A Brief Summary about Clean Burning Technology of Gun Propellant and Charge

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Abstract: Aiming at the request of improving energy availability and reducing shoot pollution, clean burning technological research of gun propellant and charge is summarized. Primary source of shoot pollution and the important significances of clean burning technological research of gun propellant and charge have been analysised. It is considered that two primary source of shoot pollution are irrationalities of gun propellant design and charge design. The feasible approaches of realizing gun propellant and charge clean burning have been summarized, they are optimizing design-balance of propellant prescription, designing high progressive propellant, improving reasonable propellant charge structure, adopting new low-pollution materials, etc., and integrating those methods will obtain better effect. It is suggested that clean burning technology should be emphasized in the relevant research in the future.

Key words: military chemistry and pyrotechnic technology; gun propellant; charge; clean burning; shot pollution

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第三届中俄青年“材料学-新型与先进材料”科技研讨会通知

为促进中国工程物理研究院与俄罗斯联邦原子能集团公司青年科技人员之间的学术交流，中国工程物理研究院与俄罗斯原子能集团公司拟定于2011年11月16～18日在中国举办第三届中俄青年科技研讨会。会议由中物院化工材料研究所，主题为“材料学-新型与先进材料”。

会议主题：材料学-新型与先进材料

1）新型含能材料：高品质含能材料、微纳米含能材料、新型单质炸药、高性能复合炸药；

2）特种合金材料：钚、铀等合金材料；

3）纳米功能材料：纳米高分子材料、纳米陶瓷、纳米多孔金属材料、纳米薄膜材料；

4）材料先进分析、检测与评估：材料的物理性能、化学结构、无损检测；材料环境模拟、性能变化、失效分析、模拟计算、寿命评估。

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