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Title: Effect of Shell Sealing on the Response of Small Scale Ammunition in Fast Cook off Test

作者: [徐双培](#); [胡双启](#); [王东青](#); [李娟娟](#)
中北大学化工与环境学院

Author(s): [XU Shuang-pei](#); [HU Shuang-qi](#); [WANG Dong-qing](#); [LI Juan-juan](#)

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摘要: 选用钝化RDX原料, 对不同密封性的装药壳体进行弹药的快速烤燃试验。利用热电偶测得了弹药壳体不同位置的温度变化, 并将自行编制的软件应用到试验时间和温度的同步采集中, 分析了不同密封条件下弹药的响应规律。结果表明, 软件能够精确采集温度随时间变化的曲线; 在相同装药条件下, 随壳体密封性的增强, 壳体破裂程度越大, 破片越碎小, 炸药发生快速烤燃反应的剧烈程度也越大。

Abstract: The desensitizing RDX was selected as material. The fast cook off test of ammunition with different sealing shell was carried out. The temperature change of different position was measured by thermocouples and temperature-time curves were collected by self design software. The response regularity was analyzed under various conditions. The results show that the software could accurately collect temperature-time curves. Under the same conditions,with the sealing increased, the greater the degree of breakdown, the smaller the fragments the violent response also greater in fast cook off test.

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备注/Memo: -

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