

TABLE II.—ANALYSIS OF DOSAGE FORMS CONTAINING CALCIUM

Dosage Form	Calcium Salt	Labeled Amt.	Recovery, %
Injection ^a	Calcium chloride	100 mg./ml.	102.5 ± 0.30 ^b
Injection	Calcium gluconate	100 mg./ml.	110.9 ± 0.10
Tablet	Calcium carbonate	0.65 Gm./tablet	96.9 ± 0.27
Tablet	Calcium gluconate	1.0 Gm./tablet	97.9 ± 0.23
Tablet	Calcium lactate	0.65 Gm./tablet	99.7 ± 0.18
Tablet, antacid	Calcium carbonate	0.42 Gm./tablet	95.0 ± 0.40

^a The calcium chloride injection used for this analysis was buffered with calcium hydroxide. ^b Average of four determinations ± standard deviation.

TABLE III.—ANALYSIS OF MIXTURES OF CALCIUM CARBONATE AND MAGNESIUM OXIDE

CaCO ₃ /MgO Wt. Ratio	Calcium Carbonate			Magnesium Oxide		
	Taken, mg.	Found, mg.	Recovery, %	Taken, mg.	Found, mg.	Recovery, %
90/10	75	75.80	101 ± 0.30 ^a	8.33	8.27	99.3 ± 0.11 ^a
80/20	75	75.30	100.4 ± 0.25	18.75	18.51	98.7 ± 0.12
70/30	75	75.21	100.3 ± 0.12	21.43	21.31	99.4 ± 0.12
60/40	75	75.45	100.6 ± 0.23	33.33	33.13	99.4 ± 0.13
50/50	75	75.58	100.8 ± 0.12	25.00	24.91	99.6 ± 0.11
40/60	75	75.45	100.6 ± 0.10	37.50	37.05	98.8 ± 0.28
30/70	75	76.07	101.4 ± 0.12	35.00	34.29	98.0 ± 0.12
20/80	75	75.57	100.7 ± 0.31	40.00	39.29	98.2 ± 0.11

^a Average of four determinations ± standard deviation.

and the sample titrated with 0.05 *M* EDTA using 0.2 Gm. of hydroxy naphthol blue indicator.

Magnesium.—The concentration of magnesium in the sample was calculated by subtracting the volume of EDTA used for the calcium titration from the volume used in the total calcium and magnesium titration.

The results obtained by these procedures are presented in Table III.

The volumetric determination of calcium by titration with EDTA is accurate and more rapid and convenient than the traditional oxalate method. The procedure has been demonstrated to be applicable readily to the analysis of pharmaceutical dosage forms containing calcium. A new indicator, hydroxy naphthol blue, has been shown to be suitable for analysis of calcium by the EDTA procedure and to be applicable for the determination of calcium in the presence of magnesium. In the titration of mixtures of calcium carbonate and magnesium oxide, the end point was detected readily until the ratio of

magnesium to calcium became excessively high, at which point the magnesium hydroxide precipitate rendered detection of the end point difficult.

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ERRATUM

In the article titled "Kinetic Analysis of Blood Levels and Urinary Excretion in the Absorptive Phase after Single Doses of Drug" (1), the following correction should be made on page 1401:

The constant, *K*, in the denominator of the first term on the right-hand side of Eq. 14A should be removed.

(1) Wagner, J. G., and Nelson, E., *THIS JOURNAL*, **53**, 1392 (1964).