

## Diels-Alder Reaction of Cyclopentadiene and Methyl Acrylate on Hydrotalcite-L-Proline

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The Diels-Alder reaction is the most widely employed synthetic method for the production of stereoselective six-member ring system. In view of the importance of the method for preparation of natural and synthetic products, there is increasing interest in the development of special methods and special catalysts to enhance reaction rate as well as selectivity of the cycloadditions. Most of the research activity concerns homogeneous catalysts, but there is a need for suitable heterogeneous asymmetric catalysts, as these catalyst readily overcome the problem typically encountered with homogeneous system, that is the recovery of the product and the separation of the catalysts. To avoid the disadvantage of L-proline catalysis shown in homogeneous system, we tried to synthesize a heterogeneous L-proline catalyst and characterized its catalytic activity in Diels-Alder reaction. Using the property of hydrotalcite, a kind of Mg-Al-L-proline catalyst was synthesized and characterized by IR and TG-DTA method in present paper. The experimental results indicated that the catalyst showed some catalytic activity for the Diels-Alder reaction of cyclopentadiene(CPD) and methyl acrylate (MA).