

Application of Amino-Functionalized SBA-15 Type Mesoporous Silica in One-Pot Synthesis of Spirooxindoles

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摘要 Amino-functionalized SBA-15 (SBA-Pr-NH₂) has been used as a new basic nanocatalyst in the one-pot synthesis of spirooxindole derivatives via the three-component condensation reaction of isatins, activated methylene reagents, and dimedone in an aqueous medium. SBA-Pr-NH₂ has been established as an efficient heterogeneous nanoporous solid basic catalyst (pore size of 6 nm) that can be easily handled and removed from the reaction mixture by simple filtration, and also recovered and reused without noticeable loss of reactivity.

关键词: [amino-functionalized SBA-15](#) [spirooxindoles](#) [isatin](#) [nano-reactor](#) [green synthesis](#)

Abstract: Amino-functionalized SBA-15 (SBA-Pr-NH₂) has been used as a new basic nanocatalyst in the one-pot synthesis of spirooxindole derivatives via the three-component condensation reaction of isatins, activated methylene reagents, and dimedone in an aqueous medium. SBA-Pr-NH₂ has been established as an efficient heterogeneous nanoporous solid basic catalyst (pore size of 6 nm) that can be easily handled and removed from the reaction mixture by simple filtration, and also recovered and reused without noticeable loss of reactivity.

Keywords: [amino-functionalized SBA-15](#), [spirooxindoles](#), [isatin](#), [nano-reactor](#), [green synthesis](#)

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