**Synthesis, Characterization and Applications of Enamines in [2+2] Cycloaddition**

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Enamines have been used in [2+2] cycloaddition with activated alkenes. Enamines have been often generated by using heterogenous catalyst such as zeolites.[1] We prepared enamine insitu from the reaction of acetophenone with diethylamine in the presence of zeolite in refluxing toluene. After completion of the reaction (controlled by TLC) equimolar amount of dimethylmaleate was added. The reaction was complete on heating for 6-8 hours. The TLC indicated formation of the products. The work is in progress.

**Keywords**: Enamines, [2+2] cycloaddition, TLC.





**References:**

1. Bahamonde,A.; Melchiorre,P.; Photochemical activity of enamines; *J. Am. Chem. Soc.,* **2016**, 51.