## Progress on Synthesis of Heat-resistant Aromatic Energetic Compounds

ZHANG Jun-lin<sup>1</sup>, ZHOU Jing<sup>1</sup>, BI Fu-qiang<sup>1</sup>, HUO Huan<sup>1</sup>, HU Huai-ming<sup>2</sup>, WANG Bo-zhou<sup>1</sup>

(1. Xi'an Modern Chemistry Research Institute, Xi'an 710065, China; 2. College of Chemistry & Mateirals Secience, Northwest University, Xi'an 710127, China)

**Abstract:** Aromatic structures exhibit high stabilities and most of the heat-resistant energetic compounds are constructed with aromatic moieties. Based on the differences in the ring skeleton, the aromatic heat-resistant energetic compounds were divided into single, fused and coupling aromatic ring systems, and their synthesis and performance were reviewed. On the basis of overall summary for the research progress in the synthesis of heat-resistant aromatic energetic compounds with single, fused and polycyclic structures, the synthesis of some conjugate energetic compounds with good heat resistance were emphatically introduced. Structure activity relationship between molecular structure and thermostability were also discussed. The outlook of prospect on the aromatic heat-resistant energetic compounds were also carried out.

Key words: synthesis; conjugated; coupling; hydrogen bond; stabilization; heat-resistant

CLC number: TJ55; O62

Document code: A

**DOI:** 10.11943/j. issn. 1006-9941. 2017. 10.014

## 《含能材料》"含能共晶"征稿

含能共晶是不同含能分子通过氢键等相互作用力形成的具有稳定结构和性能的分子晶体。含能共晶充分组合了单质含能分子的优点,呈现出感度低,综合性能优良的特点,具有潜在的应用前景,共晶研究已经引起国内外含能材料学界的高度关注。为推动含能共晶的研究和交流,本刊特推出"含能共晶"专栏,主要征稿范围包括含能共晶晶体设计与性能预测、含能共晶的制备、结构解析、性能等。来稿请注明"含能共晶"专栏。

《含能材料》编辑部

