although the wood had previously been dried ten or twelve hours in a stove heated to 100° C. From the report with which the tubes exploded at the moment when the fusion above mentioned takes place, there is reason to believe that the internal pressure, at that junction, exceeds eighty atmospheres. It is further remarkable that these tubes when they are broken after becoming entirely cold, in order to abstract the carbonized matter, which is then solid, still produce a strong explosion by the sudden expansion of the gases compressed within them.

The carbonized matter, when examined by a powerful lens, exhibits no trace of the woody texture. Heated to redness in the air, it inflames and leaves a charcoal but slightly combustible. Rubbed with alcohol it colours the liquid yellow.

Ibid.

New Chloride of Chrome. By M. H. ROSE. (*L'Institut*, 1839.)

This modification of chromic chloride, insoluble in water, and of the greatest beauty, is obtained by heating strongly a mixture of the oxide of chrome and charcoal in a current of chlorine. There sublimes immediately a body of a scaly or crystalline, lamellar texture, of great splendour and of a magnificent colour.

This form of chloride of chrome, undergoes no change by exposure to air. Sulphuric acid does not decompose it; it may be heated when covered with this acid diluted, without change; the dilute acid may be evaporated, and the concentrated acid may be vaporized and distilled without decomposing the chloride. By heating it in the air it is transformed, like the other forms, into the oxide of chrome, with a disengagement of chlorine.

Ibid.

Preparing Sulphate of Iron so as to preserve it at a minimum of Oxidation.

By M. BERTHEMOT. (*I. de Phar.*)

Having dissolved and crystalized in water, sharpened with sulphuric acid, a portion of common sulphate of iron, exempt from copper and zinc, take 500 parts of it and dissolve it in 550 parts of distilled water: then add to the solution 8 parts of pure iron turnings, and after a few minutes filter it boiling hot, taking care to moisten the filter previously, that the liquid may flow through it more rapidly. Put the solution in a vessel containing 575 parts of alcohol at 33° to 36°, and 8 parts of sulphuric acid stirring it briskly with a glass rod as it is poured in. The sulphate of iron immediately precipitates in the form of a bluish white crystalline powder, and thus prepared it will remain in the air without the least alteration. It contains, besides, the same proportion of water of crystallization as that which is deposited from an aqueous solution. It is only after boiling it for some time in strong alcohol that it gives up a portion.

Ibid.

Presence of Arsenic in Tin. By M. WÖHLER. (*Ann. de Phar. t. 29.*)

The greater number of the tins of commerce contain arsenic. I have found none, except the tin of Banca, and an English tin in lumps,* which are exempt from it. The method of Marsh is perfectly adapted to show its presence. Dissolve from one half to one drachm of tin in concentrated

* Most probably *Stream* tin.—TRANS.