mols. of iodine chloride. It forms long yellow needles, soluble in hot water, melting at 105½°, and exhibiting feeble basic properties. Together with this compound, there is formed in the above reaction a small amount of *di-iodopara-nitraniline*, which is insoluble in water; forms yellow prisms, having a fine blue color by reflected light, and fuses at 244°. This body was also prepared by treating a chloroform solution of 1 mol. of para-nitraniline with 2 mols. of iodine chloride.

Di-iodopara-toluidine ($C_7H_7I_2N$) is formed upon treating 1 mol. of para-toluidine (in HCl sol.) with 1 mol. of iodine chloride—the treatment of acetpara-toluide with iodine chloride having given negative results. It crystallizes in white needles, which fuse at 124½°.

Di-iodopara-amidobenzoic acid ($C_7H_5O_2NI_2$) is prepared by treating para-amidobenzoic acid with iodine chloride, and consists of white plates, fusing above 300°. Several salts of this acid were obtained, and analyses made.

The result of the action of iodine chloride upon meta-amidobenzoic acid, is a mixture of di- and tri-iodometa-amidobenzoic acids, which the authors were unable to separate. Iodine chloride fails to act upon acetmeta-amidobenzoic acid. The authors remark that, on the whole, the power of iodine chloride as a substituting agent is less than that of bromine or chlorine, and incline to the belief that in the above described compounds, the second and third iodine atoms, entering the molecules, have taken the ortho position toward the amido group.

The action of Phthalic Anhydride on Naphthalene in the presence of Chloride of Aluminium, EMILE ADOR and JAMES M. CRAFTS.—The principal product of this action consists of a black, tarry mass, which, upon treatment with a dilute solution of caustic soda, yields phthalic and *naphtoylorthobenzoic* acids ($C_{18}H_{12}O_3$). This latter acid crystallizes, from its alcoholic solution, in rosettes of microscopic prisms, and is insoluble in water. The Ba-salts are pretty soluble in water. Upon subjecting the portion of the tarry mass that is insoluble in caustic soda, to distillation, a distillate is obtained, which, when dissolved in benzine, gives, on addition of alcohol, a small quantity of crystalline flakes, melting at 181–186°, and having the empirical composition: $C = 94.18$; $H = 5.89$. The authors regard this new hydrocarbon as an isomere of chrysene, $C_{18}H_{12}$.

Note on Para-Nitro and Para-Amido Phenetol, E. J. HALLOCK.—Phenetol, when treated with fuming nitric acid, yields a dark-red, viscous liquid, which, on distillation, is separated into a a solid and a liquid portion. The former, when purified, fuses at 58° C., and consists of mono-nitrophenetol, identical with that obtained by Fritzsche,* by the action of iodide of ethyl upon the silver salt of para-nitrophenol. The author obtained the same compound by the action of potassium ethylic sulphate and potassic hydrate upon para-nitrophenol; also, by heating together iodide of ethyl, potassic hydrate and para-nitrophenol. Para-nitrophenetol, when reduced with hydrochloric acid and tin, yields para-monamido-phenetol, which forms an oily liquid, boiling at 253° C. This body somewhat resembles aniline, also combining with acetyl chloride to a crystalline solid.

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Abstractor, E. H. S. BAILEY, PH. B.

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On the Determination of Methyl Alcohol in Commercial Methylene, CH. BARDY and L. BORDET.

Noticed elsewhere.

On Di-amylbenzine, AMORY AUSTIN.—Di-amlybenzine is made by the distillation of amylbenzine, anhydrous aluminic chloride and chloride of amyl. The reaction is expressed by the equation:

$$C_6H_5(C_5H_{11}) + C_5H_{11}Cl = C_6H_4 = (C_5H_{11})_2 + HCl.$$

It is a colorless, slightly aromatic, inflammable liquid, insoluble in water, but readily soluble in benzine, alcohol and ether. It boils at 265–270°, and has a tendency to oxidize at high temperature.

Action of Bromine upon Di-chlorhydrine, E. GRIMAUX and P. ADAM.—This subject has been studied by Carius, Clauss and Wolf, and they have arrived at different conclusions. The author has investigated the matter, with a view of reconciling the different statements, and obtains results which agree with the last article of Carius. The product of this action, then, is dibrom-dichlor-acetone ($CBr_2Cl—CO—CH_2Cl$). This, exposed to moist air, readily takes up four molecules of water. The hydrate thus formed melts between 55–56°, and is permanent in the air.

On the Presence of Meta-nitrotoluene in Commercial Nitrotoluene, P. MONNET, F. REVERDIN and E. NOELTING.—Nitrotoluene was oxidized with potassic permanganate, the excess of nitrotoluene distilled off, and the liquid, after being filtered, evaporated to smaller

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* Petersb. Acad. Bull., 17. 145.