

536.24:697.1

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The question of creation of individual insulating complete sets is considered for the workers of AES. A mathematical model is offered and results of design of change of temperature of body of worker during work in insulating clothes.

Key words: insulating complete, mathematical model

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International Atomic Energy Agency [1]
 [2]

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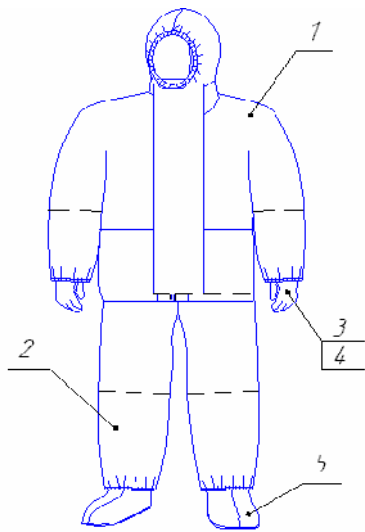
. - ,
 : , ,
 , ,
 - .
 , - .
 . - ,
 . ,
 : (,), (),
 (. 1), () .

[3].

1.

	, / ³	, %
-70	1,41	100
	0,98	43,0
-750	1,0	2,12
	0,96	1,56
-16	1,67	1,67
	0,50	0,50

:
 , ;
 ;
 ;
 ” (. 1).
 - 1,85 , - 3 .
 , - 20000 (/ ²),
 (, ,).
 - - ,



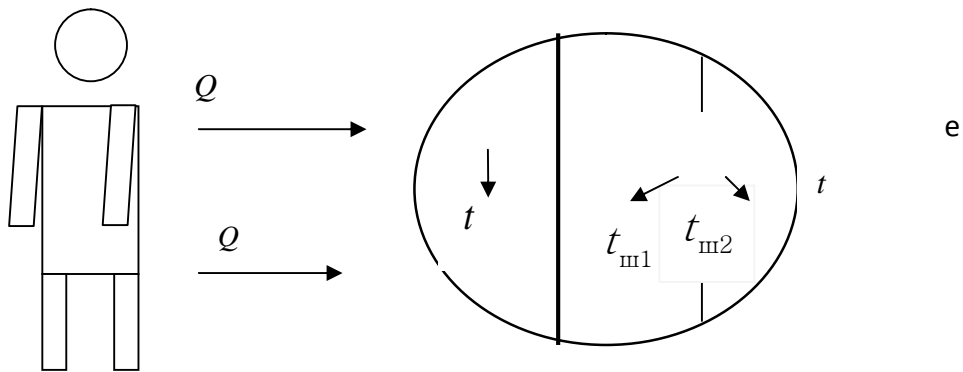
1.
: 1 - ; 2 - ; 3 -
; 4 - - ; 5 -
() -

1720 / [4].

: 38,5...38,8 ° ;
670...840 ;

[5, 6] -

t_1 ;
 t_2 (2).

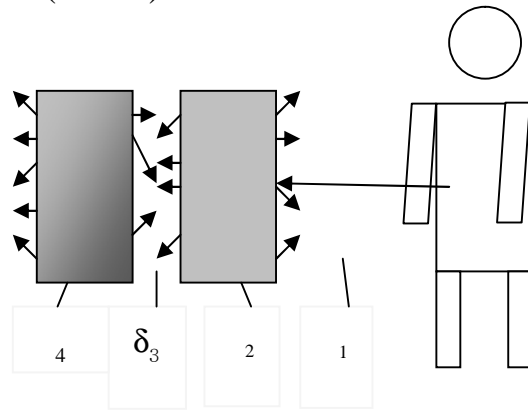


.2.

Q
 Q

– 20 % 50 % [7].

(. 3).



. 3.

: 1– ; 2–
; 3– ; 4–

m

t

$$m \frac{dt}{d} = \tilde{v}_1 + \frac{1}{R} (- 1) + \frac{1}{R} (- 2) + \tilde{v}_2, \quad (1)$$

Q_{v1}

; R – , , ,
, ° / ,

$$R = \frac{t - t_2}{Q}. \quad (2)$$

[4] (2)

R (. 2).

2.

R

	Q ,	t , °	t_2 , °	R , ° /
	100...150	37,2	31,5	0,057...0,046
	150...230	37,4	30,5	0,046...0,038
	230...350	37,8	29,0	0,038...0,031
	350...700	38,1	27,5	0,031...0,018

Q ,

$$Q = G \cdot [m (100\% - w) \cdot r + p (-)], \quad (3)$$

G - , 1^3 , $/^3$; r - $^3/c$; m - , $/^{\circ}$; w - , $\%$; - , $/^{\circ}$; - , $/^3$. () $m_1 m_2$, $t_1 t_2$

$$m_1 \frac{dt_1}{d\tau} = \frac{1}{R} (t - t) + \frac{1}{R_1} (t - t); \quad (4)$$

$$m_2 \frac{dt_2}{d\tau} = \frac{1}{R} (t - t) + \frac{1}{R} (t - t), \quad (5)$$

R_1 -

t_1 ; R -

[8].

(1)-(5)

[9],

F

$$F = \left\{ \sum_{j=1}^n [t_j () -]^2 / \right\}^{0,5},$$

t_j -

; t_j -

; n -

16 ° ,

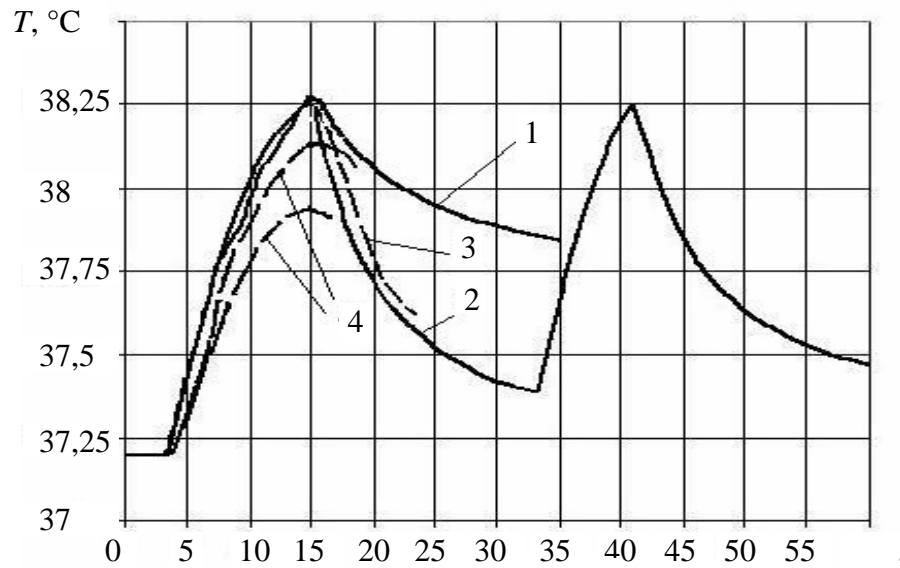
83 % ,

10

15

30

(. 4).



. 4. t : 1, 4 -
; 2 - ; 3 -

(1)–(5),
: $m = 26,24$, $m_1 = 27,17$, $m_2 = 8,76$,
 $m_1 = 6,9$,
 $m_3 = 12,3$.

. 4 ,

1.

2.

3.

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