

• • , , • • , — , ,
 • • , • • , • • , « »

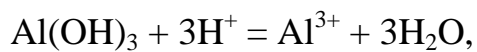
(SiO₂)
 – Al – ZrO(NO₃)₂.
 32 40 , -
 -32.

The influence of kind of ethyl silicate as SiO₂-precursor on modified fillers synthesis in ETS – Al – ZrO(NO₃)₂ system has been studied. It is researched the mechanism of sol-gel compositions ageing which are prepared using ethyl silicate-32. It is shown that the seasonable kind of ethyl silicate for the fine ceramic powder preparation is ETS-32.

SiO₂ , • -
 Si(O₂ 5)₄ , -
 -32 , ().
 -40, -
 -32 ,
 85 % -40 70 %.
 - Al – ZrO(NO₃)₂ -

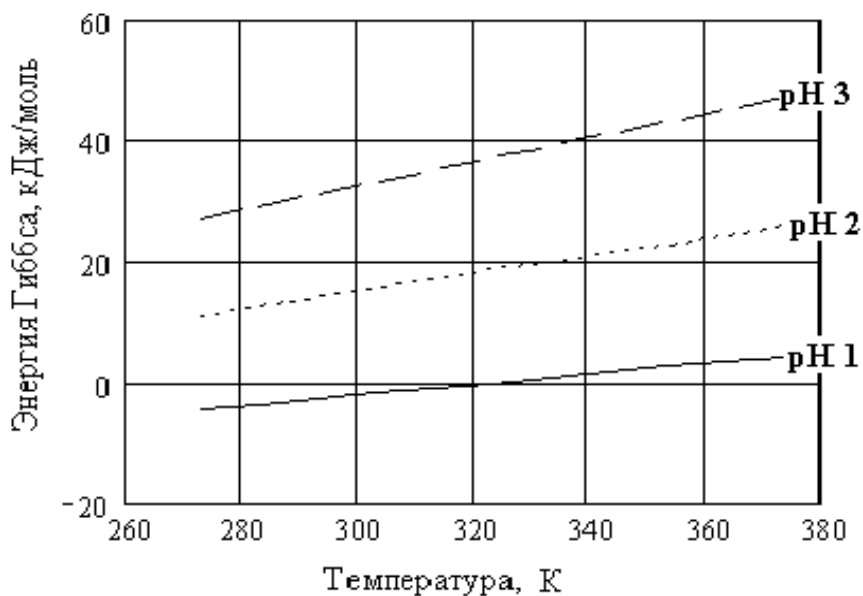
[1].

-40



[2, 3]
(Al^{3+}).

(, $273 - 373^\circ$) , $\Delta G < 0$)
 Al^{3+}
303 = 1
= 0,426 / ,
=



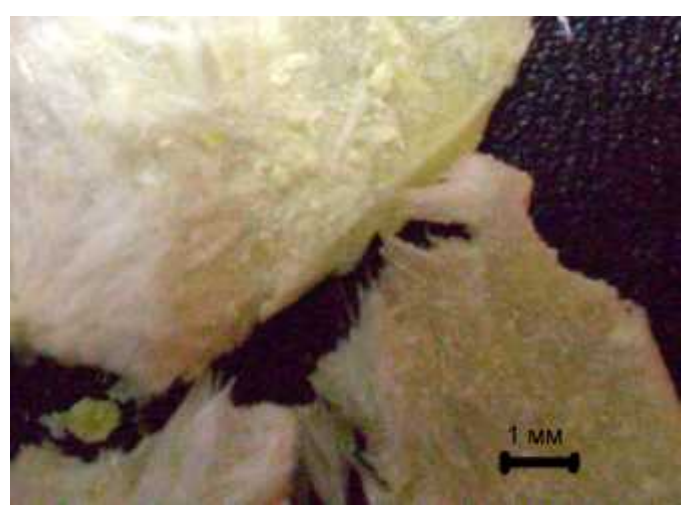
. 1. (273 – 383)

(/)

	, /	,										
		273	283	293	303	313	323	333	343	353	363	373
1	>>	4	6	7	8	9	10	12	13	14	15	16
	=	-5	-4	-3	-2	-1	0	1	2	3	3	4
	<<	-126	-130	-134	-137	-141	-144	-148	-151	-155	-159	-162
2	>>	20	22	24	25	27	29	31	32	34	36	38
	=	11	13	14	15	17	18	20	21	23	24	26
	<<	-111	-114	-117	-120	-123	-126	-129	-132	-135	-138	-141
3	>>	36	38	40	43	45	47	50	52	55	57	59
	=	27	29	31	33	35	37	39	41	43	45	47
	<<	-95	-97	-100	-102	-105	-107	-110	-112	-114	-117	-119
4	>>	51	54	57	60	63	66	69	72	75	78	81
	=	42	45	48	50	53	56	58	61	63	66	69
	<<	-79	-81	-83	-85	-87	-89	-90	-92	-94	-96	-98
5	>>	67	71	74	78	81	85	88	92	95	99	102
	=	58	61	65	68	71	74	77	80	84	87	90
	<<	-64	-65	-66	-67	-69	-70	-71	-73	-74	-75	-76
6	>>	83	87	91	95	99	103	107	111	115	119	124
	=	74	78	81	85	89	93	96	100	104	108	111
	<<	-48	-49	-49	-50	-51	-51	-52	-53	-54	-54	-55
7	>>	98	103	108	112	117	122	126	131	136	140	145
	=	90	94	98	103	107	111	116	120	124	129	133
	<<	-32	-32	-33	-33	-33	-33	-33	-33	-33	-33	-34
8	>>	114	119	125	130	135	140	145	151	156	161	166
	=	105	110	115	120	125	130	135	140	144	149	154
	<<	-17	-16	-16	-15	-15	-14	-14	-13	-13	-13	-12
9	>>	130	136	141	147	153	159	165	170	176	182	188
	=	121	126	132	137	143	148	154	159	165	170	176
	<<	-1	0	1	2	3	4	5	6	7	8	9
10	>>	145	152	158	165	171	177	184	190	196	203	209
	=	137	143	149	155	161	167	173	179	185	191	197
	<<	15	16	18	20	21	23	24	26	28	29	31
11	>>	161	168	175	182	189	196	203	210	217	224	231
	=	152	159	166	172	179	185	192	199	205	212	219
	<<	30	33	35	37	39	41	43	46	48	50	52

Al^{3+}
 $= 1,$
 $Al^{3+} = Al()^{3+}$
 -40

(.2),



.2.

-32 40
 40
 5, 6 3,4.
 1,16 %
 100 . %,
 0,8 %.
 -40,
 -32
 -40,
 85 %
 40 70 %.
 [4],
 32 40 3 1 -

= 1

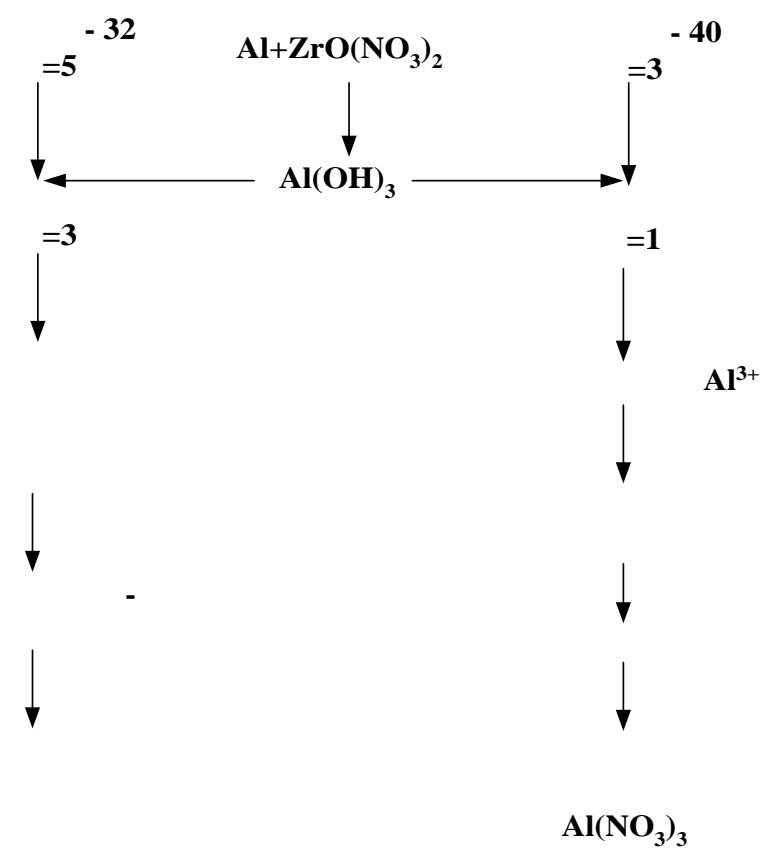
(),

-

-32 40

3.

(.3),



.3.

-

-32

-40

Si

, . .
 .
 ,
 , , -
 40 -
 Al – ZrO(NO₃)₂ – , , -
 . , -32 -
 = 3
 , -
 , -
 .

: **1.** . 27899 , ⁷ 04 35/18
 : . 27899 , ⁷ 04 35/18. . . . ;
 “ ”:– 200703374; . 04.04.2007; . 26.11.2007; . 19. **2.** . . -
 . – : , 1989. – 316 . **3.**
 : 6 . – . : , 1965. – .3: . – 1008 . **4.** -

 - // . « » – 1996.
 - 1 – 2. – . 27 – 29.

13.05.08