

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MINUTES OF 34th BUREAU MEETING

HELD AT CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS, MADRID

ON

MONDAY, 8 SEPTEMBER 1975, at 9.00

PRESENT:

Prof. Sir Harold Thompson	- President, in the Chair
Prof. J. Bénard	- Past-President
Dr. R.W. Cairns	- Vice-President
Dr. W. Gallay	- Secretary General
Prof. O. Horn	- Treasurer

Mr. P.M. Arnold)	
Prof. Sir Derek Barton)	
Prof. A.R.H. Cole)	
Prof. N.M. Emanuel)	
Prof. O. Glemser)	
Prof. V. Herout)	Elected Members
Dr. O. Isler)	
Prof. S. Rangaswami)	
Prof. S. Shibata)	
Prof. G. Smets)	
Prof. H. Suomalainen)	

Prof. G. Ourisson)	
Dr. D.B. Tonks)	Ex-Officio Members
Prof. R. Truhaut)	

Dr. R.N. Jones)	
Prof. V. Gutmann)	
Prof. A. Kjaer)	Division Presidents
Prof. H. Benoît)	
Prof. N. Tanaka)	
Dr. H. Egan)	

IN ATTENDANCE:

Dr. J.W. Barrett	- IUPAC Company Associates (in part)
Prof. J.E. Dubois	- Chairman, Interdivisional Committee on Machine Documentation (in part)
Mr. R.W. Fennell	- Secretary, Analytical Chemistry Division (in part)
Prof. D.N. Hume	- Chairman, ad hoc Interdivisional Working Party on Data Flagging (in part)
Dr. W. Stoll	- IUPAC Company Associates (in part)
Dr. M. Williams	- Executive Secretary

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Minute 1/75

INTRODUCTORY REMARKS AND FINALIZATION OF AGENDA

In his opening remarks the President said there were several additional symposia to be considered under Agenda Item 19 for sponsorship by the Union. Otherwise the Agenda was as detailed in the file for the Meeting.

Minute 2/75

MINUTES OF 33rd BUREAU MEETING

2.1/75 Amendments and Approval of Minutes

The Minutes of the 33rd Meeting of the Bureau were approved.

2.2/75 Matters Arising from Minutes

2.2.1/75 Collaboration with ISO: Proposals of Analytical Chemistry Division (Minute 10/74) (Mr. R.W. Fennell in attendance)

Mr. Fennell presented a proposed two-stage scheme for dealing with ISO standards referred for the attention of the Analytical Chemistry Division (ACD). Stage 1 covered ISO Draft International Standards and reflected existing practice to solicit comments from within ACD. Stage 2 suggested how revised ISO International Standards might be checked prior to granting IUPAC approval.

The Bureau agreed that:

- (i) the scheme should be operated for a trial period by ACD, then be reviewed by the Bureau;
- (ii) the authority to grant IUPAC approval be delegated to the President of ACD;
- (iii) other Divisions of the Union be asked to collaborate with ISO on a similar basis to ACD.

2.2.2/75 Membership of Commission on Polymer Characterization and Properties (Minute 13.2/74)

The Bureau accepted the recommendation of Prof. Benoît that the Titular Membership (1975-1979) of the Commission should be:

Dr. J.W. Barrett (UK)	-	Chairman
Dr. W. Ball (Federal Republic of Germany)	-	Chairman, Working Party on Molecular Characterization of Commercial Polymers
Mr. P.H. Fink-Jensen (Denmark)	-	Chairman, Working Party on Supported Polymer Films
Dr. A.J. De Vries (France)	-	Chairman of Working Party on Structure and Properties of Commercial Polymers
Dr. H. Wilski (Federal Republic of Germany)	-	Chairman, Working Party on Thermodynamic Properties of Commercial Polymers

The purpose was to coordinate the activities of the existing Working Parties of the Macromolecular Division and to suggest the creation of new Working Parties in fields where this was thought to be necessary. Should a person cease to be Chairman of a Working Party, he would be expected to resign his Titular Membership of the Commission.

Minute 3/75

MINUTES OF 81st AND 82nd EXECUTIVE COMMITTEE MEETINGS

The Minutes of the 81st and 82nd Meetings of the Executive Committee were recorded as having been received officially by the Bureau.

Minute 4/75

ITEMS FROM AGENDA OF 28th COUNCIL MEETING REQUIRING DISCUSSION, RESOLUTION, OR RECOMMENDATION BY BUREAU

Council Item 3: Announcement of Nominations for Officers and Bureau Members

Sir Harold Thompson reported that the nomination of Prof. O. Glemser for the Office of Vice-President had been withdrawn. Also, but after the statutory deadline for receipt of nominations, the Swiss National Adhering Organization had proposed Dr. O. Isler for reelection to the Bureau for a further period of 4 years.

The Bureau Resolved that:-

- (i) Council be recommended there should be 12 Elected Members to the Bureau for the period 1975-7 [Minute 21/75, page 3, 83rd Executive Committee (Madrid)];
- (ii) Dr. Isler be an additional nominee as an Elected Member to the Bureau (Bylaw 2.222);
- (iii) on the basis of a written and secret ballot, its recommendations to Council for filling the 6 vacancies as Elected Members of the Bureau (Bylaw 2.222) should be:
 - Dr. M.A. Crivelli (Argentina)
 - Prof. N.M. Emanuel (USSR)
 - Dr. W. Gallay (Canada)
 - Dr. O. Isler (Switzerland)
 - Prof. S. Nagakura (Japan)
 - Prof. A. Perez-Masiá (Spain)
- (iv) the procedure recommended to Council for election of Elected Members of the Bureau be that adopted at the Council Meetings in Cortina d'Ampezzo (1969), Washington (1971), and Munich (1973).

Council Item 8: Tentative Budgets for 1976 and 1977

Prof. Horn reported that IUPAC securities totalled \$561,890 and there was cash in hand of \$69,996 (as of 75.08.07). Payments in respect of the Madrid Conference had already reached \$181,622 (as of 75.08.15) and he expected the final expenditure to be about \$200,000 (cf. budget of \$175,000). Taking into account some \$2,000 of unbudgetted support for Conference from Spanish chemical industry, the anticipated deficit for 1975 was increased from \$14,000 (as of 75.02.18) to \$36,500. If \$26,000 was transferred from reserves to cover unspent Divisional Contingency Funds from 1974, the deficit would be reduced to \$10,500. However, there were outstanding national subscriptions for 1975 of \$21,000.

Prof. Horn said that the preliminary budget for 1976 (as of 75.02.18) had been revised and separated into a General Purposes Budget and a Publications Budget. The concern of the President to increase substantially the money made available for the scientific programmes of the Union, had been met by raising the general contingency fund from \$5,000 to \$30,000 to cover new and extended

activities. Although there was a deficit of \$9,500 on the Publications Budget, there was an excess of income over expenditure of \$19,500 on the General Purposes Budget (as of 75.09.06). The general financial forecast for 1977-8 indicated a large deficit for that biennium. Sir Harold Thompson felt that it might be necessary to spend more than the \$10,000 budgetted for contributions to Symposia in 1976.

The Treasurer was asked to mention to Council in Madrid those member countries whose subscriptions were outstanding for 1974 and 1975. The Bureau noted that the Executive Committee had decided not to support the introduction of a 10% surcharge at this time [Minute 20/75, 83rd Executive Committee (Madrid)] .

Council Item 10: Applications for Associated Organization Status

Further to the recommendations of the Executive Committee [Minutes 6.3.1-6.3.3/75, 82nd Meeting (Moscow); Minutes 25.1 and 25.3/75, 83rd Meeting (Madrid)], it was Resolved:

that the Bureau recommends Council to admit the Association of Editors of European Chemistry Journals, International Association for Water Pollution Research, International Committee on the Science of Photography, International Confederation for Thermal Analysis, and International Organization for Crystal Growth, to Associated Organization Status of the Union at Madrid.

The President said that, in general, he was well satisfied with the short statements of current activities received from existing Associated Organizations.

Council Item 11: Reports of Division Presidents and Clinical Chemistry Section

Dr. Egan reported that the Applied Chemistry Division Committee was unable to recommend continuation of the activities of the Air Quality Section beyond the Madrid Conference: the current programme was not sufficiently independent of other international programmes. Although the four continuing Titular Members of the Section should remain, a small ad hoc Committee (including one or two of these Titular Members) would be appointed to make recommendations to the Division Committee on a diversified programme, with a view to reactivating the Section prior to the 1977 IUPAC Conference. Dr. Tonks expressed concern at the slow progress in implementation of the agreed diversification of work between the Section and the Commission on Toxicology in Clinical Chemistry.

Council Item 16: Adoption of Revised Statutes and Bylaws

Sir Harold Thompson proposed to invite Sir David Martin to make a brief presentation of the revised Statutes and Bylaws to Council in Madrid. Council should be asked to accept the revision without amendment at this time or to defer it for reconsideration prior to the 1977 Conference. It was noted that the approval of two-thirds (108) of the total number of votes (161) assigned to the Adhering Organizations of the Union were needed to change the 1965 Statutes and Bylaws (Statute 13.3): about 140 delegates were expected to be present at Council.

Profs. Benoît and Kjaer referred briefly to the discussions of the Division Presidents in Madrid (Minute 2/75), and drew attention to their concern that a person who is President of a Division and who has served for 10 consecutive years as a Division Committee Member and Officer be allowed to extend his term by 2 more years. Sir Harold Thompson said that Council should be requested to permit the Bureau to exercise care over the next 2 years in implementation of the revised Statutes and Bylaws on a number of matters. There were no immediate difficulties at Madrid for Division Presidents in Office and the Statutes and Bylaws could be

modified in 1977 if necessary.

Dr. Egan tabled a paper indicating the main difficulties foreseen in implementing the revised Statutes and Bylaws within the Applied Chemistry Division. However, his Division Committee was in sympathy with the intention of the proposed changes and would work towards their implementation during the period 1975-7.

Council Item 17: Proposals Formally Received from National Bodies

Regarding the proposal from Federal Republic of Germany to abolish the Office of Secretary General of IUPAC, Sir Harold Thompson said that this Officer was charged specifically with the administration of the Secretariat (Statute 6.41) and was needed for immediate advice to the President on various matters. In view of the short 2-year term of Presidency, Dr. Cairns thought that the 4-year period for a Secretary General ensured continuity in Union affairs. From his personal experience of IUPAC affairs over recent years, Prof. Bénard was firmly against the proposal; he referred particularly to his letter (of 75.03.20) in the Council file for Madrid. Mr. Arnold pointed out the advantage to the Secretariat should the President be from outside Europe, if a Secretary General existed and was resident in Europe. It was noted that the Executive Committee was in favour of retention of this Office [Minute 21/75, page 4, 83rd Meeting (Madrid)], and that all other international scientific unions had retained a Secretary General. Sir Harold Thompson would inform Council that no Bureau Member had supported the proposal.

Further to the decision of Council [Minute 16/73, XXVII Meeting (Munich)], the National Adhering Organizations had duly been invited to submit their views in writing to the Secretariat on the proposal to amend the period of Office of the Treasurer. An overwhelming majority of those who had written were in favour of bringing the period into line with the financial year. Revised Statute 4.2 would allow Council to vary the period, but the Bureau agreed to make no recommendation on the matter.

If the Chemical Research Applied to World Needs (CHEMRAWN) proposal of USA was favourably received by Council on 9 September, Sir Harold Thompson was willing to convene a small ad hoc meeting the next day to consider what actions might be taken by the Union. Although there were many worthy aims in the proposal, Dr. Cairns said that the limited financial resources of the Union must be borne in mind before initiating any action. The President pointed out that the general subject of world agriculture needs would probably be taken up by ICSU at its General Committee meeting at Schloss Laxenburg later in the month. Sir Harold Thompson noted the suggestion of Dr. Tonks that the chemistry of disease should be added to the topics listed in the USA proposal. Dr. Isler mentioned the possibility of extending the lecture to be given by Lord Todd in Madrid into a Faraday Society-type meeting with preprinted summaries at future IUPAC Conferences.

Council Item 19: Proposals for New Bodies and Dissolution of Existing Bodies

The Bureau accepted the recommendation of the Executive Committee [Minute 21/75, page 3, 83rd Meeting (Madrid)] to support the proposal to Council from Federal Republic of Germany and from Switzerland to dissolve the Committee on Statutes and Bylaws. However, it asked for a warm vote of thanks to Sir David Martin and his colleagues to be recorded formally in the minutes. No recommendations were presented by the Division Presidents for dissolution of any existing Sections, Commissions, or Sub-Commissions: justifications in writing were provided for continuation of all these bodies [Minute 3.3.1/74, LXXX Executive Committee (London)].

Council Item 22: Ratification of Dates and Place of 29th Conference and 26th Congress

In addition to the earlier invitation from Israel, a formal invitation had recently been received for the 29th Conference (1977) to be in Poland. Sir Harold Thompson referred to his personal negotiations regarding Switzerland and Sweden, neither of which had resulted in anything definite as yet. In view of the Polish invitation, Dr. Isler thought that Switzerland would prefer to delay any offer to host the IUPAC Conference until 1979. Prof. Rangaswami said it was better to have Conference and Congress in the same country at more or less the same time; Dr. Gallay said that, even if different countries were involved, the dates should not be so widely separated as in 1975. The President asked the Executive Committee and Bureau to give consideration to these points for 1979 onwards.

At the request of the Executive Committee [Minute 14/75, 82nd Meeting (Moscow)], Sir Harold Thompson had informed the organizers of the 26th IUPAC Congress (Tokyo, 1977) of the concern that the overall scope of the programme might become too extensive. Prof. Shibata pointed out that this was the first occasion for Congress to be convened in Japan. There was always great interest in the annual meetings of the Japan Chemical Society (ca. 8,000 attendance), Pharmaceutical Society, and Agricultural Chemical Society. Some 3,000 - 4,000 participants were anticipated for the Congress and the programme must cater for the interests of the supporting societies. In view of the advanced state of preparations and of invitations having already been issued to many lecturers, Prof. Emanuel thought it was better for IUPAC not to insist now on any programme changes. Furthermore, he believed it was worthwhile to have occasionally a very large international chemistry meeting. These views were supported by Sir Derek Barton and Prof. Rangaswami. However, Prof. Ourisson suggested that those Bureau Members who attended the Congress should record their reactions and report back to the Union. Prof. Cole asked for the reservations about too large a programme to be borne in mind by the organizers of the 1979 Congress.

Sir Harold Thompson drew attention to the nonadmission of South African scientists to the 1975 IUNS meeting in Tokyo and its implications for the 26th IUPAC Congress. Prof. Shibata said that the Science Council of Japan had been in contact with the Ministry of Foreign Affairs, and it appeared that bona fide South African chemists may be granted entry visas for the Congress. The Bureau asked Prof. Shibata and the Congress organizers to continue their efforts and to report back to the Executive Committee early in 1976. If a firm assurance was not forthcoming when the Bureau met in 1976, then a decision would have to be taken about withdrawal of IUPAC sponsorship.

Minute 5/75

REPORT OF AD HOC COMMITTEE ON NUCLEAR AND RADIOCHEMISTRY

Prof. Gutmann informed the Bureau that the summary of activities and proposed programme for 1976-8, provided by Prof. S. Amiel, was unsatisfactory to the Inorganic Chemistry Division Committee. The Bureau accepted his suggestions that:

- (i) Prof. K.W. Bagnall (UK) should be added to the membership of the ad hoc Committee;
- (ii) wider terms of reference for the intended Commission, to be put forward by the Inorganic Chemistry Division Committee, should be studied by the ad hoc Committee;
- (iii) the ad hoc Committee should report back to the Bureau within one year, indicating also what should be the relationship with the present Commission on Analytical Radiochemistry and Nuclear Materials.

Minute 6/75

REPORT OF AD HOC COMMITTEE ON RECLAMATION OF SOLID WASTES

The file for the meeting contained an interim report (April 1975) from Prof. S.J. Pirt on behalf of the ad hoc Committee. A further report, supplementing the earlier views, was presented by Dr. Egan (with covering letter of 75.09.06). A Commission on Reclamation of Solid Wastes was envisaged, with the purpose of identifying problems with the collection, processing, and reclamation of solid wastes and of stimulating the appropriate governments and bodies to support key research on these problems.

On the recommendation of the Applied Chemistry Division Committee, it was Resolved:

that the Bureau recommends Council at Madrid to establish a Commission on Reclamation of Solid Wastes attached to the Applied Chemistry Division, with 8 Titular Members, of whom two should be Prof. S.J. Pirt (UK) and Prof. A.E. Humphrey (USA), the others to be proposed by the President of the Division.

Minute 7/75

REPORT OF AD HOC INTERDIVISIONAL WORKING PARTY ON DATA FLAGGING (Prof. D.N. Hume in attendance)

Prof. Hume referred briefly to his report in the Bureau file (as of 75.07.25): the list of proposed flag codes and data coded was now in its fourth draft. The ad hoc Working Party had been urged to await the deliberations of an ICSU Abstracting Board - CODATA Joint Working Group, which was considering principles of interdisciplinary and international compatibility. The IUPAC Working Party had decided in Madrid to approach the international scientific unions most closely related to chemistry in order to learn their reactions to the fourth draft and to solicit suggestions for minor changes which might increase the usefulness of the chemical data flagging list in their disciplines. The Bureau approved a request from the Working Party to arrange with the editors of a small number of representative chemical journals to have flags used on an experimental basis for a limited period of time, such as 1 year. On the basis of the practical experience so gained, the Working Party should be able to make clear recommendations to the Bureau in 1977.

Minute 8/75

PROPOSAL FOR JOINT COMMISSION ON PHOTOCHEMISTRY (INTERDIVISIONAL)

Noting that the Commission on Organic Photochemistry would like to broaden the scope of its activities, the US National Committee for IUPAC had recommended the Union to establish a Joint Commission on Photochemistry (Interdivisional), which would include organic, inorganic, physical and biochemical photochemistry. However, the Bureau accepted an alternative proposal from Prof. Kjaer simply to drop the word "Organic" from the present Commission and to appoint as Associate Members relevant experts from the other fields. Prof. Smets suggested that a macromolecular photochemist should also be included as an Associate Member.

Minute 9/75

INTERUNION COMMISSION ON BIOTHERMODYNAMICS

The Bureau had already found itself in substantial agreement with the views

of IUB and IUPAB regarding establishment of the Interunion Commission [Minute 12/74, 33rd Bureau (Brussels)]. Dr. Gallay reported that he had now been reassured by both IUB and IUPAB [Minute 3.1.4/75, 83rd Executive Committee (Moscow)], concerning the two reservations of IUPAC (level of administrative expenses and freedom of publication). The Interunion Commission could, therefore, finally be regarded as fully established from the IUPAC point of view. Its representatives on the Commission were Dr. G.T. Armstrong (USA) and Dr. I. Wadsö (Sweden).

Minute 10/75

PROPOSED DIVISION OF HEALTH AND ENVIRONMENTAL CHEMISTRY

Mr. Arnold elaborated briefly on his memorandum (of 75.01.17), which had been circulated to the Bureau in advance of the meeting. A letter from Prof. Bénard (of 75.03.20), supporting the proposal, was noted. Sir Harold Thompson said that there was no intention to implement the proposal at Madrid. Both he and Dr. Gallay reassured the Bureau that there would still be a need to retain suitable applied chemistry working programmes in a separate Division. Indeed, some input along these lines was expected from the Company Associates.

Dr. Jones felt that there would be some danger of duplication of the work of such organizations as WHO. Sir Derek Barton suggested that this could be avoided if the proposed Division was termed "Environmental and Health Chemistry". There had been much discussion of the proposal within the Clinical Chemistry Section which, according to Dr. Tonks, had concluded it stood to lose considerably in status if it became part of the new Division. Prof. Kjaer indicated that the Medicinal Chemistry Section now preferred to be attached directly to the Bureau, as a first step in the ultimate formation of a Division of Clinical and Medicinal Chemistry. Alternatively, the Section wished to be transferred to the Applied Chemistry Division because of the applied and multidisciplinary character of medicinal chemistry. However, Prof. Kjaer was happy personally for the Section to remain in the Organic Chemistry Division.

Dr. Egan referred to his recent memorandum (of 75.08.15, already circulated to the Division Presidents), in which he had considered the present organization of the Applied Chemistry Division in relationship to the possible formation of a Division of Health and Environmental Chemistry. Also, he favoured a comprehensive compilation by each Division of its existing work programmes, as recently undertaken by the Applied Chemistry Division, from which it would be easy to establish those environmental programmes existing in each Division.

The Bureau decided that a small ad hoc Committee should be set up to look, in detail, into the proposal and its implications for the Union. The Division Presidents were invited to propose names for consideration of membership of this Committee.

Minute 11/75

INTERDIVISIONAL COMMUNICATIONS

The President of the Union was concerned that on some matters where overlap of interests occurred, there seemed to be a need for better and regular communication between the Divisions. To some extent this was achieved through the annual meetings of the Division Presidents. The Bureau agreed with Sir Harold Thompson that an annual circulation among Members of Division Committees of lists of the chief projects being considered by all Commissions should be made: a short summary by each Division President should emphasize projects of special interest to other Divisions. Dr. Egan again drew attention to the comprehensive compilation of programmes of the Applied Chemistry Division (see Minute 10/75) which, if extended throughout IUPAC, could facilitate the proper development of interdivisional communication. In his opinion it would be important to include the start and finish dates plus coordinator for each project.

Minute 12/75

NOMINATIONS OF NEW MEMBERS OF IUPAC BODIES

The nomination of Prof. J. Marsel (Yugoslavia) as a Member of the Sub-Commission on Mass Spectroscopy, approved by correspondence through the Executive Committee since its 82nd Meeting, was ratified by the Bureau.

Minute 13/75

INVOLVEMENT OF YOUNGER CHEMISTS IN IUPAC AFFAIRS

The President reemphasized the reasons for the envisaged scheme, because Federal Republic of Germany had apparently misunderstood the proposal. He hoped that, by making a number of prominent younger chemists from various countries aware of the work done particularly at Commission meetings, a nucleus of possible future members would be slowly created. An immediate technical input was not necessary. The CIBA Foundation had recently offered further financial support for the Scheme and could propose the names of suitable younger chemists, but Sir Harold Thompson thought that they would have to be checked by IUPAC. An ad hoc Committee from the Royal Society had now met and elaborated a mechanism on how and when to approach industry in particular and also academics for the nomination of candidates in UK. Sir Harold Thompson looked forward to similar initiatives in other member countries. The Bureau agreed to a 3-year trial period of operation of the scheme. Candidates should be at least 30 years old and with a proven record of activity and expertise.

Minute 14/75

NOMENCLATURE MATTERS

14.1/75 Reorganization of Interdivisional Committee on Nomenclature and Symbols (IDCNS)

Sir Harold Thompson drew attention to his circular memorandum of 75.06.04 and reported on his subsequent meeting in London with Prof. M.L. McGlashan. It was essential that in making general recommendations the Union should speak with one voice, and with better liaison (see also Minute 11/75) undesirable ambiguities would be avoided. However, good progress had been made in recommending terms of reference and membership for future operation of the Interdivisional Committee (documents IDCNS/Madrid/5 and 6 dated 75.09.07). These were approved by the Bureau, subject to there being two representatives also from the Applied Chemistry Division. Prof. Horn said that there might not be sufficient money available to provide the full \$8,000 requested for 1976. In any case, the expenses of representatives from organizations outside the Union must be met from non-IUPAC funds. Prof. Gutmann asked about the future mechanism for transfer of nomenclature documents from Commissions to IDCNS, and the Bureau ruled that this must be via the relevant Division Presidents. Dr. Tonks hoped this would not slow down the processing of documents by IUPAC, and Sir Harold Thompson said that the Bureau should review the situation in due course. Although provisional nomenclature recommendations were widely distributed, final recommendations were not, and Prof. Cole suggested that this problem be discussed by IDCNS.

14.2/75 Trivial Names

At the request of Sir Harold Thompson [Minute 12.2/75, 82nd Executive Committee (Moscow)], Dr. Egan had prepared a summary document (as of 75.06.10) for consideration by the Bureau. Although the International Company Associates Group felt that the problem of trivial names was of low priority [Minute 9/75, 2nd Meeting (Paris)], Dr. Egan stressed the increasing need in international trade and commerce for some standardization of trivial names for chemical substances. The Bureau reaffirmed the view of the Executive Committee that such standardization required the attention of IUPAC. The Applied Chemistry Division Committee was asked to consider, in detail, the implications for the Union and to report back to the Bureau, which could then decide how to handle the matter in conjunction with the reorganized IDCNS.

Dr. Jones mentioned the related problem of acronyms in spectroscopy, which was currently being dealt with in the Physical Chemistry Division. Prof. Tanaka

reported that 'List of Trivial Names and Synonyms (for substances used in analytical chemistry) had just been issued as Provisional Nomenclature Appendix No. 45 (September 1975) to the Information Bulletin by the Commission on Analytical Nomenclature. There were some areas, such as pharmaceuticals, where the trivial names coverage according to Dr. Egan was already adequate and the attention of IUPAC would not be necessary.

Minute 15/75

NAMES FOR ELEMENTS 104 AND 105, AND FOR 106 ONWARDS

Sir Harold Thompson reported that little apparent progress had so far been achieved through correspondence within the neutral group of experts, although a meeting of some representatives from USA and USSR was scheduled for USSR this month. In order to expedite progress, the Bureau accepted the recommendation of the Executive Committee [Minute 21/75, page 5, 83rd Meeting (Madrid)] to ask Prof. J. Lewis to convene a meeting of the neutral group, the expenses of the three independent members to be met by IUPAC and those of the three representatives from each of USA and USSR to be met by those countries. If that meeting did not make definite recommendations to the Bureau in 1976 for the names of elements 104 and 105, then IUPAC might have to act independently and present its own recommendations.

Regarding names for elements 106 and following, the Executive Committee had agreed to inform the Bureau that it was not in favour of the adoption by IUPAC of the Inorganic Nomenclature Commission proposal. Instead, the Executive Committee recommended that the views of Sir Derek Barton should be published in the Information Bulletin for comment by the international chemical community [Minute 3.1.1/75, 82nd Meeting (Moscow)]. Prof. Gutmann tabled a letter from the Inorganic Nomenclature Commission (dated 75.09.05) pointing out that, in essence, the Barton views had been made some years earlier, but they had not been adopted by chemists. The Commission stressed that its own proposal fulfilled all reasonable demands and quoted the support of Chemical Abstracts Service for it.

Inorganic Nomenclature Commission proposal. If use of the atomic number was not acceptable, then Sir Derek Barton suggested that simple and unique systematic names might be derived by a modification of the Trivial names had already been accepted for the first one hundred elements. Systematic naming might therefore commence with element 101, ignoring the first one hundred elements. Element 106 would be most simply hexium (or sexium), 107 would be septium (or heptium), etc. Prof. Gutmann agreed to take this suggestion back for consideration within the Inorganic Chemistry Division.

Minute 16/75

RELATIONS WITH OTHER ORGANIZATIONS

The files for the meeting contained a list of official representatives of IUPAC appointed by the President to some meetings of other organizations in 1975 (Appendix A). These appointments were ratified by the Bureau.

16.1/75 Contract Work with CEE

The President reported briefly on the outcome of his visit to Brussels (75.06.06) with Prof. Truhaut for consultations with the CEE authorities. He was now convinced that the difficulties which had arisen in the collaborative work on analytical methods in relation to foodstuffs, were the fault of CEE. It was expected that:

- (i) IUPAC would receive payment for the 5 methods still under study from 1974;
- (ii) there would be a contract with CEE in 1976;

(iii) there would be a discussion later as to further contracts.

Prof. Truhaut presented a brief report of the activities of the Coordinating Committee for Analytical Methods for CEE and IARC during the period September 1974 - September 1975. He anticipated the need for a meeting of the Liaison Group of the Coordinating Committee during May-June 1976, in order to expedite the 1976 contract with CEE. Sir Harold Thompson said that the Executive Committee was doubtful of the need to extend the terms of reference of the Coordinating Committee to cover also scientific liaison between IUPAC and FAO, WHO, other international scientific unions, as proposed by Dr. Egan [Minute 22.2/75, 83rd Meeting (Madrid)].

16.2/75 Federation of European Chemical Societies (FECS)

Sir Harold Thompson referred briefly to his participation on behalf of IUPAC in the Sixth General Assembly of FECS (Paris, 75.06.13). Certain changes had been proposed in the function of the Federation, which should help to alleviate the concern of IUPAC. Nevertheless, the Bureau should continue to keep the matter under review.

16.3/75 UNESCO Contracts on Teaching of Chemistry

On behalf of the Union, Sir Harold Thompson had signed contracts with UNESCO:

- (i) to convene a meeting of chemical educators in order to advise UNESCO on its longterm plans for chemical education, especially in the biennium 1977-8;
- (ii) to plan and sponsor the publication of four further issues of the International Newsletter on Chemical Education in 1975-6;
- (iii) to prepare and publish the proceedings of the IUPAC International Symposium on Educational Technology (Madrid, 75.09.6-7).

The actions of the President were endorsed by the Bureau.

16.4/75 IUPAC-IUB Commission on Biochemical Nomenclature (CBN)

The question of whether CBN should continue as a joint Commission of the two Unions or whether IUB should in due course take over full responsibility for biochemical nomenclature, had been referred for the advice of the Organic Chemistry and Macromolecular Divisions [Minute 7.8/75, 82nd Executive Committee (Moscow)]. The Officers of the Macromolecular Division and its Nomenclature Commission had expressed a wish for CBN to remain as a joint Commission. However, Prof. Kjaer said that the Organic Nomenclature Commission had advised CBN should be dissolved: nomenclature recommendations on high-MW natural products such as enzymes should be left in the hands of IUB, whereas recommendations for low-MW natural products should be dealt with by a Sub-Commission of the Organic Nomenclature Commission. An exchange of observers was envisaged on these matters. Prof. Kjaer stressed that a period of 1-2 years would be needed for implementation of these ideas. Meanwhile, nothing definite had to be adopted by IUPAC in Madrid.

Dr. Tonks mentioned the interest of clinical chemists in enzyme problems and asked that the views of the Commission on Quantities and Units in Clinical Chemistry should be obtained on the various proposals. Dr. Isler was strongly in favour of maintaining the present level of IUPAC collaboration with IUB.

The Bureau agreed to accept, in principle, the advice of the Organic Chemistry Division as to the future of CBN and requested a report in 1976 on progress towards

implementation of the various proposals.

16.5/75 Membership of China

No reply had yet been received by Sir Harold Thompson in response to his letter of 75.01.01, inviting the Scientific and Technical Association of the People's Republic of China (Peking) to apply to join IUPAC. Most of the ICSU Unions were still against the expulsion of Republic of China (Taiwan) from their memberships, in spite of pressures from UN-agencies such as UNESCO and WHO. The Bureau reaffirmed the stand of IUPAC against such political pressures. It seemed that the People's Republic of China was only just beginning to realise there was a significant difference between governmental and nongovernmental organizations. Prof. Cole suggested that the invitation to join IUPAC should be renewed.

16.6/75 COSPAR

COSPAR had recently reiterated its invitation for IUPAC to participate in the Materials Science in Space project. Apart from the matter of surface chemistry, it did not seem that IUPAC could make a worthwhile contribution, particularly bearing in mind the financial implications of its participation. The Bureau noted that the Executive Committee was still unconvinced the Union should appoint a representative to COSPAR [Minute 21/75, 83rd Meeting (Madrid)]. It was agreed that the Secretary General should continue to receive documentation from COSPAR and send anything relevant to the appropriate IUPAC bodies.

16.7/75 Increasing Relationship with WHO and Financial Implications

The President referred briefly to the discussions of the Executive Committee on this matter [Minute 23.4/75, 83rd Meeting (Madrid)]. Dr. Isler suggested that it might be worthwhile for IUPAC to try and obtain some financial support from Swiss chemical industry for participation of the Union in appropriate WHO programmes. In view of the successful application by SCOPE for funding from UNEP, Dr. Egan wondered whether IUPAC should also approach UNEP for help.

Minute 17/75

COMPANY ASSOCIATES SCHEME (Drs. J.W. Barrett and W. Stoll in attendance)

17.1/75 Ex Officio Member on Bureau

Although the Executive Committee had agreed that the Company Associates might, in due course, have an ex officio Member on the Bureau [Minute 3.3/75, 82nd Meeting (Moscow)], Sir Harold Thompson thought it was premature to make an appointment at this time, and this was agreed.

17.2/75 Proposed Discontinuation of Half-price Subscription to PAC

On the recommendation of the Executive Committee [Minute 3.3/75, 82nd Meeting (Moscow)], it was Resolved by the Bureau:

that the privilege for Company Associates to receive Pure and Applied Chemistry at half price should be withdrawn at the end of 1975.

17.3/75 ICAG: Image of Chemistry

Dr. Barrett presented a status report on developments within the International Company Associates Group (ICAG) and the associated National Groups since the last Bureau Meeting [Minute 16/74, 33rd Bureau (Brussels)]. The Divisional listings of current work programmes had been found useful and ICAG would like to see them

developed further to emphasize projects where industrial interest and involvement were desirable. Some of the savings from discontinuation of the half-price subscription privilege to PAC (see Minute 17.2/75) might be used advantageously to improve and increase the communication by IUPAC of its programmes to industry and others through:

- (i) a concise biennial report of perhaps 20-30 pages;
- (ii) a newsletter issued half-yearly, summarizing progress on selected projects and immediate future programmes.

Deliberations of Company Associates through ICAG had resulted in identification of the following areas of chemistry that might well receive new or increased attention by the Union:

- (i) Education of Chemists in Industry - already discussed at Madrid with the Committee on Teaching of Chemistry;
- (ii) Chemistry of Mineral Resources - it had been ascertained that IUGS was not active in this particular field;
- (iii) Chemicals and Chemistry of the Oceans - an interdivisional approach was desirable;
- (iv) Catalysis - a more continuous and broader IUPAC activity, also interdivisional, was suggested;
- (v) Improvement of the Image of Chemistry (see below).

Dr. Jones referred to the existing work on catalysis of the Commission on Colloid and Surface Chemistry, an extension of which was already envisaged. Dr. Barrett said that ICAG would welcome a dialogue with the Commission on these matters: the dialogue in Madrid with the Sub-Commission on Thermodynamic Tables would undoubtedly stimulate greater industrial interest in the Tables. Dr. Barrett reported that an ad hoc Working Group, with two representatives from each of the Committee on Teaching of Chemistry and of ICAG, would look into the Education of Chemists in Industry. The Bureau approved a similar course of action for the other areas of study suggested by ICAG. As a first step, Dr. Barrett would try to convene a meeting of interested parties in Madrid on 10 September. Also, it was agreed to set a deadline for each Division to submit its listing of work programmes so that the lists could be made available by say 31 December.

A memorandum from Dr. Stoll on the Image of Chemistry, already presented to ICAG, had been made available to the Bureau. After making some additional comments, he proposed that IUPAC should create a small ad hoc Committee:

- (i) to organize contacts with the National Adhering Organizations in respect of problems on the Image of Chemistry;
- (ii) to collect material from member countries on the Image of Chemistry, i.e., on the actual status, activities, experience, etc;
- (iii) to distribute the material collected and sifted to those National Adhering Organizations which wished to receive such information and exchange of experience.

The Bureau asked Drs. Barrett and Stoll to elaborate the steps to be taken within IUPAC and to report back to the Executive Committee early in 1976.

17.4/75 Representatives of Company Associates as Associate Members on Division Committees

The British National Committee for Chemistry had indicated its support for extension of Associate Members to Division Committees. However, the Division Presidents in Madrid (Minute 2/75, page 3) had felt that it was best to extend the principle of Coopted Members to Division Committees, as already operated by the Organic Chemistry and Macromolecular Divisions. Associate Membership should continue to be restricted to Commissions.

Minute 18/75

PUBLICATIONS

18.1/75 Official Publisher to IUPAC

The President had served Butterworths with notice of termination of the present publishing contract at the end of 1975, and he had accepted the recommendation of the Committee on Publications (75.05.15) that Pergamon Press be appointed as official publisher to the Union from the beginning of 1976. He elaborated on the various negotiations which had taken place both prior to and during the Madrid Conference, resulting in a form of contract agreeable to Pergamon and IUPAC.

In order to encourage plenary lecturers at IUPAC symposia to supply their papers in a form suitable for direct printing in Pure and Applied Chemistry, Pergamon would pay \$2 per page for all material acceptable as camera-ready copy. Prof. Ourisson suggested that such monies should be kept separate from royalties in the IUPAC accounts. Sir Harold Thompson said that care should be taken to preserve the principle of nonpayment of authors for their work on behalf of the Union: they should be reimbursed solely for the provision of camera-ready copy.

Prof. Ourisson felt that Pergamon might be interested in undertaking, under its contract with IUPAC, publication of the Tables of Stability Constants and material arising from the solubility data project. In addition to payment for camera-ready copy, these projects required financial assistance for the actual compilation work which might be set against the eventual royalties to IUPAC. Sir Harold Thompson asked for some estimates of the compilation costs to be provided so that the Bureau could make a proper judgement on the matter.

18.2/75 Transfer of Information on IUPAC Activities

The Executive Committee had supported a recommendation that a study should be made of methods of improving the transfer of information on IUPAC [Minute 3.3/75, 82nd Meeting (Moscow)]. It was agreed by the Bureau that the study should be undertaken by the Committee on Publications, taking into account the suggestions of ICAG (see Minute 17.3/75).

18.3/75 Thermodynamic Tables Project: Review of Royalties

Starting with the sales in 1972 and for a trial period of 3 years, 75% of the royalties received by IUPAC on publications arising from the Thermodynamic Tables Project had been paid to the Project Centre [Minute 18.2/74, LXXX Executive Committee (London)]. In view of the strong support expressed by ICAG for the Tables [Minute 3, 3rd Meeting (Madrid)], the Bureau accepted the recommendation of the Executive Committee to extend the royalty arrangement for 2 more years. It should then be more clear if industry was actually purchasing the Tables and even providing financial support to the Project Centre.

Minute 19/75

SPONSORSHIP: REPRESENTATION, SPONSORSHIP, SUBVENTION

19.1/75 Freedom for Attendance of Bona Fide Chemists

Sir Harold Thompson referred to various visa problems encountered during 1975: Prof. O. Wichterle to the 25th IUPAC Congress in Jerusalem; Prof. A.S. Kertes to International Conference on Colloid and Surface Chemistry in Budapest; implications for the 26th IUPAC Congress in 1977 (see Minute 4/75, page 5). The Bureau reaffirmed the adherence of the Union to the principle of freedom for attendance of bona fide chemists and to the recently approved mechanism for withdrawal of sponsorship [Minute 14.1/74, page 11, 33rd Meeting (Brussels)] .

19.2/75 Ratification of Symposia Sponsored by Correspondence through Executive Committee

The granting of sponsorship, by correspondence through the Executive Committee since its 82nd Meeting, was ratified by the Bureau for the symposia in Appendix B.

19.3/75 Ratification of Official Representatives of IUPAC to Symposia in 1975

Those appointments of official representatives of IUPAC to its sponsored symposia in 1975, made by the President since the 82nd Executive Committee Meeting (Appendix C), were ratified by the Bureau.

19.4/75 Symposium on Techniques for Information Retrieval in Chemistry

Sir Harold Thompson reported that arrangements had been made to hold the Symposium at the Royal Society in London on 9-10 November 1976. A preliminary list of main speakers had been drawn up and online displays of information retrieval would be featured. Organization would be in the hands of the UK Chemical Society, with a registration fee of £15 - 20(with lunch). A budget had not yet been submitted to IUPAC, but a subvention of £2,000 was granted as a deficit guarantee by the Bureau.

19.5/75 V International Fermentation Symposium (Berlin, 76.06.28-76.07.03)

In view of the high level of budgetted expenditure for secretarial and office provision, hire of lecture rooms, and social programme, the Bureau felt unable to grant a subvention.

19.6/75 Proposed IUPAC-IUPHAR Symposium

Dr. Tonks reported that no information had been received by the Clinical Chemistry Section or its Commission on Toxicology from IUPHAR in response to the offer of help from the Chairman of the Commission, Prof. F.W. Sunderman, regarding a symposium in 1976 on mechanism of drug action.

19.7/75 XVII International Conference on Coordination Chemistry (Hamburg, 76.09.6-10)

The Organizers had enquired if it would be possible for IUPAC to keep some money in reserve in case a subvention was needed from the Union. The Bureau decided to take no action, pending submission of a draft realistic budget.

19.8/75 XVI Prague Microsymposium on Macromolecules/ V Discussion Conference on Macromolecules (Prague, 76.07.12-16)

Supported by Macromolecular Division. Sponsorship granted, but on recommendation of Prof. Benoit with publication only of 8-9 plenary lectures from XVI Microsymposium by IUPAC.

19.9/75 VI IUPAC Symposium on Photochemistry (Aix-en-Provence, 76.07.19-23)

Supported by Organic Chemistry Division. Sponsorship granted, with publication of 13 plenary lectures by IUPAC.

19.10/75 VII International Mass Spectrometry Conference (Florence, 76.08.30 - 76.09.03)

Supported by Physical Chemistry Division. Sponsorship granted and IUPAC publication rights waived.

19.11/75 Microsymposium on Longterm Properties of Polymers and Polymeric Materials (Stockholm, 76.08.30 - 76.09.01)

Supported by Macromolecular Division. Sponsorship granted, with IUPAC publication rights waived.

19.12/75 IV International Congress of Pesticide Chemistry (Zürich, 78.07.24-28)

Supported by Applied Chemistry Division. Sponsorship granted, with publication of 4-5 plenary lectures by IUPAC.

19.13/75 Presymposium on Naturally Occuring Sulfur Compounds (Jablonna, 76.07.6-10)

Supported by Organic Chemistry Division. Sponsorship granted, with publication of 6-8 plenary lectures by IUPAC.

19.14/75 International Symposium on Advances in Smoking of Foods (Warsaw, 76.09.7-10)

Supported by Applied Chemistry Division. Sponsorship granted, with publication of 6 plenary lectures by IUPAC.

Minute 20/75

REPORT OF INTERDIVISIONAL COMMITTEE ON MACHINE DOCUMENTATION

(Prof J.E. Dubois in attendance)

The report of Prof. Dubois had arrived in the hands of the Executive Secretary only on the evening of 6 September, although the President had requested its submission by 6 August. The Bureau decided that this was too late for proper consideration in Madrid, and it was deferred for evaluation at a later date.

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The Meeting closed at 18.15.

Chairman: Robert C. Cairns

Date: Oct. 11, 1976

OFFICIAL REPRESENTATIVES OF IUPAC
AT MEETINGS OF OTHER ORGANIZATIONS
1975

Special Meetings of CID Commission on Terminology (Frankfurt, Federal Republic of Germany: 75.1.21; Paris, France: 75.4.18) - Prof. H. Van Olphen

55th Session of WHO Executive Board (Geneva, Switzerland: 75.1.20-31) - Dr R. Morf

Advisory Panel of ISO/TC 12: Quantities, Symbols, Conversion Factors and Conversion Tables (Geneva, Switzerland: 75.4.1-4) - Prof. M.L. McGlashan

9th Meeting of ISO/TC 34/SC 5: Agricultural Food Products/Milk and Milk Products (London, UK: 75.4.7-8) - Dr K.A. Williams

19th Session of Joint FAO-WHO Expert Committee on Food Additives (Geneva, Switzerland: 75.4.14-23) - Dr R. Marcuse

Annual Meeting of CID Bureau (Paris, France: 75.4.25) - Prof. C. Paquot

WHO Task Group on Environmental Health Criteria for Lead (Geneva, Switzerland: 75.4.29-75.5.5) - Prof. R. Bourdon

28th World Health Assembly/56th Session of WHO Executive Board (Geneva, Switzerland: 75.5.13-75.6.2) - Dr R. Morf

3rd Meeting of ISO/TC 147: Water Quality (Budapest, Hungary: 75.5.14) - Dr P.O. Bethge

3rd Meeting of ISO/TC 146: Air Quality (Paris, France: 75.5.21-23) - Mr J.L. Monkman

Annual General Assembly of FECS (Paris, France: 75.6.13) - Prof. Sir Harold Thompson

Annual Meeting of ICSU Abstracting Board (Brussels, Belgium: 75.6.22-28) - Dr J.W. Barrett

FECS Working Party on Analytical Chemistry (Budapest, Hungary: 75.8.25) - Prof. T.S. West

APPENDIX B

SPONSORSHIP OF SYMPOSIA APPROVED BY CORRESPONDENCE
THROUGH EXECUTIVE COMMITTEE SINCE ITS 82nd MEETING

V International Conference on Nonaqueous Solutions (Leeds, UK: 76.7.6-9)

V International Conference on Medicinal Chemistry (Paris, France :
76.7.19-22)

XVII International Conference on Coordination Chemistry (Hamburg,
Federal Republic of Germany: 76.9.6-10)

V International Conference on Crystal Growth (Boston, USA: 77.7.17-22)

International Symposium on Analytical Chemistry (Birmingham, UK:
77.7.17-22)

VI International Symposium on Magnetic Resonance (Banff, Canada:
77.5.19-26)

APPENDIX C

OFFICIAL REPRESENTATIVES OF IUPAC TO SYMPOSIA
IN 1975 MADE BY PRESIDENT SINCE 82nd EXECUTIVE COMMITTEE MEETING

- V International Conference on Atomic Masses and Fundamental Constants
(Paris, France: 75.6.3-7) - Prof. A.H. Wapstra
- I Symposium International sur la Chimie Heterocyclique Minerale (ou
Inorganique) (Besancon, France: 75.6.16-19) - Prof. O. Glemser
- International Microsymposium on Polymerization of Heterocycles : Ring
Opening (Jablonna, Poland: 75.6.23-25) - Prof. H. Benoit
- XII European Congress of Molecular Spectroscopy (Strasbourg, France:
75.7.1-4) - Prof. N. Sheppard
- IV Bratislava Conference on Polymers : Modified Polymers, Their Preparation
and Properties (Bratislava, Czechoslovakia: 75.7.1-4) - no appointment
made
- 25th IUPAC Congress (Jerusalem, Israel; 75.7.6-11) - Prof. Sir Harold
Thompson
- International Symposium on Macromolecules (Jerusalem, Israel: 75.7.13-18)
- Prof. H. Benoit
- IX International Congress of Clinical Chemistry (Toronto, Canada: 75.7.13-18)
- Dr. D.B. Tonks
- XV Prague Microsymposium on Macromolecules : Degradation and Stabilization
of Polyolefins (Prague, Czechoslovakia: 75.7.21-24) - no appointment made
- IV International Symposium on Carotenoids (Berne, Switzerland: 75.8.25-29)
- Prof. W. Klyne
- IV International Conference on Chemical Thermodynamics (Montpellier,
France: 75.8.26-30) - Prof. S. Sunner
- International Symposium on Marine Natural Products (Aberdeen, UK: 75.9.8-11)
- letter of greetings sent
- Round Table on Study and Applications of Transport Phenomena in Thermal
Plasmas (Font Romeu, France: 75.9.12-16) - Prof. H. Suhr
- XVIII Colloquium Spectroscopicum Internationale (Grenoble, France:
75.9.15-19) - Mr. L.S. Birks
- International Conference on Colloid and Surface Chemistry (Budapest,
Hungary: 75.9.15-20) - Dr. K.J. Mysels
- International Symposium on Plasma Chemistry (Rome, Italy: 75.9.18-23)
- Dr. C.W. Beckett
- III International Symposium on Bioelectrochemistry (Jülich, Federal
Republic of Germany) - Prof. J. Jordan