Category

Polymer-Supported Synthesis

Key Words

acetonides
catalysis
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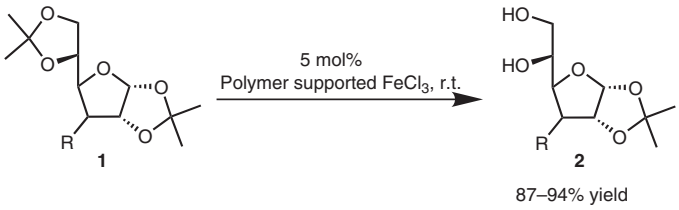
Polymer-Supported Ferric Chloride as a Heterogeneous Catalyst for Chemoselective Deprotection of Acetonides
Synthesis **2005**, 708-710.

A Polymeric $FeCl_3$ Catalyst for Deprotection of Acetonides



Significance: Highly chemoselective deprotection of diacetone sugars bearing various functional groups was achieved at room temperature for 30 minutes using poly(4-vinylpyridine)-supported ferric chloride (5 mol%) to give the corresponding terminal diols **2** in 87–94% yields (15 substrates). This method was found to be of good functional compatibility with acid-sensitive groups such as TBDMS, THP, OBn, OBz, and OAc. The polymeric catalyst was readily recycled without lenching of ferric chloride.

Comment: Several examples of protection/deprotection of 1,2-diols with acetonide using $FeCl_3$ (e.g., A. Fadel, R. Yefsah, J. Salaün *Synthesis* **1987**, 37-39) have been reported so far.

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