COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Sodium chloride; NaCl; [7647-14-5] (3) Water; H_2O; [7732-18-5]	Obukhov, A.P; Mikhailova, M.N. *Zh. Prikl. Khim.* 1935, *8*, 1148-51.
VARIABLES: Two temperatures: 25 and 105°C Composition	**PREPARED BY:** J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the Na_3PO_4-NaCl-H_2O system.

Na_3PO_4			NaCl			
mass %	mol %	mol/kg[a]	mass %	mol %	mol/kg[a]	solid phase[b]
			temp. = 25°C.			
13.40	1.67	0.94	----	----	----	A
9.51	1.15	0.65	2.00	0.68	0.39	"
7.24	0.87	0.49	3.48	1.17	0.67	"
5.14	0.61	0.35	6.12	2.06	1.18	"
4.70	0.57	0.32	7.45	2.53	1.45	"
4.28	0.53	0.30	10.44	3.61	2.09	"
3.07	0.38	0.22	12.50	4.34	2.53	"
2.32	0.29	0.18	17.05	6.09	3.62	"
1.96	0.26	0.16	21.92	8.12	4.93	"
1.90	0.25	0.16	25.26	9.62	5.93	A + C
0.95	0.12	0.08	25.76	9.75	6.01	C
----	----	----	26.40	9.94	6.14	"

(continued on next page)

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Isothermal method using an oil thermostat. The mixtures were equilibrated for 2-3 hours at 25° and for 30 min at 105°C. At 105°C the samples of saturated solution were drawn into glass tubes and allowed to solidify. The tubes were then weighed and the samples were washed out and analyzed. P_2O_5 was determined gravimetrically using the method of Schmitz (no reference is given). Chloride was determined by the Volhard method. The composition of the solid phases was determined by Schreinemakers' method.	Nothing given.
	ESTIMATED ERROR: Nothing given.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4, [76-54-9]	Obukhov, A.P., Mikhailova M.N.
(2) Sodium chloride; NaCl, [7647-14-5]	*Zh. Prikl. Khim.* 1935, *8*, 1148-51.
(3) Water, H_2O, [7732-18-5]	

EXPERIMENTAL VALUES cont'd:

Composition of saturated solutions in the Na_3PO_4-NaCl-H_2O system.

Na_3PO_4			NaCl			
mass %	mol %	mol/kg[a]	mass %	mol %	mol/kg[a]	solid phase[b]
temp. = 105°C.						
49.7.	9.78	6.01	----	----	----	B
44.50	8.33	5.11	2.56	1.34	0.83	"
43.35	8.03	4.93	3.15	1.63	1.01	"
39.70	7.26	4.50	6.67	3.42	2.13	"
37.33	6.67	4.13	7.75	3.89	2.41	"
35.75	6.29	3.89	8.40	4.15	2.57	"
34.62	6.09	3.80	9.95	4.91	3.07	B + C
33.89	5.93	3.69	10.30	5.06	3.16	C
21.72	3.43	2.13	16.27	7.21	4.49	"
14.60	2.19	1.36	20.08	8.46	5.26	"
10.78	1.57	0.98	22.23	9.12	5.68	"
3.30	0.46	0.28	26.51	10.37	6.46	"
1.31	0.18	0.11	27.65	10.68	6.66	"
-----	----	----	28.25	10.81	6.74	"

[a] These values were calculated by the compiler.

[b] The solid phases are: A = $Na_3PO_4 \cdot 12H_2O$; B = Na_3PO_4; C = NaCl.

COMMENT: According to the authors, the most concentrated solutions of Na_3PO_4 did attack the glass of the vessels containing the mixtures.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Disodium sulfate; Na_2SO_4; [7757-82-6] (3) Water; H_2O; [7732-18-5]	Schroeder, W.C.; Berk, A.A.; Gabriel, A. *J. Am. Chem. Soc.* 1937, 59, 1783-90.
VARIABLES: Composition at temperatures of 150° to 350°C.	**PREPARED BY:** J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the Na_3PO_4-Na_2SO_4-H_2O system.

Na_3PO_4			Na_2SO_4			H_2O
g/100g H_2O	mass%[a]	mol/kg[a]	g/100g H_2O	mass%[a]	mol/kg[a]	mass%[a]
			temp. = 150°C.			
3.1	2.35	0.21	41.5	28.70	2.93	68.95
6.1	4.56	0.41	40.6	27.67	2.88	67.76
9.0	6.63	0.61	39.8	26.75	2.83	66.62
11.9	8.64	0.80	39.1	25.89	2.78	65.47
15.4	10.97	1.04	38.4	24.97	2.74	64.06
21.4	14.77	1.46	37.2	23.46	2.67	61.77
30.5	20.14	2.08	34.6	20.96	2.50	58.90
40.6	25.57	2.77	31.2	18.16	2.27	56.27
51.7	30.97	3.51	27.3	15.25	2.00	53.78
57.4	33.56	3.87	24.9	13.66	1.82	52.78
60.8	35.20	4.06	21.8	11.94	1.59	52.86
65.9	37.28	4.38	20.2	10.85	1.47	51.86
70.9	39.33	4.67	17.7	9.38	1.29	51.29
69.7	39.36	4.50	13.5	7.37	0.97	53.27
67.4	38.65	4.33	12.6	7.00	0.90	54.35
69.4	40.08	4.35	6.6	3.75	0.47	56.17
70.7	41.02	4.36	2.9	1.67	0.20	57.31
74.9	42.58	4.60	1.8	1.02	0.13	56.40
76.5	42.90	4.73	3.3	1.84	0.23	55.27
80.0	44.04	4.94	3.0	1.64	0.21	54.32
79.8	44.26	4.88	0.9	0.50	0.06	55.24

(continued next page)

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A self constructed high temperature solubility bomb was used. Samples were taken at the operating temperature. The time allowed for equilibration is not specified. Phosphate determinations were made by a colorimetric method using aminonaphtholsulfonic acid (1). Sulfate was determined gravimetrically as $BaSO_4$. Care was taken to avoid adsorption of phosphate.

SOURCE AND PURITY OF MATERIALS:

Merck chemically pure $Na_3PO_4 \cdot 12H_2O$ was used. If necessary, the dodecahydrate was dried at 120°C to give approximately the monohydrate or it was recrystallized at 250°C to give the anhydrous salt. No other details are given.

ESTIMATED ERROR:

The error in the phosphate determination is less than 1%. No other details are given.

REFERENCES:

1. Fiske, C.H.; Subbarow, J.T. *J. Biol. Chem.* 1925, *66*, 375.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9]	Schroeder, W.C.; Berk, A.A.; Gabriel, A.
(2) Disodium sulfate, Na_2SO_4; [7757-82-6]	*J. Am. Chem. Soc.* 1937, 59, 1783-90.
(3) Water, H_2O, [7732-18-5]	

EXPERIMENTAL VALUES cont'd:

Composition of saturated solutions in the Na_3PO_4-Na_2SO_4-H_2O system.

Na_3PO_4			Na_2SO_4			H_2O
g/100g H_2O	mass%[a]	mol/kg[a]	g/100g H_2O	mass%[a]	mol/kg[a]	mass%[a]
			temp. = 200°C.			
2.9	2.18	0.20	44.6	30.24	3.15	67.58
5.8	4.28	0.40	44.9	29.79	3.18	65.93
10.0	7.18	0.69	45.6	29.30	3.25	63.52
15.1	10.50	1.05	46.2	28.64	3.31	60.85
22.2	14.79	1.57	47.2	27.86	3.42	57.34
17.9	12.27	1.25	45.8	27.98	3.30	59.75
17.8	12.24	1.24	44.9	27.60	3.23	60.16
20.1	13.70	1.40	43.6	26.63	3.14	59.67
20.5	13.93	1.43	43.8	26.66	3.16	59.41
19.3	13.46	1.31	37.8	24.06	2.71	62.48
20.3	14.10	1.38	37.3	23.67	2.68	62.23
22.5	15.87	1.49	29.2	19.25	2.09	64.88
23.7	16.74	1.56	27.0	17.92	1.93	65.35
23.9	16.96	1.56	25.4	17.01	1.81	66.03
26.4	18.75	1.71	21.2	14.36	1.51	66.88
28.4	20.06	1.83	19.5	13.18	1.39	66.76
29.3	20.88	1.87	16.0	11.01	1.14	68.11
29.5	20.99	1.88	16.1	11.06	1.14	67.95
30.9	21.96	1.96	14.2	9.79	1.01	68.25
35.4	25.16	2.20	7.6	5.31	0.54	69.53
34.6	24.72	2.15	7.6	5.34	0.54	69.93
48.9	32.41	3.01	3.0	1.97	0.21	65.61
56.0	35.82	3.42	0.5	0.32	0.04	63.86
			temp. = 250°C.			
2.9	2.16	0.20	46.6	31.17	3.29	66.67
6.0	4.38	0.41	47.4	30.90	3.36	64.72
8.1	5.82	0.56	48.9	31.15	3.48	63.04
8.0	5.76	0.55	48.5	30.99	3.45	63.25
8.5	6.10	0.59	48.5	30.89	3.45	63.01
9.3	6.70	0.64	45.9	29.57	3.27	63.73
8.4	6.15	0.57	42.7	28.26	3.03	65.59
8.5	6.30	0.57	38.8	26.34	2.75	67.36
8.3	6.24	0.55	35.6	24.74	2.52	69.02
8.0	6.24	0.52	27.3	20.18	1.93	73.58
7.6	5.99	0.49	25.6	19.22	1.81	74.79
7.8	6.32	0.49	19.9	15.58	1.40	78.09
7.6	6.29	0.48	16.3	13.16	1.15	80.55
7.4	6.30	0.46	11.9	9.97	0.84	83.72
7.6	6.52	0.47	10.7	9.04	0.75	84.44
7.4	6.45	0.46	8.5	7.33	0.60	86.22
7.8	6.86	0.48	6.7	5.85	0.47	87.28
8.8	7.83	0.54	4.1	3.63	0.29	88.54
8.1	7.33	0.49	2.7	2.44	0.19	90.24
8.5	7.69	0.52	2.2	1.99	0.15	90.32
9.5	8.60	0.58	1.1	0.99	0.08	90.41
8.3	7.63	0.50	0.5	0.46	0.04	91.91
8.6	7.92	0.52	trace	----	----	92.08

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COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9]	Schroeder, W.C.; Berk, A.A.; Gabriel, A.
(2) Disodium sulfate; Na_2SO_4; [7757-82-6]	*J. Am. Chem. Soc.* 1937, 59, 1783-90.
(3) Water; H_2O; [7732-18-5]	

EXPERIMENTAL VALUES cont'd:

Composition of saturated solutions in the Na_3PO_4-Na_2SO_4-H_2O system.

Na_3PO_4			Na_2SO_4			H_2O
g/100g H_2O	mass%[a]	mol/kg[a]	g/100g H_2O	mass%[a]	mol/kg[a]	mass%[a]
			temp. = 300°C.			
2.0	1.60	0.13	30.7	23.13	2.16	75.27
4.9	3.74	0.32	36.8	25.97	2.60	70.28
3.5	2.84	0.22	25.2	19.58	1.78	77.58
2.7	2.30	0.17	17.8	14.77	1.25	82.93
1.8	1.66	0.11	6.9	6.34	0.48	91.99
1.7	1.63	0.10	2.8	2.68	0.20	95.96
3.7	3.49	0.22	2.4	2.26	0.17	94.25
1.9	1.84	0.12	1.4	1.36	0.10	96.80
			temp. = 350°C.			
0.14	0.14	0.01	2.02	1.98	0.01	97.88
0.11	0.11	0.01	1.01	1.00	0.01	98.89
0.21	0.21	0.01	0.10	0.10	0.01	99.69

[a] These values were calculated by the compiler.

COMMENTS: At 150°C the analyses of the solutions containing 51.7 g Na_3PO_4 per 100 g H_2O and greater are said to be not consistent enough to be plotted with the other data. At 200°C $Na_2SO_4 \cdot 2Na_3PO_4$ and $Na_2SO_4 \cdot 5Na_3PO_4$ are supposed to exist as the equilibrium solid phases. At 250°C only the first compound is mentioned.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Disodium carbonate; Na_2CO_3; [497-19-8] (3) Water; H_2O; [7732-18-5]	Korf, D.M.; Balyasnaya, A.M. *Zh. Prikl. Khim.* 1941, *14*, 475-7.
VARIABLES:	**PREPARED BY:**
Composition at 25°C.	J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the Na_3PO_4-Na_2CO_3-H_2O system at 25°C.

concn of Na_3PO_4			concn of Na_2CO_3			
mass %	mol %	mol/kg [a]	mass %	mol %	mol/kg [a]	solid phase [b]
13.4	16.71	0.94	----	----	----	A
8.95	11.20	0.63	4.91	9.52	0.54	"
7.48	9.55	0.54	8.65	17.10	0.97	"
7.12	9.25	0.53	11.25	22.68	1.30	"
6.78	9.14	0.53	14.91	31.00	1.80	"
6.40	9.05	0.52	19.30	42.10	2.45	A + B
6.34	8.93	0.52	19.32	42.00	2.45	A + B
5.82	8.10	0.47	19.00	40.90	2.38	B
4.73	5.90	0.38	20.03	42.80	2.51	"
3.93	5.41	0.32	20.50	44.60	2.56	"
1.87	2.55	0.15	21.00	44.3	2.57	"
----	----	----	22.75	47.5	2.78	"

[a] The mol/kg H_2O values were calculated by the compiler.

[b] The solid phases are: A = $Na_3PO_4 \cdot 12H_2O$; B = $Na_2CO_3 \cdot 10H_2O$.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The isothermal method with the use of a thermostat. Na_3PO_4, Na_2CO_3 and NaOH were determined simultaneously by an acido-basic titration (1). The P_2O_5 content was also checked gravimetrically. The composition of the solid phases was determined microscopically and also by Schreinemakers' method.

SOURCE AND PURITY OF MATERIALS:

The $Na_3PO_4 \cdot 12H_2O$ containing 1.80 % NaOH was crystallized three times before use. No details are given about the Na_2CO_3.

ESTIMATED ERROR:

The temperature deviation was less than ± 0.2 K.

REFERENCES:

1. Smith, J.H. *J. Soc. Chem. Ind.* 1917, *36*, 415.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9]	Ravich, M.I.; Yastrebova, L.F.
(2) Disodium sulfate; Na_2SO_4; [7757-82-6]	*Zh. Neorg. Khim.* 1958, 3, 2771-80
(3) Water; H_2O; [7732-18-5]	
VARIABLES:	**PREPARED BY:**
Composition at 250°C.	J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the Na_3PO_4-Na_2SO_4-H_2O system at 250°C.

Na_3PO_4		Na_2SO_4		NaOH[b]	solid phase Na_3PO_4	solid phase Na_2SO_4	Na_2HPO_4[b]
mass%	mol/kg[a]	mass%	mol/kg[a]	mass%	mass%	mass%	mass%
7.8	0.52	----	----	1.1	89.7	----	10.3
7.6	0.52	3.0	0.24	0.06	86.9	12.1	1.0
7.5	0.52	5.3	0.43	----	85.0	15.0	----
7.3	0.52	8.0	0.66	----	82.8	17.2	----
7.6	0.55	7.8	0.65	----	82.7	17.3	----
6.8	0.48	7.0	0.57	----	79.2	20.8	----
6.8	0.48	6.9	0.56	----	77.6	22.4	----
7.3	0.52	7.9	0.66	----	76.2	23.8	----
6.7	0.50	12.1	1.05	----	75.2	24.8	----
5.7	0.43	14.1	1.24	----	74.9	25.1	----
6.3	0.51	18.2	1.70	----	73.1	26.9	----
5.6	0.45	19.4	1.82	----	71.3	28.7	----
5.9	0.51	23.6	2.36	----	68.9	31.1	----
5.2	0.47	26.9	2.79	----	58.8	41.2	----
5.6	0.52	28.4	3.03	----	55.4	44.6	----
5.5	0.52	30.4	3.34	----	51.6	48.4	----
5.4	0.51	30.4	3.33	----	20.1	79.9	----
3.3	0.30	30.5	3.24	----	1.0	99.0	----
1.6	0.14	30.9	3.22	----	0	100	----

[a] The mol/kg H_2O values were calculated by the compiler.

[b] These products were produced by hydrolysis.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The phosphates and the NaOH produced by hydrolysis reactions were determined by titration with acid. The determination of phosphates was done gravimetrically as $Mg_2P_2O_7$. Sulfates were determined gravimetrically as $BaSO_4$ after removing the phosphates as iron phosphate. The composition of the solid phases was determined from the composition of the phase complex and that of the corresponding saturated solution. Corrections were made for water of evaporation.

SOURCE AND PURITY OF MATERIALS:

The Na_2SO_4 was chemically pure. Solutions of Na_3PO_4 were prepared from twice recrystallized Na_2HPO_4 and approximately 50% solution of chemically pure NaOH.

ESTIMATED ERROR:

Temperature was constant to within ± 0.5 K. The error in the solid phase composition was less than ± 0.6%. No other details are given.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Hydrogen peroxide; H_2O_2; [7722-84-1] (3) Water; H_2O; [7732-18-5]	Ukraintseva, E.A. *Izv. Sib. Otd. Akad. Nauk SSSR, Ser. Khim.* 1961, 3, 14-24.
VARIABLES: Composition at -20° and 0°C.	**PREPARED BY:** J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the Na_3PO_4-H_2O_2-H_2O system.

Na_3PO_4		H_2O_2		H_2O	
mass%	mol/kg[a]	mass%	mol/kg[a]	mass%[a]	solid phase[b]
		temp. = -20°C.			
13.1	1.32	26.6	12.97	60.3	A
13.1	1.34	27.5	13.61	59.4	"
10.8	1.10	29.7	14.67	59.5	"
10.4	1.07	30.4	15.09	59.2	"
7.5	0.86	39.3	21.71	53.2	"
8.1	0.85	34.0	17.26	57.9	"
6.7	0.83	44.0	26.23	49.3	"
9.3	1.33	48.2	33.34	42.5	"
9.3	1.67	56.9	49.48	33.8	B
9.3	1.93	60.1	58.30	30.3	"
12.3	3.45	66.0	89.40	21.7	"
		temp. = 0°C.			
5.1	0.33	0	0	94.9	C
3.7	0.24	1.5	0.46	94.8	"
4.3	0.28	3.6	1.15	92.1	"
5.3	0.36	5.3	1.74	89.4	"
4.9	0.33	5.4	1.77	89.7	C + D
3.6	0.24	6.9	2.27	89.5	D

(continued next page)

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The duration of the experiments is given as 3 to 14 hours and more. The compiler supposes that this is the time of equilibration under isothermal conditions. The hydrogen peroxide content was determined by titration with permanganate. The phosphate content was determined gravimetrically as $Mg_2P_2O_7$. The composition of the solid phases was determined by the Schreinemakers' method.	The hydrogen peroxide was chemically pure and free of stabilizers. No other information is given.
	ESTIMATED ERROR: No details are given.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9]	Ukraintseva, E.A.
(2) Hydrogen peroxide; H_2O_2, [7722-84-1]	*Izv. Sib. Otd. Akad. Nauk SSSR, Ser. Khim.* 1961, *3*, 14-24.
(3) Water; H_2O; [7732-18-5]	

EXPERIMENTAL VALUES cont'd:

Composition of saturated solutions in the Na_3PO_4-H_2O_2-H_2O system.

Na_3PO_4		H_2O_2		H_2O	solid[b]
mass%	mol/kg[a]	mass%	mol/kg[a]	mass%[a]	phase
		temp = 0°C.			
4.9	0.35	10.7	3.73	84.4	D
7.3	0.58	15.4	5.86	77.3	"
10.9	0.91	16.5	6.68	72.6	"
11.5	0.99	17.9	7.45	70.6	"
9.4	0.80	19.2	7.90	71.4	"
15.4	1.66	28.0	14.54	56.6	A + D
17.6	1.92	26.7	14.09	55.7	A + D
16.7	1.80	26.7	13.87	56.6	A + D
15.5	1.66	27.5	14.18	57.0	A
16.0	1.72	27.3	14.15	56.7	"
16.1	1.73	27.3	14.18	56.6	"
16.8	1.85	27.8	14.75	55.4	"
16.4	1.80	28.1	14.88	55.5	"
14.9	1.63	29.4	15.52	55.7	"
11.6	1.22	30.6	15.56	57.8	"
11.7	1.26	31.6	16.38	56.7	"
11.8	1.29	32.4	17.07	55.8	"
10.2	1.16	36.3	19.94	53.5	"
10.2	1.17	36.7	20.32	53.1	"
10.3	1.26	39.9	23.55	49.8	"
9.7	1.16	39.2	22.55	51.1	"
11.9	1.51	40.2	24.67	47.9	"
11.1	1.55	45.2	30.40	43.7	B
9.7	1.32	45.7	30.12	44.6	"
9.7	1.48	50.5	37.30	39.8	"
9.6	1.50	51.4	38.74	39.0	"
9.6	1.50	51.5	38.92	38.9	"
12.1	3.15	64.5	81.02	23.4	"

[a] These values were calculated by the compiler.

[b] The solid phases are: A = $Na_3PO_4 \cdot 4.5H_2O_2$; B = the solid decomposes; C = $Na_3PO_4 \cdot 12H_2O$; D = $Na_3PO_4 \cdot H_2O_2$.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Disodium silicate; Na_2SiO_3; [6834-92-0] (3) Water; H_2O; [7732-18-5]	Babayan, G.G.; Sayamyan, E.A.; Darbinyan, G.M. *Arm. Khim. Zh.* 1970, *23*, 986-9.
VARIABLES: Composition at 0 and 25°C.	**PREPARED BY:** J. Eysseltová

EXPERIMENTAL VALUES:

Solubility isotherms at 0 and 25°C are presented only in graphical form.

The following data are reported in the text:

t/°C	Na_3PO_4 mass%	Na_2SiO_3 mass%	
0	0-0.78	9.83-10.6	$Na_2SiO_3 \cdot 9H_2O$
0	"from 1.04"	10.7-11.13	solid solutions
0	2.39-9.2	8.75-1.04	$Na_3PO_4 \cdot 12H_2O$
25	0-1.02	22.2-22.3	$Na_2SiO_3 \cdot 9H_2O$
25	1.1-3.68	23.1-13.45	solid solutions
25	4.67-11.8	1.44-10.02	$Na_3PO_4 \cdot 12H_2O$

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The isothermal method was used with equilibrium being attained in 3 days. SiO_2 was determined gravimetrically by precipitation as H_2SiO_3 and decomposition at 1000°C. Phosphate was precipitated with ammonium molybdate. The phosphomolybdate was dissolved in alkali hydroxide and the excess hydroxide was titrated acidimetrically. The composition of the solid phases was determined by Schreinemakers' method but no data are reported.

SOURCE AND PURITY OF MATERIALS:

The sodium phosphate was chemically pure and the sodium metasilicate was reagent grade. The extent of hydration is not specified.

ESTIMATED ERROR:

No information is given.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Sodium vanadate; $NaVO_3$; [13718-23-8] (3) Water; H_2O; [7732-18-5]	Abduragimova, R.A.; Rza-Zade, P.F. *Issled. Obl. Neorg. Fiz. Khim.* 1971, 179-85.
VARIABLES: Composition at 25°C.	**PREPARED BY:** J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the Na_3PO_4-$NaVO_3$-H_2O system at 25°C.

Na_3PO_4		$NaVO_3$		
mass%	mol/kg[a]	mass%	mol/kg[a]	solid phase
12.30	0.85	----	----	Na_3PO_4 [b]
----	----	17.40	1.73	$NaVO_3$ [b]
11.0	0.76	0.40	0.04	$Na_3PO_4 \cdot 12H_2O$
8.15	0.55	1.98	0.18	"
7.38	0.50	2.81	0.26	"
5.41	0.36	4.43	0.40	"
4.39	0.30	5.93	0.54	"
3.85	0.26	7.60	0.70	"
3.80	0.26	9.12	0.86	"
4.18	0.30	10.45	1.00	"
5.21	0.38	12.05	1.19	$Na_3PO_4 \cdot 12H_2O$ + $4Na_2O \cdot P_2O_5 \cdot V_2O_5 \cdot 30H_2O$
4.48	0.33	12.26	1.21	$4Na_2O \cdot P_2O_5 \cdot V_2O_5 \cdot 30H_2O$
3.23	0.24	13.68	1.35	"
2.40	0.17	13.81	1.35	"
1.26	0.09	15.40	1.52	"
1.25	0.09	16.82	1.68	"
1.03	0.08	17.01	1.70	$4Na_2O \cdot P_2O_5 \cdot V_2O_5 \cdot 30H_2O$ + $NaVO_3 \cdot 2H_2O$

[a] The mol/kg H_2O values were calculated by the compiler.

[b] The extent of hydration is ignored.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The isothermal method was used but no experimental details are given. The vessels were molybdenum vessels, probably made from molybdenum glass. The determination of alkali metals was made by using 0.5 mol dm^{-3} HCl. The V and P content were determined photocolorimetrically. No details are given.	Chemically pure $Na_3PO_4 \cdot 12H_2O$ and $NaVO_3 \cdot 2H_2O$ were recrystallized before use.
	ESTIMATED ERROR: No information is given.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Disodium sulfate; Na_2SO_4; [7757-82-6] (3) Water; H_2O; [7732-18-5]	Abduragimova, R.A.; Rza-Zade, P.F. *Issled. Obl. Neorg. Fiz. Khim.* 1971, 179-85.
VARIABLES: Composition at 25°C.	**PREPARED BY:** J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the Na_2SO_4-Na_3PO_4-H_2O system at 25°C.

Na_2SO_4		Na_3PO_4		
mass%	mol/kg[a]	mass%	mol/kg[a]	solid phase
21.88	1.97	----	----	Na_2SO_4[b]
----	----	12.2780	0.85	Na_3PO_4[b]
20.7500	1.89	2.1023	0.17	$Na_2SO_4 \cdot 10H_2O$ + $Na_3PO_4 \cdot 12H_2O$
19.4120	1.73	1.7860	0.14	$Na_3PO_4 \cdot 12H_2O$
19.3920	1.73	1.7970	0.14	"
15.6640	1.34	2.1920	0.16	"
15.6600	1.34	2.2730	0.17	"
13.5800	1.14	2.6500	0.19	"
13.5679	1.14	2.6190	0.19	"
10.2530	0.84	3.8140	0.27	"
10.2960	0.84	3.7990	0.27	"
7.4310	0.60	5.1920	0.36	"
7.3830	0.60	5.2710	0.37	"
4.4920	0.36	6.9630	0.48	"
4.4318	0.35	7.0250	0.48	"
1.5130	0.12	11.2200	0.78	"
1.4570	0.12	10.672	0.74	"
----	----	10.613	0.72	"

[a] The mol/kg H_2O values were calculated by the compiler.

[b] The extent of hydration was apparently ignored (compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The isothermal method was used but no details are given. Molybdenum vessels were used. The alkali metal content was determined using 0.5 mol dm^{-3} HCl. Sulfate was determined gravimetrically as $BaSO_4$. Phosphate was determined colorimetrically.

SOURCE AND PURITY OF MATERIALS:

Both salts were of chemically pure grade and were recrystallized before being used.

ESTIMATED ERROR:

No details are given.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9]	Babayan, G.G.; Darbinyan, G.M.
(2) Sodium perchlorate; $NaClO_4$; [7601-89-0]	*Arm. Khim. Zh.* 1972, 25, 482-7.
(3) Water; H_2O, [7732-18-5]	
VARIABLES:	**PREPARED BY:**
Composition at 20°C.	J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the Na_3PO_4-$NaClO_4$-H_2O system at 20°C.

Na_3PO_4		$NaClO_4$		H_2O	
mass %	mol/kg [a]	mass %	mol/kg [a]	mass % [a]	solid phase
0.39	0.06	58.40	11.58	41.21	$NaClO_4 \cdot H_2O$
0.40	0.05	52.80	9.21	46.80	solid solution
0.47	0.06	47.70	7.52	51.83	" "
2.14	0.23	41.60	6.04	56.26	" "
1.80	0.19	41.35	5.94	56.85	" "
2.54	0.25	35.87	4.76	61.59	" "
2.90	0.28	34.70	4.54	62.40	" "
3.20	0.27	26.00	3.00	70.80	$Na_3PO_4 \cdot 12H_2O$
4.80	0.40	21.80	2.42	73.40	"
12.46	0.97	9.80	1.03	77.74	"
18.42	1.45	4.48	0.47	77.10	"
14.46	1.14	8.20	0.86	77.34	"
23.90	1.95	1.60	0.18	74.50	"

[a] The mass % of H_2O and the mol/kg H_2O values were calculated by the compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The isothermal method was used with 5 to 7 days being allowed for equilibration. The phosphate content was determined with the use of ammonium molybdate. The perchlorate content was determined gravimetrically but no further details are given. The composition of the solid phases was determined by the Schreinemakers' method.

SOURCE AND PURITY OF MATERIALS:

The Na_3PO_4 was reagent grade and the $NaClO_4$ is described as pure.

ESTIMATED ERROR:

No information is given.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Disodium tetraborate; $Na_2B_4O_7$; [1330-43-4] (3) Water; H_2O; [7732-18-5]	Babayan, G.G.; Darbinyan, G.M. *Arm. Khim. Zh.* 1972, 25, 482-7.
VARIABLES: Composition at 20°C.	**PREPARED BY:** J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the Na_3PO_4-$Na_2B_4O_7$-H_2O system at 20°C.

Na_3PO_4		$Na_2B_4O_7$		H_2O	
mass %	mol/kg [a]	mass %	mol/kg [a]	mass % [a]	solid phase
2.46	0.16	4.80	0.26	92.74	$Na_2B_4O_7 \cdot 10H_2O$
3.10	0.20	4.30	0.23	92.60	"
3.09	0.20	4.49	0.24	92.42	"
4.27	0.28	4.50	0.24	91.23	"
5.09	0.34	3.90	0.21	91.01	solid solution
5.34	0.36	3.77	0.21	90.89	" "
5.83	0.39	3.57	0.20	90.60	" "
6.28	0.42	3.37	0.18	90.35	" "
7.39	0.50	3.40	0.19	89.21	" "
7.82	0.53	3.39	0.19	88.79	" "
8.18	0.56	3.21	0.18	88.61	" "
8.81	0.61	3.30	0.19	87.89	" "
9.34	0.65	3.15	0.18	87.51	" "
10.00	0.70	3.17	0.18	86.83	" "
11.75	0.84	3.24	0.19	85.01	" "
10.95	0.77	2.92	0.17	86.13	" "
11.68	0.83	2.60	0.15	85.72	" "
15.20	1.12	2.30	0.14	82.50	$Na_3PO_4 \cdot 12H_2O$
16.75	1.26	2.70	0.17	80.55	"
16.80	1.26	1.84	0.11	81.36	"

[a] These values were calculated by the compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The isothermal method was used with 5-7 days being allowed for equilibration. Phosphate content was determined by the use of ammonium molybdate. The tetraborate content was determined titrimetrically (no other details are given). The composition of the solid phases was determined by the Schreinemakers' method.

SOURCE AND PURITY OF MATERIALS:

The sodium phosphate and sodium tetraborate were reagent grade materials.

ESTIMATED ERROR:

No information is given.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate, Na_3PO_4; [7601-54-9]	Druzhinin, I.G.; Tusheva, L.A.
(2) Copper phosphate; $Cu_3(PO_4)_2$; [30981-48-7]	*Izv. Vuzov, Khim. Khim. Tekhnol*, 1974, *17*, 1513-6.
(3) Water; H_2O; [7732-18-5]	
VARIABLES:	**PREPARED BY:**
Composition at 25 and 50°C.	J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the Na_3PO_4-$Cu_3(PO_4)_2$-H_2O system.

$Cu_3(PO_4)_2$		Na_3PO_4		
mass%	mol/kg[a]	mass%	mol/kg[a]	solid phase[b]
		temp. = 25°C.		
0.067	0.0018	----	----	A
0.062	0.0017	3.93	0.25	A + B
0.054	0.0015	6.05	0.39	B
0.038	0.0011	9.01	0.60	"
0.029	0.0009	13.41	0.94	B + C
----	----	13.42	0.94	C
		temp. = 50°C.		
0.21	0.0055	----	----	A
0.20	0.0054	4.02	0.25	"
0.19	0.0054	7.48	0.49	"
0.19	0.0054	7.49	0.49	B
0.07	0.0024	22.71	1.79	"
0.07	0.0024	22.71	1.79	B + D
0.07	0.0024	22.71	1.79	D
----	----	22.71	1.79	"

[a] The mol/kg H_2O values were calculated by the compiler.

[b] The solid phases are: A = $Cu_3(PO_4)_2$; B = $Na_3PO_4 \cdot Cu_3(PO_4)_2$; C = $Na_3PO_4 \cdot 12H_2O$; D = $Na_3PO_4 \cdot 10H_2O$.

COMMENT: At 50°C solid phase B hydrolyzes to CuO in the region where it crystallizes out.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The isothermal method was used. Solid sodium phosphate was added to saturated solutions of copper phosphate and the mixtures were equilibrated for 8-10 hours. The copper content was determined as CuO. The phosphate content was determined colorimetrically and the sodium content was determined as sodium zinc uranyl acetate after separation with the aid of an ion exchanger.

SOURCE AND PURITY OF MATERIALS:

Both the phosphates were of reagent grade quality.

ESTIMATED ERROR:

The temperature was held constant to within ± 0.1 K.

REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Tripotassium phosphate; K_3PO_4; [7778-53-2] (3) Water; H_2O; [7732-18-5]	Manvelyan, M.G.; Galstyan, V.D.; Voskanyan, S.S. *Arm. Khim. Zh.* 1974, *26*, 810.
VARIABLES:	**PREPARED BY:**
Composition at 20°C.	J. Eysseltová

EXPERIMENTAL VALUES:

The only information given is the limiting concentrations for the existence of individual solid phases:

0-26.85 mass% K_3PO_4 in liquid phase--$Na_3PO_4 \cdot 12H_2O$ crystallizes

31.53-47-63 mass% K_3PO_4 in liquid phase--solid solutions

from 49.40 mass% K_3PO_4 in liquid phase--$K_3PO_4 \cdot 7H_2O$ crystallizes

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The isothermal method was used. The liquid phases were analyzed for Na_2O, K_2O and P_2O_5 (1).	No information is given.
	ESTIMATED ERROR: No information is given.
	REFERENCES: 1. Manvelyan, M.G.; Galstyan, V.D.; Voskanyan, S.S. *VINITI* 2323-74 Dep., 1974.

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Sodium nitrite; $NaNO_2$; [7632-00-0] (3) Water; H_2O; [7732-18-5]	Procenko, P.I.; Ivleva, T.I.; Rubleva, V.V.; Berdyukova, V.A.; Edush, T.V. *Zh. Prikl. Khim.* 1975, *48*, 1055-9.
VARIABLES: Composition at 25°C.	**PREPARED BY:** J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the $NaNO_2$-Na_3PO_4-H_2O system at 25°C.

concn of $NaNO_2$			concn of Na_3PO_4			
mass %	mol/1000 mol H_2O	mol/kg [a]	mass %	mol/1000 mol H_2O	mol/kg [a]	solid phase [b]
----	----------	----	12.24	15.3000	0.85	A
4.10	12.24	0.68	8.53	10.7130	0.60	"
11.90	37.43	2.08	5.08	6.7500	0.38	"
25.49	91.58	5.09	1.90	2.8757	0.16	"
36.92	156.31	8.68	1.46	2.5991	0.14	
44.15	206.20	11.46	0.71	1.3955	0.08	A + B
44.30	207.49	11.53	0.75	1.4867	0.08	A + B
44.55	210.65	11.70	0.28	0.5570	0.03	B
45.76	220.33	12.24	----	------	----	"

[a] These values were calculated by the compiler.

[b] The solid phases are: A = $Na_3PO_4 \cdot 12H_2O$; B = $NaNO_2$.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Isothermal method with the use of a water thermostat. About 10-12 hours were allowed for equilibration. Nitrite content was determined iodometrically. Phosphate content was determined gravimetrically by weighing as $Mg_2P_2O_7$. The composition of the solid phases was determined by Schreinemakers' method.	$NaNO_2$ was recrystallized and had a purity of 99.92%. $Na_3PO_4 \cdot 12H_2O$ was recrystallized to give a purity of 99.54% (calculated as anhydrous salt).
	ESTIMATED ERROR: The temperature was controlled to within 0.1K.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Disodium tungstate; Na_2WO_4; [13472-45-2] (3) Water; H_2O; [7732-18-5]	Urusova, M.A.; Balyashko, V.M.; Rakova, N.N.; Zelikman, A.N.; Yevdokimova, G.V. *Zh. Neorg. Khim.* 1975, *20*, 2585-6.
VARIABLES: One temperature: 230°C Composition	**PREPARED BY:** J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions of the Na_3PO_4-Na_2WO_4-H_2O system at 230°C.

concn of Na_2WO_4		concn of Na_3PO_4		concn of H_2O	
mass %	mol/kg [a]	mass %	mol/kg [a]	mass % [a]	solid phase
----	----	18.9	1.42	81.1	Na_3PO_4
----	----	19.3	1.46	80.7	"
5.6	0.24	15.6	1.21	78.8	"
8.2	0.36	15.0	1.20	76.8	"
10.6	0.47	13.3	1.06	76.1	"
16.5	0.79	12.1	1.03	71.4	"
22.4	1.14	10.6	0.96	67.0	"
30.2	1.70	9.4	0.95	60.4	"
34.9	2.05	7.1	0.74	58.0	"
37.5	2.32	7.6	0.84	54.9	"
44.3	3.05	6.3	0.78	49.4	Na_3PO_4 + Na_2WO_4
44.7	3.14	6.8	0.85	48.5	" "
44.3	3.04	6.2	0.76	49.5	"
45.1	3.07	4.9	0.60	50.0	Na_2WO_4
45.7	3.07	3.6	0.43	50.7	"
46.9	3.01	----	----	53.1	"

[a] These values were calculated by the compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Isothermal method, self-constructed apparatus and sampling device. Analyses: phosphorus was determined as $Mg_2P_2O_7$ in presence of 3 g limonic acid per 1 g WO_3; tungstate was determined gravimetrically as WO_3 after removing of the phosphates.	Na_2WO_4 and Na_3PO_4 were prepared by drying of unspecified hydrates at 150-200°C and 250-300°C respectively.
	ESTIMATED ERROR: Nothing given.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9]	Gyunashyan, A.P.
(2) Disodium carbonate; Na_2CO_3; [497-19-8]	*Arm. Khim. Zh.* 1979, *32*, 868-73.
(3) Water; H_2O; [7732-18-5]	
VARIABLES:	**PREPARED BY:**
Composition at 0° and 20°C.	J. Eysseltová

EXPERIMENTAL VALUES:

Solubility isotherms at 0° and 20°C are given only in graphical form.

The following numerical values are given only for solutions saturated with $Na_3PO_4 \cdot 12H_2O$ and $Na_2CO_3 \cdot 10H_2O$ simultaneously.

	concn of Na_3PO_4		concn of Na_2CO_3		concn of H_2O
t/°C	mass %	mol/kg [a]	mass %	mol/kg [a]	mass %
0	2.60	0.17	5.70	0.59	91.70
20	6.35	0.49	14.30	1.70	79.35

[a] The mol/kg H_2O values were calculated by the compiler.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
Nothing is specified.	Nothing is specified.
	ESTIMATED ERROR: Nothing is given.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Disodium silicate; Na_2SiO_3; [6834-92-0] (3) Water; H_2O; [7732-18-5]	Gyunashyan, A.P. *Arm. Khim. Zh.* 1979, *32*, 868-73.
VARIABLES:	**PREPARED BY:**
Composition at 20°C.	J. Eysseltová

EXPERIMENTAL VALUES:

The solubility isotherm for the Na_2SiO_3-Na_3PO_4-H_2O system at 20°C is given in graphical form. The composition of the solution in equilibrium with $Na_2SiO_3 \cdot 9H_2O$ and $Na_3PO_4 \cdot 12H_2O$ simultaneously is specified as 16.80 mass% Na_2SiO_3 (1.75 mol/kg--compiler) and 4.75 mass% Na_3PO_4 (0.37 mol/kg--compiler).

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
No details are given.	No information is given.
	ESTIMATED ERROR: No information is given.
	REFERENCES:

COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Trisodium phosphate; Na_3PO_4; [7601-54-9] (2) Sodium fluoride; NaF; [7681-49-4] (3) Water; H_2O; [7732-18-5]	Roslyakova, O.N.; Petrov, M.R.; Zhikharev, M.I. *Zh. Neorg. Khim.* 1979, *24*, 206-8.
VARIABLES: Composition at 25°C.	**PREPARED BY:** J. Eysseltová

EXPERIMENTAL VALUES:

Composition of saturated solutions in the Na_3PO_4-NaF-H_2O system at 25°C.

NaF		Na_3PO_4		H_2O			
mass%	mol/kg[a]	mass%	mol/kg[a]	mass%	d/kg m^{-3}	ν/m^2 s^{-1}	solid phase[b]
3.77	0.93	----	----	96.23	1.035	1.108	A
2.45	0.60	0.25	0.02	97.30	1.037	1.109	"
2.04	0.50	0.49	0.03	97.47	1.039	1.122	"
1.77	0.43	0.82	0.05	97.41	1.041	1.130	"
1.54	0.38	1.43	0.09	97.03	1.045	1.138	A + B
1.41	0.35	1.55	0.10	97.04	1.044	1.135	B
1.18	0.29	1.84	0.12	96.98	1.045	1.138	"
0.96	0.24	2.29	0.14	96.75	1.045	1.138	"
0.80	0.20	2.79	0.18	96.41	1.046	1.140	"
0.67	0.16	2.96	0.19	96.37	1.048	1.152	"
0.52	0.13	3.65	0.23	95.83	1.052	1.168	"
0.41	0.10	4.49	0.29	95.10	1.057	1.175	"
0.34	0.09	5.21	0.34	94.25	1.063	1.190	"
0.26	0.06	5.91	0.38	93.83	1.070	1.231	"
0.21	0.05	7.00	0.46	92.79	1.078	1.316	"
0.20	0.05	9.05	0.61	90.75	1.103	1.458	"
0.18	0.05	9.32	0.63	90.50	1.106	1.519	B + C
0.10	0.03	10.00	0.68	89.90	1.116	1.581	C
0.05	0.01	10.62	0.72	89.33	1.122	1.617	"
----	----	12.38	0.86	87.62	1.152	1.911	"

[a] These values were calculated by the compiler.

[b] The solid phases are: A = NaF; B = solid solution; C = Na_3PO_4 (probably $Na_3PO_4 \cdot 12H_2O$-compiler)

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:	SOURCE AND PURITY OF MATERIALS:
The isothermal method was used. Equilibration required 8 to 10 hours. Fluoride content was determined colorimetrically (1), after distillation as H_2SiF_6. The phosphate content was determined colorimetrically with ammonium molybdate and reduction of the complex formed with ascorbic acid. The composition of the solid phases was determined microscopically and with the use of the Schreinemakers' method.	No information is given.
	ESTIMATED ERROR: Nothing is stated.
	REFERENCES: 1. Kukisheva, T.N.; Sinicyna, E.S.; Efimova, N.S. *Zh. Anal. Khim.* 1971, *26*, 954.