

Prof. West then raised the case of the 6th International Conference on Surface and Colloid Science (Hakone, Japan: 88.06.05-10), for which the completed AIQ was received on 87.08.10 (the questionnaire had only been requested from IUPAC on 87.07.16), some ten months beforehand. In view of the strong support by the Chairman of the Commission on Colloid and Surface Chemistry including Catalysis, Dr. Lide recommended the granting of sponsorship. As an exception to the twelve months deadline, the Bureau reluctantly approved IUPAC sponsorship for the Conference.

14/87 REPORT ON IUPAC SECRETARIAT

The Secretary General advised the Bureau of recent changes in the Secretariat office space at Oxford and of various recommendations accepted by the Executive Committee at Veszprém (Minute 12/87, 109th Meeting). A start had been made on disposing of some non-essential archive material, but there were too many other priorities for the time being. Notice had been given to staff of the new annual leave scheme, and arrangements were under investigation for a group medical scheme. A telex machine had been installed, and at Boston the Treasurer had agreed to the purchase of a facsimile transmission machine.

15/87 DATES AND PLACE OF NEXT MEETINGS

The Bureau agreed to meet in Oxford according to the following schedule:

Vice-Presidential interviews with Division
88.09.16 (all day)

88.09.17 (morning)

Presidents for biennial critical assessment of IUPAC projects and programmes

88.09.17 (afternoon)

- Division Presidents
88.09.18-19 (all day)

- Bureau

16/87 ANY OTHER BUSINESS

16.1/87 Continuing Dispute between Commissions I.3 and V.5

Prof. VIček drew attention to a continuing dispute between the Commissions on Electrochemistry (I.3) and on Electroanalytical Chemistry (V.5) over the latter's series on "Thermodynamic Functions of Transfer of Single Ions from Water to Nonaqueous and Mixed Solvents". Joint discussions at Lyon had failed to solve the fundamentally different attitudes of the two Commissions, and no progress had been achieved at Boston. Prof. Nancollas felt that the series made a useful contribution, but Prof. VIček was concerned that such reports should not be published under the auspices of the Union when major internal controversy existed. Dr. Lide said that the general question of a scientific review mechanism for non-nomenclature/symbols IUPAC reports was under active consideration by the Division Presidents group (Minute 2.2.2/87, Boston). Prof. Rao asked incoming President Koptyug to look into a possible solution to the problem.

CHAIRMAN: V. Captyuz

DATE: 18,08.88

STATEMENT OF TREASURER'S RESPONSIBILITIES IN CHEMRAWN ACTIVITIES

The Executive Committee decided in 1980 that IUPAC would be responsible for any deficit liability on future CHEMRAWN Conferences. The matter had been subject to renewed considerations by the Finance Committee and other IUPAC bodies.

In reconfirming the financial responsibility of the Union for CHEMRAWN (Minute 2.4.1/86, IUPAC Officers - New Delhi) and subject to the statutory involvement of the Treasurer (Staute 6.51), the Officers decided that henceforth the Treasurer should be an ex officio Member of the CHEMRAWN Committee and its Standing Orders should be amended accordingly. In addition they asked the Treasurer to draft a statement with regard to the implementation of his responsibilities in CHEMRAWN Conferences, for consideration by the CHEMRAWN Committee and approval by the Bureau for presentation to Council at Boston.

After finalization of the discussions of the Treasurer's Statement proposal at the CHEMRAWN Committee meeting in Tokyo (87.05.16-17), it is suggested that the implementation of the responsibilities of the Treasurer, in addition to the participation in CHEMRAWN Committee meetings, is to be carried out by

- * The Treasurer, on recommendation of the Chairman of the Committee, to authorize payments from the CHEMRAWN Rolling Fund
- * Information from the Chairman of the Committee on developments and decisions, which is likely to be have financial implications
- * Pertinent information from the Chairman of the Organizing Committee of each Conference, Seminar, etc., about the planned and final budgets
- * Responsibility to warn the IUPAC President, if there is any doubt about the balance of a Conference, Seminar, etc., budget
- * Forwarding of the audited accounts of each Conference, Seminar, etc., to the Treasurer for inspection

EXPENDITURE	INCOME		
Office Expenses		National Subscriptions	447 000
IUPAC Officers6 000IUPAC Secretariat (non-publ.)168 000Audit, Bank Fees & Other Charges26 000	200 000	Company Associates Service Charges	5 500
Expenses IUPAC Bodies IUPAC Bodies Current Programmes IUPAC Bodies Priority Programmes] 402 760		Observer Countries Service Charges	500
IUPAC Representatives on Other Organizations 9 000	411 760	Interests and Dividends Earned	140 000
Provision for Handbook 1987-9	15 000	Subvention/Grant from ICSU	25 000
Contributions to Symposia	7 000		
Contributions to ICSU & ICSU Committees	12 500	Transfer from Publications Account	130 000
Transfer to AMS Budget	12 100	Transfer from rubifederons Account	130 000
Provision for Bad Debts	30 000		
General Contingency Fund	10 000		
Excess of Income over Expenditure	698 360 49 640		
	748 000		748 000

^{*} All figures in US-dollars

IUPAC GENERAL PURPOSES BUDGET 1989 * (as of 87.08.26)

<u>EXPENDITURE</u> <u>INCOME</u>

Office Expenses			National Subscriptions	450 000
IUPAC Officers IUPAC Secretariat (non-publ.) Audit, Bank Fees & Other Charges	7 000 181 000 27 000	215 000	Company Associates Service Charges	5 500
Expenses IUPAC Bodies General Assembly IUPAC Representatives on Other	550 000		Observer Countries Service Charges	500
Organizations	10 000	560 000	Interests and Dividends Earned	140 000
Contributions to ICSU & ICSU Committees		15 000	Subvention/Grants from ICSU	25 000
Transfer to AMS Budget		12 000		
Provision for Bad Debts		25 000	Transfer from Publications Account	130 000
General Contingency Fund		10 000	Excess of Expenditure over Income	751 000 86 000
		837 000		837 000

^{*} All figures in US-dollars

$\frac{\text{IUPAC AMS BUDGETS 1988-9}}{\text{(as of 87.08.26)}} *$

EXPENDITURE				INCOME		
	1988	1989			1988	<u>1989</u>
Salaries	22 300	23 400	Contributions		96 000	102 000
Share Secretariat Cost	9 400	9 900				
Chem. Intl.	60 000	63 800				
Miscellaneous Expenses	11 400	11 900				
Affiliates in Developing Countries	5 000	5 000	Transfer from General Purposes Account #		12 100	12 000
	***************************************				****	***************************************
	108 100	114 000			108 100	114 000

^{*} All figures in US-dollars

[#] Including 5 000 by IUPAC for Developing Countries

SPONSORSHIPS OF SYMPOSIA BY IUPAC APPROVED BY CORRESPONDENCE

SINCE 109th MEETING OF IUPAC EXECUTIVE COMMITTEE

(see Appendix E, 109th Executive Committee, Veszprém)

International Conference on Applications of Mössbauer Effect Melbourne, Australia: 17th-21st August 1987

lst International Symposium on Drugs in Competitive Athletics Islands Brioni, Yugoslavia: 29th May-1st June 1988

7th Bratislava International Conference on Modified Polymers Bratislava, Czechoslovakia: 5th-8th July 1988

12th International Symposium on Photochemistry Bologna, Italy: 17th-23rd July 1988

19th International Conference on Solution Chemistry Lund, Sweden: 15th-18th August 1988

9th IUPAC International Conference on Physical Organic Chemistry Regensburg, FRG: 21st-27th August 1988

International Symposium on Electronic Structure and Properties of Molecules and Molecular Crystals
Cavtat-Dubrovnik, Yugoslavia: 29th August-3rd September 1988

13th International Conference on Organometallic Chemistry Turin, Italy: 4th-9th September 1988

SAC 89: International Conference on Analytical Chemistry Cambridge, UK: 30th July-5th August 1989

APPROVED BY CORRESPONDENCE

SINCE 109th MEETING OF IUPAC EXECUTIVE COMMITTEE

(see Appendix F, 109th Executive Committee - Veszprém)

8th International Symposium on Organosilicon Chemistry St. Louis/Missouri, USA: 7th-12th June 1987
PROF. J. MICHL

30th Microsymposium on Macromolecules: Polymer-supported Reagents and Catalysts Prague, Czechoslovakia: 6th-9th July 1987

DR. P. KRATOCHVÍL

3rd International Conference on Bioinorganic Chemistry Noordwijkerhout, Netherlands: 6th-10th July 1987 PROF. G. DEN BOEF

31st IUPAC Congress of Pure and Applied Chemistry Sofia, Bulgaria: 13th-18th July 1987
PROF. C. N. R. RAO

International Conference on Heteroatom Chemistry Kobe, Japan: 19th-24th July 1987
PROF. G. MODENA

12th International Symposium on Macrocyclic Chemistry Hiroshima, Japan: 20th-23rd July 1987 PROF. KAZUO SAITO

4th International Symposium on Organometallic Chemistry Vancouver, Canada: 26th-30th July 1987

LETTER OF GREETINGS

9th International Conference on Chemical Education: Chemistry for Our New World São Paulo, Brazil: 26th-31st July 1987 PROF. J. T. SHIMOZAWA

WATOC World Congress of Theoretical Organic Chemistry Budapest, Hungary: 12th-19th August 1987 PROF. E. PUNGOR

International Symposium on Polymers for Advanced Technologies Jerusalem, Israel: 16th-21st August 1987 PROF. E. M. PEARCE

2nd Nordic Symposium on Trace Elements in Human Health and Disease Odense, Denmark: 17th-21st August 1987
PROF. F. W. SUNDERMAN, JR.

International Conference on Applications of Mössbauer Effect Melbourne, Australia: 17th-21st August 1987
PROF. R. D. BROWN

4th European Symposium on Thermal Analysis and Calorimetry Jena, GDR: 23rd-28th August 1987 LETTER OF GREETINGS

6th International Conference on Fourier Transform Spectroscopy Vienna, Austria: 24th-28th August 1987
PROF. V. GUTMANN

8th International Symposium on Plasma Chemistry Tokyo, Japan: 31st August-4th September 1987 PROF. K. KUCHITSU