

COMPONENTS:		ORIGINAL MEASUREMENTS:					
(1) Tripotassium phosphate; $K_3PO_4$ ; [7778-53-2]		Gasanova, KH.G.; Abduragimova, R.A.					
(2) Dipotassium sulfate; $K_2SO_4$ ; [10233-01-9]		Ukr. Khim. Zh. 1978, 44, 158-63.					
(3) Potassium vanadate; $KVO_3$ ; [13769-43-2]							
(4) Water; $H_2O$ ; [7732-18-5]							
VARIABLES:		PREPARED BY:					
Composition at 35° and 60°C.		J. Eysseltová					
EXPERIMENTAL VALUES:							
Invariant points in the $K_3PO_4$ - $K_2SO_4$ - $KVO_3$ - $H_2O$ system.							
$K_3PO_4$	$KVO_3$	$K_2SO_4$	$H_2O$	solid phase <sup>b</sup>			
mass%	mol/kg <sup>a</sup>	mass%	mol/kg <sup>a</sup>		mass%		
temp. = 35°C.							
0.00	0.00	12.83	1.06	0.00	87.17	A	
0.00	0.00	0.00	0.00	12.23	0.79	87.77	B
52.90	5.29	0.00	0.00	0.00	0.00	47.10	C
0.00	0.00	1.88	0.15	10.28	0.67	87.84	A + C
21.97	1.43	6.01	0.60	0.00	0.00	72.02	C + D
2.49	0.13	10.58	0.88	0.00	0.00	86.93	A + D
4.89	0.26	2.28	0.18	5.90	0.38	86.93	A + D + E
1.85	0.09	0.00	0.00	10.51	0.68	87.54	B + F
2.79	0.15	0.46	0.03	10.48	0.69	86.27	B + E + F
4.97	0.25	1.03	0.08	2.58	0.16	91.42	D + E + F
17.54	1.07	2.98	0.28	2.88	0.21	76.60	C + D + F
24.21	1.58	0.00	0.00	3.84	0.30	71.95	C + F
2.29	0.12	0.72	0.06	10.14	0.66	86.85	A + B + E
temp. = 60°C.							
0.00	0.00	22.46	2.09	0.00	0.00	77.54	A
0.00	0.00	0.00	0.00	15.38	1.04	84.62	B
61.55	7.54	0.00	0.00	0.00	0.00	38.45	G
0.00	0.00	3.37	0.29	13.84	0.95	82.79	A + G
4.32	0.26	18.11	1.69	0.00	0.00	77.57	A + H
24.93	1.78	9.12	1.00	0.00	0.00	65.95	G + H
				(continued next page)			
AUXILIARY INFORMATION							
METHOD/APPARATUS/PROCEDURE:				SOURCE AND PURITY OF MATERIALS:			
The method of invariant points was used. The third component was added to binary systems. No further details are given.				No information is given.			
				ESTIMATED ERROR:			
				Nothing is stated.			
				REFERENCES:			

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(3) Potassium vanadate; $KVO_3$ ; [13769-43-2]							
(4) Water; $H_2O$ ; [7732-18-5]							
EXPERIMENTAL VALUES cont'd:							
Invariant points in the $K_3PO_4$ - $K_2SO_4$ - $KVO_3$ - $H_2O$ system.							
$K_3PO_4$		$KVO_3$		$K_2SO_4$		$H_2O$	solid phase <sup>b</sup>
mass%	mol/kg <sup>a</sup>	mass%	mol/kg <sup>a</sup>	mass%	mol/kg <sup>a</sup>	mass%	
temp. = 60°C.							
28.42	2.01	0.00	0.00	5.21	0.45	66.37	G + I
5.14	0.29	0.00	0.00	12.22	0.84	82.64	B + I
5.93	0.34	6.11	0.54	6.58	0.46	81.38	A + H + J
0.74	0.04	2.21	0.18	12.09	0.81	84.96	A + B + J
15.09	0.91	4.00	0.37	3.17	0.23	77.74	G + H + I
3.00	0.15	1.21	0.09	7.20	0.46	88.59	H + I + J
1.39	0.07	0.45	0.03	12.11	0.80	86.05	B + I + J
<sup>a</sup> The mol/kg $H_2O$ values were calculated by the compiler.							
<sup>b</sup> The solid phases are: A = $KVO_3 \cdot 3H_2O$ ; B = $K_2SO_4$ ; C = $K_3PO_4 \cdot 7H_2O$ ;							
D = $4K_2O \cdot P_2O_5 \cdot V_2O_5 \cdot 30H_2O$ ; E = $4K_2O \cdot P_2O_5 \cdot V_2O_5 \cdot 24H_2O$ ;							
F = $5K_2O \cdot P_2O_5 \cdot 2SO_3 \cdot 30H_2O$ ; G = $K_3PO_4 \cdot 3H_2O$ ; H = $4K_2O \cdot P_2O_5 \cdot V_2O_5 \cdot 22H_2O$ ;							
I = $5K_2O \cdot P_2O_5 \cdot 2SO_3 \cdot 22H_2O$ ; J = $4K_2O \cdot P_2O_5 \cdot V_2O_5 \cdot 18H_2O$ .							