

# PROCESSING CRESCENTIA CUJETE FRUIT INTO A SYRUP PRODUCT WITH MEDICINAL EFFICACY AND STUDYING ITS CYCLIC VOLTAMMOGRAM

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## ABSTRACT

Cyclic voltammogram is a voltammetry method that has an important role in studying the characteristics of a system, including studying the components in a system. *Crescentia cujete* fruit is a wild plant that has medicinal properties and is not widely used in Indonesia. Therefore, it is natural to carry out research regarding the fruit, which will be processed into a syrup product with medicinal properties and to study its cyclic voltammogram to better understand the components contained in it. This research will study the cyclic voltammogram of the fruit syrup resulting from processing fresh the fruit, combined with an infrared spectral test to determine the components contained in the fruit syrup product, especially components that have medicinal properties.

The cyclic voltammogram of the fruit syrup product was obtained by cyclic voltammetry using the eDAQ eChem voltameter at the UNY Chemistry Laboratory using a stainless steel working electrode. The research was carried out at room temperature (25 °C), with scan rate of 50 mV/s. The FTIR spectrophotometry test was carried out at the FMIPA UNY Integrated Laboratory.

The medicinal efficacious the fruit syrup product that has been made is labeled "Natural Maja" has a unique cyclic voltammogram and infrared spectrum, which allows it to be marketed and increase institutional income. Based on research results, it shows that the "Natural Maja" syrup product contains the main components of the amide and alcohol groups.

Kata Kunci: *cyclic voltammogram, Crescentia cujete, medicinal fruit syrup product*