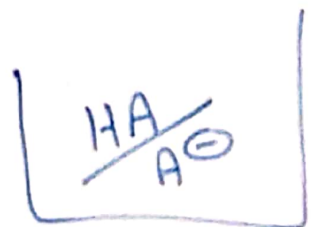


$$pH = pK_a - \log \frac{[HA]}{[A^-]} \Rightarrow$$

معادله Henderson-Hasselbalch

Henderson - Hasselbalch

$$P_i = -\log[i]$$



$$K_a = \frac{[A^{-}][H_3O^{+}]}{[HA]}$$

$$\gamma = \frac{a \times b}{c}$$

$$b = \gamma / \alpha_c = \gamma \times \alpha_a$$

$$[H_3O^{+}] = K_a \times \frac{[HA]}{[A^{-}]}$$

$$\lg a \times b = \lg a + \lg b$$

$$-\lg [H_3O^{+}] = -\lg K_a + \left(-\lg \frac{[HA]}{[A^{-}]} \right)$$