

## Report on the JSPS 161/186 committee and ICC-IMR international joint workshop -crystals and their applications into radiation devices-

JSPS 161/186 committee and ICC-IMR international joint workshop were held on 7-8th Jan. 2016 in Tohoku University. The focus of the event was fabrication of scintillation materials and their applications. The participants were 80 persons from 4 countries who research in several fields such as material science, radiation physics in academic or industrial fields.

Joint workshop -crystals and their applications in radiation devices- was held on 7-8th Jan. 2016 in Tohoku University. This workshop is organized by Japan Society for the Promotion of Science (JSPS)'s University-Industry and Cooperative Research 161<sup>st</sup> and 186<sup>th</sup> Committees and the ICC-IMR. The subjects of the JSPS 161<sup>st</sup> and 186<sup>th</sup> committees are the "Science and Technology of Crystal Growth" and "Radiation Science and Its Applications", respectively. These committees consist of over 60 academic persons and 60 companies; their research fields spread over basic science (e.g. optical physics, radiation physics), materials (crystal/ceramics growth), radiation detectors for medical imaging, nuclear power plant, etc.

Purpose of this workshop was to share the latest results among academia and industry side and to get new initiative for the innovation in several fields such as crystal companies, equipment manufacturers and researchers. Here, scintillation crystals are used in radiation detectors in several fields such as medical imaging and dose monitoring, so this topic is related to both the JSPS committees. Thus, the workshop was focused on scintillation materials and their applications.

In this workshop, 3 overseas researchers were invited: Dr. M. Zhuravleva (University of Tennessee, United States), Dr. L. Swiderski (National Centre for Nuclear Research, Otwock-Swierk, Poland) and Dr. J. Houszicka (CRYTUR, Czech).

Dr. M. Zhuravleva studies crystal growth of halide materials [1], and she presented the crystal growth of ternary halide scintillators with high energy resolution.

Dr. L. Swiderski is an expert on the evaluation of the optical and scintillation properties [2], and he showed the evaluation technique how to measure the light yield non-proportionality, energy resolution and scintillation decay time.

Dr. J. Houszicka is CEO of CRYTUR company which produces single crystals [3]. He talked about the method to prepare 6-inch  $Y_3Al_5O_{12}$  (YAG) crystals, and their application as scintillation materials or lasers.

The participants were 80 persons from 4 countries (Fig. 1) who research in several fields such as material science, radiation physics in academic or industrial fields. During the question time, active discussions were held which significantly contributed to the success of the workshop.



Fig. 1 Photograph of the talk session in the workshop

### References

- [1] M. Zhuravleva, S. Friedrich, C. L. Melcher, *Opt. Mat.*, 36 (3) 670-674 (2014).
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