



Contribution ID: 344  
compétition)

Type: Oral (Student, Not in Competition) / Orale (Étudiant(e), pas dans la

## Characterization of PICASSO/PICO detectors using University of Montreal Tandem Van de Graaff accelerator

*Thursday, June 19, 2014 9:00 AM (15 minutes)*

Low energetic, elastic neutron scattering is an ideal tool to characterize dark matter detectors. At University of Montreal, we use our Tandem Van de Graaff accelerator to calibrate superheated liquid detectors of the PICASSO/PICO dark matter search experiment. Mono-energetic neutrons are produced via the  $51\text{V}(p,n)51\text{Cr}$  nuclear reaction at well-defined resonance energies in the range of 4 to 120 keV. We discuss the accelerator operation and how neutrons are used to investigate our superheated liquid detectors.

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**Session Classification:** (R1-3) Ion Beam Analysis and Modification - DCMMP / Analyse et modification de faisceaux d'ions - DPMCM

**Track Classification:** Particle Physics / Physique des particules (PPD)