

COMPONENTS: 1. Cesium tellurite; Cs_2TeO_3 ; [15899-92-0] 2. Water; H_2O ; [7732-18-5]	ORIGINAL MEASUREMENTS: Lavut, E.A. <i>Vestn. Mosk. Univ. Ser. II, Khim.</i> 1966, 21, 91-3. (English translation pp. 225-6).												
VARIABLES: One temperature: 291 K	PREPARED BY: Mary R. Masson												
EXPERIMENTAL VALUES: <div style="text-align: center;">Solubility of Cs_2TeO_3 in water at 18°C</div> <table border="0" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td style="padding-right: 20px;">Wt. taken, g</td> <td style="padding-right: 40px;">0.2931</td> <td>0.3397</td> </tr> <tr> <td>Te, %</td> <td>19.63</td> <td>19.49</td> </tr> <tr> <td>Cs, %</td> <td>41.63</td> <td>41.48</td> </tr> <tr> <td>Cs/Te</td> <td>2.04</td> <td>2.04</td> </tr> </tbody> </table> <p>The solubility of cesium tellurite, calculated for the anhydrous salt, is 67.65% at 18°C. (Molality^a = 1.550 mol/kg).</p> <p>Prolonged treatment of cesium tellurite pentahydrate with absolute ethanol resulted in decomposition of the salt. Prolonged treatment with water results in some hydrolysis of the tellurite ion. Cesium tetratellurite pentahydrate was found to be insoluble in water, and to decompose in boiling water to CsOH and TeO_2.</p> <p>^a Molality calculated by the compiler.</p>		Wt. taken, g	0.2931	0.3397	Te, %	19.63	19.49	Cs, %	41.63	41.48	Cs/Te	2.04	2.04
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AUXILIARY INFORMATION													
METHOD APPARATUS/PROCEDURE: Not stated.	SOURCE AND PURITY OF MATERIALS: A weighed specimen of freshly precipitated tellurium dioxide was dissolved with heating in an approx. 20% aqueous solution of cesium hydroxide. The solution was concentrated by evaporation, and the residue was treated with absolute ethanol. The alcohol solution was separated from the residue by filtration, and the residue was dried over H_2SO_4 and KOH . The product was shown to be cesium tellurite pentahydrate.												
ESTIMATED ERROR: No estimates possible.													
REFERENCES:													