

## 哌啶酮催化氢化制备哌啶醇催化剂的研究

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**摘要** 研究了2,2,6,6-四甲基-哌啶酮-4-催化氢化合成2,2,6,6-四甲基-哌啶醇-4。重点研究催化剂种类对催化反应的影响。确定RaneyNi(4)为最适宜催化剂。

并对其最佳用量进行了研究。对哌啶酮催化氢化的反应历程进行了探讨。选用常压塔式反应器进行氢化。对其它有关工艺参数进行研究,确定最佳条件:哌啶酮浓度为30%,20%异丙醇水溶液为溶剂、催化剂用量为20%、温度为80℃、时间为2h,哌啶醇产率97.3%,m.p.130.0-131.0℃。

**关键词** [哌啶酮](#) [哌啶醇](#) [催化剂](#) [催化加氢](#)

分类号 [0643](#) [0621](#)

### The catalysts for the hydrogenation of 2, 2, 6, 6-tetramethyl-4- piperidone to 2, 2, 6, 6-tetramethyl-4-piperidinol

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**Abstract** The catalytic hydrogenation of 2, 2, 6, 6-tetramethyl-4-piperidone to 2, 2, 6, 6-tetramethyl-4-piperidinol was studied in this paper. We concentrated our attention to various catalysts for this reaction. Raney Ni(4) was found to be the best one for the reaction. The mechanism of the hydrogenation of 2, 2, 6, 6-tetramethyl-4-piperidone is also discussed. The reaction was run in a fluidized-bed tower reactor. Other related parameters were investigated. Thus, the optimized conditions were established as follows: the concentration of 2, 2, 6, 6-tetramethyl-4-piperidone, 30%; solvent, 20% isopropanol in water; catalyst quantity, 20% (w/w); reaction period, 2h; yield, 97.3% (m.p. 130.0-131.0℃).

**Key words** [PIPERIDINONE](#) [CATALYST](#) [CATALYTIC HYDROGENATION](#)

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