

As the hydrolysis proceeds, there will be proportional increase in the concentration of acetic acid formed, b. The hydrolysis of an ester such as ethyl acetate illustrates a bimolecular reaction that gives sodium acetate and ethanol as the product from which second order rate constant can be calculated

$$\text{CH}_3\text{COOCH}_2\text{CH}_3 + \text{NaOH} \rightarrow \text{CH}_3\text{COONa} + \text{CH}_3\text{CH}_2\text{OH}$$

present in it direct or indirect titration with a standard solution of an acid.

A B Products

$$2.303 - \log \frac{b(a-x)}{a(b-x)}$$

If 'b' moles of ester and 'a' moles of NaOH are taken initially, then

$a' a V_0$ (the volume of acid equivalent to the amount of NaOH present initially)

$C a x) a V_r$ (the volume of acid equivalent to the amount of NaOH present at time, t)