

[1]李娟娟,胡双启,王东青,等.装药密度对钝化黑索今慢速烤燃特性的影响[J].弹箭与制导学报,2009,6:125.

LI Juanjuan,HU Shuangqi,WANG Dongqing,et al.Influences of Slow Cook-off Characteristics of Passivation RDX at Different Charge Density[J].,2009,6:125.

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## 装药密度对钝化黑索今慢速烤燃特性的影响(PDF)

《弹箭与制导学报》[ISSN:1673-9728/CN:61-1234/TJ] 期数: 2009年第6期 页码: 125 栏目: 弹药技术 出版日期: 2009-12-25

Title: Influences of Slow Cook-off Characteristics of Passivation RDX at Different Charge Density

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关键词: [慢速烤燃](#); [钝化黑索今](#); [装药密度](#)

Keywords: [slow cook-off](#); [passivation hexogen](#); [charge density](#)

分类号: TJ410.34

DOI: -

文献标识码: A

摘要: 为了提高传爆药在武器弹药系统中的安全性,利用自行设计的慢速烤燃装置,测定了钝化黑索今在不同装药密度下的慢速烤燃特性。实验结果表明:在慢速升温条件下,烤燃温度由主体炸药 RDX的分解温度决定,并随着装药密度的减小,空隙率的增大,传爆药发生反应的剧烈程度增加。在装药密度为最大理论密度的 80%~90%之间时,80%的烤爆输出能量最大。因此提高装药密度有利于降低传爆药的热易损性能。

Abstract: The influences of characteristics of passivation RDX at different charge density for slow cook-off were determined by the self-designed slow cook-off equipment in order to improve the security of booster in weapon and ammunition system. Experimental results show: at slow heating-up conditions, the reaction temperature is determined by the decomposition temperature of the main explosive (RDX). With the reduction of charge density, the void ratio becomes more and the explosion reaction is more intensive. From 80% to 90% of theoretical maximum density, the explosion output energy of 80% is the greatest. Therefore, increase of charge density is beneficial to reduction of the thermal vulnerability of the booster.

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备注/Memo: 收稿日期:2008-02-20 作者简介:李娟娟 (1983-), 女, 山西隰县人, 硕士研究生, 研究方向:武器系统与运用工程。

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更新日期/Last Update: 2009-12-25