



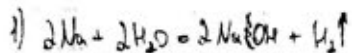
1 2 3 4 5  
 5 5 0 1 4  
 15

Тос-Х10-0

*E. N. ...*  
*...*  
*...*

10-1. А - Na 0,5

Б - Cu 1

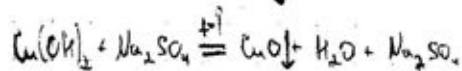
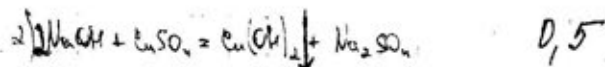


$V(H_2) = 4,48 \text{ (л)}$

$n(H_2) = \frac{4,48}{22,4} = 0,2 \text{ (моль)} \quad 0,5$

$n(Na) = 0,4 \text{ (моль)} \quad 0,5$

$m(Na) = 0,4 \cdot 23 = 9,2 \text{ (г)}$



$m_{\text{пр}} = 200 \text{ (г)}$

$m(CuO) = 9,6 \text{ (г)}$

$n(CuO) = \frac{9,6}{80} = 0,12 \text{ (моль)} \quad 0,5$

$n(Na_2SO_4) = 0,12 \text{ (моль)} \quad 0,5$

$m(Na_2SO_4) = 0,12 \cdot 142 = 17,04 \text{ (г)} \quad 0,5$

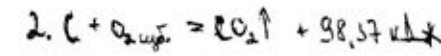
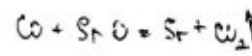
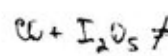
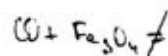
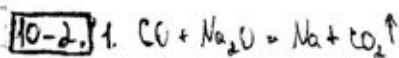
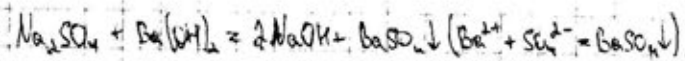
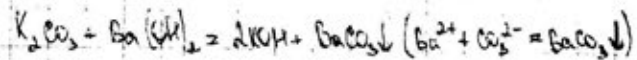
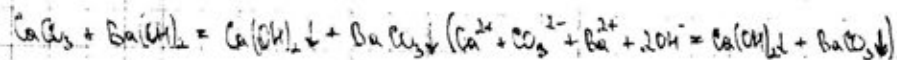
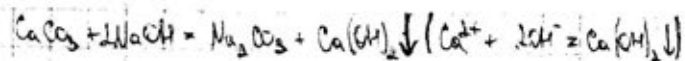
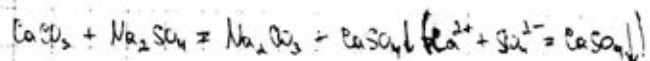
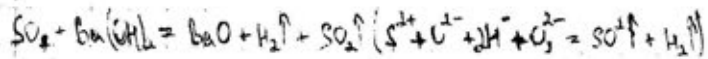
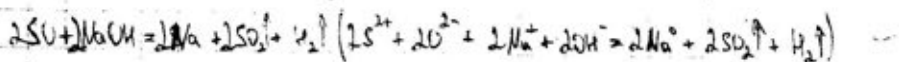
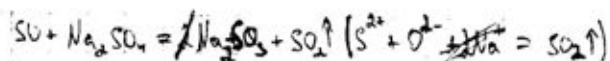
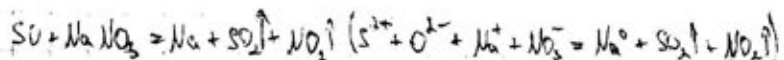
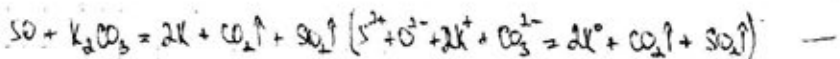
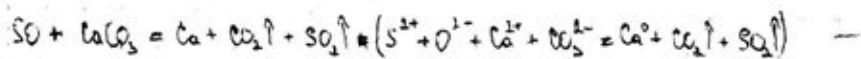
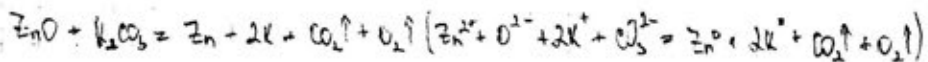
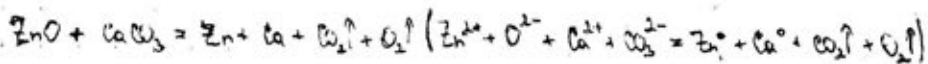
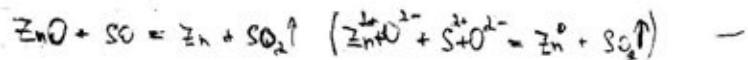
$\omega(CuO) = \frac{9,6}{200} \cdot 100\% = 4,8\%$

$\omega(Na_2SO_4) = \frac{17,04}{200} \cdot 100\% = 8,52\% \quad 0,5$

$\omega(H_2O) = 100\% - 4,8\% - 8,52\%$

| 10-4.                           | Zn | ZnO | SO | CaCO <sub>3</sub> | K <sub>2</sub> CO <sub>3</sub> | NaNO <sub>3</sub> | Na <sub>2</sub> SO <sub>4</sub> | NaOH | Ba(OH) <sub>2</sub> |
|---------------------------------|----|-----|----|-------------------|--------------------------------|-------------------|---------------------------------|------|---------------------|
| Zn                              | X  | -   | -  | -                 | -                              | -                 | -                               | -    | -                   |
| ZnO                             | -  | X   | ↑  | ↑                 | ↑                              | -                 | -                               | -    | -                   |
| SO                              | -  | ↑   | X  | ↑                 | ↑                              | ↑                 | ↑                               | ↑    | ↑                   |
| CaCO <sub>3</sub>               | -  | ↑   | ↑  | X                 | -                              | -                 | ↓                               | ↓    | ↓                   |
| K <sub>2</sub> CO <sub>3</sub>  | -  | ↑   | ↑  | -                 | X                              | -                 | -                               | -    | ↓                   |
| NaNO <sub>3</sub>               | -  | -   | ↑  | -                 | -                              | X                 | -                               | -    | -                   |
| Na <sub>2</sub> SO <sub>4</sub> | -  | -   | ↑  | ↓                 | -                              | -                 | X                               | -    | ↓                   |
| NaOH                            | -  | -   | ↑  | ↓                 | -                              | -                 | -                               | X    | -                   |
| Ba(OH) <sub>2</sub>             | -  | -   | ↑  | ↓                 | ↓                              | -                 | -                               | -    | X                   |

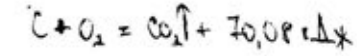
Zn - kem pakuasi  
 ZnO - 3 rupa  
 SO - 7 rupa  
 CaCO<sub>3</sub> - 2 rupa, 3 rupa  
 K<sub>2</sub>CO<sub>3</sub> - 2 rupa, 1 rupa  
 NaNO<sub>3</sub> - 1 rupa  
 Na<sub>2</sub>SO<sub>4</sub> - 1 rupa, 2 rupa  
 NaOH - 1 rupa, 1 rupa  
 Ba(OH)<sub>2</sub> - 1 rupa, 3 rupa



$$m(\text{C}) = 3 \text{ (g)}$$

$$n(\text{C}) = \frac{3}{12} = 0,25 \text{ (mole)}$$

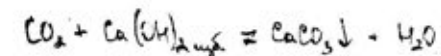
$$Q = \frac{98,57}{0,25} = 393,48 \text{ (kJ)}$$



$$m(\text{C}) = \frac{3}{12} = 0,25 \text{ (g)}$$

$$n(\text{C}) = \frac{3}{12} = 0,25 \text{ (mole)}$$

$$Q = \frac{70,08}{0,25} = 280,32 \text{ (kJ)}$$

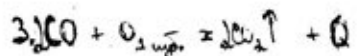


$$m(\text{CaCO}_3) = 15 \text{ (g)}$$

$$n(\text{CaCO}_3) = \frac{15}{100} = 0,15 \text{ (mole)}$$

$$n(\text{CO}_2) = 0,15 \text{ (mole)}$$

$$V(\text{CO}_2) = 0,15 \cdot 22,4 = 3,36 \text{ (L)}$$



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10-5. A - BaS

B - S<sub>2</sub>

C - O<sub>2</sub>

AB - BaS

BC - ~~BaO~~<sup>S</sup>

AC - BaO

