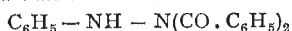


chloride of benzyl with sodium, thus obtaining $(\text{CH}_3)_2\text{CH}.\text{CH}_2$, C_6H_5 , phenyl-isobutan.—H. Hübner proved that benzoic acid can liberate nitrobenzoic acid from nitrobenzoate of barium, although the latter is the stronger acid of the two. The experiment consisted in heating the solutions to 80° .—H. Hübner and C. Rudolf have obtained an ethenyl-phenylenediamine, $\text{C}_6\text{H}_4 \begin{matrix} \text{NH} \\ \diagup \\ \text{N} \end{matrix} \text{C}.\text{CH}_3$, by treating orthonitroacetanilide with tin and glacial acetic acid.—O. Billeter has transformed sulphocyanate of phenyl into the sulphide by treating it with sodium-amalgam. Lead allyl sulphhydrate and chloride of cyanogen have yielded allyl sulphocyanate to the same chemist; it is converted into the isomeric mustard-oil on distillation.—H. Limpricht communicated researches on derivatives of the three amidosulphobenzonic acids.—W. Weith, by heating chloride of ammonium with methylic alcohol to 280° for ten hours, has transformed it completely into trimethylamine and tetramethylammonium-chloride.

April 26.—Researches were read by A. Burghardt, on bibromobenzoic acid; by H. Glassner, on pariodosulphotoluene, $\text{C}_6\text{H}_5.\text{CH}_3.\text{I}.\text{SO}_3\text{H}$; by T. Ebell, on nitrobenzonaphthylamide, $\text{C}_{10}\text{H}_6.\text{NO}_2.\text{NH}.\text{CO}.\text{C}_6\text{H}_5$, which was found to combine with iodide of amyl; by F. Meinecke, on derivatives of benzanilide; by E. A. Grete, on derivatives of metabromotoluene.—H. Hübner defended modern chemistry against attacks launched against it by Prof. Kolbe, and showed the insufficiency of the proofs hitherto furnished for the existence of four nitrobenzoic acids, four bihydrobenzene, and four bromobenzene-sulphonic acids. These doubtful cases of isomerism, which, if true, would be opposed to Kekulé's benzene theory, were also vigorously attacked by experiments published by A. Ladenburg, as well as by P. Griess and by E. Nöling. The constitution of benzene derivatives, viz., $\text{C}_6\text{H}_4\text{Br}.\text{CH}_3$ and $\text{C}_6\text{H}_5\text{Br}.\text{NO}_2.\text{CH}_3$, also formed the subject of a communication by E. Wroblewski.—Mr. P. Siljeström defended his opinion on the density of gases under diminished pressure against that expressed by Mr. Mendelejeff.—A. Stutzer has tried the action of nitric acid on the fibre of grasses, and not finding benzene derivatives amongst the products, concludes that the fibre does not contain aromatic bodies preformed.—Dr. Ewald described an improved method for determining urea with hypobromite of sodium by ordinary volumetric analysis.—V. Mering reported on the action of digestion on sarcosine, arriving at the conclusion that urea and uric acid are *not* diminished in quantity in the urine of individuals fed with sarcosine. This is contrary to the observation published by Schultzen some years ago.—E. Fischer, in reducing a diazo-compound, $\text{C}_6\text{H}_5-\text{N}=\text{N}-\text{NO}_2$, with bisulphite of sodium, and treating the resulting compound, $\text{C}_6\text{H}_5-\text{NH}-\text{NH}.\text{SO}_3\text{K}$, with chloride of benzoyl, obtained the first of a new class of bodies:



that is, an ammonia, NH_3 , in which one H is replaced by an amido-group, NH_2 . He calls this class of bodies *hydrazines*; the body whose formula is given above is dibenzoylated phenyl-hydrazine. By the action of water and hydrochloric acid it yields benzoic acid and a base, phenyl-hydrazine, $\text{C}_6\text{H}_5-\text{NH}-\text{NH}_2$, which forms well-defined crystalline salts with HCl, &c.

PARIS

Academy of Sciences, April 26.—M. M. Frémy in the chair.—The following papers were read:—On ascents to great heights, by M. Faye. M. Faye advocates strongly that the Academy should forbid any balloon ascent beyond 7,000 metres of elevation; he considers that any observations that might be made beyond that point will not be of any greater value than those up to that limit, and will certainly not outweigh the danger to life. He thinks that all aeronauts will respect the Academy's decision.—On the determination of ordinary alcohol when mixed with methylic alcohol, by M. Berthelot.—A note by M. A. Ledieu, on thermo-dynamical machines.—A note by M. Maré, on the results of the experiments made by the Commission investigating the diseases of vines in the Hérault.—A note by M. Dumas, on the use of alkaline sulphocarbonates against Phylloxera.—A note by M. F. de Lesseps, on the methods to be employed for the maintenance of ports.—A note by M. L. Salté, on the geometrical principle of correspondence of M. Chasles.—On the curves of the order n with a multiple point of the order $n-1$, by M. B. Niewenglowski.—On the development of the perturbing function according to the multiples of an elliptical integral, by M. H. Gylden.—On binauricular perceptions, by M. F. P. Le Roux.—On the deter-

mination of methylic alcohol in the presence of vinic alcohol, by MM. Alf. Riche and Ch. Bardy.—On the spiroscope, an apparatus for the study of auscultation, of the anatomy and physiology of the lungs, by M. Woillez.—A note by MM. G. Hayem and A. Nachet, on a new method of counting the blood-corpuscles.—On the wine-growing districts attacked by Phylloxera in 1874, by M. Duclaux.—M. Dumas then announced to the Academy the loss which science has sustained by the death of M. Anton. Schrötter, secretary to the Academy of Sciences at Vienna.—On the precipitation of silver by protoxide of uranium, by M. Isambert.—On the action of platinum and palladium upon the hydrocarbons of the benzenic series, by M. J. J. Coquillon.—A note by M. Peslin, on the law of diurnal and annual variations in the temperature of the soil.—On the theory of storms, by M. Cousté.—A note by M. U. Gayon in reply to M. Béchamp's paper on the spontaneous alterations in eggs.—On the helminthological fauna of the coasts of Brittany, by M. A. Villot.—On a new intermediary type of worms (*Polygordius?* Schneider), by M. Edm. Perrier.—On the ornamentation of striated wood-fibres and their relation to ordinary spotted fibres in the wood of certain species of Conifera, by M. G. de Saporta.—On the glacier deposits of the inferior valley of the Tech, by M. E. Trutat.—On the differences in the rising and setting of Mercury, Venus, Mars, Jupiter, and Saturn, as stated in the *Journal du Ciel* and in the *Annuaire du Bureau des Longitudes*, by M. J. Vinot.—On a method of re-establishing the concordance of the solar with the civil year, by M. Crampel.

BOOKS AND PAMPHLETS RECEIVED

BRITISH.—A Manual of Diet in Health and Disease: T. King Chambers, M.D., F.R.C.P., &c. (Smith and Elder).—The Journal of the Iron and Steel Institute, 1874 (E. and F. N. Spon).—Electricity; its Theory, Sources, and Applications: John T. Sprague (E. and F. N. Spon).—Researches in Chemical Optics: John H. Jellett, B.D. (Dublin University Press).—Journal of Proceedings of Winchester and Hampshire Scientific and Literary Society. Vol. i. Part iv. 1874 (Winchester, Warren and Son).—Meteorology of West Cornwall and Scilly, 1870 to 1874, and Observations on Sea Temperature, 1872 to 1874: W. P. Dymond, F.M.S. (Falmouth, Wm. Tregaskis).—An Address delivered by the President of the Meteorological Society at the Annual Meeting, January 20, 1875.—Journal of the Quekett Microscopical Club (R. Hardwicke).—Fertthshire Society of Natural Science. Sixth Annual Report.—On Protoplasm: James Ross, M.D. (R. Hardwicke).—Commercial Handbook of Chemical Analysis, by A. Normandy; Enlarged and to a great extent re-written by H. M. Noad, Ph.D., F.R.S. (Lockwood and Co.).—Life of Sir Roderick Murchison, Bart., K.C.B., F.R.S.: Archibald Geikie, LL.D., F.R.S. (John Murray).—New Code Progressive Reader. Fifth Standard (Wm. Collins, Sons, and Co.).—Unseen Universe (Macmillan and Co.).—Year Book of Facts in Science and the Arts. Edited by Chas. W. Vincent, F.R.S.C. (Ward, Lock, and Tyler).—Thirteenth Annual Report of the Free Librarians' Committee (Birmingham, Hall and English).—Text-Book of Botany, Morphological and Physiological. By Julius Sachs; translated by Alfred W. Bennett, M.A., B.Sc., F.L.S., assisted by W. T. Thiselton Dyer, M.A., B.Sc., F.L.S. (Oxford, Clarendon Press).—Report of the Permanent Committee of the First International Meteorological Congress at Vienna, 1874 (H. M. Stationery Office).—Climate and Time: James Croll (Daldy, Isbister, and Co.).—Fiji: Our New Province in the South Seas: J. H. de Ricci, F.R.G.S. (E. Stanford).—Journal of the Anthropological Society of Great Britain and Ireland, April to July 1874 (Trübner and Co.).—An Elementary Book on Heat: J. E. Gordon, B.A. (Macmillan and Co.)

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