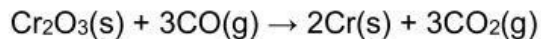


Sebanyak 30,4 gram Cr_2O_3 direaksikan dengan 8,4 gram CO menurut reaksi:



Bila diketahui Ar C=12, O=16, dan Cr=52

Tentukanlah:

- banyaknya mol zat tersisa
- massa Cr yang terbentuk
- volume gas CO_2 pada keadaan standar (STP)

Penyelesaian

menghitung banyaknya mol Cr_2O_3 :

$$\begin{aligned}\text{Mr } \text{Cr}_2\text{O}_3 &= (\text{banyaknya Cr} \times \text{Ar Cr}) + (\text{banyaknya O} \times \text{Ar O}) \\ &= (\quad \times \quad) + (\quad \times \quad) \\ &= \quad + \quad \\ &= \quad\end{aligned}$$

$$\begin{aligned}\text{mol } \text{Cr}_2\text{O}_3 &= \text{massa } \text{Cr}_2\text{O}_3 : \text{Mr } \text{Cr}_2\text{O}_3 \\ &= \quad : \quad \\ &= \quad \text{mol}\end{aligned}$$

menghitung banyaknya mol CO :

$$\begin{aligned}\text{Mr CO} &= \text{Ar C} + \text{Ar O} \\ &= \quad + \quad \\ &= \quad\end{aligned}$$

$$\begin{aligned}\text{mol CO} &= \text{massa CO} : \text{Mr CO} \\ &= \quad : \quad \\ &= \quad \text{mol}\end{aligned}$$

Reaksi	:	$\text{Cr}_2\text{O}_3(\text{s})$	+	$3\text{CO}(\text{g})$	$\rightarrow$	$2\text{Cr}(\text{s})$	+	$3\text{CO}_2(\text{g})$
mula-mula	:					-		-
bereaksi	:							
akhir	:							

a. banyaknya mol zat yang tersisa = $\quad$ mol

b. massa Cr yang terbentuk = mol Cr x Ar Cr

$$\begin{aligned}&= \quad \times \quad \\ &= \quad \text{gram}\end{aligned}$$

c. volume CO_2 pada keadaan standar (STP) = mol CO_2 x volume standar

$$\begin{aligned}&= \quad \times \quad \\ &= \quad \text{liter}\end{aligned}$$