Dimethylaniline dihydriodide, $NPhMe_2,2HI$, reddish brown oil. The introduction of alkyl groups into the amine molecules tends to render the salts more stable. Negative radicles, on the other hand, tend to inhibit the formation of perhaloid salts. J. J. S.

Behaviour of α-Amino-acids towards Sodium Hypochlorite. Kurt Langheld (*Ber.*, 1909, 42, 2360—2374).—In cold aqueous solution, neutral sodium hypochlorite, free from chlorate, reacts with α-amino-acids containing primary or secondary amino-groups to form the sodium salt of the chlorinated amino-acid. The solution of the sodium salt liberates iodine from potassium iodide, and by acidification with dilute acetic acid a solution of the chlorinated amino-acid is obtained; only in the cases of chloroleucine and dichloroleucine have the substances been isolated. The aqueous solutions of the sodium salts decompose in a simple way by heating, yielding sodium chloride, carbon dioxide, ammonia or an amine, and an aldehyde or ketone. The formation and decomposition of the salts can be represented thus: $NHR{\cdot}CRR'{\cdot}CO_2H \xrightarrow{NaOCl} NCl{\cdot}CRR'{\cdot}CO_2Na \rightarrow NaCl+CO_2+NR{\cdot}CRR' \xrightarrow{HCl} NH_2R+RCOR'$. In order that the decomposition may occur without complications, it is necessary that the hypochlorite, the amino-acid, and the products of decomposition should be in contact for as brief a period as possible; an apparatus is described which satisfies this condition. Since substituted acid amides, amino-acids containing a tertiary amino-group, and certain proteins, such as egg-albumin, gelatin, and casein, do not react, or only slightly, with sodium hypochlorite, the reaction may serve to separate polypeptides which do not contain the group $C(NH_2){\cdot}CO_2H$ from amino-acids and peptones with this reactive complex.

The following substances have been decomposed by sodium hypochlorite: glycine, sarcosine, alanine, α-aminoisobutyric acid, *i*-valine, *i*-leucine, phenylalanine, aspartic acid, asparagine, glutamic acid, tyrosine, serine, *i*-proline, and histidine, and the following new compounds have been obtained: *β-iminazoleacetaldehyde* from histidine, isolated as the *hydrochloride*, $C_5H_5ON_2,HCl$; a *pyrrolidine* from proline, isolated as the *hydrochloride*, C_4H_8N,HCl; *p-hydroxyphenylacetaldehyde* from tyrosine, isolated as the *p-nitrophenylhydrazone*, $C_{14}H_{13}O_3N_3$, which separates from alcohol in crystals containing 1 mol. EtOH, m. p. 158°; the amide of the semialdehyde of malonic acid,

$$NH_2{\cdot}CO{\cdot}CH_2{\cdot}CHO,$$

from asparagine, isolated as the *phenylhydrazone*, $C_9H_{11}ON_3$, m. p. 239—240°. O. S.

Constituents of Meat Extract. H. Engeland (*Ber.*, 1909, 42, 2457—2462. Compare this vol., ii, 71).—Carnitine (Abstr., 1905, i, 726; 1907, i, 264; 1908, i, 44, 812) contains a carboxylic group as the hydrochloride, and when heated with an ethyl alcoholic solution of hydrogen chloride yields the *ester*, which can be isolated as the *platinichloride*. This salt, unlike the platinichloride of carnitine, is sparingly soluble in water. The ester, when treated with gold chloride solution, is hydrolysed, and yields carnitine aurichloride.