

MILD ACIDIC CHARCOAL CATALYZED SYNTHESIS OF 3,4-DIHYDROPYRIMIDIN-2(1H)-ONE/-THIONE DERIVATIVES

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Abstract. Mild catalyst system with comparative reduction in amount of catalyst was demonstrated. The multicomponent synthesis of 3,4-dihydropyrimidin-2(1H)-ones and -thiones using acetic acid supported on activated charcoal as a mild acid catalyst in ethanol under both conventional as well as microwave irradiation (MWI) conditions has been achieved. The results are compared with earlier reported methods. The results are compared with earlier reported methods, demonstrating that the obtained catalyst system is more efficient under MWI than conventional conditions with shorter reaction times (3-9 min) and excellent yields (78-94 %).

Keywords: Biginelli reaction, acetic acid, acidic charcoal, microwave irradiation.