

• • , • • • , • • • , • • • ,
 • • , • • • , «
 - »,
 • • , • • • , « »

SiO₂ (1200). , BaO, MgO, Al₂O₃
 e
 (84,8 %) (79 %),
 3 . % ,
 -

This work is devoted the elaboration of compositions non-fritted opaque zircon glazes for think-ceramic goods low-temperature firing (1200°C). The influence of additions , BaO, MgO, Al₂O₃ and SiO₂ on the optical characteristics of glazes was studied. The possibility to obtain the glass-covering with high indexes of whiteness (84.8 %) and shine (79 %) was proved. This covering is non contain the ZnO, which is expensive and harmful component. The effective role of replacement the CaO to 3 mas.% on the composition SiO₂ with BaO was established. The results of this work may be used in the production of goods sanitary and domestic purpose.

-
 -
 . -
 -
 , -
 -
 200 – 400 . -
 , (ZrSiO₄)
 (ZrO₂) [1]. , -
 , -
 (ZnO),

. 1.

-3,

4,5 – 10 %

1

	« »				BaO	MgO	(), %	(), %
	1	2	3					
0*	0	0	0	0	0	0	79,5	69,0
1	1	0	0	1,5	0	0	69,9	65,0
2	0,5	0,5	0	0,75	0,75	0	69,6	68,0
3	0	1	0	0	1,5	0	74,1	69,0
4	0	0,5	0,5	0	0,75	0,75	74,4	68,0
5	0	0	1	0	0	1,5	75,0	64,0
6	0,5	0	0,5	0,75	0	0,75	72,8	69,0
7	0,333	0,333	0,333	0,5	0,5	0,5	72,2	69,0

*

(1)

69,9 %, -

65,0 %.

(3, 4)

() 74,1 69,0 %

MgO

(5),

1,5 . %

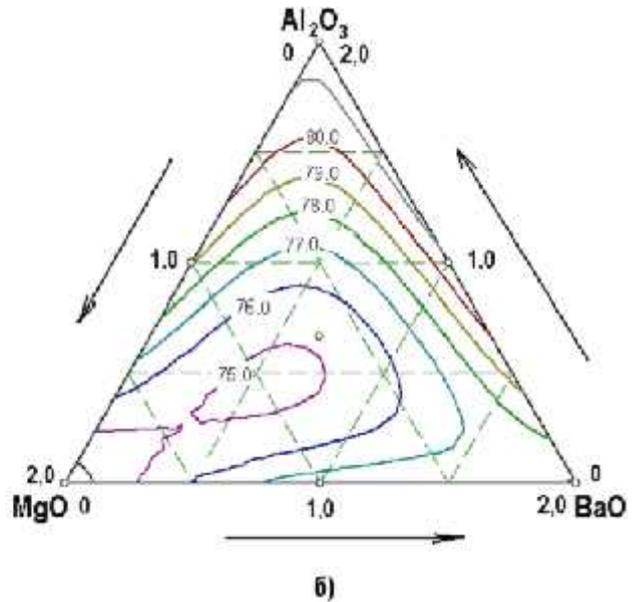
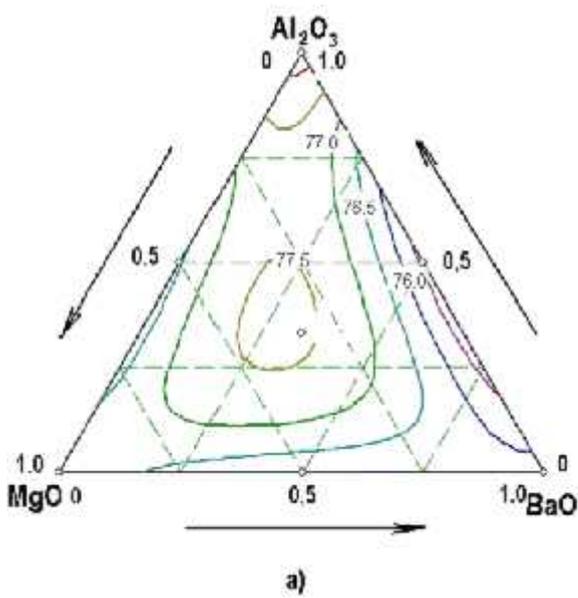
75,0 %.

64,0 %, , -

: MgO > BaO > CaO.

[1],

. 1 2.



. 1.

— 1 .%

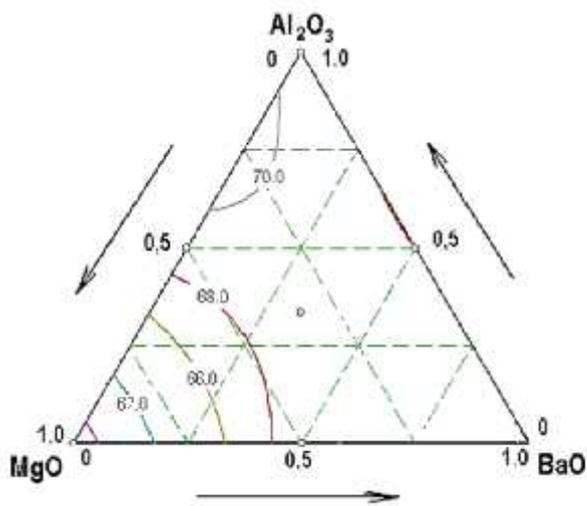
; — 2 .%

(1 – 2 .%)

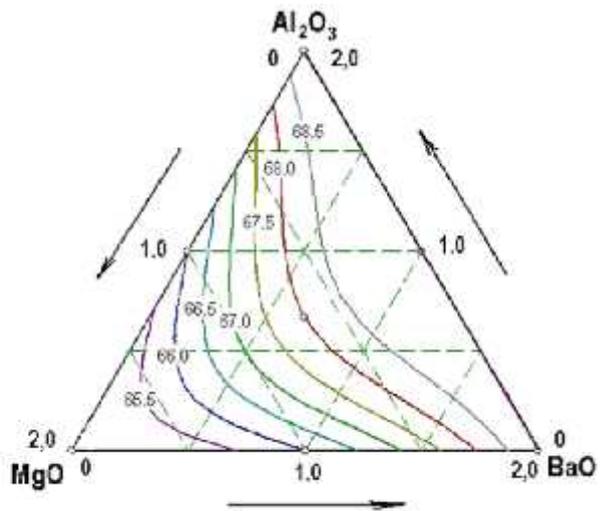
(= 74,0 %),

2 .%

78,4 – 80,9 %.



a)



b)

.2.

– 1 .%

; – 2 .%

:

, Al₂O₃.

-

[1].

64,0 69 %.

79,1 80,9 %

(.1),

73,3 – 77,6 %.

64,0

58,0 %

, 2 % MgO

(.2).

Al₂O₃

2 .%

1,5 – 2 %.

3 .%

1:1

[7]

(3 .%)

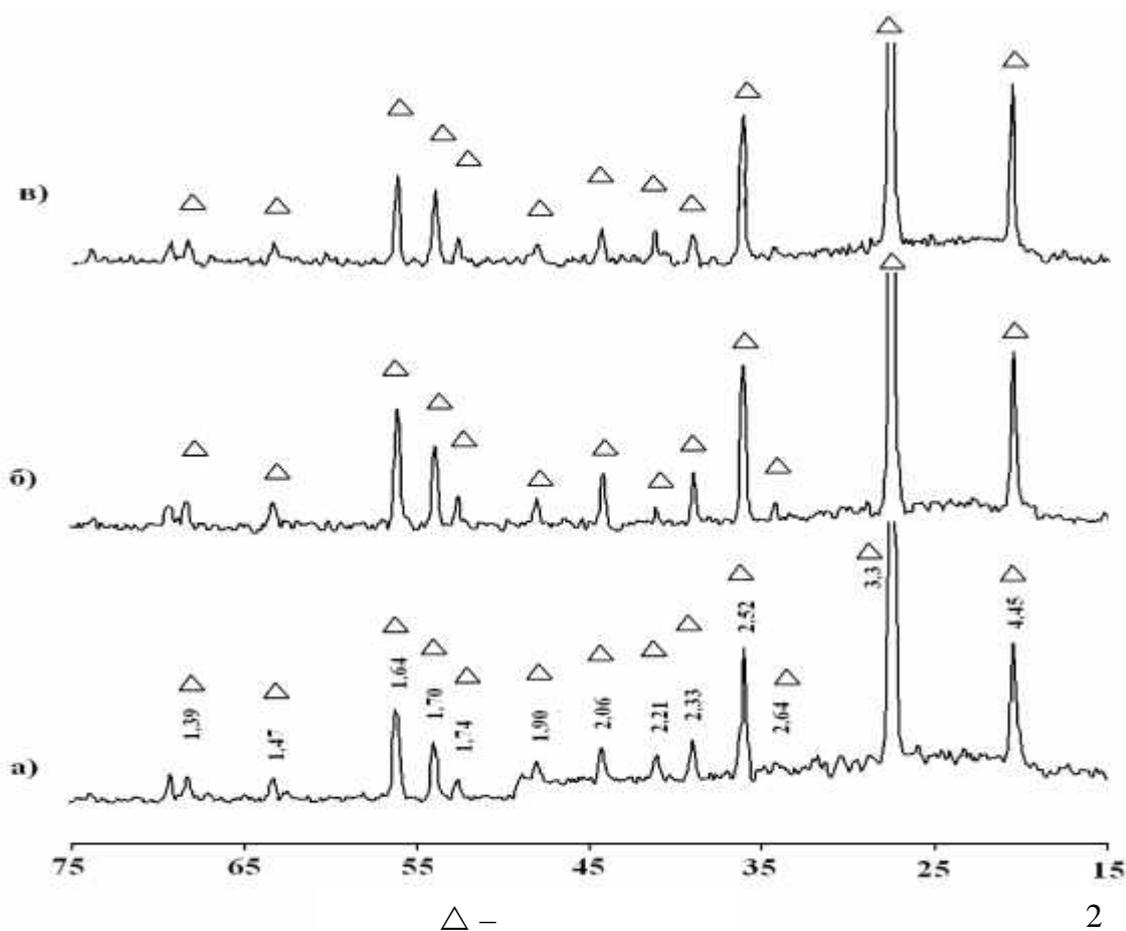
(= 82,32 – 84,82 %),

81,84 – 83,22 %.

67 – 69 %.

1200 °

(.3)



.3.

Al₂O₃ ()

: 3 %

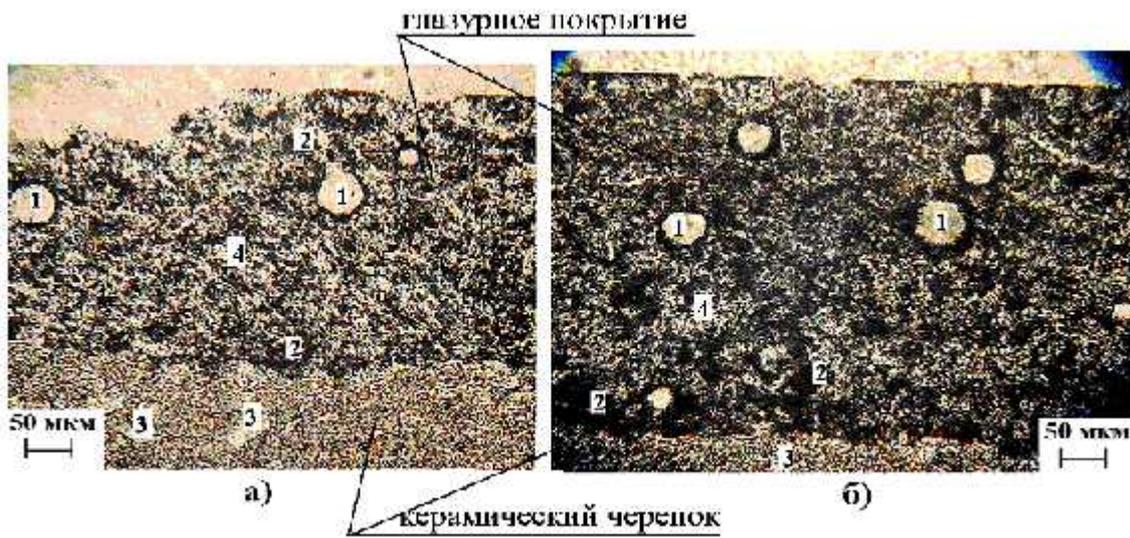
(), SiO₂ ()

3 %

2,52).

($ZrSiO_4$),
($d = 4,42; 3,3;$

CARLZEISS JENA NU-2 (. 4).



1-поры, 2-циркон, 3-зерна кварца, 4-стеклофаза

. 4.

(. 4)
3 %
 Al_2O_3

(3 . %)

(84,82 %),

- 2. : 1. . . . - . : . , - 1973. - 192 .
- // . - 2005. - 7. - . 21-24. 3. . . . , . ,
- . - : . , 1975. - 351 . 4. . . .
- // - 2000. - 7. - . 14-16. 5. . . .
- . - : . , 1970. - 539 . 6. . . .
- 7. . . . - . : . - 1974. - 352 .

24.09.07

668.98

. . . , . . . , . . . , . . . , . . .

Studied has been the of concrete factors on quality and uniformity indices when vertically forming the members cjncrene consructions. The complexes of experimental-statistical models have been built desribing the effects of modifying additives and aggregates on uniformity of strength.