MICROWAVE-ASSISTED VERSATILE HYDROGENATION OF CARBONYL COMPOUNDS USING SUPPORTED METAL NANOPARTICLES

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The efficient microwave-assisted transfer hydrogenation of carbonyl compounds was performed using supported Pt and Pd nanoparticles on Al-SBA-15 materials. Excellent conversions, with exceedingly higher TOF values (4,000-20,000 h⁻¹) compared to any previous literature report, were achieved in very short times of reaction (5-30 min), together with complete selectivities to the hydrogenated product