

# *Crystallography for the next generation: the legacy of IYCr*

Hassan II Academy of Science and Technology of Morocco

Rabat, 22-24 April 2015

## **PROGRAMME**

(last update: 15/04/2015)

### **Wednesday, 22 April**

#### **17:00-17:45 Opening Ceremony (Chair: Abdelmalek Thalal)**

*Welcome speeches by:*

- Minister of Higher Education and Scientific Research of Morocco
- Minister of National Education and Vocational Training of Morocco
- Minister of Crafts and Social Economy of Morocco
- Perpetual Secretary of the Academy of Science and Technology of Morocco
- Dr Jean-Marc Berthon, Councilor for the Cultural Action and Cooperation, French Embassy in Morocco
- Prof. Marvin L. Hackert, IUCr President
- Prof. Maciej Nalecz, Director, Division for Science Policy and Capacity Building at UNESCO
- Dr Daniel Nyanganyura, ICSU Regional Office for Africa
- Dr Eric Hovestreydt, Delegate of Bruker company, premium sponsor of the conference

#### **17:45-18:15 Presentation of awards (Chair and Introductory talk: Luc Van Meervelt)**

- IYCr2014 Worldwide crystal growing competition.  
*Awards presented by the IUCr General Secretary and Treasurer, Luc Van Meervelt.*
- Crystal growing contest organized by the Moroccan Crystallographic Association (MCA), the French Institute in Morocco and the Regional Academy of Education.  
*Award presented by the Councilor for the Cultural Action and Cooperation of the French embassy in Morocco.*
- Best Ph.D. thesis in crystallography in 2014 awarded by MCA and the Council of Presidents of Moroccan Universities.  
*Awards presented by the Minister of National Education and Vocational Training.*

#### **18:15-19:00 Opening lecture (Chair: Claude Lecomte)**

**Ted Janssen**, *Crystallography in the 21st century*

**19:00 Welcome cocktail** offered by the Hassan II Academy of Science and Technology of Morocco.

## Thursday, 23 April

### 08:30-10:30 **Session 1: Building capacity in crystallography** (Chair: **Claude Lecomte**)

08:30-08:40 **Gautam R. Desiraju** (video message), IUCr Immediate Past President

08:40-08:55 **Marvin L. Hackert**, International Union of Crystallography

08:55-09:10 **Adreas Roodt**, European Crystallographic Association

09:10-09:25 **Cora Lind-Kovacs**, American Crystallographic Association

09:25-09:40 **Jennifer L. Martin**, Asian Crystallographic Association

09:40-09:55 **Diego G. Lamas**, Latin American Crystallographic Association

09:55-10:30 KEYNOTE: **Samar S. Hasnain**, *Bringing nations together*

**10:30-11:00** Tea/Coffee break

### 11:00-13:00 **Session 2: Symmetry** (Chair: **Abdelmalek Thalal**)

11:00-11:15 **Abdelmalek Thalal**, *Introduction*

11:15-12:00 KEYNOTE: **Denis Gratias**, *On the generalization of the notion of symmetry in N-dim crystallography*

12:00-12:30 **Metin Arik**, *Mathematical mosaics, Islamic Art and Quasicrystals*

12:30-13:00 **Ashwini Nangia**, *Polymorphs and cocrystals in pharmaceutical development*

**13:00-14:30** Lunch

### 14:30-16:30 **Session 3: New opportunities in crystallography education** (Chairs: **Michele Zema** and **Cora Lind-Kovacs**)

14:30-14:40 **Michele Zema**, *The OpenLab and OpenFactory projects*

14:40-15:00 KEYNOTE: **Gilberto Artioli**, *OpenLabs in Ghana and Turkey (with PANalytical)*

15:00-15:20 **Gérard Fauvet**, BRUKER, *Travelling lab initiative and other activities in Africa*

15:20-15:35 **Dubravka Sisak Jung**, DECTRIS, *Open Factory: Detecting the future*

15:35-15:50 **Abdellah Boukhris**, *Travelling Lab in Morocco (with Bruker France)*

15:50-16:05 **Graciela Diaz de Delgado**, *OpenLabs in Colombia/Venezuela (with Rigaku)*

16:05-16:20 **Leopoldo Suescun**, *OpenLabs in Uruguay (with Bruker)*

16:20-16:30 **Ian Williams**, *OpenLab in South East Asia (with Agilent)*

**16:30-17:00** Coffee/Tea break

### 17:00-19:00 **Session 4: Preparing for the future** (Chair: **Samar S. Hasnain**)

17:00-17:10 **Richard Garratt**, *Crystallography in Brazil and Latin America: outcomes of the IYCr Latin American Summit meeting*

17:10-17:20 **M. Iqbal Choudhary**, *Outcomes of the IYCr South Asia Summit meeting*

- 17:20-18:00 Delegates of countries accepted as members of the IUCr in 2014 introduce activities and projects in their country (5 minutes each):  
**Hocine Merazig**, *Algeria*; **Patrice Kenfack**, *Cameroon*; **Andrea Mariela Araya Sibaja**, *Costa Rica*; **Abdelmalek Thalal**, *Morocco*; **Maqsood Ahmed**, *Pakistan*; **Suheyla Ozbey**, *Turkey*; **Leopoldo Suescun**, *Uruguay*; **Graciela Diaz de Delgado**, *Venezuela*.
- 18:00-19:00 **Open Discussion**  
*Panelists: Marvin L. Hackert* (IUCr President); **Luc Van Meervelt**, **Santiago García Granda**, **Radomir Kuzel** and **Wulf Depmeier** (IUCr Executive Committee members); **Brian McMahon** and **Michele Zema** (IUCr staff); **Claude Lecomte** (Chair of the IUCr Crystallography in Africa initiative); **Jean Paul Ngome-Abiaga** (UNESCO); **Daniel Nyanganyura** (ICSU ROA); **Andreas Roodt** (ECA, AfCA); **Diego G. Lamas** (LACA); **Cora Lind-Kovacs** (ACA); **Jennifer Martin** (AsCA).  
*Core questions:*
1. Why should a country become a member of IUCr and of a Regional Associate and what are the modalities and benefits?
  2. How do the IUCr facilitate intra-regional cooperation?
  3. What actions should be undertaken to facilitate the process?
  4. Can international institutions (e.g., UNESCO, ICSU, TWAS) help?
  5. What educational and technical support do the IUCr provide?
  6. How else can Regional Associates work with the IUCr to further promote crystallography?

## Friday, 24 April

- 08:30-10:30 Session 5: Phosphates** (*Chair: Amalhay Mohamed*)
- 08:30-09:00 **Abdelaziz El Jazouli**, *Crystal Chemistry, Properties and Applications of Phosphates*
- 09:00-09:30 **Rachid Boulif**, *Overview of Phosphate Industry*
- 09:30-10:00 **Alain Ibanez**, *Solution growths of remarkable phosphate crystals: From lab researches to industrial applications*
- 10:00-10:30 **G. Michael Blackburn**, *Phosphate - The Giver of Life*
- 10:30-11:00 Tea/Coffee break**
- 11:00-13:00 Session 6: The IUCr "Crystallography in Africa" initiative** (*Chair and introductory talk: Claude Lecomte*)
- 11:00-11:10 **Claude Lecomte**, *Introduction*

- 11:10-11:30 **S raphin Kati-Coulibaly** (Director Enseignement Sup rieur et Recherche of Cote d'Ivoire), *Cote d'Ivoire*
- 11:30-11:50 **Anaclet Fomethe** (Rector of Dschang University), *Cameroon*
- 11:50-12:10 **Habib Boughzala**, *Activities in Tunisia and the NACC2*
- 12:10-12:30 **Andreas Roodt**, *Outcomes of IYCr African Summit meeting*

12:30-13:00 Delegates of African countries attending the conference give a short overview of the local situation about crystallography (5 minutes each): **Patricia W. Gitari**, *Kenya*; **Hocine Merazig**, *Algeria*; **Karimat El Sayed**, *Egypt*; **Abdelmalek Thalal**, *Morocco*; **Nzikahyel Simon**, *Nigeria*; **Magatte Camara**, *Senegal*.

### 13:00-14:30 Lunch

- 14:30-14:45 **Juliette Pradon**, *The collaborative research project of CCDC with DR Congo*
- 14:45-15:45 **Open Discussion** (Chairs: **Claude Lecomte** and **Jean Paul Ngome Abiaga**)  
*Panelists:* all speakers of the session and representatives from other African countries present, plus: **Gilberto Artioli** (U. Padova, Italy); **Luc Van Meervelt**, **Santiago Garcia Granda**, **Brian McMahon** and **Michele Zema** (IUCr); **Andreas Roodt** (ECA, AfCA); **Daniel Nyanganyura** (ICSU ROA); **G rard Fauvet** (Bruker); **Giorgio Paolucci** (SESAME); **Juliette Pradon** (CCDC).

*Core questions:*

1. What activities can be started to spark interest in crystallography in emerging countries?
2. What support do the IUCr provide to young African researchers?
3. How to build a network of researchers and facilities within the continent?
4. How can the industry and international institutions help?
5. How can we work more effectively with University administrations and reduce times for installations of crystallographic instrumentation?
6. What is the role of SESAME and other large-scale facilities for Africa and what are the possibilities of access for African researchers?

### 15:45-17:00 **Session 7: Outreach activities at large-scale facilities** (Chairs: **Susan Schorr** and **Jennifer L. Martin**)

- 15:45-15:50 **Masaki Takata**, *The Cheiron School and the role of large scale facilities in facilitating crystallography development*
- 15:50-16:20 **Giorgio Paolucci**, *SESAME: X-Rays for the Middle East*
- 16:20-16:35 **Areej Abuhammad**, *Protein crystallography in Jordan: using a bright light for a bright future*
- 16:35-16:45 **Florence Porcher**, *Crystallography at the LLB-Orph e neutron source: Celebrating 2014 and looking forward*
- 16:45-17:00 **Alison Edwards**, *ANSTO - A bright future going forward with crystallography*

**17:00-17:30** Coffee/Tea break

**17:30-19:00** **Session 8: Initiatives and opportunities @IUCr** (*Chair and introductory talk: Jonathan Agbenyega*)

17:30-17:45 **Jonathan Agbenyega**, *IUCr meeting the changing needs: the future of scholarly communications*

17:45-18:15 **Brian McMahon**, *Knowledge resources for the crystallographers of tomorrow*

18:15-19:00 **Open Discussion**

*Panelists:* **Marvin L. Hackert** (IUCr President); **Samar Hasnain** (Editor-in-Chief, IUCr Journals); **Brian McMahon** (R&D Officer, IUCr); **Jennifer L. Martin, Marc de Boissieu, Denis Gratias, Ashwini Nangia, Claude Lecomte, Maqsood Ahmed** and **Ilia Guzei** (current and past editors and collaborators of IUCr Journals); **Juliette Pradon** (CCDC delegate).

*Core questions:*

1. What do the IUCr do to give access (publishing and reading) to crystallographic information?
2. What do the IUCr do to communicate science?
3. What do the IUCr do to connect researchers and how can the WDC be improved?
4. How can the IUCr Newsletter become a vehicle for researchers to keep up to date with what is happening in the wider community?
5. Should the IUCr reinforce relationships with other societies (e.g., IUPAC, IUPAP, IUBMB, etc) to widen the community and improve interactions?

**19:00-19:10** **Michele Zema**, *Concluding remarks and opening of the IYCr Legacy initiative*