ABSTRACT

This thesis consists of four chapters dealing with antifungal, antibacterial and insecticidal activity of some Sri Lankan medicinal plants and the last chapter describes the chemical constituents of *Alpinia abundiflora*.

Chapter 1 describes the work carried out on antifungal activity of some medicinal plants of Sri Lanka. Of the 65 plants tested, 15 plants and 10 steam distillates of leaves showed significant antifungal activity against *Cladosporium cladosporioides*. Further studies were carried out on *Costus speciosus*, *Eupatorium riparium* and on plumbagin which is an active constituent of *Plumbago zeylanica*. The methyl ester of *p*-coumaric acid and methylripariochromene A were isolated from *C. speciosus* and *E. riparium* as antifungal active principles respectively.

Chapter 2 presents the work carried out on antibacterial activity of some Sri Lankan medicinal plants. Of the 65 plants tested, 20 plant extracts and 3 steam distillates of leaves showed significant antibacterial activity against *Staphylococcus aureus*, *Escherichia coli* and *Mycobacterium fortuitum*.

Chapter 3 deals with the studies on insecticidal activity of some Sri Lankan medicinal plants. Of the 65 plants tested, 8 plant extracts and 2 steam distillates of leaves showed significant insecticidal activity against groundnut aphid *Aphis craccivora* Koch.

Chapter 4 of this thesis deals with the chemical constituents present in the rhizomes of *Alpinia abundiflora*. The trimethyl ether of kaempferol, zerumbone and β-sitosterol have been identified as constituents present in the light petroleum extract of *A. abundiflora*.