## Answer on Question #77881, Chemistry / Organic Chemistry

## **Question:**

What is the molarity of the acetic acid solution if 25.7 mL of a 0.240 M KOH solution is required to titrate 29.0 mL of a solution of  $HC_2H_3O_2$ ?

$$HC_2H_3O_2(aq) + KOH(aq) \rightarrow H_2O(I) + KC_2H_3O_2(aq)$$

Express your answer with the appropriate units.

## **Solution:**

Amount of KOH:  $0.240 \cdot 0.0257 = 0.006168$  mol

Amount of  $HC_2H_3O_2$ : 0.006168 mol

Molarity of  $HC_2H_3O_2$ : 0.006168 / 0.0290 = 0.2127 mol/L = 0.2127 M

## Answer:

0.2127 mol/L = 0.2127 M

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