

ÖZET

BAZI SUBSTİTUE yiç-DİOKS İMLERİN POTANSİYOMETRİK TİTRASYON YÖNTEMİ İLE pKa SABİTLERİNİNTAYİNİ

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Niğde ve Selçuk Üniversitelerinden temin edilen orijinal substitue vic- Dioksimlerin 2-propanoldaki 10^{-3} M çözeltileri, Tetrabutylamonyum- hidroksit'in 2-Propanoldaki 0.05N çözeltilisi ile potansiyometrik olarak titre edildi. Titrasyonların yarı ekivalens noktasındaki pil değerleri titre edilen vic- dioksimlerin pKa değerleri olarak belirlendi. Yapılan potansiyometrik çalışmalar sonucunda ; İsonitrosoaseto- fenon'un pKa = 12,31 ; p-Kloro İsonitrosoasetofenon'un pKa = 8.19 ; Fenilglioksim'in pKa = 13.01 ; Fenilkloro glioksim'in pKa, = 5,73 pKa2 = 11,48 ; p-Klorofenilglioksim'in pKa1 = 8,45 pKa2=11,51; p-Klorofenilkloroglioksim'in pKa1 = 5,49 pKa2=13,03 İsonitrosofenil- asetofenon'un pKa = 11,91 ; Naftilglioksim'in pKa, = 12,67 pKa2 14,16 ; Naftilkloroglioksim'in pKa, = 11,67 pKa2 12,80 ve 1,2- Bis(isonitrosofenilimino)benzen,in pKa=T2,15 olarak bulundu. Vic- dioksimlerin pKa değerlerinin, substitue klor bağlı oksimlerde daha düşük olduğu gözlemlendi.

Anahtar sözcükler : Oksim, Asitlik sabiti, Potansiyometrik titrasyon

ABSTRACT

DETERMINATION OF pKa VALUES OF SOME SUBSTITUTED vic-DİOXİMES BY POTENTIOMETRIC TITRATION METHODS

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pKa measurments for substituted vicinal oximes was carried out potentiometrically, thus a 10^{-3} M solution of substituted vicinal dioximes dissolved in 2-propanol was titrated against a 0,05 N solution of tetrabutylammonium hydroxide in 2-propanol. The pH values measured at the mid equivalence point corresponded to the pKa values of the vic-dioximes, the pKa values of the vicinal oximes, synthesized in and obtained from Selçuk University were compared with those having chloro substituents on them from these measurments, we have found that the pKa values of the chloro substituted vicinal dioximes are smaller than those with no substituent on them. The pKa values of the compounds we have studied in this research are given below : pKa of isonitrosoacetophenon was equal to 12,31 ; while the pKa of the p-chloro isonitrosoacetophenon was 8.19 ; the pKa value of Phenylglyoxime was 13.01 ; whereas its Chloro substituent's pKa1 value was 5,73 and that of pKa2 was equal to 11,48 ; p-Chloro phenyl glyoxime is 8,45 and pKa2 was 11,51; similarly the pKa1 values of p-chloro phenyl chloro glyoxime is 5,49 and pKa2 was 13,03, pKa of isonitrosophenylasetophenonone was 11,91 ; pKa1 and pKa2 values of naphthyl chloro glyoxime were 12,67 and 12,80 ; respectively and that of naphthyl glyoxime were 11,67 and 12,80 whereas that for 1,2 Bis(isonitrosophenyl-imino)benzene's pKa value was found to be equal to 12,15.

Key Words rOximes, Potentiometric Titration, acidity Ionization constand.