

# *International Union of Pure and Applied Chemistry*

A member of the International Council of Scientific Unions

Division of Chemistry and the Environment VI

---

## **Committee Meeting, Tel Aviv 4-6 June, 2000**

### **Present**

Heinz Behret, John Gilbert, Patrick Holland (Secretary), Werner Klein (President), Willie Pjienenburg, Tania Tavares, Shevach Yehuda.

### **Apologies**

Patrick Dysseler, Renee-Paul Martin, Junshi Miyamoto, Sam Page, Ken Racke, David Turner.

### **1. Terms of Reference** (revised version for comment)

Through its internationally recognised membership, the DCE will provide authoritative, unbiased and timely critical reviews on the chemistry of food and the behaviour of chemicals in the environment. The DCE undertakes both fundamental and applied studies aimed at problems in food and environmental chemistry. In this way DCE contributes to global sustainable development.

### **2. Projects**

#### **2.1 Current Projects**

- 610 Prof. Turner provided a short report to the meeting. Volumes 6-9 of their book series in Analytical and Physical Chemistry of Environmental Systems (published by Wiley) are in various stages of completion and two further project titles are under discussion.
- 620 Prof. Tavares will provide a summary as part of the minutes of the Commission meeting held in Tel Aviv.
- 630 Dr Shevach will provide a summary as part of the minutes of the Commission meeting held in Tel Aviv.
- 640 Dr Racke provided a comprehensive report on Commission activities which included the status of projects.
- 650 Dr Gilbert or Dr Page to provide minutes of the recent Commission meeting, including the status of projects.

**President:** Prof.Dr. Werner Klein  
Fraunhofer Institut fuer Umweltchemie und Oekotoxicologie  
Auf dem Aberg 1, Postfach 1260  
D-57392 Schmallenberg  
GERMANY  
TEL: + 49 (2972) 302 203  
FAX: + 49 (2972) 302 328  
EMAIL: profklein@iuct.fhg.de

**Secretary:** Dr Patrick HOLLAND  
The Horticulture and Food Research  
Institute of New Zealand Ltd  
Private Bag 3123, Hamilton.  
NEW ZEALAND  
TEL: +64 (7) 858 4718  
FAX: +64 (7) 858 4704  
EMAIL: pholland@hort.cri.nz

## 2.2 IUPAC Web Site Project Database

Commission Secretaries are requested to update the information on their projects in the database. The text information can be readily downloaded to a file for editing. The updated file should be sent to Dr F. Myers at the Secretariat who will arrange for the formal update of the database. This task should be completed by 15 August (or after the October meeting for 640).

## 2.3 Timetable for Completion of Current Projects

Secretary-General Dr Becker (letter to Prof. Klein 17/04/00) has confirmed that the Division should be trying to complete all projects, by 31 December 2001. However he rules out an arbitrary termination of all older projects at that time and suggests that a small number of priority projects could be carried over with funding for their completion to be provided from the Divisional budget.

In some cases re-organisation of work into a new interdivisional project may be a good option which could attract new funding.

## 2.4 Outlets for Projects

Publishing of PAC and Chemistry International is moving from Blackwells to the Secretariat. The format and content of PAC will be unchanged but there will be a push to make it more visible and increase circulation.

Summaries of projects, including workshops, should be submitted for publication in Chemistry International. Commission Chairpersons, Secretaries and Project Leaders are to ensure this task is completed by 15 August 2000 along with the update of the web site project database.

## 2.5 Project Approval System

The move by IUPAC to a more project-driven system centred at the Divisional level, requires all DCE members to familiarise themselves with the new project approval system.

Over the past 12 months a number of aspects of the system have been revised or refined by the Bureau and Secretariat. A printout of relevant Web pages is appended to these minutes. Under *Guidelines* it is noted the need to address the IUPAC Strategic Plan (2000-2001 appended) and avoid projects types deemed inappropriate. Also noted are the criteria for referral of projects to the Bureau Project Committee (BPC) (interdivisional projects and those projects where funding required is beyond the Divisional budget).

Dr Becker has communicated with President DCE that the BPC views the funding of regional workshops or symposia such as those favoured by DCE for its extension activities as primarily the responsibility of the Division (see also Budget below).

## 2.6 Project Approvals

The following new projects were approved by DCE (see Budget for funding).

DCE-5 (Interdiv./Scope, Miyamoto and Burger) Environmental implications of endocrine-active substances. Prof. Klein reviewed the status of this extraordinary large project. Dr Miyamoto is requiring substantial additional funding for this project. He and Prof. Klein will prepare an application/letter of recommendation respectively for consideration by the project committee and funding from ICSU-SCOPE is also required. Without this support, the project cannot proceed as it has a large team and wide scope. DCE is making substantial contributions to Chapter 2 (Environmental Fate and Metabolism).

DCE-6 (630, Mandelbaum and Shevach) Soil and water bioremediation.

DCE-8 (630, Shevach and Peijnenburg) Airborne and remote monitoring of water quality.

- DCE-11 (640, Racke and Wong) Regional workshop “Harmonisation of Pesticide Management”, Taichung, Taiwan 3-6 October, 2000.
- DCE-12 (620/630, Grieken and Shevach) Regional workshop “Atmospheric deposition”, Tel Aviv, Israel, 5-6 June, 2000.
- DCE-15 (620, Slanina) Local radiation balance and influence of aerosols.
- DCE-17 (650, Lago) Regional workshop on fats, oils and oil seeds, Rio de Janeiro, Brazil, November 2000.
- DCE-18 (640, Katayama) Bioavailability of xenobiotics.

### 2.7 Interdivisional Project on Green Chemistry

The status of the Green Chemistry project headed by Prof. Tundo, Div. III was discussed. Prof. Klein is to check with bureau re funding and request a fuller version of the project proposal. This information will be distributed to Commissions 620, 630, 640 and Dr Behret (co-ordination with GDCh). Prof. Tavares is to address a meeting on Industrial Ecology in Boston, 2-6 October 2000. She will include comments on the Green Chemistry project. Dr Miyamoto will attend a co-ordination meeting with OECD, supported by DCE (project DCE-10).

An International Symposium on Green Chemistry is being organised in India for January 2001 (Dr M. Kidwai/Prof. J. Clark). Although IUPAC sponsorship has been requested, the relationship to the IUPAC project is not clear. Prof. Klein will investigate the potential role of IUPAC and DCE in this meeting.

### 3. Budget 2000/2001

The status and allocations of monies available to DCE was fully discussed. Following the allocations to Commissions made at Berlin, 1999 and the expenses incurred for the current meeting, it is estimated there will be USD 10,500 remaining from the budget allocation of DCE for 2000/2001 of USD55,200. Following several representations from the Division re funding for the planned regional workshop projects, Bureau allocated a further USD25,000 (under the understanding that this was a one-off allocation). This came into the DCE budget in April.

On this basis the following allocations were made to projects for 2000/2001 and some forward commitments were made for the next Biennium.

	<u>Project</u>	<u>2000/2001</u>	<u>2002/2003</u>
DCE-5	Endocrine	5,000	5,000
DCE-6	Bioremediation	2,000	3,000
DCE-8	Remote monitoring	2,000	3,000
DCE-10	Green chemistry (OECD meeting)	1,000	
650	Mycotoxin Congress proceedings	3,000	
DCE-11	Taichung workshop	6,000	
DCE-12	Tel Aviv workshop	5,000	
DCE-15	Local Radiation Balance	-	5,000
DCE-16	China workshop	5,500	
DCE-17	Rio workshop	6,000	
DCE-18	Bioavailability	-	5,500

The success of projects DCE-1, DCE-2, DCE-4 and DCE-9 in attracting Bureau funding and ICSU funding totalling USD28,000 was noted. Despite the delays and uncertainties of the new system, DCE in fact has obtained overall funding almost double that allocated in the 1998/1999 biennium.

#### 4. Re-organisation of DCE

The dissolution of the Commissions at the end of this Biennium was discussed. It was agreed that this would provide many problems for the organisation of DCE activities but that positive solutions must be sought. Two proposals were tabled and discussed:

Commission 610 (letter to Secretary General, 13/12/99). Reform the Commission as an interdivisional task group on Fundamental Environmental Chemistry. While it is for the Bureau to formally respond, DCE notes that most current Commissions could request this status which in effect would disband the Divisional structure of IUPAC.

Commission 640 (Chairmans report on activities and future plans, 01/06/00). Establish a fixed-term (4 year) Steering Committee for agrochemicals under the auspices of DCE comprising 6-7 individuals. This proposal was recognised as having merit in that it provides a vehicle for extension and liaison activities in addition to project work. However the proposal effectively represents a continuation of the Commission and therefore may not be favoured by Bureau.

The restructuring of IUPAC requires DCE to take leadership in developing stronger project oriented activities. The continuation of other activities will largely depend on individuals linking through groups of strong related projects. In practice these groups or teams need not be much smaller or less stable than current Commissions (not all team members would be on the DCE committee). However ways must be sought to give such groupings visibility and status – otherwise it may be difficult to attract high quality project team members.

An extended discussion was held on the categories under which new projects could be developed and managed. A matrix structure was proposed along the following lines (tentative proposal only) with emphasis on either or both of chemicals and processes in environmental compartments.

The meeting requested each Commission to further consider its response to the restructuring and make proposals which bridge the gap between current topic organised activities and the future more centralised (DCE) project driven system. Please respond formally to Prof. Klein by 15 December 2000.

<b>Chemicals \ Compartments</b>	Air	Water	Soil	Food	'Constructions'	Waste
Bulk chemicals						
Agrochem. & Vet. Drugs						
Pharmaceuticals						
Natural Toxicants						
Biochemicals						
(oil/fat, proteins, sugars)						

<b>Processes \ Compartments</b>	Air	Water	Soil	Food	'Constructions'	Waste
Chemistry						
Quality						
Safety/Hazard						
Production						
Fate						
Risk						
Anal. Chem.						

## **5. DCE Membership**

The membership of the DCE committee should reach at least 12 titular members at the 2001 General Assembly. Currently DCE comprises 8 TMs (including executive) plus 6 AMs. Members of the Commission and DCE committee are requested to actively prospect for well qualified candidates who can make strong contributions to our newer and prospective projects. We will endeavour to fund as many candidates as possible to come to Brisbane.

## **6. International IUPAC Symposium, Tal Hotel, June 5-6, 2000**

Dr Shevah and Prof. Van Grieken organised this 2 day meeting on "Atmospheric deposition and impact in ecosystems" which attracted 50-70 participants. A series of very interesting papers were presented, most having reference to the Mid-east and Mediterranean, and lively discussions ensued.

## **7. Other Business**

### **7.1 UNESCO**

UNEP have requested assistance with evaluation of three programmes. The bracketed DCE members agreed to serve.

- Solar program/renewable resources (n/a)
- Environment of coastal regions and small islands (Tavares)
- Water resources and vulnerable environments in Africa (Shevach)

### **7.2 IDCNS**

Dr Behret is the current DCE AM to IDCNS with Dr Schwarz (620) the DCE TM. Dr Behret will stand down at Brisbane due to work commitments. Nominations are sought for this important position which reviews proposals for nomenclature and symbols.

### **7.3 PAC Editorial Board.**

Prof. Klein agreed to act as DCE representative to this Board.

## **8. 2001 General Assembly, Brisbane 29 June – 3 July**

This GA will be held concurrently with the IUPAC Congress. DCE committee meetings will be held on the afternoons of 30 June, 1 July and 2 July.

The Congress organisers are arranging a poster display of IUPAC projects. Bureau will prepare the posters based on information supplied via the Internet. See the IUPAC Web Site for details. Each Commission is requested to supply information on one or two key recently completed projects.

## **9. 2002 Meeting of DCE Committee**

Preliminary proposals as follows were tabled:

- a) In conjunction with a workshop held in South Africa on 'Atmospheric particles affecting human health' or 'Local pollution in African townships'. Local organiser Dr Pernaar NR, 620. Note Prof. Piet Steyn will be President of IUPAC for 2002/2003.
- b) In conjunction with a workshop in Bahia, Brazil on air quality issues (local organiser Prof. Tavares).
- c) Straight business meeting in Frankfurt, June/July (local organiser Dr Behret, GDCh.).

## **10. Thanks**

The committee thanked Dr Shevach and his assistant Yaffa Ba-tal for their assistance with local arrangements, both for the DCE meeting and the Symposium.

IUPAC serves the international scientific endeavor in the dual function of a basic science and a mission-oriented Union. The Union is in a unique position. Nearly 30 years ago, an international structure was set into place with the capacity to coordinate effective environmental cooperation in the Arctic. Practically, the Arctic Monitoring and Assessment Programme (AMAP) is to monitor and assess the levels, trends, and effects of pollutants and climate change on the Arctic ecosystem and the people living there, especially the indigenous peoples. A review of that programme is presented on p. 8. Also - Primo Levi vs Dmitri Mendeleev by Elena Ghibaudi (Page 2) - Towards a Digital IUPAC by Leah R. McEwen (Page 15) - IUPAC Periodic Table Challenge by J Official Journal of the International Union of Pure and Applied Chemistry. As IUPAC's official journal, Pure and Applied Chemistry publishes the text of authoritative lectures delivered by prominent scientists at IUPAC symposia and specially commissioned review articles on important topics within the field. In addition, the Journal publishes the recommendations of the Union, technical reports on standardisation, recommended procedures, data compilations and collaborative studies. The readership of the journal includes all members of the International Union of Pure and Applied Chemistry. R