

## عنوان مقاله:

Three-Component and Click Strategy for Synthesis of  $\beta$ -Hydroxy 1,4-Disubstituted 1,2,3-Triazoles Derivatives Catalyzed by 1,4-Dihydroxyanthraquinone-copper(II) Complex onto Nano AlPO<sub>4</sub>

## محل انتشار:

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## خلاصه مقاله:

In this work, copper(II) heterogeneous nanocatalyst supported on modified AlPO<sub>4</sub> (Cu(II)-DA@Nano AlPO<sub>4</sub>) was used for the synthesis of some biological active heterocyclic molecules, particularly for the efficient conversion of a wide range of non-activated terminal alkynes to  $\beta$ -hydroxy 1,4-disubstituted 1,2,3-triazole through a three-component "click" reaction at room temperature in water. The regioselective reactions exclusively gave the corresponding 1,4-disubstituted 1,2,3-triazoles in good to excellent yields. The Cu(II)-nanocatalyst has high catalytic activity, and was recycled ten successive times. This heterogeneous nanocatalyst not only offers substantial improvements in the reaction rates, but also avoids the use of hazardous catalysts, solvents and intermediates. Moreover, the reaction can be performed in large scale.

## کلمات کلیدی:

Three component, Triazole, Heterogeneous nanocatalyst, Anthraquinone

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1766254>

