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Khaya Cellulose Supported Copper Nanoparticles for Chemo Selective Aza-Michael Reactions

Authors : M. Shaheen Sarkar, M. Lutfor Rahman, Mashitah Mohd Yusoff

Abstract : We prepared a highly active Khaya cellulose supported poly(hydroxamic acid) copper nanoparticles by the surface modification of Khaya cellulose through graft co-polymerization and subsequently amidoximation. The Cu-nanoparticle (0.05 mol% to 50 mol ppm) was selectively promoted Aza-Michael reaction of aliphatic amines to give the corresponding alkylated products at room temperature in methanol. The supported nanoparticle was easy to recover and reused seven times without significance loss of its activity.

Keywords : Aza-Michael, copper, cellulose, nanoparticles, poly(hydroxamic acid)
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