

Report on the 21th Joint seminar of the KB CSJ and BB-KCS by JSPC Core-to-Core Program

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Tomoya Nakagawara has participated in 21th Joint Seminar of the Kyushu Branch of the Chemical Society of Japan and the Busan Branch of the Korean Chemical Society (The 21th Joint Seminar of the KB CSJ and BB-KCS) held at Pukyong National University in Busan, Korea from June 12th to June 14th, 2013. This was my first opportunity of visit foreign country to participate in the conference. In this report, I would briefly summarize my business trip.

The 21th Joint Seminar of KB CSJ and BB-KCS is held every two years and brings together scientists from Japan and Korea. The aim of this conference is to extend the collaboration between the two chemical societies. The program consists of 6 invited plenary lectures and two poster sessions. This conference provides an overview of novel developments, advances and directions of research in the broad area.

Invited lectures and poster sessions were given in English. It was not easy to understand English, but figures were helpful. A lot of researchers made presentations in various fields, physical and organic chemistry, nanophotonics, material science, etc. They stimulated my interests. On 13th June 2013, I made a poster presentation.

My presentation title was

“ Spectroscopic study on N-(5-methylsalicylidene)aniline polymorphs- Effects of planarity of the molecule on excitonic interaction and nonradiative processes ” in this conference. The excited-state dynamics in crystals may different from that in the isolated state when the excited-state molecule undergoes strong intermolecular interaction. We focused on N-(5-methylsalicylidene)aniline (5-MSA) crystals. In this presentation, I reported the effects of the molecular structure and molecular packing on excited state dynamics in (5-MSA). Single crystal X-ray structure analysis revealed that two polymorphs, Form α and Form β exist for 5-MSA. Form α has planar molecular structure and shows high fluorescence quantum yield (ϕ_T), while Form β has non-planar molecular structure and shows very low fluorescence quantum yield. Base on the ϕ_T values and fluorescence lifetimes, the non-radiative relaxation to the S_0 -trans-keto state from S_1 -keto for form β has been estimated to be much faster than that for Form α .

It was difficult to reply to some questions in English. However, this conference was a good opportunity to notice that conversation in English is very important.



Fig 1. Snapshots in the conference

Acknowledgments

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