

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MINUTES OF 36th MEETING OF BUREAU

HELD AT LE BISCHENBERG, STRASBOURG

TUESDAY, 14 SEPTEMBER 1976: 9.00-17.00

WEDNESDAY, 15 SEPTEMBER 1976: 9.00-12.30

PRESENT:

Dr. R. W. Cairns	-	President, in the Chair
Prof. Sir Harold Thompson	-	Past-President
Prof. G. Smets	-	Vice-President
Prof. G. Ourisson	-	Secretary General
Prof. O. Horn	-	Treasurer
Prof. A. Abou-El-Azm	)	
Prof. Sir Derek Barton	)	
Prof. A.R.H. Cole	)	
Prof. O. Glemser	)	
Prof. V. Herout	)	
Dr. O. Isler	)	Elected Members
Prof. S. Nagakura	)	
Prof. A. Perez-Masiá	)	
Prof. S. Rangaswami	)	
Prof. H. Suomalainen	)	
Dr. R.N. Jones	)	
Prof. L. Malatesta	)	
Prof. H. Zollinger	)	
Prof. C.G. Overberger	)	Division and Section Presidents
Prof. N. Tanaka	)	
Dr. H. Egan	)	
Prof. P. Lous	)	

ABSENT:

Dr. M.A. Crivelli	)	
Prof. N.M. Emanuel	)	Elected Members

IN ATTENDANCE:

Prof. R. Truhaut	-	Chairman, Coordinating Committee on Analytical Methods for CEE and IARC (in part)
Dr. B. W. Rossiter	-	Chairman, CHEMRAWN Planning Committee (in part)
Prof. M. Oki	-	General Secretary, Organizing Committee for 26th IUPAC Congress (in part)
Dr. M. Williams	-	Executive Secretary

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Minute 1/76

INTRODUCTORY REMARKS AND FINALIZATION OF AGENDA

A letter of apology for nonattendance, because of illness, had been received from Prof. Emanuel.

The Executive Secretary reported that the files for the meeting had been lost in transit from London. It was decided to work from the agenda and partial documentation circulated beforehand. At the request of the President, the following item was added to the agenda:

14.7 VII International Congress on Surface Active Substances

Minute 2/76

MINUTES OF 34th-35th BUREAU MEETINGS

2.1/76 Amendments and Approval of Minutes

The Minutes of the 34th and 35th Meetings of the Bureau were approved, subject to correction that Prof. S. Nagakura was present at the 35th Meeting.

2.2/76 Matters Arising from Minutes

2.2.1/76 Collaboration with ISO (Minute 2.2.1/75, 34th Bureau)

After consultation with ISO, some simplifications had been suggested to the proposed two-stage scheme for dealing with ISO standards referred for the attention of the Analytical Chemistry Division (ACD). The authority to grant IUPAC approval to revised ISO International Standards, delegated by the Bureau to the President of ACD, would be exercised in practice by the Division Secretary. The scheme would be operated in full for a trial period by ACD, then be reviewed by the Bureau. Other Divisions of the Union should collaborate with ISO on a similar basis to ACD.

2.2.2/76 Interdivisional Communications (Minute 11/75, 34th Bureau; Minute 3.1.4/76, 85th Executive Committee - Villefranche)

Dr. Egan said that the Division Presidents at their meeting in Strasbourg (Minute 4.1/76) had expressed general satisfaction with the Project Programmes listings circulated in June 1976 in an effort to ensure better and regular communication between the Divisions of the Union. The Division Presidents recommended that in future the listings should be more uniform in presentation and preferably issued on a biennial basis. They had agreed a schedule with a view to distributing revised listings prior to the 1977 IUPAC General Assembly. If IUPAC funds permitted, the Bureau decided that a wider distribution should be undertaken in future to increase publicity for the work of the Union.

2.2.3/76 Involvement of Younger Chemists in IUPAC Affairs (Minute 13/75, 34th Bureau; Minute 3.1.5/76, 85th Executive Committee - Villefranche)

Sir Harold Thompson said that the first report from a Wates Bursary participant in a 1976 IUPAC meeting had commented favourably on the deliberations. Prof. Zollinger spoke well of the involvement

of two young observers under the UK scheme at the recent meeting of the Commission on Physical Organic Chemistry. According to Prof. Overberger, an initiative to involve young chemists from USA was now being mounted through the US National Committee for IUPAC by Prof. B.L. Crawford, Jr. The Egyptian National Committee for Pure and Applied Chemistry had been responsible for attendance of a few observers at the 1973 and 1975 IUPAC Conferences, but more advance warning of the programme schedule was needed if Prof. Abou-El-Azm was to improve the situation. The Secretariat was asked to contact Egyptian cultural attachés to alert their students abroad about the 1977 General Assembly. Dr. Cairns and Sir Harold Thompson stressed that National Adhering Organizations must be responsible for selection of candidates, but under Bylaw 4.305 (ii) the Chairman of a Commission had the authority to prevent participation of observers in meetings. The Secretary General suggested that Division Presidents should draw the attention of their Commissions to the need to appoint younger members and to increase the involvement of women in the work of the Union.

2.2.4/76 Approval of New Members of IUPAC Bodies (Minute 23 (ii)/75, 35th Bureau)

The Executive Secretary reported that the GDR National Committee for IUPAC had not yet endorsed the nomination of Prof. G. Ackermann as a new Associate Member of the Commission on Analytical Reactions and Reagents. Because over four months had elapsed without any decision, the Bureau concluded that Bylaw 4.304 was applicable: the name of Prof. Ackermann should be deleted from the current membership records and the Commission informed accordingly.

2.2.5/76 Revised Statutes and Bylaws (Minute 4/75, page 3, 34th Bureau)

Dr. Egan said that the Division Presidents at Strasbourg (Minute 5/76) had reaffirmed the desirability of extending the ten-year maximum term for two more years where a Past-President could otherwise not serve. Three such situations would arise at the next General Assembly. Modification of the wording of Bylaw 4.103 was suggested by Dr. Egan or the restriction might be waived for two years from 1977. On a show of hands neither suggestion was adopted by the Bureau. Cooption was judged to be the best solution to these problems, except that travel and subsistence expenses could not then be paid by the Union.

Minute 3/76

MINUTES OF 83rd-85th MEETINGS OF EXECUTIVE COMMITTEE

The Minutes of the 83rd-85th Meetings of the Executive Committee were recorded as having been received officially by the Bureau.

Prof. Overberger asked for clarification regarding sponsorship of the VII International Congress on Surface Active Substances (Minute 11.2/76, 85th Meeting - Villefranche). The Secretary General said that details of the main speakers and assurances on freedom of participation for all bona fide chemists had been received subsequent to the deliberations in Villefranche. Therefore, the Union had been able to reverse its decision not to sponsor the Congress.

Minute 4/76

ARRANGEMENTS FOR 29th IUPAC GENERAL ASSEMBLY (Warsaw, 1977)

The President apologized for the need to change the dates from 22 - 31 to 12-21 August, but longstanding commitments with the American Chemical Society would otherwise prevent his presence at Warsaw. Prof. Cole regretted that the change would make it less convenient for some persons to attend the General Assembly and the 26th IUPAC Congress (Tokyo, 4-10.9.77). The Bureau noted that the two meetings in 1979 would be in closer proximity (Minute 7.3/76, 85th Executive Committee - Villefranche).

In presenting his report on the visit to Warsaw (28-30.6.76) with the Assistant Secretary, Miss A. Troughton, the Treasurer drew attention to the evident desire of the Polish authorities to acquire hard currency. Quotations for travel (and hotel accommodation) had been submitted by Trans World Conference Organisers and by VIP International Tours. Prof. Horn was greatly concerned at the projected increase in costs compared with the 1975 Conference in Madrid.

After careful consideration of the recommendations of the Executive Committee (Minute 17/76, 86th Meeting - Strasbourg), the Bureau decided that:-

- (i) the per diem allowance be US-\$37.50, with the Grand, Metropole, and Polonia as our first choice hotels: if possible, additional rooms should be negotiated at these hotels;
- (ii) persons wishing to stay at the Forum must pay the extra costs themselves: no reservations be made for the present at the Victoria;
- (iii) the possibility be offered for two men to share a double room at hotels in (i);
- (iv) despite some past bad experiences with TWCO, better travel savings arose through that agency, whose schemes should be mandatory: persons not using these schemes must pay the extra costs themselves;
- (v) no formal arrangements be made for a banquet nor for a ladies' programme;
- (vi) a declaration in writing be obtained from the Polish authorities that the visa requirement to spend a stated amount of US-dollars per day be waived;
- (vii) the Polish National Committee on Chemistry be reapproached to try and reduce Secretariat costs to the Union;
- (viii) if necessary, Miss Troughton to visit Warsaw before the end of 1976 to clarify further the arrangements.

As in 1975, the Commissions on Nomenclature of Inorganic and of Organic Chemistry wished to meet separately from and immediately prior to the General Assembly. Prof. Herout said that an invitation to meet near Prague might be endangered by the change in dates for the Assembly. The Bureau reaffirmed its adherence to the policy for all IUPAC bodies to meet at the biennial General Assembly but decided, on a show of hands, to concede the request of the two Commissions. However, it was

stipulated that travel and subsistence must be at the same levels as for the Assembly, with only small extra costs needed for those persons who must travel subsequently to Warsaw.

Minute 5/76

INVITATIONS FOR FUTURE IUPAC GENERAL ASSEMBLIES AND CONGRESSES

A suggestion that it would be useful to generate some rules as to how far ahead the Union should solicit invitations for its General Assembly and Congress, had been referred for the attention of the Bureau (Minute 23.1/75, 28th Council - Madrid). It was agreed that, four years in advance, Council should have definite proposals for the location of both meetings and that the financial implications of the Assembly to IUPAC should be known. The President asked Members of the Bureau to investigate possibilities for the Assembly and Congress in 1981 and to submit invitations (or suggestions) for consideration by the Executive Committee early in 1977. Some general points to be borne in mind for the Assembly were local provision of US-\$15,000-20,000 support plus services, a ten-day period, 300 single and 150 double rooms for accommodation, a maximum of 30 meeting rooms for 20 persons with 150 in attendance at Council.

Minute 6/76

FINANCIAL MATTERS

6.1/76 Current Financial Status

In presenting brief details of cash in hand and of holdings of bonds and shares, the Treasurer said that the current financial status of the Union did not give cause for concern, except that he would prefer to make more money available for Divisional activities. However, with signs of increasing withdrawals in 1977, Prof. Horn felt that Company Associates had reached a maximum. Also, there was a high order of 1976 subscriptions still outstanding from National Adhering Organizations (17 of 43 countries unpaid). Several countries had been unable to move into a membership category equivalent to their annual chemical turnover, at which level they had been invoiced this year. The following countries were outstanding with respect to subscriptions for both 1975 and 1976:

Argentina	Mexico
Colombia	Vietnam

The Bureau accepted the recommendation of the Executive Committee (Minute 17/76, 86th Meeting - Strasbourg) that Statute 9.2 be allowed to take its natural course: these four countries would automatically cease their membership of IUPAC on 31.12.76. Persons from these countries would simultaneously cease to be members of IUPAC bodies, e.g., Dr. Crivelli would leave the Bureau. Sir Harold Thompson made a plea that no further monies be invested in bonds or shares in the immediate future, but instead be placed at the disposal of the Divisions.

6.2/76 Budget for 1977

The draft budget for 1977 (as of 17.2.76), circulated to the

Bureau prior to the meeting, showed a deficit of US-\$36,750, with a further deficit expected for 1978. Prof. Horn advised that these deficits should be met from the surplus anticipated for the biennium 1975-6. The Division Presidents were invited to submit to the Secretariat by 1.12.76 any high priority additional requirements for funding in 1977, but with no certainty that they could be granted by the Treasurer. It was confirmed by the Treasurer, however, that any unused Division contingency funds from 1976 could be carried over into 1977, but no further: this general principle was agreed by the Bureau as a continuing future biennial policy for the Union.

Dr. Egan said that the Division Presidents at Strasbourg (Minute 4/76, page 2) had expressed the view that a simple guide by the Treasurer to Division budgeting and contingency funding, preferably on a two-year basis, would be helpful. Some general dates for estimates and claims could also be given. Prof. Horn agreed to keep these requirements in mind when approaching the Division Presidents in 1977 for forecasts for 1978-9.

#### 6.3/76 Principles for Claims from IUPAC

(i) Difficulties were being experienced with existing policy (Minute 2.2.3/74, LXXX Executive Committee - London), whereby the per diem allowance for most meetings was not provided in cash but only by cheque. For instance, Prof. Herout was unable in Prague to convert a cheque in US-dollars into the corresponding cash to bring out of Czechoslovakia. The Treasurer was asked to discuss a revised system with the IUPAC Banker. One possibility might be for subsistence cheques to be made payable to a Commission Chairman in advance, so that he could bring the cash to a meeting.

(ii) Unless exceptional circumstances arose, the Executive Committee had decided (Minute 4.4/75, 82nd Meeting - Moscow) that there should be subsistence for one extra day only for travel to all IUPAC meetings in 1976. After discussion within the Bureau, a proposal from the Treasurer for subsistence to remain at one extra day for inter-continental travel, but to be reduced to a half day for intracontinental travel, was defeated on a show of hands. The Bureau agreed that the per diem allowance should continue to be reviewed annually.

(iii) At present there was no policy governing reimbursement for travel by rail or by road to IUPAC meetings. The Bureau agreed that the Treasurer should follow the rules of ICSU (21.4.76), viz.

rail - first-class rate  
road - first-class rail fare

(iv) Following complaints from some Members of the Bureau, the Treasurer was asked to review with the IUPAC Banker the mechanism for issuing cheques: either no deduction should be necessary by a recipient's bank or its commission for handling a cheque should be met by the Union.

(v) Prof. Horn announced that a revised claim form for administrative expenses was now in use. All such expenses must be categorized (postage, typing, telephone, photocopying, etc.) and supporting documents (invoices) provided where a total claim exceeded US-\$50.

#### 6.4/76 Financial Support for Committee on Teaching of Chemistry

In response to a request for definite proposals for funding of

projects (Minute 3.2.1/76, 85th Executive Committee - Villefranche), the Committee on Teaching of Chemistry had asked for a grant of US-\$750 to conduct a survey on chemical education in developing countries and to produce a preliminary report. This was approved by the Bureau on a show of hands, the money to be drawn from that set aside by the Union for new and extended activities.

A detailed programme had been submitted by the Committee on Teaching of Chemistry for an International Congress on Chemical Education in the Coming Decades: Problems and Challenges (Ljubljana, five days in August-September 1977). Most of the financial support would be provided by UNESCO. In addition, the Committee had applied for a grant of US-\$5,000 from IUPAC. On a show of hands, the Bureau decided against providing this grant and rejected a suggestion from Sir Harold Thompson that US-\$2,500 support should be given. Nevertheless, the Bureau agreed that the Teaching Committee could meet in 1977 during the Congress at Ljubljana rather than at the General Assembly in Warsaw (see Minute 4/76).

Some views were expressed that other potential activities of IUPAC, such as chemicals and chemistry of the oceans, warranted greater financial priority than chemical education. Sir Harold Thompson pointed out that this contrasted with existing policy, whereby it had been decided to help the Committee on Teaching of Chemistry retain some independence of UNESCO (Minute 3.7/74, LXXX Executive Committee - London). The matter would be reviewed at the next meeting of the Executive Committee.

Minute 7/76

#### REPORTS OF DIVISION AND SECTION PRESIDENTS

Detailed reports on the activities since the 1975 IUPAC Conference of the Divisions and Clinical Chemistry Section, had been circulated prior to the meeting, except for that on the Macromolecular Division, which was available only in Strasbourg. The report from the Commission on Atomic Weights was received too late for precirculation and it had been included in the files for the meeting (see Minute 1/76).

Dr. Jones said that all Commissions of the Physical Chemistry Division had made substantial progress with their programmes for the current biennium. The new system of subcommittees was operating smoothly with no disturbance of the ongoing programmes of the former Sub-Commissions. An initiative in one of the areas identified by the International Company Associates Group as worthy of new or increased attention by the Union (Minute 17.3/75, page 3, 34th Bureau - Madrid), had been taken by the Commission on Colloid and Surface Chemistry in planning to establish a Subcommittee on Heterogeneous Catalysis. Another newly formed subcommittee was that on Optical Rotatory Dispersion and Circular Dichroism under the Commission on Molecular Structure and Spectroscopy.

Work of special importance for IUPAC, in the opinion of Prof. Malatesta, was that of a subcommittee of the Commission on Atomic Weights concerned with the effect of variations of isotopic compositions. The document 'Guide to the Red Book' had been completed by the Commission on Nomenclature of Inorganic Chemistry and



publication was in hand.

A major task of the Organic Chemistry Division was in organizing its sponsorship of a relatively limited number of symposia of a very high scientific standard. Those on Chemistry of Natural Products had proved to be well suited to remote locations and poster sessions were a successful innovation. Provisional recommendations on nomenclature of natural products were being prepared for publication by the Commission on Nomenclature of Organic Chemistry. Problems of the naming of reactions, symbolization of reaction mechanisms, and definitions used in the field were being considered in particular by the Commission on Physical Organic Chemistry. Prof. Zollinger was concerned at the slow progress in work of the Commission on Photochemistry, whose Chairman had resigned recently.

Prof. Overberger said that the Macromolecular Division report had been delayed, pending availability of the minutes of the recent Division Committee meeting in Paris. His Division was anxious to maintain a high standard for both macro and micro symposia held under its auspices. Because there was little existing background on which to draw, the Commission on Macromolecular Nomenclature was facing very difficult problems. The inaugural meeting of the Commission on Polymer Characterization and Properties had now taken place: its activities were unique within the Union in being organized entirely through working parties whose Chairmen were Titular Members of the Commission.

Attention was drawn by Prof. Tanaka to the large number of reports under publication or in preparation by Commissions of the Analytical Chemistry Division, to progress in reviewing draft ISO international standards, and to increasing liaison with the Applied Chemistry Division. The Commission on Analytical Reactions and Reagents had urged the Union to convene a meeting between CEE experts and the IUPAC bodies responsible for contract work with CEE. Progress was also reported on the solubility data project and in completing a compendium of IUPAC analytical nomenclature recommendations.

Dr. Egan reported that the extensive changes for the Applied Chemistry Division, in terms of the revised Statutes and Bylaws, had been accomplished without much ill effect. All existing work programmes were progressing satisfactorily except for the Commission on Air Quality, whose Chairman was in ill health and for which there was only a restricted membership. Diversification of the Divisional programme was in hand and it now included consideration of the problem of trivial names, chemicals and chemistry of the oceans, and harmonization of collaborative analytical studies.

Prof. Lous referred briefly to his schematic activity report for the Clinical Chemistry Section and its Commissions. It had been impossible to arrange enough meetings of the Commissions because of lack of funding by IUPAC. Concerning pharmaceuticals and food aspects of the CHEMRAWN proposals brought before Council in Madrid, he pointed out that the influence of chemistry was much wider than indicated.

Minute 8/76

REPORT OF AD HOC COMMITTEE ON NUCLEAR AND RADIOCHEMISTRY

Wider terms of reference for establishment of a Commission on Nuclear and Radiochemistry had duly been put forward by the Inorganic Chemistry Division Committee (Minute 5/75, 34th Bureau - Madrid). These had been studied by the ad hoc Committee, whose modified proposal for the scope of work of the new Commission was now available. Because of the present financial difficulties of the Union and limitation of funds available to his three existing Commissions, Prof. Malatesta had some reservations about creation of the new Commission. In any case, he felt that some of its envisaged work was of more interest to and even the responsibility of other organizations, such as IUPAP and IAEA, and of existing IUPAC bodies like the Commissions on Medicinal Chemistry and on Analytical Radiochemistry and Nuclear Materials. The Bureau agreed that the proposed scope of work should be examined critically at the forthcoming meeting of the Inorganic Chemistry Division Committee. The latter should advise the Executive Committee, prior to its meeting in March 1977, exactly which parts of the work were already covered inside and outside IUPAC and whether, with the financial implications, there remained substantive tasks for an initiative within the Union.

Minute 9/76

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

Prof. Smets reported that the ad hoc Committee appointed to look, in detail, into the proposed new Division (Minute 3.1.3/76, 85th Executive Committee - Villefranche) had met in Strasbourg on 11 September. Agreement had been reached on a definition of environmental and health chemistry and the desirability for IUPAC to establish a Division in that field. Simply changing the name of the Applied Chemistry Division to Environmental and Health Chemistry, with injection of the Medicinal Chemistry Commission and Clinical Chemistry Section, was unacceptable to any of the relevant bodies. Formation of the new Division with appropriate Commissions of the Applied Chemistry Division, Medicinal Chemistry Commission, and Clinical Chemistry Section, was possibly acceptable to all parties. This should be studied further, together with the implications for a depleted Applied Chemistry Division, and the views of the Company Associates in particular canvassed. A further meeting of the ad hoc Committee should be convened early in 1977, with the intention to present a definite recommendation to the Bureau at Warsaw.

Minute 10/76

REPORT OF CHEMRAWN PLANNING COMMITTEE (Dr. Rossiter in attendance)

Dr. Rossiter referred briefly to the initial planning meeting (Ottawa, 17.5.76) to organize the proposed 1st International Conference on Future Sources of Chemical Raw Materials and Intermediate Supplies and to the further meeting held recently (Toronto, 8.9.76). The organizers had accepted the spirit of the general CHEMRAWN proposals made to Council at Madrid and of the Raw Materials Conference proposals made to the Executive Committee at Villefranche.

It had now been decided to restrict the scope to World Conference on Future Sources of Organic Raw Materials, with location as Toronto during 10-13.7.78. There were purposely to be few sponsors, but many supporting organizations. Very capable people had agreed to join the organizing committees, a broad financial outline had been prepared and the programme format agreed. Tentative Conference objectives had been drawn up on which Dr. Rossiter invited the Bureau to comment. Also, help on the finance committee was needed from UK (Dr. J.W. Barrett?), Europe (Prof. D. Behrens?), and Japan. A draft motif for Conference documentation might be capable of use for other future CHEMRAWN activities.

In spite of a registration fee of US-\$100, Dr. Rossiter reassured Prof. Horn that the estimate of 1-2,000 participants was realistic. If more industrial income was forthcoming than presently anticipated, Prof. Ourisson wondered whether the registration fee might be reduced to stimulate further participation. This was possible in principle said Dr. Rossiter, but the intention of the organizers was to ensure a financial surplus. Use of poster sessions to increase the number of contributions and holding a "Braintrust" session with the press in attendance were suggested by Sir Derek Barton. Dr. Rossiter told Prof. Truhaut that environmental and toxicological aspects would be integrated into the existing framework rather than be given special emphasis. Prof. Lous asked about publications: these might be free to participants, purchasable by other parties, and special consideration given on how best to bring them and the Conference conclusions to the attention of governments, etc., all subject to IUPAC approval.

Minute 11/76

NAMES FOR ELEMENTS 104 AND 105, AND FOR 106 ONWARDS

As requested by the Executive Committee (Minute 3.1.6/76, 85th Meeting - Villefranche), Dr. Cairns had written:

(i) to the President of IUPAP, inviting him to propose replacements for Profs. U. Stille and A. Baumgartner on the neutral group of experts: a reply was delayed pending a meeting of the IUPAP Executive Committee at the end of September;

(ii) to Prof. J. Lewis about the form of letter to go to the American and Russian groups, urging submission of drafts of the history of the work and respective views of naming of elements 104 and 105.

The latest proposals from the Commission on Nomenclature of Inorganic Chemistry for systematic naming of elements (letter of 19.8.76) were strongly supported by Prof. Malatesta: the full systematic name immediately gave the atomic number and a three-letter symbol for each element. There was an extended discussion in the Bureau in which Sir Derek Barton recounted his previous views and expressed doubts about the latest proposals. Also, a letter (1.9.76) and telegram had been received from Prof. Emanuel, expressing opposition to systematic nomenclature. Prof. Glemser recalled that, in the original proposal made at Munich in 1973, the Commission had still conceded the traditional right of the discoverer, once his claim was authenticated, to name a new element.

On a show of hands, the Bureau agreed that the latest proposals of the Commission on Nomenclature of Inorganic Chemistry for systematic naming of elements should be issued as provisional IUPAC recommendations for elements 106 onwards, with the abbreviated systematic names shown as alternatives and conceding the right of a discoverer, whose claim was authenticated, to name a new element. A motion from Prof. Cole that the systematic names should be extended backwards, on an interim basis, to cover also elements 104 and 105, was then approved. However, that motion and the earlier agreement reached by the Bureau were both superceded when a proposal from Sir Derek Barton was carried virtually unanimously: that the systematic names should commence with element 101.

Minute 12/76

TRIVIAL NAMES

Further to the request of the Bureau at Madrid (Minute 14.2/75, 34th Meeting), Dr. Egan reported that at its recent meeting in Frankfurt the Applied Chemistry Division Committee had briefly discussed the subject of trivial names. A useful though limited start had been made by preparing a short list of industrial inorganic chemical names. The Division Committee had recognized the work already done elsewhere in the international field for pharmaceuticals and pesticide chemicals and was aware that IUPAC had issued provisional recommendations on trivial names in analytical chemistry. It was disappointed that greater interest in the subject had not been shown by the International Company Associates Group, but was now in contact with the Interdivisional Committee on Nomenclature and Symbols (IDCNS) regarding the need for a study which could bring together all current areas of agreement and give consideration to other areas not yet covered.

Dr. Jones said that on a related matter, the Physical Chemistry Division had taken an initiative regarding proliferation of acronyms in spectroscopy. This might lead through IDCNS into more general guidelines on acronyms being issued by the Union.

Minute 13/76

NOMINATIONS OF NEW MEMBERS OF IUPAC BODIES

13.1/76 Nominations Approved by Correspondence through Executive Committee

The following nominations of new Officers (Bylaw 4.303) and Members (Bylaw 4.304) of IUPAC bodies, approved by correspondence through the Executive Committee since its 85th Meeting, were ratified by the Bureau:

- (i) Commission on Polymer Characterization and Properties
  - Secretary and Titular Member
  - (1975-1979) - Prof. G. Allen (UK)
  - Titular Member (1975-1979) - Dr. P.L. Clegg (UK)
  
- (ii) Commission on Electroanalytical Chemistry
  - Associate Member (1975-1979) - Prof. L. Gierst (Belgium)

13.2/76 Interdivisional Committee on Nomenclature and Symbols

Prof. M.L. McGlashan had resigned as Chairman of IDCNS and Dr. K. L. Loening had accepted an invitation from the President to succeed him. The Bureau agreed that Prof. McGlashan should participate at IUPAC expense, as a representative of the Executive Committee to ensure continuity at the first meeting of the reorganized IDCNS: no formal vacancy existed to prolong his participation at further meetings.

Dr. Loening could no longer act as a representative of the Macromolecular Division to IDCNS, and the Bureau approved a recommendation from Prof. Overberger that the vacancy should be filled by Prof. T. Tsuruta (Japan).

13.3/76 Nominations of New Officers and Members

The following nominations, supported by the relevant Division Presidents, were approved by the Bureau:

- (i) Commission on Physicochemical Symbols, Terminology, and Units  
Associate Member (1975-1979) - Prof. L. Villena (Spain)  
(representing IUPAP in place of the late Prof. U. Stille)
- (ii) Commission on Polymer Characterization and Properties  
Titular Member (1975-1979) - Dr. G. Scholte (Netherlands)
- (iii) Commission on Air Quality  
Chairman and Titular Member (1975-1979) - Dr. S. Freyschuss (Sweden)  
(due to illness of present Chairman, Prof. W. Pilz, who would remain a Titular Member)
- (iv) Commission on Water Quality  
Secretary and Titular Member (1975-1979) - Dr. P.H. Schweitzer (FRG)  
Associate Member(1975-1979) - Dr. E.J. Hamilton (UK)

Dr. Jones recommended Prof. D.H. Whiffen to effect the reciprocal representation of IUPAC to the Symbols and Units Commission of IUPAP. Subject to confirmation of IDCNS, Prof. Whiffen would act on its behalf rather than from the Physical Chemistry Division.

Minute 14/76

SPONSORSHIP: REPRESENTATION, SPONSORSHIP, SUBVENTION

The Bureau noted the concern of the Division Presidents (Minute 7/76, Strasbourg Meeting) at the general tendency of inflation observable on a worldwide basis in the number of plenary/invited lectures at symposia. IUPAC should not encourage the trend that chemists attended only if they were allowed to present papers.

14.1/76 Official Representatives of IUPAC to Symposia in 1976

The official representatives of IUPAC to its sponsored symposia in 1976, appointed by the President (Appendix A), were ratified by the Bureau.

14.2/76 Symposia Sponsored by Correspondence through Executive Committee

The granting of sponsorship, by correspondence through the Executive Committee since its 85th Meeting, was ratified by the Bureau for the symposia in Appendix B.

14.3/76 XVI and XVII Microsymposia on Macromolecules  
(Prague, 12-6.7.76 and 15-18.8.77)

Dr. Cairns, Prof. Overberger, and Prof. Herout reported briefly with regard to the application of Prof. A. Silberberg (Israel) for an entry visa to participate in the XVI Microsymposium. It was now clear that, although there was delay in providing the visa, the three months application rule (Minute 14.1/74, page 11, 33rd Bureau - Brussels) had not been followed nor had the difficulties encountered by Prof. Silberberg been notified to IUPAC one month before the meeting. Therefore, no action had been possible by the Union at that time.

After discussing how to make the three months application rule more effective in practice, the Bureau resolved that as a condition of granting IUPAC sponsorship to symposia in future, all brochures and documentation must carry the following wording:

IUPAC sponsorship implies that entry visas will be granted to all bona fide chemists provided application is made not less than three months in advance. If a visa is not granted one month before the meeting, the IUPAC Secretariat should be notified without delay by the applicant.

In addition, the Bureau agreed organizers should henceforth seek in writing from their governments, a reassurance that all visa applications made in good time would be dealt with no later than one month before the meeting.

The Executive Secretary was asked to report to the ICSU Committee on Free Circulation of Scientists all new cases involving visa problems, whatever the eventual outcome.

Further to recommendations of the President of the Macromolecular Division and the Scientific Editor of the Union/Chairman of Committee on Publications, but subject to the above new requirements of the Bureau, it was decided to grant IUPAC sponsorship to the XVII Microsymposium but to waive publication rights of the Union. The dates had already been rearranged not to clash with the 1977 IUPAC General Assembly, and Prof. Herout doubted if they could be revised further to avoid an overlap with the new dates for the Assembly (see Minute 4/76).

- 14.4/76 VII International Mass Spectrometry Conference  
(Florence, 30.8-3.9.76)  
XVII International Conference on Coordination Chemistry  
(Hamburg, 6-10.9.76)

After careful consideration of the draft budgets, it was decided not to provide a deficit guarantee for either meeting.

- 14.5/76 International Symposium on Harmonisation of Collaborative Analytical Studies (Cleveland/Ohio, March 1978)

A small closed meeting, being organized by the Analytical and Applied Chemistry Divisions and Clinical Chemistry Section, with invited participation of such international bodies as ISO, FAO, WHO, IARC, IFCC, AOAC. Expected to be self-financing and no publications arising. Sponsorship granted.

- 14.6/76 VII International Congress on Surface Active Substances  
(Moscow, 13-18.9.76) (see also Minute 3/76)

The President referred to extensive correspondence regarding the Soviet chemist Prof. B. Levich, who had been refused permission to present a paper at the Congress. Present IUPAC guidelines on withdrawal of sponsorship (Minute 14.1/74, page 11, 33rd Bureau - Brussels) did not cover such a case, although a resolution passed at the 14th ICSU General Assembly had noted such problems. Whilst reaffirming its adherence to the principle of free circulation of scientists, the Bureau agreed that prevention of participation of a scientist in a scientific meeting in his own country or of migration of a scientist from his country, were internal political matters outside the terms of reference of IUPAC.

- 14.7/76 26th IUPAC Congress (Tokyo, 4-10.9.77) (Prof. Oki in attendance)

Prof. Oki distributed copies of the second circular to the Bureau with a cordial invitation to participate in the Congress. He made brief reference to the sponsors, registration fees, scientific programme, and visits to industry. The first circular had been distributed widely (30,000 copies), followed by an invitation poster; the third circular with detailed programme would be available in May 1977. Some 1500 external and 500 internal provisional applications had been received to date, and the organizers expected 4000 active participants (2000 from abroad). It was intended to have press contacts and publicity in advance and at the actual Congress. Prof. Oki had discussed with Dr. Rossiter how the general CHEMRAWN proposals might be integrated into the programme at Tokyo.

Minute 15/76

#### RELATIONS WITH OTHER ORGANIZATIONS

- 15.1/76 Federation of European Chemical Societies (FECS)

Prof. Suomalainen reported briefly on his participation as official representative of IUPAC at the 7th FECS General Assembly (Helsinki, 11.6.76). Need for cooperation with and awareness of IUPAC activities was recognized by FECS. Need for cooperation was obvious at present from the FECS Working Groups on food chemistry, analytical

chemistry, chemistry and environment, education. The main anxiety concerned a proposal to organize FEICHEM Conferences in countries that did not yet organize EUCHEM Conferences.

Prof. Ourisson suggested that a followup be made to the recent distribution of IUPAC Project Programmes listings (see Minute 2.2.2/76) to Associated Organizations, including FECS, by asking how their own activities related to these programmes, and particularly whether there was any overlap or areas in which IUPAC should consider commencing activity. The Bureau agreed that the short statements of current activities requested for the 1975 IUPAC Conference should again be sought from Associated Organizations in 1977.

15.2/76 IUPAC-IUB Commission on Biochemical Nomenclature (CBN)  
(Minute 16.4/75, 34th Bureau - Madrid; Minute 8.2/76,  
85th Executive Committee - Villefranche)

Surprisingly, the 1976 meeting of CBN had recommended to both Unions that its present status should be continued unchanged. Dr. Cairns had taken an initiative to call a meeting with Officers of IUB (London, 25.6.76) to discuss the future of CBN. On that occasion he had favoured continuation of CBN, but suggested that IUB should form its own nomenclature committee to deal with matters of special interest to biochemists but which had marginal or no interest to IUPAC. This had culminated in a proposal for two bodies, with overlapping membership: an IUPAC-IUB Joint Commission on Biochemical Nomenclature (JCBN) and an IUB Committee on Biochemical Nomenclature (CBN).

The Bureau was pleased to note an improving situation, but deferred consideration of the proposal, pending availability of the views of the IUB Executive Committee and more recent elaborations (contained in a letter of 23.8.76 unfortunately lost with the files for the meeting).

15.3/76 Contract Work with CEE (Prof. Truhaut in attendance)

A further contract with CEE had now been signed by the President, covering 6 methods still under study by IUPAC from 1974 and revision of 10 methods submitted to CEE in earlier years. Prof. Truhaut indicated that actions had been agreed by the Coordinating Committee on Analytical Methods for CEE (London, 23.7.76) to expedite fulfilment of the new contract. He supported the request of Prof. Tanaka (Minute 7/76, page 7) for the Union to exert all pressure to convene a meeting between CEE experts and relevant IUPAC bodies to facilitate progress in the contract work. The Bureau delegated to the President responsibility for taking action on this matter. The Treasurer advised Prof. Tanaka that contract monies could be used to help cover travel and subsistence expenditures for meetings of the Commission on Analytical Reactions and Reagents at which CEE contract work was considered. Also, contract monies should be used, if necessary, in connexion with any joint meeting with CEE experts.

15.4/76 UNESCO Contracts on Teaching of Chemistry

On behalf of the Union, Dr. Cairns had signed contracts with UNESCO:

(i) to prepare an anthology of recent literature on chemical education;



(ii) to prepare two further issues (Nos. 7 and 8) of the International Newsletter on Chemical Education ;

(iii) to organize a planning meeting for the 1977 International Congress on Chemical Education in Ljubljana;

(iv) to assist in organization of the 1976 Chemical Education Symposium for Arab States in Alexandria.

The actions of the President were ratified by the Bureau.

#### 15.5/76 ICSU Matters

##### 15.5.1/76 Nominations for Officers

Four candidates had been proposed for the Vice-Presidency of ICSU, but the Bureau made no recommendation as to how Sir Harold Thompson should vote, as official representative of IUPAC, at the forthcoming 16th ICSU General Assembly (Washington, DC, 11-15.10.76).

##### 15.5.2/76 ICSU Abstracting Board (ICSU AB)

The Bureau deferred consideration of the report from Dr. J.W. Barrett, official representative of IUPAC at the 1976 meeting of ICSU AB, which was lost with the files for the meeting.

##### 15.5.3/76 CODATA

The official representative of IUPAC to CODATA, Prof. D.H. Whiffen, had been unable to participate in the 10th CODATA General Assembly (Boulder/Colorado, 2-3.7.76), and Dr. Jones reported briefly on the deliberations. CODATA was now much broadened in its responsibilities by ICSU compared with its original terms of reference, but unfortunately without provision of additional funding. An Advisory Panel for Physical Sciences, reporting to the CODATA Executive Committee, was expected to be set up, indicating the type of restructuring in hand for CODATA. The Task Group on Chemical Kinetics was being reconstituted, to deal particularly with studies of the upper atmosphere. In view of the lack of activity within IUPAC in the kinetics field and to maintain our continuity from the earlier Task Group, Dr. Jones strongly recommended that the Union should nominate a representative, with expenses for attendance at one meeting each year to be borne by IUPAC. However, Dr. Cairns preferred to await the outcome of the first meeting of the reconstituted Task Group to see how IUPAC might best act.

##### 15.6/76 International Committee for Standardization in Hematology (ICSH)

ICSH had suggested that it might now be appropriate to establish a closer collaboration with the Clinical Chemistry Section of IUPAC. Prof. Lous confirmed the need for expert chemical advice to ICSH, and he recommended that liaison from the Union be effected by the Section Secretary, Dr. R. Gräsbeck. This recommendation was approved by the Bureau: collaboration was expected to be mostly by correspondence, and any requirement of financial support for participation in a meeting should be judged on its merits by the Union.

Minute 16/76

PUBLICATIONS

16.1/76 Status Report on New Official Publisher to IUPAC

Prof. Ourisson reported that the transfer of publishing operations from Butterworths to Pergamon Press was now complete, both in terms of production and stock. The publishing schedules at Pergamon were not yet satisfactory, but he hoped they would soon be improved. The new Scientific Editors of the Union were actively pursuing their work, but some technicalities still needed to be resolved, particularly in converting to a camera-ready copy system for direct printing.

The Executive Secretary said that insufficient material was presently available from symposia sponsored for 1977 to meet the commitments of Pure and Applied Chemistry in 1978: the Union might need to exercise greater care in future when waiving publication rights. The President indicated that the Officers, on behalf of the Executive Committee (Minute 18/76, 86th Meeting - Strasbourg), were reviewing the work done by the Secretariat, because this had now exceeded the capacity of the present staff. Publications work in particular must be reorganized so as to involve the Executive Secretary to a much lesser extent. Delays in producing Part B of Comptes Rendus 28th Conference and bringing out an issue of the Information Bulletin this year were consequences of the present situation.

16.2/76 Future IUPAC Publishing Policy

After a thorough review by the Committee on Publications of the present very complicated range of IUPAC publications, a simpler structure for the future had been recommended. Some reservations had been expressed by the Executive Committee (Minute 16/76, page 4, 86th Meeting - Strasbourg), which had concluded that any reshaped PAC and Bulletin could not be introduced before 1978. The recommendations were to be discussed further by the Executive Committee early in 1977.

Prof. Perez-Masiá emphasized the importance of quality and selectivity factors being strongly pursued by the Committee on Publications for IUPAC publications. Steps were being taken to improve the standard of papers published in PAC. This would entail calling for more help from Symposium Editors. Detailed instructions, in the form of a letter signed by the Scientific Editors of the Union, would be distributed to organizers with the Advance Information Questionnaire. In addition to the US-\$2 per page paid for camera-ready copy, an honorarium of US-\$100 would be granted to a Symposium Editor to help in discharging his extended duties.

Despite the honorarium, Prof. Smets was concerned that the additional work required would make it difficult to recruit Symposium Editors. Also, he could foresee difficulties if the manuscript from an invited symposium plenary lecturer was rejected for PAC by the Scientific Editors of the Union. Prof. Ourisson hoped to avoid such situations by good collaboration with Symposium Editors.

The Executive Secretary reassured Prof. Cole that revised Notes for Contributors had now been drawn up by the Secretariat and Pergamon, giving detailed instructions for preparation of camera-ready copy. Sir Harold Thompson suggested that the camera-ready copy system should be reviewed after its first year of operation by IUPAC: its continuation should

depend on how well it had worked in practice.

Dr. Jones emphasized the need to use IUPAC recommendations on nomenclature and symbols in all publications of the Union. This had been discussed by the Division Presidents in Strasbourg (Minute 3/76): when completed by the Secretariat, listings of nomenclature and symbols recommendations issued by the Divisions should provide a valuable starting point for this aspect of the work of the Scientific Editors.

Minute 17/76

DIVISIONAL RULES

Dr. Jones and Prof. Tanaka said that the draft rules of the Physical Chemistry Division (Minute 15/75, 82nd Executive Committee - Moscow) and Analytical Chemistry Division (Minute 559, LXIX Executive Committee - Rome) were being revised in terms of the IUPAC Statutes and Bylaws adopted by Council at Madrid in 1975. These Division rules would need to be approved eventually by Council (Statute 10.3).

Minute 18/76

DATE AND PLACE OF NEXT MEETING

The schedule for the 29th IUPAC General Assembly in Warsaw presently envisaged meetings of the 'old' Bureau at 9.00 on 18.8.77 and of the 'new' Bureau at 14.00 on 21.8.77.

The President proposed that an experiment should be made for the meeting of the Executive Committee early in 1977. Documentation would still be precirculated for study of as many items of the agenda as possible, but participants would have to bring it with them to the meeting. Last minute documentation would be provided at the actual meeting, but there would be no complete files as in the past.

VOTES OF THANKS

Formal votes of thanks were to be recorded to Comité National Français de la Chimie and to Association pour le Développement des Relations entre l'Economie et les Universités de Strasbourg for the generous provision of hospitality, to Prof. Ourisson and Mme. Dillenseger for the excellent arrangements in Strasbourg, and to Dr. Williams for providing background and continuity to overcome the lost files for the meeting.

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CHAIRMAN: Robert W. Cairns

DATE: Aug. 18, 1977

APPENDIX A

OFFICIAL REPRESENTATIVES OF IUPAC TO SYMPOSIA IN 1976

MADE BY PRESIDENT SINCE 34th MEETING OF BUREAU

- International Symposium on Drug Action at Molecular Level  
(London, UK: 76.04.12-13) - letter of greetings sent
- II IUPAC Symposium on Photochemical Processes in Polymer Chemistry  
(Leuven, Belgium: 76.06.02-04) - Prof. C.G. Overberger
- V International Conference on Solid Compounds of Transition Elements  
(Uppsala, Sweden: 76.06.21-25) - Prof. F. Jellinek
- International Conference on Colloids and Surfaces  
(San Juan, Puerto Rico: 76.06.21-25) - Prof. J. Lyklema
- V International Fermentation Symposium  
(Berlin, FRG: 76.06.28 - 76.07.03) - Prof. A. E. Humphrey
- III International Meeting on Boron Chemistry  
(München & Ettal, FRG: 76.07.05-09) - Prof. L. Malatesta
- II International Symposium on Polyvinylchloride  
(Lyon - Villeurbanne, France: 76.07.05-09) - Dr. A. J. de Vries
- V International Conference on Nonaqueous Solutions  
(Leeds, UK: 76.07.05-09) - Prof. J. F. Coetzee
- International Symposium on Low Molecular Weight Sulphur Containing  
Natural Products  
(Jablonna - Warsaw, Poland: 76.07.06-10) - Prof. A. Kjaer
- XVI Microsymposium on Macromolecules/ V Discussion Conference on Macromolecules  
(Prague, Czechoslovakia: 76.07.12-16) - Prof. H. Benoit
- VI International Congress on Catalysis  
(London, UK: 76.07.12-16) - Prof. D. H. Everett
- V International Symposium on Medicinal Chemistry  
(Paris, France: 76.07.19-22) - Prof. E. J. Ariëns
- VI IUPAC Symposium on Photochemistry  
(Aix-en-Provence, France: 76.07.19-23) - letter of greetings sent
- VI International Symposium on Carbohydrate Chemistry  
(Kyoto, Japan: 76.08.16-20) - Prof. S. Itô
- International Symposium on Analytical Chemistry in Exploration, Mining  
and Processing of Materials  
(Johannesburg, Republic of South Africa: 76.08.23-27) - Prof. H.M.N.H.  
Irving
- X International Symposium on Chemistry of Natural Products  
(Dunedin, New Zealand: 76.08.23 - 28) - Prof. H. Zollinger

- Microsymposium on Longterm Properties of Polymers and Polymeric Materials  
(Stockholm, Sweden: 76.08.30 - 76.09.01) - Prof. H. Mark
- VII International Mass Spectroscopy Conference  
(Florence, Italy: 76.08.30 - 76.09.03) - Prof. J. H. Beynon
- II Europhysical Topical Conference  
(Berlin, FRG: 76.08.30 - 76.09.03) - letter of greetings sent
- III IUPAC Conference on Physical Organic Chemistry  
(Montpellier, France: 76.09.06-10) - Prof. H. Zollinger
- XVII International Conference on Coordination Chemistry  
(Hamburg, FRG: 76.09.06-10) - Prof. L. Malatesta
- International Symposium on Advances in Smoking of Foods  
(Warsaw, Poland: 76.09.08-10) - Dr. R. Marcuse
- International Symposium on Electrochemistry in Nonisothermal Systems  
(Zürich, Switzerland: 76.09.09-10) - Dr. R. Parsons
- VII International Congress on Surface Active Substances  
(Moscow, USSR: 76.09.12-18) - Prof. H. van Olphen
- III IUPAC International Symposium on Mycotoxins in Foodstuffs  
(Paris, France: 76.09.16-18): Dr. R. Marcuse
- VI International Conference on Magnetic Resonance in Biological Systems  
(St. Jovite - Quebec, Canada: 76.09.19-24) - Prof. S. Fujiwara
- IUPAC International Symposium on Techniques for Retrieval of Chemical  
Information  
(London, UK: 76.11.09-10) - Prof. Sir Harold Thompson

APPENDIX B

SPONSORSHIP OF SYMPOSIA APPROVED BY

CORRESPONDENCE THROUGH EXECUTIVE

COMMITTEE SINCE ITS 85th MEETING

- VII International Congress on Surface Active Substances  
(Moscow, USSR: 76.09.12 - 18)
- V International Conference on Vacuum Ultraviolet Spectroscopy  
(Montpellier, France: 77.09.05-10)
- III International Symposium on Genetics of Industrial Microorganisms  
(Madison - Wisconsin, USA: 78.06.05-09)
- II International Conference on Organic Synthesis  
(Jerusalem - Haifa, Israel: September 1978)
- IX International Symposium on Carbohydrate Chemistry  
(London, UK: April 1978)
- International Symposium on Macromolecular Chemistry  
(Tashkent, USSR: October 1978)