عنوان مقاله:

Reusable Silica supported Perchloric acid and potassium bisulphate as green catalysts for thiocyanation of aromatic compounds under solvent free conditions

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خلاصه مقاله:

Reusable silica supported perchloric acid and potassium bisulphate have been prepared and explored as green catalysts for thiocyanation of aromatic compounds under conventional and solvent free microwave assisted conditions. The microwave assisted protocol exhibited remarkable rate accelerations and offered selective thiocyanation of aromatic and hetero aromatic compounds in good yields. Reaction times observed in conventional methods range of 2.0 to 6.0 hours, which reduced to only few minutes (1 to 3 min) in microwave assisted reactions. The developed protocols are also promising and comparable with the existing procedures. Prepared catalysts could be easily recycled for five time with a reproducible efficiency.

کلمات کلیدی:

Silica supported Potassium bisulfate, silica supported HClO4, ammonium thiocyanate, selective thiocyanation, solvent free microwave assisted reactions, rate accelerations