

EXTRACTION, CHARACTERIZATION AND WORKABILITY OF SOME LOCAL PLANT DYES AS ACID-BASE INDICATORS

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ABSTRACT

Today, as a result of environmental pollution as well as the global economic crunch, there became a growing need to utilize indigenous natural resources as materials in the laboratory due to their environmental friendliness, easy availability, and lower price compared to the synthetic standard indicators. The study was therefore carried out to investigate the indicator properties of ethanolic extracts of different parts of four local plants; *hibiscus rosasinesis*, *mangifera indica*, *zingiber officinale* and *cola accuminata*. A comparative study of these plants' extracts with available standard indicators—methyl orange and phenolphthalein—was carried out to evaluate the accuracy and workability of local plant dyes as acid-base indicators. The results, which were similar to those of the standard indicators, indicated that plant extracts can be used as acid-base indicators in titration of strong acid with a strong base, and also weak acid with strong base.

KEYWORDS: Plant Extracts, Dyes, Indicators, Titration