**COMPONENTS:**

1. Terbium iodide; TbI₃; [13813-40-6]
2. Tetrahydrofuran; C₄H₈O; [109-99-9]

**ORIGINAL MEASUREMENTS:**
Kachkimbaeva, S.A.; Chalova, E.P.; Bleshinskii, S.V.

**VARIABLES:**

T/K = 293

**EXPERIMENTAL VALUES:**

The solubility of TbI₃ in tetrahydrofuran at 20°C was reported to be

8.63 g dm⁻³ (0.0160 mol dm⁻³, compiler).

**METHOD/APPARATUS/PROCEDURE:**

The solute-solvent mixtures were equilibrated isothermally by agitation. The phases were separated by decantation, and in some cases by centrifuging. Tb determined by the oxalate method. Iodide determined by titration with an AgNO₃ solution (the Volhard method).

**SOURCE AND PURITY OF MATERIALS:**

TbI₃ prepared by heating "cp" grade I₂ with excess metallic Tb (RETU-1101-68, Tb-I) in a sealed ampoule at 1200°C. TbI₃ collected by sublimation at the cold part of the ampoule. The product was analyzed for Tb and I, and presumably found to be sufficiently pure.

"C.p." grade tetrahydrofuran (GDR), b.p. = 65.6°C was treated with NaOH and Na, and then distilled from metallic sodium.

**ESTIMATED ERROR:**

Nothing specified.

**REFERENCES:**