

عنوان مقاله:

Ionic liquid-functionalized mesoporous silica nanoparticles ([pmim]FeCl₄/MSNs): Efficient nanocatalyst for solvent-free synthesis of N,N'-diaryl-substituted formamidines

محل انتشار:

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خلاصه مقاله:

We report the synthesis of ionic liquid-functionalized mesoporous silica nanoparticles ([pmim]FeCl₄/MSNs) via a method of post-grafting on parent MSNs. This hybrid material was characterized using scanning and transmission electron microscopies, energy-dispersive X-ray spectroscopy, nitrogen adsorption-desorption analysis, Fourier transform infrared spectroscopy, powder X-ray diffraction and thermal analyses. The material was utilized as an efficient heterogeneous catalyst for the synthesis of N,N'-diaryl-substituted formamidines through the reaction of triethyl orthoformate with arylamines under solvent-free conditions. The catalyst was recovered easily and reused [several times without significant loss of its catalytic activity] [1-3]

کلمات کلیدی:

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