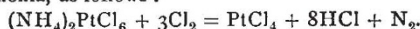


neutral point is near the line D, on the more refrangible side. The maximum intensity of the red colour is reached at a point near C on the less refrangible side, and the maximum intensity of the green colour is reached at a point rather nearer to F than the mid-distance from b to F. There is no second neutral point in the blue. It does not seem that the phenomena can be readily, if at all, accounted for on Hering's theory. On the other hand, it is easily accounted for on the Young-Helmholtz theory by fusion of the fundamental sensations.—Dr. Noël Paton read a paper, by Dr. John Douglas, on metabolism in thyroid feeding.—Dr. Richard Berry read a paper on the anatomy of vermiform process and cæcum.—Prof. Tait communicated a paper on the ultimate state of a system of colliding particles, and the rate of approach to it.

PARIS.

Academy of Sciences, January 21.—M. Marey in the chair.—On the variable star β (Algol) in Perseus, by M. F. Tisserand. The author represents the variation in apparent magnitude as being due to (1) the existence of one obscure satellite with an elliptical orbit, and (2) a slight oblateness of the principal star, and shows that on these assumptions the variation periods can be satisfactorily represented (see "Our Astronomical Column").—On boron steel, by MM. H. Moissan and G. Charpy. As the result of a series of comparative tests, it is found that boron (0.58 per cent. in alloy used) imparts the property of a great increase in tensile strength by tempering without a corresponding increase of hardness. A sample of carbon steel giving similar increase of tensile strength on tempering, became so hard as to require working on the emery-bob, whereas the boron-steel could still be worked with a file.—Morphology of the lymphatic system. On the origin of the lymphatics in the skin of the frog, by M. L. Ranvier.—On the perforation of armour-plates, by M. E. Vallier.—On the production of the glycolytic ferment, by M. R. Lépine. The author is of opinion that the glycolytic ferment is produced from diastase. He relies on the increase of glycolytic power of pancreas when treated with dilute sulphuric acid, in conjunction with the loss of saccharifying power and gain of glycolytic power suffered by maltine when similarly treated with dilute acid.—*Résumé* of solar observations, made at the Royal Observatory of the Roman College, during the three last quarters of 1894. A letter from M. P. Tacchini sent to the President.—On the convergence of determinants of infinite order and of continued fractions, by M. H. von Koch.—Influence of the rhythm of successions of interruptions on the sensitiveness to light, by M. Charles Henry. The investigation had for object the determination of the sensitiveness of the eye to interrupted light-rays of different types. The conclusion is drawn that it is possible to augment the luminous range of a signal by means of a succession of interrupted rays following a sufficiently complex non-rhythmic law.—Influence of temperature on the transformation of amorphous zinc sulphide, by M. A. Villiers.—Failure of the Kjeldahl method for estimation of nitrogen when applied to chloroplatinates, by M. Delépine. In the cases of trimethylamine and ammonium platinochlorides, the author finds by the permanganate modification of the Kjeldahl process a considerable deficiency in ammonia obtained. This deficiency is attributed to a reaction of free chlorine with the ammonia, as follows:



—On arabinochloral and xylochloral, by M. Hanriot.—A new synthesis of anthracene, by M. Delacré. Anthracene is produced from benzyl trichloracetate and benzene, by heating these substances in presence of aluminium chloride, and distilling the resultant ether, when it decomposes giving carbon dioxide and anthracene.—A contribution to the study of the ethereal salts of the tartaric acids, by MM. Ph. A. Guye and J. Fayollat. A study of the rotatory power of nine of these esters in the light of the theory of the product of asymmetry.—On a parasite of *Lampyrus splendidula*, by M. A. Gruvel. The author names the newly-described parasite *Stylogamasus lampyridis*.—On some bacteria from the *Dinantien* (Culm), by M. B. Renault.—On the development of sieve-tubes in the Angiosperms, by M. Chauveaud. The author concludes that (1) the rule of indirect development of sieve-tubes is far from general. Both direct and indirect methods of development may occur in the same bundle. (2) The presence of companion-cells is not absolutely characteristic of the sieve-tubes of Angiosperms.—On the Chili-Argentine earthquake of October 27, 1894, by M. A. F. Nogués.—Note on *Uredo viticida*, by M. L. Daille.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—A First Step in Euclid: J. G. Bradshaw (Macmillan).—Memoir of Sir Andrew Crombie Ramsay: Sir A. Geikie (Macmillan).—A Handbook to the British Mammalia: R. Lydekker (Allen).—The Great Problem of Substance and its Attributes (K. Paul).—A Travers le Caucase: E. Levier (Neuchâtel, Attinger).—Forschungsberichte aus der Biologischen Station zu Plön: Dr. O. Zacharias, Theil 3 (Berlin, Friedländer).—How to Live in Tropical Africa: Dr. J. Murray (Phillip).—Field and Garden Crops of the N.W.P. and Oudh: J. F. Duthie, Part 3 (Roorkee).

PAMPHLETS.—Sur la Nature et l'Origine de l'Aurore Boréale: A. Paulsen (Copenhagen).—Der Logische Algorithmus: J. Hontheim (Berlin, Dames).—International Beginnings of the Congo Free State: Dr. J. A. Reeves (Baltimore).

SERIALS.—Journal of the Sanitary Institute, January (Stanford).—National Geographic Magazine, December 29 (Washington).—Transactions of the American Institute of Electrical Engineers, November and December (New York).—Imperial University, College of Agriculture, Bulletin Vol. ii No. 3 (Tokyo).—Records of the Botanical Survey of India, Vol. i. Nos. 3 and 4 (Calcutta).—Psychological Review, January (Macmillan).—Monist, January (Chicago).—Himmel und Erde, January (Berlin).—English Illustrated Magazine, February (Strand).—Sunday Magazine, February (Isbister).—Good Words, February (Isbister).—Astrophysical Journal, January (Wesley).—Longman's Magazine, February (Longmans).—Chambers's Journal, February (Chambers).—Observations Internationales Polaires, 1882-3. Expédition Danoise, Observations faites à Godthaab, tome i. livr. 2 (Copenhagen).—Humanitarian, February (Hutchinson).—Natural Science, February (Rait).—American Naturalist, January (Wesley).—Journal of the College of Science, Imperial University, Japan, vol. vii. Parts 2 and 3 (Tokyo).—Transactions of the Linnean Society of London, Vol. iv. Part 2, On the Flora of Mount Kinabalu in North Borneo: Dr. O. Stapf (Linnean Society).—Ergebnisse der Beobachtungsstationen an den Deutschen Küsten über die Physikalischen Eigenschaften der Ostsee und Nordsee und die Fischerei, Heft 1-6 (Kiel, Lipsius).

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