

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MINUTES OF 37th BUREAU MEETING

HELD AT PALACE OF CULTURE, WARSAW

ON

THURSDAY, 18th AUGUST 1977, 9.00-17.40

PRESENT:

Dr. R. W. Cairns	- President, in the Chair
Prof. G. Smets	- Vice-President
Prof. G. Ourisson	- Secretary General
Prof. O. Horn	- Treasurer

Prof. A. Abou-El-Azm	}	Elected Members
Prof. A. R. H. Cole		
Prof. N. M. Emanuel (in part)		
Prof. V. Herout		
Dr. O. Isler		
Prof. S. Nagakura		
Prof. A. Perez-Masiá		
Prof. S. Rangaswami		

Dr. R. N. Jones	}	Division and Section Presidents
Prof. L. Malatesta		
Prof. H. Zollinger		
Prof. C. G. Overberger		
Dr. H. Egan		
Prof. P. Lous		

ABSENT:

Prof. Sir Harold Thompson	- Past-President	
Prof. Sir Derek Barton	}	Elected Members
Dr. M. A. Crivelli		
Prof. O. Glemser		
Prof. H. Suomalainen		
Prof. N. Tanaka	- Division President	

IN ATTENDANCE:

Prof. T. S. West	- Vice-President (President-Elect), Analytical Chemistry Division
Dr. K. L. Loening	- Chairman, Interdivisional Committee on Nomenclature and Symbols (in part)
Dr. W. Stoll	- Chairman, ad hoc Committee on Image of Chemistry (in part)
Prof. R. Truhaut	- Chairman, Coordinating Committee on Analytical Methods for CEE and IARC (in part)
Dr. M. Williams	- Executive Secretary

INDEX

<u>Minute</u>		<u>Page</u>
1/77	Introductory Remarks and Finalization of Agenda	1
2/77	Minutes of 36th Bureau Meeting	1
3/77	Minutes of 86th and 87th Executive Committee Meetings	1
4/77	Current Financial Status	1
5/77	Items from Agenda of 29th Council Meeting Requiring Discussion, Resolution, or Recommendation by Bureau	2
6/77	Report of Ad Hoc Committee on Nuclear and Radiochemistry	5
7/77	Report of Ad Hoc Committee on Proposed Division of Environmental and Health Chemistry	6
8/77	Report of Ad Hoc Committee on Image of Chemistry	6
9/77	Report of Ad Hoc Interdivisional Working Party on Data Flagging	7
10/77	Report of Committee on Teaching of Chemistry	7
11/77	Report of Interdivisional Committee on Nomenclature and Symbols	7
12/77	Names for Elements 104, 105, and for 106 Onwards	8
13/77	Relations with Other Organizations	9
14/77	Nominations of New Officers and Members of IUPAC bodies	11
15/77	Sponsorship: Representation, Sponsorship, Subvention	11
16/77	Publications	12
17/77	Divisional Rules	13

Minute 1/77

INTRODUCTORY REMARKS AND FINALIZATION OF AGENDA

In his opening remarks, Dr. Cairns announced that Prof. Emanuel had become indisposed at Warsaw and was unable to be present at the start of the meeting. Letters of apology for nonattendance because of health reasons had been received from Prof. Suomalainen and Prof. Tanaka. A letter from Dr. Crivelli, resigning from membership of the Bureau for personal reasons, was noted.

The following Items were added to the Agenda circulated by the Executive Secretary (77.07.22) on behalf of the President before the meeting:

13.10 Report on CODATA

14.3 Appointments to Division/Section Committees

15.5 International Symposium on Chemical Education in the Coming Decades

Minute 2/77

MINUTES OF 36th BUREAU MEETING

2.1/77 Amendments and Approval of Minutes

Dr. Jones suggested that Minute 7/76 (line 9 from bottom of page 6) should be altered to read "Surface Chemistry in planning to establish a Subcommittee ...". Subject to this change, the Minutes of the 36th Meeting of the Bureau were approved.

2.2/77 Matters Arising from Minutes

There were no matters arising from the Minutes which were not covered by Items on the Agenda.

Minute 3/77

MINUTES OF 86th AND 87th EXECUTIVE COMMITTEE MEETINGS

The Minutes of the 86th and 87th Meetings of the Executive Committee were recorded as having been received officially by the Bureau.

Minute 4/77

CURRENT FINANCIAL STATUS

Prof. Horn reported that the current financial status (as at 77.08.01) was US-\$43 642 in liquid funds, US-\$40 000 in short-term investments, and US-\$719 985 in bonds and shares, with about US-\$21 000 outstanding for 1977 subscriptions of National Adhering Organizations and Company Associates. Expenditure on the Warsaw General Assembly to date was about US-\$108 000: the final total might only be about US-\$150 000, considerably less than the budget anticipation of US-\$250 000. In view of the improved financial situation for 1977, the Finance Committee (Minute 21/77, Warsaw)

had recommended the Treasurer to restore to the Physical Chemistry and Analytical Chemistry Divisions the monies withheld from their unspent Divisional funds at the end of 1976 (US-\$10 846).

Minute 5/77

ITEMS FROM AGENDA OF 29th COUNCIL MEETING REQUIRING DISCUSSION, RESOLUTION, OR RECOMMENDATION BY BUREAU

Council Items 3 and 4: Announcement of Nominations for Officers and Bureau Members/Announcement of Time of Elections

Dr. Cairns drew attention to the circular letter from the Executive Secretary (77.06.23), which detailed a single nomination for Vice-President of the Union and 12 nominations for Elected Members of the Bureau. The resignation of Dr. Crivelli meant that there would be an additional vacancy for an Elected Member of the Bureau. The Bureau noted the recommendations of the Executive Committee (Minute 21/77, 88th Meeting - Warsaw) for filling the vacancies on the Bureau.

The Bureau resolved that:

- (i) it supported unanimously the nomination of Prof. Zollinger for Vice-Presidency;
- (ii) Sir Derek Barton should be nominated as an additional candidate for election to the Bureau (Bylaw 2.222), noting that Sir Derek was no longer resident in UK, having recently moved to work in France (motion unopposed, 1 abstention);
- (iii) Council be recommended there should be 12 Elected Members of the Bureau during the period 1977-9 (Statute 7.2 - unanimous vote);
- (iv) on the basis of a written and secret ballot, its recommendations to Council for filling the 7 vacancies as Elected Members of the Bureau (Bylaw 2.222) should be

Dr. J. W. Barrett (UK)
Prof. Sir Derek Barton
Prof. A. R. H. Cole (Australia)
Prof. A. Kjaer (Denmark)
Prof. J. Michalski (Poland)
Prof. C. G. Overberger (USA)
Prof. C. N. R. Rao (India)

- (v) Council should be recommended to hold the elections at 10.00 on 21st August 1977;
- (vi) Council should be recommended the Secretary General, Treasurer, and Dr. W. Spindel (nonvoting Secretary of the USA-delegation) to act as Tellers for the elections.

Dr. Cairns had received a letter (dated 77.06.15) from the Past-President and Secretary of the Macromolecular Division, asking that the ten-year maximum term of service as a Division Committee Member and Officer should be relaxed so that Prof. Overberger could continue as Division President until 1979. Two similar situations also arose at Warsaw and the Bureau was therefore unwilling to allow any exceptions to Bylaw 4.103. In any

case Prof. Overberger reported that the Macromolecular Division had now accepted the statutory requirement.

Council Item 8: Tentative Budgets for 1978 and 1979

The Finance Committee had developed two alternative balanced budgets for 1978 (see Appendix A). Depending on whether Council decided to raise the national subscriptions in 1978, there would be either US-\$175 000 or US-\$200 000 available for travel, subsistence, and administration of IUPAC bodies. No recommendation could yet be made whether any unspent Divisional monies should be carried over from 1977 to 1978.

A mechanism was also proposed by the Finance Committee for allocation of travel, subsistence, and administration of IUPAC bodies from the 1978 budget (see Appendix A). An initial allocation based on 1976 actual expenditures plus 10% inflation for each of 1977 and 1978 was envisaged, with the residue to be allocated by the Officers of the Union according to priorities submitted by the Presidents of the Divisions and Clinical Chemistry Section.

The tentative budget for 1979 (see Appendix B) developed by the Finance Committee, showed an excess of expenditure over income of US-\$34 300, which would be reduced to US-\$7 300 if national subscriptions were raised in 1978.

The Bureau noted the views of the Executive Committee on the budget and on the allocation mechanism for 1978 (Minute 21/77, 88th Meeting - Warsaw). Dr. Jones said that the Division Presidents would still prefer forward Divisional budgetting and contingency funding to be made on a two-year basis (Minute 6.2/76, 36th Bureau - Strasbourg). The Bureau (and Executive Committee) was committed, in principle, to carryover of unspent Divisional monies from one year to another but, in financial crises, that policy might have to be disregarded in the interim.

Council Item 9: Dues Structure and Fixing Annual Dues for 1978 and 1979

The Bureau accepted (motion unopposed, 5 abstentions) the recommendation of the Executive Committee (Minute 21/77, 88th Meeting - Warsaw) that Council should be asked simply to raise by 15% the present minimum subscriptions for Categories A3 - C (inclusive), but to fix the minimum subscription for Category D at US-\$400 (see Part I of Appendix C). This implied that Alternative II of the proposed 1978 IUPAC General Purposes Budget would apply.

There was an extended discussion on the recommendation of the Executive Committee (Minute 21/77, 88th Meeting - Warsaw) with regard to mandatory allocation of membership category. Profs. Herout and Perez-Masiá indicated that their countries were unhappy with chemical turnover as the criterion for national subscriptions. Prof. Perez-Masiá enquired what action might be taken by the Union if a National Adhering Organization did not go into its mandatory category. Prof. Cole wondered if the Bureau needed to make any recommendation to Council on the matter, but simply table it for discussion. Prof. Ourisson pointed out that the recommendation of the Executive Committee did not require any final action by Council until 1979; meanwhile, it would be possible to solicit the views of all member countries by correspondence. Prof. Overberger said that it was opportune to review the concept of chemical turnover as the basis of national subscriptions, following its introduction in 1972, but it had clearly been quite successful in practice.

A modified version of the recommendation of the Executive Committee regarding mandatory allocation of membership category, reflecting the views of the

Bureau, was approved for consideration by Council (see Part II of Appendix C).

Council Item 10: Applications for Membership of IUPAC

An application was considered for membership of the Union (Category C) by the Supreme Council of Sciences of the Syrian Arab Republic (Minute 6.1/77, 87th Executive Committee - Washington). The Bureau decided to recommend acceptance of the application by Council at Warsaw.

Council Item 11: Applications for Associated Organization Status

The Executive Committee (Minute 6.2/77, 87th Meeting - Washington) was in favour of accepting an application for Associated Organization status of the Union from the International Association for Cereal Chemistry. Dr. Egan said that some collaboration already existed between the Applied Chemistry Division and ICC. The Bureau agreed to recommend acceptance of the application by Council at Warsaw.

A recent application from the International Commission on Application of the Mössbauer Effect was also considered by the Bureau. Dr. Jones had received a very favourable report from the Chairman of the Commission on Molecular Structure and Spectroscopy. Prof. Ourisson suggested ICAME might advantageously help to disseminate IUPAC's recommendations on nomenclature and conventions for reporting Mössbauer spectroscopic data. Acceptance of the application by Council would be recommended by the Bureau.

With the exception of the Association of Editors of European Chemistry Journals, satisfactory statements of their current activities had been submitted by all existing Associated Organizations. The Bureau would recommend to Council that, with the exception of EdEuChem, the existing Associated Organizations should be allowed to continue in that capacity for the next biennium: a decision regarding EdEuChem should be deferred until the Spring 1978 meeting of the Executive Committee in order to allow more time to obtain an activities statement from EdEuChem.

Council Item 17: Proposals for New Bodies and Dissolution of Existing Bodies

The unanimous recommendation of the Interdivisional Committee on Machine Documentation that it should be dissolved, had been accepted by the Executive Committee. The recommendation was endorsed by the Bureau and would be brought before Council at Warsaw.

The Executive Committee (Minute 5.5/77, 87th Meeting - Washington) had supported a proposal to create a Standing Committee on Chemistry and Industry to stabilize and extend the informal scheme for greater collaboration between IUPAC Company Associates, developed at the 27th IUPAC Conference (Munich, 1973). ICAG at Warsaw had suggested a composition, terms of reference, and initial membership for the Standing Committee, but Dr. Cairns tabled an amended suggestion for the composition and terms of reference. Prof. Horn expressed concern at the financial implications, but ICAG was confident that the necessary financial support would be forthcoming from the Company Associates. The Bureau agreed to recommend the proposal, as worded in Appendix D, for adoption by Council, but to review the Standing Committee after its first two years of operation.

Dr. Egan reported the reactions of the Applied Chemistry Division to the views of the Executive Committee (Minute 11.2/77, 87th Meeting - Washington) on the future of several Commissions of the Division:

- (i) the Commissions on Food Additives and on Food Contaminants should continue in existence until 1979, but with only 6 Titular Members each, then be combined into a Commission on Food Chemistry;
- (ii) the Commissions on Terminal Pesticide Residues and on Pesticide Residue Analysis should continue to have 8 Titular Members each until 1979, then have a reduced number of Titular Members;
- (iii) the programmes of the Commissions on Air Quality and on Water Quality had been strengthened at Warsaw and the two Commissions should remain separate;
- (iv) the proposal to create a Commission on New Projects was withdrawn, the matter to be handled by a subcommittee of the Applied Chemistry Division Committee.

Dr. Cairns felt that the reactions of the Applied Chemistry Division did not meet fully the requirements of the Executive Committee, in particular to combine the two Food Commissions into a single body at Warsaw (Minute 21/77, 88th Meeting - Warsaw). Nevertheless, the Bureau agreed to recommend adoption of (i) by Council, on the condition that the new Commission on Food Chemistry should have only 8 Titular Members.

At the request of the relevant Division President, the Bureau would ask Council to approve the following changes of name for IUPAC bodies:

Commission on Thermodynamics and Thermochemistry to Commission on Thermodynamics

Commission on Food Additives to Commission on Food Properties

Commission on Oils and Fats to Commission on Oils, Fats, and Derivatives

Commission on Air Quality to Commission on Atmospheric Environment

Council Item 21: Ratification of Dates and Place of 30th General Assembly and 27th Congress

A report was considered from the Assistant Secretary (Administration), who had recently visited Switzerland, together with an analysis by Schweizerisches Komitee für Chemie. The cheaper hotel prices at Davos would tend to be offset by the costs to transport participants from Zürich airport to Davos. However, Prof. Horn still hoped that the total expenditure by the Union would be less than US-\$200 000. The Bureau decided to recommend Davos to Council as the location of the General Assembly in 1979.

Council Item 22: Place of 31st General Assembly and 28th Congress

Comité National Belge de Chimie had proposed that the General Assembly in 1981 be held in Brussels. The Bureau agreed to recommend Council to accept the Belgian proposal, except that the location be Leuven as suggested by Prof. Smets. Acceptance by Council would also be recommended of the offer of the Canadian National Committee to host the Congress in 1981 at Vancouver.

Minute 6/77

REPORT OF AD HOC COMMITTEE ON NUCLEAR AND RADIOCHEMISTRY

Prof. Malatesta reported that the Officers of the Inorganic Chemistry Division had examined (Rome, 77.05.02) the modified proposal for the

scope of work of a new Commission on Nuclear and Radiochemistry attached to that Division (Minute 8/76, 36th Bureau - Strasbourg). Some overlap was evident with organizations such as IAEA, but in any case the Inorganic Chemistry Division preferred to see the establishment of an Interdivisional Commission on Nuclear and Radiochemistry.

In the opinion of Dr. Cairns, an Interdivisional Commission would be difficult to control scientifically when reporting directly to the Bureau. He had therefore held discussions with Prof. R. E. Wainerdi, Chairman of the Commission on Analytical Radiochemistry and Nuclear Materials (Analytical Chemistry Division) to determine whether that body was willing to enlarge its terms of reference, perhaps with 10 Titular Members for an interim period, to deal also with some activities suggested for the originally proposed Division of Nuclear and Radiochemistry (Minute 24/72, 30th Bureau - Strasbourg). Prof. Wainerdi had agreed to consider the necessary changes to his Commission.

Prof. West said that the Commission on Analytical Radiochemistry and Nuclear Materials should be able to cope with wider terms of reference with only 8 Titular Members. Six analytical Titular Members would continue for the present, together with Prof. S. Amiel (Israel) and Prof. A. C. Pappas (Norway) from the ad hoc Committee to cater for some new aspects of the terms of reference. Two Associate Member positions were being left vacant to allow for further developments.

The Bureau approved the actions taken by Dr. Cairns and, with one dissension, voted to dissolve the ad hoc Committee. To some extent these actions overlapped a proposal from the Canadian National Committee (letter of 77.03.08) for IUPAC to establish a Commission on Radiation Chemistry. The Bureau would recommend Council at Warsaw to refer that proposal for consideration by the Physical Chemistry Division, in conjunction with other relevant Divisions of the Union, then to report back on whether and how the matter should be handled within IUPAC.

Minute 7/77

REPORT OF AD HOC COMMITTEE ON PROPOSED DIVISION OF ENVIRONMENTAL AND HEALTH CHEMISTRY

Reports from meetings of the ad hoc Committee at London (77.04.05) and at Warsaw (77.08.14) were tabled by its Chairman, Prof. Smets. There was complete disagreement amongst the interested parties on how to organize the proposed new Division, and the Bureau accepted his advice, supported by Dr. Egan and Prof. Lous, to dissolve the ad hoc Committee.

Minute 8/77

REPORT OF AD HOC COMMITTEE ON IMAGE OF CHEMISTRY (Dr. Stoll in attendance)

The Chairman of the ad hoc Committee, Dr. Stoll, presented a moderate progress report. He summarized the replies from National Company Associate Groups to a questionnaire about the image of chemistry, and outlined some activities in five countries directed towards improving the image. The success of these activities was as yet still modest.

To bring about the recommendation of the ad hoc Committee to provide National Adhering Organizations with information on the matter, ICAG

at Warsaw (Minute 3(ii)) had proposed that:

- (i) Each NCAG Convener should be asked to prepare a short summary of relevant past, current, and planned activities in his country.
- (ii) These summaries should be consolidated by the Secretariat, then distributed to National Adhering Organizations.

In addition, ICAG had suggested that consideration should be given to the greater utilization of IUPAC-sponsored symposia for bringing to the general public a better understanding of the impact of chemistry on modern life. As an example attention was drawn to the general public open day at the 4th International Congress of Pesticide Chemistry (Zürich, 78.07.24-28). No consideration should be given to use of any 'International Chemical Society'.

The Bureau gave its support to the proposals from ICAG for action by IUPAC, decided to circulate the report of Dr. Stoll to National Adhering Organizations, and dissolved the ad hoc Committee.

Minute 9/77

REPORT OF AD HOC INTERDIVISIONAL WORKING PARTY ON DATA FLAGGING

Unforeseen complications due to commitments of the Chairman, Prof. D. N. Hume, in other areas had resulted in progress being much slower than had been anticipated, and the field test of the usefulness and practicality of the flagging system which was to be carried out in several journals, as authorized by the Bureau at Madrid (Minute 7/75, 34th Meeting), was still not in operation. The Bureau granted permission for the Working Party to proceed during the next two years with the field test, and to report its findings at the General Assembly in 1979.

Minute 10/77

REPORT OF COMMITTEE ON TEACHING OF CHEMISTRY

A report from the Chairman, Prof. C. N. R. Rao, of some of the important programmes undertaken by the Committee on Teaching of Chemistry since Madrid was accepted by the Bureau.

Minute 11/77

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

Dr. Loening said that the reorganized IDCNS had met for the first time barely a year ago (Oxford, 76.09.16-18). Procedures had been set up for practical and efficient working by correspondence: in addition to specific experts being asked to comment on each particular nomenclature/symbols document, each member of IDCNS could receive it on request. About 4 weeks had usually been required to assemble the comments in practice on a document.

IDCNS had cleared the following final nomenclature/symbols documents

for approval by Council at Warsaw and publication by the Union:

Physical Chemistry Division

- (i) Expression of Results in Quantum Chemistry
- (ii) Recommendations for Presentation of Infrared Absorption Spectra in Data Collections - A. Condensed Phases
- (iii) Symbolism and Nomenclature for Mass Spectroscopy
- (iv) Definition and Symbolism of Molecular Force Constants

Inorganic Chemistry Division

Recommendations for Naming of Elements of Atomic Numbers Greater than 100

Analytical Chemistry Division

- (i) Recommendations on Nomenclature of Scales of Working in Analysis
- (ii) Usage of the Terms "Equivalent" and "Normal"
- (iii) Guide to Trivial Names, Trade Names, and Synonyms used in Analytical Chemistry

Clinical Chemistry Section

Recommendations 1977 on Quantities and Units in Clinical Chemistry and for List of Quantities in Clinical Chemistry (minor revisions and corrections to Recommendations 1973).

In addition, Dr. Loening said that IDCNS supported publication of a Compendium of Analytical Nomenclature, comprising final nomenclature recommendations of the Analytical Chemistry Division already published in various issues of Pure and Applied Chemistry. However, IDCNS had delayed for the present a recommendation regarding approval for publication of:

Proposed Terminology and Symbol for Transfer of Solutes from One Solvent to Another

Recommendations for Publishing Manuscripts on Ion-selective Electrodes Reporting Experimental Data Dealing with Critical Micellization Concentrations (c.m.c.'s)

Selected Definitions, Terminology, and Symbols for Rheological Properties.

The Bureau approved continuation of IDCNS in its present form (cf. Minute 25.1/75, 35th Bureau - Madrid), and agreed to request Council at Warsaw, in order to expedite handling of final recommendations on nomenclature and symbols between General Assemblies, to delegate its authority (Bylaw 2.11) for approval of publication to IDCNS unless there were unresolved matters of controversy (Minute 14.4/77, 87th Executive Committee - Washington).

Minute 12/77

NAMES FOR ELEMENTS 104, 105, AND FOR 106 ONWARDS

Dr. Cairns had suggested to Prof. J. Lewis, Chairman of the neutral group

of experts, that the replacement members for Profs. U. Stille and A. Baumgartner should be Prof. K. W. Bagnall (UK) and Dr. T. A. Rafter (New Zealand). The summary reports from the Berkeley and Dubna groups were still outstanding, so he had been unable to take any initiative to convene a meeting with them of the neutral group (Minute 9/77, 87th Executive Committee - Washington).

The Bureau decided to support the adoption by Council of the Inorganic Chemistry Division's "Recommendations for Naming of Elements of Atomic Numbers Greater than 100" (see Minute 11/77), which provided an interim solution to the problems until priority of discovery could clearly be established for elements 104, 105, and for 106 onwards.

Minute 13/77

RELATIONS WITH OTHER ORGANIZATIONS

13.1/77 Contract Work with CEE (Prof. Truhaut in attendance)

CEE had recently advised that more than half of the methods recommended by IUPAC had so far been discussed by the Commission in Brussels. Of the 50 methods studied, 22 had been accepted, 23 would need reexamination by IUPAC, and 5 had been superseded or become obsolete. A study document on an initial proposition for a Commission directive taking up the accepted methods had now been drawn up and it would shortly be possible to agree a directive. No immediate further contracts with IUPAC were foreseen until the recent reorganization of the functions of the Commission had been consolidated.

Despite difficulties encountered in submitting texts in both French and English, Prof. Truhaut said that the outstanding methods from the 1976 contract would shortly be finalized by the Coordinating Committee on Analytical Methods and sent to CEE. Suggestions made by Prof. Truhaut for the future membership of CCAM were noted by the Bureau, but it was left for the incoming President of the Union, in conjunction with the Executive Committee, to decide on the membership of CCAM at a later date.

13.2/77 Report on 1977 Meeting of ICSU Abstracting Board

A report from the official representative of IUPAC, Dr. J. W. Barrett, indicated that the Working Group for Chemistry in ICSU AB was seeking cooperation with the Union to assist in the more ordered transfer of chemical information and in particular in two specific projects:

- (i) Harmonization of formats, titles, and abstracts produced by primary and secondary publishers
- (ii) Production of vocabularies for physics and chemistry in areas where they overlap, and development of mechanisms for harmonization and for translation as appropriate

The Bureau left it for the incoming President of the Union to decide if and how IUPAC should cooperate with the Working Group in these projects.

13.3/77 ICSU Committee on Genetic Experimentation

Dr. Cairns said that he had invited Prof. P. Berg (USA) to serve as temporary

representative of IUPAC at the first meeting of COGENE (Paris, 77.05.21-22). Prof. Berg was not optimistic about what COGENE could accomplish without an active committee and staff to implement its recommendations. He was unable to offer himself for consideration as a permanent representative of IUPAC to COGENE, but had suggested some possible persons to undertake this duty. The Bureau left it for the incoming President of the Union to decide whether IUPAC should assume an active role in COGENE.

13.4/77 ICSU Committee on Science and Technology in Developing Countries

Items of interest concerning IUPAC activities in or related to developing countries had been requested for the COSTED Newsletter. Prof. Ourisson suggested that IUPAC press releases issued by the Assistant Secretary (Publications) should be sent when relevant, and Prof. Zollinger proposed that information about CHEMRAWN should be supplied immediately to COSTED.

13.5/77 Registration Fees for Representatives of UN Specialized Agencies

At the request of ICSU, consideration was given to whether IUPAC should adopt a policy of not charging a registration fee for the principal representative of any intergovernmental scientific organization invited to an IUPAC-sponsored meeting. The Bureau was unwilling to agree such a policy, and left it for the organizers of each particular IUPAC meeting to decide how to act.

13.6/77 Ratification of ICSU Resolutions

ICSU was seeking ratification of certain of its resolutions by the International Scientific Unions. The Bureau found that the resolutions on

Political Nondiscrimination (October 1958)

Free Circulation of Scientists (November 1963)

Nonpolitical Tradition of ICSU (October 1966)

Safeguard of Pursuit of Science (October 1976)

were compatible with existing IUPAC policies and could therefore be supported fully by IUPAC.

13.7/77 Report on 1977 General Assembly of Federation of European Chemical Societies

Prof. Ourisson reported briefly on the FECS deliberations at The Hague (77.06.16-17) at which he had acted as the official observer from IUPAC. It was quite clear to him that there was and would be an overlap of activities between the two organizations, but the will was there to find criteria for action by FECS and to avoid interference with IUPAC. Regarding the sponsorship of symposia by FECS, there had been discussion of the "regional" character of international symposia, with no clearcut conclusion. Prof. Ourisson had requested that IUPAC should be provided at the earliest possible stage with information about symposia planned by FECS. The Bureau was not concerned about cosponsorship of IUPAC meetings, such as the 26th IUPAC International Symposium on Macromolecules (Mainz, 79.09.17-21), by FECS.

13.8/77 Ratification of Constitution of International Congress on Catalysis

Alterations to the articles of the ICC Constitution (1968) were subject to approval by IUPAC. The Executive Secretary was asked to inform ICC that amendments adopted by ICC in 1972 and 1976 were not in conflict

with IUPAC policies and they were therefore approved by the Union.

13.9/77 Review of Official Representatives of IUPAC on Other Organizations

As incoming President of the Union, Prof. Smets said that he was in process of reviewing the present official representatives of IUPAC on other organizations. He hoped shortly to be able to issue a listing for mid-1977 to mid-1979.

13.10/77 Report on CODATA

Dr. Jones tabled a report on CODATA activities, updating his remarks at the previous Bureau meeting (Minute 15.5.3/76, 36th Bureau - Strasbourg). The Bureau agreed that the Physical Chemistry Division should be asked to advise on the need for IUPAC to send an observer to the Spring 1978 meeting in London of the Task Group on Chemical Kinetics. Dr. Jones was invited to suggest some candidates for consideration as representatives of IUPAC to the Task Group on Time and Location Dependent Data.

Minute 14/77

NOMINATIONS OF NEW OFFICERS AND MEMBERS OF IUPAC BODIES

14.1/77 Ratification of Nominations Approved by Correspondence

The nominations of new Members (Bylaw 4.304) of IUPAC bodies, approved through correspondence by the President since the 87th Executive Committee meeting (see Appendix E), were ratified by the Bureau.

14.2/77 Proposal for Increased Associate Membership of Commission on Nomenclature of Inorganic Chemistry

A proposal from Prof. Malatesta, to increase the Associate Membership of the Commission on Nomenclature of Inorganic Chemistry from eight to twelve for the period 1977-1981, in order to recruit some new persons to train on IUPAC nomenclature matters, was approved by the Bureau.

14.3/77 Appointments to Division/Section Committees

On the recommendation of the Executive Committee (Minute 18.2.7/77, 88th Meeting - Warsaw), the Bureau agreed to adopt pro tem the following additional paragraph to Bylaw 4.103:

"A newly elected Member of a Division or Section Committee shall assume office only after approval by the Bureau or Executive Committee and by the Adhering Organization with which the Member is connected."

This change to the Bylaws should be proposed to Council in 1979.

Minute 15/77

SPONSORSHIP: REPRESENTATION, SPONSORSHIP, SUBVENTION

15.1/77 Ratification of Sponsorships Approved by Correspondence

The sponsorship of symposia, approved through the President by correspondence since the 87th Executive Committee meeting (see Appendix F), was ratified by the Bureau.

15.2/77 Ratification of Official Representatives to Symposia in 1977

The appointments of official representatives of IUPAC to its sponsored symposia in 1977, as made by the President through correspondence since the 87th Executive Committee meeting (see Appendix G), were ratified by the Bureau.

15.3/77 XIX International Conference on Coordination Chemistry
(Prague, 78.09.04-08)

It was noted that the draft budget envisaged extensive expenditure on social programmes. Although the Conference did not satisfy most of the IUPAC criteria for a financial subvention, the Bureau voted (7 in favour, 6 against, 4 abstentions) to grant US-\$1 000 to assist travel expenses of the main lecturers, whose papers were to be published subsequently in Pure and Applied Chemistry.

15.4/77 International Chemistry Congress
(Perth, 78.02.13-17)

A subvention of US-\$1 000 was approved, specifically to cover the travel costs of Prof. C. N. R. Rao, Chairman of the IUPAC Committee on Teaching of Chemistry, who was to give one of the keynote addresses at the beginning of the Congress.

15.5/77 International Symposium on Chemical Education in the Coming Decades
(Ljubljana, 77.08.25-30)

The President and Executive Secretary gave an account of events leading up to the failure to grant Prof. K. de Clerk (Republic of South Africa) an entry visa to Yugoslavia one month before the Symposium, a condition of sponsorship by IUPAC of the meeting. Sponsorship had therefore been withdrawn on 77.07.29. Arrangements had been made subsequently to grant the visa and sponsorship by the Union was restored on 77.08.05. The Bureau approved the actions taken by the President and Executive Secretary.

Minute 16/77

PUBLICATIONS

16.1/77 Status Report on Official Publisher to Union

Prof. Ourisson reported briefly on the deliberations of the Committee on Publications at Warsaw, indicating important progress in reorganization of the publications structure of the Union. Dr. H. Grunewald had been most successful in his leadership as the new Chairman of the Committee. The final royalty provided by Pergamon Press for 1976 was nearly 10% higher than the minimum guaranteed royalty of US-\$ 40 000.

It was strongly recommended for IUPAC to start in 1979 a new monthly news journal to replace the present Information Bulletin (and Appendixes) and Part B of the Comptes Rendus. A chemist-journalist should be appointed in the Secretariat to act as editor of the new journal and Information Officer of the Union. For 1978 an attempt should be made to incorporate into the present Bulletin the material normally issued as Appendixes thereto and as Part B of the Comptes Rendus from the Warsaw General Assembly.

Conversion to publication via camera-ready copy supplied by authors, instead of by traditional typesetting methods, was well advanced for all IUPAC publications, particularly Pure and Applied Chemistry. From the start of 1978 it was intended to publish those symposia papers available for each issue of PAC, rather than include all papers from a particular

symposium in the same issue. It would be left for Pergamon to decide whether to publish subsequently a hardbound offprint from a symposium spread out over several issues of the journal. Nonsymposium review articles might also be solicited for PAC.

Profs. C. F. Cullis and D. N. Kirk had expressed concern at the extent of their duties as Scientific Editors of PAC. They would be invited to continue for 1978, but without change in their present workload. Contingency plans had been made should the invitation not be accepted. The solubility data project of the Analytical Chemistry Division constituted a major undertaking by the Union. It was progressing well and the first six volumes were expected for publication in 1978.

Full details of all proposals by the Committee on Publications would come forward in due course in the minutes of its meetings at Warsaw. Meanwhile, Prof. Ourisson would report briefly to Council at Warsaw as he had done to the Bureau.

16.2/77 Review of Thermodynamic Tables Project Publications

The Executive Secretary gave details of sales during the past two years. Because of the change in official publisher to the Union it was still not clear if industry was actually purchasing the Thermodynamic Tables. Dr. Jones said that the Project Centre was very active scientifically, and the Bureau accepted his recommendation that the existing royalty arrangements (Minute 18.3/75, 34th Bureau - Madrid) should be continued.

Minute 17/77

DIVISIONAL RULES

Dr. Jones tabled one copy of the finally revised Physical Chemistry Division Rules, and Prof. West did likewise for the Analytical Chemistry Division Rules. The Bureau deferred consideration of the two sets of Divisional Rules to the Spring 1978 meeting of the Executive Committee. Meanwhile, both Divisions should operate in accordance with these Rules.

* * * * *

CHAIRMAN: _____

DATE: _____

[Signature]
1 September 1978

PROPOSED ALLOCATION OF TRAVEL, SUBSISTENCE,
ADMINISTRATION IN 1978 BUDGET

1. Bureau to recommend to Council whether 1978 Budget (as of 16th August 1977) should:
 - (i) be in balance and total allocation be US-\$175,000
 - or (ii) raise national subscriptions, be in balance and total allocation be US-\$200,000
2. Initial allocation based on 1976 actual expenditures + 10% inflation for each of 1977 and 1978:

Executive Committee	6,117.76
Bureau	15,714.27
Publications Committee	1,118.04
Teaching Chemistry Committee	4,052.39
Finance Committee	2,458.72
IDCNS	4,781.12
JCBN	5,690.63
<hr/>	
Standing Committees	39,932.93
Clinical Chemistry Section	8,258.57
Physical Chemistry Division	9,357.87 *
Inorganic Chemistry Division	9,684.55
Organic Chemistry Division	9,653.78
Macromolecular Division	12,437.59
Analytical Chemistry Division	13,332.29 *
Applied Chemistry Division	25,551.42
<hr/>	
	US-\$128,209.00

3. Allocation of residual US-\$46,791.00 or 71,791.00 (see 1 above) to be made according to requests for additional monies to those shown under the initial allocations in 2 above:
 - (i) Requests in writing by Presidents of Divisions and Clinical Chemistry Section to reach Treasurer (copy to Secretariat) by 1st October 1977.
 - (ii) Officers of Union to meet and consider requests submitted, to decide on priorities, and to make the actual additional allocations by 1st November 1977.
 - (iii) Presidents of Divisions and Clinical Chemistry Section to be notified of any additional allocations by 1st December 1977, and whether unspent monies from 1977 may be carried over to 1978.
- * In addition carryover monies from 1976 to 1977, withheld by Treasurer, will be restored.

ALTERNATIVE I *

of

IUPAC GENERAL PURPOSES BUDGET 1978 •

(as of 16th August 1977)

<u>INCOME</u>			<u>EXPENDITURE</u>		
<u>Subscriptions from National Adhering Organizations</u>			<u>Office Expenses</u>		
Current year	180,000		Secretary General & Officers	5,500	
Outstanding	10,000	190,000	IUPAC Secretariat	62,300 x	
			Redecoration of Secretariat	1,200	
			Audit, Bank Fees & Other		
			Charges	13,000	82,000
<u>Subscriptions from Company Associates</u>		62,000	<u>Travel, Subsistence, Administration of IUPAC Bodies</u>		175,000
<u>Interests & Dividends Earned</u>		30,000	<u>Contributions to Symposia</u>		10,000
<u>Subvention from ICSU</u>		16,000	<u>Other Expenses</u>		
<u>Transfer from Publications Account</u>		16,900	Free Comptes Rendus, Inf. Bull. & Appendices	36,000	
<u>Transfer from Contracts Account</u>		2,000	Contributions to ICSU and ICSU Committees	6,000	
		316,900	IUPAC Representatives on Other Organizations	3,100	45,100
			<u>General Contingency Fund</u>		5,000
<u>Excess of Expenditure over Income</u>		200			
		317,100			317,100

* Assuming no increase in subscription income from National Adhering Organizations

• All figures in US-dollars

x Includes mandatory higher social security charges both to employer (and to employees)

ALTERNATIVE II *

of

IUPAC GENERAL PURPOSES BUDGET 1978 •

(as of 16th August 1977)

<u>INCOME</u>			<u>EXPENDITURE</u>		
<u>Subscriptions from National Adhering Organizations</u>			<u>Office Expenses</u>		
Current year	207,000		Secretary General & Officers	5,500	
Outstanding	10,000	217,000	IUPAC Secretariat	62,300 x	
			Redecoration of Secretariat	1,200	
			Audit, Bank Fees & Other Charges	13,000	82,000
<u>Subscriptions from Company Associates</u>		62,000	<u>Travel, Subsistence, Administration of IUPAC Bodies</u>		200,000
<u>Interests & Dividends Earned</u>		30,000	<u>Contributions to Symposia</u>		10,000
<u>Subvention from ICSU</u>		16,000	<u>Other Expenses</u>		
<u>Transfer from Publications Account</u>		16,900	Free Comptes Rendus, Inf. Bull. & Appendices	36,000	
<u>Transfer from Contracts Account</u>		2,000	Contributions to ICSU and ICSU Committees	6,000	
			IUPAC Representatives on Other Organizations	3,100	45,100
			<u>General Contingency Fund</u>		5,000
					342,100
			<u>Excess of Income over Expenditure</u>		1,800
		<u>343,900</u>			<u>343,900</u>

* Assuming 15% increase in subscription income from National Adhering Organizations

• All figures in US-dollars

x Includes mandatory higher social security charges both to employer (and to employees)

IUPAC PUBLICATIONS BUDGET 1978 *

(as of 16th August 1977)

<u>INCOME</u>		<u>EXPENDITURE</u>	
Publications (Pergamon)	50,000	Scientific Editors	5,000
Publications (Secretariat)	8,500	Assistant Secretary (Publications) & Typist	17,400 x
Free Comptes Rendus, Inf. Bull. & Appendices	36,000	Printing & Postage of Comptes Rendus, Inf. Bull. & Appendices	36,000
		Share of IUPAC Secretariat Costs	19,200
			<hr/> 77,600
		Excess of Income over Expenditure	16,900
	<hr/> 94,500		<hr/> 94,500

* All figures in US-dollars

x Includes mandatory higher social security charges both to employer (and to employees)

APPENDIX B

IUPAC GENERAL PURPOSES BUDGET 1979 *

(as of 16th August 1977)

<u>INCOME</u>		<u>EXPENDITURE</u>	
<u>Subscriptions from National Adhering Organizations</u>		<u>Office Expenses</u>	
Current year	180,000	Secretary General & Officers	5,500
Outstanding	10,000	IUPAC Secretariat	72,000
		Audit, Bank Fees & Other	
		Charges	13,800
			91,300
<u>Subscriptions from Company Associates</u>	62,000	<u>Travel, Subsistence, Administration of IUPAC Bodies</u>	
<u>Interest & Dividends Earned</u>	30,000	Meetings other than General Assembly	30,000
<u>Subvention from ICSU</u>	16,000	General Assembly	200,000
<u>Transfer from Publications Account</u> ^δ	10,000		230,000
<u>Transfer from Contracts Account</u>	2,000	<u>Other Expenses</u>	18,000
		<u>General Contingency Fund</u>	5,000
	310,000		
<u>Excess of Expenditure over Income</u>	34,300 •		
	344,300		344,300

* All figures in US-dollars

• If subscription income from National Adhering Organizations increased by 15% (i.e. by 27,000), deficit is reduced to 7,300

δ 6,900 lower than 1978 because of uncertainty arising from new publication systems

ANNUAL SUBSCRIPTIONS FROM NATIONAL ADHERING ORGANIZATIONSI. Rise in Subscription

The Executive Committee at its Meeting in Washington DC on 6th-7th March 1977 (Minute 3.5.2/77) agreed to recommend, via the Bureau, the Finance Committee's proposal for Council in Warsaw to raise the national subscriptions by 15% for 1978 onwards.

There has been no increase in the basic unit since 1974, despite the continued inflation world wide. Some increase to meet the inflationary costs of the Union is now essential.

The consequent changes in subscription for the various membership categories are shown in the attached table. The proposed subscriptions for Categories A3-C (inclusive) are calculated on a 15% increase in the present minimum category subscriptions. The proposed subscription for Category D is based on the cost of servicing a National Adhering Organization.

<u>Membership Category</u>	<u>Members</u>	<u>Minimum National Subscriptions</u>	
		<u>Present Situation</u>	<u>Proposed Situation</u>
A3	1	50 000	57 500
A2	4	21 500	24 725
A1	5	9 000	10 350
B2	6	3 500	4 025
B1	13	1 500	1 725
C	7	800	920
D	5	200	400
<u>Total income</u>		<u>US-\$223 400</u>	<u>US-\$268 795</u>

NOTE

Because some member countries now pay more than the category minimum, the full increase in subscription income of US-\$45 395 is unlikely to be achieved: it is more likely to be about US-\$27 000.

II. Allocation of Membership Categories

It has been policy since 1971 for each member country to assume the category appropriate to its national chemical turnover. 22 countries have been in their correct categories for some years. 7 more countries

will have fully assumed their correct categories by the end of 1977, but the following countries will still not have achieved that objective:

	<u>Present Category</u>	<u>Correct Category</u>
France	A1	A2
German Democratic Republic	B2	A1
Netherlands	B2	A1
Poland	B2	A1
Spain	B1	A1
Argentina	B1	B2
Czechoslovakia	B1	B2
Brazil	C	B2
Republic of South Africa	B1	B2
Yugoslavia	C	B1
Ireland	D	C
Turkey	D	C

The Executive Committee recommends through the Bureau that Council be asked at Warsaw to consider the possibility of the necessary statutory changes in 1979 for the introduction of mandatory allocation of membership categories for 1980 onwards, should all countries not have moved voluntarily into their suggested categories by 1st January 1979.

Meanwhile, the National Adhering Organizations will be asked by correspondence to submit their comments and reactions on the matter, these to reach the IUPAC Secretariat by 1st February 1978. The comments and reactions will be considered first by the Finance Committee at its meeting in February 1978, when the choice of chemical turnover as a criterion for the basis of IUPAC membership categories will be reviewed. The conclusions of the Finance Committee will be forwarded to the Bureau for its meeting in September 1978.

CREATION OF STANDING COMMITTEE ON CHEMISTRY AND INDUSTRY

Composition

1. There shall be a standing Committee on Chemistry and Industry composed of a Chairman and a Member from each country or region having more than one Company Associate.
2. The President in consultation with the Executive Committee shall appoint the Chairman and Members. Candidates may be proposed by the Committee and by National Adhering Organizations having Company Associate programmes.
3. The period of service shall be four years, renewable for a further term of four years.

Terms of Reference

On behalf of the President and Executive Committee:

1. To guide and inform Company Associates on IUPAC programmes and policies.
2. To establish important areas of chemical science in IUPAC related to ongoing industrial needs.
3. To put to industry enquiries on major chemical matters.

NOMINATIONS OF NEW OFFICERS AND MEMBERS
OF IUPAC BODIES APPROVED BY PRESIDENT
SINCE 87TH EXECUTIVE COMMITTEE MEETING

1. Interdivisional Committee on Nomenclature and Symbols

Member (1977-1981) - Prof. J. Chatt (UK)
(replaces Prof. V. Gutmann,
resigned)

2. Commission on Quantities and Units in Clinical Chemistry

Titular Member (1975-1979) - Dr. C. Onkelinx (Belgium)
(replaces Mr. J. C. Rigg,
resigned)

3. Commission on Electrochemistry

Titular Member (1975-1979) - Prof. A. Bard (USA)
(replaces Prof. E. Yeager,
resigned)

SPONSORSHIP OF SYMPOSIA APPROVED BY PRESIDENT
SINCE 87TH EXECUTIVE COMMITTEE MEETING

- XIII European Congress on Molecular Spectroscopy
(Wrocław, Poland: 12-16.9.77)
- International Congress on Laboratory Courses in Chemistry
in Universities
(Perth, Australia: 13-17.2.78)
- International Symposium on Ions and Ion Pairs and their Role
in Chemical Reactions
(Syracuse/New York, USA: 31.5-2.6.78)
- XVIII Microsymposium on Macromolecules: Synthetic and
Semisynthetic Polymer Catalysts
(Prague, Czechoslovakia: 10-13.7.78)
- VI Discussion Conference on Macromolecules: Chromatography
of Polymers and Polymers in Chromatography
(Prague, Czechoslovakia: 17-21.7.78)
- VII IUPAC Symposium on Photochemistry
(Leuven, Belgium: 24-28.7.78)
- VI International Conference on Nonaqueous Solutions
(Waterloo, Canada: 7-11.8.78)
- VIII International Conference on Applications of Mössbauer
Effect
(Kyoto, Japan: 28.8-1.9.78)
- XIX International Conference on Coordination Chemistry
(Prague, Czechoslovakia: 4-8.9.78)
- II International Symposium on Marine Natural Products
(Sorrento/Naples, Italy: 7-10.9.78)
- IV International Conference on Solute-Solvent Interactions
(Vienna, Austria: 11-15.9.78)
- VIII International Mass Spectrometry Conference
(Oslo, Norway: 12-18.8.79)
- International Conference on Surface and Colloid Chemistry
(Stockholm, Sweden: 20-25.8.79)
- International Symposium on Macromolecules
(Mainz, FRG: 17-21.9.79)
- V IUPAC Conference on Physical Organic Chemistry
(Santa Cruz/California, USA: 17-22.8.1980)

OFFICIAL REPRESENTATIVES OF IUPAC TO SYMPOSIA IN 1977

- International Colloquium on Refractory Oxides for High Temperature
Energy Sources
(Odeillo, France: 77.06.28-77.07.01) - Prof. C. B. Alcock
- V International Conference on Crystal Growth
(Boston/Massachusetts, USA: 77.07.17-22) - Mr. H. S. Peiser
- IV Society for Analytical Chemistry Conference
(Birmingham, UK: 77.07.17-22) - Prof. R. Belcher
- International Symposium on Macromolecules
(Dublin, Ireland: 77.07.17-22) - Prof. C. G. Overberger
- XVIII International Conference on Coordination Chemistry
(Sao Paulo, Brazil: 77.07.18-23) - Prof. L. Malatesta
- VI AIRAPT International Conference on High Pressure
(Boulder/Colorado, USA: 77.07.25-29) - Letter of greetings
- XVII Prague Microsymposium on Macromolecules
(Prague, Czechoslovakia: 77.08.15-18) - Prof. O. Wichterle
- V International Conference on Chemical Thermodynamics
(Ronneby, Sweden: 77.08.23-26) - Prof. E. F. Westrum
- International Symposium on Chemical Education
(Ljubljana, Yugoslavia: 77.08.25-31) - Prof. C. N. R. Rao
- International Mass Spectrometry Symposium on Natural Products
(Rehovot, Israel: 77.08.28-77.09.02) - Prof. K. Biemann
- IUPAC-IUPHAR Symposium on Biological Activity and Chemical Structure
(Noordwijkerhout, Netherlands: 77.08.30-77.09.02) - Prof. E. J. Ariëns
- 26th IUPAC Congress
(Tokyo, Japan: 77.09.04-10) - Prof. G. Smets
- V International Conference on Vacuum Ultraviolet Radiation Physics
(Montpellier, France: 77.09.05-09) - Letter of greetings
- VIII International Conference on Organometallic Chemistry
(Kyoto, Japan: 77.09.12-16) - Prof. K. Yamasaki
- VII International Vacuum Congress and III International Conference
on Solid Surfaces
(Vienna, Austria: 77.09.12-16) - Letter of greetings
- XIII European Congress on Molecular Spectroscopy
(Wrocław, Poland: 77.09.12-16) - Dr. R. N. Jones