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Project 03 - Highly Efficient Low-Cost Polymeric Solar Cells

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My experience at Photonics North 2011

During the Annual Network Meeting, It was very nice to see a brief overview about all the different projects, organic or inorganic components and techniques that brings us to up-to-date and top notch research in the field, all working on the same unified goal of solving the energy crisis with solar power. The most interesting part was definitely the information about the legislations and economics of photovoltaic in Ontario, and it made me hungry for information about those domains in Quebec.

During the Photonics North Scientific Conference, I learned a lot about domains related to mine that I heard of for quite some time. For example, I finally got an overview about the dye-sensitized solar cells, and the usefulness of the tandem cells because of its effect on the electrodes, work functions and energy levels, and it can all ultimately affect performances and stability.

I also learned about dissociation processes and the dark states limiting the performances of the devices, which is strongly correlated to my actual research, and gave me a lot of ideas to improve my models. My research was also challenged when I was confronted to the poor performances of other acceptors (which is one of the goals of my research), and it only made me want to understand more about the actually unknown reasons of this phenomenon.

Shopping during the evenings was also part of the experience: we found great restaurants and stores (like the best comic book shop of the country!) which only makes me want to come back to Ottawa for my own pleasure.