CHIMIA 51 (1997) Nr. 11 (November)

Chimia 51 (1997) 846

ISSN 0009–4293

New COST Chemistry Actions

André E. Merbach*

The first seven **COST** (European cooperation in the field of science and technology) **Chemistry Actions** D1–D7 launched in 1991 have come to the end this year, with the exception of D4 and D5 which will end next year. This precompetitive research activity has involved more than one hundred projects in which more than six hundred research groups from 26 countries were collaborating. In Switzerland 49 groups could participate thanks to the financial support of the Swiss Federal Office for Education and Science

Dr. *N. Roulet*, OFES
Hallwylstrasse 4
CH–3003 Bern
Tel.: +41 31 322 96 67
Fax: +41 31 322 78 54.

In order to maintain and even improve the position of the European Chemical Science it has been decided to launch five new **COST Chemistry Actions** described below and on the WEB site: www.unil.ch/cost/chem

Before submitting a collaborative research proposal in Bruxelles the interested persons should first contact the Swiss Delegate of the corresponding Action.

COST D8:
Chemistry of Metals in Medicine

The main objective of this Action is to explore the chemistry of metals in medicine and to apply the knowledge and experience gained for the development of novel drugs, novel diagnostic agents, more effective diagnosis and therapy, and improvements in health care. More precisely to explore physiologically relevant chemistry of metallodrugs in clinical use, to support research on radiopharmaceuticals and imaging agents, to investigate medicinal chemistry of metalloproteins, enzymes and prosthetic groups, to study the speciation of metal compounds of medicinal importance, to design and synthesise new metallodrugs.

Duration: 30.04.96–29.04.2001
Contact in Switzerland:
Prof. *Thomas Kaden*
Institut für anorganische Chemie
der Universität
Spitalstrasse 51
CH–4051 Basel
Tel.: +41 61 267 10 06
Fax: +41 61 267 10 20;
E-Mail: kaden@ubaclu.unibas.ch

COST D9:
Advanced Computational Chemistry of Increasingly Complex Systems

The main objective of this Action is to enlarge the scope of computational chemistry techniques so as to perform a realistic modelling of chemical systems. The programme will focus on the methodological developments required to treat increasingly complex systems, in particular by taking into account the needs of advanced experiments to efficiently and accurately model systems and processes such as: chemical systems of environmental and biological relevance, molecular systems with special optical, electric and magnetic properties, phenomena at surfaces and interfaces, condensed-phase materials, potential drug design *etc.*

Duration: 19.05.97–18.05.2002
Contact in Switzerland:
Prof. *Jacques Weber*
Université de Genève
Département de chimie physique
30 quai E.-Ansermet
CH–1211 Genève 4
Tel.: +41 22 702 65 30
Fax: +41 22 702 65 18
E-Mail: weber@sc2a.unige.ch

COST D10:
Innovative Methods and Techniques for Chemical Transformations

The main objective of this Action is to stimulate research activities focused on the application of innovative methods and techniques for chemical transformations at a fundamental and applied level. Different methods and techniques involving extreme or nonclassical conditions should be investigated and applied at an industrial level. This will require the close cooperation of engineers, chemists and physicists. This will include methods and techniques such as supercritical fluids, high pressure, ultrasound, microwaves and pulse-plasma discharges, as well as combinations of these among each other and with electrochemical, photochemical and radiochemical techniques. The ultimate aims are lower energy consumption, less pollution (clean chemistry) and higher selectivity in chemical transformations.

Duration: 19.05.97–18.05.2002
Contact in Switzerland:
Prof. *André Merbach*
Institut de chimie minérale et analytique
Université de Lausanne-BCH
CH–1015 Lausanne
Tel.: +41 21 692 38 71
Fax: +41 21 692 38 75
E-Mail: andre.merbach@icma.unil.ch

COST D11:
Supramolecular Chemistry

The main objective of this Action is to stimulate research activities in the field of supramolecular chemistry, with the following emphasis: synthesis of novel supramolecular structures and study of their properties, host-guest complexation and molecular recognition, supramolecular reactivity and catalysis, transport processes and carrier design, supramolecular assemblies and self-organisation, molecular evolution and the origin of life, supramolecular engineering and molecular modelling.

Duration: 5 years, starting late 1997
Contact in Switzerland:
Prof. *Pier Luigi Luisi*
Institut für Polymere, ETH-Zentrum
Universitätstrasse 6, CH–8092 Zürich
Tel.: +41 1 632 56 74
Fax: +41 1 632 10 73
E-Mail: luisi@ifp.mat.ethz.ch

COST D12:
Organic Transformations: Selective Processes and Asymmetric Catalysis

This Action deals with the development of new modern synthetic methodology based on the most recent achievements in metal and enzyme catalysis. One central goal is to develop new enantioselective reactions and extend these to interesting applications to synthesis of enantiomerically pure organic compounds. This should be of great importance for future developments of drugs and other biologically active compounds produced by fine chemical industry and pharmaceutical industry. The main objectives are: catalytic asymmetric synthesis based on the use of transition metals, selective processes based on the use of enzymes or catalytic antibodies, studies and development of organic transformations *via* reactive intermediates (radicals, carbenes, carbocations *etc.*), transition-metal-mediated and catalysed organic synthesis, new strategies for the synthesis of complex molecules.

Duration: 5 years, starting late 1997
Contact in Switzerland:
Prof. *Philippe Renaud*, Université de Fribourg
Institut de chimie inorganique, Pérolles
CH–1700 Fribourg
Tel.: +41 26 300 87 7
Fax: +41 26 300 97 39
E-Mail: philippe.renaud@unifr.ch

**Correspondence*: Prof. A.E. Merbach
Chairman COST TC Chemistry
Université de Lausanne-BCH
CH–1015 Lausanne