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## 2,6-二氨基(4-氨基)吡啶的二硝化反应



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Title: Dinitration of 2,6-Diamino(4-amino)pyridines

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关键词: 有机合成; 4-氨基吡啶; 2,6-二氨基吡啶; 硝化反应; 混酸; 超酸硝化体系

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摘要: 为考察氨基吡啶硝化反应产物收率和硝化副产物的影响因素,研究了4-氨基吡啶和2,6-二氨基吡啶在混酸和超酸硝化体系中的二硝化反应。结果表明,采用超酸硝化体系可以降低副产物比例并显著提高硝化产物收率。在混酸硝化体系中,硝化产物4-氨基-3,5-二硝基吡啶和2,6-二氨基-3,5-二硝基吡啶的收率分别为55%和66.4%,副产物的含量为5%~8%;在超酸硝化体系中,目标化合物的收率分别可达到85.5%和92%,而副产物的含量降到0.5%以下。采用核磁共振光谱、红外光谱、质谱对目标化合物及副产物的结构进行了表征。

Abstract: In order to study the factors affecting the nitration products yield and proportion of byproducts of aminopyridine nitration reaction, the dinitration reaction of 4-aminopyridine and 2,6-diaminopyridine was carried out in mixed acid and super acid. It was observed that nitration products yield increased greatly in super acid system, and proportion of byproducts was reduced. In mixed acid system, the yield of the 4-amino-3,5-dinitropyridine and 2,6-diamino-3,5-dinitropyridine was 55% and 66.4%, respectively, and the proportion of byproducts was 5%-8%; While in super acid system, the yield of the products increased to 85.5% and 92%, respectively, and the proportion of byproducts decreased to 0.5%. The structure of the aminonitropyridines and byproduct was characterized by <sup>1</sup>HNMR, IR and MS.

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