COMPONENTS:	ORIGINAL MEASUREMENTS:
(1) Rubidium dihydrogenphosphate; RbH_2PO_4; [13774-16-8] (2) Water; H_2O; [7732-18-5]	Bykova, I.N.; Kuznetsova, G.P.; Kolotilova, V.Ya.; Stepin, B.D. *Zh. Neorg. Khim.* 1968, *13*, 540-4.
VARIABLES: Temperature.	**PREPARED BY:** J. Eysseltová

EXPERIMENTAL VALUES:

Solubility of RbH_2PO_4 in water.

t/°C	g/100 g H_2O	mass%[a]	mol/kg[a]
0	43.2	30.16	2.37
25	78.7	44.04	4.31
40	103.7	50.91	5.68
50	123.6	55.27	6.77
60	137.1	57.82	7.51
80	162.9	61.96	8.93

[a] These values were calculated by the compiler.

COMMENTS and ADDITIONAL DATA: The temperature coefficient of the solubility is reported to be constant in the temperature ranges 0 to 40°C and 50 to 80°C. The values are:

range/°C.	dm_i/dT/mol kg^{-1} K^{-1}
0 - 40	0.0803
50 - 80	0.070

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

The mixtures were equilibrated isothermally for 15 days. The apparatus has been described elsewhere (1). The rubidium content was determined gravimetrically as the tetraphenylborate. The temperature coefficient of the solubility was determined graphically.

SOURCE AND PURITY OF MATERIALS:

RbH_2PO_4 was synthesized from reagent grade H_3PO_4 and Rb_2CO_3. The Rb_2CO_3 was obtained by calcining $Rb_2(COO)_2$. The maximum amount of impurity in the RbH_2PO_4 was 0.05 mass%.

ESTIMATED ERROR:

The temperature was controlled to within ± 0.1 K. No other information is given.

REFERENCES:

1. Kuznetsova, G.P.; Stepin, B.D. *Zh. Neorg. Khim.* 1965, *10*, 472.