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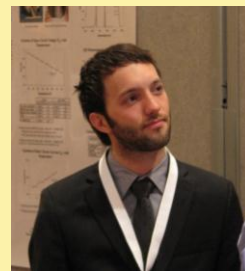
Project 11 - Novel III-V and I-III-VI Based Multi-Junction Solar Cells

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Institution: University of Ottawa, Ph.D. Candidate in Physics

Attended: Annual Network Meeting, Scientific Conference and Industry Workshop (2011)

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PVIN: A week on Canadian photovoltaic opportunities

The full week of May 15th has been filled with discoveries, interesting encounters and priceless opportunities. Within the 3 different workshops, the PVIN Annual Network Meeting, Photovoltaics Canada and the Photovoltaic industry workshop, I have been able to gather countless new ideas on research opportunities. Most importantly, this week has been an important occasion for me to meet with the fellow student in my research field, allowing me to discover some key aspects of the science done within the network. Most importantly, I have been able to learn about the growth and experimental capacity of our collaborators within project 11, the Kleiman's group at McMasters University.

Before the week, I had some questions that I was expecting to get answers to. First of all, after a small internet search, I realized that there were not many opportunities for attending a summer school on photovoltaic science. I wondered if there was a possibility to initiate a week long summer course on PV within the network. And I obtained my answer during the working group afternoon of Sunday, where the HQP program was planned. I was able to convince the fellow HQP of the importance of such course. Hopefully, this type of program will be implemented in the near future. Furthermore, I had some scientific questions. Since my research is focused mainly on the implementation of nanostructures in multijunction solar cells, I often encounter papers on highly theoretical devices, such as the intermediate band solar cells or the hot carrier solar cells. I was wondering if any group within the network was working in this interesting field. I realised that Pr. LaPierre was working on nanowire devices that could potentially offer these types of behaviours, while he was not fully concentrating his research on these effects. Furthermore, I had an original idea a while ago, wondering if it could be possible to implement III-V nanowires as the material for the middle subcell in a multijunction solar cell. However, my question was answered when I was able to see a TEM picture of the nanowire encapsulated in plastic. The surface is extremely too rough for an actual growth.