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ARTICLE

β -Cyclodextrin catalyzed access to fused 1,8-dihydroimidazo[2,3-*b*]indoles via one-pot multicomponent cascade in aqueous ethanol: Supramolecular approach toward sustainability

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Abstract

An eco-friendly multicomponent synthesis of substituted imidazole derivatives catalyzed by β -cyclodextrin (β -CD) was scrutinized for the first time via a one-pot three-compound reaction of aldehyde, isatin, and ammonium acetate in H₂O–EtOH at 80°C. β -CD is a supramolecule, highly efficient, biodegradable, and recyclable catalyst used to produce high yields of desired 1,8-dihydroimidazo[2,3-*b*]indoles. The developed protocol contains number of advantages like nontoxic, inexpensive catalyst; green reaction condition; easily available starting material; shorter reaction time; and good yields.

Supporting Information

Filename	Description
jhet3828-sup-0001-Supplementary_Information.docx Word 2007 document , 517.9 KB	Data S1 Supporting information

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