

NOTE.

On the Stability of Silver Fulminate under Water.—While looking over some old material recently, the writer found a small specimen of silver fulminate which had been prepared many years ago by the late Dr. Robert Peter, then Morrison Professor of Chemistry and Physics in Kentucky University, and used by him for illustration in connection with his lectures. These lectures were delivered in the chemical lecture room of Morrison College, where the writer distinctly remembers seeing this specimen when, as a student, he attended them in the seventies. Inasmuch as Dr. Robert Peter ceased lecturing in this room in 1878, having removed to another building, it follows that the specimen must be at least thirty-seven years old and it is probably several years older.

The material is distinctly crystalline, but is of a mouse-gray color, as the result of long exposure to the light. It is contained, under water, in a small glass stoppered bottle, the stopper being well greased. The water is colored somewhat brownish, probably from the grease on the stopper, but is neutral to litmus paper. The fulminate, after drying, was found to detonate strongly when struck or when heated, and also when touched with concentrated sulfuric acid. Addition of dilute HCl caused a rapid decomposition with production of a voluminous precipitate of AgCl and a smell like that of HCN (Nef's formyl chlorid oxime).

A determination of silver was made by drying a portion in a porcelain dish, in a desiccator, at room temperature, decomposing it by evaporating with dilute hydrochloric to which a little nitric acid had been added, and heating the resulting silver chlorid to incipient fusion before weighing. By this process 0.1171 g. of the material gave 0.1118 g. AgCl.

Calc. for CNOAg: 71.97%. Found: 71.86%.

For comparison, two recently prepared specimens of silver fulminate were treated in the same way, giving the following results, respectively: 0.0918 g. silver fulminate gave 0.0880 g. AgCl, and 0.3055 g. silver fulminate gave 0.2922 g. AgCl.

Calc. for CNOAg: 71.97%. Found: 72.03 and 71.98%.

showing that this method gives good results and that the old specimen had the same composition as the fresh specimens.

It is interesting to note that silver fulminate does not undergo decomposition under water and under ordinary laboratory conditions during the lapse of so long a time.

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