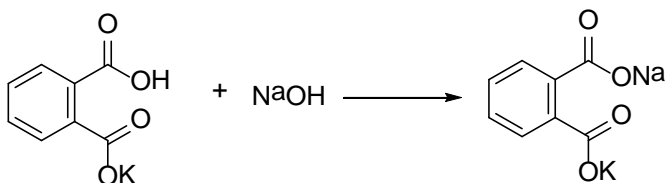


Answer on Question #42974, Chemistry, Other

Question:

1.4 g sample of KHP required 24.11 cm³ of NaOH for its complete neutralization. Calculate the molarity of the NaOH used in titration?

Solution:



1.4 g of KHP is equal to

$$n(\text{KHP}) = 1.4 \text{ g} / 204.2 \text{ g} \cdot \text{mol}^{-1} = 6.86 \text{ mmol}$$

$$n(\text{KHP}) = n(\text{NaOH})$$

$$C(\text{NaOH}) = 0.00686 \text{ mol} / 0.02411 \text{ L} = 0.284 \text{ mol/L}$$

Answer: 0.284 mol/L