

Answer on Question #53043 – Chemistry – General chemistry

Question

a) find molecular formula : C=12 / H= 7 / O= 16

b) calculate the number of mole of NaSO₄- sodium sulfate 50ml of solution of concentration 0.25mol/l deduce the mass of sodium sulfate in 50ml of solution'

Given: Na: 23

S: 32

O:16

Answer:

a) **C₁₂H₇O₁₆**

b) $n(\text{Na}_2\text{SO}_4) = C \cdot V = 0.25(\text{mol/L}) \cdot 0.05(\text{L}) = \mathbf{0.0125 \text{ mol}}$

$m(\text{Na}_2\text{SO}_4) = n \cdot M = 0.0125(\text{mol}) \cdot 142(\text{g/mol}) = \mathbf{1.775 \text{ g}}$