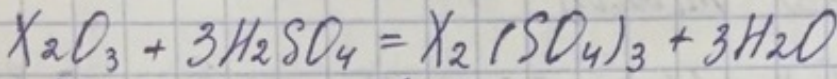


ног: 9-6

Вопрос (51)

Дано
 $m(\text{X}_2\text{O}_3) = 9,61$
 $m(\text{X}_2(\text{SO}_4)_3) = 242$

Теория



Метод пропорции:

$x - ?$ Допустим а) $x - \text{Al}$, тогда

$$\frac{m(\text{Al}_2\text{O}_3)}{M(\text{Al}_2\text{O}_3)} = \frac{m(\text{Al}_2(\text{SO}_4)_3)}{M(\text{Al}_2(\text{SO}_4)_3)}$$

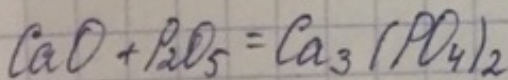
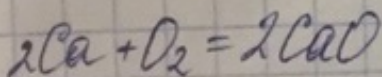
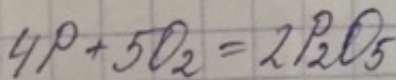
$$\frac{9,61}{102 \frac{\text{г}}{\text{моль}}} = \frac{242}{342 \frac{\text{г}}{\text{моль}}} ; 0,09 \neq 0,07 \Rightarrow \text{Al не подходит.}$$

Допустим б) $x - \text{Fe}$, тогда

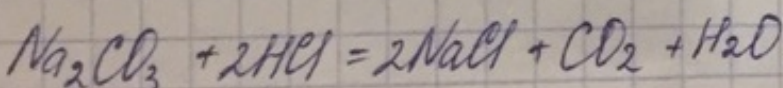
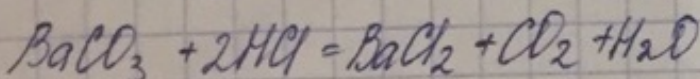
$$\frac{m(\text{Fe}_2\text{O}_3)}{M(\text{Fe}_2\text{O}_3)} = \frac{m(\text{Fe}_2(\text{SO}_4)_3)}{M(\text{Fe}_2(\text{SO}_4)_3)} ; \frac{9,61}{160 \frac{\text{г}}{\text{моль}}} = \frac{242}{400 \frac{\text{г}}{\text{моль}}} ; 0,06 = 0,06 \Rightarrow \text{Fe подходит.}$$

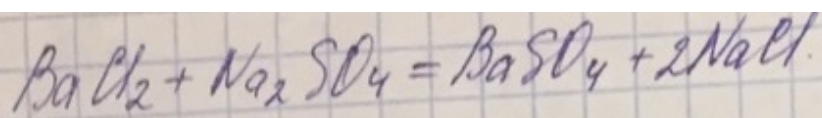
Ответ: Fe - железо.

Вопрос (52)



Вопрос (53)





$w(\text{BaCl}_2)$:

$$M(\text{BaCl}_2) = 137 + 12 + 48 = 197 \text{ моль}^2$$

$$n(\text{BaCl}_2) = \frac{m(\text{BaCl}_2)}{M(\text{BaCl}_2)} = 0,2 \text{ моль}$$

$$m(\text{BaCl}_2) = M \cdot n = 0,2 \text{ моль} \cdot 197 \text{ моль}^2 = 39,4 \text{ г}$$

$$w(\text{BaCl}_2) = \frac{39,4}{50} = 100\% = 78,8\%$$

$$w(\text{NaCl}) = 100\% - w(\text{BaCl}_2)$$

$$w(\text{NaCl}) = 100\% - 78,8\% = 21,2\%$$

Ответ: 78,8%; 21,2%