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Alumina Nanoparticles in One-Pot Synthesis of Pyrazolopyranopyrimidinones

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Abstract : Alumina nanoparticles (γ -Al2O3 NPs) were prepared via a new and simple synthetic route and characterized by field emission scanning electron microscope, X-ray diffraction, and Fourier transform infrared spectroscopy. The catalytic activity of prepared γ -Al2O3 NPs was investigated for the one-pot, four-component synthesis of fused tri-heterocyclic compounds containing pyrazole, pyran, and pyrimidine. This procedure has some advantages such as high efficiency, simplicity, high rate and environmental safety.

Keywords: alumina nanoparticles, one-pot, fused tri-heterocyclic compounds, pyran

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