



### 论文摘要

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## 铬酸氢根季铵盐树脂的制备及对苯甲醇的氧化

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**摘要:** 合成了负载铬酸氢根的季铵盐树脂, 研究了该季铵盐树脂作为一种将苯甲醇氧化为苯甲醛的氧化剂, 在不同温度、不同时间、不同溶剂和不同的树脂与醇的量比对苯甲醇氧化反应的影响. 实验结果表明: 在以苯为溶剂, 反应温度为80℃, 树脂与苯甲醇的量比为3:1, 反应回流12 h的反应条件下, 产物苯甲醛的产率达65%; 铬酸氢根季铵盐树脂是一种将苯甲醇氧化为苯甲醛的有效的选择性氧化剂.

**关键字:** 铬酸氢根季铵盐树脂; 苯甲醇; 苯甲醛; 氧化

## HCrO<sub>4</sub><sup>-</sup> quaternary ammonium salt resin: Its preparation and oxidation of benzyl alcohol to benzaldehyde

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**Abstract:** The synthesis of HCrO<sub>4</sub><sup>-</sup> quaternary ammonium salt resin is studied using HCrO<sub>4</sub><sup>-</sup> quaternary ammonium salt resin as a selective oxidant for oxidation of benzyl alcohol to benzaldehyde. The effects of different factors, such as reaction temperature and time, solvent and the mole ratio of resin to alcohol, on the oxidation of benzyl alcohol are investigated. Under the optimal reaction conditions the reaction undergoes for 12 h at 80℃ with benzene as solvent, the mole ratio of resin to alcohol is 3:1, and the yield of benzaldehyde is 65%. The experiment results show that HCrO<sub>4</sub><sup>-</sup> quaternary ammonium salt resin is an effectively selective oxidant for oxidation of benzyl alcohol to benzaldehyde.

**Key words:** HCrO<sub>4</sub><sup>-</sup> quaternary ammonium salt resin; benzyl alcohol; benzaldehyde; oxidation

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