how many atoms are there in 80.9 g of potassium oxide?

Answer

$$v = \frac{m}{Mr (K_2 O)} = \frac{80.9}{94} = 0.86 \text{ mole}$$

$$v = \frac{N}{N_A};$$

$$N = v \cdot N_A = 0.86 \cdot 6.02 \cdot 10^{23} = 5.18 \cdot 10^{23}$$

$$N = 5.18 \cdot 10^{23} \cdot 3 = 1.55 \cdot 10^{24}$$

Answer : $1.55 \cdot 10^{24}$ atoms

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