

Mohammed Chamma  
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January 11, 2016

Dear Professor Desgreniers,

Please find enclosed my work term report for my last CO-OP semester (PHY4902, T4) which I started at the beginning of September and finished on December 18.

This work term was a continuation of my previous work term T3 at the uOttawa A.E. Lalonde Accelerator Mass Spectrometry lab and I continued helping with the maintenance of the machine, building and testing new components, and creating simulations. My supervisor was Professor Liam Kieser.

The title of my enclosed report is *Ion Sourcery: Generating Ions for Accelerator Mass Spectrometry*, which is an overview of the topic of ion sources and details problems and possible improvements of the ion source used at this lab.

The report is a product of my own work and I am grateful for many ideas from Dr. Xiaolei Zhao, images and plots of the cooling system from Dr. Chris Charles, and for feedback on the first draft from Dr. Liam Kieser.

Yours sincerely,

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