European Federation of Chemical Engineering Working Party on Crystallization

Secretariat: c/o Prof Brian Glennon, School of Chemical and Bioprocess Engineering, University College Dublin, Belfield, Dublin 4, Ireland. phone: +353-1-716-1954 fax: +353-1-716-1177 email: brian.glennon@ucd.ie

Minutes of the 44th Annual Meeting of the Working Party on Crystallization (WPC) held on 24 March, 2010 in BASF, Ludwigshafen, Germany.

Delegates present:

France
France
Italy
The Netherlands
Ireland
Hungary
Spain
The Netherlands
Hungary
Switzerland
Germany
Switzerland
Germany

Permanent Guests present:

R. Spruijtenburg Switzerland

Delegates absent and apologies:

Z. Bubnik (apologies) Czech Republic C. Campbell (apologies) Ireland M. Hounslow (apologies) United Kingdom E. Korin Israel P. Koutsoukos (apologies) Greece I. Melikhov Russia Russia S. Myasnikov F. Paroli (apologies) Italy A. Rasmuson (apologies) Sweden P. Synowiec (apologies) Poland

Permanent Guests absent and apologies: N. Bulutçu (apologies) Turkey

- N. Bulutçu (apologies) R. Geertman
- M. Giulietti R. Guardani

K.-K. Kim

Brazil Korea France

Brazil

The Netherlands

L. Lafferrère (apologies) Fra

The chairman, Beatrice Biscans, opened the meeting and welcomed all present. Dr Herman Feise, from BASF was welcomed as Scientific Vice-President on EFCE. Dr Elodie Verdurand from DSM, Switzerland was welcomed as a guest. Dr Zoltan Nagy from the University of Loughborough, UK, was welcomed as a representative of Prof Mike Hounslow, the current UK Academic delegate.

1. Minutes of last WPC meeting

The minutes of the last meeting of the Working Party held on 24 March, 2009 in ETH, Zurich, , were approved.

2. Announcements of the Chairman

Welcome to new delegates

Imre Markovitz from EGIS Pharmaceuticals was welcomed as the new industry delegate from Hungary.

Mike Hounslow has indicated his intention to step down as the UK academic delegate. The IChemE has been requested to nominate a replacement.

Working Party Membership

Herman Feise outlined the new proposals from EFCE to update the membership categories of the EFCE Working Parties. Two classes of voting members has been defined - delegates nominated by member societies and members elected by the voting members of the working party. Guests may be elected for 3-year terms, or as lifelong honorary members. More details are attached.

Working Party website

The new website of the working party, hosted by EFCE, is now active at www.efce.info. This web site will have additional items including: ISIC 18, minutes of the WPC, EFCE crystallization award and Master courses in crystallization.

Other announcements

An update of the most recent EFCE Executive meeting was provided by Herman Feise (see attached slides).

3. Identification of new ideas and needs in crystallization

A series of short presentations were made by industrial and academic representatives (see attached file for copies of all presentations). In the discussion that followed, it was noted by Beatrice Biscans that many of the topics highlighted have been identified as topics at recent ISIC meetings. However, Peter Daudey and Matthias Rauls suggested that the coverage of many of these topics at ISIC has been too diverse and that the working party should seek to drive more strategic development in selected areas.

It was proposed that this exercise has two objectives - identification of topics for future ISIC meetings (see next section), and the development of a guidance document summarizing current trends in industrial crystallization. This may be presented at the ISIC18 as part of a dedicated plenary session. It was agreed to hold a special meeting of the working party in France in April 2011 for further discuss of this topic. The chairman will ask the permanent guest of the WPC, Laurent Lafferrere from Sanofi, if he can organize this meeting.

4. ISIC 18 topics (see www.isic18.ethz.ch)

Marco Mazzotti joined the meeting by telephone to present an update of the ISIC 18 organisation (see attached slides). It was agreed that proposals for half-day workshops on Tuesday 13 September, 2011 be prepared by Marco Mazzotti.

In the first announcement, ISIC 18 will address the following topics, which represent a balanced mix of established and visionary areas of research and activity for crystallization scientists and practitioners (see www.isic18.ethz.ch):

- 1- Fundamentals of crystallization science: thermodynamics, nucleation, crystal growth, polymorphism, agglomeration and breakage of crystals, (multi-dimensional) population balances.
- 2- Characterization and monitoring techniques: process analytical technologies, process control tools, measurement and modelling of solubility and of kinetic properties (also on substances available only in very little amounts).
- 3- Design, scale up, modelling, optimization and control of crystallization and precipitation processes; novel crystallization equipment.
- 4- Applications of crystallization: crystalline nano/micro-particles, polymorphs, co-crystals, solvates, chiral resolution.
- 5- Novel directions in crystallization: crystallization in complex media, in novel solvents, using multicomponent mixtures; intensified crystallization using external fields or hybrid processes; crystallization processes for sustainability.

5. Scientific committee

The composition of the Scientific Committee was agreed as proposed by Marco Mazzotti, the WPC members have added some other names (see www.isic18.ethz.ch).

It was agreed that suggestions for plenary speakers and sessions will be sought from the Scientific Committee.

6. ISIC 18 organization

programme structure

The provisional programme structure is still as planned. The scope of the Poster Sessions have to determined following submission of abstracts.

It was agreed to hold a meeting on 5-6 April, 2011 to make a final decision on the submitted abstracts.

efce excellence award

The award for excellence in crystallization will be presented at ISIC 18th. A committee was established to judge the submissions. Its members are Béatrice Biscans, Matthias Rauls, Jaime Gómez-Morales and Bela Lakatos. The rules and schedule for the competition are attached.

meeting of the working party

It was agreed to hold a meeting of the working party during ISIC18 on the evening of Wednesday 14 September, 2011.

7. ISIC 19

A submission to host ISIC 19 in Poland was received from Piotr Synowiec. There was general support for the submission, but the chairman was requested to ask for additional information before a final decision was made.

8. Next WPC meeting

It was agreed to hold a dedicated meeting of the Working Party to coincide with the review of abstracts on 5-6 April, 2011.

9. Any other business

Angelo Chianese provided an update on the Handbook on Monitoring and Control of Industrial Crystallizers. Dechema will publish the handbook. Reviewers were identified (B. Biscans, B. Glennon, P. Carvin, C. Campbell, J. Gómes-Morales, P. Daudey, M. Rauls and B. Lakatos. It is hoped that the review process can start before the end of May.

The chairman, on behalf of the working party, thanked Matthias Rauls and BASF for the excellent organisation and the hosting of the meeting.

Next meeting: to be confirmed

B. Glennon (reviewed by B. Biscans)