

Answer on Question#48507 – Chemistry, Physical Chemistry

What is the amount of hydrogen atoms in 0.40 moles of ethanoic acid (CH₃COOH)?

Solution:

$$v(\text{CH}_3\text{COOH}) = 0.4 \text{ mol}$$

$$v(\text{H}) = 4 v(\text{CH}_3\text{COOH}); v(\text{H}) = 1.6 \text{ mol}$$

$$v = \frac{N}{N_A}; N_A - \text{Avogadro constant};$$

$$N(\text{H}) = 9.632 \times 10^{23}$$

Answer: 9.632×10^{23}