

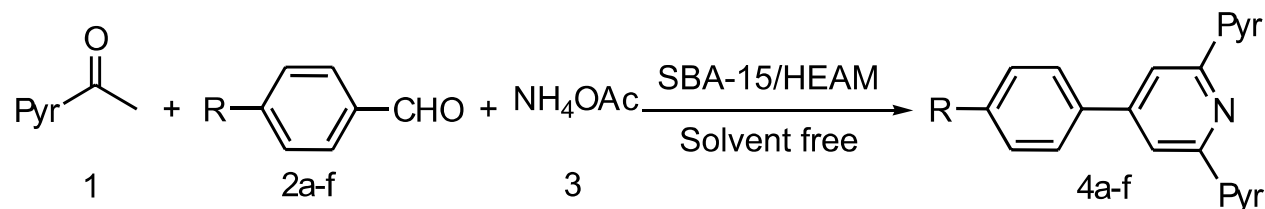
2-Hydroxyethylammonium Mesylate Ionic Liquid Modified SBA-15/HEAM Silica Mesoporous: An Efficient Catalyst for the Preparation of Some New 2,4,6-Triarylpyridines under Solvent-free Approach

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ABSTRACT A new 2-hydroxyethylammonium mesylate ionic liquid (HEAM IL) was immobilized on SBA-15 as an efficient, green, and powerful catalyst for the preparation of new 4-aryl-2,6-di(pyren-1-yl)pyridines (**4a-f**) under mild and solvent-free reaction conditions. For this purpose, HEAM IL was first synthesized through the reaction between ethanolamine and methanesulfonic acid and then immobilized into the chloropropyl modified ordered mesochannels of SBA-15. After the successful characterization of the catalyst, the efficiency of SBA-15/HEAM was investigated in the one-pot three-component synthesis of 2,4,6-triaryl pyridine derivatives with 1-acetylpyrene, aryl aldehydes, and ammonium acetate under solvent-free conditions. This catalytic system was efficiently reused for nine consecutive runs.



KEYWORDS 2-hydroxyethylammonium mesylate, 4-Aryl-2,6-di(pyren-1-yl)pyridines, Ionic liquid, Multicomponent reactions, SBA-15 silica mesoporous.