

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MINUTES OF 101st MEETING OF EXECUTIVE COMMITTEE

Hotel International, Prague : 12th September 1982

Present: Prof. S. Nagakura (Chairman), Dr. W. Graulich, Prof. J. Michalski, Prof. C. G. Overberger, Prof. A. Perez-Masiá, Dr. W. G. Schneider, Dr. T. S. West, Prof. H. Zollinger

Absent: Prof. G. Ourisson

In Attendance: Dr. M. Williams (Executive Secretary)

13/82 INTRODUCTORY REMARKS AND FINALIZATION OF AGENDA

Prof. G. Ourisson was unable to attend because of urgent commitments in his work for the French government. It was noted, however, that he would be relinquishing these duties within the next few weeks and hoped to participate more fully as Secretary General in IUPAC affairs during 1983.

The following items were added to the agenda circulated by the Executive Secretary (82.08.25):

- 3.4 Interdivisional Committee on Nomenclature and Symbols
- 3.5 Finance Committee
- 5.5 IUPAC-Approved Glossaries
- 8.2 28th International Symposium on Macromolecules (Bureau Item 11.1)
- 8.3 UK Proposal for Formal Dues Calculation and Category Allocation (Bureau Item 4.3)
- 8.4 Future of Chemistry International (Bureau Item 7.3)
- 10.1 Persons with More than Three IUPAC Commitments

14/82 MINUTES OF 100th MEETING OF EXECUTIVE COMMITTEE

14.1/82 Amendments and Approval of Minutes

The minutes of the meeting in Den Haag (circulated by the Executive Secretary 82.06.30) were approved.

14.2/82 Matters Arising from Minutes

14.2.1/82 Extended Associate Membership on Food Chemistry Commission
(Minute 3.1.3/82)

The Executive Secretary reported that no reasons had still been advanced to justify why it was essential to extend beyond 8 consecutive years the Associate Membership of Mr. I. R. C. McDonald. However, since it would be embarrassing at this late stage to discontinue his Membership, the Executive Committee accepted the suggestion of Dr. West to allow an extension until 1983.

14.2.2/82 Voting Procedure at Council Meetings (Minute 3.2.4/82)

The Executive Secretary said that the suggestion for the Deputy Executive

Secretary to attend Council meetings and to assist in note-taking for preparation of minutes was impracticable. Miss A. Troughton's attention was required fully at that time in producing the new membership listings of IUPAC bodies for the Bureau. The Secretary General should therefore be responsible for providing the President with advice on interpretation of Statutes and Bylaws, precedents, etc. At Lyngby an attempt would be made to specify on the item pages of the meeting file whether the voting procedure was for a scientific or non-scientific matter.

14.2.3/82 Alternative Criteria to Chemical Turnover as Basis for Membership Categories (Minute 3.4.5/82)

Some alternative criteria to CT, suggested by Spain (82.01.12) as a basis for membership categories, had been circulated for assessment by the Executive Committee. Written comments were available from Prof. Perez-Masiá, Dr. Schneider and Dr. West.

The President invited Prof. Perez-Masiá to open the discussion. The latter stressed that there was no ideal criterion for the categories: the best solution was a combination of factors, thereby minimizing the deficiencies of each one. In particular, it was easy to derive from Chemical Abstracts information on the number of chemistry papers published annually for each country. He believed it would be difficult to obtain increased dues from countries with few or no memberships of IUPAC bodies.

Prof. Michalski supported a combination of factors as a stronger argument to obtain increased dues from national governments. In general, Prof. Zollinger agreed that the factors suggested by Spain were useful supplements to CT, although he was strongly opposed to use of the number of persons from a country involved in IUPAC activities. The Union must always draw on the best available international experts, irrespective of their countries.

Dr. Graulich thought it would be more complex in practice to use a combination of factors and, in any case, such an approach was unlikely to alter greatly the existing levels of dues. The number of chemical papers published per country was no indication of their scientific quality. Furthermore, publications totals were on a linear scale, whereas CT levels were not, so a direct comparison was not permissible.

Dr. West presented data comparing the 1982 dues system with one based on the number of publications during 1980-1. An analysis showed that the dues for all, except 8 countries, would be reduced, but Japan, USA and USSR would have to bear impossibly large increases (these would be less if a logarithmic scale was employed). In his opinion, memberships of national chemical societies (as an indication of the number of chemists in a country) was a better criterion than the involvement of chemists from a country in IUPAC activities.

The Executive Committee agreed to request the Finance Committee to look in some detail, but not too extensively, into the comparative effects on dues of the various criteria advocated. These alternatives to CT might serve as additional criteria to judge difficult cases. The Secretariat should not be burdened with this work.

14.2.4/82 New Mechanism for Publication of Recommendations on Nomenclature and Symbols (Minute 7.4/82)

Because of changes in staff and reorganization of the Secretariat, Dr. West said it had become necessary to postpone introduction of the new mechanism. However, at its recent meeting in Oxford (82.09.04-05) IDCNS had suggested

some ways to shift the burden from the Secretariat and implement the mechanism in part. This was agreeable to Dr. Williams and Miss Troughton, but full implementation could only follow the appointment of a new Information Officer. It was left for Drs. West and Williams to decide how to proceed.

14.2.5/82 Reduced Prices of Publications for Least-developed Countries
(Minute 9.2/82)

So far, only 6 organizations in LDCs had apparently taken advantage of the reduced subscription for Chemical Abstracts in 1982. Not much increase was expected in the next few years. Prof. Perez-Masiá felt that it was important for the image of IUPAC, especially to UNESCO, to be able to say the Union does offer a reduced subscription to PAC, even if not many were in practice taken out. The Executive Committee decided to make one more effort to persuade Pergamon to comply.

15/82 MEMBERSHIP OF STANDING COMMITTEES

15.1/82 IUB-IUPAC Joint Commission on Biochemical Nomenclature
(Minute 16/81, 98th Executive Committee - Leuven)

Dr. A. Cornish-Bowden had now agreed to be nominated as Secretary of JCBN from 83.01.01, when Dr. H. B. F. Dixon became Chairman and an IUB-member. The Executive Committee approved the appointment of Dr. Cornish-Bowden as Secretary and an IUPAC-member of JCBN, and suggested that he might succeed Dr. P. Karlson as JCBN's representative to IDCNS. Also, it approved the reappointment of Dr. G. P. Moss for a further four-year term (1983-6) as an IUPAC-member of JCBN.

15.2/82 CHEMRAWN Committee (Minute 3.5.1/82, 100th Executive Committee - Den Haag)

Dr. B. W. Rossiter had proposed (82.07.16) that, as for other Standing Committees, CHEMRAWN Committee Members should be eligible for travel and subsistence support from IUPAC general funds. That view was endorsed by Prof. Overberger, who stressed that the scientific activity of CHEMRAWN was comparable intellectually with the work of Divisions of the Union. However, Dr. Schneider said it was only realistic, if any financial surplus from a CHEMRAWN Conference was to be set aside separately in the IUPAC accounts ("rolling fund"), to meet expenses of CHEMRAWN Committee Members from those particular monies. Prof. Nagakura felt that the principle of financial self-sufficiency was important for CHEMRAWN. Dr. West suggested that there might be a surcharge on CHEMRAWN Conferences to finance the activities of the IUPAC CHEMRAWN Committee.

The Executive Committee decided to continue with the present policy for financing Members of the CHEMRAWN Committee until no more money remained in the rolling fund. The Treasurer should then consider with the Executive Committee if there was a need to finance meetings of the CHEMRAWN Committee from general funds.

A further proposal from Dr. Rossiter (82.06.30) to permit the appointment of Associate Members to assist in the work load of the CHEMRAWN Committee was approved by the Executive Committee. The initial period of appointment should be for 4 years, as for regular Members, and Associate Members might exceptionally be allocated money from CHEMRAWN rolling funds. Also the Executive Committee approved the appointments of Dr. R. Pariser to replace Dr. Schneider as a regular Member and of Drs. R. H. Marchessault and G. S. Sidhu as Associate Members of the CHEMRAWN Committee.

15.3/82 Committee on Chemistry and Industry (Minute 6.2/82, 100th Executive Committee - Den Haag)

Prof. K. H. Büchel had confirmed that he was willing to serve for a further term as Chairman (1983-6) of COCI, on condition that Dr. G. Jäger could continue as Secretary (1984-7). The Executive Committee approved the reappointment of Prof. Büchel: the President should stress the need for more regular activity as Chairman of COCI in order to facilitate better involvement of chemical industry in the Union. Dr. Schneider drew attention to the recommendation of the Division Presidents (Minute 10/82, Prague) to the Bureau, that COCI should be invited to send representatives to Division Committee meetings at Lyngby.

The Executive Committee accepted the nomination by the US National Committee for IUPAC of Dr. A. Schriesheim to replace Dr. R. J. Fawcett on COCI. No reply had so far been received from the relevant NAOs about Dr. P. Rhyner and Prof. D. Sianesi. Prof. Zollinger agreed to check about Dr. Rhyner, and the Executive Secretary would inform the Italian NAO that, unless it replied to the contrary by 82.12.31, Prof. Sianesi would be reappointed.

It was reaffirmed by the Executive Committee that IUPAC was not responsible for payment of travel and subsistence expenses of representatives of Company Associates to meetings of COCI. Suitable wording was agreed for the invitation letter to COCI for the Lyngby General Assembly.

15.4/82 Interdivisional Committee on Nomenclature and Symbols

The Executive Committee noted that Mr. A. Thor had replaced Mrs. Vibeke Simonsgaard and Dr. B. W. Petley had replaced Prof. L. Villena as representatives of ISO and IUPAP respectively to IDCNS.

15.5/82 Finance Committee

The Finance Committee had acknowledged the Executive Committee recommendation (Minute 3.4.10/82, 100th Meeting - Den Haag) that the vacancy on the Finance Committee occasioned by the resignation of Prof. J. Mathieu should be filled by a person from a lower membership category country. It had identified suitable candidates and indicated its choice for appointment.

In view of the financial worries and foreseen difficulties of the Union, Dr. West advocated a change in philosophy regarding membership of the Finance Committee: to have more members who were primarily financiers, with an interest in chemistry, rather than the reverse. Such persons could probably better address themselves to means of raising extra money for IUPAC. Prof. Perez-Masiá was still keen to see a person appointed, sooner or later, from a lower membership category country. Dr. Schneider stressed the need to have a proper balance on the Finance Committee: too many financiers might lead to finance becoming the only important factor instead of the scientific aspects of the work of the Union. Prof. Zollinger agreed with Dr. Schneider and proposed that there be no more than two financiers.

The Executive Committee decided to freeze, for the present, the vacancy on the Finance Committee. Dr. West would write to the Chairman, conveying the decision and indicating the views of the Executive Committee on membership.

16/82 RATIONALIZATION OF WORK OF IUPAC SECRETARIAT (Minutes 7.1, 7.2 & 7.6/82, 100th Executive Committee - Den Haag)

Dr. West reported that since Den Haag he had revisited the Secretariat and

corresponded about the review of staffing and workload. Miss Troughton had been appointed Deputy Executive Secretary, with progressive absorption of several duties from Dr. Williams, dependent on the appointment at the end of 1982 of a junior secretary to be administered by her and the return of her normal secretary (Mrs. A. U. Inglis) in mid-1983. A revised role for the Assistant Secretary (Publications) was envisaged and Dr. West was discussing the matter with Mr. P. D. Gujral. Dr. Williams advised that from mid-1982 he had delegated substantial financial duties to his own secretary and her position would therefore need to be reassessed.

Copies of Membership Lists of IUPAC Bodies 1981-3 (1982 Supplement to CI) were available to the Executive Committee (and Bureau) in Prague. This material had been put onto a Wang word processor at Pergamon, but the system seemed to have deficiencies from the IUPAC point of view. Miss Troughton was now looking at an IBM office computer-word processor system as a possible alternative.

Drs. Graulich and West had approved terms for renewing the lease for 5 years from September 1982 on the present Secretariat offices in Oxford. The Executive Secretary had reached agreement, in principle, to lease from the end of 1982 part of another adjacent office to house an office computer once it was decided which system to buy for the Union.

17/82 PUBLICATIONS

17.1/82 Minutes of Publications Committee (Oxford, 82.04.29-30)

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

17.2/82 Better Distribution of IUPAC Publications, Specifically Commission Reports (Minute 16(b)/82, Publications Committee; Minute 9(i)/82, 100th Executive Committee - Den Haag)

Dr. West reported that there was no support from the Division Presidents in Prague (Minute 6.2/82) for the Pergamon proposal to establish a joint IUPAC-Pergamon fund to extend the gratis reprints for distribution by the Union. The Executive Committee reaffirmed its previous view not to accept the proposal. However, IUPAC should renew its request for Pergamon to provide 100 instead of 50 gratis reprints of each Commission report published in PAC.

17.3/82 Guidance on Publication Philosophy and Policy of IUPAC (Minute 11/82, Publications Committee; Minute 9.3/82, 100th Executive Committee - Den Haag)

Prof. Nagakura drew attention to a letter from the US National Committee for IUPAC (81.11.30) and relevant remarks of the Executive Secretary (81.12.17), considered briefly at the previous meeting. In addition, the Publications Committee had requested a clear directive from the Executive Committee whether IUPAC was willing to forego some publications income (royalties) in order to achieve wider distribution through lower prices.

Dr. Schneider had met considerable criticism from the Division Presidents about the high pricing and poor distribution of IUPAC publications in general and of PAC in particular. Low cost books, especially nomenclature and symbols compendia, were essential to achieve widespread dissemination to chemists. Also he mentioned doubts expressed by the Division Presidents in Prague (Minute 6.4/82) whether PAC, as a journal covering all branches of chemistry, had in fact outlived its original concept. Neither lower prices nor greater advertising was likely to raise appreciably the present level of subscribers, which was unacceptable to the Union.

The Executive Secretary wondered if Pergamon was inherently capable of or even interested in the IUPAC ideal of widespread dissemination. Other commercial publishers were unlikely to offer any improvement in that respect, which left IUPAC either to publish in conjunction with a learned society or, unrealistically, to become its own publisher. The present contract with Pergamon ran until the end of 1984, then for further periods of 1 year unless notice of 1 year was served to discontinue.

Prof. Perez-Masiá preferred to retain symposia lectures in PAC and to seek an alternative mechanism for publication of Commission reports. Further discussion was deferred to item 8.4 of the agenda.

17.4/82 Need for Third Supplemental Agreement to Memorandum of Agreement (80.06.27) with Pergamon Press

The Executive Committee asked the Executive Secretary to draw up with Pergamon a Second Supplemental Agreement, detailing officially the several changes and any new items agreed between the Union and its publisher since the conclusion of the First Supplemental Agreement (80.11.15).

17.5/82 IUPAC-Approved Glossaries

The suggestion of IDCNS (82.09.05) to prepare a directory of IUPAC-approved glossaries of definitions in pure and applied chemistry and an alphabetical list of terms in those glossaries, was noted by the Executive Committee. Glossaries in adjacent areas of chemistry might be melded to provide a cohesive IUPAC glossary of chemical technology, with definitions, starting with the "Glossary of Terms Used in Physical Organic Chemistry". In bringing forward to the Executive Committee (and Publications Committee) at Lyngby a detailed plan for consideration of action by the Union, IDCNS should pay attention to the financial implications for IUPAC and any publisher to be involved. Prof. Perez-Masiá felt that preparation of the directory alone would be a worthwhile task for the Union.

18/82 REVISION OF ADVANCE INFORMATION QUESTIONNAIRE FOR IUPAC SPONSORSHIP OF SYMPOSIA

The Executive Secretary tabled a draft revision of the AIQ to be completed by symposia organizers applying for IUPAC sponsorship. It took account of several points of policy agreed over the past few years by the Executive Committee and Bureau. Dr. Williams drew attention to section 8, which pressed organizers to include IUPAC official visa policy wording in the second and subsequent circulars. The Division Presidents at Prague (Minute 3/82) believed that difficulties could arise from too early granting of sponsorship by the Union: it was best not to sponsor more than 3-4 years in advance.

Subject to the following points, the Executive Committee approved the draft for printing:

- (i) section 8, particularly statement of the Union's visa policy, should be laid out more prominently;
- (ii) alter "may" to "will" in line 2 of the third paragraph of section 8;
- (iii) in order to maintain high standards, add a sentence on page 3 enquiring whether there was a refereeing policy for selection of contributed papers, short communications, posters, etc.

19/82 FORMATION OF NATIONAL COMMITTEES OF CHEMISTRY BY NATIONAL ADHERING ORGANIZATIONS

The Executive Secretary said there was a statutory requirement in many other international scientific unions for an NAO to set up a national committee specifically to handle the business of a union. This might be beneficial for IUPAC: ideally a national committee would involve representatives from the actual NAO, national chemical society/societies, chemical industry, and government, thereby facilitating wide involvement of chemists and easier raising of the national subscription.

The Executive Committee felt that it was impossible retrospectively to introduce statutory provision on the need for each NAO to form a national committee for chemistry. It should, however, be made a requirement for new countries seeking admission to IUPAC. Existing member countries should be encouraged to form such a committee if they did not already have one.

20/82 ITEMS FROM AGENDA OF 46th BUREAU MEETING REQUIRING DISCUSSION, RESOLUTION, OR RECOMMENDATION BY EXECUTIVE COMMITTEE

20.1/82 Bureau Item 6 - Report on Affiliate Membership Scheme

Dr. West spoke briefly about developments since Den Haag (Minute 8/82, 100th Executive Committee). Leaflets had now been sent for the NAOs in Federal Republic of Germany, France, Japan, UK, and USA to poll their chemists (via the national chemical society in most cases) this autumn on their reactions to an outline scheme of Affiliate Membership. The results would be available for the Executive Committee at Tokyo to judge the level of support if IUPAC decided to set up a scheme and also give some idea of how to cost it. Prof. Nagakura said that a preliminary survey made recently in Japan had drawn an encouraging response. He recommended that copies of the leaflet should be circulated for information to those NAOs not involved in the poll, suggesting they might wish to publicize IUPAC's ideas on the matter, as was being done at the current ACS national meeting.

Doubts were expressed by Dr. West that an Affiliate Scheme could be introduced from the start of 1984 as originally envisaged. If Council decided at Lyngby to proceed, the NAOs (and national chemical societies if they were to be involved) would require time for consideration and decisions whether or not to participate. The scheme was therefore unlikely to commence before late in 1984 or from the beginning of 1985. The Executive Secretary stressed that more detailed work was needed to elaborate the privileges for Affiliates prior to Lyngby.

20.2/82 Bureau Item 11.1 - 28th International Symposium on Macromolecules

The President of the National Committee of Soviet Chemists, Prof. N. M. Emanuel, had telephoned the Secretariat on 82.07.07, expressing concern that two of the invited speakers - Profs. N. A. Platé and V. A. Ponomarenko - had not been granted entry visas to USA for Macro 1982 (Amherst, 82.07.12-16). Prof. Nagakura stressed that the circumstances were not clear, but at that late stage it was ineffective to withdraw sponsorship.

The organizers had stated (81.06.18) that the official IUPAC policy about entry visas to the host country would be printed in one of the symposium circulars, but had failed to do so. They had relied on the effectiveness of letters to the relevant desks of the State Department for invited speakers from countries with potential visa difficulties, including Profs. Platé and Ponomarenko (82.05.24).

The Executive Secretary had so far received no reply from the Soviet NAO as to the dates and where Profs. Platé and Ponomarenko had applied for their visas. However, Prof. Emanuel was a member of the IUPAC Bureau which had approved the Union's "3 months/1 month" policy for visa applications and withdrawal of sponsorship (Minute 14.1/74, 33rd Bureau - Brussels), and he was therefore well aware of the need to act in good time.

The Executive Committee agreed to recommend to the Bureau that the US National Committee for IUPAC should be requested to try and find out the exact dates and where the two Soviet visa applications were made. The President of the Union should then write to the Soviet and USA NAOs about the matter, re-emphasizing the need for entry visa applications to be made in compliance with IUPAC's official policy on dates with respect to a sponsored meeting and the sanctions which would be imposed if visas were not granted. Dr. Williams again drew attention to the increased pressure to be exerted in future on symposia organizers to publicize IUPAC's visa policy in good time (Minute 18/82).

20.3/82 Bureau Item 4.3 - UK Proposal for Formal Dues Calculation and Category Allocation

Dr. Graulich introduced the papers, consideration of which had been deferred from Den Haag (Minute 3.4.6/82, 100th Executive Committee). The Finance Committee was in unanimous agreement with UK that a formal approach for national dues was preferable to the scheme adopted by Council at Leuven.

Prof. Perez-Masiá said that the UK proposal still relied on chemical turnover as the sole criterion for membership categories (cf. Minute 14.2.3/82). Regarding flexibility, he was reassured that, under the UK proposal, an NAO could nevertheless request to be allocated one category lower than its CT or to pay part of its dues in national currency.

The Executive Committee voted:

- (i) to support the UK proposal (6 in favour, 2 against),
- (ii) in favour of Scheme B suggested by the Finance Committee for the relationship between votes and national dues (6 in favour, 2 against),

and those recommendations would be conveyed to the Bureau at Prague. In addition, the Executive Committee felt that it was premature to circulate the UK proposal for consideration by the NAOs. It should be referred back for further refinement by the Finance Committee, in conjunction with evaluation of criteria other than CT advocated by Spain (Minute 14.2.3/82). The matter should then be reconsidered by the Executive Committee at Tokyo. NAOs should be advised to convene meetings in late May/early June 1983 to discuss proposals for the refined dues scheme prior to the Council meeting at Lyngby.

It was noted that Council at Leuven had already approved a 10% increase in dues for 1983 and to take account of any more up-to-date values of CT.

20.4/82 Bureau Item 7.3 - Future of Chemistry International

The Assistant Secretary General referred to the precirculated papers plus additional documents tabled in Prague by Dr. Williams and himself. He went in detail through his own paper on the future of CI. In his view the original objective was still applicable - to publicize IUPAC activities in a readable and interesting format both inside and outside the Union - an objective which unfortunately had not yet been achieved.

Dr. West proposed to identify and hire as soon as possible a temporary part-time editor (e.g. a recently retired member of a Division Committee with considerable experience of IUPAC, such as a Division Secretary) to undertake a stop-gap activity for 1983. The temporary editor should prepare material for publication of bimonthly issues of CI next year, starting in February. After the Council meeting at Lyngby, it would be clearer how and when to move towards a full-time editor, who would also act as IUPAC Information Officer and have duties in connexion with the Affiliate Membership Scheme. Meanwhile, an information infrastructure for the editor should be set up within IUPAC. Each Division should appoint a member of a supporting Editorial Advisory Board, to provide news from time to time on Divisional activities. The Board should meet at General Assemblies with the editor and Union Officers to keep the policy and contents of CI under constant review.

It had been a surprise at Den Haag (Minute 9(iv)/82, 100th Executive Committee), when Pergamon had indicated a wish to continue publication of CI in 1983 at its own risk and expense. Their recent proposals (82.07.05) were, however, basically unchanged from previous Pergamon ideas (emphasis on general chemical rather than IUPAC news) and unacceptable to Dr. D. P. den Os, Dr. Williams and himself.

The Executive Committee decided to recommend the Bureau to delegate to Drs. West, den Os, and Williams, responsibility to negotiate with Pergamon along the lines proposed by Dr. West. If Pergamon was unwilling to collaborate, then the Union should proceed to publication of CI in 1983 outside the contract with Pergamon.

21/82 DATE AND PLACE OF NEXT MEETING

The next meeting of the Executive Committee was reaffirmed for the Chemical Society of Japan building in Tokyo during 83.04.12-13. Prof. Nagakura said that a preliminary reservation of rooms had been made at the nearby Hill-top Hotel. The Executive Committee would be circularized at the end of October about their exact room requirements.

22/82 ANY OTHER BUSINESS

22.1/82 Persons with More than Three IUPAC Commitments

The Executive Committee noted the previous Presidential ruling (Minute 7.5/80, 95th Meeting - Villefranche), that leniency should be observed in cases where membership of subcommittees or IUPAC representations was concerned. An analysis, prepared by the Deputy Executive Secretary, of persons with more than three IUPAC commitments in Membership Lists of IUPAC Bodies 1981-3 (see Appendix A) was considered. The Executive Committee resolved to request Prof. L. F. Bertello to resign from one of his four commitments.

* * * * *

CHAIRMAN: *J. D. ...*

DATE: April 12 1983

APPENDIX A

MEMBERS WITH MORE THAN THREE COMMITMENTS
(INCLUDING SUBCOMMITTEES AND ACTING AS IUPAC'S REPRESENTATIVE)

- Prof. L.F. BERTELLO - II., II.2(NR)., Coop VII., VII.2(A)
- Prof. D. BRAUN - IV.1(A)., IV.2 Working Parties:
Structure and Properties of Commercial Polymers -
Sub Group on the Characterization and Estimation
of Defects in the Molecular Structure on
Polyvinylchloride
Supported Polymer Films
Thermal Properties of Polymers
- Dr. S.S. BROWN - VII - Vice President, VII.4 - Chairman.,
Subcommittees on:
Clinical Chemical Standards - Chairman
Environmental & Occupational Toxicology of Nickel
Environmental & Occupational Toxicology of Cadmium
- Prof. J. HABER - I.6 - Vice Chairman.,
Subcommittee on Catalysis - Chairman.,
Subcommittee on Chemical Physics of Surfaces.,
ICC Rep.
- Prof. R.S. HANSEN - I., I.6.,
Subcommittee on Chemical Physics of Surfaces -
Chairman.,
Subcommittee on Catalysis
- Prof. R. HAUL - I.6(NR).,
Subcommittees on:
Catalysis., Chemical Physics of Surfaces.,
Reporting Gas Adsorption Data
- Dr. D.R. LIDE - I - Vice President., IDCNS (A)., I.1 (A).,
Rep. CODATA to '83
- Prof. MIRNA MIKAC-DEVIC - VII., VII.4.,
Subcommittees on:
Clinical Chemical Standards.,
Environmental & Occupational Toxicology of Nickel.,
Environmental & Occupational Toxicology of Cadmium
- Prof. F.W. SUNDERMAN - Bureau., VII - Div. President.,
Subcommittee on Environmental & Occupational
Toxicology of Nickel.,
Rep. IFCC., Rep. IUTOX
- Prof. D.H. WHIFFEN - IDCNS., ISO/TC12 Rep., IUPAP Sun Rep., I.1 (A)
- Prof. D.B. TONKS - Bureau., VII.4 - Vice Chairman.,
Subcommittees on:
Environmental & Occupational Toxicology of Nickel.,
Environmental & Occupational Toxicology of Cadmium.,
Rep. COWS/WASP