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Development in the Preparation of Nano-scale Combustion Catalysts Used in Solid Rocket Propellant

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Abstract: The latest development in the preparation of nano-scale combustion catalysts used in solid propellant was reviewed. Advantages and disadvantages of solid phase reaction method, electrolysis method, hydrothermal reaction method, precipitation method, hydrolysis method, sol-gel method and micro-lacteous method were stated and compared. The problems existed in the preparation study of nano-scale combustion catalysts used in solid propellant, the research directions of the preparation study and emphases in the future were also pointed out.

Key words: material science; solid propellant; nano-scale; combustion catalyst; preparation method; review



《军事装备润滑剂应用技术》介绍

《军事装备润滑剂应用技术》(ISBN7-118-04103-3), 国防工业出版社 2005 年 9 月出版, 中国人民解放军第二炮兵工程学院王焯军教授、第二炮兵某部曹小平高级工程师等编著。主要著述了军事装备润滑油、润滑脂、固体润滑剂、特种液的应用, 军事装备润滑剂的选择与更换、质量分析、鉴别方法和储运管理, 废军事装备润滑剂的处理与再利用, 以及外军装备润滑剂的应用现状和发展趋势等。

该书是军内外首部全面、系统介绍军事装备润滑剂应用技术知识的著作, 是部队开展装备维修、维护保养和完成作战训练任务的基础, 该书的出版对于军事装备润滑剂筹措、储备和使用的标准化、制度化, 避免盲目采购、供需脱节和积压浪费等具有积极作用。著者结合多年从事教学、科研及装备润滑剂管理工作的实践, 尤其是融合著者对军事装备润滑剂新旧型号代用难题多年研究的成果, 提出了许多新理论、新观点以及应用新技术, 对海军、陆军、空军、二炮都极具实用价值, 且指导性、可操作性强, 军事效益显著。

本书可作为军事装备管理及技术人员的参考书, 同时可作为高等军事院校本科生教材或研究生和教师的参考用书。

(第二炮兵工程学院 张有智 供稿)