

Title: MgO nanopowders catalyzed synthesis of pyrano[4,3-d]thiazolo[3,2-a]pyrimidine derivatives

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A cubic phase of pure MgO nanopowders was prepared in an aqueous solution containing freshly squeezed orange juice with pulp and characterized by X-Ray Diffraction (XRD), Field Emission Scanning Electron Microscopy (FE-SEM), Energy-Dispersive X-ray Spectroscopy (EDS) and FOURIER Transform Infra-Red (FT-IR) spectroscopic techniques. The catalytic potential of MgO nanopowders was evaluated in preparation of pyrano[4,3-d]thiazolo[3,2-a]pyrimidine and chromeno[4,3-d]thiazolo[3,2-a]pyrimidines derivatives using the three simple methods including thermal, ultrasonic irradiation and High-Speed Ball Milling (HSBM) technique under solvent-free conditions. All products were successfully formed in high yields.

Keywords: MgO nanopowders, Pyrano[4,3-d]thiazolo[3,2-a]pyrimidine, Pyrimidines, HSBM technique, Pyran, Thiazolo[3,2-a]pyrimidine.

Biography

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