PREFACE

Investigations embodied in this thesis entitled "Synthetic studies on Diterpenoids and related compounds" were initiated in 1964 in the Department of Organic Chemistry, Indian Association for the Cultivation of Science, Calcutta-32. It has been divided into three parts. Part-I has been subdivided into three sections. Section-A describes stereo-selective syntheses of the four possible racemates of 12-des-methyl - resin acid analogues and their stereochemical studies. Section-B includes the stereo-selective total syntheses of the four racemates of 1-methyl-1, 2, 3, 4, 9, 10, 11, 12-octahydro-7-methoxy-1-phenanthrene-carboxylic acid and lactone of (+)-1α-methyl-1, 2, 3, 4, 9, 10, 11, 12-octahydro-12β-hydroxy-7-methoxy-phenanthrene-1β-carboxylic acid. Section-C consists of a detailed study of the stereochemical and mechanistic aspects on the acid-catalysed cyclisation of gem-methyl-ethoxycarbonyl substituted phenethylcyclohexene and its derivatives. Part-II describes total syntheses of (+)-0-methyl-3-methylpodocarpic acid and related compounds. Part-III includes a total synthesis of (+)-Sempervirol acetate. In the Introduction a brief summary of the object and the nature of the work incorporated in this thesis, has been given.

I am grateful to the authorities of this Institute for awarding me a Research Assistantship and a Senior Fellowship, during the tenure of which the work embodied in this thesis has been carried out.
I feel pleasure in recording my thanks to Professor P. C. Dutta, D.Sc., and Dr. S. K. DasGupta, M.Sc., D.Phil., Reader of this department, for their constant encouragement and valuable discussions. In particular, my sincere thanks are due to Dr. U. R. Ghatak, M.Sc., D.Phil., Reader, for his valuable advice and guidance, which have enabled me to achieve these results.

Grateful thanks are due to Professor L. Mangoni, University of Naples, Italy, for providing us with a copy of the infrared spectrum of the natural sempervirol acetate.

Analyses recorded in this thesis were carried out by Mrs. Chhabi Dutta, M.Sc., in the Microanalytical Laboratory of this Institute, and I am thankful to her for the same. Thanks are also due to Mr. A. Ghosal, B.Sc., of this laboratory, for recording the ultraviolet spectra.

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