

ORGANIC CHEMISTRY.

NATURE'S CHEMISTRY INEXPLICABLE.

By J. L. Levison, Esq., Brighton.

There appears to be something anomalous in the effects of light on some flowers, which seems to render Nature's chemistry inexplicable. Probably some of your readers may solve the problem. For instance, it is said that when light is excluded from vegetables or flowers, they become white, and the inference which most students have arrived at is, that light is the principal cause of the difference of colour, modified in different kinds by some difference in their structure. That the exclusion of light does certainly blanch some kinds of vegetables, is now admitted as an axiom in vegetable chemistry; for example, the endive, the celery, the white cabbage, &c.; and although the deprivation seems to induce the colourless condition of those mentioned above, it is not a law, otherwise it would be universal. And my object, therefore, in this brief paper, is simply to mention a few facts which seem to be exceptions. The *viburnum opulus* (guelder rose) has a green flower in the first instance, which gradually becomes white if the weather is fine and the light intense, the flowers under such stimulus assuming a most beautiful opaque whiteness. They remain for weeks in this colourless condition, and are finely contrasted with the dark-green leaves which surround them; and so delicate is the whiteness of the flowers that they are popularly called snow-balls." So also *lilium album*, &c., present similar phenomena.

Can it be explained why the *viburnum opulus*, &c., &c., seem to be exceptions? That all the rich variety of colours in the domain of Flora, court the light which gives them their beautiful shades and tints, and in those we have named, that its presence should banish from them every vestige of hue or colour, shows that we have still much to learn on the chemical effects of light.

ON THE OXIDATION OF AMMONIA IN THE HUMAN BODY; WITH SOME REMARKS ON NITRIFICATION.

By Henry Bence Jones, M.D., F.R.S., &c.

It is shown in this paper, that when ammoniacal salts are taken into the body, nitric acid is excreted by the urine, although no trace of that substance could previously be detected in it. The author was then led to investigate other cases of combustion, in which ammonia is present, and came to the conclusion that nitric acid is formed out of the body as well as in it; and he further ascertained, that even the nitrogen of the atmosphere is not indifferent in ordinary cases of combustion, but that it gives rise to minute quantities of nitric acid. He found that a mixture of starch with a drop or two of hydriodate of potash and hydrochloric acid was a more delicate test of the presence of nitric acid than either the indigo test or the protosulphate of iron test; and that he was able to detect, by its means, as little as one grain of nitre in 10 c^z. of urine, which neither of the other tests would indicate.—*Proceedings of the Royal Society.*