Abstract Submitted
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A High-Intensity Source of ^{6}He Atoms for Fundamental Research[1] D.W. ZUMWALT, A. KNECHT, A. GARCIA, B.G. DELBRIDGE, R. HONG, G.C. HARPER, C. WREDE, S. UTSUNO, A.S.C PALMER, R.G.H. ROBERTSON, H.E. SWANSON, D.I. WILL, University of Washington, P. MUELLER, W. WILLIAMS, Argonne National Laboratory — We have designed and built a lithium target station for the production of ^{6}He atoms for fundamental research. The system relies on the reaction ^{7}Li(^{2}H,^{3}He)^{6}He using a deuteron beam provided by the tandem Van de Graaff accelerator available at the Center for Experimental Nuclear Physics and Astrophysics of the University of Washington reaching a maximum intensity and energy of 10μA and 18 MeV. The extracted intensity of gaseous ^{6}He atoms was measured to be $\sim 10^9$ atoms/s in a low-background experimental area. This represents the highest intensity of ^{6}He currently available in the world. This presentation will discuss the details of the target design and give a brief overview of the experimental program.

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