

NATURAL INDICATOR: AN UNIQUE REPLACEMENT FOR STANDARD INDICATORS

ASHOKE HAZRA

A.K.P.C. Mahavidyalaya, Subhasnagar, Bengai, Dist-Hooghly, W.B, India

ABSTRACT

Present study investigated a natural indicator for acid - base solution which is collected from Ripe fruit of puisak, light yellow Dahlia flower, Orange Mari Gold flower and Red Salvia flower. Colour change of the indicator and pH range were determined for each type of acid-base solution. These values were comparable to those obtained from the standard indicators. Colour pigments were extracted from the flowers via cold extraction using soxhlet extractor. The pH value of the extracts with wavelengths of absorption was determined using UV/Visible spectrophotometer. From the result obtained, all the extracts exhibited sharp contrast between their colours in acid and base. The maximum wavelengths of absorption obtained from all extract fall within the visible region of electromagnetic spectrum. These values are almost similar to that obtained from synthetic indicators. It is on these bases that we concluded that natural indicators could be an excellent replacement for synthetic indicators since they are cheap, readily available, simple to extract, non toxic and also environment friendly.

KEYWORDS: Absorption, Acid-Base, Dahlia, Mari Gold, Natural Indicator, Ph, Ripe Fruit of Puisak, Salvia, Wavelength