

研究快报

硅胶催化的选择性去除N-Boc保护基

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摘要 发现了在回流的甲苯中, 以硅胶为催化剂, 多种N-Boc保护的伯胺、仲胺、氨基酸的氨基都可以迅速脱除Boc. 该方法具有条件温和、操作简便、反应时间短和产率高等优点. 同时, 其它常用的保护基Cbz和Fmoc等在同样的条件下不受影响.

关键词 [N-Boc脱保护](#) [硅胶](#) [选择性脱保护](#)

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Selective Deprotection of N-Boc Catalyzed by Silica Gel

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Abstract As an important protective group of amines and amino acids, tert-butoxycarbonyl(Boc) group was extensively used in organic synthesis. Though many mild and selective reagents could be used, there is still a need for the development of a more simple and convenient method for deprotection. In this paper, a new method for the deprotection of N-Boc group with silica gel in refluxing toluene was reported. The reactions were mostly achieved in 5 h with high yields(75%—98%). N-Boc protected indoline and benzylamine, which are not deprotected with other mild method, could be deprotected with our method in good yields(89% and 95%, respectively). Additionally the deprotection of other carbamates such as Cbz, Fmoc and ethyl carbamate wasn't observed under same conditions.

Key words [N-Boc deprotection](#) [Silica gel](#) [Selective deprotection](#)

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