

Abstract Submitted  
for the DAMOP16 Meeting of  
The American Physical Society

**The Effects of Hybrid Optical Pumping on the Electron Spin Filter.** MARK ROSENBERRY, Siena College, TIMOTHY GAY, University of Nebraska - Lincoln — Under the low pressure conditions of our spin filter experiment, optically pumping a single alkali species runs into the problem of radiation trapping. To polarize a significant electron current requires a moderate alkali density, but in the absence of quenching effects such a vapor is limited to modest polarization, and hence the resulting electron polarization is also low. One possible solution is to introduce a second alkali species, which can be polarized by spin exchange with the laser polarized species. Since this second species does not interact with the laser, it does not suffer from radiation trapping, even if it has a substantial density. We report progress in experimental and computational studies of potassium/rubidium hybrid pumping in this regime

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Date submitted: 26 Jan 2016

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