#### INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

#### MINUTES OF 39th BUREAU MEETING

#### HELD AT FONDATION UNIVERSITAIRE, BRUSSELS

ON

FRIDAY, 1st SEPTEMBER 1978, 9.00-17.25

AND

SATURDAY, 2nd SEPTEMBER 1978, 9.00-11.50

#### PRESENT:

Prof. G. Smets - President, in the Chair

Dr. R. W. Cairns - Past-President
Prof. H. Zollinger - Vice-President
Prof. G. Ourisson - Secretary General

Prof. O. Horn - Treasurer

Prof. A. Abou-E1-Azm

Dr. J. W. Barrett

Prof. Sir Derek Barton

Prof. A. R. H. Cole

Prof. N. M. Emanuel

Dr. O. Isler

Prof. A. Kjaer

Prof. J. Michalski

Prof. S. Nagakura

Prof. C. G. Overberger

Prof. A. Perez-Masia

Prof. C. N. R. Rao

Elected Members

Dr. M. Roth

Prof. S. Sunner

Prof. N. N. Greenwood

Prof. P. Yates

Prof. V. A. Kabanov

Prof. T. S. West

Prof. H. Suomalainen

Section/Division Presidents

#### IN ATTENDANCE:

Dr. M. Williams

Executive Secretary

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#### INTRODUCTORY REMARKS AND FINALIZATION OF AGENDA

The following items were added to the agenda circulated by the Executive Secretary (78.08.16) on behalf of the President before the Meeting:

- 2.2.4 Nominations of New Members of IUPAC Bodies (Minute 20/77, 38th Meeting)
- 3.3 Overrepresentation (Minute 3.4.2.7/78, 90th Meeting)

Minute 2/78

#### MINUTES OF 37th AND 38th MEETINGS OF BUREAU

2.1/78 Amendments and Approval of Minutes

The Minutes of the 37th and 38th Meetings of the Bureau were approved.

- 2.2/78 Matters Arising from Minutes
- 2.2.1/78 Future Organization of Pesticide Chemistry within IUPAC (Minute 5/77, page 5, 37th Meeting)

The Bureau noted (letter to Prof. H. Suomalainen from Dr. H. Frehse, 78.08.07) that the Commissions on Terminal Pesticide Residues and on Pesticide Residue Analysis would meet as a single body at Davos, with a view to amalgamation into a new Commission on Pesticide Chemistry. The work load after Davos would necessitate 12 Titular Members for an initial period.

2.2.2/78 Nuclear and Radiochemistry (Minute 6/77, 37th Meeting)

Discussion of the related proposal for a Commission on Radiation Chemistry (Item 3.1 of agenda: Minute 3.2.2/78, 90th Executive Committee - Villefranche) was taken at this time.

Prof. Sunner expressed the opinion that formation of a Commission on Ionized Radiation Chemistry, if attached to the Physical Chemistry Division, should be delayed. His Division had more urgent priorities, namely upgrading to Commission status of existing Subcommittee activities on plasma chemistry and chemical kinetics. In any case, he believed ionized radiation chemistry to be interdivisional in character.

Prof. Greenwood said that an increasing number of subjects were interdivisional and could not easily be allocated within the existing structure of IUPAC. Thus, some worthwhile aspects of nuclear and radiochemistry could not readily be absorbed by the Commission on Analytical Radiochemistry and Nuclear Materials. Prof. Smets pointed out that the interdivisional character of photochemistry had apparently been met satisfactorily within the Union, by locating a Commission in the Organic Chemistry Division but having representation on it from the Physical Chemistry, Inorganic Chemistry, and Macromolecular Divisions.

Profs. Ourisson and West reported on discussions of the Section/Division Presidents at Brussels (Minute 2.2/78) with respect to funding new activities of IUPAC. Of the existing 35 Commissions, 21 had a full complement of 8 Titular Members, but the other 14 Commissions were smaller, with an overall average of 7.1. It might therefore be possible for some Commissions to reduce their Titular Membership below 8 without impairing their efficiency. If the average could be reduced to 6.5, it would be possible to create three

new Commissions. The Section/Division Presidents had agreed to explore these possibilities with their Commission Chairmen before Davos.

The Bureau decided to await the recommendations of the Section/Division Presidents at Davos, after they had considered a status report from Prof. West on inclusion of aspects of nuclear and radiochemistry by the Commission on Analytical Radiochemistry and Nuclear Materials.

#### 2.2.3/78 Image of Chemistry (Minute 8/77, 37th Meeting)

The Executive Secretary reported a poor response to the request for each NCAG Convener to supply a short summary of relevant past, current, and planned activities in his country relevant to the image of chemistry. A reminder letter had been circulated recently, which Dr. Barrett anticipated would bring forth some additional national summaries to supplement the Stoll report. Prof. Michalski said that a report would be available from Poland even though there were no Company Associates as yet in that country.

## 2.2.4/78 Nominations of New Members of IUPAC Bodies (Minute 20(ii)77, 38th Meeting)

In spite of reminders, the Executive Secretary reported that the National Adhering Organizations in Brazil and Italy had not yet endorsed, in accordance with Bylaw 4.304 the nomination at Warsaw of certain chemists from those countries as new Members of IUPAC bodies. The Bureau decided that:

- (i) the President of the Union should advise Brazil and Italy that, without opposition in writing by a stipulated deadline, the new nominations would be considered by IUPAC as endorsed;
- (ii) all future letters to National Adhering Organizations should state that new nominations would be assumed as endorsed if no answer was received by IUPAC within four months.

Minute 3/78

#### MINUTES OF 88th-90th MEETINGS OF EXECUTIVE COMMITTEE

The Minutes of the 88th-90th Meetings of the Executive Committee were recorded as having been received officially by the Bureau.

# 3.1/78 <u>Late Payment of National Subscriptions</u> (Minute 3.4.2.6/78, 90th Meeting)

Prof. West said that he believed the Section/Division Presidents would not be happy with the introduction of a sanction requiring nonreimbursement of Titular Members of IUPAC bodies for travel and subsistence expenses if their country was in arrears with its subscription.

## 3.2/78 Names for Elements 104, 105, and for 106 Onwards (Minute 5/78, 90th Meeting)

Prof. Emanuel reported that Prof. G. N. Flerov was now actively organizing, with approval of the necessary Soviet authorities, an international scientific symposium on "New Elements and Their Names Now and in Future". Sir Derek Barton said that his preferred title for the symposium, "Synthesis and Properties of Elements of Atomic Number Greater than 103", might better facilitate participation of scientists from USA. The Bureau recommended that:

- (i) the symposium should be entitled "Synthesis and Properties of New Elements",
- (ii) an Advance Information Questionnaire should be sent for completion by Prof. Flerov in respect of an official application for sponsorship of the symposium by IUPAC.

### 3.3/78 Overrepresentation (Minute 3.4.2.7/78, 90th Meeting)

Prof. Smets said that he had looked carefully into the matter of multiple commitments for persons within IUPAC, and the Executive Committee had approved a proposal that, in general, commitments for IUPAC should be limited to three per person from Davos onwards, exceptions to be judged by the President and Executive Committee according to the needs of the Union (Minute 15.2.5/78, 91st Executive Committee - Brussels). After being reassured by the individual Section/Division Presidents that they foresaw no problems arising from the proposal, it was endorsed by the Bureau as a guideline for implementation at Davos and thereafter.

Minute 4/78

#### FINANCIAL MATTERS

#### 4.1/78 Current Financial Status

The Treasurer reported that the current financial status (as at 78.08.18) was US-\$58 367 in liquid funds and US-\$145 000 in short-term investments. Although IUPAC had adequate reserves (bonds and shares), care should be taken with its financial commitments: income was relatively static and the buying power of the US-dollar was fluctuating badly.

The approved IUPAC Financial Guidelines and Procedures (Minute 3.4.1/78, 90th Executive Committee - Villefranche) had recently been circulated to Officers of all IUPAC bodies. Prof. Yates expressed dissatisfaction with the building of forward budgets on immediate past accounts using agreed inflationary indexes. Prof. West reminded the Bureau that the Section/Division Presidents would still prefer their forward budgetting and contingency funding to be made on a two-year basis (Minute 5/77, page 3, 37th Bureau - Warsaw). Prof. Horn believed that the main omission from the Guidelines was provision for a contingency allowance for administrative expenses in a General Assembly year, other than by carrying forward unused funds from the previous year.

#### 4.2/78 IUPAC Per Diem Allowance

The Bureau accepted the recommendation of the Executive Committee (Minute 17.1/78, 91st Meeting - Brussels):

- (i) to raise the IUPAC per diem to US-\$45.00 for the rest of 1978,
- (ii) to ask the Finance Committee to reconsider with the IUPAC Banker whether it was possible for the financial transactions of the Union to be conducted in a more stable currency than the US-dollar, or to introduce a system to take account of the fluctuating value of the US-dollar,
- (iii) to await the report of Dr. P. J. Agius to the Finance Committee, investigating various possibilities to counteract inflation/deflation effects on the IUPAC per diem when fixed at the start of each year.

## 4.3/78 Proposal from Committee on Teaching of Chemistry

After careful consideration of a letter from the Secretary of the Committee

on Teaching of Chemistry (dated 78.07.28) regarding its budgettary requirements for 1979, the Bureau decided:

- (i) to carry over to 1979 from the US-\$10 000 budgetted for financial subventions to IUPAC-sponsored symposia in 1978, US-\$2 000 for the International Conference on Chemical Education (Dublin, 79.08.27-31), specifically to help cover travel and subsistence expenses of Mr. T. R. Hitchings (New Zealand) and Dr. R. A. Kulkarni (India);
- (ii) to provide a minimum of US-\$1 500 and hopefully US-\$2 500 should it be needed for producing two issues in 1979 of the <u>International Newsletter</u> on Chemical Education;
- (iii) not to provide any financial support from IUPAC for the Newsletter after 1979;
- (iv) if no financial support for the Newsletter was available after 1979 from UNESCO or other non-IUPAC sources, appropriate chemistry education material should be published in the proposed new IUPAC news journal.

#### 4.4/78 Mandatory Allocation of Membership Categories

The Bureau endorsed the acceptance by the Executive Committee (Minute 3.4.2.4/78, 90th Meeting - Villefranche) of the recommendation of the Finance Committee that, from the views submitted earlier in the year by National Adhering Organizations, there was no justification to move to mandatory allocation of membership categories at Davos. Also, it noted the Finance Committee view that there was no evidence to suggest a better criterion than chemical turnover as the basis of IUPAC membership categories. A more detailed analysis was underway by the Finance Committee of all views received from National Adhering Organizations, but it was unlikely to alter the interim conclusions.

Minute 5/78

#### FUTURE IUPAC GENERAL ASSEMBLIES

#### 5.1/78 Arrangements for 30th General Assembly

Kuoni had not submitted proposals whereby participants could be reimbursed by the Union at about 75% of the economy class air fares (Minute 4.1/78, 90th Executive Committee - Villefranche). Prof. Smets had therefore directed the Secretariat to obtain proposals from other travel agencies in various parts of the world for reduced travel to Davos, the use of a single agency not to be recommended by IUPAC.

The proposed invitation letter and various enclosures to be distributed in October 1978 to all possible participants, was referred to briefly by Prof. Zollinger in presenting a status report on arrangements for the Assembly. The Executive Secretary explained in detail the financial basis for reimbursement of Titular Members, agreed in principle at Villefranche. Prof. Zollinger stressed that the dates for the Assembly were outside the main holiday season in Davos and off-season hotel rates had been granted to the Union.

The Bureau approved:

- (i) the proposed invitation letter and enclosures for the Assembly,
- (ii) the recommendation of the Executive Committee (Minute 17.2/78, 91st Meeting Brussels) to raise the per diem for Davos to US-\$45.00 and to add the extra money (about US-\$10 000) to the total budget of US-\$260 000.

# 5.2/78 Reconsideration of Policy for All IUPAC Bodies to Meet at General Assembly

A formal resolution was presented by Prof. West, on behalf of the Section/Division Presidents, that they were unanimous on the need for Commissions to continue to meet at each Assembly in order to interact with their Section/Division Committees and each other and also to have access to the Officers and permanent staff of the Union (Minute 8.3/78, Section/Division Presidents - Brussels). Ways and means to effect economies and minimize costs were suggested, including holding the Assembly on a three-year cycle.

Profs. Kjaer, Perez-Masià, Michalski, and Overberger spoke in favour of the resolution, which was accepted without dissension by the Bureau. Prof. Ourisson commented that, in effect, the established format for the Assembly had been reexamined critically and found to be satisfactory. Dr. Cairns was concerned about a possible lack of invitations to host future Assemblies because of the increasing financial implications of the present format. However, Prof. Perez-Masià said it was the duty of the Officers of the Union to take an initiative and ensure that invitations were forthcoming.

Prof. Zollinger agreed to evaluate, with the Treasurer, the written replies of the Section/Division Presidents to the circular letter of Prof. Smets (78.05.22). It was agreed that he should first invite the National Adhering Organizations and Titular Members of all IUPAC bodies also to comment, with a view to Prof. Horn and himself reporting to the next meeting of the Executive Committee.

Minute 6/78

#### REPORTS OF SECTION/DIVISION PRESIDENTS

#### 6.1/78 Reports of Section/Division Presidents

In accordance with Bylaw 4.109, the Section/Division Presidents had submitted written reports on the activities of the Sections/Divisions since the General Assembly in Warsaw. The Bureau agreed that the reports should be published in Information Bulletin 1978, No. 3: any additional items were to be communicated to the Secretariat by 15th September.

Dr. Roth stressed the important work being done by the Commission on Quantities and Units in Clinical Chemistry and its interaction with relevant bodies in the various Divisions. The recommendations were being introduced to and adopted by the medical community, which had not previously used SI units. A Subcommittee on Environmental and Occupational Toxicology of Cadmium had recently been set up.

Prof. Sunner mentioned that arrangements were now in hand to publish at the start of 1979 a new version of Manual of Symbols and Terminology for Physicochemical Quantities and Units (3rd Edition, 1975). He regretted that information was not available on the activities of the Subcommittee on Plasma Chemistry and of the Commissions on Electrochemistry and on Molecular Structure and Spectroscopy. That information should be received in time for inclusion in the Information Bulletin.

Prof. Greenwood said that revised tables of isotope abundancies, including changes adopted in Warsaw, had now been prepared. A major revision of Nomenclature of Inorganic Chemistry (2nd edition, 1971) was being undertaken over the next few years.

Prof. Yates dealt briefly with arrangements for future meetings in the various series of international organic chemistry symposia for which his Division was responsible. Initiatives had also been taken to organize symposia in four new fields of current intense activity. Prof. Zollinger suggested that the Union might advantageously adopt a policy of sponsoring only top quality symposia, so that IUPAC sponsorship was meaningful. In addition, he expressed doubts whether poster sessions always ensured high standards at meetings. Sir Derek Barton said that care was also needed in the use of the 10-minute sessions for presentation of papers. Prof. Kabanov was not unhappy with poster sessions, but he stressed the need to set high standards for the main lecture presentations.

Prof. Kabanov reported on some aspects of meetings of the Macromolecular Division held in London during the previous few days. The Division Committee would be recommending that IUPAC sponsorship should be granted to symposia in Ghent (1979) and Karlovy Vary (1980), but that international participation for a meeting in Madras (1980) should first be improved. Collaborative work was to be started through three new working parties of the Commission on Polymer Characterization and Properties on thermal properties of polymers, surface properties of polymer films and fibres, and kinetic parameters for radical polymerization.

Prof. West indicated that initial plans had been made to set up a multilingual analytical dictionary to back up the recently published <u>Compendium of Analytical Nomenclature</u>, which was itself to be updated, revised, and rearranged over the next five years. In order to maintain the momentum of the solubility data project, the Bureau would be requested at Davos to allow Prof. A. S. Kertes a second two-year extension beyond his statutory period of eight consecutive years as a Titular Member of the Commission on Equilibrium Data. Prof. Ourisson was sympathetic to the request in view of the extensive publication implications for IUPAC.

Prof. Suomalainen said that work in the Commissions on Water Quality and on Atmospheric Environment was now progressing satisfactorily. With the formation of single Commissions at Davos on Food Chemistry and on Pesticide Chemistry and with recommendations to be submitted there on new projects (see Minute 6.2/78), the programme of the Applied Chemistry Division would be strengthened and diversified. Prof. Suomalainen tabled the initial report of the Subcommittee on New Projects, set up by the Applied Chemistry Division at Warsaw to report on:

- (i) IUPAC projects of applied interest,
- (ii) Projects which might be candidates for transfer or joint study,
- (iii) Neglected areas of industrial or environmental interest appropriate for IUPAC study.

The Subcommittee had agreed to conduct a survey to draw up a list of suggestions for consideration by him and transmission with his recommendations to the Bureau in Davos.

6.2/78 Liaison between Officers of IUPAC and Officers of Divisions/Commissions

Prof. Smets said that direct contact between Officers of Sections/Divisions, or even Officers of Commissions, and those of the Union was highly desirable. Only by exchange of ideas and personal interaction could the Union Officers become aware of existing problems. From such

contacts a general policy for the future of IUPAC could be framed and new activities initiated. New interdivisional activities would have to be considered increasingly in the near future. The present framework of IUPAC was too rigid and lacked the ability to undertake quickly any new problems arising. The administrative working procedure was much too slow. It was his belief that an annual meeting of Section/Division Presidents with the Union Officers was the very minimum: it should be supplemented by direct correspondence, by making more use of the telephone, or if necessary by meeting. An increase in direct contacts would avoid any unnecessary slowdown of the work caused by the administrative procedures, accelerate the solution of problems of a nonadministrative nature, and avoid misunderstandings.

The Secretary General expressed his agreement with the views of the President, not only to expedite and improve the relations between the Union Officers and those of the various IUPAC bodies, but also because he felt that it was a dangerous trend, though an understandable one, to use automatically the services of the IUPAC Secretariat as a relay for any discussion even of a preliminary exploratory nature; that tended to overextend the small staff of the Secretariat. However, the Secretary General stressed that the Secretariat should in every case be informed fully, and very explicitly, of any conclusions reached.

Dr. Barrett advocated better use being made for communication of telex, because a printed record was available. Prof. Ourisson agreed to review the possibility of installing telex at the Secretariat. The Bureau agreed on the desirability of including telephone and telex numbers for all members of IUPAC bodies in future biennial Membership Lists.

## 6.3/78 Proposal for Experimental Modification of IUPAC Organizational Structure

Prof. Overberger introduced a proposal from the US National Committee for IUPAC for Divisional membership of the Union by external individuals on payment of an annual subscription. This would entitle them to participate in elections to Division Committees and Commissions and to receive some publication(s) of the Union. Changes to the IUPAC Statutes and Bylaws would be necessary. He visualized the participants at the main international chemistry symposia as being the potential membership, say 10 000 individuals. Care would be needed so that such a scheme did not become a threat to the existence of national chemical societies.

Prof. Emanuel said that it would be difficult for individuals in East-European and developing countries to pay a subscription in hard currency. He suggested that the proposal should be circulated to National Adhering Organizations and national chemical societies to ascertain their reactions and an indication of the expected level of participation. The suggestion was supported by Prof. Perez-Masia, but Prof. Overberger doubted if such a circulation was worthwhile at this stage. In the opinion of Prof. Ourisson it was almost certainly the quickest way to kill entirely the proposal.

In principle Dr. Isler was in favour of the proposal. Prof. Sunner suggested that a feasibility study should first be carried out within IUPAC. Prof. Yates was unhappy to consult his Division Committee by correspondence and preferred the matter to be discussed in full when it met at Davos. That view was supported by Prof. Greenwood, who stressed that if one Division undertook an experimental evaluation of the effectiveness in practice of the proposal, it would be difficult to reverse the situation later. Dr. Roth was concerned that the proposal might lead to the Union becoming a loose federation of a few large national chemical societies whose members subscribed to the new scheme.

Prof. Smets invited each Section/Division President to discuss the proposal within his Section/Division and to report back to the Bureau no later than at Davos; and he asked Prof. Overberger to advise the US National Committee

of the views expressed at Brussels, so that a revised proposal could be submitted, including an introduction directed specifically for the attention of the Section/Divisions of the Union. At the request of Prof. Rao, it was agreed that comments of relevant Standing Committees should also be obtained for Dayos.

Minute 7/78

#### RELATIONS WITH OTHER ORGANIZATIONS

7.1/78 Collaboration with International Organization for Standardization (Minute 2.2.1/76, 36th Bureau - Strasbourg)

Unless ISO agreed to inform the Macromolecular and Analytical Chemistry Divisions of its reactions to comments submitted by IUPAC experts, Profs. Kabanov and West were unwilling for any further draft ISO International Standards to be considered. If the reactions were positive and acceptable to IUPAC, then a suitably worded acknowledgement should be agreed by the relevant Division President for inclusion on the Standard published eventually by ISO.

- 7.2/78 ICSU Matters
- 7.2.1/78 Nominations for Officers (Minute 6.2.2/78, 90th Executive Committee Villefranche)

The Bureau noted that as a result of discussions with the Executive Secretary of ICSU, IUPAC was committed to support the nomination of Prof. D. A. Bekoe (Ghana), a chemist, as Vice-President of ICSU.

## 7.2.2/78 Report of ICSU Secretary General for 1977

Prof. Smets said that he had protested at the lack of mention of IUPAC activities in the report, and he intended to discuss with the ICSU Secretary General at its 17th General Assembly (Athens, 78.09.24-29) how to improve the participation of IUPAC in ICSU affairs. As a member of the ICSU Committee on Scientific Priorities, he intended to submit a proposal for study of the world energy problem.

7.2.3/78 ICSU Abstracting Board (Minute 6.3/78, 90th Executive Committee - Villefranche)

Dr. Barrett referred briefly to his report on ICSU AB for 1977-8. The aggregate list of over 25 000 journals was more comprehensive than anything in existence, and it would be available in both machine readable and printed form. The Working Groups in Chemistry and in Physics had commenced a project to compile vocabularies in chemistry and physics in areas where those disciplines overlapped and to develop mechanisms for harmonization and/or translation as appropriate. ICSU AB was the major international nongovernmental organization dealing with the subject of effective transfer of information, so vital to chemistry, and he was convinced that IUPAC involvement was necessary.

Prof. Horn drew attention to letters from Dr. H. Grünewald (Chairman, IUPAC Committee on Publications) and Dr. A. Kolb (Internationale Dokumentations-gesellschaft für Chemie), recommending the Union to discontinue its participation in ICSU AB.

The Bureau agreed that, for the present, IUPAC should retain its membership of ICSU AB in order to ascertain by the next meeting of the Executive Committee

the exact state of progress of the various projects. Dr. K. L. Loening (Chemical Abstracts Service) should be asked to comment on the views expressed by Drs. Grünewald and Kolb, but in any case Dr. Barrett should reply to the letters. In addition, Dr. Barrett should draw to the attention of the Commission on Physicochemical Symbols, Terminology, and Units the work on compilation of vocabularies.

## 7.2.4/78 ICSU Scientific Committee on Problems of Environment (Minute 6.4/78, 90th Executive Committee - Villefranche)

No nomination was made by the Bureau for the 1979 International Pahlavi Environment Prize of the United Nations.

A report was available from Dr. H. Egan, who had participated as an observer at a recent meeting of the SCOPE Executive Committee (Puschino, 78.05.15-17). Changes in membership of that body were expected at the 4th SCOPE General Assembly (Stockholm, 79.06.11-15), and IUPAC should press its claims for participation at that time. Dr. Egan had drawn the attention of Section/Division Presidents to the SCOPE project on biogeochemical cycles (nitrogen, phosphorus, sulfur, and carbon). Prof. Yates was trying to identify interested persons within the Organic Chemistry Division. SCOPE had expressed the view that accurate estimation of the hazard of longterm exposure of low concentrations of chemicals in the environment was a pressing question, and Dr. Roth and Prof. West had been requested to follow up that matter in the Clinical Chemistry Section and Analytical Chemistry Division of the Union (Minute 10.2/78, Section/Division Presidents - Brussels).

The Bureau considered a report proposing the formation of a Scientific Group on Methodologies for Safety Evaluation of Chemicals (SGMSEC), to be sponsored initially by WHO and SCOPE. Many of the possible topics identified for discussion were of considerable interest to IUPAC and direct representation of the Union in addition to SCOPE involvement would not be inappropriate. Dr. Roth recommended that Prof. F. W. Sunderman, Jr. should be consulted for advice as Chairman of the Commission on Toxicology in Clinical Chemistry and he should be considered as a possible IUPAC nominee for SGMSEC. Prof. Yates asked to be kept informed of developments in case the Commission on Medicinal Chemistry should become involved. Dr. Barrett thought it would be worthwhile to canvass the opinions of Company Associates. Prof. West suggested that SGMSEC should be restricted to work on manmade chemicals. These views should be conveyed to Dr. Egan, who should report back to IUPAC in due course on further developments.

#### 7.2.5/78 ICSU Committee on Genetic Experimentation

Prof. Smets reported that, subsequent to the discussions of the Executive Committee at Villefranche (Minute 6.5/78, 90th Meeting), he had appointed Dr. A. F. Langlykke as official representative of IUPAC to COGENE. The appointment was ratified by the Bureau.

#### 7.2.6/78 ICSU Committee on Data for Science and Technology

A report was considered from Dr. R. N. Jones, official representative of the Union at the 11th CODATA General Assembly (Santa Flavia/Sicily, 78.05.26-27). Prof. Sunner noted the possibility of overlap in activity between CODATA and the IUPAC Commission on Thermodynamics regarding transport property data and tables and the recommendation for continued IUPAC representation at meetings of the CODATA Task Group on Chemical Kinetics. Dr. Jones would be advising the Union of any relevant developments from the CODATA Task Group on Space and Time Dependent Data and of the developing status of proposed Task Groups on Spectroscopy

and on Adsorptive Capacity of Substances. Liaison should be established between the CODATA Task Group on Data for Chemical Industry and the new IUPAC Committee on Chemistry and Industry.

#### 7.3/78 IUB-IUPAB-IUPAC Commission on Biothermodynamics

With the abstention of the Treasurer, the Bureau accepted a proposal from Prof. Smets that IUPAB should be advised IUPAC was prepared in future to share equally between the three parent Unions the travel and subsistence expenses of the six regular members of the Commission on Biothermodynamics rather than to meet the expenses of the two IUPAC regular members (cf. Minute 6.6.2/78, 90th Executive Committee - Villefranche).

#### 7.4/78 Report on Wates-IUPAC Bursaries Scheme

A report was received from the British National Committee for Chemistry of the Wates-IUPAC Bursaries Scheme for 1977. Of fourteen younger chemists from UK who had participated in the Warsaw General Assembly, two had been nominated as Titular Members and four as Associate Members of Commissions.

The Bureau was pleased to note a second successful year of operation for the Scheme, and it supported the President in the hope that other member countries of the Union would take action to provide financial support for the attendance of younger chemists as observers at IUPAC Commission meetings. Prof. Kjaer pointed out that two younger chemists had been assisted to Warsaw by Denmark.

#### 7.5/78 Status of Taiwan in IUPAC

The President reported that no comment had been received from the National Adhering Organization in Taiwan regarding replacement of "Republic of China" by "Taiwan" and of "Chinese Chemical Society" by "Chemical Society" in IUPAC records.

Prof. Ourisson had written (78.06.19) to the President of Academia Sinica, inviting it to send an observer to the Bureau meeting in Brussels or to the General Assembly in Davos. He would shortly be sending a reminder via a colleague who was going to work in China. Also, in July Prof. Ourisson had spoken in Paris to the Vice-President of Academia Sinica, a physicist, and asked him to look into the matter. At a recent function in Paris Sir Derek Barton and his wife had established friendly relations with the Ambassador from People's Republic of China and followed up their discussions with a letter.

Prof. Smets requested Prof. Ourisson and Sir Derek Barton to press personally through the Peking Embassy in Paris with the hope of eventually bringing People's Republic of China into active membership of the Union.

#### 7.6/78 Iraqi Chemical Society

The Bureau endorsed the view of the Executive Committee (Minute 6.11/78, 90th Meeting - Villefranche) that Council at Davos should be recommended to accept the application for membership of the Union (Category B1) by the Iraqi Chemical Society and to invite an observer to attend the General Assembly.

### 7.7/78 Union of Arab Chemists

The Bureau endorsed the view of the Executive Committee (Minute 6.13/78, 90th Meeting - Villefranche) that Council at Davos should be recommended to accept an application for Associated Organization status of IUPAC by the Union of Arab Chemists.

## 7.8/78 International Steering Committee for Carbohydrate Symposia

An application was considered for Associated Organization status of the Union by the International Steering Committee for Carbohydrate Symposia. The Steering Committee was responsible for the International Symposia on Carbohydrate Chemistry, which were usually sponsored by IUPAC and the plenary lectures published in PAC. Prof. Yates supported the application and the Bureau agreed to recommend Council at Davos to accept it.

## 7.9/78 Comité International des Dérivés Tensio-actifs

The Bureau noted that at its recent General Assembly (Paris, 78.06.09) the CID members had decided to dissolve Comité International des Derivés Tensioactifs and it had therefore ceased to be an Associated Organization of IUPAC.

## 7.10/78 UNESCO Contract on Teaching of Chemistry

The Bureau ratified the action of the President in signing a contract with UNESCO for the Union to prepare the final version of an "Anthology of Literature of Chemical Education" and to prepare a workplan and a preliminary outline of contents for a source-book for secondary school chemistry teachers.

# 7.11/78 Contract Work with CEE (Minute 3.1.2/78, 90th Executive Committee - Villefranche)

The President reported briefly on his recent visits with the Executive Secretary to CEE headquarters in Brussels. For the foreseeable future no further contracts were possible on analytical methods for food additives. The Bureau approved the recommendation of Prof. Smets that the IUPAC Coordinating Committee for Analytical Methods for CEE and IARC should be dissolved and a new Coordinating Committee should be constituted from interested Section/Divisions in order to take up new initiatives with CEE.

#### 7.12/78 Federation of European Chemical Societies

Dr. Barrett referred briefly to his written report as official representative of IUPAC at the recent FECS General Assembly (Dubrovnik, 78.06.15-16). He suggested that the Union should advise FECS, when it was appropriate, on the outcome of efforts to form an International Chemical Society (Minute 6.9/78, 90th Executive Committee - Villefranche and Minute 6.4/78 above).

The Danish Chemical Society had requested the Bureau (letter dated 78.07.18) to advise whether the Israel Chemical Society should be considered eligible for membership of FECS. The Bureau decided to take no action unless FECS, as an Associated Organization of the Union, sought the advice officially of IUPAC on the matter.

## 7.13/78 European Federation of Chemical Engineering

In connexion with his attendance as official representative of IUPAC at the recent EFCE General Assembly (London, 78.06.05), Dr. Barrett noted that there were no international unions for the separate parts of engineering, the only international body being the World Federation of Engineering Organizations, which was not notably effective in promoting the separate parts such as chemical engineering. There was therefore some reason for encouraging collaboration where feasible between IUPAC and EFCE. Also there was good reason why IUPAC should encourage collaboration between FECS and EFCE, both of which were Associated Organizations of the Union.

### NOMINATIONS OF NEW OFFICERS AND MEMBERS OF IUPAC BODIES

## 8.1/78 Ratification of Nominations Approved by Correspondence

The following nominations of new Members (Bylaw 4.304) of IUPAC bodies, approved through correspondence by the President since the 90th Executive Committee meeting, were ratified by the Bureau:

Commission on High Temperatures and Refractory Materials

Titular Member (1977-1981) - Prof. K. KOMAREK (Austria)

Commission on Electroanalytical Chemistry

Titular Member (1977-1981) - Prof. R. C. KAPOOR (India)

Commission on Atmospheric Environment

Titular Member (1977-1981) - Dr. A. P. ALTSHULLER (USA)
Associate Member (1977-1981) - Mr. R. S. BRIEF (USA)

Commission on Reclamation of Solid Wastes

Associate Member (1977-1981) - Dr. T. MATSUZAKI (Japan)

8.2/78 Standing Committee on Chemistry and Industry (Minute 7.2/78, 90th Executive Committee - Villefranche)

The Bureau approved the proposal of Prof. G. Smets that Dr. J. W. Barrett (UK), Prof. K. H. Büchel (FRG), Dr. R. J. Fawcett (USA), Dr. J. Montet (France), Ir. R. Mormont (Belgium), Dr. S. Ooba (Japan), and Dr. P. Rhyner (Switzerland) should be appointed members of the new Committee on Chemistry and Industry, with Prof. Büchel to act as Chairman. The appointments would be for a four-year term, except for Dr. Barrett who would serve only until Davos. Members from Arab Republic of Egypt, Czechoslovakia, Italy and the Nordic Countries would be appointed in due course. The Committee should be urged to meet at the end of 1978 or early in 1979 and also at Davos.

Minute 9/78

## SPONSORSHIP: REPRESENTATION, SPONSORSHIP, SUBVENTION

## 9.1/78 Ratification of Sponsorships Approved by Correspondence

The sponsorship of the following symposia, approved by the President through correspondence since the 90th Executive Committee meeting, was ratified by the Bureau:

International Symposium on University-Industry Interactions in Chemistry (Toronto, Canada: 78.12.05-08)

6th International Conference on Solid Compounds of Transition Elements (Stuttgart, FRG: 79.06.12-16)

21st Colloquium Spectroscopicum Internationale (Cambridge, UK: 79.07.01-06)

International Conference on Phosphorus Chemistry 1979 (Halle, GDR: 79.09.17-21)

- International Symposium on New Horizons in Hydrocarbon Chemistry (Los Angeles, USA: 79.12.10-11)
- 5th International Conference on Zeolites (Naples, Italy: 80.06.02-06)
- SAC 80 International Conference (Lancaster, UK: 80.07.20-26)
- 9.2/78 Ratification of Official Representatives to Symposia in 1978

The appointments of official representatives of IUPAC to its sponsored symposia in 1978, as made by the President through correspondence since the 90th Executive Committee meeting (see Appendix A), were ratified by the Bureau.

9.3/78 <u>International Technical Seminar</u> (Minute 9.4/78, 90th Executive Committee - Villefranche)

Prof. Ourisson outlined the present status of arrangements for the Seminar (Le Bischenberg/Strasbourg, 79.05.08-10) and requested a deficit guarantee from the Union of US-\$2 000. On the proposal of Prof. Smets, the Bureau agreed (21 in favour, 2 abstentions, 1 against) to provide the guarantee, subject to the organizers supplying a budget, the money to come from that set aside in the 1978 IUPAC Budget for contributions to symposia. Dr. Barrett suggested that the Association of Editors of European Chemistry Journals should be involved in the Seminar.

9.4/78 50th Anniversary of USSR Institute of Chemical Physics (Minute 13.2/78, 90th Executive Committee - Villefranche)

Prof. Emanuel indicated that the international symposium to be held in Moscow during 1981 would not clash with the 28th IUPAC Congress (Vancouver, 81.08.16-22). He was urged to submit an official application if IUPAC sponsorship was required for the symposium.

- 9.5/78 World Conference on Future Sources of Organic Raw Materials
- 9.5.1/78 Evaluation of Conference

From an interim report submitted by Dr. B. W. Rossiter and the remarks of Prof. Smets, Prof. Zollinger, and Dr. Barrett who had participated, CHEMRAWN I (Toronto, 78.07.10-13) was clearly a great success. The seed money of US-\$5 000 provided by IUPAC would be returned, but US-\$5 000 would be requested to support the development of CHEMRAWN II, expected to be a conference in 1981 devoted to chemistry, agriculture, and world food supply.

The Bureau agreed that the ad hoc CHEMRAWN Planning Committee should now be formalized as a Standing Committee of IUPAC. Dr. W. G. Schneider (Canada), Prof. E. Grzywa (Poland), and Dr. M. Uchida (Japan), had been proposed as suitable new members. Prof. Zollinger and Dr. Barrett were ready to step down from membership. Prof. Smets preferred that Prof. Overberger, as the instigator of the CHEMRAWN concept, should retain his membership for the present. It was left for the President in conjunction with the Executive Committee to decide on and appoint the new members.

## 9.5.2/78 Involvement of ICSU in CHEMRAWN

ICSU was discussing a possible initiative in the agriculture domain and Prof. Smets believed it would be worthwhile to involve ICSU in CHEMRAWN II.

## 9.5.3/78 <u>Lunch Meeting of Company Associates</u> (Minute 3.5.4/78, 90th Executive Committee - Villefranche)

Dr. Barrett reported that the US-\$1 000 necessary to convene a lunchtime discussion of senior members of chemical companies present at CHEMRAWN I, had been raised from outside IUPAC. He confidently expected several Canadian Company Associates to be recruited and recommended that a letter of appreciation for the provision of funding should be sent to Dr. W. G. Schneider.

#### 9.6/78 6th International Conference on Nonaqueous Solutions

It appeared that, in practice, the Conference had been quite solvent financially and the organizers had therefore withdrawn their request (78.06.01) for a subvention from IUPAC.

Minute 10/78

#### PUBLICATION MATTERS

Prof. Ourisson gave a résumé of the deliberations of a recent meeting of the Committee on Publications (Oxford, 78.04.25-26) and some remarks on more recent developments:

mentioning the continuing good royalties received from Pergamon Press; favourable comments made on the new style Information Bulletin, the second issue of which would appear at the end of September and include synopsis minutes of meetings of IUPAC bodies at Warsaw; the contents of PAC were of a very high standard from his personal reading, with the change to printing from camera-ready copy supplied by authors now fully implemented and accepted; Dr. M. Gellender (USA) recently appointed as editor of the proposed new IUPAC news journal and information officer of the Union from 78.12.01, working fulltime from Oxford; the new style Bulletin would be developed further in 1979, allowing time to decide more carefully the format and contents of the news journal for 1980, especially with respect to PAC; a major problem was still to improve dissemination of IUPAC recommendations on nomenclature and symbols, but the Union should meanwhile adhere to the guidelines on reproduction and translation agreed with Pergamon Press at Warsaw.

The Bureau discussed the conclusions of the Committee on Publications regarding selection/rejection of lectures from symposia (Minute 9.1.2/78). On the proposal of Prof. Smets, the following principles were approved by the Bureau as future policy of IUPAC:

- (i) Rejection of a main lecture for publication in PAC in advance of a symposium should not be based on the title alone.
- (ii) If necessary, the Scientific Editor of PAC will consult two specialist referees, who might, in practice, be the Chairman of the Organizing Committee and the relevant IUPAC Division President.
- (iii) The Scientific Editor of PAC will communicate directly in writing with the main lecturer and give his reasons for not publishing the lecture in PAC.

Furthermore, there was general agreement that a lecture should only be rejected after and not before a symposium; and overspecialization of a topic was not a criterion for rejection, but only the scientific standard of the material.

The Secretary General mentioned concern expressed by the Division/Section Presidents at Brussels (Minute 8.1/78) on the extent of editing by the new Scientific Editor of PAC of technical reports and recommendations on nomenclature and symbols prepared by IUPAC Commissions. He had agreed to ask Dr. H. Grünewald to keep his editing to a minimum, so as not to alter the meaning of the text. Similar considerations should apply to plenary lectures from symposia.

The Executive Secretary indicated that when the proposed new IUPAC monthly news journal was launched, it might become impossible financially to provide gratis copies to all members of Section/Division Committees, Commissions, and Standing Committees. The suggestion of Dr. Williams to mail relevant existing IUPAC publications free-of-charge to Chairmen/Secretaries of subcommittees had therefore been accepted by the Section/Division Presidents at Brussels (Minute 2.1/78) and was endorsed by the Bureau.

Minute 11/78

#### SECTION/DIVISION RULES

#### 11.1/78 Physical Chemistry Division/Macromolecular Division Rules

After a brief résumé by Profs. Sunner and Kabanov, the Bureau endorsed the recommendation of the Executive Committee (Minute 10.1/78, 90th Meeting - Villefranche) that the Physical Chemistry Division Rules and those of the Macromolecular Division should be approved by Council at Davos (Statute 10.3).

#### 11.2/78 Analytical Chemistry Division Rules

Prof. West said his Division now accepted that the Division Secretary must be elected by the Division Committee alone rather than by the Division as a whole (Minute 10.2/78, 90th Executive Committee - Villefranche). The Division had also noted that a formal geographical distribution for Division Committee Members was unacceptable. Prof. Smets advised that the principle of fair geographical distribution might be observed in practice, but it could not be written into the Division Rules. Prof. Greenwood suggested that the Division Nomination/Election Committee should be responsible for ensuring sufficient candidates to give a reasonable geographical distribution. Prof. Yates proposed that attention should be drawn to the matter in the Division mail ballot.

The Bureau directed that the Analytical Chemistry Division must adhere to the statutory requirements of the Union in its elections after Davos. Prof. West hoped to submit his Division Rules in less detailed form at Davos.

### 11.3/78 Guidelines for Procedures of Applied Chemistry Division

The Bureau noted that the Guidelines were likely to evolve in due course into Division Rules. Dr. Roth pointed out that the words "The result of the ballot is subject to approval by the Division Committee" in the section on "Election of Division Committee" were in conflict with the IUPAC Statutes and Bylaws: the Bureau directed that the words should be deleted.

Prof. Greenwood indicated that the Inorganic Chemistry Division was in process of drafting Rules similar to those of the Physical Chemistry Division. He asked for guidance as to whether a postal vote or vote by attendance at the General Assembly was preferable in the Division Committee elections. Prof. West advised that a postal vote was best because it ensured that all Titular and Associate Members of the Division were involved. Prof. Smets

emphasized that the various Division Rules need not be uniform as long as they did not conflict with the Statutes and Bylaws of the Union.

Minute 12/78

#### DATE AND PLACE OF NEXT MEETING

The Bureau noted that its next meeting was scheduled for 8th September 1979 at Davos, Switzerland, during the 30th IUPAC General Assembly.

#### VOTE OF THANKS

Votes of thanks were recorded to University of Leuven and the Belgian Ministry of Education for the provision of hospitality.

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CHAIRMAN:

DATE: 1919

## OFFICIAL REPRESENTATIVES OF IUPAC TO SYMPOSIA IN 1978

(see also Appendix G to Minutes of 90th Executive Committee Meeting)

- Symposium on Ions and Ion Pairs and Their Role in Chemical Reactions (Syracuse, USA: 78.05.31 06.02) Prof. C. G. OVERBERGER
- 18th Prague Microsymposium on Macromolecules (Prague, Czechoslovakia: 78.07.10 13) Prof. C. G. OVERBERGER
- 6th Discussion Conference on Macromolecules (Prague, Czechoslovakia: 78.07.17 21) Prof. C. QUIVORON
- 5th International Symposium on Carotenoids (Madison, USA: 78.07.24 29) Dr. O. ISLER
- 6th International Conference on Nonaqueous Solutions (Waterloo, Canada: 78.08.07 - 11) - Prof. S. AHRLAND
- International Congress of Photographic Science 1978 (Rochester, USA: 78.08.20 - 26) - Letter of greetings
- 8th International Conference on Applications of Mössbauer Effect (Kyoto, Japan: 78.08.28 09.01) Prof. S. OKAMURA
- 2nd International Symposium on Scientific Bases for Preparation of Heterogeneous Catalysts (Louvain-la-Neuve, Belgium: 78.09.04 06) Prof. G. SMETS
- International Symposium on Polymer Dispersions (Dresden, GDR: 78.09.04 06): Prof. R. C. SCHULZ
- 6th International Symposium on Medicinal Chemistry (Brighton, UK: 78.09.04 07) Prof. J. MATHIEU
- 4th Conference on Physical Organic Chemistry (York, UK: 78.09.04 - 08) - Prof. H. ZOLLINGER
- 19th International Conference on Coordination Chemistry (Prague, Czechoslovakia: 78.09.04 08) Prof. N. GREENWOOD
- 6th International Conference on Raman Spectroscopy (Bangalore, India: 78.09.04 09) Dr. E. D. BECKER
- 2nd International Symposium on Marine Natural Products (Sorrento, Italy: 78.09.07 10) Letter of greetings
- 2nd International Symposium on Organic Synthesis (Jerusalem-Haifa, Israel: 78.09.11 - 15) - Prof. H. ZOLLINGER
- 11th International Symposium on Chemistry of Natural Products (Varna, Bulgaria: 78.09.17 23) Prof. G. OURISSON