

Answer on Question #54291 – Chemistry – General Chemistry

Question

Calculate the number of mole contained in a solution of sulphuric acid, if the titre value on titration against 20 cm³ 0.5 M sodium carbonate is 20.24 cm³.

0.02mol

0.04mol

0.01mol

0.15mol

Answer:

The number of moles of sodium carbonate in its solution is:

$$n(\text{Na}_2\text{CO}_3) = 20 \cdot 0.5/1000 = 0.01 \text{ mol}$$

The number of mole contained in a solution of sulphuric acid is equal to the number of moles of sodium carbonate, so:

$$n(\text{H}_2\text{SO}_4) = n(\text{Na}_2\text{CO}_3) = 0.01 \text{ mol}$$

Answer: 0.01 mol