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Abstract Details

Title: Solvent-free Synthesis of Dihydropyimidinones/Thiones and Napthoxazinones Derivatives Using Recyclable Mesoporous Mixed Metal Oxide Nanocrystals as Robust and Efficient Heterogeneous Catalyst

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Abstract: Mesoporous mixed metal oxide nanocrystals of Al2O3-Fe2O3, Al2O3-V2O5 and Al2O3-CuO have been applied as heterogeneous catalysts for the synthesis of series of medicinally significant dihydropyimidinones/thiones and napthoxazinones derivatives under solvent-free conditions. The developed method has the rewards of operational simplicity; shorter reaction times along with high yields and recyclability of the catalysts are the unique features of the heterogeneous catalysis.

Keywords: Dihydropyrimidinone; Naphthoxazinone; 2-Naphthol; Aldehyde; Mesoporous mixed metal oxide; Heterogeneous catalyst.