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HNIW 嵌入大孔纤维膜的新结构含能复合物的制备

李雅茹，任　慧，焦清介

(北京理工大学爆炸科学与技术国家重点实验室，北京 100081)

摘　要：为了满足狭窄空间高点火能量的需要，利用静电纺丝法和自组装法将高能的六硝基六氮杂异伍兹烷(HNIW)复合到大孔聚丙烯腈(PAN)纤维膜中制备了一种新的含能复合物。用扫描电镜、红外、热分析和燃烧残渣分析了其形貌、热性能和燃烧行为。结果表明，HNIW 均匀分布在纤维膜上。二者的复合是物理过程，没有化学变化。与单纯 PAN 纤维膜相比，HNIW 的加入增强了纤维膜的燃烧性能，并且 HNIW 的起始放热点也因为纤维的存在而提前 38 ℃。在特定比例下纤维和 HNIW 可以完全反应。

关键词：静电纺丝；含能材料；六硝基六氮杂异伍兹烷(HNIW)；燃烧

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❀ 读者·作者·编者 ❀
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《含能材料》"观点"征稿

　　为了丰富学术交流形式，及时传递含能材料领域同行们的学术观点和思想，《含能材料》开设了"观点"栏目。"观点"栏目的来稿应观点鲜明、内容新颖、形式上短小精悍。欢迎含能材料各领域的专家积极来稿。来稿时请附个人简介及主要研究工作介绍。