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Research Institution: Kyushu University

Department: Centre for Organic Photonics and Electronics Research (OPERA)

Host name: Professor Chihaya Adachi

Research:

Luminescent metal complexes for OLED devices

- The synthesis of a series of compounds was performed at Durham University (U. K.) and these complexes were then investigated in Japan.
- The optical properties of a series of Pt and Pd complex films prepared by both spin-coating and evaporation were measured.
- From these optical property results, OLED devices of a Pt-triazole complex were fabricated. The device structure was optimized and its feasibility for OLED production was assessed.
- Investigation into tetradentate Pd complexes for potential OLED application was also carried out and the synthesis of the precursor materials was achieved. Complexation of these ligands was attempted and future work will aim to successfully synthesize the resulting metal complexes.

Photos:



Beach BBQ and Nagashi Somen Party with my Lab.

The OPERA institute is such a special lab with many international members. There are over 40 people in total which makes it a great working environment to learn from many diverse backgrounds. There was so much equipment and a strong industry link made it possible to see lab-scale science translate to real life application for OLED development.

Living in Japan is such a great experience as there are so many new things to explore and experience. From arriving in June which is the rainy season and leaving at the end of August, during typhoon season, you need to be prepared for all weather eventualities. An umbrella is a must and cool, breathable clothing is also good for the hot weather and humidity.

I loved tasting all the new food and would advise never to be scared to try anything new! I also found having the weekends to travel was great and you can see so much no matter where you are in Japan there will be some amazing scenery gem nearby!

I have experienced so much in Japan and the people I have met have been some of the most outgoing and friendly that I have ever encountered. I have had so much support from my lab which has enabled me to learn so many new scientific techniques but also cultural Japanese things including Tanabata and Nagashi Somen!

The JSPS program is truly a fantastic experience and I feel incredibly lucky to have been a part of it.