

Energy-dispersive x-ray microanalysis of elements' content of medicinal plants used traditionally as anticancer cure

ABSTRACT

This present study aims to investigate, the elemental analysis of some medicinal plants used traditionally as anticancer cure by local Malaysians. Element's content of these plants was carried out using Energy Dispersive X-ray Microanalysis combined with Variable Pressure Scanning Electron Microscope microanalysis (EDX). In this study, elements' contents from the leaves of *Goniothalamus umbrosus*, *Kaempferia galangal*, *Gynura procumbens*, *Morinda citrifolia*, *Lawsonia inermis* and *Barringtonia racemosa* using EDX technique. The elemental distribution revealed the presence of C, O, Mg, P, S, Cl, K, Ca, Al, Si and Fe, in anti-cancer medicinal plants and their relative weight percentages were estimated. These elements may be responsible for the biomedical properties of these plants, which based on anticancer properties. This supports the traditional usage of these plants as anti-tumor.

Keyword: Anticancer plants; Element analysis; Energy-dispersive x-ray microanalysis