Seminar on Optics and Spectroscopy Research at DTU

On June 6th, the DTU Institute for Research and Development held a seminar on current research in the field of Optics and Spectroscopy. Talks were given by Professor Vu Xuan Quang, Director of the Institute for Research and Development and former Deputy-Director of the Institute of Physics at the Vietnam Academy of Science and Technology, by Associate Professor Tran Thi Kim Anh and by Dr. Bui The Huy. Physicists and chemists from the Institute attended, together with spectroscopy experts from the Vietnamese Institute of Materials Science.

Professor Quang

Professor Quang gave an overview of achievements over the past five years. Twenty papers were published in ISI journals, one Nafosted project was completed, and two theses were provisionally defended, with another three to be defended in 2018. Meanwhile work continued on several optics and spectroscopy projects, including “A study of the f-d (Eu2+) spectrum - DORENBOS model” (at ISI standard) and “The optical properties of RE phase gadolinium fluoride”. These two fundamental research projects are proceeding well because Eu2+ and gadolinium fluoride samples were provided by foreign partners collaborating with the lab. The Institute is also lobbying for the purchase of some new Danish equipment to provide the thermally stimulated luminescence (TSL) and optically stimulated luminescence (OSL) necessary for its research into dosimetery and dating.

Attendees

During his working visit to DTU in May, Professor Kawamura raised the possibility of a three-year collaboration with Toyohashi University in Japan in the fields of Nanotechnology and Solid state spectroscopy, beginning in 2017. Based on this, the Institute has been working on a metal nanoparticles project aimed at increasing the sensitivity of Raman measurements, using metal nanoparticles. This will improve the quality of measurements in food applications and many others.

"Obtaining the Raman spectrometer and a fluorometer, and shortly the thermo luminescence and photoluminescence systems, the DTU Spectroscopy Laboratory will have the very best research equipment," explained Professor Quang. *"We will welcome scientists to come and make use of our Spectroscopy Laboratory, give us their suggestions and provide us with samples to make measurements in our Physics research."*

(Media Center)