

Abstract Submitted  
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**Testing valence proton symmetry for Te and Cd**<sup>1</sup> TAN AHN, LINUS BETTERMANN, ROBERT CASPERSON, RAPHAEL CHEVRIER, ANDREAS HEINZ, GABRIELA ILIE, DAVID MCCARTHY, DESIREE RADECK, MALLORY SMITH, VOLKER WERNER, ELIZABETH WILLIAMS, WNSL, Yale University — To aid in the study of nuclei far from stability, various valence correlation schemes have been used to infer unknown properties of nuclei from known ones. One such valence correlation scheme is valence proton symmetry, which has been successfully tested for Xe and Pd pairs around the  $Z = 50$  proton shell closure (Dewald 2008). To test the robustness of valence proton symmetry around mid-shell for the Te-Cd pairs, which is one proton pair closer to  $Z = 50$ , we measured the lifetimes of the  $2_1^+$  level in  $^{116}\text{Te}$  and  $^{118}\text{Te}$  using the Recoil Distance Doppler Shift method. The results of this experiment will be presented.

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