



Piperazine immobilized on silica gel as an inexpensive and recyclable catalyst for synthesis of 2-amino-2H-chromenes

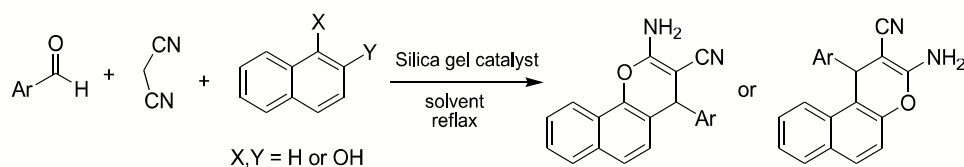
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2-Amino-2H-chromenes and their derivatives are of considerable interest as they possess a wide range of biological properties, such as spasmolytic, diuretic, anticoagulant, anticancer and antianaphylactic activity [1]. Modified silica matrices have been widely applied in the last three decades in various fields such as catalysis, HPLC, GC, separation of toxic metals traces from waste water, and so on [2]. The present investigation demonstrates the use of piperazine immobilized on silica gel as an efficient basic catalyst in the synthesis of 2-amino-2H-chromenes [3,4].

We have studied the three component synthesis of 2-amino-2H-chromenes via one pot reaction of aldehydes, malonitrile and α - or β -naphthol using piperazine immobilized on silica gel as an available, green and inexpensive catalyst with good yields. The protocol presented here has the merits of environmentally benign, simple operation, convenient work-up and good yields. Furthermore, the catalyst can be easily recovered and reused for at least five times without significant loss of its activity



Scheme 1.

References:

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