

COMPONENTS: (1) Cesium dihydrogenphosphate; CsH_2PO_4 ; [18649-05-3] (2) Water; H_2O ; [7732-18-5]	ORIGINAL MEASUREMENTS: Bykova, I.N.; Kuznetsova, G.P.; Kolotilova, V.Ya.; Stepin, B.D. <i>Zh. Neorg. Khim.</i> <u>1968</u> , 13, 540-4.
VARIABLES: Temperature.	PREPARED BY: J. Eysseltová

EXPERIMENTAL VALUES:			
Solubility of CsH_2PO_4 in water.			
$t/^\circ\text{C}$.	g/100 g H_2O	mass% ^a	mol/kg ^a
0	106.0	51.43	4.61
25	146.97	59.5	6.39
40	169.4	62.88	7.37
50	185.3	64.96	8.06
60	199.7	66.63	8.69
80	258.0	72.07	11.2
^a These values were calculated by the compiler.			
The temperature coefficient of solubility is reported to be constant in the temperature range that was studied. The value is			
$dm_1/dT = 0.0683 \text{ mol kg}^{-1} \text{ K}^{-1}.$			

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE: The mixtures were equilibrated isothermally for 15 days. The apparatus and procedure are described elsewhere (1). The solubility was determined by a gravimetric analysis for phosphorus. The phosphorus was weighed as $\text{Mg}_2\text{P}_2\text{O}_7$. The temperature coefficient of the solubility was determined graphically.	SOURCE AND PURITY OF MATERIALS: CsH_2PO_4 was synthesized by reacting H_3PO_4 with Cs_2CO_3 . The latter was obtained by calcining $\text{Cs}_2(\text{COO})_2$. The amount of impurities was no more than 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. <i>Zh. Neorg. Khim.</i> <u>1965</u> , 10, 472.