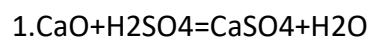


How many grams of calcium oxide (CaO) would be needed to neutralise 0.5 litre of battery acid (H<sub>2</sub>SO<sub>4</sub>) with a concentration of 0.25mol/L?

Given the atomic masses:

Ca = 40 and O = 16

Solution:



2.  $C = n/V;$

$n = C \times V;$

$n(\text{H}_2\text{SO}_4) = 0.25 \times 0.5 = 0.125 \text{ mol.}$

3.  $n(\text{H}_2\text{SO}_4) = n(\text{CaO})$

4.  $m = n \times M$

$M(\text{CaO}) = 40 + 16 = 56 \text{ gram/mol}$

$m(\text{CaO}) = 0.125 \times 56 = 7 \text{ grams}$

Answer:  $m(\text{CaO}) = 7 \text{ grams.}$

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