FOREWORD

Investigations embodied in this thesis entitled "Synthetic Studies on Sesterterpenes and Diterpenes" have been carried during the years 1973-1976 in the Department of Organic Chemistry, Indian Association for the Cultivation of Science, Calcutta - 32, under the guidance and supervision of Professor P. C. Dutta, D.Sc., F.N.A. The dissertation has been divided into two parts. **Part I** deals with the synthesis of 3β(H), 7β(H)-13-keto-1β,4β,8α-trimethyl-tricyclo(9.3.0.0³,7)tetradec-11-ene with proper stereochemistry at each of the five asymmetric centres of which four are found to be identical to that of ophiobolins. One of the asymmetric centres is destroyed in the ophiobolin nucleus due to the presence of a double bond. The synthetic compound may be considered as a potential intermediate for the synthesis of some naturally occurring sesterterpenes. **Part II** describes a series of studies for building up the tricyclo(3.2.1.0²,7)octane ring system present in trachylobanes. A brief review of the nature and object of the work incorporated in this dissertation has been presented in the Introduction.