

Design and Feasibility of an Addressable Initiation Network System

YIN Guo-fu^{1,2}, ZHANG Jin-cheng¹, REN Xi², HAN Ke-hua², LI Li-ming²

(1. The School of Microelectronics, Xidian University, Xi'an 710071, China; 2. Shanxi Applied physic-Chemistry Research Institute, State Key Laboratory of Applied physic-Chemistry Research, Xi'an 710061, China)

Abstract: To realize high safety and intelligent control of ordnance initiation system, an addressable initiation network system based on RS485 bus was designed by means of bus networks topological structure and protocol coding addressing. The design of integrate energy conversion element of smart initiator embedded in "identity address" and its safety, system data interaction protocol and working mechanism were emphatically studied. The feasibility and safety of the system addressing control were tested and verified. Results show that the system can realize the multi-mode addressing control initiation of 255 smart initiators. The multi-point synchronous initiation has good synchronization, and the system has the characteristics of intellectualization and high safety.

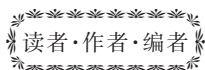
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《含能材料》“损伤与点火”专栏征稿

含能材料的损伤特征与点火过程有密切的联系,炸药、推进剂的内部损伤及其对力学特性、安全特性和点火行为的影响规律受到了含能材料学界的高度重视,为推动这一重要研究方向的学术交流,本刊特设立“损伤与点火”专栏。专栏主要征集炸药、推进剂等含能材料的损伤观测与多尺度表征技术、含损伤的本构方程、准静态与动态损伤演化规律、损伤与破坏的宏(细)观模式、损伤对起爆、爆炸、爆轰成长以及非冲击起爆行为的影响等方向的原创性研究论文。来稿请注明“损伤与点火”专栏。

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