

is not so great as to show that it is composed of one atom of iodine and two of cyanogen, for in that case the proportions would be,

Iodine	0.7062	= 1 atom
Cyanogen	0.2938	= 2 atoms.

Action of the Cyanuret of Iodine on Man.

From its composition M. Serullas is of opinion that this cyanuret should have a most energetic action on the animal system, and would be found applicable in medicine. It does not, however, appear to be so deleterious as the nature of its elements might have led us to suppose. M. Serullas, and several individuals attached to his laboratory, both tasted this compound and were exposed to the inhalation of its vapours, during the preparation and securing of it in vessels; but they for the most part only experienced a general depression, and in all the instances a violent irritation of the eyes, which was, however, shortly dissipated.

M. Thenard sent me a good quantity of the cyanuret of iodine, but I have not yet made a sufficient number of observations to ascertain its *modus operandi*; and I have introduced it in this place only to point out the preparation, and stimulate to further experiments.

HYDROCYANIC ETHER.

This preparation, which with the qualities does not possess the frightful activity of the prussic acid, has lately been discovered by M. Pelouse.

Chemical Properties.

It is a colourless fluid, having a penetrating alliaceous odour, of the density of 0.78, boiling at about 82°, very slightly soluble in water but soluble to any extent in alcohol and sulphuric ether. When pure it

does not precipitate a solution of nitrate of silver. It is very inflammable, and burns with a blue flame. It is scarcely at all affected by caustic potass.

Mode of Preparing Hydrocyanic Ether.

Equal parts of sulpho-vinate of baryta and of cyanuret of potassium are exposed to a gentle heat in a glass retort, to which a tubular matras is adapted. The product of the distillation is a colourless, or a very slightly yellow fluid, which separates into two parts, the lighter one being the hydrocyanic ether; not pure, however, but mixed with some water, alcohol, sulphuric ether, and hydrocyanic acid. It is purified by rapid shaking with four or five times its volume of water, subsequent exposure for some time to a heat from 50° to 60° ; again shaking with water, pouring off, and leaving it for twenty-four hours in contact with chloride of calcium: it is then distilled in a pure state. It is composed of

Carbon	64.23
Hydrogen	8.96
Azote	26.81
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	100.00

Or, in atoms, $C^4 H^8 + A^2 H^2$. It corresponds to equal volumes of olefiant gas and prussic acid condensed into one volume.

Physiological properties of Hydrocyanic Ether.

Six drops in the gullet of a dog immediately caused deep inspirations, falling on his side, and subsequently cerebral congestion, and a remarkable agitation of the paws. This continued for four minutes, then gradually diminished, and in half-an-hour had mostly disappeared. The injection of six drops into the jugular vein was quickly followed by death with phenomena as in that by prussic acid.

Medicinal employment.

A patient with convulsive cough was considerably relieved by taking six drops of prussic ether, combined in a mucilaginous vehicle; nor did he complain of the penetrating and disagreeable odour of the ether. But with several others at the Hôtel Dieu the result was different: for though the benefit obtained was equal to that procured by prussic acid, I was under the necessity of abandoning its employment in consequence of the insurmountable disgust of the patients for the smell of the mixture.

The circumstances in which hydrocyanic ether is applicable are the same as those for the exhibition of prussic acid.

IODINE.

This is a simple substance, discovered in 1813 by M. Courtois in the mother-waters of the soda of seaweed; but the major part of its properties were elucidated by Gay-Lussac. It is met with in the greater number of fuci growing on the sea-coasts, and also, according to Fife, (*Ann. de Chim. et de Phys.* t. 12,) in sponges. M. Gaultier de Claubry, (*Ann. de Chim. et de Phys.* t. 93,) has ascertained that it exists in the shape of hydriodate of potass, in the mother-waters alluded to. Several mineral waters appear to owe their properties to it. M. Laur. Angelini, of Voghera, has discovered its presence, by means of starch, in the saline waters of that place. He also ascertained the existence of iodine in the waters of Salles, in the Vogherese, which waters are considered efficacious in goitre and lymphatic congestions. Dr. Cantu, professor of chemistry in Turin, astonished at the effects of the sulphureous waters of Castel-Nuovo d'Asti, in the same diseases, at first was unsuccessful in his