

Abstract Submitted  
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**$\beta$ -Delayed** **Pro-**  
**ton Emission of  $^{71}\text{Kr}$** <sup>1</sup> SANJANEE WANIGANETHTHI, UMass Lowell (UML),  
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SOLTESZ, S.K. SUBEDI, OU — Mirror nuclei and their decay properties are key in  
understanding the role of isospin in nuclear structure. The character of ground state  
and low-lying states in the Kr/Br mirror pair has been under debate. Properties of  
this mirror system were investigated in an implant-decay experiment at the NSCL  
using a beam containing  $^{71}\text{Kr}$ , produced by projectile fragmentation of a  $^{92}\text{Mo}$  beam  
on a Be target and purified with the RF Fragment Separator. The purified beam  
was implanted into the Beta-Counting Station surrounded by SeGA. A previously  
unobserved  $\beta$ -decay branch to the 407-keV state of  $^{71}\text{Br}$ , delayed proton decay to  
the 944-keV state of  $^{70}\text{Se}$ , as well as a precise measurement of the  $^{71}\text{Kr}$  half-life, will  
be presented. The intensity of observed 944-keV  $\gamma$ -ray transitions provides evidence  
that the spin of  $^{71}\text{Kr}$  must be greater than  $J^\pi = 3/2^-$

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