

- [2] 王魁全,王路大,俎峰. 美国火工品专业基础标准汇编[M]. 电起爆器通用设计规范. 中国兵器工业第二一三所.
- [3] 徐振相,秦士嘉. 火工品可靠性技术[M]. 北京: 兵器工业出版社,1996. 12.
- [4] G W 科克伦. 张尧庭,等. 抽样技术[M]. 1981. 5.
- [5] 张天飞,蔡瑞娇,董海平,等. 某弹射弹零失效数据 Bayes 可靠性估计[J]. 含能材料,2004,12(5): 297-299.
- ZHANG Tian-fei, CAI Rui-jiao, DONG Hai-ping, et al. Bayesian reliability estimation of a cartridge of ejector wity zero-failure data[J]. *Hanneng Cailiao*,2004,12(5): 297-299.
- [6] 周源泉. 可靠性评定[M]. 北京: 科学出版社,1994.

## Bayes Estimation and Classical Reliability Estimation Methods of Initiating Devices

ZHOU Mei-lin<sup>1,2</sup>, CAI Rui-jiao<sup>1</sup>, HAN Dun-xin<sup>2</sup>

(1. *Institute of Physics and Engineering, Beijing 100081, China;*

2. *Institute of Chemistry Materials, CAEP, Mianyang 621900, China*)

**Abstract:** The conservation of GO,NO-GO Method in GJB 376-87 "Assessment Method of Reliability for Initiating Devices" and the Bayes method of reliability for initiating devices were discussed in the paper. A new GO,NO-GO Method was designed to estimate reliability of initiating devices with less sample-amount. It was deduced using statistical theory and mathematical methods. The Bayes, the new proposed and classical estimation methods were compared experimentally. The results show that the former two exhibit better reliability estimation for initiating devices than the classical estimation, and the new method requires less sample-amount than the other two.

**Key words:** reliability engineering; initiating device; Bayes estimation; classical estimation; GO,NO-GO method

## 《含能材料》2002 年第 4 期被 CA 收录论文

题名	第一作者	出版年卷期页
Study of catalytic activity of nanocrystalline transition metal oxides on $\text{NH}_4\text{ClO}_4$	LUO Yuan-xiang	(2002)10-04-0148-05
Study on the thermal decomposition of NEPE propellant (II) —Thermal decomposition of HMX/RDX-NEPE propellant	ZHAO Feng-qi	(2002)10-04-0153-04
Energy characteristic of nitramine HTPB propellant containing RDX as oxidizer	YUAN Gui-fang	(2002)10-04-0157-04
Some problems of collecting the data and calculating the kinetic parameters from DSC curves of energetic materials thermograms	HU Rong-zu	(2002)10-04-0165-03
Study on regioselective synthesis of mononitrochlorobenzene on $\text{SO}_4^{2-}/\text{WO}_3\text{-ZrO}_2$ catalysts	CHENG Guang-bin	(2002)10-04-0168-03
Separation of pure 2,6-dinitrotoluene from industrial products	SHI Bai-ru	(2002)10-04-0171-03
Technological synthesis and application advance of 1,3,3-trinitroazetidine (TNAZ)	ZHANG Guang-quan	(2002)10-04-0174-04
Theoretical identification for impact sensitivity—From thermodynamic judge to kinetic judge	XIAO Ji-jun	(2002)10-04-0178-04
Study and analysis of the high insensitive explosive and the flat charge	CHEN Ai-wu	(2002)10-04-0182-03
Simulating computation of injection nitrator producing nitroglycerine	QIN Neng	(2002)10-04-0185-04
PolyNIMMO and its applications in propellants	ZHANG Xu-zhu	(2002)10-04-0189-04