Thin Films for the Transport of Polarized Ultracold Neutrons for Fundamental Symmetry Study

Russell R. Mammei

Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

Doctor of Philosophy
in
Physics

Robert Bruce Vogelaar, Chair
Jean Heremans
Giti Khodaparast
Mark L. Pitt

August 11, 2010
Blacksburg, Virginia

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From: Adam Holley <atholley@ncsu.edu>
Date: Fri, 06 Aug 2010 09:49:16 -0400
To: Russell Mammei <rrmammei@vt.edu>

Hey Russ,

You may most certainly use any of my pictures that you'd like!

About source performance numbers... unfortunately my cryptocard needs to be replaced (again), which means that I don't have access to the logbook or any data at the moment. As a result, although I do have data from 2007 (crossed polarizer measurement) as well as from the year after we changed the transport in the shield stack from DLC to SS, I can't easily correlate any particular runs I have with the state of the source etc. or download any additional data. If you have any particular runs or a range or runs for which you'd like to know the gate valve rate I can look to see whether I have the data, however. Otherwise, you may be able to find a fairly good history of GVmon rates by just paging through the logbook. Remember to keep in mind that at some point (between 2007 and 2008 I think) we moved the GVmon hole to the upstream side of the GV; after that move one needs to be careful, of course, about whether the rate is a GVopen or GVclosed rate.

Congrats on being so close to finishing your thesis! I'm finally getting towards the end of my primary analysis and have written the bulk of my two main analysis chapters. I plan to start the final writing phase in September... as well as start looking for jobs (which I haven't done yet). So I'm getting there, but it generally feels like a whole lot to do (a feeling I'm sure you know very well).

See 'ya...

Adam

---
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Figure 2.13

(a) CAD drawing of the UCN detector  
(b) Photograph of the 1 meter elbow drop guide assembly with UCN detector attached.
Hi Russ,

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Thanks  
Chris

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