



Heterogeneous PS-DABCO Catalyzed One pot four-Component Synthesis of Pyranopyrazole

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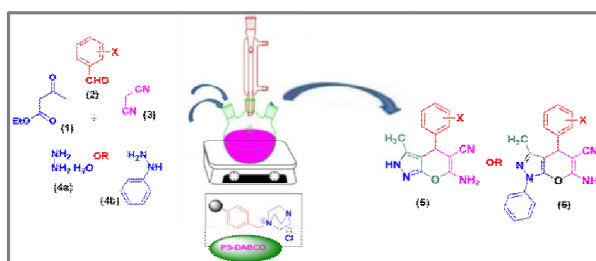
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ABSTRACT

An efficient, high-yielding and rapid protocol has been developed for the synthesis of dihydropyrano[2,3-c]pyrazoles derivatives via one-pot, four-component, C-C and C-N bond forming reaction of aryl aldehydes, ethyl acetoacetate, malononitrile and hydrazine hydrate or phenyl hydrazine by using PS-DABCO as green reusable heterogeneous catalyst. Absence of unwanted products, general applicability, reusability of the catalyst, non-chromatographic purification procedure, green synthesis avoiding toxic reagents and improved and operational simplicity make this protocol a useful, greener, cost effective and practical for both academic as well as industrial purposes.

Graphical Abstract



Keywords: Multicomponent reaction, Pyranopyrazole, Polymer supported DABCO, Heterogeneous catalyst.