The above methods cover most of the cases that occur in pra
tice. Samples containing tartar emetic cannot, however,
analyzed by these methods (without modification), and great ca
tion should be exercised in extending any of the methods d
scribed to cases involving the presence of foreign substances n
taken into account in this paper.

APPENDIX.

In this section some of the experimental data are recorded. T
readings were made mostly with a Schmidt & Haensch ha
shadow instrument, graduated in degrees and minutes. A 200 m
tube was used for the readings. The light was supplied by
flame in which sodium chlorate was heated on platinum. It w
found that the readings for tartaric acid were practically ind
pendent of the temperature, and, except where otherwise in
cated, the observations were made at room temperature. T
rotations recorded in the following tables are expressed
minutes. In this section TH_2 stands for tartaric acid; KH
potassium bitartrate; CaT, calcium tartrate tetra-hydrate; N
ammonia of sp. gr. 0.924 (11 normal); HCl, concentrated hyd
chloric acid, 9.2 normal; alum, crystallized ammonia alum.

The potassium bitartrate and calcium tartrate used in th
experiments were specially prepared for this work, and found
analysis to be almost absolutely pure.

THE EFFECT OF VARIOUS SUBSTANCES ON THE ROTATION OF TARTA
ACID IN AMMONIACAL SOLUTION.

								R t
(1)	4 g.	TH_2	4 cc.	NH_3			in 100 cc.	1
(2)	4 g.	TH_2	8 cc.	NH_3			in 100 cc.	1
(3)	4 g.	TH_2	40 cc.	NH_3			in 100 cc.	1
(4)	4 g.	TH_2	8 cc.	NH_3	4 g.	ammonium chloride	in 100 cc.	1
(5)	4 g.	TH_2	8 cc.	NH_3	4 g.	ammonium nitrate.	in 100 cc.	1
(6)	4 g.	TH_2	8 cc.	NH_3	4 g.	ammonium sulphate	in 100 cc.	1
(7)	4 g.	TH_2	8 cc.	NH_3	4 g.	ammonium oxalate	in 100 cc.	1
(8)	4 g.	TH_2	8 cc.	NH_3	4 g.	lithium chloride ..	in 100 cc.	1
(9)	4 g.	TH_2	8 cc.	NH_3	4 g.	sodium chloride ..	in 100 cc.	1
(10)	4 g.	TH_2	8 cc.	NH_3	4 g.	sodium phosphate.	in 100 cc.	1
(11)	4 g.	TH_2	8 cc.	NH_3	4 g.	sodium acetate	in 100 cc.	1
(12)	4 g.	TH_2	8 cc.	NH_3	4 g.	potassium chloride	in 100 cc.	1
(13)	4 g.	TH_2	8 cc.	NH_3	4 g.	potassium bromide	in 100 cc.	1
(14)	4 g.	TH_2	8 cc.	NH_3	4 g.	potassium iodide...	in 100 cc.	1