## Abstract Submitted for the 4CF06 Meeting of The American Physical Society

Construction of a Low-energy Single-wire Z-pinch Apparatus for Metal-catalyzed Fusion Studies SHANNON WALCH, STEVEN JONES, JOHN ELLSWORTH, Brigham Young University — Numerous beam and foil experiments have been undertaken in an effort to explore fusion enhanced by condensed matter and have produced substantial evidence for the catalyzing effect of metals and the variation in effectiveness of different types of metal. A group at Brigham Young University studying low energy nuclear reactions is currently building a low-energy single-wire z-pinch apparatus to test it as a tool for producing such reactions. If useful, it will expedite our studying the relationships between the type of metal used and the number of emitted particles, and it will assist in the development of a theory for this type of reaction, as no current theory can predict the outcomes of these experiments.

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Date submitted: 11 Sep 2006 Electronic form version 1.4