

## Lithium Citrate of Pharmacy.

Specimen.	Quantity taken.	Dried at 100°.	Dried at 115° (240° Fahr. B. P.) to produce the official citrate.
1	1 grm.	·852 grm.	·838 grm.
2	“	·862	·821
3	“	·808	·745
4	“	·765	·747
5	“	·773	·741
6	“	·850	·828
7	“	·757	·739
8	“	·822	·803
9	“	·770	·733
10	“	·765	·729

It would seem from the above that the difference between citrate dried at 100° and 115° is about 5 per cent. corresponding to about one molecule of water, or in other words, if the formula for crystalline citrate of lithium be  $\text{Li}_3\text{C}_6\text{H}_5\text{O}_7 \cdot 4\text{H}_2\text{O}$ , then the salt dried at 100° will lose three of these four molecules of water.

It is possible that the compilers of the 1864 British Pharmacopœia, in which citrate of lithium was first official, adopted the anhydrous citrate to lessen the objections to the salt on account of its supposed deliquescent character, and that in the 1867 edition the same was accepted as correct.

I cannot see why the crystals, which are thoroughly definite and reliable, should not be used in preference to anhydrous citrate, and if it be thought desirable to retain a salt containing less water than the crystals, then one dried at the temperature of a water bath would in my opinion be sufficient for all practical purposes.

The chief advantage likely to result from the adoption of the crystalline as the official form of citrate of lithium would be that its appearance would guarantee its uniformity, while the chief argument in favour of drying the citrate at the temperature of a water bath *only*, is that such a salt is more easy of manipulation, and can be prepared and retained under all circumstances of greater uniformity than one absolutely anhydrous.

The President said this was one of a series of valuable papers on articles in the Pharmacopœia which Mr. Umney had contributed. Citrate of lithium was greatly used, and it appeared to be unsatisfactory in its composition, varying sometimes to the extent of 10 or 20 per cent. He agreed with Mr. Umney that, provided his assertion were correct that the crystalline salt was not deliquescent, it would be better to use the salt in that form rather than in an amorphous condition. He should like to ask whether benzoate of lithium had been tried; he had seen it strongly recommended in a continental journal.