STARCH SULFURIC ACID: AN ALTERNATIVE, ECO-FRIENDLY CATALYST FOR BIGINELLI REACTION

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Abstract. The one-pot multicomponent synthesis of 3,4-dihydropyrimidinone derivatives using starch sulfuric acid as an environmentally friendly biopolymer-based solid acid catalyst from aldehydes, β -keto esters and urea/thiourea without solvent is described. Compared with classical Biginelli reaction conditions, this new method has the advantage of minimizing the cost operational hazards and environmental pollution, good yields, shorter reaction times and simple work-up.

Keywords: Biginelli reaction, Dihydropyrimidinones, Starch sulfuric acid, Solvent-free, Biodegradable catalyst.