COMPONENTS:	ORIGINAL MEASUREMENTS:
1. Lithium tellurite; Li_2TeO_3; [14929-69-2] 2. Water; H_2O; [7732-18-5]	Breusov, O.N.; Revzina, T.V.; Druz, N.A. *Zh. Neorg. Khim.* 1965, *10*, 1990-2; **Russ. J. Inorg. Chem.* 1965, *10*, 1084-5.
VARIABLES:	PREPARED BY:
Temperature: 303 - 353 K	Mary R. Masson

EXPERIMENTAL VALUES:

t/°C	Li_2O mass %	TeO_2 mass %	Li_2TeO_3[a] mass %	Li_2O : TeO_2 molar ratio	Li_2TeO_3[b] mol/kg
30	1.99	10.69			
30	1.99	10.70	12.65 ± 0.05	0.994:1	0.764
40	1.65	8.79			
40	1.64	8.70			
40	1.65	8.79	10.44 ± 0.01	1.001:1	0.615
50	1.41	7.58			
50	1.39	7.59			
50	1.43	7.57	8.96 ± 0.04	0.994:1	0.519
60	1.22	6.50			
60	1.22	6.48			
60	1.22	6.52	7.72 ± 0.01	1.006:1	0.442
70	1.05	5.63			
70	1.00	5.62			
70	1.10	5.64	6.66 ± 0.02	0.996:1	0.377
80	0.92	4.97			
80	0.915	4.97			
80	0.92	4.97	5.86 ± 004	0.987:1	0.329

[a] Mean value calculated from Li_2O and TeO_2 concentrations.

[b] Molalities calculated by the compiler.

AUXILIARY INFORMATION

METHOD APPARATUS/PROCEDURE:

Isothermal dissolution: equilibrium was established within 12 hr. Solutions were presumably analysed in the same way as the lithium tellurite.

The lithium tellurite had been purified by dissolving it in water, filtering, and evaporating in an atmosphere free of carbon dioxide.

SOURCE AND PURITY OF MATERIALS:

Lithium tellurite was prepared by treating a solution of analytical grade lithium hydroxide with an excess of freshly precipitated tellurium dioxide, filtering off the residue, and evaporating the solution almost to dryness. TeO_2 was determined by oxidation with excess of standard dichromate, and back-titration with iron(II). Lithium oxide was determined by titration with HCl to Methyl Orange.

ESTIMATED ERROR:

Temperature: ±0.1 K
Analyses: see table of solubilities

REFERENCES: