Compound Sulphur Ointment (0.2 Gm. = 0.03 Gm. S)	3	1	0.0293	0.0295
			0.0292	0.0302
			0.0289	0.0295
			Av. 0.0291	0.0297
			Grand Average of Series = 0.0294 Gm.	
	3-A	1		0.0655
				0.0663
				Av. 0.0659

SUMMARY.

1. A modification of Shulek's volumetric method for the determination of Sulphur in drugs is proposed for the assay of the official sulphur ointments.

2. The proposed method has been found to be applicable to the official ointments and is applied with promising results to samples of the three official ointments carefully prepared in the laboratory and to two commercial samples of which one was stated to be twice the official strength.

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A NOTE ON THE ASSAY OF MASS OF FERROUS CARBONATE.*

BY JOHN C. KRANTZ, JR., AND C. JELLEFF CARR.[1]

INTRODUCTION.

Based upon the work of Scott (1) and Knop (2), Krantz and Vidal (3) suggested the use of diphenylamine as an indicator in the titration of Mass of Ferrous Carbonate with tenth-normal potassium dichromate. This suggestion was adopted by the Revision Committee of the U. S. P. XI owing to the advantages offered by diphenylamine as an inside indicator, over potassium ferricyanide as an outside indicator.

The formation of the green chromic ion makes it somewhat difficult for the inexperienced worker to determine sharply the end-point of the titration. To obviate this difficulty, the present investigation was begun, with the aim to introduce the volumetric reagent, tenth-normal ceric sulphate solution, in place of the

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corresponding dichromate solution. The use of ceric sulphate as an oxidizing volumetric reagent has been extensively studied by Smith (4).

EXPERIMENTAL.

A sample of Mass of Ferrous Carbonate was prepared according to the directions in the U. S. P. X. The theoretical yield of ferrous carbonate in the mass is 41.5 per cent.

This mass was assayed using potassium dichromate tenth-normal solution with diphenylamine T.S. as the indicator. Using this method, the mass assayed above the theoretical amount of $FeCO_3$, namely, 43.2 per cent. This higher value is in conformity with the findings of Hartley and Linnell (5) who suggested that the oxidations occur in the following order: ferrous iron-carbohydrate indicator. Using tenth-normal ceric sulphate as the volumetric reagent, the mass showed the following percentages of ferrous carbonate: 40.6, 40.4, 40.4, 40.5, 40.5, 40.3, 40.6 and 40.6. When the pure ferrous sulphate is titrated in the absence of honey and sugar, the results with the two volumetric reagents are identical.

The results using ceric sulphate are closer to the theoretical amount of ferrous carbonate and the end-point is much sharper. Ortho phenanthroline, an indicator recommended by Smith (4) in the titration of ferrous salts with ceric sulphate, gave satisfactory results and a strikingly sharp end-point.

The following procedure is recommended.

Dissolve about 1 Gm. of Mass of Ferrous Carbonate, accurately weighed, in 15 cc. of diluted sulphuric acid, add 10 cc. of diluted phosphoric acid and 100 cc. of distilled water. Immediately titrate with tenth-normal ceric sulphate, using 0.5 cc. of diphenylamine T.S. as the indicator. Each cc. of tenth-normal ceric sulphate is equivalent to 0.01159 Gm. of $FeCO_3$.

CONCLUSION.

Ceric sulphate solution has been advantageously employed in the assay of Mass of Ferrous Carbonate.

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STUDIES ON CUDBEAR.*

BY E. H. WIRTH, L. E. MARTIN AND P. G. SODERDAHL.[1]

Cudbear as a coloring agent for pharmaceutical preparations came into use about 1874 (1) and in spite of complaint involving principally its lack of uniformity, it has enjoyed considerable popularity. Although the tincture was previously official, cudbear as such, did not appear until the N. F. IV, where it was defined as

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