



Subsesquiacetate of lead

F. Wohler

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lime, or by sulphate of urea and lactate of oarytes. The oxalate of urea has been described by Berzelius; it is composed of 37·44 oxalic acid + 62·56 urea; it is prepared by direct combination; by solution in water and evaporating with care, the salt is obtained either in a mass of interlaced prismatic needles, or in pearly laminæ.

The natural and artificial lactate of urea crystallize in elongated six-sided prisms, the summits of which are inclined. These crystals are white, hygrometric, and very deliquescent; their taste is cooling and sharp; they are very soluble in water and in alcohol and ætherized alcohol, but much less so in pure æther. When moderately heated they first fuse, then volatilize without decomposition and sublime. If the heat be too great the salt decomposes, leaving a black coaly residue.

Lactate of urea is formed of

Lactic acid	50·39
Urea	49·61—100
Or Lactic acid (anhydrous)	1 equivalent
Urea	1 ditto
Water	1 ditto

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SUBSESQUIACETATE OF LEAD. BY F. WOHLER.

Matteucci has accurately observed the manner in which acetate of lead is affected at a high temperature, but he has not explained it, for he was unacquainted with the true composition of acetic spirit. The decomposition is in fact very simple, and affords another instance of the ready explanation which might be given of the decomposition of organic compounds at high temperatures, if it were possible in every case to expose them to well-determined degrees of heat uniformly throughout their mass.

If anhydrous acetate of lead be exposed in a glass vessel to a uniform temperature, it fuses, according to Matteucci, at 536°, into a transparent liquid, which boils in a uniform manner at a little higher temperature: the ebullition is due to the formation of carbonic acid and acetic spirit, which are given out; and the latter may be condensed by a long refrigerating tube. At last a period arrives at which the salt suddenly loses its liquid state and becomes a porous white mass; this is the subsesquiacetate of lead; it dissolves readily in water, carbonate of lead separating, which is formed as a secondary product in small quantity. The dense solution, evaporated to the consistence of a syrup out of contact of the air, deposits after some time the salt in pearly crystals; they are laminated and grouped in a concentric manner.

This decomposition of the neutral acetate of lead consists then in losing one third of its acetic acid at 536°, which is converted into carbonic acid and acetic spirit, while the remaining two-thirds combine with all the oxide to form a subsesquisalt, which is not decomposable at this temperature.—*Journal de Pharm. Mars 1839.*