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 • • , . . , “ ” ( . . ),  
 • • , . . ,  
 . . . ( . . )

**Ag/**

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-

In article made the analysis for matimatical model of modified applied silver catalyts of system Ag/treger of methanal technology on foundation which was made with drawl that speed of desactivation of silver catalyts been straight dependence at temperature of process and from time receipt of methanal.

”). , , - , (“ ,  
 , ,  
 - , -  
 (4 - :  
 ),

2 74 % 69 % [1, 2].

[3].

[4].

[4, 5].

[1]

[3]

I.

“ ”

1.

) [4]

$$v = v_0 \exp(-t/\tau),$$

( :

(1)

$v_0$  :  $v$  — , / · ;  
— , / · ;  
— , ;  $t$  — ,

( $t = S/v_0$ ;  $S = \text{const}$ ).

$m$  , ,

$m$ :

$$m = \dots, \quad (1')$$

: — , ,  
; — , · · ,  $m$ .

$m - m$  ,  $m$  :

$$m - m = m/t, \quad (2')$$

:  $m -$  , ;

$$m - m = m - m/t. \quad (2'')$$

$$m = m \cdot t, \quad -$$

$$: m_a = 0 \quad -$$

· ,

$$v = \frac{1}{m - m/t} \cdot \frac{dm}{d\ddagger}. \quad (3')$$

$m$  , :

$$v = v_0 \cdot \frac{m_a}{m - m/t}, \quad (4')$$

:  $v_0 -$  , / · .

:

$$v = v_0 \cdot \left(1 - \frac{m}{\epsilon_1}\right), \quad (5')$$

:  $v_1 -$  , ·

:

$$\frac{dm}{d\ddagger} = (m - m/t) \cdot V_0 \cdot \left(1 - \frac{m}{\epsilon_1}\right). \quad (4'')$$

(4''), :  $V_0$  , ,

$$m = m_0 [1 - \exp(-t/\tau)], \quad (5'')$$

∴  $m =$

$$\left( \frac{m_0}{m_0 - m(t)} \right) \cdot \frac{m(t)}{m_0};$$

$$t = \frac{m}{(m_0 - m(t))v_0}. \quad (6')$$

$$(6') \quad v_0 =$$

(  
):

$$v_0 = \frac{m}{(m_0 - m(t)) \cdot t}. \quad (7')$$

,

$$m = m_0 \cdot \dots, \quad (8')$$

, (8') (7'), , ∴

$$v_0 = \frac{\epsilon \cdot \ddagger t}{(m_0 - m(t)) \cdot t}, \quad (2)$$

∴  $v_0 =$

$$\frac{m_0}{m_0 - m(t)} \cdot \frac{m(t)}{m_0};$$

, , ; - , ; - , ; - , %.

$$2. \quad \left( \frac{m_0}{m_0 - m(t)} \right), \quad [3],$$

∴

$$E = \frac{\ddagger}{\epsilon}, \quad (3)$$

∴ -

$$\frac{m_0}{m_0 - m(t)}, \quad \frac{m(t)}{m_0};$$

,

$$\frac{m_0}{m_0 - m(t)} \cdot \frac{m(t)}{m_0};$$

$$= \frac{\Delta l}{F_0}, \quad (4)$$

— ;  $F_0$  —  
 ,  $^2$  ;

$$= \frac{\Delta l}{l_0}, \quad (5)$$

— ;  $l$  — , ;  $l_0$  —  
 , .

3.

$$F = \frac{fD^2}{4} = 0,782D^2,$$

F —

,  $^2$ ,

$$(3) \quad (4) \quad (5),$$

:

$$E = \frac{(m - m/t) \cdot l_0}{F \cdot \Delta l}, [ / ^2]. \quad (6)$$

(6) m :

$$m - m/t = \frac{E \cdot F_0 \cdot \Delta l}{l_0}. \quad (7)$$

(5) (2),

:

$$v_0 = \frac{m}{E \cdot F_0 \cdot \lambda \cdot t} \quad (8)$$

$$(8) \quad (1),$$

$$v = \frac{\epsilon}{E \cdot F_0 \cdot \lambda \cdot t} \cdot \exp(-\frac{1}{t}). \quad (9)$$

$$(9)$$

## II.

$$\frac{P}{F} = E \frac{\Delta l}{l}, \quad (10)$$

E –

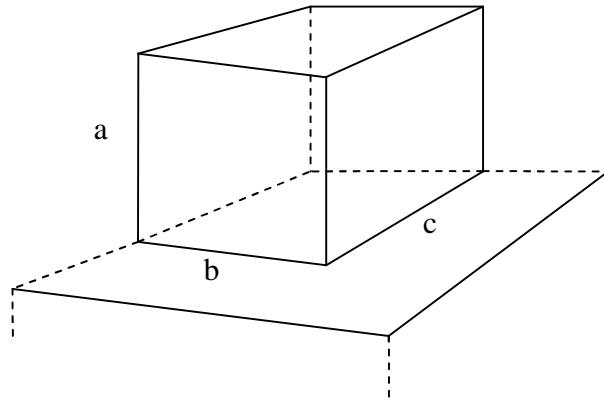
$$(53,5 = 53,5 \cdot 10^{-9})$$

$$a \cdot b \cdot c = 53,5 \cdot 10^{-9}$$

$$F = b \cdot c = 53,5 \cdot 10^{-9} = 2862,25 \cdot 10^{-18} = 2,9 \cdot 10^{-15}. \quad (12)$$

$$= (a \cdot b) \cdot 2 + (a \cdot c) \cdot 2 + (b \cdot c). \quad (11)$$

$$= (53,5 \cdot 10^{-9})^2 \cdot 2 + (53,5 \cdot 10^{-9})^2 \cdot 2 + (53,5 \cdot 10^{-9})^2 \cdot 1,4 \cdot 10^{-14} \text{ ( } ^2 \text{ )}.$$



. 1.

:

$$m \cdot g = P \Rightarrow P = V \cdot \rho \cdot g = (53,5 \cdot 10^{-9})^3 [ \text{ } ^3 ] \cdot 10,5 \cdot 10^3 \frac{\text{kg}}{\text{m}^3} \cdot 9,81 = 1,58 \cdot 10^{-17} \text{ . .}$$

$$\frac{\Delta l}{l} \quad \frac{\Delta l}{l} [2]:$$

$$\frac{\Delta l}{l} = \frac{l - l}{l_y} = \frac{a - a}{a_y} \quad (13)$$

, , "a" , "b" "c" - .

$$S_{Ag} \quad [2]$$

( = 2880 ; ( ) = 0 %), :

$$\frac{a - a}{a_y} = \frac{53,5 \cdot 10^{-9} - a}{53,5 \cdot 10^{-9}} = 3,95 \cdot 10^{-4} \Rightarrow 53,5 \cdot 10^{-9} - 211,3 \cdot 10^{-13} =$$

$$= 53,5 \cdot 10^{-9} - 0,021 \cdot 10^{-9} = 53,48 \cdot 10^{-9} \text{ ( } ^9 \text{ )}.$$

a , :

$$b = \frac{V}{a \cdot c} = \frac{1,531 \cdot 10^{-22}}{53,48 \cdot 10^{-9} \cdot 53,5 \cdot 10^{-9}} = 53,51 \cdot 10^{-9} \text{ ( } ^9 \text{ )}.$$

:

$$S_{Ag}^k = (53,48 \cdot 10^{-9} \cdot 53,51 \cdot 10^{-9}) \cdot 2 + (53,48 \cdot 10^{-9} \cdot 53,5 \cdot 10^{-9}) \cdot 2 + 53,51 \cdot 10^{-9} \cdot 53,5 \cdot 10^{-9} = 14308,57 \cdot 10^{-18}.$$

:

$$S_{Ag} = (14311,25 - 14308,57) \cdot 10^{-18} = 2,67 \cdot 10^{-18} \text{ (}^2\text{)},$$

0,019 %.

$$\frac{\Delta l}{l}$$

$$( \cdot 1)$$

2 1.

$$= 2880$$

*b.*

$$S_{Ag}^2 = (a \cdot b) \cdot 2 \cdot 2 + (a \cdot ) \cdot 2 + (b \cdot ) \cdot 2 \cdot 2. \tag{14}$$

2,

2,

$$S_{Ag}^2 = (53,48 \cdot 10^{-9} \cdot 53,51 \cdot 10^{-9}) \cdot 4 + (53,48 - 53,5) \cdot 10^{-18} \cdot 2 + (53,51 \cdot 10^{-9} \cdot 53,5 \cdot 10^{-9}) \cdot 4 = 2,862 \cdot 10^{-4} \text{ (}^2\text{)}$$

$$3,22 \cdot 10^{-18} \text{ }^2 \text{ ( } 0,012 \text{ \% ).}$$



$$m_{Ag} = n \cdot m_{Ag}, \quad (15)$$

$$m_{Ag} - ; m_{Ag} -$$

, ,

( )

$$S_0 = n \cdot S_i; F_0 = n \cdot F.$$

$$= \frac{\Delta l}{\Delta l_0} = \frac{\Delta a}{\Delta a_0}. \quad (16)$$

:

$$= \frac{F_0}{F}.$$

$$(2) \quad (16),$$

:

$$v_0 = \frac{m}{E_0 F_0 \chi t}, [ / \cdot ], \quad (17)$$

$$F_0 - , ^2;$$

:

$$v = \frac{m}{E F_0 \chi t} \exp(-\dagger / \cdot t), [ / \cdot ].$$

. 2

50 ÷ 100° ( - 1 ÷ 2 , 550 ÷ 600 650 ÷ 700° ).