#### RESEARCH NOTES

2-氯-5-氯甲基吡啶在气升环流反应器中的合成研究

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摘要 A new process for the direct chlorination of 2-chloro-5-methylpyridine to yield 2-chloro-5-chloromethylpyridine in an airlift loop reactor (ALR) has been studied. Five main reaction conditions including TR,na/ns, cp, Qg and dD/dR were optimized. The average molar yield and purity of 2-chloro-5-chloromethylpyridine obtained were 79% and 98.5% respectively under the optimum operating conditions. Finally, the efficiency for the preparation of 2-chloro-5-chloromethylpyridine with ALR and stirred tank reactor (STR) respectively was compared.

关键词 <u>2-chloro-5-chloromethylpyridine</u> <u>2-chloro-5-methylpyridine</u> <u>direct chlorination</u> <u>airlift loop reactor</u>

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## The Preparation of 2-Chloro-5-chloromethylpyridine in an Airlift Loop Reactor

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**Abstract** A new process for the direct chlorination of 2-chloro-5-methylpyridine to yield 2-chloro-5-chloromethylpyridine in an airlift loop reactor (ALR) has been studied. Five main reaction conditions including TR,na/ns, cp, Qg and dD/dR were optimized. The average molar yield and purity of 2-chloro-5-chloromethylpyridine obtained were 79% and 98.5% respectively under the optimum operating conditions. Finally, the efficiency for the preparation of 2-chloro-5-chloromethylpyridine with ALR and stirred tank reactor (STR) respectively was compared.

**Key words** 2-chloro-5-chloromethylpyridine; 2-chloro-5-methylpyridine; direct chlorination; airlift loop reactor

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