ART. LXII.—*A Note on the method for the Quantitative Separation of Strontium from Calcium by the action of Amyl Alcohol on the Nitrates;* by PHILIP E. BROWNING.

[Contributions from the Kent Chemical Laboratory of Yale College—XX.]

RECENT work on my method for the quantitative separation of strontium from calcium by the action of amyl alcohol on

the nitrates* has demonstrated the possibility of using very much smaller amounts of amyl alcohol in the boiling than the amounts formerly used (30 cm³ for each treatment). By the use of smaller beakers (50 cm³ capacity) 10 cm³ of the alcohol can be conveniently substituted for 30 cm³, and the correction for solubility of the strontium nitrate is thus reduced from 0·001 grm. on the oxide to 0·0003 grm. in each treatment, and the corresponding amount of sulphate to be substracted from the calcium sulphate before calculating to the condition of oxide is reduced from 0·0017 grm. to 0·0005 grm. in each treatment. The necessity of a double treatment, or the use of two portions of 10 cm³ each of the alcohol, brings the total correction to 0·0006 grm. on the strontium oxide, and 0·0010 on the calcium as sulphate. For ordinary work such a correction may be disregarded. The following tables give the corrected and uncorrected results.

TABLE I (correction disregarded).

	SrO taken. grm.	SrO found. grm.	Error. grm.	CaO taken. grm.	CaO found. grm.	Error. grm.
(1)	0·0570	0·0565	0·0005 —	0·0534	0·0540	0·0006 +
(2)	0·0573	0·0567	0·0006 —	0·0534	0·0543	0·0009 +
(3)	0·0285	0·0274	0·0011 —	0·0272	0·0276	0·0004 +
(4)	0·0568	0·0560	0·0008 —	0·0535	0·0537	0·0002 +
(5)	0·0568	0·0561	0·0007 —	0·0533	0·0535	0·0002 +
(6)	0·0288	0·0280	0·0008 —	0·0271	0·0272	0·0001 +
(7)	0·1420	0·1416	0·0004 —	0·0535	0·0544	0·0009 +
(8)	0·1419	0·1416	0·0003 —	0·0665	0·0669	0·0004 +
(9)	0·1135	0·1132	0·0003 —	0·1066	0·1070	0·0004 +
(10)	0·1137	0·1126	0·0011 —	0·1064	0·1070	0·0006 +

TABLE II (correction applied).

	SrO taken. grm.	SrO found. (Corrected.) grm.	Error. grm.	CaO taken. grm.	CaO found. (Corrected.) grm.	Error. grm.
(1)	0·0570	0·0571	0·0001 +	0·0534	0·0536	0·0002 +
(2)	0·0573	0·0573	0·0000	0·0534	0·0539	0·0005 +
(3)	0·0285	0·0280	0·0005 —	0·0272	0·0272	0·0000
(4)	0·0568	0·0566	0·0002 —	0·0535	0·0533	0·0002 —
(5)	0·0568	0·0567	0·0001 —	0·0533	0·0531	0·0002 —
(6)	0·0288	0·0286	0·0002 —	0·0271	0·0268	0·0003 —
(7)	0·1420	0·1422	0·0002 +	0·0535	0·0540	0·0005 +
(8)	0·1419	0·1422	0·0003 +	0·0665	0·0665	0·0000
(9)	0·1135	0·1138	0·0003 +	0·1066	0·1066	0·0000
(10)	0·1137	0·1132	0·0005 —	0·1064	0·1066	0·0002 +

* This Journal, xliii, 50.