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Reasons of collapsing processes intensification in loess soils when moistening them with the high-temperature water are considered.

Key words: collapsible soils, water temperature for moistening, moisture conductivity, depth of moistening.

• 70 %

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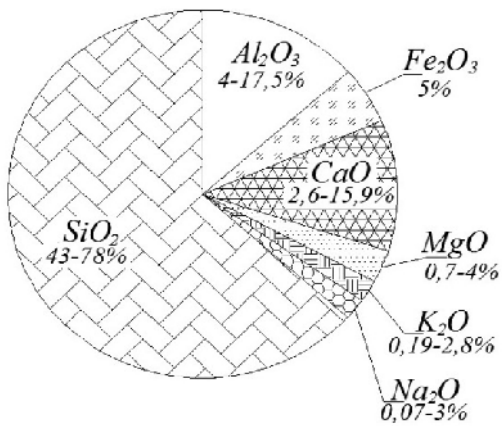
, • ,
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[1].

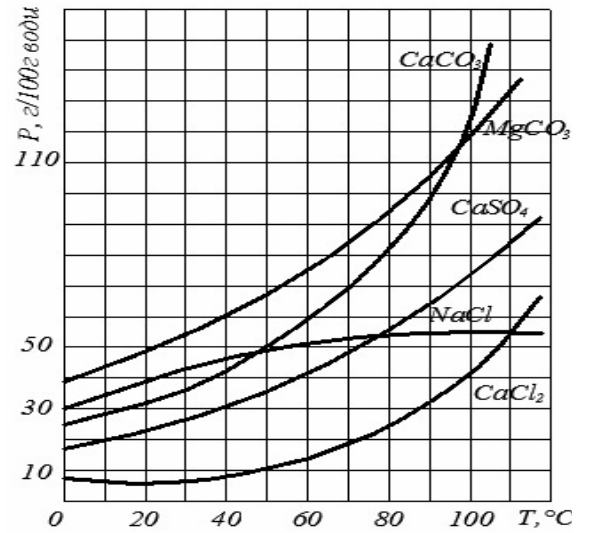
0,5 ,

, [1]. , , -

. 1.



. 1.



. 2.

$CaCO_3$, $CaCO_3 \cdot MgCO_3$, $CaSO_4 \cdot 2H_2O$, $CaSO_4$,
 $Na_2O \cdot Al_2O_3 \cdot 6SiO_2$, $K_2O \cdot Al_2O_3 \cdot 6SiO_2$,
 $NaCl$, KCl , $CaCl_2$, $CaO \cdot Al_2O_3 \cdot 2SiO_2$

$CaCl_2$, $NaCl$, KCl , $CaCO_3$, $CaSO_4$,

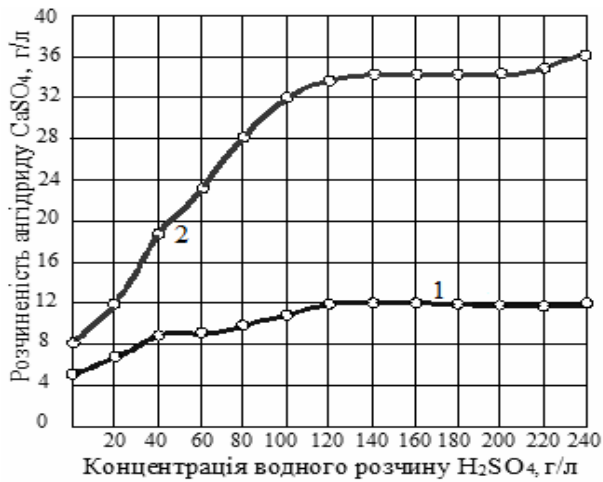
. 2.

HCl, : NaCl, KCl, CaCl₂, MgCl₂,
H₂SO₄, : NaOH, SO₃, CO₂, PO₃ . .
NaCl, NaCO₃, CaCl₂
HCl, H₂SO₄, H₃PO₄,

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20 °C

H₂SO₄ (. 3, 4).



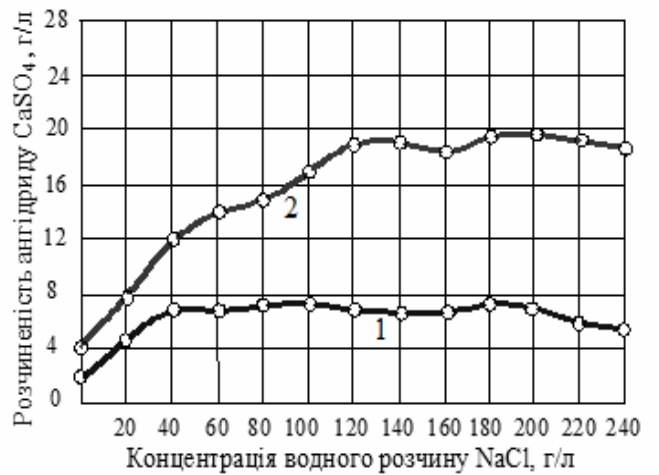
. 3.

20 °

(1) 50 ° (2)

H₂SO₄

50 °C



. 4.

NaCl

20 ° (1) 50 ° (2)

. 3, 4 , 50 ° 2,8...4

[2].

II . . 1

20...80 ° ,

$$: Q_T = \frac{k_w^{T_{cp}}}{k_w^{20^{\circ}C_{cp}}}$$

1.

	$k_w^T, /$			
	$T = 20^{\circ}C$	$T = 40^{\circ}C$	$T = 60^{\circ}C$	$T = 80^{\circ}C$
1	1,86	2,85	3,22	3,86
2	1,94	2,76	3,56	3,78
3	2,06	2,90	3,86	3,76
4	2,03	2,92	3,68	3,62
5	1,98	2,95	3,32	3,84
$, /$				
$k_w^{T_{cp}},$	1,97	2,88	3,53	3,77
$, /$				
	1,0	1,46	1,79	1,91

= 80 ° , 3,77 / ,

$$k_w^T :$$

$$k_w^T = k_w^{20^{\circ}C} \cdot T = k_w^{20^{\circ}C} \cdot (-0,000001667T^3 + 0,000037T^2 + 0,0254T + 0,49).$$

. 2.

$$T = \frac{y_0^T}{y_0^{20^\circ}} \cdot 2$$

2.

	/					
	T					
	t,					
	t = 1	t = 2	t = 5	t = 9	t = 14	t = 22
= 20°	2,02 / 1,0	3,14 / 1,0	5,86 / 1,0	8,99 / 1,0	12,57 / 1,0	17,93 / 1,0
= 40°	2,73 / 1,35	4,24 / 1,35	7,92 / 1,34	12,13 / 1,35	16,97 / 1,35	24,21 / 1,35
= 60°	3,13 / 1,55	4,87 / 1,54	9,09 / 1,55	13,93 / 1,55	19,48 / 1,55	27,79 / 1,55
= 80°	3,53 / 1,75	5,49 / 1,75	10,26 / 1,75	15,73 / 1,75	22,0 / 1,75	31,38 / 1,75

1,75

20 80° .

:

$$y_0^T = y_0^{20^\circ C} \cdot T = y_0^{20^\circ C} (0,000003125T^3 - 0,000563T^2 + 0,0425T + 0,35).$$

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1. . . . / . . . //
 - „ - 2008. - . 20. - . 229-232.
 2. . . . / . . . // „ ”. „ ”.
- 2011. - . 20. - . 17-20.

03.10.2012 .

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