

عنوان مقاله:

An Affordable and Eco-friendly Method for Pseudo-five-component Synthesis of Tetrahydropyridines Using Gum Arabic-OPO<sub>3</sub>H<sub>2</sub> as a Natural-based Catalyst

محل انتشار:

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خلاصه مقاله:

This study describes a facile and environmentally friendly protocol for the synthesis of highly functionalized tetrahydropyridines via pseudo-five-component reaction of aromatic aldehydes, various amines and ethyl acetoacetate using GA-OPO<sub>3</sub>H<sub>2</sub> as a metal free and natural-based catalyst. In addition to the easy preparation of GA-OPO<sub>3</sub>H<sub>2</sub> from bio-renewable materials, this catalyst can also be recycled and reused without obvious loss of catalytic activity. The synthesis of tetrahydropyridines via this new green methodology offers significant advantages in terms of no use of a solvent, no hazardous waste, uncomplicated work-up and high yields of products.

کلمات کلیدی:

Gum Arabic-OPO<sub>3</sub>H<sub>2</sub>, Natural-based catalyst, Tetrahydropyridine, Pseudo-five-component reaction, Solvent-free condition

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