COMPONENTS:	ORIGINAL MEASUREMENTS:
1. Nickel tellurite; $NiTeO_3$; [15851-51-2] 2. Hydrochloric acid; HCl; [7647-01-0] 3. Sulfuric acid; H_2SO_4; [7664-93-9] 4. Water; H_2O; [7732-18-5]	Ganelina, E.Sh. *Zh. Priklad. Khim.* 1967, *40*, 1019-24; **J. Appl. Chem. USSR (Eng. Transl.)* 1967, *40*, 983-7.
VARIABLES:	PREPARED BY:
One temperature, probably 298 K pH varied.	Mary R. Masson

EXPERIMENTAL VALUES:

		Author		Compiler		
pH	$[Ni^{2+}] \times 10^3$ mol dm^{-3}	$\alpha_{L(H)}$	$K_{s0} \times 10^8$ mol^2 dm^{-6}	$\alpha_{L(H)}$	$K_{s0} \times 10^{10}$ mol^2 dm^{-6}	
5.2	7.1	2.66×10^3	1.9	1.97×10^5	2.56	
5.8	1.1	71.0	1.7	1.67×10^4	0.724	hydrochloric
6.1	0.9	34.1	2.4	5.64×10^3	1.44	acid
7.3	0.3	4.42	2.0	1.94×10^2	4.64	
		Mean = 2.0×10^{-8}		Mean = 2.34×10^{-10}		$pK_{s0} = 9.63$
6.1	1.4	36.8	5.3	5.64×10^3	3.48	
6.6	0.7	12.1	4.1	1.19×10^3	4.12	sulfuric
7.0	0.4	5.52	2.9	4.08×10^2	3.92	acid
		Mean = 4.1×10^{-8}		Mean = 3.84×10^{-10}		$pK_{s0} = 9.42$

The results calculated by the author using acid dissociation constants said to be from (1) are given, along with values calculated by the compiler using constants from (2), which should be more reliable.

Note: $[Te_{tot}] = [Ni^{2+}]$ and $[TeO_3^{2-}] = [Te_{tot}]/\alpha_{L(H)}$

The author does not state the temperature at which the investigations were done. The work on barium and lead tellurites was done at 25°C, and this work was probably done at this temperature.

AUXILIARY INFORMATION

METHOD APPARATUS/PROCEDURE:

Nickel tellurite was stirred with solutions of hydrochloric or sulfuric acid of various concentrations until equilibrium was established. The solution pH was measured by means of an LPU-01 instrument with a glass electrode. Nickel in the filtrate was determined gravimetrically as the dimethylglyoximate.

SOURCE AND PURITY OF MATERIALS:

Nickel tellurite was prepared by the exchange reaction between sodium tellurite and a nickel salt. The precipitate was dried over H_2SO_4 and analysed for nickel, tellurium and water of crystallization.

ESTIMATED ERROR:

Error in K_{s0} (2*s*)
= 1.9×10^{-10} (hydrochloric acid)
= 3.8×10^{-11} (sulfuric acid)

REFERENCES:

1. Blanc, E. *J. Chem. Phys.* 1920, *18*, 40.
2. Masson, M.R. *J. Inorg. Nucl. Chem.* 1976 *38*, 545-8.