FACS NEWS LETTER

No.1 / 1999

FEDERATION OF ASIAN CHEMICAL SOCIETIES
Being Special
is what's most important at Kaneka.

For 50 years, around the globe, we have stuck to being original. Listening closely to customer’s needs, we always do our best to meet each and every requirement. Kaneka’s originality will ensure further leaps forward in the 21st Century.
Editorial: Importance of Diversity

FACS is characterized by the diversity of its member societies with respect to the location, cultural background, and social, economic as well as other aspects. This brings difficulty in the management of the Federation and international activities such as organization of meetings at any place in the region covered by the member societies. However, it must be emphasized that such diversity itself is of much importance.

One of the key words representing contemporary world is 'globalization'. Although this word is understood to imply the disappearance of border obstructing mutual interaction between different regions, there is a view that 'globalization' in fact means 'polarization', that is, the unification of, for example, diversified social and economic standards to a single one enforced by an external power with disregard of the characters of various regions.

According to ecology, natural systems are stable when their components are diversified. Since Asia is one of the important areas in science and technology in the world, FACS with its diversity in the member societies will continue to play a central role in the coming 21st century.

With the rapid development of chemistry and its application particularly in the latter half of this century, the effect of large scale production and consumption of various chemicals on the earth has become very remarkable. An important issue is environmental problems.

In recent years the Chemical Society of Japan has focused on this matter as one of its activities. As a result of the work of Special Committee for Environment and Chemistry, the Society established "Environment Charter '99", which describes basic policies of the Society concerning environment and chemistry.

The Charter asks the Society to consider the environmental safety of chemical substances as the fundamental underlying its activities, and requests every member of the Society to utilize his/her expertise for the resolution of environmental and safety problems. The activities planned by the Society include; fostering research in related fields, developing human resources, cooperation with related disciplines, international cooperation, and making recommendation to industries, governments, and the public.

International aspects are essential in environmental issue, since the problem is global as well as local in its nature. Locality is necessarily related with diversity. In this regard, FACS is expected to contribute much to this important issue for humankind.

Shohei Inoue
President
The Chemical Society of Japan
Professor
Science University of Tokyo
What is FACS?
A Brief History and A Personal Experience

Hitoshi Ohtaki
The President of FACS
Ritsumeikan University

I became the President of FACS after the 7th Asian Chemical Congress (7 ACC) held in Hiroshima in May, 1997 and the presidency will terminate after the 8th ACC in Taipei in November, 1999. The role of Asia in various areas such as science, economy and politics becomes important at the end of the 20th Century and will be much more important in the 21st Century, we believe. Together with the increase of the importance in the role of Asia itself, the role of the Federation of Asian Chemical Societies (FACS) will also be more and more important in the next century. In this report I wish to show what about FACS and I intend to present what we should consider about the future for FACS according to my personal impression and experience during the president of FACS in the two and a half years.

1. The Establishment and the Objectives
The establishment of the Federation of Asian Chemical Societies was suggested by the Division of Scientific Education & Research of UNESCO in February, 1978, and was achieved in August 1978 by the chemical societies of Australia, Hong Kong, India, Korea, Malaysia, Philippines, Singapore, Sri Lanka, Indonesia, Thailand, and Iraq. The eleven societies were defined as the foundation members. The objective of FACS is stated in its Statutes as "to promote the advancement of chemistry and the interest of professional chemists in the Asia-Pacific region in a way which does not detract from the autonomy of any of the member societies". The number of member societies becomes 26 from 26 countries in 1999. It was limited to have only one society in one country at the beginning, but this limitation was removed some years ago. Beside the society members, FACS has individual membership, and now more than 30 individuals joined the FACS.

2. Activities of FACS
The major activity of FACS is the organization of the Asian Chemical Congress (ACC) every two years. Traditionally ACC is held in the country which has the President-Elect, and he/she will be the President immediately after the ACC. Therefore, the period of the Presidency is flexible. In 1999 the 8th ACC will be held in Taipei, China. The ACC's so far held are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>City</th>
<th>Number of Participants</th>
<th>Number of Participating Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1981</td>
<td>Singapore</td>
<td>280</td>
</tr>
<tr>
<td>2</td>
<td>1987</td>
<td>Seoul</td>
<td>310</td>
</tr>
<tr>
<td>3</td>
<td>1989</td>
<td>Brisbane</td>
<td>300</td>
</tr>
<tr>
<td>4</td>
<td>1991</td>
<td>Beijing</td>
<td>1200</td>
</tr>
<tr>
<td>5</td>
<td>1993</td>
<td>Kuala Lumpur</td>
<td>300</td>
</tr>
<tr>
<td>6</td>
<td>1995</td>
<td>Manila</td>
<td>400</td>
</tr>
<tr>
<td>7</td>
<td>1997</td>
<td>Hiroshima</td>
<td>876</td>
</tr>
<tr>
<td>8</td>
<td>1999</td>
<td>Taipei</td>
<td>?</td>
</tr>
</tbody>
</table>

FACS has many projects which organize symposia every year or every two at various places in Asia with or without joint organization of ACC. They are:
- Asia Pacific Food Analysis Network (APFAN)
- Asian Network for Analytical and Inorganic Chemistry (ANAIC)
- Chemical Information (ChIN)
Asian Chemical Education Network (ACEN)
Asian Network for Environmental Chemistry
Asian Network for Cleaner Production (ANCP)
Natural Products
FACS published Newsletter once or twice a year.
FACS gives various awards to excellent scientists at ACC. The Foundation Lectureship is awarded to the most remarkable chemist of the year and the awardee delivers an Awarding Lecture at ACC. The Distinguished Young Chemist Award is given to an excellent young chemist under 40 years old. The Distinguished Contribution to Economic Development Award is given to a scientist or an engineer who significantly contributed to the economical development of Asia or his/her own country. The FACS Citation Award is given to maximum three persons who have significantly contributed to the activities of FACS.
FACS had 10 Presidents in its history. They are listed in the following:

<table>
<thead>
<tr>
<th>Period</th>
<th>Name</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979-1981</td>
<td>Prof. Kamuchorn Maninaanpichu</td>
<td>Thailand</td>
</tr>
<tr>
<td>1981-1983</td>
<td>Tan Sri Dr. B. C. Selhar</td>
<td>Malaysia</td>
</tr>
<tr>
<td>1983-1985</td>
<td>Prof. H. H. Hnoosh</td>
<td>Iraq</td>
</tr>
<tr>
<td>1985-1987</td>
<td>Prof. H. H. Huang</td>
<td>Singapore</td>
</tr>
<tr>
<td>1987-1989</td>
<td>Prof. Sang Up Choi</td>
<td>Korea</td>
</tr>
<tr>
<td>1989-1991</td>
<td>Dr. Tom Spurling</td>
<td>Australia</td>
</tr>
<tr>
<td>1991-1993</td>
<td>Prof. Guang Xian Xu</td>
<td>China</td>
</tr>
<tr>
<td>1993-1995</td>
<td>Datuk Dr. M. Mohinder Singh</td>
<td>Malaysia</td>
</tr>
<tr>
<td>1995-1997</td>
<td>Prof. Fortunato B. Sevilla III</td>
<td>Philippines</td>
</tr>
<tr>
<td>1997-1999</td>
<td>Professor Hitoshi Ohtaki</td>
<td>Japan</td>
</tr>
</tbody>
</table>

3. The Role of FACS in the Asia and World

Asia is facing many problems in economy and politics, and chemists are directly or indirectly affected by these problems. Although we cannot save the difficult situations of individual countries at this moment, we can contribute to the resolution of the difficulties by promoting chemistry and chemical industries of Asia within a long sight. It is understood by almost all countries in the world that Asia has a very high potential in science and engineering. In fact, International Union of Pure and Applied Chemistry (IUPAC) is paying very much attention to FACS, which is one of the Associated Organizations of IUPAC. Since IUPAC contains many European countries, the Federation of European Chemical Societies (FECS) has a closer connection with IUPAC than FACS has. Latin America has an organization called the Federation of Latin American Chemical Societies (Federation Latinoamericana de Asociaciones Quimicas: FLAQ), in which Brazil, Argentina and Chile are playing the leading role. In Africa there is an organization of African Association for Pure and Applied Chemistry (AAPAC). AAPAC is not constructed by member countries in Africa but individual chemists are involved in the organization, as far as I understand. Among countries in Africa, only South Africa and Egypt are the members of IUPAC. Since last year IUPAC organizes a Presidents meeting of IUPAC, FECS, FACS, FLAQ, AAPAC, American Chemical Society (ACS) and Canadian Society of Chemistry (CSC) to exchange information of these bodies. Globalization is one of the most important issues of IUPAC.

4. Enhancement of Activities of FACS

Asian Chemical Congress organized by FACS becomes larger and larger and the scientific standard of the conference increased in these years, because many excellent scientists have participated in the conferences. In 7 ACC in Hiroshima, we invited three Nobel Laureates (Prof. Y. T. Lee, Prof. J. M. Lehn, and Prof. S. Rowland) and in 8 ACC in Taipei, again three Nobel Laureates are invited (Prof. Y. T. Lee, Prof. E. J. Corey, and Prof. R. Marcus), and their lectures are very stimulating to the participants. Moreover, their attendance attracts scientists from all areas of Asia. Participation of good scientists elevates the standards of chemistry in ACC.

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On the other hand, activities of FACS are not well known by many of scientists in Asia. Moreover, FACS sometimes gives a feeling of a closed atmosphere to people. Executive Committee consists of seven members; the President, Past-President, President-Elect, Secretary-General, Treasurer, Coordinator of Projects and Chairman of the Publication Committee, and among them the President, Secretary-General and the Chairman of the Publication Committee are elected from one country due to the convenience for the organization of FACS. Since the bank accounts are open in Australia and Malaysia, the treasurer are customary elected from either Australia or Malaysia. The Treasurer and the Coordinator of Projects can continue their duties for several years because we have no limitation of their term due to practical reasons. The election system seems to be reasonable, but it sometimes produces a less flexible structure. The change of the election system may be considered at a suitable time.

5. Concluding Remarks

FACS must grow up soundly. From 1999 we have new members from Russia and Mongolia and the number of the member societies becomes 26. The area covered by FACS becomes extensively large by including the two countries. On the other hand, FACS has many developing countries, whose chemical societies are rather small. IUPAC supports international conferences organized by developing countries (the organization must be done by the IUPAC Member Countries) by providing US$10,000 to each conference. It may be a good opportunity to have international chemical conferences in Asia to increase activities of our member societies. Activities of FACS should be widely open to the whole people of Asia and to the world. Handing over the reins of the officers by arrangement to one of one’s own country colleagues should be avoided as much as possible. Interconnection with other federations and organizations should be much more enhanced. In 2001 IUPAC and FACS will have a joint conference called “Word Chemistry Congress 2001” in Brisbane, Australia, and this occasion may be a good opportunity to strengthen the tie between IUPAC and FACS and it may make FACS more global.

The Organization for the Development of Chemistry and Chemical Technology in Asia (ODCA) proposed at the Asian Conference on Scientific Cooperation (ACSC) in 1996 has a good foresight of the establishment in the near future. We believe that ODCA will have a close connection with FACS in various ways. Financial supports for the fundamental and application researches of chemistry and chemical engineering in Asia can be expected through ODCA.

The future of FACS is very bright. I hope that FACS will be managed very soundly on the basis of high scientific standard. We spent twenty-one years after establishment, and will enter the new century. We should now have a new scope of FACS towards the coming millennium.
Green Chemistry - New Challenge of Chemist

Hiroshi Fukusaki
Japan Chemical Innovation Institute
Director, Industry/Academia Collaboration

The 3rd Annual Green Chemistry and Engineering Conference was held on June 29 – July 1, 1999 in Washington, D.C. The conference was a demonstration of the breadth of the applicability of Green Chemistry and Technology across all scientific disciplines, industrial sectors, and national borders. A highlight of the conference was the presentation of the 1999 Presidential Green Chemistry Challenge Awards, which recognizes outstanding projects from industry, academia, and small business for the accomplishments in new chemical technologies for source reduction.

What is Green Chemistry?

Green Chemistry-sometimes referred to as "Sustainable Chemistry"- is the design, manufacture, and use of environmentally benign chemical products and processes that prevent pollution, produce less hazardous waste and reduce environmental and human health risks. The name of Green Chemistry was itself the subject of considerable discussion and debate. US initiatives such as the Presidential Green Chemistry Challenge Scheme have been largely responsible for getting the terminology into common practice as well as giving it credibility. Member countries have requested OECD to assist with the establishment of sustainable chemistry programs, and to promote sustainable chemistry in governments, academia and industry. In February 1998 a steering group was formed and endorsed the start of work on a new initiative on sustainable chemistry which would encourage fundamental breakthroughs in chemistry. A workshop was held in Venice, Italy in October 1998 on the policy and programmatic aspects of sustainable chemistry activities. Seven high priority recommendations were proposed, in which following specific tasks were identified.

a) Research and Development
b) Awards and Recognition for Work on Sustainable Chemistry
c) Exchange of Technical Information Related to Sustainable Chemistry
d) Guidance on Activities and Tools to support Sustainable Chemistry Programs
e) Sustainable Chemistry Education

The Green Chemistry movement, which started in the US but is now spreading across Europe, Japan and the rest of the world. In Britain, October 1998, the Royal Society of Chemistry launched the Green Chemistry Network. The hub of the network is located at the University of York, within the new University Center for Clean Technology. A new journal "Green Chemistry" was issued and to be an information resource as well as a high quality international journal. It will report on research activities and interests in chemical aspects of clean technology from academic, industrial and public sectors.

ERNST - European Research Network for Sustainable Technology - is a new initiative organized by DEHEMA in Germany and provides a forum for technologies which allow for increasing efficiency with respect to energy and raw material consumption at the same time a minimization of any environmental impact.

The European chemical industry has started SUSTECH - Sustainable Technology initiative, coordinated through CEFIC, the European chemical industry council, and designed to promote the creation of a series of consortia of chemical companies to formulate and manage a number of relevant collaborative R&D projects.

In Japan JCII-the Japan Chemical Innovation Institute- was established in March 1998 and has been involving in setting up future technological strategy in chemical science and technology aiming at the sustainable development of society and the improved competitiveness of Japanese chemical industry. As the concept of Green Chemistry fits well with the JCII's mission, JCII is taking an initiative in preparing and managing a collaborative organization among industry, academia and national institutions for managing Green Chemistry activities in Japan.
THE MINUTES OF
FEDERATION OF ASIAN CHEMICAL SOCIETIES
34th EXECUTIVE COUNCIL MEETING
Hanoi, Vietnam
September 30, 1998, 09.00-17.40

PRESENT
PROF. HITOSHI OHTAKI (Japan) President
PROF. YOSHITO TAKECUCHI (Japan) Secretary-General
MR. LIM TEOCH THAI(Malaysia) Treasurer
DR. BARRY N. NOLLER(Australia) Coordinator of Projects
PROF. HAJIME AKIMOTO(Japan) Chairman of the Publications Committee

APOLOGIES
DR. FORTUNATO SEVILLA III (the Philippines) Past President
DR. JOHNSEE LEE(Taiwan) President-Elect

OBSERVER
DATUK DR. M. MOHINDER SINGH(Malaysia)
PROF. JOHN WEBB (Australia)
PROF. HO SY THOANG (Vietnam, the President, CSV)
PROF. QUACH DANG TRIEU (Vietnam, the Vice-President, CSV)
PROF. CHU PHAM NGOC SON (Vietnam, the Vice-President, CSV)
PROF. LE VAN NGUYEN (Vietnam, the Secretary-General, CSV)

AGENDA

1. Opening Remarks by President
2. Approval of Minutes of 33rd EXCO.
3. Report of President
4. Report of President-Elect
5. Report of Secretary-General
6. Report of Treasurer
   Based on the 3-page report submitted, the Treasurer reported the present financial situation of FACS, which was followed by discussion. The discussion can be summarized as below.
   (i) The loss of the money caused by the deterioration of RM will be ceased since the Malaysian Government now fixed the exchange rate. It was understood that the money in Australia should be activated and spent first.
   (ii) In view of the financial situation in Asia, it was suggested that the money should be kept as US$ and the Treasurer promised to search for the effective procedure for that.
   (iii) The result of payment of annual fees was reported and the discussion was made as to how to treat societies whose payment has not been done. The President reported that he annually send a letter to such societies to encourage payment but unfortunately so far many countries sent no answer. It was understood that all possible procedures should be taken, including gathering information, before a stronger procedure is to be taken. The President and Treasurer promised to continue their efforts to collect unpaid annual fees.
   Pakistan asked weaver of the 1994 annual fee in return to their payment of the 1996 fee and hereafter. It was confirmed that any weaver should be preceded by the written request by the relevant society for weaver.
   (iv) The Treasurer proposed to buy bond from the Arab-Malaysia Merchant Bank by about one-third of the money kept in Malaysia to make a profit from a supposedly favorable interest. The proposal was seconded by Dr. Noller and approved.
   (v) It was confirmed that a raise of the annual fee will be effective from 1999. The fee will be 120 US$ (instead of 100 US$), 300 US$ (instead of 250 US$), 600 US$ (instead of 500 US$). The President suggested that the three types of fee may be designated as first, second and third category, respectively. It was understood that when the Mendeleev Society will be allowed to join to FACS, their annual fee will be the second category.
7. Report of Coordinator of Projects
8. Report of Chairman of Publications Committee
9. Discussion on FACS News Letter
It was discussed that FACS News Letter will eventually be published in an electronic way rather than as the traditional printed form. It was pointed out that this would depend on the progress of project to handle the materials.

It was suggested that printing and distributing may be done in a place where cost of such is substantially cheaper than that in Japan or Taiwan. It was understood that Prof. Akimoto will consider this possibility, but that the matter is completely to be decided by the Chairman of Publications Committee.

10. Discussion on New Member Societies
It is understood that since the Chapter of Mendeleev Chemical Society has been distributed among the member societies and the President did not receive any comment, the proposal may be regarded as accepted. The final approval will be made on occasion of Council Meeting, and it is understood that the invitation to 8ACC will be sent to the new member society.

Discussion was made on the possible candidates for new member societies. It is understood that FACS should continue efforts to encourage and invite societies which have not joined yet, and for this purpose EXCO members are expected to gather information as far as possible. Information on certain chemical societies in Asia was reported.

President made a comment to the effect that now that IUPAC is looking for an increase of the member countries, it would be wiser for some Asian chemical societies to join to FACS to obtain some international experience and then to proceed to join to IUPAC.

11 Discussion on Safety in Chemical Industry and Cleaner Production Projects
Prof. Ohtaki explained that the Project Leader, Dr. Fukusaki of the Chemical Society of Japan (CSJ), is rather hesitating to initiate the project at this particular moment of economical difficulty which covers nearly all Asian countries. CSJ itself feels it difficult to raise necessary fund to initiate the project. Nevertheless, Dr. Fukusaki and CSJ is ready to cooperate with the relevant Symposium in 8ACC.

The general situation was understood.

The Secretary-General submitted a leaflet, first circular for Cleaner Production Conference to be held in Taiwan. The relation between this Conference and FACS was discussed since the name of Chairman of Cleaner Production Project, Dr. Su, nor FACS was not mentioned in the Circular. Dr. Noller promised to explore the case.

12. Announcement of FACS Awards
The invitation form for the awards was examined and it was understood that this should now be distributed among member societies. Discussion was made as to whether Invitation to FACS Laboratory Excellence Award should be included or not. It was understood that if an appropriate preparation will be made so that the next Council Meeting to be held in Singapore in December 1998 approves the award, an additional invitation will be sent to the member societies.

It was understood that the invitation to awards, including the proposed FACS Laboratory Excellence Award (if it is approved by the Council Meeting), should be displayed in the web page, and Dr. Noller promised to discuss the matter with Dr. Winkler.

13. Venues of 35th EXCO and Council Meetings

14. Venues of 36th EXCO Meeting

15. Discussion on the Program of 8ACC.

16. New/Old Projects

17. Others

Appendix

![Attendents of 34th FACS EXCO meeting at Hanoi](image)
THE MINUTES OF
FEDERATION OF ASIAN CHEMICAL SOCIETIES
(Informal) COUNCIL MEETING
Singapore
RELC International Hotel
December 6, 1998, 09.20-17.00

PRESENT
EXCO Members
PROF. HITOSHI OHTAKI (Japan) President
DR. JOHNSEE LEE (Taiwan) President-Elect
PROF. YOSHIITO TAKEUCHI (Japan) Secretary-General
MR. LIM TECK THAI (Malaysia) Treasurer
DR. BARRY N. NOLLER (Australia) Coordinator of Projects
PROF. HAJIME AKIMOTO (Japan) Chairman of the Publications Committee

National Delegates
MR. MARZOQ AL-SHEMMARI (Kuwait) Secretary, Kuwait Chemical Society
PROF. CHUNLI BAI (China) Vice President; Chinese Academy of Sciences
PROF. DAVID BLACK (Australia) President, Royal Australian Chemical Institute
DR. LE VAN NGUYEN (Vietnam) Secretary-General; Chemical Society of Vietnam

Observers
PROF. H. H. HUANG (Singapore) National University of Singapore
MR. MAJED MOHAMMED AL-ASFOOR (Kuwait) Kuwait Chemical Society

APOLOGIES
DR. FORTUNATO SEVILLA, III (the Philippines) Past President

AGENDA
1. Opening Remarks by President
2. Approval of Minutes of 32nd, 33rd and 34th EXCO.
3. Report of President
4. Report of President-Elect
5. Report of Secretary General
6. Report of Treasurer
   The Treasurer submitted an annual report of finance and reported that the exchange rate of Malaysian Ringi is now fixed and somewhat stable.
   The President proposed a solution to the proposal from Iraq Chemical Society which did not pay their annual fee (category 3) from 1987. The President likes to weaver the fee from 1987 to 1997 if an appropriate letter will be submitted, but he likes to ask them to pay the fee for 1998 (category 3). The category may be changed to lower one from 1999 if they pay the 1998 fee.
   The steps proposed by the President was generally approved but there was some argument concerning how far FACS could be patient with unpayment of annual fee. It was suggested that this case is somewhat special since Iraq is one of the founding societies of FACS. There is some opinion to the effect that any unpayment of annual fee should necessarily result in the loss of membership.
   It was decided that FACS should have some kind of fixed rules for unpayment, and that the Treasurer would prepare the draft for the new regulations to be submitted to the next EXCO and General Assembly.
7. Report of Coordinator of Projects
8. Report of Cleaner Production Conference
9. Report of Chairman of the Publications Committee
10. Discussion on FACS News Letter
   It was discussed that the News Letter should be loaded on the web page of FACS, and that Dr. Noller would discuss the matter with Dr. Winkler. It is understood that for the first instance the text part of the News Letter may be incorporated with the web.
11. Proposal for Establishment of Past-President Committee of FACS.
   The proposal was made by the President
in view of the request from one past President who wishes to attend EXCO and other meetings with some authorized status. It was understood that the wish of past Presidents to attend the EXCO and other meetings should not be neglected, and that their advice might be useful.

Most of the attendants were, however, against the proposal since such a committee will eventually become large (physically and mentally) and might have some power on the EXCO in charge, which is not desirable at all. It was also argued that there is no academic society which has such a committee.

It was generally agreed that the establishment of such a committee should be dismissed, and instead, past presidents may be invited to attend the General Assembly as observers, but this invitation is not to be extended to the EXCO meeting.

12. Proposal for a New Member Societies (Mendeleev Russian Chemical Society)

It was originally intended that the membership of Mendeleev Russian Chemical Society (MRCS) is to be approved by this Council Meeting. Since the meeting is informal, it turned out impossible to take this procedure. The President suggested that this informal Council Meeting can approve MRCS as a new member so that they can participate in 8ACC as an official member and that this decision is, however, to be approved by the General Assembly. The suggested fee is 2nd category, and is payable from 1999.


The President explained that the project has not yet been started since CSJ failed to raise fund. The President would advise Dr. Fukusaki, the director of the project, to participate in 8ACC by some means.

14. Announcement of FACS Awards

The Secretary-General reported that the form for calling for FACS Awards application has been sent to member societies.

Based on the understanding made at Hanoi EXCO meeting, Dr. Noller requested to finalize the rules for FACS Laboratory Excellence Award. During the discussion on the procedures of selecting laboratories to be awarded, and especially on the appropriateness of such an award, however, it turned out that the proposers have intended to delineate the scope of the award within analytical laboratories.

Almost all attendants failed to find any justification for that.

It was decided after some discussion that the Secretary-General would send the proposal for this award to be prepared by Dr. Noller to member societies to gather their opinion by the end of April, 1999, so that it will be possible to discuss further at next EXCO meeting. It must be added, however, that almost all attendants are against the proposal for various reasons. The main reason for objection is that it seems utterly impossible to judge whether one laboratory is excellent or not by a few photographs and written documents.

15. Venues of 36th EXCO

16. Preparation of 8ACC.

17. Preparation of 9ACC in conjunction with IUPAC Congress 2001

18. New Old projects.

19. Others

attendants of FACS council meeting at Singapore
Fourth Asia Pacific Food Analysis (APFAN) Conference
Chiang Mai, Thailand, 16-19 November 1998

APFAN continued with its activities during 1998 and achieved remarkable success. The 4th Food Analysis Conference held in Chiang Mai, Thailand, 16-19 November 1998 was a resounding success.

APFAN’s 4th Food Analysis Conference was officially opened by Professor Dr. Choti Theertranont, President of Chiang Mai University. A formal welcome speech was given by Dr. Howard Bradbury, overall Chairman of the 4AC Organising Committee was Mr. Adung Silprasert from the Research Institute of Health Sciences, Chiang Mai University, Chiang Mai.

This Conference attracted about 140 registrants, 47 papers and about 43 posters. It was the first conference to be held by APFAN, which was not run in conjunction with another association. This is an important milestone in the evolution of a strong and growing APFAN.

Another important development, which should be noted, is the quality and technical merit of the work presented. It is clear that there has been a dramatic improvement over the past three conferences. APFAN members are to be congratulated on this significant advancement in food analysis capabilities.

Person attending the conference came from countries including Bangladesh, Morocco, Indonesia, Thailand, Papua New Guinea, Japan, Philippines, Australia, Malaysia, Mozambique, India, New Zealand, Sri Lanka, Brunel Darussalam, Macau, Fiji, Sweden, Vietnam, Singapore, Nepal, Canada, Italy and China.

The plenary session of the conference concerned Food Composition Data and Nutrition Status issues. The first speaker was Dr. Jean-Pierre Cotier of the Food and Agriculture Organisation (FAO), Rome, Italy. He spoke on the efforts of FAO in strengthening capability in existing laboratory facilities and programs aimed at raising the level of nutrition and standard of living in developing countries. He saw that the coordinating role of FAO will continue as will its support for regional networks involved in food composition work, food analysis, data dissemination and training for relevant people in developing countries.

The second speaker was Dr. Barbara Burlingame who was on her way to take up her new FAO position in Rome, Italy. She discussed the ongoing work of the International Network of Food Data Systems (INFOODS) in the three areas of science, service and advocacy. This work is multi-sectoral involving agriculture, health, environment and trade harmonisation. She saw the need for increased international consultation and collaboration and noted the impact of this work on clinical and public health. The Journal of Food Composition and Analysis is a means by which work in this field can be published.

This session closed with a paper delivered by Dr. Tee E-Siong on the major issues in assessment of nutritional status of communities in South East Asia. He grouped these issues into dietary studies, anthropometric measurements, biochemical determinations and miscellaneous field considerations. Both aspects of the malnutrition problem were considered, i.e. under-nutrition as well as diet-related chronic diseases.

Several papers followed on the work of many people involved in the enhancement of food analysis capabilities in developing countries. A recent project partially funded by AusAID, through its ASEAN Australia Economic Cooperation Program has been aimed at increasing the development of analytical quality control capability in food laboratories in Indonesia. The project involved collaboration between the Research and Development Centre for Applied Chemistry (RDCAC), LIPI, Indonesia, the institute of Nutrition, Mahidol University, Thailand and Queensland Health Scientific Services, Brisbane, Australia.

The chief collaborators were Dr. Julia Kantasubrata in Indonesia, Dr. Prapasri Puwastien in Thailand and Dr. Shawn Somerset, Mr. willy Gore, Mr. Danny Wruck and others in Australia. One of the prime outcomes from this collaboration has been the development of a generic plan for enhancement of food analysis capabilities in developing countries. This plan has strong emphasis on the development of an internal audit system and the laboratory culture change which takes place during this development.

Aspects of Laboratory Quality Assurance and Management were discussed by speakers from developing and developed countries. Issues raised were sample handling, calibration, the test method and its associated standardisation, validation and documentation. Also raised were the issues of reference ma-
terials, auditing and corrective and preventive actions. The professional level of staff and their development and sustainability was discussed at length. Dr. Manny Garcia from Canada was able to add the food microbiology perspective on quality management. He raised issues including sampling and organism inhomogeneity in the food matrix, the possible stress of organisms in different food matrices and the problems of reference cultures.

Many speakers followed covering food analysis, nutrition labelling and laboratory quality assurance. The challenges to developing countries were seen to be to ensure accuracy in analyses, to strengthen cost effectiveness, to maintain credibility in label claims and to integrate food trade and food control infrastructure. Papers in these sessions addressed the application of analytical techniques, the assessment of new methods and techniques, the quality of foods in the market place and also explored new food sources, particularly grains, fruit and vegetables.

Challenges for laboratory development and personnel training in developing countries were presented. The situation in Fiji, Mozambique and Sri Lanka was used to provide three case studies. Important issues for success were identified as commitment, institutional setting, depth of skills, partnership with established food composition programs, key literature, methods, training, quality assurance and infrastructure support.

The way in which the International Foundation for Science (IFS) contributes to strengthening research capacity in developing countries was presented by Dr. Richard Fuchs of IFS, Sweden. The applicant must be young, scientifically qualified, a developing country citizen and must be employed and work in a developing country.

A number of papers were presented on simple or rapid methods for pesticides, aflatoxins and cyanide anti-nutrients in foods. These have direct relevance to developing countries where the realities of domestic and international trade require extremely timely results for the classes of food contaminants. A full two day hands on workshop on this subject was held at the Research Institute for Health Sciences, Chiang Mai University, following the 4AC Conference.

Two workshop sessions were held towards the close of the Conference. They had as subjects nutrition labelling in the Asia Pacific and the cost benefits of quality assurance. Two recommendations emerged from the quality assurance workshop. They were to develop guidelines on the minimum quality requirements for developing country laboratories and to examine the value of a tiered approach to accreditation in developing country laboratories.

The Conference did not neglect the social events. On the evening of the first day a welcome party was arranged at the poolside of the Amity Green Hill Hotel where the conference was held. A lot of food and drinks were served. All participants had an opportunity to talk and make themselves more acquainted with each other. The activity was reported in the local newspaper as well.

On the last day of the 4ACC, a conference dinner was offered by APFAN to all participants. A typical traditional Thai food called "Khan Toke" was served. This type of food is usually served only to special guests of northern Thailand. At the dinner, there were several attractive cultural shows impressed all participants of the conference very much.

Dr. Pieter Scheltinga (Queensland Health Scientific Services, Brisbane, Australia)
Graham Graven (Queensland Health Scientific Services, Brisbane, Australia)
Dr. Howard Bradbury (Coordinator of APFAN)
Adung Silprasert (Research Institute of Health Sciences, Chiang Mai, Thailand)

Prof. Barry Noller (Coordinator of Projects) and Dr. Howard Bradbury (Director APFAN) discuss the future of APFAN following its successful 4th Asia Pacific Food Analysis Conference at Chiang Mai, Thailand 16-18 November 1998.
Sixth APFAN Analytical Workshop held at Queensland Health Scientific Services, Brisbane, Australia, 7-14 May 1999
And Celebration of the 10th Anniversary of APFAN

APFAN workshops are a time for learning and teaching and for social interaction and cultural exchange. As teachers and demonstrators, we develop skills for transferring knowledge across language and cultural boundaries and along the way pick up new social skills from the diverse Asian and African participants.

Queensland Health Scientific Services (QHSS) Brisbane hosted the 6th APFAN Analytical Workshop from 7-14 May 1999. Some 25 fellow food scientists from 9 countries and 2 continents met in Brisbane for 6AW to participate in practical workshops covering food and water microbiology, pesticide and metal residues, and vitamin determinations in foods.

Whilst Thailand, the Philippines and Indonesia were, once again, well represented, 6AW was the first workshop with delegates from Ethiopia, Nepal and Singapore. As in previous workshops, most of the registrants were financially supported by APFAN primarily through the Crawford Fund and the Australian Centre for International Agriculture Research (ACIAR). 6AW was also the first workshop where Australian Government Analytical Laboratory staff participated through the contributions of Craig Tronchery to chromatography in food analysis and in particular the use of his new method for Niacin in foods which will be the subject of an interlaboratory study with APFAN participants planned for later this year.

The formal workshop program was opened by the Hon. Mike Ahern, former Premier of Queensland and president-elect of the Crawford Fund. Mr. Ahern who is an agricultural scientist by profession spoke of the importance and value of Australia’s technical and financial aid to developing countries for the elimination of plant disease and pests - particularly in those countries with whom Australia has ongoing trade in agriculture-. Collaborative efforts to eradicate fruit fly in Papua New Guinea was an example of collaborative assistance which will provide important secondary benefits to Australia as many of these pests cross the international boundaries through trade and migration. The APFAN committee plans to work more closely with the Queensland Branch committee of the Crawford Fund.

All registrants were awarded a certificate of participation to attach to their CVs and completed workshop evaluation forms to assist in program development for future workshops. It was generally concluded that 6AW ranked amongst the best of the APFAN workshops conducted to date. In addition to their certificates and new analytical skills, most if not all participants have taken with them fond memories of Brisbane and the hospitality of QHSS staff.

Whilst the technical program of the workshop is designed to expose participants to the methods and techniques used in food chemistry and microbiology, the social program allowed for some sight-seeing and Aussie cuisine. The Saturday bus trip to Fleays Wild-
life Park and Surfers Paradise provided a snapshot of Australian fauna, the magnificence of Queensland beaches and the gaudiness of Gold Coast shopping. Pies, pasties, fish, salad and chips provided the physical sustenance for the day. Another social highlight of the week was the workshop dinner at the Sheraton hotel on Thursday. Here the parkers and sneakers were replaced by multicultural dress and other regalia and the diners feasted on Tasmanian smoked salmon, Sydney oysters and Queensland prawns washed down with clear Brisbane water and pink cordial. The evening concluded with the formal handing out of the certificates by the Dr. Howard Bradbury & Graeme Craven team at the site where APFAN was conceived 10 years earlier in the very same hotel (see photo). The rest of the evening was taken up with the obligatory photography sessions which provide permanent records of the memories of 6AW fellowship for many years to come.

Like most functions, there are many who contributed to the success of the workshop. As coordinator of 6AW, I again thank all who supported the workshop and contributed to the success of both the technical and social program and by just making the visitors feel at home.

Pieter Scheelings
Coordinator 6AW

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**Project CREN Workshop on “The Environmental Impact of Air Pollution”**
**19-23 July 1999 hosted by the Queensland Health Scientific Services and National Research Centre for Environmental Toxicology, Brisbane, Australia (10th anniversary of Project CREN celebrated at its birthplace)**

During the week 19-23 July 1999, Queensland Health Scientific Services (QHSS) and the National Research Centre for Environmental Toxicology (NRCET) hosted a Commonwealth Science Council training workshop of Project CREN on The Environmental Impact of Air Pollution. The QHSS/NRCET campus was chosen as the venue because of the considerable on-site expertise in this field, as well as the strong working relationship which the two organizations have forged with the Commonwealth Science Council’s project CREN (Chemical Research and Environmental Needs) over the past 10 years (see photo). (Project CREN was started in Brisbane 10 years ago and has actively collaborated with FACS). Overseas delegates from 11 Commonwealth countries attended the workshop and there were attendees from most Australian States.

The workshop covered a variety of topics, ranging from health effects (such as asthma), associated with particulates, to accumulation of radioactive gases in houses. Dr. Diana Lange, Chief Health Officer, Queensland Health, in her opening address to the workshop, stressed her personal interest in the subject and affirmed Queensland Health’s commitment to ongoing investigations in the area.

Dr. Peter Manins, of the CSIRO Division of Atmospheric Research, delivered the keynote address and gave two other papers in the symposium. “World Health Organisation estimates that about 2.8 million people die each year due to indoor air pollution (“over 500,000 in China alone”), Dr. Manins said in a media statement, “and over 200,000 deaths are due to outdoor air pollution”). Most of these deaths are caused by excessive levels of fine particles in the air, but we noted evidence for the implication of smog as well.”

Chemists and Physicists from QHSS presented six papers at this international workshop, which attests to the recognition the organization is achieving in this field. A laboratory tour gave participants the opportunity to inspect the laboratory facilities for determination of volatile components in air. Mr. Jim Doolds of Queensland Health contributed a paper on environmental health indicators and also lead a panel discussion.

The overseas participants all presented reports on the state of knowledge and ongoing research in their own countries. Of particular interest, was a paper describing air pollution damage to the Taj Mahal in India, which is being monitored by eminent scientist, Dr. G. Thyagarajan, (COSTED) who said, “The marble and sandstone are being weathered by atmospheric fumes, including sulfur dioxide and nitrogen oxides. We needed to take action to protect this wonder of the world, so we relocated a large, coal-fired power plant...and diverted a national highway, to reduce the effects of air pollution.”

As a result of the interest in preserving heritage
sites, the workshop agreed there should be a new Commonwealth Science Council initiative to examine environmental factors threatening these sites. QHSS and NRCET will be involved with this activity through the participation of Dr. Ross Sadler (QHSS) and Prof. Barry Noller (NRCET).

The following outcomes resulted from the workshop:

1. **A Training Network:** The creation of a Commonwealth Knowledge Network for dissemination of training information in air pollution assessment. Contact J.Perera@commonwealth.int for details.

2. **Environmental Indicators:** The workshop identified a range of simple environmental health indicators that are applicable to all Commonwealth countries as a basis for developing a Commonwealth State of Environment Report.

3. **Heritage Building preservation:** The need to develop a technical program relating to heritage building preservation was identified.

4. **The Brisbane Statement, July 1999** was produced as follows:

   Participants of the International Workshop on Environmental Impact of Air Pollution, wish to express alarm at the growing evidence that air pollution, particularly smog and fine particle pollution, is causing numerous deaths and debilitating illnesses around the world, resulting in huge waste of human potential. We affirm the potential and tangible benefits of sharing of expertise and knowledge and development of regional and interregional partnerships to promote awareness and public action to alleviate the problems. We resolve to champion the cause for promotion of regional and international cooperation in air pollution through a “Knowledge Network”.

5. **Two low cost analytical programs** were supported:
   - The creation of a Centre for passive gas sampler analysis
   - The promotion of AIRWATCH, a grass roots air monitoring program

Dr. Sadler, who helped organize the workshop, said: “The workshop was valuable, not only for the information it presented, but for the linkages that were established with other scientists. In addition, the meeting gave QHSS and NRCET an opportunity to showcase their capabilities to potential clients and collaborators. The Commonwealth Science Council intends to seek hold a symposium on forest fires, to be held in Chennai, India during December 1999.”

Dr. Ross Sadler, Queensland Health Scientific Services and Prof. Barry Noller, National Research Centre for Environmental Toxicology, Co-organisers of Workshop

**Picture 1** shows key organisers of the workshop:

From left: Dr. Ross Sadler, (QHSS & Project CREN Coordinator), Dr. G. Thyagarajan, (India), Dr. J. A. J. Perera, (Commonwealth Science Council, London), Prof. Barry Noller (NRCET and Australian Coordinator of Project CREN), Prof. Michael Moore (Director, QHSS/NRCET), Dr. Peter Mannis (CSIRO, Division of Atmospheric Research, Melbourne and CREN Coordinator).

**Picture 2** - Celebration of the 10th Anniversary during the air pollution workshop.
Report to the first international conference
“Chemistry and the Internet”

The first international conference of “Chemistry and the Internet” was held September 12-15, 1998 in US National Academy of Sciences & Engineering, Beckman Center, Irvine California, USA near Los Angeles. The conference focused on the current and future technologies and developments for chemistry using the internet, getting together the leaders and innovators in developing Internet resources for chemists, leading to discussions of what future innovations and direction will bring to chemists.

The meeting sponsors are the Chemical Information Division of American Chemical Society (ACS CINF Division), the Computers in Chemistry Division of American Chemical Society (ACS COMP Division), the Chemical Structure Association (CSA), Japan Association for International Chemical Information, Special Libraries Association (SLA) Chemistry Division, and the Royal Society of Chemistry. The Chairman of the Organizing Committee is Steven Bachrach, Northern Illinois University, the Co-chairpersons is Stephen R. Heller, NIST and Henry Rzepa, Imperial College, London. 75 participants are included on the list provided by the Organizing Committee before the meeting started. The participants mainly come from the United States and Europe, I was the only person to give an oral presentation at the meeting from Asia.

There were 5 oral sessions totally given in the same auditorium, and one poster session and exhibitors and Internet computer system demonstrations in the lecture room. There were two 45 minutes lectures given by invited speakers and two 20 minutes contributed talks in each oral session. There were two oral sessions for “Contents” (chemistry resources on Internet), two for “Tools”, and one for “Education/Training”, which exactly reflects the character of this new cross field, the Chemistry and Internet that it is a very close combination of contents and tools, while education and training about it should be delivered to chemists.

I contributed a talk in the first session entitled with “ChIN’s Web Page: Selected Chemical Resources on Internet”, in which I briefly introduced ChIN as one of the FACS projects and ChIN’s symposium in combination with Asian Chemical Congress and focused on the features of ChIN’s web page. ChIN’s page is now the best chemical site with comprehensive directories of carefully selected chemical resources on Internet in China. The abstract of my talk can be found on the conference web site (http://www.chemint.org).

After my presentation, Dr. Wendy A. Warr, the chairman for IUPAC publications told me that she would investigate ChIN’s page. Mrs. Janet E. Ash, the chair of the Executive Committee, CSA invited me to write a short article about ChIN’s page to be published in the coming issue of CSA Newsletter. The electronic version of that issue with my article will be available on the CSA web site (http://www.chem-structure.org/) at the end of October, 1998. Dr. John P. Ochs, Director, New Product Development, Publications Division, ACS as well as some other participants congratulated my talk also. Dr. Alan P. Arnold, University College, School of Chemistry, Australia Defense Force appreciated the idea to create a summary page for the resources indexed on ChIN’s page, similar approaches are undergoing in his project.

Dr. Wendy Warr from Wendy Warr & Associates, who is well known to almost everybody in the area of Chemistry and the Internet, gave an impressive talk on virtual communities in chemistry. The Internet has had a profound impact on the way that chemists communicate. Electronic journals, discussion lists and other resources are fairly well established but now “virtual communities” are starting to appear. She discussed about the Internet-based virtual community in general and introduced 3 major chemical communities, the ChemCenter of ACS (http://www.ChemCenter.org), the ChemSoc of RSC (http://www.chemsoc.org/) and the ChemWeb (http://ChemWeb.com). Compared with a successful community, the Engineering Information Village (http://www.ei.org) which was profitable within 18 months of its inauguration and are found indispensable by engineers, ChemWeb is not profitable and essential yet to the chemical community, although the free registered members to ChemWeb are over 40,000 up to now.

The talk of Barry Hardy from Virtual Environments International - VEI entitled with “Virtual Conferencing: Chemists Discussing Chemistry” is also a featured one. The talk provided an overview Internet-based virtual conferencing in chemistry with emphasis on illustrating the features and capabilities of online communications environments, the
Chemistry Auditorium of ChemWeb (http://chemweb.vei.co.uk), where a series of virtual lectures in chemistry has been delivered over Internet. And the most exciting one is that the live broadcast of seven invited talks of the very conference “Chemistry and the Internet” and the archival of these talks including slides, audio, video and discussion transcripts are available on the site.

Michael Newman of Stanford University overviewed the electronic publishing of the HighWire Press on Internet since 1995. HighWire has developed Web versions of dozens of additional high-impact biomedical journals, implemented access control for subscriber-only access to some titles, implemented inter-journal links and cross-journal searching, and introduced a range of new features that take advantage of the electronic medium. Totally, over 60 web-based scientific journals from HighWire (http://highwire.stanford.edu) are now available. He also outlined the trends in electronic publishing viewed from the unique HighWire perspective and the divergence of electronic and printed journals. The Web offers new opportunities for rapid publication, for inclusion of supplementary materials and new media, for interactive features, and for links to related information. In order to fully utilize the power of electronic publishing, a medium for long-term archiving the e-journals is in urgent need and the archiving problem can be solved at some point in near future. The pricing models for electronic journals should promote the flow of published information while preserving the publisher’s revenue stream.

Nestor J. Zaluzec of Argonne National Laboratory introduced a new application of Internet, the telepresence, which is an on-line “electronic space” that integrates computing technology with state-of-the-art scientific instruments and researchers. With a web browser, a personal computer, and an Internet connection, researchers and students at remote locations can interact with each other as they operate, control, and use scientific instruments for research or education. The TelePresence Microscopy Collaboratory1-2 (TPM) at Argonne National Laboratory (ANL) currently employs electron microscopes as part of its on-line shared scientific instrumentation. It can be expected that the technology can be extended to a diverse range of scientific instruments in future.

Abstracts of other talks and all the information about the meeting can be found on the conference web site (http://www.chemint.org). The current information about the next “Chemistry and the Internet” in September, 1999 can be found on the site. The related information can also be located following the meeting category as well as the category of electronic conference in chemistry on ChIN’s page (http://www.icm.ac.cn/~xxia/webchin/chin-t.htm).

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* I wish to thank FACS Seed Money for Project ChIN 1998 for providing me the part of expenses for my trip to the meeting.
** ChIN’s page is now partly supported by National Science Foundation of China (29773051)
THE CHEMICAL SOCIETY LOCATED IN TAIPEI, CHINA

The Chemical Society located in Taipei, China (CST) was founded in 1932. CST currently has 2,366 active members and 63 group members, and is one of the most prominent academic societies in Taiwan. The main office is located in Taipei, with local chapters set up in Hsinchu, Taichung, Yunlin, Chiayi, and Kaohsiung. CST heavily emphasizes the interaction between CST and academia and local industries. Outstanding members include the 1986 Nobel Prize winner, Dr. Yuan T. Lee, Vice Premier, Dr. Chao-Shiu-an Liu and director of the National Science Council of the Republic of China, Dr. Jenn-Tai Hwang. Its major objectives are as follows.

1. Organizing scientific seminars and symposiums
2. Promoting chemical research and education activities
3. Collaboration with international chemical societies and industries
4. Chemical nomenclature
5. Chemical publications

Important activities include the following:

1. Annual meeting
   - Scientific presentations
   - Forum of advanced topics

2. International Chemistry Conference, Taipei (ICCT)
   - Hosted every two years with specific topics
   - Inviting respected scientists as keynote speakers
   - Paper presentation

3. Chemical education meeting
   - Investigating the level of chemical education in Taiwan with delegates from local universities and high schools

4. Annual Science Exhibition
   - Encouraging local junior high and high school students to present their chemical innovation at the exhibition by awarding them with medals

Through the participation of chemical specialists from all areas, the above activities sponsored by CST have received overwhelming support. Its annual meeting has become one of the most important scientific events in Taiwan, with over 1,500 members participating annually. CST’s publishes the following.

* Journal of the Chinese Chemical Society (bimonthly in English)
  Publishing original research papers
  One of the most reputable scientific journals in Taiwan
  Received many awards and funding from the National Science Council of the Republic of China

* Chemistry (quarterly in Chinese)
  Reporting chemistry related academic and educational activities

* Video series on Chemistry
  Topics include chemistry in daily life, e.g. opto-electronics, semiconductor, energy, food, environment, medical, interfacial chemistry, corrosion and plastics.

CST has participated in activities sponsored by IUPAC since becoming a member of IUPAC in 1959. CST is also a member of FACS since 1984.

Some important recent events sponsored by CST are as follows.

Some International Chemical Conferences
Sponsored by Chemical Society located in Taipei, China

1. International Symposium on Organic Reactions (ISOR)
   1996 ISOR: Sendai, April 7-9
   1998 ISOR: Hsinchu, November 12-15

2. International Chemistry Conference, Taipei (ICCT)
   1995 ICCT: Structure on Dynamics of Biological Macromolecules, December 4-6
   1997 ICCT: Synthetic Chemistry, December 11-14
   1999 ICCT: Analytical Chemistry, May 12-15

1994 ISCOC : Taipei, November 10-13
1996 ISCOC : Hong Kong, April 5-8
1998 ISCOC : Tianjin, August 20-23

4. SINO-AMERICAN Symposium
1994 Asymmetric Synthesis, Speakers (Taiwan 11 US 7), April 8-9, Taichung
1996 Innovations in Undergraduate Education in Chemistry, December 15-18, San Diego
1999 Organometallic Chemistry

5. SINO-FRENCH Symposium

6. Symposium on Chemistry for Life
In Celebration of the 75th Anniversary of IUPAC October 12, 1994. 300 attendants

7. 15th International Congress of Heterocyclic Chemistry (ICH)
August 6-11, 1995. 800 attendants

Some International Chemical Conferences in the Future

1. 8th Asian Chemical Congress and 10th General Assembly
November 21-24, 1999, FACS (Federation of Asian Chemical Societies)

2. 11th Organometallic Chemistry directed towards Organic Synthesis
IUPAC, 2001 OMCOS: July 22-26

3. 37th International Chemistry Olympiad (IChO)
2005 IChO:

4. 8th World Polymer Congress (Macro)
2008 IUPAC (Macromolecular Division)

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H.E.J. RESEARCH INSTITUTE OF CHEMISTRY - A CENTRE OF EXCELLENCE IN PAKISTAN

A nucleus of a "Postgraduate Institute of Chemistry" was established under the Directorship of Prof. Salimuzzaman Siddiqui in 1967 in a wing of the Department of Chemistry. I joined the Institute in March 1969 after obtaining Ph.D. from Kings College, Cambridge. Later I accepted a 4-year assignment as a Fellow of Kings College, Cambridge University. I was then sent by Cambridge University to the University of Karachi during 1970/71 to assist in the setting up of a modern postgraduate institute of chemistry, and I brought with me donations of gas chromatographs, balances and a combustion microanalyser from Cambridge University. I succeeded in obtaining grants to acquire a new mass spectrometer and a NMR spectrometer both of which were installed in 1974, within a year of my return to Pakistan.

I joined the institute permanently in 1973 and I was appointed as Co-Director in 1977. I succeeded in winning several major projects for the institute from the West (1 million pounds from U.K., 8 million dollars from Japan, 3.5 million DM from Germany etc. and more recently 30 million French Francs from France for the establishment of the International Centre for Chemical Sciences) which have transformed the institute into the finest centre in Asia and one of the best in the world in the field of natural product chemistry.

The standard of research activities in the Institute can be judged from two facts. Firstly about 40 German students have come all the way to Pakistan to carry out research in chemistry at H.E.J. Research Institute of Chemistry during the last two years from various German universities, since H.E.J. Research Institute of Chemistry is now ranked amongst the top institutions in the world in the field of natural product chemistry and NMR spectroscopy. The second indication of the top quality of science conducted in the Institute comes from the fact that the Institute was selected as an International Centre of Excellence after an international selection process in competition to proposals from India, China, Brazil and a number of other Third World countries. This selection was based after a thorough evaluation of the quality of the research work carried out in the institute by a team of scientists from Germany and the United Kingdom, and the Institute is now being developed as an International Centre for Chemical Sciences, parallel to the International Centre for Theoretical Physics previously headed by Professor Abdus Salam in Trieste, Italy.

Having the single largest doctoral programme in the country, the institute provides a place of work to about a hundred bright young scientists who are enrolled for Ph.D. level studies on various aspects of organic chemistry, biochemistry and pharmacology. Pakistan produces about 30-40 Ph.D's in the sciences annually from its 24 universities and 130 research centres, about half of which are now produced by H.E.J. Research Institute of Chemistry alone.

The success of the Institute is reflected from the remarks of a number of Nobel Laureates about the quality of work which is being carried out in it. For instance Prof. Dr. D.H.R. Barton (Nobel Laureate) called the Institute. "The best research laboratory in Natural Product Chemistry in the developing world". Similarly the Nobel Laureate Prof. H.C. Brown stated about the H.E.J. Research Institute of Chemistry that "this Institute has become one of the finest in the world, in terms of the facilities, the quality of work and the scientists that it produces". These comments highlight what can be achieved if three different factors come together - scientists of excellence, internationally compatible infrastructure and goal-oriented programmes.

There are several factors which have contributed to the success of the Institute which may serve as a model for other international science institutions in Third World countries. Firstly the Institute introduced a formal system of contractual appointments of faculty members, permanency being granted only after international evaluation of their research productivity by a panel of eminent foreign experts. This ensures a built-in mechanism for removing weaker faculty members who lack the creativity and productivity necessary for internationally competitive research. This has been the single most important factor associated with the success of the Institute. Secondly the Institute has developed a parallel high level track of appointments for technicians and electronic engineers which matches the salary structures accorded to senior Ph.D. level faculty members. The Institute has also developed an intensive programme for the training of electronic engineers and instrumentation technicians in suitable laboratories abroad so that the repair, maintenance and operation of the sophisticated instruments installed in the Institute can be carried out without external technical support.
The Institute presently has five superconducting NMR spectrometers (2x500 MHz, 1x400 MHz and 2x300 MHz), five high and medium resolution mass spectrometers including GCMS systems, X-ray crystallographic systems, protein sequencer, Fourier transform infrared spectrometer, UV and IR spectrometers, gas chromatographs, HPLC systems, ORD/CD equipment, combustion microanalytical equipment, pilot plant facilities for large scale extraction of plant materials, large scale fractional distillation facilities of 1600 litre capacity and glass blowing equipment including facilities for making ground glass joints (both cones and sockets).

Another important factor which has catalyzed the development of the Institute as an International Centre of Excellence has been the large number of international collaborations with top universities in USA, Europe and Japan. The Institute has ongoing collaborative research programmes with Cornell University, Pennsylvania State University and Scripps Institute in USA, Tuiningen University in Germany, University of Stockholm and University of Upsala in Sweden, Sussex University and Cambridge University in England etc.

The Institute regularly organises top International conferences each year and over the last 18 years, 18 international conferences have been held in natural product chemistry, protein chemistry and spectroscopy. Each conference attracts hundreds of scientists from abroad and the Institute has been internationally recognised and praised for the top quality of these events, the proceedings of which are published by major international presses.

The Institute has also developed a large number of collaborations with scientists in Third World countries particularly those in China, Turkey, Sri Lanka, Jordan, Ethiopia, Bangladesh, Iran, Chile, Nigeria etc. and over 100 research publications in top international journals have resulted from these collaborations. To ensure top standards of research carried out in the Institute, the Ph.D. theses of all students are sent to top experts in USA, Europe and Japan for formal examination. Moreover all research publications from the Institute are published only in the best international journals in Europe, USA or Japan.


These contributions recently led to my being selected for the UNESCO Science Prize which was awarded to me by the Director General UNESCO on the occasion of World Conference on Science in Budapest, Hungary on 29th June, 1999. The UNESCO Science Prize was given in consideration of my academic contributions which include 53 books which were written or edited by me and which have been mainly published by major Western presses, for the large number of bioactive substances that I have obtained from medicinal plants with interesting biological activities against diabetes, cancer, AIDS and various cardiovascular diseases as well as for my contributions for the establishment of H.E.J. Research Institute of Chemistry, University of Karachi, a major Research Centre of International Excellence in the field of natural product chemistry.
The World Chemistry Congress 2001 incorporates the following meetings:

- **IUPAC Congress** 1 to 5 July 2001
- **IUPAC General Assembly** 29 June to 8 July 2001
- **9th Asian Chemical Congress** 1 to 4 July 2001
- **AIMECS 01** 3 to 6 July 2001

### Information & Contacts

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### Trade Exhibition

The trade exhibition will be a major feature of the World Chemistry Congress and organisations interested in commercial display opportunities are most welcome. A detailed exhibition list is available and please contact the Congress Secretariat for further details.

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The Spirit of Australia
An Invitation

It is with pleasure that we invite you to attend the World Chemistry Congress 2001 to be held in Brisbane, Australia, 1 — 6 July 2001.

The World Chemistry Congress 2001 will be a landmark event, featuring a diverse program and a range of associated meetings and activities all of which will combine to add value to your attendance.

Brisbane is a superb destination for this international meeting. The City boasts every amenity and is an ideal point from which to explore the vast Australian continent. Well served by international and domestic air services, Brisbane is easy to get to from virtually anywhere.

Make plans to attend the World Chemistry Congress 2001 now, you may wish to submit an abstract, attend as a delegate or participate in the exhibition. We urge you to attend this important Chemistry event and look forward to welcoming you to Brisbane in July 2001.

Graeme George
Joint Congress Chair

Bob Gilbert
Joint Congress Chair

Scientific Program Themes

(a) Materials chemistry for the future
- Materials chemistry in confined systems
- Supramolecular chemistry
- Biomaterials
- Spectroscopy, optoelectronics, energy production and storage
- Combinatorial methods for novel materials and devices
- Novel polymeric and composite materials

(b) Chemistry by computer
- Molecular structure and reactions: theories, modeling and experimentation
- Chemical education in the information age
- Chemometrics
- Trends in computational quantum chemistry and chemical dynamics
- Molecular simulations and theory of complex materials

(c) Challenges for Drug Discovery and Development in the 21st Century -Joint with AINMECS 21
- Target Discovery
- Libraries and Screens
- Molecular Design
- Molecular Development
- New Vistas in Therapy

(d) Environmental chemistry and the greening of industry
- Chemical synthesis, processing & analysis for improved environmental impact
- Chemistry of Responsible Care
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Important Dates

Preliminary program release
July 2000

Early bird discount registration closes
3 December 2000

Abstract submissions close
31 March 2001

Notification of abstracts
1 May 2001

Call for Abstracts

Abstract submissions are invited for contributed oral and poster presentations on topics within the scope of the World Chemistry Congress and the associated meetings.

Instructions for abstracts and authors are available on the Congress website at:
http://www.com.auwoc

Please note that all abstract submissions must be received by 31 March 2001 and authors will be notified after 1 May 2001.

Congress www/Internet Site

The Congress worldwide web/internet site address is:
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This site will be continually updated and you are encouraged to visit often. Visit the site and register your interest and you will receive automatic notification of updates.

The site will also offer online abstract submission and Congress registration facilities and all participants and delegates are encouraged to utilise these facilities.

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Scholarship for Foreign Students and Postdocs Available in Japan

Japanese Government (Monbusho) scholarship students

The Japanese government (Monbusho) scholarship student system was established in 1954, and since then about 43,000 foreign students from about 130 countries and regions in the world have been accepted (as of the end of fiscal 1997).

Procedures for and selection of Japanese government scholarships are:
1. When applicants apply for scholarships from outside Japan (Overseas Application), they must be recommended by a Japanese embassy or consulate general (Embassy Recommendation) or by the university in Japan which will accept the student (University Recommendation).
2. When applying as a privately financed student already studying in Japan, applicants must be recommended by the university they are currently enrolled in (Domestic Selection).

for further information

Monbusho Home Page: http://www.monbu.go.jp/

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It is aimed at providing the awardees an opportunity to conduct cooperative research with leading research groups in Japanese universities and research institutions, thereby allowing foreign researchers to advance their own research while stimulating Japanese academic circles—particularly young Japanese researchers—through close collaboration in scientific activities.

Two application channels are provided:
Foreign researchers apply through the Nominating Authority of their home country, or Japanese researchers wishing to host a foreign researcher apply to JSPS.

RONPAKU (Dissemination Ph. D.) Program (JSPS)

This program provides financial support to researchers from Asian countries who wish to obtain their Ph.D. degrees from Japanese universities through the submission of a dissertation without going through a graduate study course.

A period of up to five years is allowed to do the dissertation research. The RONPAKU fellow makes one visit of up to 90 days per year to a Japanese university to conduct his/her research under the supervision of a Japanese advisor. The Japanese advisor may, when deemed necessary, also visit the fellow’s home university or research institution to supervise the fellow’s research together with his/her home advisor.

The RONPAKU Program is applicable to Bangladesh, China, India, Indonesia, Republic of Korea, Malaysia, the Philippines, Singapore, Thailand and Vietnam.

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The Science and Technology Agency (STA), an administrative organ of the Government of Japan, established the STA Fellowship Program in 1988 in order to offer opportunities for excellent young foreign researchers in the fields of science and technology to conduct research at Japan’s national laboratories and public research corporations (excluding universities and university-affiliated institutes).

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For long term fellowship, each applicant should:

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2) As a general rule, be no older than 35 years old or have received his/her Ph.D. within the last 6 years.
3) Be in sufficiently good health to pursue research activities in Japan.
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FACS NEWSLETTER 27
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The newsletter is distributed to member societies of FACS and boasts a total membership exceeding 50,000 all throughout the Asian region.

We are calling for advertisements for the next issue of the FACS Newsletter. The advertisement rates are as follows:

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6. Life individual member will receive a certificate of their membership.
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