


**A STUDY ON
CHEMICAL ANALYSIS OF *Gardenia latifolia***

BY

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**A research report submitted
in partial fulfillment of the requirement for the award of
Special Degree in Chemistry**



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ABSTRACT

A study was carried out to separate and identify the active compounds in buds of *Gardenia latifolia*, which can be used against insects, pest as a repellent.

This experiment in Chromatography techniques (Column Chromatography, Thin Layer Chromatography (TLC) was carried out at the Eastern University of Sri Lanka, and Institute of Fundamental Studies (IFS). The compound was purified with column chromatographic techniques and identified using Thin Layer Chromatography (TLC).

A bioassay was carried out with a suspension of conidia of *Cladosporium cladosporioides*. Presence of compounds, which showed inhibitory activity to the fungal growth, was detected by the absence of aerial mycelium in that zone.

These active compounds may be non-alkaloid, because anisaldehyde spraying regions give pink colour spot on TLC. The compound was identified using the measurement of retarding factor (R_f), and the value was 0.738.

The substrate may be one of the component of volatile constituents in essential oil: methyl anthranilate, α -terpenol, linalool, styrolyt acetate, α - pinene, bornyl acetate in the flower buds of *Gardenia latifolia* which were previously reported by Jayaweera (1982), Neelima Mukharyad (1989), and Reddy *et al.*, (1975a, b).

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