2021 ICDD Spring Meetings - A Virtual Zoom Event

Education Subcommittee Wednesday, 10 March 2021 1:00-2:00pm Nichole Wonderling, Chair

1. Welcome Remarks by the Chair

N. Wonderling

Total attendance 49 participants; 27 of which are members

- 2. Appointment of Minutes Secretary, E. Jennings appointed secretary.
- 3. Approval of Minutes of March 2019

N. Wonderling moved to approve minutes from March 2019

A. Payzant seconded

Minutes unanimously approved

4. Review of Mission Statement

The Education Subcommittee shall be responsible for developing educational materials, implementing workshops, audio-visual programs, and special sessions at meetings concerned with the acquisition and utilization of diffraction data with emphasis on the PDF® and its manual and automated search/match systems. Also, it encourages the teaching of powder diffraction methods in educational institutions. The Education Subcommittee will be responsible for assembling information about X-ray safety and providing lists and links regarding software tools for powder diffraction and X-ray fluorescence.

5. Comments from the Board of Directors' Liaison

C. Segre

Please note, in order for a motion to move forward, a task group (or leader) needs to be assigned and named within the motion.

No comments at this time -C. Segre

6. ICDD Staff Reports

A. XRD and XRF Clinics

E. Jennings

B. Upcoming Workshops and Clinics

E. Jennings

PowerPoint presentation available upon request.

C. Denver X-ray Conference

S. Jennings

PowerPoint presentation available upon request.

D. Results of the Crystallography and Fluorescence Education Survey

C. Segre

Summary available upon request.

*Correction: This survey went out to 156 members in the Education Sector not the entire membership – 55 members answered

7. New Business

Proposals discussed at the Pre-Meeting

Each item below will require a motion from a committee member to proceed with the topic as a subject of interest, election of a task group and leader.

• Development of a categorized, annotated list of ICDD online tutorials

Discussed among the meeting attendees – at this time, no changes are necessary Advertise the tutorials more

Creation of an XRD-III Clinic – to include ab initio structure solution

J. Kaduk - Stand along topic (2 day). P. Whitfield – you would need to screen people to

make sure they have a solid background of understanding. C. Crowder – what free software is available for use? J. Kaduk – (Free) Fox, Dash (available next year), charge flipping, there are free resources available out there. P. Whitfield – I did a class for PSI and they supplied a network dongle, it was commercial but you can get around that.

N. Wonderling – would it be beneficial to survey the members?

J. Kaduk – this could be virtual, though some hands-on would be necessary. T. Blanton – concept is good, but it strictly needs to be in-person. C. Segre – APS ran a GSAS II short course with ab initio examples, we could find out from them how well received it was. J. Kaduk – I will dig into that

Action Item: Create a Task Group to look into possibility of a XRD III clinic – J. Kaduk, P. Whitfield, get thoughts together. Task group members: E. Jennings, T. Maguire, S. Jennings, A. Gindhart, S. Kabekkodu, S. Gates-Rector,

• Update the Wikipedia page on powder X-ray diffraction

N. Wonderling, T. Fawcett will work on this. L. Suescun, G. de Delgado will help with the Spanish version.

G. de Delgado - FYI - IUCr is working on rephrasing the definition of a crystal. We will need to keep this in consideration when updating the Wikipedia page.

• Expand/enhance ICDD relations/offerings in Africa

T. Blanton – There is a group called X-Tek Lab operating out of Benin SA and we participate in a webinar on Powder Diffraction and Phase ID. We also take part in the Pan African Crystallographic Meeting (akin to ACA in US) it is a more general crystallographic meeting. They are trying to get a synchrotron in Africa. Many countries are willing to give money, but in turn each country wants to house the synchrotron.

G. de Delgado – IUCr is working with the Africa Initiative and recently they approved to provide some used equipment for a lab in Cameroon. T. Blanton - Because of the pandemic things slowed down, at this time nothing more specific needs to be done.

• Explore using data trackers - what are people interested in? What needs to be replaced?

Action Item: C. Crowder to make recommendations on which tutorials need to be updated on the ICDD website, including power point and recordings.

• Explore expanding remote offerings - beyond a free webinar but not a clinic. No action at this time.

• Obtaining example data -PDF databases / JADE - solving problems/providing answers.

T. Blanton - We are always looking for examples (data sets) of problem solving, especially organics, metals & alloys, and ceramics. We are looking for examples of materials that people come across, and we want to know how you got your data. Please note, examples will be shared outside of ICDD.

8. Member News

 Electron Diffraction Subcommittee Chair Alina Bruma edited a book on "Scanning Transmission Electron Microscopy." http://ow.ly/dP3150DiBnV

9. Adjournment

Motion to adjourn – T. Blanton; seconded by T. Fawcett