

Abstract

Pheromones have great importance for the control of pests. Different types of pheromone are being synthesized by chemically as well as enzymatic methods. The respective pheromone **phytyl oleate** of *Sesamia inferens* was confirmed through GCMS and synthesized enzymatically (lipase by *Candida Antarctica*) in laboratory. Effect of varying concentration of acid by keeping alcohol concentration constant (and vice versa) on the initial rate was studied. Kinetics parameters like effects of different concentrations ratio of alcohol and acid, temperature and solvents on % esterification was also studied. It was observed that maximum esterification was achieved in the presence of benzene. The optimum temperature was 30 °C. By keeping temperature constant at 30 °C the effect of different concentrations ratio of reacting substances were studied by which it was investigated that on increasing acid concentration, inhibition took place while by increasing the concentration of alcohol % esterification increased. At higher concentration of both acid and alcohol, least % esterification was achieved.
