

دراسة التركيب الكيميائي لقويدات الأندول من اسيدوسبرما اكسيلسيم و  
امبولينيا وسيدنتالس

أزهار بنت طه محمد السقاف

(2) - (1) PTLC

PTLC

( b 3a)

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<sup>1</sup>H, <sup>13</sup>C-NMR, H-H COSY, HSQC and HMBC

# "Study the chemical structure of indole alkaloids from *Aspidosperma excelsum* A and *Ambolania occidentales*"

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## ABSTRACT

We report in this thesis the first phytochemical study of an *Ambelania occidentalis*, belonging to the family *Apocynaceae*. The plant is distributed mainly over tropical South America. The genus continues to provide novel indole alkaloids with novel molecular skeletons, as well as interesting bioactivities. The crude indole alkaloids metabolites were separated from methanol extract. This crude extract was subjected to column chromatography of silica gel, followed by preparative TLC for purification to provide two compounds. Vincamine (**1**) and 14-epivincamine (**2**) isolated here for the first time from this plant.

The genus *Aspidosperma excelsum* (*Apocynaceae*) incorporates a large number of species that are distributed mainly over tropical South America and the West Indies; it has been used in the indigenous system of medicine. Plants belonging to this genus are notable for producing a wide variety of indole alkaloids, which are called *Aspidosperma* alkaloids. The crude indole alkaloids metabolites were separated from methanol extract. This crude extract was subjected to column chromatography using silica gel, followed by preparative TLC for purification to provide three compounds. 10-methoxy-16-hydroxymethyl cleavamine isomers (**3a**, **3b**) these isomers are isolated as new compounds, and also 10-methoxy geissoschizol (**4**) isolated here for the first time from this plant.

The isolated of compounds were elucidated by spectroscopic measurements mainly  $^1\text{H}$ ,  $^{13}\text{C}$ -NMR, H-H COSY, HSQC and HMBC.

