

[1]蒋建伟,张 谋,门建兵.小口径榴弹自然破片形成过程的数值模拟[J].弹箭与制导学报,2009,1:114-117.

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小口径榴弹自然破片形成过程的数值模拟(PDF)

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Title: Numerical Simulation of the Formation of Natural Fragments from a Small Caliber Shell

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关键词: [榴弹](#); [自然破片](#); [数值模拟](#); [破坏模型](#)

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摘要: 采用AUTODYN软件中基于Mott分布生成自然破片的Stochastic材料破坏模型,对30mm小口径榴弹壳体膨胀和自然破碎过程进行了数值模拟,获得了破片初速、飞散角沿轴向曲线分布及破片质量分布,仿真结果与破碎性试验回收破片的统计结果吻合较好。

Abstract: This paper introduces the formation of natural fragments using Stochastic failure models of material based on Mott distribution in AUTODYN - 3D. The expanding and fragmentation pattern of a shell with caliber 30mm is simulated. The initial velocity, distribution curve of fragments dispersion angle and quality of natural fragments are analyzed in coordinate. The investigation results of numerical simulation are quite agreement with the fragmentation test results of shell.

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