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PENENTUAN TITIK ISOSBESTIK DAN TETAPAN DISOSIASI SENYAWA p-NITROFENOL SECARA SPEKTROFOTOMETRI

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Abstract

The determined of isosbesitic point from weak acids or weak bases are usually important for indicator solutions. The indicators that used in acid-base titration have pH exactly, and this is useful for determine the end of titration. The aims of this research are (1) to determine of wavelength on isosbesitic point of p-nitro phenol, and (2) to determine of dissociation constant of p-nitro phenol. The determined of isosbesitic has done with spectrophotometric method, to the p-nitro phenol solutions in several pH, at region of wavelength between 280 nm – 450 nm. In this research, indicate that the isosbesitic point of p-nitro phenol at the wavelength of 348 nm, and pH about 6.7. From this research also can be determined that the dissociation constant (K_a) of p-nitro phenol is 6.48×10^{-8} , not too different compared with K_a literature, is 7.08×10^{-8} .

Keywords: isosbesitic point, dissociation constant, p-nitro phenol

PENDAHULUAN

Banyak asam lemah atau basa lemah organik yang dalam keadaan ion dan dalam keadaan tak terdisosiasi menunjukkan warna yang berbeda. Molekul-molekul semacam ini dapat digunakan sebagai indikator untuk menetapkan berakhirnya suatu titrasi asam basa. Hal ini disebabkan karena biasanya perubahan warna terjadi akibat perubahan pH. Indikator fenolfalein dapat

