

ABSTRACT

chromatographic and spectroscopic data. A mixture of methyl
THE CONSTITUENTS OF LAPORTEA AESTUANS AND
SERJANIA PAUCIDENTATA

The final chapter describes a phytochemical
screening of the by JENNIFER PAUL paucidentata which
focused on the saponins and tannin constituents. The

In this thesis, the extractives of the plants
Laportea aestuans (Urticaceae) and Serjania paucidentata
(Sapindaceae) were investigated for their more
interesting chemical constituents.

Chapter 1 outlines the rationale employed in this
study of the natural products from plants and Chapter 2
is a review of previous work done on the nettle plants of
the Urticaceae family.

Chapter 3 describes some of the extractives found in
Laportea aestuans. These included substantial quantities
of crystalline potassium nitrate (0.34% of the dried
plant material) intimately mixed with organic bases.
These constituents of the plant extracts contributed
significantly to lethality in the brine shrimp (Artemia
salina) used in the bioassays. The organic bases were
responsible for the high alkalinity observed in the plant
extracts. One of the bases isolated from the plant was
identified as choline and another was characterized as an
unstable guanidino amino compound in accordance with

chromatographic and spectroscopic data. A mixture of methyl esters of aliphatic acids was also isolated from L. aestuans.

The final chapter describes a phytochemical screening of the bark of Serjania paucidentata which focused on the saponins and tannin constituents. The major aglycone in the saponins was identified as oleanolic acid and the condensed tannins were shown to be procyanidins and prodelphinidins.

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