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Review on Energetic Compounds Based on Furoxanyl Ether

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Abstract: Energetic compouds based on furoxan ether were a type of important energetic materials with lower melting point, good energy and excellent plasticity. Since 1990s, the type of energetic compounds has been an important research direction in the synthetic fields of energetic materials. In this paper, the synthetic methods of symmetrical and unsymmetrical energetic compouds based on furoxan ether were reviewed. Some representative energetic compounds, such as FOF-1, FOF-2, FOF-11 and FOF-13, were reviewed, and their syntheses, performances and application were introduced in detail. The structures of 11 novel energetic compouds based on furoxan ether were designed, and their physico-chemical properties, detonating performance were calculated by MP3 semi-empirical method, and the results show that calculated densities of two designed compounds exceed 1.90 g·cm^{-3}, and theoretical detonation velocities are more than 9000 m·s^{-1}.

Key words: organic chemistry; furoxanyl ether; energetic compounds; synthesis; review
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《含能材料》创刊20周年纪念活动——专刊征稿

2013年，《含能材料》迎来创刊20周年。过去的20年，是我国含能材料科学技术事业大发展的20年，也是《含能材料》稳步发展、茁壮成长的20年。作为以董海山院士为代表的我国火炸药科技事业的开拓者们创建的专业学术期刊，《含能材料》见证了我国火炸药、推进剂等领域20年来的光辉发展历程。20年来，《含能材料》凝炼出“传承火药文明，创新能源材料”的办刊理念。

重温过去，展望未来，为纪念《含能材料》创刊20周年，《含能材料》将于2013年4月(第2期)出版“《含能材料》创刊20周年纪念专刊”，并特设新能源材料专栏，报道聚变能源材料、储氢材料、金属氢等新能源材料的研究成果。

为此，特向国内外广大专家征集研究快报、研究论文和综述，以期集中反映我国近年来在含能材料、新概念含能材料及其相关领域取得的重要学术成果。

稿件类型：(1) 简要报道新概念含能材料最新研究成果的研究快报(英文)，以基金项目为主；(2) 具有较高创新性的原创研究论文；(3) 具有较高水平的综述文章。

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