

Q10
26/01/22

Home Assessment

(1) Calculate the molecular mass of Na_2SO_4 ?

Ans -> Atomic mass of Na = 23
Atomic mass of S = 32
Atomic mass of O = 16
 $\text{Na}_2\text{SO}_4 = 23 \times 2 + 32 + 4 \times 16$
 $= 46 + 32 + 64 = 142$

(2) Calculate the no. of moles present in 20g of calcium in a sample?

Ans -> Atomic mass of calcium = 40g
Molar mass of calcium = 40g
No. of moles = $\frac{\text{Given Mass}}{\text{molar mass}}$
 $= \frac{20}{40} = \frac{1}{2} = \frac{1}{2} = 0.5 \text{ moles}$

So, there are 0.5 moles in 20 grams of calcium.

(3) Write the chemical formula of the following: - (a) calcium nitrate (b) Magnesium Bicarbonate?

Ans -> (a) $\text{Ca}(\text{NO}_3)_2$ (b) $\text{Mg}(\text{HCO}_3)_2$