

1. **1.**
1. $-67,2 \cdot 10^{-19}$. ,
2. $-80,0 \cdot 10^{-19}$. ,
3. $-51,2 \cdot 10^{-19}$. ,
4. $-51,2 \cdot 10^{-19}$. ,
5. $-38,4 \cdot 10^{-19}$. ,
6. $-64,0 \cdot 10^{-19}$. ,
7. $-67,2 \cdot 10^{-19}$. ,
8. $-80,0 \cdot 10^{-19}$. ,
9. $-80,0 \cdot 10^{-19}$. ,
10. $-94,4 \cdot 10^{-19}$. ,

- 2.**
11. $21,58 \cdot 10^{-24}$.
12. $24,90 \cdot 10^{-24}$.
13. $29,88 \cdot 10^{-24}$.
14. $31,54 \cdot 10^{-24}$.
15. $51,46 \cdot 10^{-24}$.
16. $56,44 \cdot 10^{-24}$.
17. $61,42 \cdot 10^{-24}$.
18. $58,10 \cdot 10^{-24}$.
19. $124,5 \cdot 10^{-24}$.
20. $49,80 \cdot 10^{-24}$.

- 3.**
21. (, .) , $5,38 \cdot 10^{23}$
6,667 %.
22. (, .) , $10,76 \cdot 10^{23}$
12,5 %.

23.		(, . .)	,	9,03·10 ²³	
24.		(, . .)	, 23,29 %.	9,03·10 ²³	
25.	6,02·10 ²³	(, . .)	(I),		
26.		(, . .)	, 81,0 %.	18,06·10 ²³	
27.		(, . .)	,	6,02·10 ²³	
28.		(, . .)	, 80,0 %.	9,03·10 ²²	
29.	6,02·10 ²³	(, . .)	,	57,9 %..	
30.		(, . .)	, 28,6 %.	4,01·10 ²³	
31.	4.			sp ² -	
1)	. 2)	. 3)	. 4)	. 5)	. 6)
32.					sp ² -
1)	. 2)	. 3)	-1,2. 4)	. 5)	
6)					
33.					sp ² -
1)	. 2)	. 3)	. 4)	. 5)	
6)					
34.					sp ³ -
1)	. 2)	. 3)	. 4)	. 5)	. 6)
35.					sp ³ -
1)	. 2)	. 3)	-1,2. 4)	. 5)	. 6)
36.					sp ³ -
1)	. 2)	. 3)	. 4)	. 5)	
6)					
37.					sp ³ -
1)	. 2)	. 3)	. 4)	. 5)	
6)					

38. , sp-
 1) . 2) . 3) -1,2. 4) . 5) .
 6) .
 39. , sp-
 1) . 2) . 3) . 4) . 5) .
 6) .
 40. , sp³-
 1) . 2) . 3) . 4) . 5) .
 6) .

5.

41. () 3,0 /
 (1,12 /), 49,5 18 %
 (.) (1,100 /).
 (%)
42. () 4,0 /
 (1,15 /), 98 10 %
 (.) (%)
43. () 4,0 /
 (1,15 /), 100 7,3 %
 (.) (%)
44. () 2,0 /
 (1,080 /), 200 12,6 %
 (.) (%)
45. () 4,0 /
 (1,15 /), 200 24,0 %
 (.) (%)
46. () 2,0 /
 (1,10 /), 99 18 %
 (.) (1,100 /).
 (%)
47. () 4,0 /
 (1,18 /), 98 20 %
 (.) (%)
48. () 2,0 /
 (1,08 /), 100 14,6 %
 (.) (%)
49. () 4,0 /
 (1,15 /), 200 25,2 %
 (.) (%)

50. () 4,0 /
 (1,050 /), 200 24,0 %
 (.) (%)

6.

51. ,
 1) . 2) (VI). 3) (II). 4) (III). 5)
 . 6) (VII).

52. ,
 1) (II). 2) (VII) 3) . 4) (V). 5)
 . 6) (VI).

53. ,
 1) . 2) (I) 3) . 4) (V). 5)
 6)

54. ,
 1) . 2) (II) 3) (VI). 4) (II).
 5) (V). 6) (VI).

55. ,
 1) . 2) (VI). 3) (II). 4) . 5)
 (VII). 6)

56. ,
 1) (II). 2) (II) 3) (VI). 4)
 5) (VI). 6)

57. ,
 1) . 2) . 3) 4) (V).
 5) . 6)

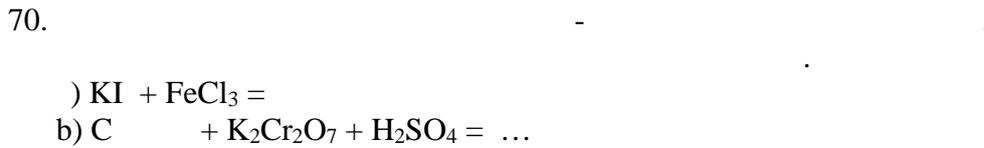
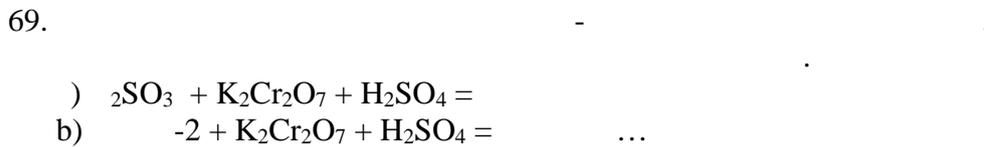
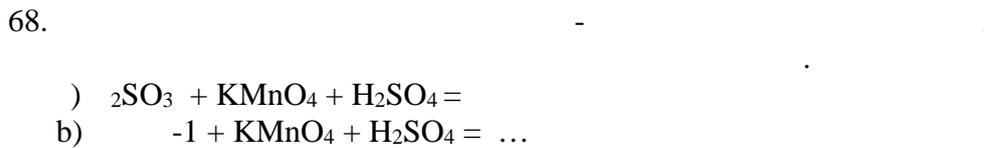
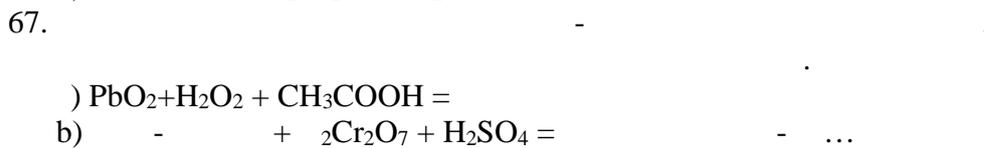
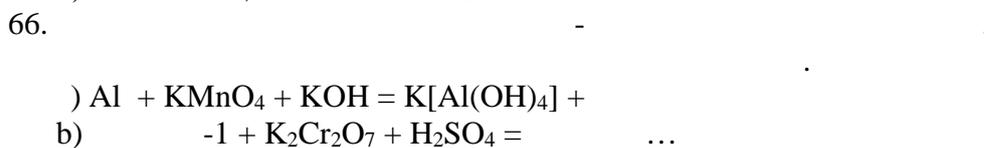
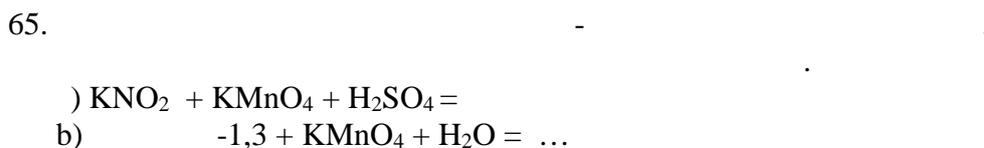
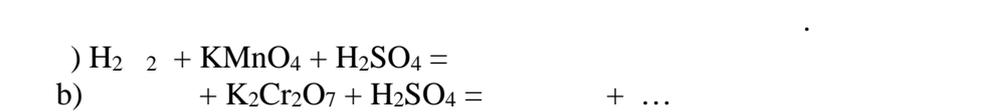
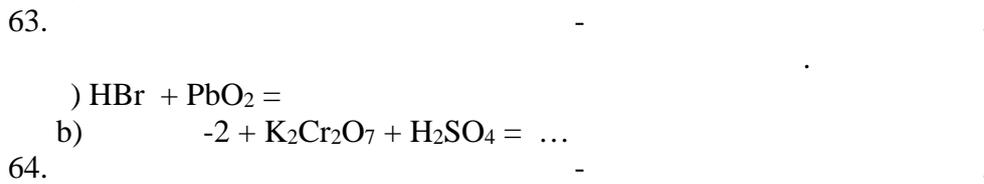
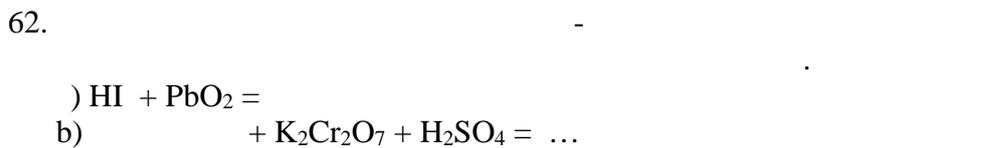
58. ,
 1) . 2) . 3) (II) 4) (VI).
 5) (II). 6)

59. ,
 1) 2) . 3) . 4) . 5)
 (III). 6)

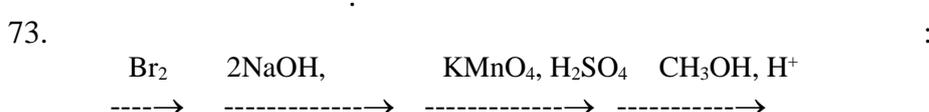
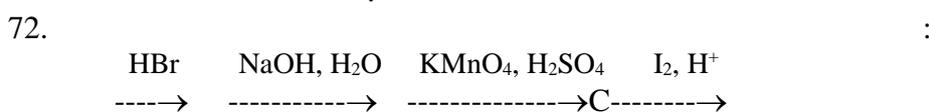
60. ,
 1) . 2) (III). 3) 4) (II). 5)
 (V). 6) -

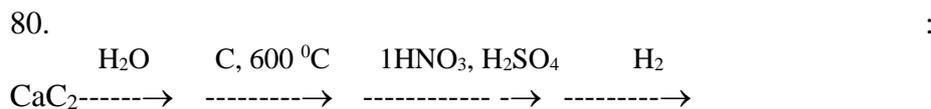
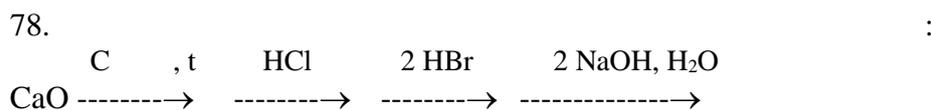
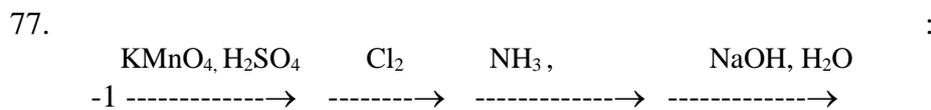
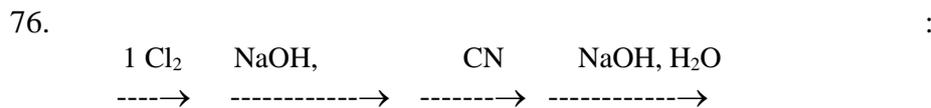
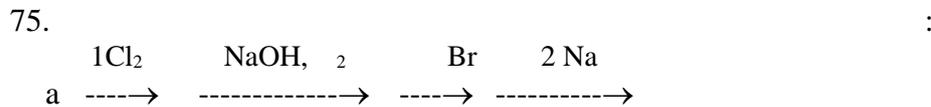
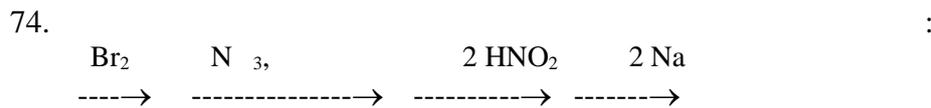
7.

61. -
 a) HCl + PbO₂ =
 b) -1 + K₂Cr₂O₇ + H₂SO₄ = +...



8.





9.

81. $2,24 \text{ (. .)} \cdot \quad 212 \quad 15,0 \%$ (%)

82. $11,2 \text{ (. .)} \cdot \quad (\text{Cu})= 63,5. \quad 100 \quad 16,4 \%$ (%)

83. $6,35 \cdot \quad 206,4 \quad 13,1\%$ (%)

84. $4,48 \text{ (. .)} \cdot \quad 200 \quad 14,9 \%$ (%)

85.		44,8 (. .)	100	16,0 %	(%)
86.		5,6 (. .)	100	18,25 %	(%)
87.		11,2 (. .)	100	33 %	(%)
88.		4,48 (. .)	200	16,4 %	(%)
89.		10,8	50	25,4 %	(%)
90.		22,4 (. .)	100	24,6 %	(%)
10.					
91.	15 ,	4,2		5,04 (. .) (%)	(II)
92.		4,2		3,36 (. .) (%)	(II) 15 ,
93.	20 ,	4,2		3,36 (. .) (%)	(II)
94.		2,8 (. .) (%)		7,35 ,	3,2 .
95.		9,77 .		(%)	11,1 2,0 .
96.	224 (. .) ,	5,15 ,		2,33 .	

		3,31		(%)	
97.					19,05
	400 ⁰		1,12 (. .)		
			114,5 10 %		(%)
98.				4,7	
	4	100		10	
0,466		(%)	1,0 / .		
99.					22,9
	400 ⁰		1,12 (. .)		
			114,5 10 %		(%)
100.					100
	5,37				
	5,0			3,0	
(%)	1,0 / .		22,4 (. .).		



11

11.1.1.

1. $[fH(H_2O(l))]$ $[fH(NH_3(g))]$, $[fH(CO_2(g))]$,
 $[fH(NH_2CONH_2(l))]$.
 2. $NH_3(g) + CO_2(g) \rightarrow (NH_2)_2CO(l) + H_2O(l)$ (1):

3. ?

4. (1), :

	$NH_3(g)$	$(NH_2)_2CO(l)$	$H_2O(l)$
$fH, /$	-46,2	-333,2	-285,8

5. () () 1),
 8,96 17,38 ?

100%.

11.1.2.

$() + 2() = 2() + 2()$ 500° 5,5. ,

1 5 2 ,

2

11.1.3.

SO_2 $(CHCl_3)$ 0,953.

1 . SO_2 , 25% SO_2 ?

11.1.4.

$2C(s) + CO_2 + S_2 = 2CO + CS_2$ 820 K,

0,183, 5 ,

3 C, 5 CO_2 , 6 S_2 , 3 CO 2 CS_2 ?



11

- 11.2.1. 5,6 56,58 ,
10,8 FeO (II) 2,13 .
(II).
- 11.2.2. , 25 ° ? ,
40,6 / .
- 11.2.3. 16,9 435,5 20 %-
(III) ,
(III)
(II) , .
- 11.2.4. φ^0 (Cu²⁺/Cu⁺),
 φ^0_1 (Cu²⁺/Cu) φ^0_2 (Cu⁺/Cu).