



## I INTRODUCTION

The propose of this work is firstly to synthesizc and secondly to determine the structural formula of the product obtained by condensing benzaldehyde with resorcinol in the presence of 6-methyl-2-aminopyridine. This high molecular weight compound was first synthesized by Dr. Cvarit Nitidandha-prabhas and the name "Thailandine" coined by him. The compound shows acid-base indicator property. It gives a brownish-yellow precipitate in an acid medium and changes to a deep-red color in alkaline solution. Furthermore, it has been shown by Dr. Suthun Areckul and his colleagues at the Department of Entomology, Kasetsart University that a 5 ppm. solution of thailandine in acetone or ethanol exerts a remarkable and unique effect on the yellow-fever mosquito larvae, *Aedes aegypti* L. This effect is characterized by the total excretion of stomach content of the larvae thereby causing them to become semi-transparent within 24 hours. The medium effect dose is about 5 ppm. It is hoped that this effect will be useful in the study of the larvae's parasites and other related fields such as medical entomology and insect pathology. Accordingly, the elucidation of the structure of the compound will contribute to the clarification of this mode of action of thailandine.

Thailandine is a macro-molecule with the molecular weight of approximately 1505. It is believed that the compound constitutes the first number of a new family of macro-molecules

which have successfully been synthesized for the first time by chemists, in this country.

The author hopes that the study of both the physical and chemical properties of thailandine reported in this thesis will throw light on the nature of the compound which will enable other investigators to synthesize structurally analogous molecules. It is further hoped that this novel family of compounds will receive more attention in the future.