

Optimization of chlorophyll extraction from *Gynura Procumbens*

ABSTRACT

Herb is a famously used as medicinal plant as an alternative to chemicals based medicine since it is safer. *Gynura Procumbens* (sambung nyawa) is bicolor (green and red) herbal plant which is widely grown in Asia. Recent studies proved that this plant has anti-herpes simplex virus, anti-inflammatory and antihyperglycaemic properties. This work investigated the extraction of chlorophyll a and b from *Gynura Procumbens* of green-leaf species. Optimization was done both by experiment and also Response Surface Method. Solid liquid extraction was used to extract the chlorophyll a and b. The solid to solvent ratio, temperature, solvent used and extraction time were varied to determine the optimum conditions for extraction. It was found that at 80°C in 90 minutes with 2:5 solid to solvent ratio were the most favorable conditions to extract chlorophyll a and b. Five valuable compounds was found from GC-MS analysis which are 2-Hexanal, Phenol, Oleic Acid, Copaene and Phytol. This implies that *Gynura Procumbens* promises a good source of many useful bioactive compounds.

Keyword: *Gynura procumbens*; Sambung nyawa; Chlorophyll; Extraction; Optimization