

1

1.1. 2 2 ,

2 2 :

$$n(\text{CO}_2) = V(\text{CO}_2)/V_m; n(\text{CO}_2) = 6.72/22.4 = 0.3$$

$$n(\text{H}_2\text{O}) = m(\text{H}_2\text{O})/M(\text{H}_2\text{O}) = 6.3/18 = 0.35$$

:

$$n(\text{C}) = n(\text{CO}_2); n(\text{C}) = 0.3$$

$$n(\text{H}_2) = 2n(\text{H}_2\text{O}); n(\text{H}_2) = 2 \cdot 0.35 = 0.7$$

:

$$m(\text{C}) = n(\text{C}) \cdot M(\text{C}); m(\text{C}) = 0.3 \cdot 12 = 3.6$$

$$m(\text{H}_2) = n(\text{H}_2) \cdot M(\text{H}_2); m(\text{H}_2) = 0.7 \cdot 1 = 0.7$$

:

$$m(\text{C}) + m(\text{H}_2) = 3.6 + 0.7 = 4.3$$

;

$$D = n(\text{C})/n(\text{H}_2), D = 0.3/0.7 = 3/7. \quad (1)$$

:

$$m(\text{C}) = 2 \cdot D; m(\text{C}) = 2 \cdot 43 = 86$$

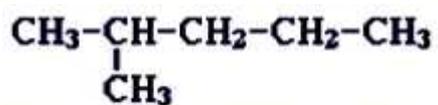
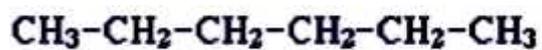
:

$$m(\text{H}_2) = 12 + D, m(\text{H}_2) = 12 + D = 86 \quad (2)$$

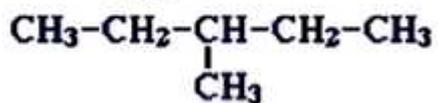
$$D = 6, m(\text{H}_2) = 14, \dots$$

1.2.

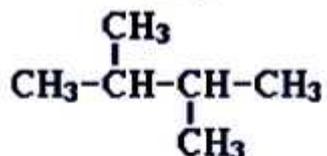
:



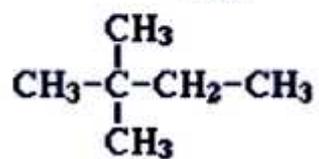
2-



3-



2,3-



2,2-

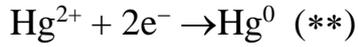
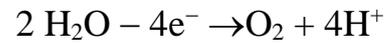
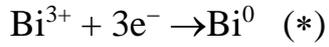
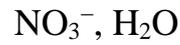
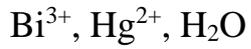
(2 )	6
	3
	4
	3
(5 )	5
(5 )	5
	26

2.1.

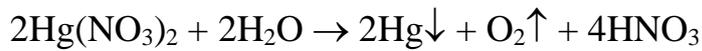
:

(-)

(+)



:



2.2.

$$n\{\text{Bi}(\text{NO}_3)_3\} = x$$

$$, n\{\text{Hg}(\text{NO}_3)_2\} = y$$

,

$$n(\text{Bi}) = x$$

$$, n(\text{Hg}) = y$$

.

$$209x + 201y = 7.195$$

(1)

,

,

$$k = \frac{It}{F} = \frac{0.9 \cdot 161 \cdot 60}{96500} = 0.090$$

.

(\*) (\*\*)

,

$$3x + 2y = 0.090$$

(2)

(1) (2),

$$x = 0.020$$

$$, y = 0.015$$

.

,

:

$$\{\text{Bi}(\text{NO}_3)_3\} = 0.020 \quad / 0.16 = 0.125 \quad / ,$$

$$\{\text{Hg}(\text{NO}_3)_2\} = 0.015 \quad / 0.16 = 0.094 \quad / .$$

(2 )	2
	2
(2 )	4
	15
(2 )	2
	25

3

Cu<sub>2</sub>S:



$$Q = 2Q(\text{CuO}) + Q(\text{SO}_2) - Q(\text{Cu}_2\text{S}) = 2 \cdot 156 + 297 - 79 = 530 \quad /$$

$$265 \quad , \quad \text{Cu}_2\text{S} \quad 530 \quad , \quad 265/530 = 0.5$$

Cu<sub>2</sub>S.

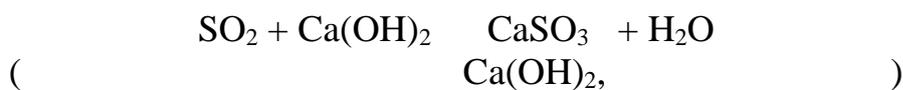
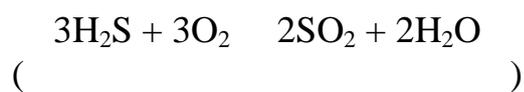
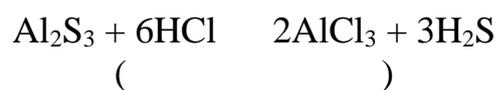
$$n(\text{Cu}_2\text{S}) = n(\text{SO}_2).$$

$$\text{SO}_2: m(\text{SO}_2) = n(\text{SO}_2) \cdot M(\text{SO}_2) = 0.5 \cdot 96 = 48 \quad .$$

: 48 .

	6
	7
Cu <sub>2</sub> S,	6
SO <sub>2</sub>	3
SO <sub>2</sub>	3
	25

:



(6 )	18
(6 )	6
	24