

Organo Catalysis by Direct Functionalized [N-methylimidazole][Cl] Mesoporous SBA-15

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Direct functionalization of ionic liquid onto SBA-15 type mesoporous silica was successfully performed with [N-methylimidazole] [Cl] by microwave synthesis method. Up to 10% of loadings direct synthesized catalysts had pretty good orderedness of p6mm hexagonal structure with typical fibrous type morphology and the activities were proportionally increased in organo base catalysis such as Knoevenagel and Henry reaction. The repeatability of catalyst uses in the direct synthesized catalysts gave good stability for the three cycles of reaction compared with post synthesis one. And the counter cation were exchanged with anion of [N-methylimidazole][Cl] to the anion into [BF₄-], [PF₆-], and [CF₃SO₃-] and gave enhanced activities.