

## Efficient PPA-SiO<sub>2</sub>-catalyzed synthesis of $\beta$ -enaminones under solvent-free conditions

### ABSTRACT

An efficient method has been developed for the synthesis of  $\beta$ -enaminones under solvent-free reaction conditions using PPA-SiO<sub>2</sub> as catalyst. The reaction yields were good to excellent (up to 90%). This methodology affords high selectivity and good tolerance of a variety of different functional groups present on both aromatic and aliphatic amines. In addition, the methodology is environmentally benign and cost-effective due to absence of solvent and easy work-up.

**Keyword:**  $\beta$ -enaminones; 5,5-dimethylcyclohexan-1,3-dione; PPA-SiO<sub>2</sub>; Solvent free.