The aesthetic simplicity of multicomponent processes, and domino reactions have enabled the synthetic scientific community to build pharmaceutically and industrially important complex architecture in a single step without isolating intermediates. Among these, 3-Alkylidene oxindoles reserves a particular interest due to their broad biological spectrum, serve as key intermediates for the synthesis of biologically important alkaloids and drug molecules. Herein we present, an efficient, binaphthyl-backbone stabilized Pd nanoparticles (Pd-BNP) catalyzed single step, stereoselective synthesis of (E)-3-Alkylidene oxindoles (Scheme 1). The scope of the reaction has been studied with regard to various substituted and sterically hindered substrates, results in good to excellent yield. The catalyst (Pd-BNPs) has been recovered and reused up to five cycles without any loss in particle size, distribution, and reactivity.