

and that fair hair and blue eyes were universal; *cœrulei oculi rutilæque comæ*. The present Gaul is generally swart, and so are very many Germans; and civilization a thousand years since gave these a general and warm covering to the whole person. However that may be, the alteration in hue, which I have noted, is a fact of which I have no doubt. It has been accompanied by a greater susceptibility to cold, and to the inroads of those diseases which that susceptibility produces."

D. W.

C H E M I S T R Y.

Chinoline.—Greville Williams has published *in extenso* his very beautiful researches upon the products of the distillation of cinchonine. Formerly chinoline was supposed to be the sole product, but Williams has shewn that it is a complex body containing two or more homologous alkaloids. He has now examined various chlorides, oxy-salts and double salts of chinoline, also the action of æthylic, methylic and amylic iodides upon it, by which substitution bases are produced. Moreover, he has proved that lepidine, which accompanies chinoline, is also to be found in coal-tar, and he has succeeded in obtaining æthyl-lepidine. He has also discovered a new base in coal-tar, which he names cryptidine. These three are homologous nitrile bases.

Chinoline, $C^{18}H^{17}N$,

Lepidine, $C^{20}H^{19}N$,

Cryptidine, $C^{22}H^{21}N$.

Iodine.—Kletzensky denies the assertion of Chatin, that the absence of iodine from the air, is one of the causes of goitre and cretinism, inasmuch as he found no iodine in the air of Vienna, which is free from those complaints. This experiment was continued over a period of four months, and the potash-solution, through which the air was passed, was found to contain no iodine, but unmistakable traces of nitric acid. Ch. G. 329.

Test for Iodine.—Knop substitutes bromate for the iodate of potassa, employed by Liebig in testing for iodine, in those cases where a reducing agent, such as sulphurous acid, is present, by which of course iodine would be separated from the iodate. An excess of the bromate must be avoided, as the blue colour is destroyed. Ch. G. 332.

Nitric Oxide.—A. Brüning has examined the action of nitric oxide upon anhydrous sulphuric acid, and arrives at the conclusion that the nitric oxide absorbs one equivalent of oxygen from the sulphuric acid, forming sulphurous acid, and nitrous acid, which latter then unites with two equivalents of sulphuric acid, forming the solid substance described by Prevostaye and Rose, and which the latter considered to be a compound of nitric oxide. Ch. G. 332.

Fluorescence.—Von Babo and Müller have observed that the flame of sulphuretted hydrogen has remarkable power in producing fluorescence, as exhibited by a solution of quinine, an ætherial solution of chlorophyll, green and violet crystals of fluor-spar, and more especially by the yellowish-green uranium glass. Ch. G. 329.

Sulphate of Nickel.—Marignac has found that the quadratic crystals of sulphate