

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MINUTES OF 49th MEETING OF BUREAU

St. Anne's College, Oxford: 16th-17th September 1984

Present: Dr. W. G. Schneider (Chairman), Prof. A. J. Arvia, Dr. J. W. Barrett, Prof. A. Björkman, Prof. A. D. Campbell, Prof. Y. Jeannin, Prof. A. Kjaer, Prof. J. Michalski, Prof. C. G. Overberger, Prof. C. N. R. Rao, Prof. D. B. Tonks, Prof. A. A. Vlcek, Prof. T. S. West, Prof. H. Gg. Wagner (Elected Members); Prof. C. H. Bamford, Dr. H. Frehse, Dr. Mary L. Good, Dr. D. R. Lide, Jr., Prof. G. Modena, Prof. F. Pellerin, Prof. F. W. Sunderman, Jr. (Division Presidents)

Absent: Prof. V. A. Koptug, Prof. S. Nagakura (Elected Members)

In Attendance: Dr. R. Vlahov (Organizing Committee for 31st IUPAC Congress) - in part, Dr. M. Williams (Executive Secretary), Miss A. Troughton (Deputy Executive Secretary), Mr. P. D. Gujral (Scientific Publications Secretary) - in part

1/84 INTRODUCTORY REMARKS AND FINALIZATION OF AGENDA

The President reported that Prof. Nagakura was unable to attend due to other priority commitments in Japan and Prof. Koptug was unfortunately ill.

The following items were added to the agenda circulated by the Executive Secretary (84.08.28):

- 11.5 Nominations of New Members
- 16.1 History of IUPAC
- 16.2 ICSU Abstracting Board
- 16.3 IUPAC Seminars

and item 12.1 was corrected from "Biotechnology" to "Biothermodynamics". In addition, Dr. Schneider proposed a rearrangement of the agenda in order to consider first some important policy matters (6, 7, 8, 9, 11.2, 11.3).

2/84 MINUTES OF 47th and 48th MEETINGS OF BUREAU

2.1/84 Amendments and Approval of Minutes

Subject to correcting the new title for Commission V.7 to "Radiochemistry and Nuclear Techniques" in Minute 18(ii)/83, 48th Bureau (see Minute 3.1.6.2/84, Officers - Oxford), the minutes of the meetings in Lyngby (circulated by the Executive Secretary 84.01.23 and 84.05.11) were approved.

2.2/84 Matters Arising from Minutes

2.2.1/84 New Mechanism for Publication of Recommendations on Nomenclature and Symbols

On behalf of the Chairman of IDCNS, Dr. K. L. Loening, the Executive Secretary reported that:

- (i) the revised new mechanism had been publicized in CI (1983, No. 5, pp. 41-43);

- (ii) the first set of recommendations to be so handled (Commission IV.1 - April 1984) had been announced in CI (1984, No. 3, pp. 12-13) and in a number of national chemistry news journals. Over 50 requests for photocopies had been received following the announcement in Chem. Eng. News;
- (iii) a second set of recommendations (Commission I.3) was ready for circulation to national/regional centres.

Dr. Loening felt that the extension of the original two-year trial period beyond Lyngby to Lyon (Minute 3.1/83, 47th Bureau) would be inadequate for proper evaluation of the revised mechanism. However, it was already clear that there was now more publicity than previously for IUPAC provisional recommendations and no excuse for anyone to say they were unaware of such recommendations. The Bureau agreed to a further extension of the trial period from Lyon to Boston, and approved a request from IDCNS (84.09.11) for the period of service as Chairman of Dr. Loening to be extended exceptionally until Boston.

Dr. Lide was concerned at the literal interpretation to consult 15 experts after provisional recommendations had been finalized by a Commission. The Executive Secretary thought that such consultations (plus three relevant journal editors) were meant to be undertaken during preparation of the recommendations. From his experience so far, Prof. Jeannin said that the three-months period for comment by Members of IDCNS seemed unnecessary. Dr. Good was anxious that the increased bureaucracy of the revised mechanism was delaying the processing of material for the new edition of Nomenclature of Inorganic Chemistry (The Red Book). Prof. West suggested that an explanatory flow chart should be evolved by IDCNS and published in CI.

2.2.2/84 Arrangements for Suspended Commissions

2.2.2.1/84 Commission on Medicinal Chemistry (Minute 18(i)/83, 48th Bureau)

Prof. Modena stressed that the terms of reference for the original Section on Medicinal Chemistry (Minute 19/69, 25th Council - Cortina d'Ampezzo) were wider than for a traditional project-oriented Commission of the Union. This had been a continuing matter of contrast between the Section (later Commission) and the Organic Chemistry Division and the Union as a whole. The reports of two meetings of the IUPAC Working Party since Lyngby (Strasbourg, 83.12.02 and Königstein, 84.02.22) were unacceptable to the International Committee on Medicinal Chemistry, especially regarding continued Commission status within the Organic Chemistry Division. ICMC had appointed (Uppsala, 84.08.27) a small group to negotiate with IUPAC, meanwhile delaying further action to form an International Union of Medicinal Chemistry.

Following discussions by the IUPAC Officers (Minute 3.1.6.1/84, Oxford), Dr. Schneider had written (84.07.06) to Prof. Modena, expressing disappointment at the outcome to date of the Working Party. Also the President drew attention to the views of Prof. H. Zollinger (84.09.04). While agreeing with Dr. Schneider, Prof. Modena pointed out that the Working Party had followed perhaps too strictly the directives of the Bureau (Minute 18(i)/83).

Profs. Sunderman, Kjaer, and Rao contributed to the ensuing discussion. A strong conviction emerged from within the Bureau that:

- (i) IUPAC should collaborate with, but not be dictated to by ICMC;
- (ii) while Divisional status within IUPAC was out of the question at present, all possible alternative structures should be explored (inter-union

Commission, Commission/Interdivisional Commission attached to the Organic Chemistry Division, independent Section attached to the Bureau). The Working Party should be asked to carry out extensive consultations with ICMC, IUPHAR/IUB, and chemical industry, then report back to the Executive Committee in Spring 1985 or to the Bureau at Lyon. It was important for proposed project programmes to give sufficient detail to evaluate their worth.

2.2.2.2/84 Commission on Radiochemistry and Nuclear Techniques (Minute 18(ii)/83, 48th Bureau)

Following a check by the Deputy Executive Secretary on possible infringements of the twelve-year limitation of total service in the Union (Minute 3.1.6.2/84, Officers - Oxford), the Bureau endorsed the recommended periods of service for the membership of the reconstituted Commission. Immediate elevation from Associate to Titular Membership was requested by Prof. Sunderman for Dr. K. S. Kasprzak. This was approved by the Bureau, subject to payment by the Clinical Chemistry Division of the travel and subsistence costs for Lyon. Prof. Sunderman stressed that Dr. Kasprzak was on extended leave from Poland and not resident permanently in USA.

2.2.2.3/84 Commissions on Atmospheric Environment and on Water Chemistry (Minute 3.1.6.2/84, Officers - Oxford)

Dr. Frehse presented proposals (84.07.31) for the establishment of new Commissions on Atmospheric Chemistry and on Water Chemistry.

The Bureau approved the following Titular Members for the Commission on Atmospheric Chemistry:

Prof. J. G. Calvert (USA)
Dipl. Ing. K. Lechnitz (FRG)
Dr. C. J. Purnell (UK)
Prof. H. I. Schiff (Canada)

and accepted an offer of DM20 000 from Drägerwerk AG to finance a meeting at Lübeck during November 1984, on condition that it did not imply IUPAC support for Drägerwerk's products. In the nomination of additional Titular and some Associate Members, Dr. Schneider asked that care should be taken to ensure good geographical representation.

Also the Bureau approved the following membership for the Commission on Water Chemistry:

Titular Members

Prof. W. W. Eckenfelder (USA)
Dr. J. Goldschmid (Israel)
Mr. G. L. Lindfors (Sweden)
Prof. F. Malz (FRG)
Dr. Nicole Strupler (France)
Mr. J. A. Tetlow (UK)

Associate Member

Dr. K. Trobisch (FRG)

but rejected the nomination of Dr. S. Freyschuss, who had already served fifteen

years on the former Commission on Water Quality. Dr. Frehse hoped that some Members would meet before Lyon in order to plan for a full meeting at the General Assembly. In the considerations for additional Members, Dr. Schneider suggested that attention should be given to experts from Egypt and other developing countries.

3/84 MINUTES OF 103rd AND 104th MEETINGS OF EXECUTIVE COMMITTEE AND OF IUPAC OFFICERS MEETING (84.06.22-23) AND MATTERS ARISING

The minutes were recorded as having been received officially by the Bureau.

3.1/84 International Organization for Chemical Sciences in Development
(Minute 2.2.1/84, Officers - Oxford)

The Vice-President reported on the recent IOCD Executive Committee meeting (London, 84.07.31), which he had attended. The main concern had been with future funding (World Bank and other sources in USA). Also considered were the establishment of a structure, independent of UNESCO and with headquarters possibly in Mexico, expansion of the chemical synthesis programme for treatment of tropical diseases, but less emphasis on chemical education. Prof. Wagner felt that the published activities of IOCD indicated a potential overlap with the proposal for IUPAC Seminars. However, Prof. Rao questioned whether the international seminars organized by the International Centre for Chemical Studies at Ljubljana were approved officially by IOCD.

3.2/84 Proposed IUPAC-UNESCO Initiative in Latin-America
(Minute 2.2.4/84, Officers - Oxford)

A recent communication from UNESCO (84.07.12) listed five possible subjects for IUPAC-UNESCO cooperation in Latin America, but "natural sources of chemical energy" had now apparently been dropped. During the 16th Latin-American Chemical Congress (Rio de Janeiro, 84.10.14-19) a working group was expected to meet and advise on the most appropriate subjects(s) and mechanism. The IUPAC representative, Prof. Arvíá, commented that, although the selected subject might have some relevance to IOCD activities, the two would be treated separately for the present. Prof. Rao emphasized that "chemistry education at the university level", in particular the production of low-cost equipment, was a project activity of IUPAC's Committee on Teaching of Chemistry.

3.3/84 Wolf Foundation Prizes 1983-4 (Minute 2.2.5/84, Officers - Oxford)

The Bureau noted that IUPAC had renominated (84.08.29) Dr. B. W. Rossiter for 1984-5 and that the Magsaysay Award was open only to Asians.

3.4/84 US National Research Council Reports (Minute 2.2.10/84, Officers - Oxford)

Dr. Schneider explained the background briefly. He was still convinced that an authoritative IUPAC manual on the handling in and disposal of hazardous chemicals from laboratories - for students, practising chemists, and laboratories - would be a best seller and highly prestigious for the Union. Prof. K. H. Büchel (COCI) might have misinterpreted the original idea of Dr. W. Spindel: it was not intended that an IUPAC manual should cover detailed regulations for various countries, but it should constitute a general approach to the scientific principles involved.

Prof. Wagner drew attention to a related EEC activity, and he wondered if an

IUPAC initiative might cause more confusion in view of different existing national practices. However, Profs. Campbell, Michalski, Sunderman, West, and Dr. Mary Good spoke in support of the views of the President, and the Bureau decided to proceed.

Prof. Sunderman said that there was currently no student text in North America to complement the classic guide Dangerous Properties of Industrial Materials by N. Irving Sax. He suggested that Prof. M. J. G. Mercier and Dr. S. S. Brown should be invited to make a proposal. Dr. Good referred to discussions the previous day at the Division Presidents meeting (Minute 7.1/84) and her proposal that the IUPAC publisher should be requested to provide an advance against royalties for a suitable IUPAC person to abridge the two reports of the US National Research Council. The resulting manuscript should be reviewed by an IUPAC panel of experts prior to publication. The publisher should carry out a market survey for a 200 pages, flexi-cover edition, for which she estimated potential sales of 100 000.

3.5/84 Document for Recruitment of Company Associates (Minute 3.6.1/84, Officers - Oxford)

The document drafted by COCI had been circulated for comment by the Officers and by the Finance Committee, which had originally suggested its preparation. Whilst the draft was felt to be informative, the essay format did not make for easy reading: the use of headings as part of a more attention-getting style was advocated. The Bureau accepted a proposal that the Treasurer, Executive Secretary, and Dr. P. Agius (Finance Committee) should be asked to redraft the document and to try to involve Dr. D. A. O'Sullivan (Committee on Publications/Chem. Eng. News).

4/84 FINANCIAL MATTERS

4.1/84 Current Financial Status

The Bureau noted that the financial status (as at 84.09.10) showed a cash position of nearly US-\$24 000 (in Zürich SFr7 146, £4 812, DM295, US-\$9 501, with a further £10 337 in Oxford) and short-term investments of US-\$200 000. The President felt that a more detailed report of the current financial position of the Union was needed in future by the Bureau. He suggested that the Treasurer should present a written reconciliation of the budget with income and expenditure to date and a projection for the rest of the year. Prof. Björkman agreed, but stressed that it would involve him, the IUPAC Banker, and the Secretariat in additional work.

The Treasurer pointed out that the actual financial position of the Union was better than had been anticipated at Lyngby (Minute 3.4.3/84, Officers - Oxford). However, Prof. Jeannin stressed that care should be taken in estimating future income from NAOs: their advance budgetary requests for funding from government were often badly affected by changes in the exchange rate of the US-dollar.

4.2/84 CHEMRAWN III

In the opinion of the President, CHEMRAWN III (Den Haag, 84.06.25-29) had been a scientific success, but a financial failure (deficit of about US-\$65 000) due to the poor attendance. Reasons for the latter appeared to be insufficient advance publicity, imprecise programme structure, and not the same impact as for CHEMRAWN I (1978), which followed soon after the world oil crisis of 1973. Some US-\$23 000 had been transferred from the CHEMRAWN rolling fund to help meet the

deficit, and the remainder was to be covered by a bank loan taken out by the organizers. An intensive, but belated effort was being mounted to solicit contributions from industry, and there would be no call on IUPAC general funds. Prof. Michalski felt that the registration fee of over US-\$200 (DF700) was too high and the availability of low-cost accommodation/meals was essential to encourage participation.

There was some rediscussion of the Executive Committee statement (Minute 3.5.2/80, 95th Meeting - Villefranche) that IUPAC was responsible for any deficit liability on CHEMRAWN Conferences. Dr. Schneider felt that it was too early to modify that statement: the Treasurer was now attending meetings of the CHEMRAWN Committee and would keep a careful watch on the budget/finance of future Conferences. The Secretary General referred to the scientific and financial success of CHEMRAWN I and II and praise for the CHEMRAWN programme in general from ICSU (and UNESCO).

The Bureau accepted Dr. Schneider's view that CHEMRAWN should continue so long as there was a clear scientific need and the high quality could be maintained. The rolling fund should be built up to US-\$40 000 (Minute 3.4.1(iii)/84, Officers - Oxford), but more formal accounting should be introduced. The Treasurer warned that the cost of such accounting, at either the IUPAC Banker or Secretariat, would be an additional charge on the Union. It was also agreed that, in future, CHEMRAWN Committee should report annually to the Bureau and not just at the General Assembly.

The Executive Secretary expressed some anxiety about CHEMRAWN IV (Woods Hole/Massachusetts, 85.09.22-28), for which a first circular had not yet been issued. Prof. Overberger indicated that a final decision would be made shortly whether to proceed or to postpone the Conference. However, IUPAC should not insist on too tight a control or it would become difficult to recruit organizers. Prof. Wagner was asked to check on the status of CHEMRAWN V (FRG, 1986), for which official IUPAC sponsorship had not yet been requested.

4.3/84 Supplementary Divisional Allocations

The Bureau endorsed the allocations made by the President from the Divisional activities reserve approved by the Officers (Minute 3.4.2/84, Oxford). Specification of the exact projects was still required to finalize the provisional allocation to the Commission on High Temperature and Solid State Chemistry. The document on "Principles and Guidelines for Financial Allocations to Divisions and Standing Committees" had been considered by the Division Presidents on the previous day (Minute 3/84). Dr. Schneider had noted a consensus for the suggested A/B-budgetting. He had agreed to provide the Division Presidents with better advance instruction, following the Spring 1985 meeting of the Executive Committee, and especially concerning the post-Lyon level of Titular Members for Commissions/Members for Division Committees. There had been support from the Division Presidents for the Treasurer's view that not all Commissions should return automatically to eight Titular Members.

4.4/84 Tax Exemption Status in USA

Dr. Hartmann had advised (84.07.27) that, although this had apparently existed since 1953, it should not affect the tax-free status of IUPAC in the Canton of Zürich (Minute 3.4.5/84, Officers - Oxford). The Executive Secretary had reached agreement with the Assistant Revenue Representative at the US-Embassy in London to complete Return of Organization Exempt from Income Tax forms 990 for the years 1978-1982 which, together with the completed form for 1983 already submitted, would suffice to clear the outstanding documentation from the Union.

Dr. Good stressed the need to retain a tax-exemption status in USA, otherwise US Company Associate monies would become subject to tax. Answering a question from Prof. Sunderman, the Executive Secretary said that the US Internal Revenue Service had accepted the current IUPAC Statutes and Bylaws and hence the official statement (S2.5) of non-discrimination in respect of race, religion, and political philosophy.

4.5/84 Financial Burden of National Representatives

The Secretary General drew attention to a breakdown of memberships of IUPAC bodies in IUPAC Handbook 1983-1985 (as at 84.08.23). There had been a considerable increase in National Representatives since Prof. G. Ourisson encouraged NAOs a few years ago to propose suitable candidates for involvement in the work of the Union. Supported by the Treasurer, Prof. West proposed that a service charge of US-\$50 per biennium should be levied on an NAO for each of its appointed National Representatives. This money would finance the now substantial requirement in providing IUPAC publications and Division/Commission documentation to National Representatives via the IUPAC Secretariat.

Profs. Campbell, Jeannin, Lide, Michalski, Rao, Sunderman, and Tonks took part in the ensuing discussion, expressing a general anxiety not to lose the opportunity of increased participation in IUPAC activities. Pending the outcome of a more critical approach to the nomination/renomination of National Representatives, the Bureau resolved to defer the introduction of a service charge, but in the meantime:

- (i) NAOs should be asked to nominate only persons who were prepared to collaborate actively in project work;
- (ii) Divisions/Commissions should not accept renominations of persons who had been inactive in project work over a period of four years (attendance at meetings was not essential).

Prof. West gave notice that, in view of the burden of work, together with the Executive Secretary he would have to come back to the Bureau to request funds for additional staff at the Secretariat, unless sufficient control was exercised in the number of National Representatives as a result of the Bureau's resolution.

4.6/84 Treasurer's Responsibilities

Since the start of his term as Treasurer at the beginning of the year, Prof. Björkman had only been able to devote a limited amount of time to IUPAC work. The situation would improve shortly, however, when he completed his term as Executive Secretary/Treasurer of the International Academy of Wood Science.

The Treasurer had two main responsibilities:

- (i) budget preparation and control;
- (ii) a guarantee (to Council) that the handling of expenditure was under good control (payments, accounting).

However, if IUPAC financial affairs were to be run efficiently, it was impossible to follow exactly the text of the Statutes and Bylaws, and indeed had probably never been done. To exercise daily control, as prescribed, would slow down the work without any real gain. Prof. Björkman would consult the President, if necessary using a Presidential ruling, to find ways to simplify

the involvement of the Treasurer in routine paperwork. Nevertheless, the Treasurer was still responsible for expenditures and accounts.

He intended to devote more time to contacts with NAOs, to communication with Divisions, and to CHEMRAWN, publications, and administrative costs. This would enable the Treasurer to provide better background for input to budget work in the Finance Committee, etc., and thence a better presentation of financial matters to Council.

5/84 FUTURE IUPAC GENERAL ASSEMBLIES AND CONGRESSES

5.1/84 Arrangements for 33rd General Assembly

The Deputy Executive Secretary referred briefly to the precirculated first part (seventh revision) of the Information Booklet and invitation letter/forms for Lyon (85.08.30-09.07). Miss Troughton tabled the second part of the Information Booklet and reported that some slight changes to the Schedule of Meetings had been proposed by Bureau members at Oxford. Details were noted by the Bureau of travel arrangements offered by Successful Destinations Ltd.: unfortunately it was impossible to provide any accommodation service because of the lack of collaboration from SEPEL. It was planned to distribute invitation letters, etc. no later than mid-October. Total expenditure was presently expected to fall within the budget allocation of US-\$300 000, including allowance for meetings of the Commissions on Chemical Kinetics, Medicinal Chemistry, Radiochemistry and Nuclear Techniques, Biotechnology, Atmospheric Chemistry, and Water Chemistry.

5.2/84 IUPAC Representation on Congress Organizing Committees (Dr. Vlahov in attendance)

Following observations by the Division Presidents at Lyngby on the scientific programme for Manchester (85.09.09-13), the organizers had suggested that, if IUPAC wanted to have a full and effective voice in the formative stage of preparation for a future Congress, it might be best to nominate a representative to serve on the organizing committee (Minute 4.2/84, Officers - Oxford). Dr. Vlahov accepted the proposal of Prof. West that Dr. Williams should represent IUPAC for the 1987 Congress.

5.3/84 Arrangements for 31st Congress (Dr. Vlahov in attendance)

Dr. Vlahov proposed that the Congress should be held during 87.07.13-18 at the National Palace of Culture in Sofia and under the presidency of Academician G. Bliznakov. The Executive Secretary reported on the deliberations of the Division Presidents at Oxford (Minute 4.2/84) regarding suggested themes for eight sections of the scientific programme.

Prof. Michalski said that fashionable themes, such as biotechnology, should not be featured too often at successive Congresses. Prof. Rao felt that there should be some indication of the aspects to be covered of a large subject like Semiconductors (Section 5). Similar reservations were expressed by Prof. Michalski about "Gas phase Reactions" and "Asymmetric Synthesis" (Section 6). When the first circular was produced in April/May 1985, some details should be included about the sub-themes. Dr. Schneider recommended that the Union should make available the participants lists (names and addresses) from the 1983 and 1985 Congresses.

6/84

REPORT OF ADVISORY COMMITTEE ON CHEMICAL DATA BASES

Dr. Lide regretted that Prof. Koptug had not yet commented on the draft report of the meeting in London (84.06.19-20). After extensive discussion of the report, the Bureau resolved unanimously to accept the conclusions and recommendations. Responsibility for membership of the Standing Committee on Chemical Data Bases was delegated to the IUPAC Officers: the new Committee should produce a budget forecast for its activities, including an IUPAC Data Bases Coordinator. The Executive Secretary should check with the UK Copyright Office how the Union could obtain/retain copyright of its machine-readable files. The report should be circulated to NAOs with the request for wider dissemination (and translation) in order to promote international discussion. The Treasurer commented that excess revenue from IUPAC publications was already badly needed for traditional activities (cf. Recommendation 4). Dr. Schneider felt that collaboration with CODATA was more important than with the International Council for Scientific and Technical Information (successor to ICSU AB): CODATA had offered its full support, thereby avoiding any duplication of activity.

7/84

STATUS OF AFFILIATE MEMBERSHIP SCHEME

The Secretary General reported on progress since the Officers Budget Meeting (Minute 3/83, Oxford) to solicit funds from outside the Union. There were now promises of about US-\$23 500 from NAOs and ICSU plus the possibility of a further US-\$50 000 (US-\$25 000 from Dreyfus Foundation - decision later in September; US-\$25 000 from UNESCO - decision probably not before Spring 1985).

Continuation in 1984 of CI - the main means of communication within IUPAC and even externally - independently of the Scheme, had been possible through budgetary provision for a part-time editor. However, Mr. R. W. Fennell had undertaken only to see the completion of CI No. 6, 1984. Arrangements had recently been made with the new official publisher to the Union (Minute 13.2/84) to receive, if necessary, an advance on royalties for 1985 to augment the part-time editorial budget and thus recruit a full-time successor to Mr. Fennell. Also, the new publication contract allowed for provision of free copies of CI for IUPAC bodies, a very substantial saving on budget.

After careful consideration of the financial implications, the Bureau resolved that:

- (i) a full-time IUPAC Information Officer (including editorship of CI)/ Affiliate Affairs Secretary should be recruited to start work early in 1985 and initiate discussions with NAOs and/or National Chemical Societies in member countries, with a view to enlisting Affiliates from 86.01.01 for one year;
- (ii) the Executive Committee should review the financial situation in Spring 1985 and make a decision whether the Scheme should continue in 1987.

Prof. West hoped that the Affiliate Membership Scheme would be self-financing by the end of 1987: Council should review the status critically at Boston.

8/84

PROPOSED CHANGES TO STATUTES AND BYLAWS

Precirculated proposals from the Officers, arising from their meeting at Oxford (Minutes 3.1.2, 3.2.1.2, and 5.8/84) and subsequently, were considered by the Bureau:

1. Limitation of Total Service in IUPAC

- (i) Bylaw 4.103, line 13 - the additional wording was approved, subject to the insertion of "a total of" prior to "twelve years".
- (ii) Bylaw 4.304 - the rewording was approved, subject to the insertion of "a total of" prior to "ten years" (twice). As a matter of future policy, the Bureau agreed to minute that in highly exceptional cases there could be even further extensions of two years.
- (iii) Bylaw 4.305(i), line 41 - the rewording was approved, subject to the insertion of "a total of" prior to "twelve years" and deletion of "and that permission should be granted by the Bureau".

2. Deletion of All References to "Categories"

- (i) Statute 3.3 - the rewording was approved.
- (ii) Statute 5.1 - there was an extensive discussion of the proposed rewording. The Treasurer and Dr. Barrett advocated the deletion of "(1-6)" after "a specific number of votes", but retention was agreed by the Bureau in order to be more certain of adoption at Lyon, following failure at Leuven and at Lyngby to amend this Statute. Initially it was also agreed to add an extra sentence suggested by Prof. West "The number of Delegates shall not exceed the number of allocated votes", but this decision was later reversed because of the concern of Prof. Jeannin that it might lead some NAOs to pay for less than their maximum number of Delegates to Council meetings. Instead it was decided by the Bureau to add "/Delegates" before "(1/6)".
- (iii) Statutes 5.31, 9.1, 14.3, and Bylaws 2.2, 2.21, 2.24, 6.2 - the rewordings were approved.

3. Provision for Men and Women in the Union

Regarding proposals for changing "him" to "him/her", etc., in the Statutes and Bylaws, responsibility was delegated to Dr. Mary Good and the Executive Secretary to put forward more agreeable terminology.

4. Miscellaneous Matters

- (i) Statutes 4.3, 6.33, and Bylaws 4.304, 4.305 - the proposed changes were approved.
- (ii) Statute 6.6 - the proposed change was approved, subject to the replacement of "Commission" by "Committee".
- (iii) Bylaw 2.222 - there was a divergence of opinion regarding the proposed amendment of lines 28-29 to read

"number of vacancies, the Bureau shall advise the Council on the geographical and other implications in filling the vacancies."

with the last sentence in line 29 ("These recommendations are not binding on the Council.") to be deleted. Eventually the President ruled that no change should be recommended at present, but it should be suggested to Council at Lyon to have a Nominating Committee of Officers and Bureau Members, none of whom were candidates for election.

The Executive Secretary was requested to circulate to the NAOs, no later than 84.10.31, the changes to the Statutes and Bylaws approved by the Bureau (see Appendix A), i.e. ten months prior to the meeting of Council at Lyon (84.09.06-07) in accordance with requirements of Statute 14.3.

9/84 PROPOSAL FOR ASSIGNMENT OF VOTES IN COUNCIL

The Vice-President elaborated on the precirculated proposal arising from the Officers meeting (Minute 3.2.1.2/84, Oxford). Data was tabled by the Treasurer, analyzing evolution of the voting system since Washington (1971) and supporting the claim of a more equitable distribution of votes in the new proposal. The proposal was approved unanimously for circulation to the NAOs prior to Lyon, subject to moving the entry for Ireland in Table II below that for Yugoslavia.

10/84 REPORTS OF DIVISION PRESIDENTS

The reports on the activities of the Divisions since Lyngby (Bylaw 4.109) were taken as read. Each Division President was invited to address the Bureau briefly with any additional remarks.

Dr. Lide said that the controversy over the change in standard state pressure was now cooling, and an explanatory article by the Commission on Thermodynamics would shortly be submitted to CI. The major data compilation Oxidation-Reduction Potentials in Aqueous Solutions was scheduled for publication in early 1985 and the volume on chlorine in the International Thermodynamic Tables of the Fluid State should appear in December 1984.

Dr. Frehse reported that the (blue) loose-leaf compilation of Applied Chemistry Division/Commissions terms of references and projects (including synopses) had been well received outside the Division. This prompted Dr. Schneider to suggest that it might be useful to produce reprints of the Divisional membership/project sections of future biennial IUPAC Handbooks.

Revised terms of reference for the Commissions of the Clinical Chemistry Division would be checked by Prof. Rao prior to inclusion in the IUPAC Handbook 1985-1987 (Minute 3.3.2/84, Officers - Oxford). Prof. Sunderman suggested that:

- (i) the Secretariat should draft a form for general use by the Divisions regarding nomination of new members, taking into account the form already employed by the Applied Chemistry Division and one which he would supply from Farmington. The draft should emphasize the need to supply full address details.
- (ii) a certificate should be awarded at the end of a period of service for IUPAC, even a diploma of honour for long service, to be signed by the President of the Union or relevant Division President. The Executive Secretary agreed to check on any earlier suggestion of a similar nature.

11/84 IUPAC BODIES

11.1/84 Ratification of Members Approved by Correspondence

The following appointments to membership of IUPAC bodies, made through correspondence by the President since the Officers meeting (Minute 5/84, Oxford), were ratified by the Bureau:

CHEMRAWN Committee

Dr. R. H. Marchessault (Canada) to be appointed as a Member and Secretary (1984-1988) to replace Dr. H. Egan (deceased)
Prof. W. J. Beek (Netherlands) to be appointed as a Member (1984-1988) to replace Dr. G. S. Sidhu (resigned)
Prof. E. Grzywa (Poland) to be appointed as an Associate Member 1984-1988)

11.2/84 Status of Commission on Biotechnology

Following recent discussions by the Officers (Minute 5.6/84, Oxford), documents were available to the Bureau from ICSU (84.09.10) and Prof. D. Behrens (84.09.12), presenting the results of an informal meeting (Munich, 84.09.09) to discuss international cooperation in biotechnology. Prof. Rao had also tackled the matter in his critical review of the Applied Chemistry Division at Oxford (84.09.14) with Dr. Frehse.

There was general agreement that a Division of Biotechnology within IUPAC was unlikely to succeed, because scientists from disciplines other than chemistry might not be happy to work in IUPAC. Prof. Pellerin felt that the definition of biotechnology elaborated and adopted by the European Federation of Biotechnology was too narrow: chemistry itself was very much involved. Dr. Schneider agreed in that chemical industry was certainly pertinent. Prof. Sunderman stressed that clinical chemists were also active in biotechnology, mentioning in particular the area of cell biology.

The Bureau agreed the following as the official view of IUPAC to be put by the President and Secretary General at the forthcoming meeting of ICSU bio-unions during the 20th ICSU General Assembly (Ottawa, 84.09.23-28) to consider the setting up of an ICSU Inter-Union Commission or Scientific Committee on Biotechnology:

- (i) IUPAC was ready to take a leading role in any inter-union body (this implied financial support for an IUPAC expert plus either the Secretary General or Executive Secretary);
- (ii) IUPAC would retain and strengthen its Commission on Biotechnology in order to make a strong input to (i).

In addition:

- (i) bearing in mind existing communication difficulties with the Chairman of the Commission on Biotechnology, Dr. Schneider would contact the Secretary to obtain his views;
- (ii) each Division of the Union should be invited to summarize its interests/available expertise, if any, in biotechnology and to nominate a representative to an ad hoc meeting at Lyon.

Prof. Modena suggested that the Union should work out a general policy on how to handle IUPAC bodies having an inter-union interest and membership. In addition to biotechnology and medicinal chemistry, other cases would undoubtedly arise in the near future.

11.3/84 Vice-Presidential Critical Assessment of IUPAC Projects and Programmes 1983-5

Further to his preliminary report to the Officers (Minute 5.9/84, Oxford), Prof. Rao had interviewed each Division President at length in Oxford immediately prior to the Bureau meeting. He expected to present his draft critical assessment to the Executive Committee in April 1985.

11.4/84 Interim Report from COCI

The Secretary of COCI had not yet prepared the minutes of its recent meeting (Arnhem, 84.06.29), and his letter of 84.08.18 to Prof. Rao was taken as an interim report to the Bureau. Dr. Schneider drew attention:

- (i) to the agreement of COCI to examine in detail the Vice-Presidential Critical Assessment of IUPAC Projects and Programmes 1981-3;
- (ii) to the suggestion that other Divisions should produce booklets of terms of reference and projects like the loose-leaf compilation of the Applied Chemistry Division (cf. Minute 10/84);
- (iii) to the conclusion that virtually all current projects of the Applied Chemistry Division dealt with problems of chemical analysis and the continuing disquiet at such a constrained programme.

In the ensuing discussion, it was recommended that the relevant Division Presidents should write to COCI as follows:

- (i) re Commission IV.2, the Macromolecular Division Committee had decided at Lyngby "to explore" and not "to set up" two new working parties;
- (ii) re Division VI, positive suggestions were invited from COCI to broaden the scope of the Division;
- (iii) re Medicinal Chemistry, positive suggestions were invited from COCI to resolve the present difficulties.

11.5/84 Nominations of New Members

On the recommendation of Dr. Frehse, the Bureau approved the appointment as Associate Members (1983-1987) of the Commission on Food Chemistry of Dr. H. B. S. Conacher (Canada) and Dr. R. Livingston (USA) and the consequent further increase in the number of Associate Members (to ten) above that of Titular Members (Bylaw 4.304) until 1985.

12/84 RELATIONS WITH OTHER ORGANIZATIONS

12.1/84 IUB-IUPAB-IUPAC Commission on Biothermodynamics

A report of an ad hoc meeting of the Commission (Bristol, 84.06.29) and a letter (84.08.12) from IUPAB had been precirculated. On completion of the present two major projects, the IUPAB Council saw no immediate need for further activities of the Commission and IUPAB would therefore not provide support for its continued existence. If IUB adopted a similar attitude, any new project work might be undertaken by a subcommittee under the IUPAC Commission on Thermodynamics. Dr. Lide agreed to present a formal proposal at Lyon.

12.2/84 Association of Editors of European Chemistry Journals

The Bureau noted that, because there was no activity, it had been decided to remove the Association from the agenda for reporting to the annual General Assembly of the Federation of European Chemical Societies. The IUPAC Council might need to act similarly at Lyon and discontinue the AO status of the Association.

12.3/84 Requests for Grants and Loans from ICSU in 1985

The Bureau noted that IUPAC had submitted applications for the following grants:

Solubility Data Compilation	-	US-\$4 000
Affiliate Membership Scheme	-	US-\$5 000
Compendium of Chemical Terminology	-	US-\$10 000

12.4/84 Legal Obligations Enquiry from IUFOST

Following an enquiry for advice from IUFOST, the President became concerned about the personal liability (if any) of members of IUPAC. The tax-free status in the Canton of Zürich was a consequence of the Union acting in accordance with Articles 60 and following of the Swiss Civil Code (Statute 4.4) and the official headquarters of the Union being in Zürich (Statute 4.3). However, it did not cover legal liability, indeed the Statutes and Bylaws of the Union might well have no legal standing unless IUPAC became incorporated.

Dr. Schneider had discussed the matter with the Executive Secretary of ICSU, who would be undertaking some enquiries, and he drew attention to the statutory provisions of IUCr for its organization/legal domicile and for liability. The Bureau requested the Secretary General to look into the need for incorporation of IUPAC and to report back to the Executive Committee in April 1985.

12.5/84 International Congress on Catalysis

Alterations to the articles of the ICC Constitution (1968) were subject to approval by IUPAC. The Executive Secretary was asked to inform ICC that amendments adopted by ICC in 1984 were not in conflict with IUPAC policies and they were therefore approved by the Union (cf. Minute 13.8/77, 37th Bureau - Warsaw).

12.6/84 Issues before ICSU

The Bureau endorsed, without comment, the observations drafted by the Secretary General on the document "Issues before ICSU". By analogy with practice in ICSU, Prof. West suggested that, in future, when Council approved the creation of a new IUPAC body, the NAO subscriptions might be increased automatically by an agreed amount.

13/84 PUBLICATIONS (Mr. Gujral in attendance)

13.1/84 Minutes of Publications Committee Meeting

Draft minutes of the meeting at Oxford (84.07.01-03) were tabled belatedly by Mr. Gujral. There was only time to consider the following items:

- (i) Reproduction/Translation of Material from IUPAC Publications (Minute 2.1/84). In response to a detailed letter from the President (84.03.22), provision had been made in the recent tendering for official publisher to the Union to simplify the requirements for reproduction/translation of Commission reports from PAC. Although the Publications Committee preferred to impose a three months waiting period, Dr. Schneider reiterated his desire for simultaneous reproduction, as from CI (Minute 8.3/84, Officers - Oxford).

After consideration of various implications, the Bureau resolved that reproduction from PAC should be allowed without the need for formal permission of IUPAC, after the relevant issue of the journal was printed and on condition that an acknowledgement with full reference, together with the IUPAC copyright symbol, was included.

- (ii) Chemical Data Bases (Minute 2.3/84). It was recommended by the Publications Committee that its scope should be enlarged and the Committee renamed "Committee on Publications and Communications" or "Committee on Publications and Information Transfer". In keeping with such increased activities, the membership should be increased to include experts on data bases. Dr. Lide pointed out that, although the Publications Committee Chairman had attended the Advisory Committee meeting (see Bureau Minute 6/84), the recommendation had not been presented. The Bureau reaffirmed its support for the creation of a separate Standing Committee on Chemical Data Bases.
- (iii) System for Literature References in Publications (Minute 13.1/84). In response to the request from the Executive Committee (Minute 17.4/83, 103rd Meeting - Lyngby) to look into the matter, Dr. S. Maricić was preparing a document with a view to finalizing recommendations at Lyon.

13.2/84 Official Publisher to IUPAC from 85.01.01

On the recommendation of the Publications Committee (Minute 5/84, Oxford), five publishers had been invited to make a personal presentation on 84.08.20 to a Selection Committee (Secretary General, Treasurer, Chairman of Publications Committee). Subject to agreement of detailed contractual terms, the outcome was a unanimous decision to appoint Blackwell Scientific Publications as the main official publisher to the Union:

- (i) It was located in Oxford, and had a strong book publishing programme, plus over 90 journals (several for scientific societies and international organizations).
- (ii) Maximization of income from PAC.
- (iii) Maximum dissemination: Blackwells had an international reputation for good service as a major subscription agent and bookseller.
- (iv) Flexible attitude in the discussions.

The Solubility Data Series was to be left with Pergamon Press, subject to acceptance of an amended contract.

The Bureau noted that, for the time being, the format and content of PAC would remain unchanged. It supported a suggestion from Dr. Good that the terms of reference for the Editorial Advisory Board should be enlarged to cover discussion of and recommendation on the contents. If possible, the EAB should meet at Lyon.

Dr. Lide expressed the hope that Pergamon would soon be able to print SDS books from machine-readable input supplied by the Commission on Solubility Data. This would expedite the availability of data-base profiles.

13.3/84 IUPAC Handbook 1983-1985

There was general approval for the Handbook and its improved contents. The Bureau accepted the suggestion (Minute 6.2/84, Division Presidents - Oxford) that, in future, there should be an introductory section updating material from the 1972 brochure/article by the late Sir Harold Thompson entitled: "IUPAC: Aims, Structure and Mechanism" (Chem. in Britain: 1972, 8 (10), 436-438). Reprints of such a section could be used to deal expeditiously with requests for information about the Union, to solicit new NAOs, Observer Countries, CAs, and to distribute at IUPAC-sponsored symposia. Also the Bureau approved a suggestion via the Deputy Executive Secretary (84.08.22) to include both the Statutes and Bylaws and Division Rules in the Handbook, but to make available reprints of this particular material for use within the Union.

14/84 SPONSORSHIP: REPRESENTATION, SPONSORSHIP, SUBVENTION

14.1/84 Ratification of Sponsorships Approved by Correspondence

The sponsorships of symposia, approved through correspondence by the President since the 47th Bureau meeting (see Appendix B), were ratified by the Bureau. It was noted with pleasure that sponsorship had been granted for the first time to a meeting in China.

Prof. Jeannin was concerned about the policy of IUPAC for freedom of participation of bona fide scientists from throughout the world (Minute 14.1/74, 33rd Bureau - Brussels), when only the Foreign Ministry in a host country could issue entry visas. After careful appraisal of the success to date by the Union in this important matter, the Bureau reaffirmed the existing policy.

14.2/84 Ratification of Official Representatives to Symposia in 1984

The appointments of official representatives of IUPAC to its sponsored symposia in 1984, as made by the President through correspondence since the 47th Bureau meeting (see Appendix C), were ratified by the Bureau.

14.3/84 Sponsorship of International Symposia by IUPAC

Dr. Good was concerned that the "completed" AIQ, submitted by symposium organizers in support of an application for IUPAC sponsorship, often contained insufficient detail about the scientific programme to allow any rational evaluation to be made. In turn, this meant that provisional responsibility only for publication could be accepted by the Union. The Bureau approved the proposal (Minute 7.4/84, Division Presidents - Oxford) that Dr. Good should collaborate with the Secretariat to develop a suitable instruction to organizers.

14.4/84 7th International Biotechnology Symposium (India, 84.02.19-24)

In contradiction with IUPAC Statute 2.5, South African applicants for entry visas had been required to sign a declaration about the political philosophy of their country. The Bureau agreed to await the outcome of deliberations on the matter at the forthcoming General Assembly of ICSU.

14.5/84 Sponsorship of Symposia in Observer Countries

An enquiry (84.05.13) was considered about the possibility of holding one of the forthcoming IUPAC Symposia on Chemistry of Natural Products in Karachi. The Bureau agreed to extend to Observer Countries the privilege to apply for sponsorship by the Union of symposia. Division Presidents should be instructed to examine such applications with great care in order to maintain the highest quality for IUPAC meetings.

15/84 DATES AND PLACES OF NEXT MEETINGS

An invitation from the Hungarian Academy of Sciences (83.10.04) was accepted, in principle, for the Bureau to meet at Veszprém in Summer 1986.

The Executive Committee had agreed (Minute 1/84, 105th Meeting - Oxford) to hold its next meeting at London on 85.04.15-16. An invitation from the Chinese Chemical Society (83.10.25) was accepted, in principle, for the Executive Committee to meet at Beijing in Spring 1986. Prof. Rao issued a verbal invitation for the Executive Committee to meet in India during 1987.

16/84 ANY OTHER BUSINESS

16.1/84 History of IUPAC

Attention was drawn by Prof. Kjaer to the historical survey of the first fifty years of IUPAC (491 pages) compiled by the late Prof. S. Veibel. The Executive Committee had decided that publication was not feasible in that form (Minute 33.1/73, 76th Meeting - Munich). Prof. Kjaer accepted that considerable editing was necessary in order to produce a shorter, more publishable document. The President suggested that the Secretary General of IUHPS should be approached to see if it could help.

16.2/84 ICSU Abstracting Board

Prof. Wagner raised the question of IUPAC's attitude to the new International Council for Scientific and Technical Information as a successor to ICSU AB. The Bureau agreed to wait and see how ICSTI developed before deciding whether to involve actively, but the Secretary General was instructed to support its admission as a Scientific Associate at the forthcoming ICSU General Assembly.

16.3/84 IUPAC Seminars

Prof. Wagner reported on the meeting during the evening of 84.09.16 of the Study Group (Minute 3.2.2/84, Officers - Oxford). It had been concluded that the concept was not unreasonable, and a start might be tried in 1985 with two seminars:

- (i) in Latin America (Paraguay or Uruguay) - Prof. Arvía to investigate;
- (ii) in Egypt on water chemistry, possibly in conjunction with the Analytical Chemistry Division.

In order to minimize the need for financial support, advantage should be taken of suitable international experts already travelling abroad, to act as keynote speakers.

In the opinion of the President it would be better to fund a series of seminars, rather than unrelated single meetings, and he requested the Study Group to present a definite programme to the Bureau at Lyon.

VOTE OF THANKS

Dr. Schneider asked for thanks to be recorded to the British National Committee for Chemistry of the Royal Society for the provision of hospitality.

CHAIRMAN:

R. G. Schneider

DATE:

4/9/83-

PROPOSED CHANGES TO STATUTES AND BYLAWS1. Limitation of Total Service in IUPAC

- (i) Bylaw 4.103, line 13 - add the following wording

"Exceptional circumstances must be established and special permission of the Bureau granted for membership of more than one Division Committee beyond a total of twelve years whether the memberships are consecutive or not."

- (ii) Bylaw 4.304 - reword as follows

"The membership of each new Commission is determined by the Council. Thereafter, both Titular Members and Associate Members may be nominated by the Commission but shall assume office only after approval by the Division or Section Committee and by the Bureau or Executive Committee. The terms of service of Titular Members and Associate Members shall be four years, subject to the provisions of Bylaw 4.302, with the possibility of reelection for two or four years in the same category of membership. The sum of the years of service as a Titular Member, including service as Chairman, Vice-Chairman, or Secretary shall not exceed a total of ten years, whether these are consecutive or not. Exceptional circumstances must be established and special permission of the Bureau granted for

- (i) the reappointment as a Titular Member of a person who has served eight years as a Titular Member, whether these are consecutive or not. The extension shall be for a period of two years.

- (ii) the rotation of a person through alternate period of Titular and Associate Membership beyond a total of twelve years, whether these are consecutive or not. The extension shall be for a period of two years.

- (iii) membership in any capacity, other than that of National Representative, of more than one Commission of a Division or of different Divisions beyond a total of twelve years, whether these are consecutive or not. The extension shall be for a period of two years.

- (iv) the replacement by a Division or Section President between General Assemblies of a Member of a Commission."

- (iii) Bylaw 4.305(i), line 41 - add the following wording

"Reappointment of National Representatives beyond a total of twelve years service, whether these are consecutive or not, requires that special circumstances should be established by the Adhering Organization."

2. Deletion of All Reference to "Categories"

(i) Statute 3.3 - reword as follows

"A country requesting admission to the Union shall provide full information about its proposed Adhering Organization."

(ii) Statute 5.1 - reword as follows

"The Council, to which the Bureau, Executive Committee, Standing Committees, Divisions, Sections, Commissions, and all other bodies of the Union are responsible, is composed of the Delegations of the Adhering Organizations. Each Delegation shall be assigned a specific number of votes/Delegates (1-6) according to principles decided by the Council. Each Adhering Organization shall appoint its Delegates for every Council meeting."

(iii) Statute 5.31, lines 42-44 - reword as follows

"This maximum refers to the full complement of Delegates from all Adhering Organizations."

(iv) Statute 9.1 - reword as follows

"Each Adhering Organization shall pay an annual subscription to the Union, due 1 January and payable before 31 December in each year. The minimum amount of this annual subscription shall be decided from time to time by the Council."

(v) Statute 14.3, page 8, lines 1-2 - delete

"in Categories A, B, and C."

(vi) Bylaw 2.2 - reword as follows

"Voting on nonscientific matters shall be by Delegations, each Delegation being entitled to cast the number of assigned votes. All the votes to which the Adhering Organization is entitled shall be cast in the same sense."

(vii) Bylaw 2.21, line 9 - delete

"and assignments from one category to another"

(viii) Bylaw 2.24, lines 14-15 - reword as follows

"the number of assigned votes, provided always that decisions on admission and"

(ix) Bylaw 6.2, line 10 - delete

"in Categories A, B, and C"

3. Provision for Men and Women in the Union

- (i) Statute 5.2, line 37 - replace "him" by "the President".
- (ii) Statute 5.33, line 5 - replace "his" by "that".
- (iii) Statute 6.22 - replace lines 38-41 by

"The President is the administrative head of the Union, shall preside at the meetings of the Council, of the Bureau, and of the Executive Committee, and shall be ex officio a member of all bodies of the Union. The President may delegate power as chief representative of the Union and to preside at meetings"

- and replace line 45 by

"or, if absent, an Elected Member of the Bureau, chosen by the Bureau, shall"
- (iv) Statute 6.32, line 7 - replace "his" by "the".
- (v) Statute 6.51, line 18 - replace "He" by "The Treasurer".
- (vi) Statute 8.2, line 35 - replace "his" and "He" by "the" and "An Elected Member".
- (vii) Bylaw 4.306, line 2 - replace "his" by "the".
- (viii) Bylaw 4.310 - replace "his" by "the" in lines 12 and 13.

4. Miscellaneous Matters

- (i) Statute 4.3, lines 16-17 - for conformity with Statute 14.3, change to

"otherwise decided by the Council. Any change in location requires the approval of two-thirds of the total number of votes assigned to the Adhering Organizations."
- (ii) Statute 6.33 - replace "annually" by "biennially",
- (iii) Statute 6.6, line 24 - change to "Committee (Bureau, Council) through the Secretary General and in financial matters through the Treasurer."
- (iv) Bylaw 4.304, line 30 - delete "If approval by the latter be obtained or".
- (v) Bylaw 4.305, line 34 - insert "Commission" before "Member".

SPONSORSHIPS OF SYMPOSIA BY IUPAC APPROVED BY CORRESPONDENCE
SINCE 47th BUREAU MEETING

(see Appendix A, 47th Bureau - Lyngby)

International Conference on Physics and Chemistry of Low-dimensional Synthetic Metals
(Abano Terme, Italy: 84.06.17-22)

6th Bratislava International Conference on Modified Polymers
(Bratislava, CSSR: 84.07.02-05)

9th International Conference on Non-aqueous Solutions
(Pittsburgh/Pennsylvania, USA: 84.08.13-17)

1st International Symposium on Solubility Phenomena
(London/Ontario, Canada: 84.08.21-23)

International Conference on Defects in Insulating Crystals
(Salt Lake City/Utah, USA: 84.08.20-24)

8th International Symposium on Medicinal Chemistry
(Uppsala, Sweden: 84.08.27-31)

3rd International Conference on Solid Films and Surfaces
(Sydney, Australia: 84.08.27-31)

7th International Symposium on Carotenoids
(Munich, FRG: 84.08.27-31)

3rd International Conference on Nickel Metabolism and Toxicology
(Paris, France: 84.09.04-07)

7th International Symposium on Organosilicon Chemistry
(Kyoto, Japan: 84.09.09-14)

Symposium on Polymer Chemistry
(Leuven, Belgium: 84.09.26-28)

International Symposium on Hydrogen in Metals
(Belfast, N. Ireland: 85.03.26-29)

2nd International Symposium on Analytical Chemistry in Exploration, Mining and Processing of Materials
(Pretoria, South Africa: 85.04.15-19)

International Symposium on Non-crystalline Order in Polymers
(Naples, Italy: 85.05.27-30)

1st International Symposium on Bioorganic Chemistry
(New York City, USA: early June 1985)

International Conference on Theory of Structures of Non-crystalline Solids
(Bloomfield Hills/Michigan, USA: 85.06.03-06)

- 5th International Conference on Surface and Colloid Science
(Potsdam/New York, USA: 85.06.24-28)
- 7th International Symposium on Plasma Chemistry
(Eindhoven, Netherlands: 85.07.01-05)
- 28th Microsymposium on Macromolecules
(Prague, CSSR): 85.07.08-11)
- 3rd International Symposium on Organometallic Chemistry Directed towards Organic
Synthesis
(Kyoto, Japan: 85.07.12-15)
- 7th International Symposium on Solute-Solute-Solvent Interactions
(Reading, UK: 85.07.15-19)
- 6th International IUPAC Symposium on Mycotoxins and Phycotoxins
(Pretoria, South Africa: 85.07.22-25)
- 10th International Congress of Heterocyclic Chemistry
(Waterloo/Ontario, Canada: 85.08.11-16)
- 7th International Symposium on Cationic Polymerization and Related Processes
(Jena, GDR: 85.08.12-15)
- 8th International Conference on Chemical Education
(Tokyo, Japan: 85.08.18-23)
- 8th International Conference on Thermal Analysis
(Bratislava, CSSR: 85.08.19-23)
- International Symposium on Applications of Mathematical Concepts to Chemistry
(Dubrovnik, Yugoslavia: 85.09.02-05)
- 12th International Conference on Organometallic Chemistry
(Vienna, Austria: 85.09.08-13)
- 24th Colloquium Spectroscopicum Internationale
(Garmisch-Partenkirchen, FRG: 85.09.15-12)
- International Symposium on Organic Chemistry of Medicinal Natural Products
(Shanghai, China: 85.11.10-13)
- 15th International Symposium on Chemistry of Natural Products
(Den Haag, Netherlands: 86.08.17-23)

OFFICIAL REPRESENTATIVES OF IUPAC TO ITS SPONSORED SYMPOSIA IN 1984
APPOINTED BY PRESIDENT

- 7th International Biotechnology Symposium
(New Delhi, India: 84.02.19-25) - Prof. C. L. COONEY
- 4th International Conference on High Temperature and Energy-Related Materials
(Santa Fe/New Mexico, USA: 84.04.02-06) - Prof. K. L. KOMAREK
- International Conference on Physics and Chemistry of Low-dimensional Synthetic Metals
(Abano Terme, Italy: 84.06.17-22) - Prof. G. ZERBI
- CHEMRAWN III
(Den Haag, Netherlands: 84.06.25-29) - Dr. W. G. SCHNEIDER
- 12th International Carbohydrate Symposium
(Utrecht, Netherlands: 84.07.01-07) - Prof. M. MANDEL
- 6th Bratislava International Conference on Modified Polymers
(Bratislava, CSSR: 84.07.02-05) - Prof. N. PLATÉ
- 8th International Congress on Catalysis
(Berlin, FRG: 84.07.02-06) - Prof. J. HABER
- 26th Prague Microsymposium on Macromolecules
(Prague, CSSR: 84.07.09-12) - Prof. C. H. BAMFORD
- 14th International Symposium on Chemistry of Natural Products
(Poznan, Poland: 84.07.09-14) - Prof. N. J. LEONARD
- 27th Prague Microsymposium on Macromolecules
(Prague, CSSR: 84.07.16-19) - Prof. M. MANDEL
- 10th IUPAC Symposium on Photochemistry
(Interlaken, Switzerland: 84.07.22-27) - Prof. F. C. DE SCHRYVER
- 22nd International Conference on Coordination Chemistry
(Boulder/Colorado, USA: 84.07.29-08.03) - Dr. MARY L. GOOD
- 9th International Conference on Non-aqueous Solutions
(Pittsburgh/Pennsylvania, USA: 84.08.13-17) - Prof. H. OHTAKI
- 8th International Conference on Chemical Thermodynamics
(Hamilton, Canada: 84.08.13-17) - Prof. G. M. SCHNEIDER
- 7th IUPAC Conference on Physical Organic Chemistry
(Auckland, New Zealand: 84.08.20-24) - Prof. H. ZOLLINGER
- International Conference on Defects in Insulating Crystals
(Salt Lake City/Utah, USA: 84.08.20-24) - Prof. R. W. PARRY
- International Symposium on Solubility Phenomena
(London/Ontario, Canada: 84.08.21-23) - Dr. W. G. SCHNEIDER
- International Symposium on Physical Chemistry of Colloids and Macromolecules
(Uppsala, Sweden: 84.08.22-24) - Prof. M. MANDEL

5th International Conference on Organic Synthesis
(Freiburg i. Br., FRG: 84.08.27-30) - Prof. IRINE P. BELETSKAYA

7th International Symposium on Carotenoids
(Munich, FRG: 84.08.27-31) - Dr. B. C. L. WEEDON

3rd International Conference on Solid Films and Surfaces
(Sydney, Australia: 84.08.27-31) - Prof. N. SHEPPARD

8th International Symposium on Medicinal Chemistry
(Uppsala, Sweden: 84.08.27-31) - Prof. S. SAREL

9th International Conference on Raman Spectroscopy
(Tokyo, Japan: 84.08.27-09.01) - Prof. S. NAGAKURA

10th International Symposium on Reactivity of Solids
(Dijon, France: 84.08.27-09.01) - Prof. J. BÉNARD

International Symposium on Quantitative Luminescence Spectroscopy in Biomedical Sciences
(Ghent, Belgium: 84.09.03-06) - Prof. G. G. GUILBAULT

3rd International Conference on Nickel Metabolism and Toxicology
(Paris, France: 84.09.04-07) - Prof. F. W. SUNDERMAN, Jr./Prof. D. B. TONKS/
Dr. S. S. BROWN

7th International Symposium on Organosilicon Chemistry
(Kyoto, Japan: 84.09.09-14) - Prof. KAZUO SAITO

Polymer Chemistry Meeting
(Leuven, Belgium: 84.09.26-28) - Prof. C. H. BAMFORD

2nd International Congress on Automation in the Clinical Laboratory
(Barcelona, Spain: 84.10.15-18) - Prof. R. HAECKEL

2nd International Symposium on Harmonization of Collaborative Analytical Studies
(Washington, DC, USA: 84.10.25-27) - Dr. W. G. SCHNEIDER