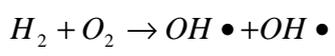
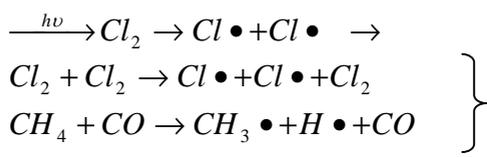
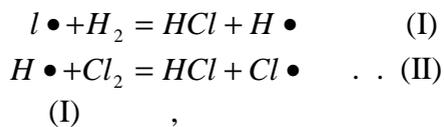


- 1.
- 2.
- 3.

1)



2)

II



$$I : \Delta H_1 = E_{H-H} - E_{H-Cl} = 103 - 102 = +1 ; E_1 = 6$$

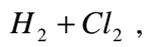
$$II : \Delta H_2 = E_{Cl-Cl} - E_{H-Cl} = 57 - 102 = -45 ; E_2 = 3$$

I

II.

$$E_i + \Delta H_i$$

$$W \approx \exp\left(\frac{-E}{RT}\right),$$



$$-n_0$$

$$- \nu, \quad W = n_0 \nu \quad (1)$$

$$\beta = \frac{1}{\nu} \quad (2)$$

$$W = n_0 \nu = \frac{n_0}{\beta} \quad (3)$$

$$n_0^*$$



$f,$

:

$$\Delta n_+ = fn\Delta t$$

$$(4) \quad (5) \quad \beta$$

$\Delta t:$

$$\Delta n_- = \beta n\Delta t$$

:

$$\frac{dn}{dt} = W_0 + (f - \beta)n \quad (4)$$

$$f - \beta = \delta$$

$$\frac{dn}{dt} = W_0 + \delta n \quad (5)$$

$$f \quad \beta$$

$\beta$

(

$$f - \beta = \delta$$

:

$\delta$

(5)

$$(5) \quad W_0 = const \quad n = n_0 \quad t = 0$$

$$n = \frac{W_0}{\delta} \left[ e^{\delta t} - 1 + \frac{\delta n_0}{W_0} e^{\delta t} \right] \quad (6)$$

$$n_0 = 0 \quad n = \frac{W_0}{\delta} (e^{\delta t} - 1) \quad (7)$$

$$t \rightarrow \infty \quad \delta < 0 \quad n = -\frac{W_0}{\delta} \quad (8)$$

$$\delta \quad 0$$

$\rightarrow \infty$

$$\frac{dn}{dt} \rightarrow \infty \quad t \rightarrow \infty,$$

:

$$W = Vfn = \frac{VfW_0}{\delta} \left[ e^{\delta t} - 1 + \frac{\delta n_0}{W_0} e^{\delta t} \right] \quad (9)$$

V -

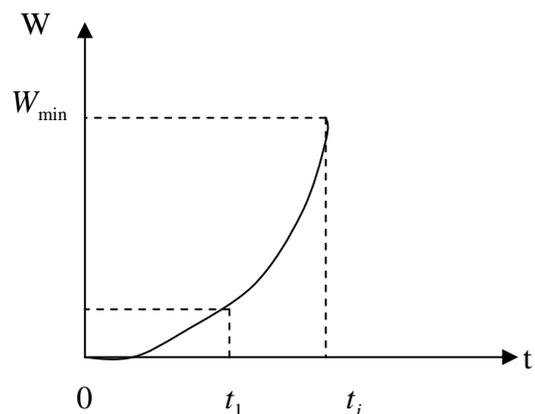
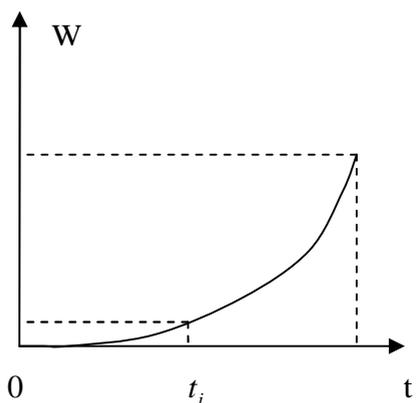
$\delta > 0,$

$W_0$

$t_i.$

$\delta > 0$

. 1 .



)  
. 1.

. 1. .

$t_i$   
 $W_{\min}$

$W_0$

$$W_{\min}, \quad e^{\delta t} \quad t > t_i$$

$$n_0 = 0$$

$$W = V \frac{W_0 f}{\delta} e^{\delta t} \quad (10)$$

$$t_i = \frac{1}{\delta} \ln \frac{W_{\min} \delta}{V W_0 f} \quad (11)$$

$$t_i = \frac{const_1}{\delta} \quad (12)$$

$\delta, \dots f \gg \beta$

$$W \approx V W_0 e^{\delta t}, \quad t_i \approx \frac{1}{\delta} \ln \frac{W_{\min}}{V W_0} \approx const_2 / \delta \quad (13)$$

$\delta$   
 $W_0$   
 $t_i$

2.

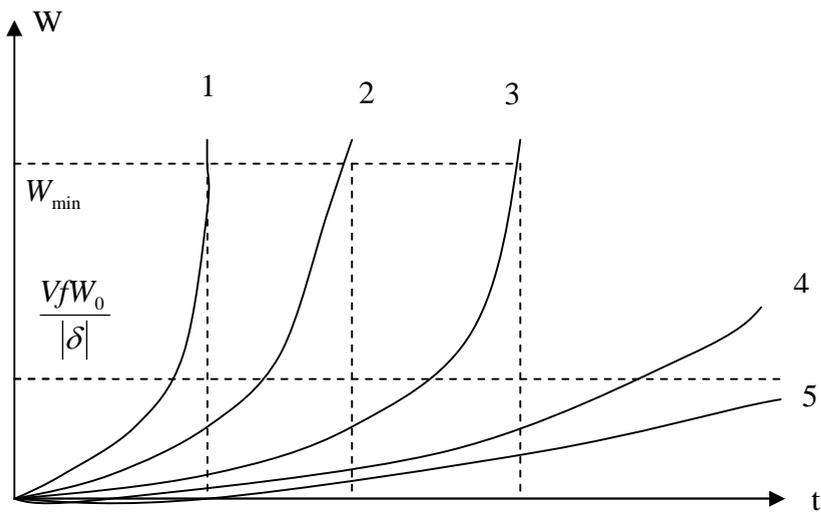
$\delta$   
 $\delta = 0$

( 4),

$$W = V W_0 f t \quad (14)$$

$W_{\min}$

$$t_i = \frac{W_{\min}}{V f W_0} \quad (15)$$



. 2.

$\delta$ .

1-5

$\delta_1 > \delta_2 > \delta_3 > \delta_4 > 0; \delta_5 < 0$

(15)

$\delta < 0$ ,

$$\frac{VfW_0}{|\delta|}$$

(  $W_{min}$  ),  $\delta < 0$

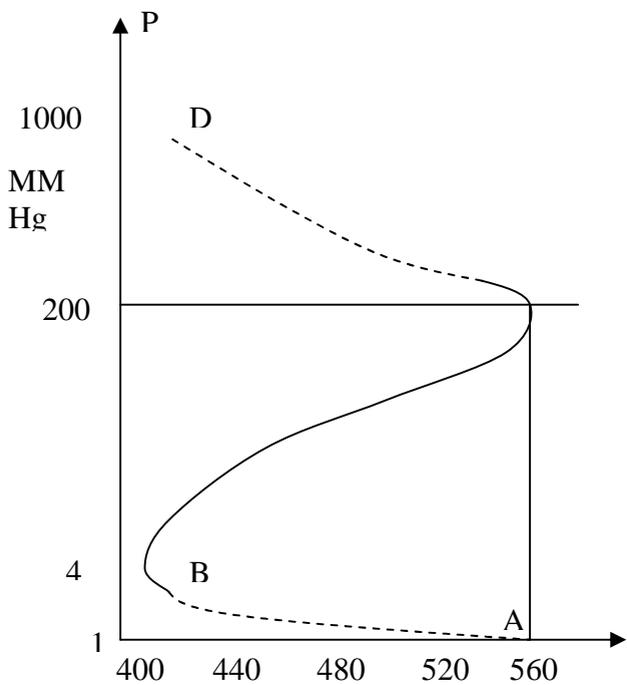
. 3.

$\delta > 0$

$\delta < 0$  ( )-

$\delta < 0$

$\delta > 0$



. 3.

D-

\_\_\_\_\_

( ), «  
 » .3. , D-

(β)

( )

(f = β, δ = 0).

H•,



5,7 \_\_\_\_\_ ,

(57,8 \_\_\_\_\_)  
 $H_2O$

H•



HO<sub>2</sub> ( )

( ) .

HO<sub>2</sub>

HO<sub>2</sub>



(18)- (19)

2.

3.

4.

Вопросы для домашней работы.

1.

2.

3.

4.

5.

$$+ 2 = \frac{+ 2 +}{+ :} - 2 +$$