

12- Phosphomolybdic Acid $\text{H}_3[\text{PMo}_{12}\text{O}_{40}]$ Over Bentonite as a Heterogeneous Catalyst

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Abstract

Incipient wetness impregnation method was used for the immobilization of heteropolyacid 12- phosphomolybdic acid $\text{H}_3[\text{PMo}_{12}\text{O}_{40}]$ (PMA) over natural bentonite. The characterization techniques such as XRD, FT-IR, FeSEM and EDS were used for characterization of catalyst. The catalytic activity of three catalysts 10%, 20 % and 30 % PMA/bent studied for the synthesis of 3,4-dihydropyrimidin-2(1H)-ones. The catalyst 30 % PMA/bent displayed high activity towards the synthesis of a variety of dihydropyrimidones (DHPMs). The high yield of dihydropyrimidone (DHPM) was obtained in model reaction in ethanol, acetonitrile and solvent - free condition. The reusability test indicated that 4 % of yield of product decreased after 5th cycle.

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