

INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY

MINUTES OF 68th BUREAU MEETING

Lady Margaret Hall, Oxford, UK: 7th-8th September 1996

Present: Prof. A. E. Fischli (Chairman), Dr. E. D. Becker, Prof. A. Chakravorty, Dr. D. F. Eaton, Prof. E. J. Grzywa, Prof. J. Jortner, Prof. J. W. Lorimer, Prof. H. Ohtaki, Prof. G. M. Schneider, Prof. P. S. Steyn, Prof. L. K. Sydnes, Prof. J. M. Ward (Elected Members); Prof. G. Somsen, Prof. G. J. Leigh, Prof. G. Scorrano - in part, Prof. J. Economy, Prof. M. Grasserbauer - in part, Dr. J. Miyamoto, Prof. D. W. Moss (Division Presidents); Dr. R.-P. Martin (Chairman, Committee on Chemistry and Industry) - in part

Absent: Prof. R. D. Brown, Prof. C.-H. Zhang (Elected Members); Dr. A. Hayes (Chairman, CHEMRAWN Committee)

In Attendance: Dr. M. Williams (Executive Secretary), Dr. J. H. Williams (Deputy Executive Secretary) - in part

1/96 INTRODUCTORY REMARKS AND FINALIZATION OF AGENDA

The Bureau stood in silence for a short period in remembrance of Prof. K. I. Zamaraev (immediate Past-President, deceased 96.06.26). The President announced that apologies for non-attendance had been received from Prof. Brown (a personal commitment), Dr. Hayes (attending CHEMRAWN IX Conference), and Prof. Zhang (recovering from surgery).

Prof. Scorrano disputed the designation of items on the agenda (D - items requiring Discussion, A/R - items requiring Approval/Ratification, I - items for Information only) in terms of the responsibilities of the Bureau and Executive Committee. He believed that the duty of the Executive Committee was to "execute" the policy set by the Council and the Bureau. Thus, in his opinion, the Bureau at Guildford (Minute 7/95, 66th Meeting) only delegated to the Officers/Executive Committee whether to relocate the Secretariat from Oxford to Frankfurt or to Paris: Research Triangle Park, North Carolina, was not then under consideration.

Prof. Schneider suggested to enlarge agenda item 3.2.10 to read "Future Structure and Location of IUPAC Secretariat and Approval If Necessary". However, Prof. Grasserbauer pointed out that the Bureau at Guildford had given a clear mandate for the Officers and Executive Committee to decide on the future location. Prof. Leigh also expressed concern at the manner in which news had been learned about the decision to relocate to North Carolina.

2/96 MINUTES OF 66th AND 67th MEETINGS OF BUREAU

2.1/96 Amendments and Approval of Minutes

The minutes of the meetings at Guildford (circulated 96.02.09 and 96.04.18, respectively) were approved.

2.2/96 Matters Arising

There were no matters arising, which were not already covered by items on the agenda.

3/96 MINUTES OF 122nd AND 123rd MEETINGS OF EXECUTIVE COMMITTEE

3.1/96 Receipt of Minutes by Bureau

The Minutes of the meetings at Guildford and Oxford (circulated 96.04.18 and 96.06.18, respectively) were recorded as having been received officially by the Bureau.

3.2/96 Matters Arising

3.2.1/96 Nominations for Award of International Prizes
(Minute 2.2.1/96, 123rd Meeting)

The President said that, due to the unfortunate death of Prof. Zamaraev, it had been impossible to discuss the suggestion for the Past-President, with a few colleagues from the Executive Committee as necessary, to become responsible for such nominations. Prof. Scorrano felt that the Division Presidents rather than members of the Executive Committee should be involved. In addition, Prof. Fischli felt that a few Nobel Prize winners might be consulted. The Bureau decided that, in future, the Past-President should act in these matters, and Prof. Jortner (as Vice-President) kindly accepted to take over the duties during 1996-7.

3.2.2/96 IUPAC Recommendations on Names and Symbols of Transfermium Elements (Minute 3.1/96, 123rd Meeting)

- (i) Prof. Leigh drew attention to the fax to the President from Prof. A. Sargeson [Chairman, Commission on Nomenclature of Inorganic Chemistry (CNIC): 96.08.23], tabled as a late paper, which he had referred on behalf of Prof. Fischli for comment by the three laboratories concerned in the discovery of the TFE and by the Danish National Committee for Chemistry.

After careful consideration the Bureau agreed that, provided there was a consensus, an official news release should be issued as soon as responses were available from the four bodies and a more detailed report from CNIC. The press release should be drawn up by the Secretary General in conjunction with Prof. Leigh and the Executive Secretary. At the same time all NAOs would be informed accordingly. Eventually, the revised recommendations for names and symbols for elements 104-109 should be presented to the Bureau at Geneva and then to the Council for final approval.

- (ii) In addition, the Bureau asked Prof. Leigh to contact the three laboratories about names and symbols for elements 110, 111, and 112, and to refer their responses for consideration by CNIC. Any resulting recommendations should be issued first in provisional form by the Bureau.

3.2.3/96 Collaboration with UNESCO (Minute 3.2/96, 123rd Meeting)

- (i) The President drew attention to:

a. uncertainties regarding future general collaboration because of the financial difficulties of UNESCO, although collaboration was still active in the case of COCI and CHEMRAWN;

b. the present composition of the International Chemistry Council (ICC: Appendix A to Minutes of 123rd Executive Committee), with the possibility of one or two other scientists to join it if the need arose: the work would be mostly by correspondence;

c. precirculated terms of reference proposed for ICC, with a one-day launch meeting in conjunction with the UNESCO-IUPAC Coordinating Committee for Chemistry (CCC), envisaged at UNESCO headquarters in Paris at the end of January 1997.

Prof. Scorrano enquired whether Prof. Economy (Chairman, Division Presidents Group) should represent the Divisions of the Union in CCC. However, the Bureau reconfirmed that the Secretary General should continue to so act. Dr. Miyamoto mentioned that IUPAC collaboration on chemistry and the environment had already been started with UN-agencies, such as WHO (agenda item 7.3), and he was keen to initiate work with UNESCO. Prof. Economy stressed that the Macromolecular Division was making progress in the transfer of materials science and engineering educational programmes for emerging nations (see his Divisional Report on Activities since Guildford: agenda item 6.5). Prof. Fischli agreed that this initiative should continue, and it should be enlarged as necessary by IUPAC.

Prof. Steyn pointed out that the terms of reference specified the President of the Union as being the ICC Chairman for four years. Prof. Fischli indicated that he might serve for two years as President and two years as Past-President. Answering a question from the Executive Secretary, Prof. Fischli said that input of ideas from ICC for IUPAC activities should be to the Bureau, for consideration whether they were feasible for the Union to undertake. Prof. Ohtaki suggested that any IUPAC initiatives with less developed countries in Asia might also involve the Federation of Asian Chemical Societies (FACS), which was an Associated Organization (AO) of the Union.

- (ii) The Secretary General reported that a reply had now been received from UNESCO to his precirculated letter (96.08.01), regarding IUPAC projects which might be eligible for funding under UNESCO programmes. It was proposed to hold a meeting of Prof. Fischli and Dr. Becker with Prof. V. Zharov on the occasion of the 25th ICSU General Assembly (Washington, DC: 96.09.24-27). Future proposals for IUPAC projects for financial support from UNESCO should clearly have specific relevance for the least developed countries. Accordingly, Dr. Becker needed contact persons in such countries. In addition to drawing on the expertise of FACS, it was suggested that the new African Association of Pure and Applied Chemistry should be encouraged to become an IUPAC-AO. Prof. Grasserbauer recommended also to make contact with UNIDO.

3.2.4/96 Future Scientific Policy of the Union
(Minute 3.3/96, 123rd Meeting)

- (i) The Secretary General assumed that his precirculated report on the "brainstorming" session at Belmont (96.06.11-12) had been read by Bureau Members. In his opinion, the outcome was useful, though predictable. The session was valuable as a means of publicizing

IUPAC's intention to seek outside opinion, and it generated goodwill for the Union.

Prof. Scorrano agreed that the session constituted a good investment as regards publicity for the Union. However, he felt that it was important to emphasize the limitations for IUPAC imposed by an annual budget of only USD 1M. He was concerned at the view that organic nomenclature was now done by full-time professionals outside the Union, and at the comment "Science measures progress in picoseconds: IUPAC often responds in light-years". Had chemical industry suggested any projects for the Union to undertake? The Executive Secretary indicated that a few successful projects had been carefully carried out through COCI (safety workshops and fellowships, 75th IUPAC anniversary celebrations, White Book on Chlorine just being published, a chemistry for the 21st century monograph in preparation). Dr. Martin reported that at its recent meeting (Seoul, 96.08.30-31) COCI had decided to prepare some short notes on the matter of interdisciplinary interactions in chemical industry problems.

Prof. Sydnes enquired whether chemical industry was willing to support the work of IUPAC. Dr. Becker stressed that the Union needed to draw attention through better public relations to which outcomes of its activities were directly relevant to industry. Dr. Martin agreed that it would be interesting to know better the views of the Company Associates (about 160) on IUPAC. Prof. Grzywa suggested that the Union should seek input from regional chemical industry associations, like CEFIC, CMA, and JCIA, as to those needs of chemical industry which might be best dealt with by IUPAC. Also, he thought that improved publicity about chemistry was especially important to young people. Prof. Steyn was not surprised that chemical industry did not approach the Union for help: it solved its own problems expeditiously! Prof. Ward drew attention to his precirculated letter (96.07.23) and the suggestion to build links to chemical manufacturer associations: the UK Chemical Industries Associations would, in fact, be hosting a dinner during the present Bureau meeting.

Prof. Economy regretted the present poor public image of chemical industry. Prof. Leigh felt that IUPAC should act as a facilitator, by educating the general public about the value of chemistry.

- (ii) Prof. Jortner referred to his late paper (96.08.19) for a follow-up European "brainstorming" meeting, and he suggested topics for discussion. It was decided to convene the meeting in London (97.02.24), with the main participants (about ten) to be European leaders in chemistry - especially from chemical industry - and the IUPAC Officers to be present as observers. Prof. Steyn suggested that input from NAOs might be sought on topics for discussion.

Dr. Miyamoto proposed that a third "brainstorming" meeting should be held in (South-East) Asia, perhaps simultaneously with that in London rather than await the outcome from it.

- (iii) The President referred to his interviews and to those held separately by the Vice-President/Secretary General in the framework of the biennial Critical Assessment, at Oxford with the individual Division Presidents and immediately prior to the Bureau meeting, especially in respect of suggestions for further restructuring of the Union. In general there had been a good

response. Regarding the possibility of combining the Physical Chemistry and Analytical Chemistry Divisions (I + V), there was agreement for the amalgamation of some existing Commissions, leading overall to less Commissions and less projects, thereby leaving more TMs available for flexible allocation by the Division Presidents. Concerning the possibility of combining the Inorganic Chemistry and Organic Chemistry Divisions (II + III), a solution had not yet crystallized, and more input was needed from the side of the IUPAC Officers in order to proceed. Prof. Economy was willing to move the Macromolecular Division (IV) towards an emphasis on Materials, but keeping macromolecules as an essential component, and to prepare a position paper on implementation for consideration.

The main outcome of the interviews was to convene a meeting of Division Presidents with the IUPAC Officers at Frankfurt (97.03.24) for further discussions. Meanwhile, the Division Presidents would be invited to submit their written views to Prof. Jortner during the first week of December 1996.

Prof. Scorrano said that, as the Organic Chemistry Division now had only three Commissions, it was difficult to see how it could be reduced further. In any case, at Guildford a Divisional pool of TMs had already been established for flexible allocation. He hoped to discontinue all long-initiated projects, which were not completed by the end of 1997. He was unable to see how to proceed easily with regard to amalgamation with the Inorganic Chemistry Division, but was willing to explore such possibilities. Prof. Scorrano urged that any decisions or proposals on future scientific policy of the Union should not be forwarded to Council without prior discussion by and approval of the Bureau.

Prof. Leigh sympathized with the views of Prof. Scorrano, and he felt much inhibited by being unable to consult freely within the Inorganic Chemistry Division. He welcomed the approach advocated by the Secretary General for future funding to be concentrated on new activities rather than for TMs as such.

Prof. Grasserbauer was in favour of restructuring the Union, even combining II + III, and he recommended that restructuring the Standing Committees should also be considered. As to the date when any restructuring approved by the Council at Geneva would apply, the Executive Secretary said it would be from the start of 1998. Prof. Leigh reminded the meeting that there should also be discussion of the future structure and function of the Bureau (Minute 1/96 and his precirculated letter dated 96.08.21, item 4). Prof. Grasserbauer strongly supported these views, especially as an indication that the higher bodies of the Union were ready to reconsider their own structure. Dr. Becker, Dr. Eaton (White Paper Proposal from USNC/IUPAC, 1995), Prof. Jortner, Prof. Lorimer, Prof. Ohtaki, and Prof. Ward (Streamlining of Management Committees of the Union, 1993) also supported these views. It was agreed that the Bureau would discuss the matter more fully at Geneva, and the President requested the Secretary General to prepare a position paper in conjunction with Prof. Leigh, which might even be preconsidered in Frankfurt (March 1997) or by the Executive Committee (April 1997).

Prof. Jortner agreed with Prof. Scorrano that IUPAC was a voluntary organization, and that we should be very thankful for the highly productive output from the present structure. However, the Union had to plan for greater interdisciplinary activity in a rapidly changing world: there was a responsibility for IUPAC to carry the flag of the research goals and mission-oriented goals. Two large gaps presently existed in the Union, namely Materials and Biological Chemistry (in a broad sense, though not necessarily through a new Division). He stressed that the possibilities of combining Divisions I + V and II + III were his own personal ideas. On receiving their written inputs during the first week of December, he would respond with a letter to each Division President, this to constitute the basis for the proposed discussions at Frankfurt.

The Bureau approved the proposal for the Division Presidents to meet with the IUPAC Officers at Frankfurt and, on the suggestion of Prof. Scorrano, agreed that the Division Vice-Presidents should also be invited to participate, in order to help implement eventually any recommendations arising from the discussions.

- (iv) As the new President of the consolidated Clinical Chemistry Division and Medicinal Chemistry Section, Prof. Moss said that this was a worthwhile move only if a single Division Committee was established in the near future for Chemistry and Human Health. He had, therefore, already informed the two Section Presidents that at Geneva there would only be a joint meeting of the two Section Committees. After Geneva he proposed that there should be a single Division Committee, consisting of a President, Vice-President (President-Elect), Secretary, and two other Members chosen to represent the special needs of disciplines of clinical and medicinal chemistry, while assisting in furthering Divisional objectives.

Furthermore, there was also a need to reconsider the present structure of Commissions within DCHH. In his opinion, some Commissions needed to amalgamate or even be discontinued (where other organizations like ISO were already active), so that DCHH could respond better to the requirements of WHO.

The President and Treasurer declared themselves in favour of a single Division Committee for Chemistry and Human Health, and the Bureau approved that principle.

3.2.5/96 Progress on Pool Projects 1996-7 (Minute 3.4/96, 123rd Meeting) and Project Submissions/Allocations for 1998-9

- (i) The Executive Secretary reported that, due to an overload of other priority matters, he had been unable yet to evaluate critically with the Secretary General the status of the 1996-7 Pool projects and, where necessary, to recommend withdrawal of monies already allocated, with a view to their use for other purposes.
- (ii) The President reported on the discussions the previous day at the meeting of IUPAC Officers, Division Presidents, and the Chairmen of the CHEMRAWN Committee and COCI. Out of eleven proposals submitted for 1998-9, five were recommended and two provisionally recommended for allocation of TMs (Appendix A). The other four projects should be referred back for further development and possible resubmission to the Bureau (Executive Committee). The recommended allocations of Pool TMs were ratified by the Bureau.

The President pointed out that the Pool projects initiative, introduced at Lisbon (1993), had not been an outstanding success, and improvements were needed. The Secretary General preferred to have separate funding from TMs per se, in order to facilitate rapid working on new projects, i.e., to put more money into activities.

The Treasurer indicated that the Union's financial reserves were currently well above the required level, and that they could therefore be used to support well-defined, short-term projects (maximum duration four years).

3.2.6/96 IUBMB-IUPAC Joint Committee on Biochemical Nomenclature
(Minute 3.5/96, 123rd Meeting)

The Executive Secretary drew attention to a late paper (96.08.21) tabled in Oxford. While IUBMB, like IUPAC, was convinced of the scientific need for continuation of the work of JCBN, it was very concerned at the financial implications without support from the Federation of European Biochemical Societies. The Bureau noted that it was hoped to resolve the situation, when the IUBMB Executive Committee met at Berlin in December 1996.

Prof. Scorrano reported that at a recent meeting of IDCNS (Sèvres, 96.08.22-23) concern was expressed about the mechanism for appointment of JCBN members by IUPAC, which seemed unsatisfactory. Dr. Becker was requested to discuss the situation with the Secretary General of IUBMB.

3.2.7/96 Affiliate Membership Programme (Minute 3.6/96, 123rd Meeting)

Prof. Lorimer referred to the critical reactions of the Executive Committee to his interim report (96.04.17), to the precirculated exchange of correspondence of the Secretary General with Prof. T. Kiss, and to his draft report to the Bureau (96.08.01) tabled as a late paper in Oxford.

The Committee on Affiliate Membership had met for extensive discussions on the previous day. The intention was to finalize its recommendations by the end of January 1997, for consideration by the IUPAC Officers at the end of February and by the Executive Committee in April 1997. Recommendations, amended as necessary, could then be submitted to the Bureau at Geneva, and thence to the Council.

Prof. Lorimer read out a suggested mission statement on the purpose of AMP:

To promote interest in international aspects of chemistry among the world's chemists by

- publicizing the nature and function of IUPAC
- dissemination of information about IUPAC activities
- providing a framework for interactions among chemists at an international level
- encouraging cooperation among national chemical societies
- providing selective assistance where indicated, e.g., in countries which have no national chemical society

A strategic plan envisaged retaining the current AMP, the name "Affiliate Member", CI as the Affiliate magazine, the mechanism of joining, and the IUPAC component of the subscription fee at USD 16 (but adjusted for inflation biennially). After much discussion, CAM had agreed to recommend that the sponsored Affiliate part of AMP should be abolished at the end of 1996. Some time had also been devoted by CAM to the idea of Prof. Fischli, that IUPAC should build a new AMP within which scholarships might be awarded to deserving Affiliates, who could use these awards to pursue other studies, such as science writing, business administration, or patent law. On further consideration, CAM had rejected its suggestion for a mandatory requirement for all T/AMs and NRs on IUPAC bodies to become Affiliates (desirable, but probably unenforceable). Prof. Lorimer regretted that only a few NAOs had actively encouraged the recruitment of Affiliates. He suggested that a regular Affiliate home page should be established on the Internet (World Wide Web).

The Bureau meeting was then opened for general discussion of AMP, and also of a precirculated letter from Prof. T. Kiss (Chairman, Commission on Equilibrium Data: 96.05.24), suggesting that each retiring member of an IUPAC body should be given a note of recognition of her/his service to the Union, and that past members might be consulted (as IUPAC Fellows) on various items of IUPAC business and policy.

Prof. Ohtaki was in favour of the general concept of a scholarship scheme, and he suggested that the Union might also provide financial support for young chemists to attend IUPAC-sponsored symposia and especially its biennial Congress. However, Prof. Scorrano was less enthusiastic. He urged that national chemical societies should receive as early as possible notification of the IUPAC component for the Affiliate subscription in 1998 and 1999. Prof. Grzywa supported the concept of an IUPAC Fellowship programme, but requiring some sort of fee (at least an Affiliate subscription). Prof. Grasserbauer expressed concern at the extra administration which would be necessary. Prof. Lorimer referred to a suggestion from the Deputy Executive Secretary to send a letter to all T/AMs, seeking their opinion on these issues. However, the Secretary General had some reservations about the effect of such a circulation.

The President said that CAM should note the differing opinions expressed in the Bureau. Nevertheless, the Bureau accepted the recommendation to abolish the sponsored Affiliate part of AMP at the end of 1996, but invited CAM to come forward with a well prepared proposal to the Council for a new IUPAC network for developing countries and for an Honorary Fellowship Scheme (fee plus certificate). The Secretary General should take an active part in helping prepare the proposal. The Treasurer asked that the proposal should be properly costed.

3.2.8/96 Manila Declaration and Melaka Accord
(Minute 3.7/96, 123rd Meeting)

The President referred to the late papers for this item tabled at Oxford, especially the confirmation (96.08.28) that the Australian NAO supported publication of the IUPAC statement *Preservation and Utilization of Natural Biodiversity in Context of Search for Economically Valuable Medicinal Biota*, drafted by the Medicinal Chemistry Section. Subject to a small amendment, Dr. Martin said that COCI also supported publication of the draft, although it had reservations about the related report *General Features of Contracts for Natural Product Collaborations*. Prof. Moss strongly recommended publication of the biodiversity report, and he suggested that the last paragraph prior to the Appendix should be printed in bold type. The Bureau approved early publication of the biodiversity report in PAC.

3.2.9/96 IUPAC Home Page and Other Publicity about the Union
(Minute 3.9/96, 123rd Meeting)

- (i) The Secretary General congratulated the Deputy Executive Secretary on launching the IUPAC home page on the WWW earlier in the year and subsequently improving its content. Although not as graphic as other home pages, Dr. Becker had found it to be an effective way to publicize the forthcoming Executive Secretary vacancy compared with advertisements in various publications. He drew attention to the guidelines on *Use of the World Wide Web for Access to IUPAC Documents*, which had appeared in the July 1996 issue of CI and on the home page, and had also been communicated by e-mail to Officers of all IUPAC bodies.

The Deputy Executive Secretary was anxious to obtain statistics on the "hits" for various sections of the home page, and together with Blackwell Science he was in process of placing one or two issues of CI on the page. The IUPAC page material was being updated about monthly. The possibility of developing IUPAC provisional recommendations via the page - an "electronic meeting" - was under consideration. Following his recent visit to WHO (Minute 7.3/96), Prof. Moss stressed the value of including the various IUPAC compendia of nomenclature and symbols on the page. However, Prof. Grasserbauer had some reservations about the extent of including IUPAC reports.

The Executive Secretary anticipated that, when the new IUPAC Secretariat was established at Research Triangle Park in North Carolina with full control over the contents of its home page, quicker updating of the contents and further development of the page should be possible.

- (ii) Prof. Ward reiterated his view that, despite the launching of the IUPAC home page on the WWW as the main new publicity channel for the Union, an article was still needed that answered the hearsay criticism, which IUPAC was receiving from some parts of the chemical and allied industries, and which was being taken up and repeated by those who were antipathetic to the Union. To be really effective, such an article required a few quantitative examples of how the Union's work had saved, or could potentially save, money for the chemical industry.

The Secretary General mentioned that, at the meeting with Division Presidents on the previous day, he had urged them to submit to Prof. Ward and himself good examples of such IUPAC projects. Prof. Grasserbauer strongly advocated the use of a positive approach in any eventual article, rather than a negative one (regretting the inevitable slow rate of progress in IUPAC projects due to the voluntary nature of the work).

The Bureau noted the precirculated suggestions (96.06.04) from Dr. D. R. Lide (a Past-President of the Physical Chemistry Division) with regard to the impact of IUPAC data publications and methods in demonstrating the importance of IUPAC projects.

3.2.10/96 Future Structure and Location of IUPAC Secretariat
(Minute 3.11/96, 123rd Meeting)

The President summarized the conclusions reached by the Executive Committee earlier in the year and the actions taken subsequently by the Secretary General. Dr. Becker apologized for his "late" notification of the

decisions to the Bureau (96.07.08), but his priority had been to ensure continuity in the staff at Oxford (through generous termination conditions), after the retirement of the Executive Secretary at the end of April 1997 through the General Assembly at Geneva in August. He then showed the Bureau some overhead projection transparencies of the Research Triangle Park (RTP) location in North Carolina and of the actual building allocated to IUPAC (about 50% more space than at Oxford), which would become available at the end of 1996.

He reported that 59 applications for the post of Executive Secretary had been received by the deadline of 96.09.01, of which a significant number were from well qualified people. These applications were currently being examined by the Officers of the Union. It had been decided to maintain all preparations for the Geneva GA at Oxford, since the relevant staff had all agreed to continue there until after the Assembly was completed. Unfortunately, Mr. P. D. Gujral had recently resigned from his post as Scientific Publications Secretary, following a major incident at the time of the meeting of the Committee on Printed and Electronic Publications (Oxford, 96.08.01-03). This had given rise to difficulties for the Executive Secretary, especially in sorting out the implications of Mr. Gujral's work, and it would require some additional part-time staff support in the short term.

Prof. Schneider regretted that the Secretariat relocation developments were now a "fait accompli" as far as the Bureau was concerned, bearing in mind that the offer from USA had only materialized relatively much later after Guildford. However, he was concerned about not relocating the Secretariat in the offices of an NAO, and why accentuate a future ten-year review? Prof. Fischli said that the projected staff costs for relocation in Frankfurt, North Carolina, and Paris had been conveyed recently to the German NAO. As regards the ten-year review, it would soon be possible to move "all" the Secretariat expertise electronically and comparatively easily to other locations.

Prof. Grzywa felt that the transparencies indicated the building allocated to IUPAC at RTP was not very substantial, and what about the headquarters of the Union? Dr. Becker was satisfied that the lease made provision to meet any major repairs and maintenance, should they become necessary: IUPAC was only responsible for cleaning, etc. The official headquarters of the Union would remain in Zürich until otherwise decided by the Council (Statute 4.3). However, IUPAC did have a tax-free status in USA as well as in the Kanton of Zürich.

Prof. Steyn asked about the envisaged staff structure for RTP, and Dr. Becker indicated that it could only evolve after the appointment of the new Executive Secretary and commencement of his employment with the Union.

3.2.11/96 Commission on Functional Polymers
[Minute 3.12(ii)/96, 123rd Meeting]

Prof. Economy reported that, as a result of recent discussions within the Macromolecular Division, it had been decided to retain the present name of Commission IV.3, because it was felt that it provided the greatest flexibility in pursuing new directions in the field of macromolecules.

3.2.12/96 Commission on Biotechnology
[Minute 3.12(iii)/96, 123rd Meeting]

With regard to this Commission, the President referred briefly to the situation at and subsequent to the General Assembly in Guildford, and as at the time of the recent Executive Committee meeting and thereafter. Dr. J.

L. Fox (USA) had been reappointed Chairman (1996-1997), and Prof. J. Kaš^v (Czech Republic) as the new Secretary (1996-1997). In addition, Profs. A. M. Boronin and M. Moo-Young had been invited as two additional persons (but not as TMs) to be actively involved with them in the discussions to define an acceptable programme of projects for the Commission or for it to be dissolved.

Amongst the late papers tabled in Oxford was an *Activity Plan for 1996-1999: Commission on Biotechnology*, submitted 96.08.28 by Dr. Fox. In the opinion of the President, the Plan only reiterated the existing programme of the Commission, and there was little new activity of the type envisaged by him for the future of biotechnology in IUPAC. Prof. Fischli suggested that there might be a possibility to link biotechnology with biological chemistry as a unit in an appropriate body of the Union.

Profs. Miyamoto and Steyn both felt that the Plan was too broad, and suggested that it should be critically evaluated by them with Prof. Fischli. Also, new leadership was probably essential. Prof. Grasserbauer suggested to allocate two Pool TMs to help reactivate the work in the short term.

In order to help develop a better future activity plan for biotechnology, the President agreed to identify a successor to Dr. Fox, so that the latter might stand down even before the end of 1997.

4/96 REPORT OF TREASURER

The Treasurer referred briefly to recent financial discussions by the Executive Committee (Minute 4.4/96, 123rd Meeting) and his comments on the 1995 accounts (July 1996 issue of CI), stressing that the good results for 1994 and 1995 were unlikely to be repeated, especially regarding the costs for the General Assembly at Geneva in 1997. However, the reserves were in good shape. Prof. Ward drew attention to an unexpected windfall of about USD 344K from Baring Brothers Bank, which had wished to close an account denominated "Office Internationale de Chimie". The Executive Secretary had played a prominent role in these negotiations. These monies might be used to help meet the expected high costs of the Geneva GA, relocation of the Secretariat, and worthy short-term scientific projects.

Prof. Ward would complete six years of service as Treasurer at the end of 1997, and he confirmed that he had decided not to stand for a final two years (Statute 6.52). However, he was ready to remain as a Member of the Finance Committee, and even as its Chairman, which was noted by the Bureau.

In conclusion, Prof. Ward reminded the Bureau about the remark of Mr. T. D. Culpin (UK Chemical Industries Association) at the Bureau dinner, encouraging the Union to be in active contact with the International Council of Chemical Associations in order to identify areas of potential interest and activity for IUPAC. Dr. Miyamoto mentioned that ICCA would be meeting soon (Seville, 96.10.05) and, amongst other items, would discuss the matter of endocrine disruption (xenobiotics) through man-made chemicals and related issues. Prof. Fischli agreed to investigate if it was possible for him to participate at Seville. It might be worthwhile for the Division of Chemistry and the Environment, in conjunction with the Division of Chemistry and Human Health and COCI, to prepare an IUPAC White Book on the matter.

5/96 FUTURE GENERAL ASSEMBLIES AND CONGRESSES

5.1/96 Arrangements for 39th General Assembly (Geneva, 1997)

5.1.1/96 Status Report (Minute 5.1.1/96, 123rd Executive Committee)

The President stressed that the agreed budget total of USD 500K must not be exceeded, and he would be clarifying to the Swiss organizers that the fee of the professional agency AKM should be met from outside IUPAC. Prof. Ward spoke to his precirculated report on expenses for the Assembly, recommending that the IUPAC per diem should be USD 130 for persons staying in hotels, and USD 90 for persons electing to stay in university accommodation. Prof. Fischli asked for a vote, and nobody in the Bureau voted against the proposed differential per diem.

The Executive Secretary drew attention to the precirculated schedule of meetings for the Assembly and to the invitation letter/participation questionnaire, and registration and hotel registration forms drafted by the Assistant Secretary Administration. Some concern was expressed at the deadline of 97.06.23 set by AKM for payment in full of reserved accommodation.

5.1.2/96 International Meeting of Chemical Society Presidents
(Minute 5.1.3/96, 123rd Executive Committee)

The Secretary General reported that the outcome was awaited of a meeting of the New Swiss Chemical Society (96.09.06), in order to decide whether to cosponsor an International Meeting of Chemical Society Presidents in conjunction with the Geneva GA.

5.2/96 40th General Assembly and 37th Congress (Berlin, 1999)
(Minute 19/95, 38th Council - Guildford)

The Bureau asked:

- (i) the Deputy Executive Secretary to visit Berlin before the end of 1996, in order to report to the Finance Committee (97.02.17) on the IUPAC per diem anticipated for the GA and the implications for the 1998-9 IUPAC budget proposal;
- (ii) the Vice-President to contact the German NAO regarding the scientific programme for the Congress (Appendix A to Minutes of 65th Bureau - Antwerp).

5.3/96 IUPAC Participation in International Celebration of Chemistry: 1999 (Minute 5.3/96, 123rd Executive Committee)

The Secretary General reported that he was keeping in touch with the American Chemical Society and awaiting developments.

5.4/96 41st General Assembly and 38th Congress (2001)
(Minute 23.2/95, 38th Council - Guildford)

The Bureau noted that the Secretary General had circulated the NAOs (96.06.26), inviting them to submit official invitations to host the Union's GA and Congress in 2001. Invitations had so far been received from Australia and Russia.

The Executive Secretary tabled a later paper from the Australian Academy of Science (96.09.05) relating to its advance invitation (95.07.14) to host these events, in which the possibility of merging them into a single seven-

ten day event was explored. The Bureau declared itself against the latter proposal and confirmed that a registration fee was not appropriate for the GA. Also, it reconfirmed that the recently established Sinking Fund was intended as a support mechanism for the travel expenses of TMs of IUPAC bodies to a GA in the Southern Hemisphere.

The Executive Secretary was requested to update the existing guidelines to NAOs in respect of hosting the GA and to send them, together with summarized financial information on the Guildford GA, to the Australian and Russian NAOs. The two NAOs should confirm their invitations to host the 2001 GA and Congress not later than the 124th meeting of the Executive Committee (97.04.06-07).

No decision was taken by the Bureau on an invitation from the Canadian NAO (96.08.07) to host the 2003 Congress jointly with 86th Canadian Society for Chemistry Annual Conference.

6/96 IUPAC BODIES

6.1/96 Ratification of Memberships Approved by Correspondence

The following appointments to the Committee on Chemistry and Industry (COCI), which had been made through correspondence by the President since the 123rd Executive Committee meeting, were ratified by the Bureau:

Dr. G. Blasko (Hungary)	- Member (1996-1999)
Dr. J. Mino (Japan)	- Member (1996-1999)
Dr. E. J. Logan (USA)	- Member (1996-1999)
Mr. J. Unger (Sweden)	- Member (1996-1999)

6.2/96 Approval of Nominations of New Members

There were no nominations requiring approval.

6.3/96 Current Programmes Database [Minute 6.4(i)/96, 123rd Executive Committee]

The Secretary General said that the initiative at Guildford for electronic input on existing and newly initiated Commission and Committee projects had been discussed by the Division Presidents at Oxford (Minute 4/96, Meeting on 96.09.06). Some of the questions for the former paper-input mechanism were no longer relevant [e.g., level of priority, and the requirement for the DP to "sign" or even to be sent a projects disk for each Commission (simply send a DP a paper printout, to which he could disagree if necessary, otherwise DP approval to be assumed)]. Prof. Grasserbauer had suggested that the consolidated Commission projects for each Division should be made available to the Division Secretaries.

6.4/96 1996 Vice-Presidential Critical Assessment of IUPAC Projects and Programmes [Minute 6.4(i)/96, 123rd Executive Committee]

Prof. Jortner reconfirmed the request [Minute 3.2.4(iii)/96] for Division Presidents to submit their written views on further restructuring of the Union to him during the first week of December 1996. Together with his response to each DP, these views would constitute the basis for the proposed discussions at Frankfurt (97.03.24) and possibly also at London (97.02.24).

6.5/96 Reports of Division Presidents on Activities since Guildford

The precirculated reports were taken by the President as read, and he opened the meeting for discussion of them. Prof. Lorimer suggested that a standard format and length should be agreed for such reports in future. Prof. Moss supported the view of Prof. Leigh, that two A4-sheets were adequate for an interim report in the year prior to a GA. Prof. Steyn drew attention to a "standardized" format used by him in previous biennia. Prof. Scorrano preferred a non-standardized format for the Organic Chemistry Division. Since there was no consensus on the matter, the President said that each DP should continue to decide on the format and length of his future reports.

6.6/96 Overviews of Most Important Issues from Inorganic Chemistry and Analytical Chemistry Divisions

The initiative of Prof. A. J. Bard (Minute 6.7/94, 62nd Bureau - Oxford) was continued whereby, at the even-year Bureau meeting, the Presidents of the Inorganic Chemistry and Analytical Chemistry Divisions presented brief overviews on the most important scientific issues which had recently arisen in their fields.

6.7/96 Further Changes to Statutes and Bylaws
[Appendix D to Minutes of 123rd Executive Committee]

Further to the interim verdicts of the Executive Committee on several matters, which were originally raised by the Executive Secretary:

1. The Bureau agreed that the Secretary General should seek the views of NAOs by letter, regarding a continued need to seek NAO approval of appointments to Division/Section Committees and Commissions (Bylaws 4.103 and 4.304).
2. The Division Presidents at Oxford (Minute 3.1/96, Meeting on 96.09.06) had declared themselves in favour of a two-year term for the initial appointment of TMs and AMs to Commissions, which should normally be in respect of a new project. Accordingly, the Bureau agreed to recommend a change to Bylaw 4.304 to Council at Geneva.
3. The Bureau agreed to defer any change for the present, regarding filling vacancies amongst Officers of the Union and in the Bureau (Bylaw 2.222).
4. The Bureau agreed to defer consideration of making provision for Observer Country status of the Union, pending the outcome of the discussion of agenda item 7.2.
5. In view of the proposal to eliminate Section Committees within the Division of Chemistry and Human Health [Minute 3.2.4(iv)/96], the Bureau agreed to defer defining the future role of Sections in the Union.
6. The Bureau agreed to recommend Council at Geneva to extend Bylaw 4.103 (second paragraph) to all Officers of the Union (i.e., to include also the Past-President).
7. The Bureau agreed to recommend Council at Geneva to change Bylaw 4.103 (last sentence, first paragraph), so that the twelve years limitation applied to the total service as a TM and AM [cf. Commissions - Bylaw 4.304(iii)].

In view of the advertisements for his successor, the Executive Secretary enquired whether it was necessary to change "Executive Secretary" (Statutes 6.6 and 9.5) to "Executive Director". However, the Secretary General preferred to defer any change until later.

6.8/96 Matters Arising from Meeting of CHEMRAWN Committee

A brief report (late paper) was received from Dr. Hayes, indicating that, with over 300 participants, the CHEMRAWN IX Conference on Sustainable Production, Use, Disposal and Recycling of Materials (Seoul, 96.09.01-06) was generally held to have been a success. One of the decisions from the Conference was to send a letter to each NAO, requesting its support/influence in helping to boost financial support for sustainable development. The letter would be drafted by the CHEMRAWN Committee, but it should be circulated under the name of the President of the Union. A short meeting of the CHEMRAWN Committee had been held (96.09.01) in conjunction with the Conference.

6.9/96 Matters Arising from Meeting of Division Presidents

The Secretary General had pointed out (Minute 5/96, Meeting at Oxford 96.09.06), that many of the Division Rules were outdated as a result of changes in the Statutes and Bylaws of the Union and of the formation of new Divisions. He was anxious to have greater conformity in the Division Rules, and his offer to draft a (shorter and simplified) model set of Rules for circulation and comment by the Division Presidents, eventually involving also Dr. R. B. Fox [Minute 6.5(ii)/96, 123rd Executive Committee], had been accepted.

6.10/96 Matters Arising from Environmental Chemistry Activities
Coordination Meeting

Dr. Miyamoto reported briefly on his analysis of the current environmental activities in the Union (Minute 2/96, Meeting at Oxford on 96.09.06). By the end of the year he hoped to have made an evaluation for each Division of its E-designated projects as far as he felt that collaboration was necessary and worthwhile.

6.11/96 Fullerene Nomenclature and Terminology
(Minute 4.3.1/96, 123rd Executive Committee)

The Executive Secretary reported that the latest document (version 8/October 1995, revised February 1996) had been tabled for discussion at a recent meeting of the Commission on Nomenclature of Organic Chemistry (Prague, 96.08.15-19), but there was no indication of the outcome. Prof. Scorrano said that he had attended the meeting, and he was appalled at the situation. In his opinion, these efforts should be stopped at the end of the year. Prof. Leigh felt that the situation arose from the ad hoc way in which the work had been initiated within the Union.

7/96 RELATIONS WITH OTHER ORGANIZATIONS

7.1/96 ICSU Matters

7.1.1/96 Collaboration with ICSU Scientific Committee on Problems of the Environment
[Minute 7.5.2(i)/96, 123rd Executive Committee]

The Executive Secretary regretted that, due to a continuing personal overload of work at the IUPAC Secretariat from the middle of the year, he had been unable to set up a suggested exploratory meeting.

7.1.2/96 Collaboration with ICSU Scientific Committee on Oceanic Research [Minute 7.5.2 (ii)/96, 123rd Executive Committee]

The attention of the Bureau was drawn by:

- (i) Prof. Steyn to a precirculated extract, about the possibility of greater cooperation between IUPAC and SCOR, from the minutes of a meeting of the SCOR Executive Committee (Cape Town, 95.11.14-16), in which he had participated.
- (ii) the Executive Secretary to the forthcoming participation in the 23rd SCOR General Meeting (Southampton, 96.09.16-20) by Prof. D. R. Turner (Commission on Fundamental Environmental Chemistry), where he would be presenting a proposal for a joint project on the *Marine Biogeochemistry of Iron*.
- (iii) Prof. Lorimer to collaboration of the Commission on Solubility Data concerning solubilities in systems containing oceanic salts.

7.2/96 Application for Upgrading to Full Membership by Puerto Rico
(Minute 7.3/96, 123rd Executive Committee)

- (i) Dr. Becker reported that he had not yet received a formal response from the US National Committee for IUPAC. Prof. Lorimer stated that Canada had acted as an independent country on several occasions prior to 1919, through raising its own armed forces and being an independent signatory to the Versailles Treaty in 1918. Full control of external affairs was accomplished in 1931. The Bureau agreed to await a reply from the next meeting of the USNC-IUPAC (97.02.23), and then to invite the President to give a ruling (Statute 14.4). However, as a matter of principle, IUPAC should be as inclusive (rather than exclusive) as possible.

Prof. Leigh suggested that "Observer Countries" would be better termed as "Observer Organizations", and he recommended that the Secretary General and Executive Secretary should draft some wording for a new Statute [cf. Minute 6.7(4)/96].

- (ii) Regarding the status of Hong Kong in IUPAC, the Secretary General felt that it could remain an Observer Country after July 1997.

7.3/96 Collaboration with World Health Organization
(Minute 7.7/96, 123rd Executive Committee)

Following a visit to Dr. C.-C. Heuck (96.08.19) at Geneva, Prof. Moss had written to him regarding collaboration between WHO and IUPAC. Dr. Heuck had drawn attention to WHO's perception of the need to establish regional expertise in diagnosing and monitoring the clinical effects of toxicological exposure, with the availability of referral to deal with

region- and locality-specific problems. The IUPAC Division of Chemistry and Human Health had access to wide-ranging experience and expertise in applying chemical techniques to the assessment of the effects of toxins on health, and Prof. Moss had indicated ways in which DCHH could assist WHO. Also, they had discussed the need for harmonized terminology and nomenclature in the area of toxic exposure and its effects, in which DCHH was experienced and willing to assist WHO.

In addition, Dr. Miyamoto had met with Dr. M. M. Younis in Tokyo (96.07.19) for a brief talk about future collaboration. He had attended an International Forum on Chemical Safety (IFCS) meeting on Persistent Organic Pollutants (POPS: Manila, 96.06.17-22), and he would be representing IUPAC at the forthcoming 8th Meeting of the Advisory Committee of WHO's International Programme on Chemical Safety (Halifax, Canada: 96.10.23-25).

The President reported that the four ICSU members participating in the IFCS as scientific non-governmental organizations (IUPAC, IUPHAR, IUTOX, and ILSI) had decided that Dr. Miyamoto should represent them in the Ad Hoc Working Group for the Agenda for Forum II for a period of two-three years.

7.4/96 Meeting in Recognition of 1996 Nobel Prize Winners
(Minute 11.1/96, 123rd Executive Committee)

The President said that the meeting might take the form of a dinner at Zürich in January 1997.

8/96 PUBLICATIONS

8.1/96 Matters Arising from Meeting of Committee on Printed and Electronic Publications

A precirculated summary (96.08.20) of the main decisions, conclusions, and recommendations from the recent meeting of CPEP (Oxford, 96.08.01-03) was noted and approved as necessary by the Bureau:-

- (i) The Union should retain Blackwell Science as its official publisher for 1997 and 1998. However, based on good general business practice, the new Executive Secretary at the North Carolina Secretariat should, as soon as practical, call for formal bids from publishers wishing to become official publisher from 99.01.01. Subscription prices for 1997 should be:

PAC (institutional)	-	USD 1 020 (USD 950 in 1996)
CI (institutional)	-	USD 116 (USD 96 in 1996)
CI (personal)	-	USD 42 (USD 39.50 in 1996)

- (ii) The Union should join the International Council for Scientific and Technical Information, preferably as a Class A Full Member/Category 1 (USD 700 annual subscription).

- (iii) The Executive Secretary reported that Oxford University Press had indicated (96.08.20) its preferred option regarding the future of the Solubility Data Series was to finish at the end of 1996 (with Volume 65) by mutual agreement, and to share the cumulative loss (investment) 50/50 as outlined in the contract with the Union. OUP was unwilling to accept the IUPAC proposal to publish Volumes 66-69 during 1997, on the understanding that the payment by OUP of USD 1 000 as camera-ready copy fee to the preparers of each volume should be discontinued, but any losses sustained by OUP in respect of each volume should be disregarded by IUPAC. The Bureau

approved the discontinuation of the contract as preferred by OUP. The Commission on Solubility Data should be free to negotiate for an alternative publisher in 1997. However, any draft contract to deal with the new situation should be sent to the IUPAC Secretariat, so that the final responsibility of the Union for any financial loss could be checked.

- (iv) Prof. Steyn expressed concern at the status of the IUPAC student-oriented nomenclature book(s), especially that book-1 on *The Language of Chemistry* was unlikely to pass IDCNS review.
- (v) The Secretary General had advised the Deputy Executive Secretary to reduce the number of pages in CI rather than having to write material himself to fill up the space to 40 pages per issue.

8.2/96 IUPAC Handbook 1996-1997
(Minute 8.1/96, 123rd Executive Committee)

Following publication of the Handbook (96.06.19), and having subsequently satisfied the requirements of the Data Protection Registrar in UK, the Executive Secretary reported that inclusion of the alphabetical index to members of IUPAC bodies on the IUPAC home page was now at an advanced stage.

8.3/96 IUPAC White Book on Chlorine
(Minute 4.2.1/96, 123rd Executive Committee)

In order that a press conference might be held at the time of the 25th ICSU General Assembly, the Executive Secretary reported that he had assumed responsibility for publication of the White Book as the September issue of PAC. Publication would be completely via material supplied on disk rather than as camera-ready manuscript.

Accordingly, the Bureau approved a proposal from the Executive Secretary to bring forward to January 1997 the CPEP recommendation for authors to supply a computer-readable disk for material to be published in PAC starting in January 1998.

8.4/96 Supplement to "History of IUPAC"

The Secretary General said that he and the Executive Secretary had independently concluded, that it would be opportune to update the *History of IUPAC* with a supplement covering 1987-1997 before the IUPAC Secretariat moved to North Carolina. Mr. R. W. Fennell did not wish to undertake this additional task for the Union, but Dr. S. S. Brown (a Past-President of the former Clinical Chemistry Division) had provisionally agreed to do so. The Bureau agreed to provide USD 3 000 to enable the supplement to be incorporated into the remaining stock of the book held by Blackwell Science.

8.5/96 Update of "Chemical Safety Matters"

The Secretary General displayed a copy of the 1995 update of the US National Academy of Science's *Prudent Practices in the Laboratory: Handling and Disposal of Chemicals*. He raised the question of whether, in principle, IUPAC might advantageously take an initiative to update the international version published by Cambridge University Press for the Union in 1992. Sales figures obtained recently from CUP were very favourable, with a minimal residual stock now remaining, and CUP had expressed a potential interest in handling any update.

The Bureau invited Dr. Miyamoto to study the 1992 and 1995 books in detail. He would then ascertain the views of WHO-IPCS on the need for jointly updating the 1992 book, and also evaluate various existing competitors, hopefully by the end of 1996.

9/96 SPONSORSHIP OF SYMPOSIA

The sponsorships of symposia (Appendix B), approved through correspondence by the Secretary General on behalf of the President since the 123rd Executive Committee meeting, were ratified by the Bureau.

Prof. Ohtaki regretted that some sponsored meetings, e.g., 32nd International Conference on Coordination Chemistry, now overlapped with the IUPAC General Assembly at Geneva, due to a change of dates when the Assembly was relocated from Rio de Janeiro to Geneva.

10/96 DATES AND PLACE OF NEXT BUREAU MEETINGS

The next meetings of the Bureau were noted as having been scheduled for Geneva on 97.08.27-28 and 97.08.30 during the 39th General Assembly.

VOTE OF THANKS

A vote of thanks was recorded to the UK Chemical Industries Association for the provision of hospitality.

* * *

CHAIRMAN:

Albert Trich

DATE:

27. August 1997

APPENDIX A

POOL PROJECT SUBMISSIONS/ALLOCATIONS FOR 1998-9

- (i) Biophysical Characterization of Proteins: Good progress had been achieved for the 1996-7 pool projects *Recommendations for Measurement and for Presentation of Results Obtained on Biological Substances with Scanning Calorimetry* (Dr. F. P. Schwarz and Prof. H.-J. Hinz) and *Redox Potentials of Proteins* (Prof. F. M. Hawkrige).

In order to achieve final completion of the two documents in 1999, a request to extend the tenure of these three Pool TMs during 1998-9 was supported by the meeting.

- (ii) a. Computer-aided Nomenclature: Prof. A. Dress, a mathematician, had demonstrated at Guildford how to develop computer programmes for naming three-dimensional structures based on "tiling theory". The methodology now required the involvement of a chemist with sufficient mathematical background and an understanding of stereochemistry and nomenclature. Prof. Scorrano supported the project, which was expected to extend to organometallic, solid state, and even organic chemistry, and possibly require coordination by IDCNS. However, this had to be seen as an experiment. Benchmarking had to take place eventually with other existing systems/computer programmes prior to the start of a larger project by IUPAC.

The appointment of Prof. T. Damhus as a Pool TM was supported by the meeting.

b. IUPAC Elemental Handbooks: Exploration of the possibility of publishing a series of short reference books relating to the elements, but primarily those of environmental interest, which could be updated regularly. Prof. Grasserbauer felt that this proposal was too ambitious for IUPAC. Dr. Miyamoto thought that other similar "source books" were already available, but Prof. Leigh said that he was looking for cheap and widespread distribution. In the opinion of the Executive Secretary, this would not be easily achieved, and he cautioned to wait and see how well the IUPAC student-oriented nomenclature book(s), currently in preparation, sold in practice.

No names were provided for the two requested Pool TMs, and the meeting was therefore unable to recommend any appointments to the Bureau. However, Prof. Leigh was encouraged to undertake further investigations and to report back to the Bureau (Executive Committee).

c. Sol-Gel and Polymer-derived Ceramics, Glasses and Ormocers: Prof. Leigh spoke to a report (96.08.29), provided by Dr. G. M. Rosenblatt (Chairman, Commission on High Temperature Materials and Solid State Chemistry - the lead Commission). Prof. Economy indicated that he had also spoken to Dr. Rosenblatt (the project was joint with the Commission on Macromolecular Nomenclature). A draft terminology document was scheduled for 1997.

The Executive Secretary stressed the need for Prof. A. Brennan definitely to meet with the project coordinator, Dr. D. Holland, not later than in 1997. Subject to this requirement, it was agreed to recommend to the Bureau that, in order to bring the project to completion, the tenure of Dr. Holland and Prof. Brennan as Pool TMs should be extended for 1998-9.

- (iii) Education in Chemistry and Human Health: An updated version (96.09.05) of the earlier proposal (96.04.10) from Prof. J. C. Bradley (Chairman of the Committee on Teaching of Chemistry) was tabled. Prof. Moss said that the pool project was part of a major new CTC programme to improve public understanding of the relationship of chemistry with human health by focussing attention on teachers at different levels. The pool project involved preparation of a publication, *Toxicology for Science Teachers*, for presentation at the 15th International Conference on Chemical Education (*Chemistry and Global Environmental Change*: Cairo, 98.08.09-14). Prof. Moss had expressed his concern to Dr. H. G. J. Worth (former Clinical Chemistry Division representative to CTC) about the magnitude of the new major programme. Prof. Grasserbauer also felt that the programme was too ambitious and long continuing for IUPAC to tackle. Prof. Somsen favoured IUPAC doing things for science teachers, but preferably in conjunction with national chemical societies. Prof. Leigh recommended collaboration with national bodies like the Association of Science for Education in UK and even with the International Council of Associations for Science Education. Prof. Economy stressed that dissemination should also be via the Internet (World Wide Web). Dr. Miyamoto suggested that the publication should also be translated into other languages.

In summary, the Chairman said that the programme was interesting and CTC should be encouraged to develop it further. However, no recommendation on appointment of a Pool TM was made to the Bureau.

- (iv) a. Chemistry for Utilization and Preservation of Bioorganic Resources and Diversity, and b. Biotransformation for Chemical Production and Organic Detoxification: Prof. Scorrano referred to the precirculated documentation (96.06.10) and two programmes being initiated by the Subcommittee on Organic Synthesis.

Prof. Leigh indicated that similar types of work had already been initiated, and in his opinion it would be better for the Union to collaborate with relevant organizations. ICSU-SCOPE and IOCD were suggested by Dr. Miyamoto and Prof. Fischli as being such organizations.

In order to start the work, Prof. Scorrano offered to allocate one TM from the zero-sum TMship of the Organic Chemistry Division to the Subcommittee, provided that one Pool TM could also be provided. The Chairman said that, if IUPAC was to proceed, a novel approach was necessary. Nevertheless, the meeting agreed to recommend the appointment of Prof. J. P. Kutney as a Pool TM.

- (v) Recycling of Polymers: Prof. Economy elaborated on his precirculated summary (96.08.10). The Executive Secretary was concerned that the report on this subject, which had been in preparation within the Macromolecular Division for the past several years, should be definitely completed before any extension of activities was begun. Subject to the above condition and provision of the name for a second Pool TM, it was agreed to

recommend an extension of the tenure of Prof. R. H. Marchessault as a Pool TM during 1998-9.

- (vi) Physical Chemistry of Microbial Behaviour in Environmental Systems: At the request of Dr. Miyamoto, it was agreed to defer consideration of the proposal (96.07.22), pending the outcome of his further discussions with Dr. H. P. van Leeuwen.
- (vi) Systematic Study of Stone Conservation Science and Technology: The Executive Secretary tabled copies of an article entitled *Historic Stone Monuments Pose Challenge to Conservation Scientists* (96.04.15 issue of *C&EN*), which suggested that a strong international association of experts was needed to address the scientific, technical, social, and economic issues of stone conservation. He suggested that, when Dr. Becker represented the Union at the forthcoming FECS General Assembly (Athens, 96.09.19-20), he might try and ascertain whether the FECS Working Party on Conservation of the Cultural Heritage [Chairman: Prof. F. Piacenti (Florence)] was interested to initiate a joint activity between IUPAC and FECS. Prof. Scorrano indicated that he was ready, if necessary, to pursue the matter himself.

The meeting agreed that the subject was suitable for an IUPAC Pool project, and Dr. Becker agreed to proceed accordingly.

APPENDIX B

SPONSORSHIPS OF SYMPOSIA BY IUPAC APPROVED BY CORRESPONDENCE
SINCE 123RD EXECUTIVE COMMITTEE MEETING

(see Conference Calendar in *Chemistry International* for main organizers)

4-7 February 1997. International Recycling Congress. Geneva, Switzerland.

19-23 May 1997. 9th International Conference on High Temperature Materials Chemistry. University Park Pennsylvania, USA.

10-14 June 1997. International Symposium on Molecular Architecture for Degradable Polymers: Molecular Design of Polymeric Materials of Tomorrow. Stockholm, Sweden.

16-20 June 1997. International Symposium on New Approaches in Polymer Synthesis and Macromolecular Formation. St. Petersburg, Russia.

7-11 July 1997. 2nd International Symposium on Ionic Polymerization. Paris, France.

20-25 July 1997. 9th International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis. Göttingen, Federal Republic of Germany.

17-22 August 1997. 36th IUPAC Congress. Geneva, Switzerland.

23-27 November 1997. International Conference on Biodiversity and Bioresources: Conservation and Utilization. Phuket, Thailand.

4-7 May 1998. 1st International Conference on Trace Element Speciation in Biomedical, Nutritional and Environmental Sciences. Neuherberg, Munich, Federal Republic of Germany.

20-23 July 1998. 18th Discussion Conference of Macromolecules: Mechanical Behaviour of Polymeric Materials. Prague, Czech Republic.

26 July-1 August 1998. 15th International Conference on Chemical Thermodynamics. Porto, Portugal.

October 1998. 21st IUPAC Symposium on Chemistry of Natural Products. Beijing, China.