

The 2013 American Crystallographic Association Meeting

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The 2013 American Crystallographic Association met July 20–24 in Waikiki Beach, Hawaii. Conference attendees were able to observe many individuals practicing photolysis of skin from panoramic windows adjacent to most of the conference meeting rooms. A few crystallographers were noted to occasionally appear on the other side of these windows.

The precursors to the meeting were three workshops, two of which would be of interest to the materials community: an overview of the Cambridge Crystallographic Database of organic and organometallic materials and a workshop that presented the new GSAS-II package for reduction, indexing, structure solution and refinement with powder diffraction and single-crystal data.

The conference was kicked off with the new award in memory of the late neutron crystallographer Bob Bau to his good friend and co-worker Tom Koetzle. This well-deserved award brought a moment of poignancy to Tom and Bob's many friends in the audience.

The ACA normal schedules five simultaneous sessions, of which one session tends to be oriented towards the materials community, but this year there were often two sessions of interest to this community running at any given time, which made it nearly impossible for the author to report on the full breadth of the conference, let alone sample the beach and the reportedly very warm water, but the rest of this report will attempt to outline some of the noteworthy sessions to our community.

The premier ACA Transactions Symposium in 2013 was on the topic of the science output from X-ray and neutron sources, which included a session on emerging approaches organized by Antonio dos Santos (Oak Ridge) and Jon Hanson (Brookhaven). Some materials-related talks also appeared in the later chemical crystallography session of the symposium. In addition, Thomas Proffen (ORNL) and Kate Page (Los Alamos) organized a full-day session on Structural Characterization and Computation for Nanomaterials, while a

session entitled "Nanodomains & Beyond" was organized by Craig Bridges and Antonio dos Santos (both Oak Ridge). The latter session featured a fine talk from Rebecca Beadling, an undergraduate student from Indiana University of Pennsylvania.

A session titled "Materials for a Sustainable Future" was organized by Olaf Borkewicz (Argonne), Xiaoping Wang (Oak Ridge) and Peter Khalifah (Brookhaven) covered both metal–organic framework materials as well as more exotic and perhaps more conventional materials, while a session on "Materials Discovery" from Daniel Shoemaker (Argonne), Fernando Uribe-Romo (Cornell) featured work on many of the same classes of materials, but where some talks focused more on techniques. A session related to small angle scattering studies of geo- and nuclear materials was organized by Ken Littrell (Oak Ridge).

Several sessions spanned the interests for the entire community from proteins through materials crystallography: A session on femtosecond-pulsed (FEL) X-ray measurements led by Michael Bogan (Stanford) would be of interest to crystallographers as to what these exciting sources can do. A session from Roger Rowlett (Colgate) and Kraig Wheeler (Eastern Illinois) discussed how crystallography can be added to the undergraduate curriculum. Showing how the ACA is truly an international organization, Alberto Albinati (University of Milan) and Larry Falvello (University of Zaragoza) brought in speakers with a wide range of projects on the topic of the "Interplay of Crystallography, NMR and Theoretical Methods".

No doubt due to the difficult economic times, this was not a very well-attended meeting and there were quite a few speakers who could not attend, despite the best of intent, but the meeting did an excellent job of profiling the very exciting advances being made by scientists employing powder diffraction for study of modern materials. I feel grateful I had the chance to attend, despite the tantalizing so-close-but-so-far-away beach.