عنوان مقاله:

One-Pot Three Component Synthesis of 2,3-Dihydroquinazolin-4(1H)-ones by a Heterogeneous and Reusable Polyvinyl Alcohol Immobilized Cu(II) Schiff base Complex

محل انتشار:

بیست و ششمین سمینار شیمی آلی ایران (سال: 1397)

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خلاصه مقاله:

One of the most frequently encountered heterocycles in medicinal chemistry is quinazolinonederivatives with wide applications including anticancer, antihypertensive, antidiuretic, anticonvulsant,antibacterial, antihistaminic, antidiabetic, and anti-inflammatory activities [1,2].2,3-Dihydroquinazoline derivatives are a class of heterocycles which exhibit biological andpharmaceutical activity and herbicidal agents, as well as plant growth regulators [2]. Also,recently a number of classical -methods for the synthesis of 2,3-dihydroquinazolin-4(1H) onehave been reported in literature involving homogeneous, heterogeneous, solid acid and transitionmetal complexes [3]. However, most of the reported methods have certain limitationssuch as the use of organic solvents, long reaction times, tedious processes, harsh reactionconditions and low yields of product. Thus, developing versatile approaches to synthesizequinazolinone derivatives still remains a highly desired goal in organic synthesis. For sake ofnotable property of quinazolinone derivatives, herein, we have developed a recoverable andreusable heterogeneous catalyst to overcome some of the above-mentioned impediments byworking under mild and green conditions to perform efficiently preparation of 5-substitutedquinazolinone derivatives (Fig. 1). In our previous work we have demonstrated the ability ofthe PVA@Cu(II)-Schiff base complex over efficient preparation of 5-substituent-1Htetrazolesat room temperature.

کلمات کلیدی: