

عنوان مقاله:

one-pot green synthesis of derivatives of pyrimido[5,4'-5,5]pyrido[3,2-d]pyrimidines catalyzed by boron nitride nanosheets

محل انتشار:

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خلاصه مقاله:

In this work, one-pot reaction of 3,1-dimethylbarbituric acid, aromatic aldehydes, and ammonium acetate using Boron nitride nanosheets as an efficient and recyclable catalyst has been investigated. While aromatic aldehydes substituted with electron-withdrawing group or none reacted successfully with 3,1-dimethylbarbituric acid and ammonium acetate to give new pyrimido[5,4'-5,5]pyrido[3,1-d]pyrimidine derivatives (can be also named as pyrido[3,2-d:5,6-d']dipyrimidines) in high yields over relatively short reaction times, Knoevenagel condensation products are isolated from the reaction mixture using aromatic aldehydes bearing electron-donating substituents. The catalyst could be efficiently used at least four times without substantial reduction in its catalytic activity. The new products were characterized on the basis of FT-IR, <sup>1</sup>H NMR, and <sup>13</sup>C NMR spectral data.

کلمات کلیدی:

Pyrimidopyridopyrimidines, Pyridodipyrimidines, Boron nitride nanosheets

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