

Abstract Submitted
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Models for Anomalies in Metal Deuterides PETER L. HAGEL-STEIN, Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge, MA 02139 — There have been a great many claims for anomalies in experiments on metal deuterides, including excess heat, heat correlated with helium, slow tritium, low-level dd-fusion, and particle emission not produced by dd-fusion reactions. We have studied models that involve phonon exchange with a highly excited phonon mode in the case of fusion reactions and disintegrations. We have recently generalized the approach to include phonon-mediated nuclear excitations. The resulting models may be applicable to experiments in which evidence for penetrating radiation is found, as well as to some transmutation effects.

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