

Abstract Submitted
for the APR08 Meeting of
The American Physical Society

Investigations toward the possible use of energy from isomeric nuclei. MARC LITZ, GEORGE MERKEL, Army Research Laboratory, NINO PEREIRA, Ecopulse Inc, JAMES CARROLL, Youngstown State University — The high energy density of some isomeric nuclei would be very attractive in energy storage applications if it could be extracted and converted to electricity conveniently and efficiently. These concepts were critically discussed in our presentation last year, but at that time no experimental results were available. This paper presents the results obtained in connection with irradiating two isomers, ^{177}Lu and ^{166}Ho , with nominally 2 MV bremsstrahlung from a linear accelerator. Results include verification of the end point energy and the associated dosimetry, and changes in the samples' activities and their causes.

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Date submitted: 11 Jan 2008

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