

IONIZATION AND CHEMICAL REACTION OF QUINOLIN
CONTAINING POLYMER FILMS UNDER THE EFFECT OF
ULTRAVIOLET RADIATION

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ISOLATION AND CHARACTERIZATION OF CHEMICAL COMPOUNDS IN
METHANOLIC EXTRACT OF *EUPHORBIA HIRTA* L.

By

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LIST OF ABBREVIATIONS AND SYMBOLS

m	meter
cm	centimeter
mg	milligram
kg	kilogram
g	gram
ml	millimeter
L	liter
nm	nanometer
sp.	species
R _f	retardation factor
MTEX	methanol extract
TLC	thin layer chromatography
CC	column chromatography
FTIR	Fourier Transform Infrared
ATIR	Attenuated Total Reflectance Infrared
UV-Vis	Ultraviolet and Visible
GC-FID	Gas Chromatography – Flame Ionization Detector
GC-MS	Gas Chromatography – Mass Spectrum
m/e	mass per charge
%	percentage
°C	degree Celsius
λ_{max}	maximum wavelength

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ABSTRACT

Euphorbia hirta L. or locally known as 'gelang susu', 'ara tanah' and asthma weed is a species from family *Euphorbiaceae*. It has an economic important especially in medical usage such as antiasthma and antidiarrhoe. Preliminary tests were used to determine the chemical compounds such as alkaloid and flavonoid in this plant. In this study, three solvents were used in extraction process, which were hexane, chloroform and methanol. However, only the methanolic crude extract was then isolated and purified using chromatographic techniques such as thin layer chromatography (TLC) and column chromatography. Three fractions were purified individually from crude products and labeled as MTA1, MTA2 and MTA3. Each fraction were analyzed and characterized by using spectroscopic (IR and UV-Vis) and gas chromatography (GC-FID and GC-MS) techniques. The pure extracted compounds of MTA1 and MTA2 were suggested as long chain aromatic compounds, while MTA3 was phenolic compound.