

Answer on Question #51901 - Chemistry – Other

Question

3.47g sodium carbonate was dissolved in a 250millilitre standard flask. What is the concentration of the resulting solution

0.13M

0.52M

0.66M

0.40M

Answer:

Molar concentration of the solution is:

$$C = \frac{n}{V} = \frac{m \cdot M}{V}$$

M – Molar mass of sodium carbonate, $M(\text{Na}_2\text{CO}_3) = 106 \text{ g/mol}$.

$$C = \frac{m \cdot M}{V} = \frac{3.47 \cdot 106}{0.250} = 0.13 \text{ mol/L}$$

Answer: 0.13 M