

Development and Characterization of Promising New Pressed Explosives

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ATK Thiokol and RDECOM-ARDEC have worked together for several years to develop new pressed explosives that are readily manufactured, have excellent performance and insensitivity characteristics. Much of this work has focused on very high performance CL-20 based compositions and more recently lower cost RDX and HMX formulations have been developed. This paper will present the results of manufacturing and performance characterization for two very promising new explosives, PAX-30 and PAX-42. In addition to utilizing the industry standard nitramines, HMX and RDX, both explosives contain significant amounts of aluminum. The addition of aluminum significantly increases blast performance of these compositions and makes them ideally suited for multipurpose warheads.