Tetramethylammonium Tri- and Tetrachloro-iodides.—Weltzien[1] describes the preparation of the di-, tri- and tetrachloro-iodides of tetramethylammonium. No polyhalides of ammonium or the alkali metals corresponding to tetramethylammonium trichloro-iodide, $N(CH_3)_4ICl_3$, are known; it was, therefore, thought desirable to repeat Weltzien's work.

Analysis of the solid obtained by the method which Weltzien supposed to yield the trichloride gave results which were low and variable, so that the existence of this compound does not appear to be satisfactorily established; probably it is a mixture of the di- and tetrachloro-iodides produced by the partial decomposition of the latter substance.

Weltzien's analysis of the tetrachloro-iodide showed that his product was partly decomposed. A solid more closely approaching the composition of tetramethylammonium tetrachloro-iodide, $N(CH_3)_4ICl_4$, is obtained by the long continued action of dry chlorine gas on tetramethylammonium iodide at 28°. The solid was weighed in a small glass-stoppered weighing bottle, with glass inlet and outlet tubes also fitted with ground glass stoppers. A slow, continuous stream of chlorine was conveniently obtained by the electrolysis of a concd. solution of hydrochloric acid, the gas was passed through water and concd. sulfuric acid and then into the bottle containing the iodide; the latter first turned brown, then black and finally was completely converted into an orange-colored solid. The bottle was weighed from time to time with the following results:

Expt. 1. 0.5173 g. of iodide used		Expt. 2. 0.6030 g. of iodide used	
Time: days	Gain: G.	Time: days	Gain: G.
2	0.0898	38	0.3522
14	0.1874	51	0.3779
29	0.2739	77	0.3820
52 (constant)	0.3616	99 (constant)	0.4244
Total gain 69.9%		70.4%	

The formation of $N(CH_3)_4ICl_4$ requires a gain of 70.6% in weight The substance formed in Expt. 1 was analyzed; 0.8484 g. required 140.48 cc. of 0.0694 *N* arsenite equivalent to 0.3457 g. of chlorine or a gain in weight of 68.8 %.

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Received December 14, 1922

Some Solidification Curves of Binary Systems.—In a series of papers on the solidification points of binary systems of various nitro derivatives of toluenes by Professor Bell,[1] I am erroneously attributed with having in my prior researches[2] taken as the temperature of solidification of binary

[1] Weltzien, *Ann.*, **99**, 1 (1856).

[1] Bell, *J. Ind. Eng. Chem.*, **11**, 1124 (1919).

[2] Giua, *Ber.*, **47**, 1718 (1914). *Gazz. chim. ital.*, **45**, 339 (1915).