

TABLE I.

Sample.	MgO as		Deviation.
	Mg <sub>2</sub> P <sub>2</sub> O <sub>7</sub> .	MgNH <sub>4</sub> - PO <sub>4</sub> .6H <sub>2</sub> O.	
4115 D	1.529	1.543	+0.014
4154 D	1.542	1.546	+0.004
4162 D	1.566	1.563	-0.003
4191 D	1.689	1.695	+0.006
4192 D	1.739	1.732	-0.007
4205 D	1.533	1.540	+0.007
4206 D	1.515	1.519	+0.004
4237 D	1.585	1.575	-0.010
4260 D	1.825	1.840	+0.015
4280 D	1.600	1.610	+0.010
4288 D	1.872	1.875	+0.003
4311 D	1.552	1.561	+0.009

## SUMMARY.

A comparative study has been made of the U. S. P. XI and the magnesium ammonium phosphate hexahydrate methods in the assay of solution of magnesium citrate.

The latter has been found to be sufficiently accurate, and is more rapid, and less tedious than the official procedure.

## REFERENCES.

- (1) Mayer, J. L., *Jour. A. Ph. A.*, 9, 253 (1920).
- (2) Haussmann, H. W., *Am. J. Pharm.*, 103, 44 (1931).
- (3) Page Proof, U. S. P. XI, page 218.
- (4) Mehlig, J. P., *J. Chem. Ed.*, 12, 288 (1935).

## A FURTHER NOTE ON THE STABILITY OF SODIUM SULPHITE.

BY A. H. CLARK AND SOLOMON GERSHON.\*

Reports have previously been made<sup>1,2</sup> on this subject and since quite a number of the specimens of sulphite are still in existence a final report is presented on their condition in March 1935. Some of these samples are twenty-three years old and none less than twenty-one years old. The final result is tabulated below and shows the condition of the samples after all these years of storage in a cupboard in the laboratory. Special comment is made in a few cases. Complete data on each sample may be had by reference to the original articles.

The method of assay used in 1935 was that of the U. S. P. IX, the same method originally used.

Manufacturer.	No.	Original.	CONTENT OF Na <sub>2</sub> SO <sub>3</sub> .			Container.
			1914.	1916.	1935.	
A	2	90.80	91.40	90.89	91.03	Paper
A	4	90.80	90.84	89.50	80.09	Glass
A <sup>1</sup>	6	45.19	45.19	39.50	1.37	Tin can

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<sup>1</sup> *Druggists Circular*, 58, 8, 456 (Aug. 1914).

<sup>2</sup> *Ibid.*, 60, 7, 396 (July 1916).

B	1	92.04	92.60	91.52	73.80	Tin can
B	2	96.44	96.44	97.17	92.20	Tin can
C <sup>2</sup>	1	94.74	93.91	92.61	91.84	Paper
D	1	84.70	84.70	84.28	82.54	Paper
F	1	...	94.22	93.00	91.50	Tin can
F	2	92.33	91.76	91.05	90.38	Tin can
F	4	92.50	91.84	91.34	90.67	Glass
G	1	...	86.27	86.36	86.08	Glass

<sup>1</sup> Sample A, 6, was originally a crystalline sulphite purchased in a tin can. In May 1916, it was still in good physical condition but had lost about 12.50 per cent. In 1916 a part of the sample was placed in a glass-stoppered bottle, the remainder left in the original can. The assay given above is for the *crystals placed in the bottle*, and shows almost entire loss of sulphite. Strange as it may seem the sample remaining in the can assayed in 1935 59.00 per cent sulphite. On careful inspection this sample was a fine powder, no crystals whatever. The high content of sulphite is no doubt due to the fact that the can was not air tight and the crystals dried out during the twenty years of storage and this drying process outstripped the deterioration process, thus rendering the remaining portions of the sample more and more stable as the drying went on, the final result being a stable fully dried sulphite. Based upon crystalline sulphite instead of dried, 59.00 per cent would mean about 30 per cent  $\text{Na}_2\text{SO}_3$ , so the actual loss of sulphite was considerable, aside from the loss of water which is always an economic one.

<sup>2</sup> Sample C, 1. In 1935 this specimen was found uncovered and very dirty on top, but in spite of this the loss of sulphite was not great.

One may conclude very definitely from the above that a dried sodium sulphite will keep, certainly for three years, probably for five or six years and in some cases as long as twenty years; that crystalline sodium sulphite loses sulphite rapidly, the loss ranging from 12.5 per cent to 100 per cent in two years; that a paper carton or tin can is as safe a container as a glass bottle; that a photographic quality, a U. S. P. quality or an unbranded article is likely to be just as good as an expensive grade.

## THE IMPORTANCE OF THE KIDNEYS IN THE STANDARDIZATION OF DIGITALIS.

BY B. BOUCEK.\*

The directions in the official publication of the League of Nations for the standardization of digitalis by the method of Hatcher and Brody, as modified by Magnus, require that pregnant cats and those having pneumonia shall not be used for the standardization. It is not explained why such animals are unsuitable, and I have been unable to find elsewhere any statement that any functional or pathological change in any organ influences the result of the test.

It is well known that some individual cats are especially resistant to the toxic action of digitalis. This fact has been confirmed by McFarlane and Masson<sup>1</sup> who state: "Apparently, it represents a separate group of cats which has greater resistance to the toxicity of digitalis and consequently lessens the reliability of this method of assay of the drug unless a large number of animals be done for each estimation."

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<sup>1</sup> McFarlane, A., and Masson, G. A., *J. Pharmacol. and Exper. Therap.*, 30, 293 (1927).