

S Y N O P S I S

SYNOPSIS

The dissertation entitled, " SYNTHETIC APPLICATION OF REFORMATSKII REACTION AND PECHMANN CONDENSATION " consists of three chapters and embodies accounts of 1) The Reformatskii reaction 2) Synthesis of key intermediate for Emmotin-G methyl ether 3) Synthetic application of Pechmann condensation.

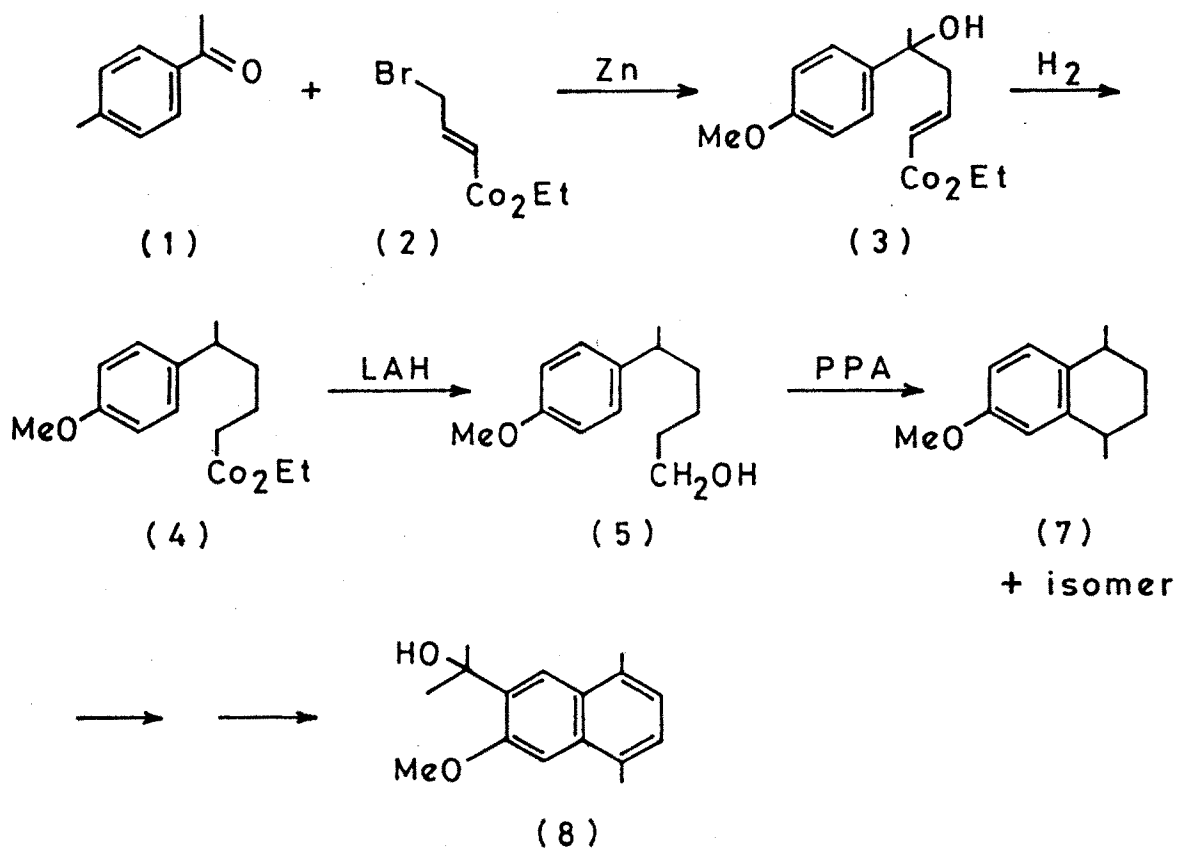
The dissertation begins with the Chapter-1 on the Reformatskii reaction which has wide applications in synthetic organic chemistry. In this chapter introduction, scope of the reaction, catalyst and applications of Reformatskii reaction have been discussed.

The Chapter-2 consists of a synthesis of key intermediate for Emmotin-G methyl ether (chart-I, scheme-i), sesquiterpene isolated from Emmotum nitens (Icacinaceae). The Reformatskii reaction of p-methoxy acetophenone with ethyl-4-bromo crotonate gave ethyl-5-hydroxy-5-(p-methoxy phenyl)-2-hexenoate (3) which on hydrogenolysis, followed by LAH reduction gave 5-(p-methoxy phenyl) hexanol (4), PPA cyclization of the carbinol furnished mixture of isomers.

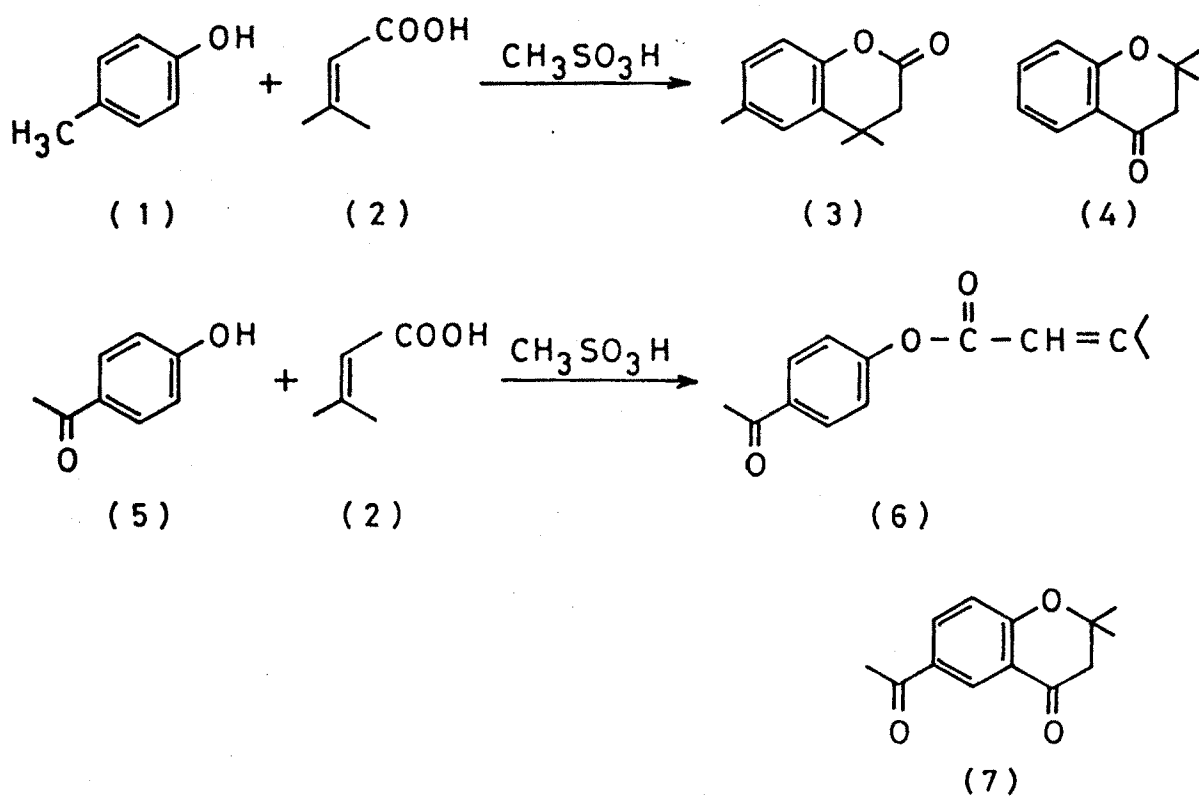
The Chapter-3 deals with some interesting examples of Pechmann condensation reaction (chart-I, scheme-ii). Condensation of p-cresol with 3,3-dimethyl acrylic acid in presence of methanesulphonic acid gave 4,4,6-trimethyl dihydro-

CHART - I

Scheme - (i)



Scheme (ii)

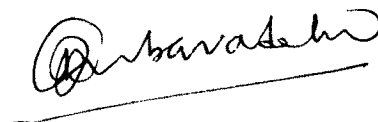


coumarin (3). The reaction of p-hydroxy acetophenone with 3,3-dimethyl acrylic acid and methanesulphonic acid yielded p-acetyl phenyl 3,3-dimethyl acrylate (6). With p-hydroxy benzoic acid no condensation was obtained.



Research Guide

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