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The effects of coated surfaces on rubidium polarizations PAUL ABED, MARK ROSENBERRY, Siena College — Certain applications of alkali optical pumping (e.g. polarized electron generation, storage of light) benefit from the use of minimal buffer gas pressure. Under these conditions, the interactions with the surface of the container become crucial in determining the polarization. We are working to improve the polarization lifetime of rubidium atoms in both glass and stainless steel containers, through the use of paraffin and drifilm coatings. Some model predictions and preliminary data will be presented.

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