4th WMRIF Young Scientist Workshop

Sharing knowledge, challenging one's positions and shaping the future, these ideas attracted 20 young scientists twelve WMRIF member institutes in nine countries. They met for the 4th WMRIF Young Materials Scientist Workshop at the National Institute for Standards and Technology, in Boulder, Colorado, U.S.A., September 8-10, 2014. The young scientists are at the early stage of their academic career either just finishing their PhD. Thesis or about three years thereafter. During the first two days of the workshop they presented in 15 minute presentations and discussed recent findings of their work. The topics were from within the broad fields *Data and Informatics for Materials* and *Materials for Energy Infrastructure*. The presentations will be complemented by written contributions, which will be peer reviewed and published as WMRIF workshop proceedings by Springer Editors.

Several senior scientists and ten jurors attended the meetings. The jurors' task was identifying the best presentations that were honored by an invitation of WMRIF member institutes to spend a fortnight working in their laboratories and exploring chances for further collaboration.
Young scientists are the leaders of tomorrow. While the jurors worked on their assessment of the presentations the young scientists discussed the nature of challenges of modern society, the relevance of materials science and engineering to meet them, the role of international collaboration and WMRIF's specific role. Already in his welcome and opening address on the first day, Dr. Michael Fasolka, Deputy Director of NIST's Materials Measurement Laboratory, had announced this discussion and encouraged the young scientists to be prepared. Moderated by Mike Fasolka the young scientists had a lively discussion, first in a plenary then in four working groups. In the final session with the seniors the rapporteurs presented the working group results in impressively well prepared slide shows. Particular materials related challenges are seen in the transport and storage of energy, adequate supply of food and water, well working infrastructure, materials for medical application and health, efficient use of scarce resources or elements and alternate materials solutions as well as recycling. WMRIF's role is seen in providing the basis for communication and voicing the needs identified by the member institutes. The results will be presented and discussed in next year's 6th WMRIF General Assembly and considered in the preparation of the 10 Trends in Materials Science and Engineering.

The winners of the WMRIF best presentation awards and the WMRIF member institutes offering to host a winner are:

Table 1: WMRIF Institutes that have agreed to host winners

1. National Metals and Materials Technology Center (MTEC, Thailand)
2. National Institute of Materials Science (NIMS, Japan)
3. National Institute of Standard and Technology (NIST, USA)
4. Institute of Metals Research – Chinese Academy of Science (IMR-CAS, China)
5. Technical Research Center of Finland (VTT, Finland)
6. Swiss Materials and Technology Institute (EMPA, Switzerland)
7. Federal Institute for Materials Research and Testing (BAM, Germany)
8. National Physical Laboratory (NPL, UK)

Table 2: Winners of the WMRIF Young Scientist Awards

1. George Dibb * (NPL, UK)
2. Tongjai Chookajorn * (MTEC, Thailand)
3. Chakkrist Phongphisutthinan (MTEC, Thailand)
4. Zewei Quan (LANL, USA)
5. Gerald Holzlechner, (BAM, Germany)

Note: * Young scientists' choice

As usual for international gatherings of this kind NIST had prepared an off-site activity. It was a bus tour to the Rocky Mountains National Park. In a magnificent landscape bears, elk and deer showed up.

Thanks were given by all participants for the excellent preparation of the workshop by the coordinators of WMRIF WG 3 *Fostering the young scientist* and the local staff of NIST in Gaithersburg and in particular in boulder.

Young and senior scientists of the 4th WMRIF Young Materials Scientist Workshop gathered at NIST, Boulder, Colorado, U.S.A.

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