

## **DECLARATION**

I hereby declare that the matter embodied in the thesis is the result of investigations carried out by me in the Department of Chemistry, University of Calicut, under the supervision of **Dr. Abraham Joseph**, Associate professor Department of Chemistry, University of Calicut and the same has not previously formed the basis for the award of any degree or diploma.

Whenever the work described or cited is based on the findings of other researchers, due acknowledgement is made in keeping with the general practice of reporting scientific observations. However, errors and unintentional over-sights if any are regretted.

**BINCY JOSEPH**