

Abstract Submitted
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FOX – 7 Cp PREDICTION FOX -7 Specific heat prediction from a proposed nominal / generic specific heat for CHNO energetic materials.
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The importance of the specific heat (C_p) of CHNO energetic polymers relative to their impact shock sensitivity has been documented in U.S. Army technical reports and papers in the shock compression of condensed matter conferences. Another recent U.S. Army technical report (AMR-SS-06-35) documents a proposed nominal / generic (N/G) C_p for CHNO energetic materials. The motivation for this proposed N/G C_p was its utilization to predict C_p for energetic polymers whose C_p was unknown. The present paper documents the “successful” application of the (N/G) C_p concept to predict the C_p for a relatively new CHNO explosive, FOX-7. This application is called “successful” because it agrees very well with a more complex and sophisticated FOX-7 C_p prediction contained in the SCCM-2005 conference proceedings.

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