TABLE III
N-METHYLCEPHALINS (IV)

Diglyceride	Melting Point	$[\alpha]_D^{25}$	Calculated				Found			
			C	H	N	P	C	H	N	P
D-α,β-Distearin	178–180	+7.1°	66.19	11.11	1.84	4.06	66.05	11.11	1.86	3.98
DL-α,β-Distearin	171–172		66.19	11.11	1.84	4.06	66.02	11.20	1.53	3.86
D-α,β-Dipalmitin	177–178	+8.0°	64.65	10.85	1.99	4.39	64.61	10.79	2.10	4.22
DL-α,β-Dipalmitin	170–171		64.65	10.85	1.99	4.39	64.49	10.84	2.04	4.24

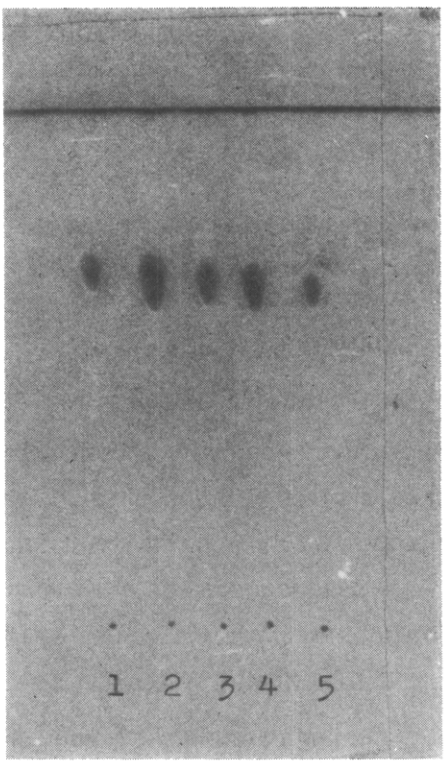

FIG. 1.—Thin-layer chromatogram of methylated and nonsubstituted cephalins on silica gel G plates. Solvent, chloroform-methanol-water, 65:25:4. Detecting spray, ammonium molybdate–perchloric acid. Compounds: (1) dipalmitoyl-L-α-glycerylphosphorylethanolamine; (2) distearoyl-L-α-glycerylphosphoryl(*N*-methyl)ethanolamine; (3) dipalmitoyl-L-α-glycerylphosphoryl(*N*-methyl)ethanolamine; (4) distearoyl-L-α-glycerylphosphoryl(*N*,*N*-dimethyl)ethanolamine; (5) dipalmitoyl-L-α-glycerylphosphoryl-(*N*,*N*-dimethyl)ethanolamine.

solution was filtered, 15 ml methanol was added slowly, and the mixture was kept at 5° for 8 hours. The precipitate was recrystallized once more from chloroform and methanol. The dried product weighed 275 mg (62%) and melted at 171–172° with slight sintering at about 140°. A sample of 200 mg was dissolved in 3 ml of a mixture of chloroform and methanol (4:1), and the solution was passed through a column of 10 g silicic acid. Elution with the same solvent mixture (four fractions of 100 ml) gave homogenous material with unchanged melting point.

Hydrogenolysis of the DL-dipalmitin intermediate yielded the corresponding *N*-methylcephalin in 55%. Debenzylation of the crude oily products resulting from the amination of 1 g of the respective optically active β-bromoethylphosphates gave 400–425 mg of the pure monomethylcephalins.

Chromatography.—All monomethyl- and dimethylcephalins were shown to be chromatographically homogenous compounds. The lipids were run on silicic acid–impregnated paper along with synthetic phosphatidylethanolamine as reference substance. Following the procedure of Marinetti and Stotz (1956), we used as solvent system a mixture of *n*-butyl ether, glacial acetic acid, chloroform, and water (40:35:6:5), and a 0.001% aqueous solution of Rhodamine B as spray reagent. Each lipid gave only a single fluorescent spot in ultraviolet light, the mobility of the methylated derivatives being similar to that of the nonsubstituted cephalin. The purity was further confirmed by a thin-layer chromatogram (Wagner *et al.*, 1961) as shown in Figure 1.

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CORRECTION

In the paper by K. Murray in Volume 3, No. 1, January, 1964, on page 12, left-hand column, line 15 should read: ". . . observed in the histone hydrolysates was ϵ-*N*-methyl. . . ."