

## DUBLIN.

Royal Dublin Society, March 21, 1894.—Sir Howard Grubb, F.R.S., in the chair.—Prof. G. F. Fitzgerald, F.R.S., and Dr. J. Joly, F.R.S., read a paper on a method of determining the ratio of the specific heats of gases.—Dr. J. Alfred Scott described a method for colouring lantern-slides for scientific diagrams and other purposes. The author explained that the gelatine surface should be soaked and then drained. In this damp condition the aniline dyes may be applied in watery solutions with a brush; the depth of colour depending on the strength of the solution and the length of time it is allowed to act on any one spot. The colours most suitable were found to be eosin, tartrazine yellow, vesuvio, indigo-carmin. These colours can be mixed without forming new chemical bodies of a different colour, and spread very evenly. Eosin is, however, liable to fade, if very pale; it should therefore be painted rather more intensely if the slide is intended to be often in the lantern. Coloured inks suitable for writing with a pen on plain, cleaned glass, can be made by thickening solutions of aniline with ten per cent. of dextrine; good colour for this purpose being eosin, and iodine green. A good, nearly black, colour may be made from writing ink, "encre-noire," made slightly alkaline with ammonia, and thickened with ten per cent. dextrine.—Prof. Arthur A. Rambaut read a paper on the great meteor of February 8. This remarkable object was seen at a great many places, from Whitby in the north to London in the south, and from Ballinasloe, co. Galway, to Chelmsford. To have been so widely conspicuous within a few minutes of noon in bright sunshine, the meteor must have been one of very unusual dimensions. The time of the occurrence was 28 mins. after noon (Greenwich mean time). As seen from Dunsink the meteor fell vertically from an altitude of 25° to within 5° of the horizon at an azimuth of 10° N. of E. A large number of accounts from different parts of the country reached Prof. Rambaut, from which he concludes that it was first seen at a height of  $59.4 \pm 4.1$  miles, in longitude 2° 54' W. and latitude 53° 40' N., and was last seen at a height of fourteen miles in longitude 1° 35' W., and latitude 53° 35' N. The duration and consequently the velocity is very variously estimated, but the mean of the best estimates gives a velocity of about nineteen miles per second. The path was very distinctly curved; and therefore the radiant is very doubtful. No account of anything unusual, in the way of a fall of meteoric stones or iron, is forthcoming, and the meteor seems to have been wholly dissipated in mid-air.—Prof. Johnson exhibited the sporangia of *Litosiphon laminariae*, Harv., by means of the Society's lantern.

## PARIS.

Academy of Sciences, April 2.—M. Lœwy in the chair. The decease of M. Brown-Séquard was announced by M. Troost.—Observation of the new comet Denning (1894, March 26), by M. O. Callandreau.—Observations of the planet 1894 AZ (Court, March 5) and Denning's comet, made with the great equatorial at Bordeaux observatory, by MM. G. Rayet and L. Picart.—Observations of the same comet, made at Paris observatory, by M. G. Bigourdan. In the remarks on this comet, it is noted that the tail points (March 27) in a direction apparently perpendicular to the line joining the comet and the sun.—Observations of the same comet, made at Toulouse observatory (Brunner equatorial), by MM. E. Cosserat and F. Rossard.—Parabolic elements of the same comet, by M. L. Schulhof.—On the movement of a system of variable form, by M. L. Picart.—On the first differential projective invariant of rectilinear congruences, by M. Émile Waelsch.—Distribution of deformations in metals submitted to strains, by M. L. Hartmann. New experiments give the same laws for the effects of percussion as were found for the distribution of deformations produced under the application of a static strain.—Action of water on bicalcic phosphate, by MM. A. Joly and E. Sorel. By boiling with successive quantities of water the tricalcic phosphate,  $\text{Ca}_3\text{P}_2\text{O}_8$ ,  $\frac{1}{2}\text{H}_2\text{O}$ , is produced. With a single quantity of water and long contact at the boiling point, a further action produces anhydrous bicalcic phosphate.—On the blue colouration which leuco-auramine assumes in contact with acids, by M. A. Rosenstiehl.—On the fixation of iodine by starch, by M. E. G. Rouvier.—The disease "Toile," produced by *Botrytis cinerea*, by MM. Prillieux and Delacroix.—On the spark spectra of some minerals, by M. A. de Gramont.

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A large number of oxides, arsenides, antimonides, sulpharsenides, and sulphantimonides are given, together with crocoisite, anglesite, and a few others.

## BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—Man and Woman: H. Ellis (W. Scott).—A Manual of Microchemical Analysis: Prof. H. Behrens (Macmillan).—A Text-Book of Field Geology: W. H. Penning, 2nd edition (Baillière).—Odorographia, 2nd series: J. C. Sower (Gurney).—An Introduction to Structural Botany: Dr. D. H. Scott (Black).—Observations Int<sup>tes</sup>. Polaires, 1882-83: Expédition Danoise, Observations faites à Godthaab: A. F. W. Paulsen (Copenhagen).—The Ex-Meridian: H. B. Goodwin (Philip).—The Country Month by Month, April: J. A. Owen and Prof. Boulger (Blis).—Handbook of Tasmania, 1893: R. M. Johnston (Hobart).—Magnetical and Meteorological Observations made at the Government Observatory, Bombay, 1891-92 (Bombay).

PAMPHLETS.—Report for 1893 on the Lancashire Sea-Fisheries Laboratory at University College, Liverpool: Prof. Herdman (Liverpool).—Illustrated Official Handbook to the Aquarium, &c. under the Control of the Exhibition Trustees, Melbourne (Melbourne).—What has Opium-smoking to do with Christianity? (Shanghai).—Ueber das Verhältniss des Männlichen und Weiblichen Geschlechts in der Natur: Dr. G. Klebs (Jena, Fischer).—Guide to the Exams. in Hygiene and Answers to Questions, Elementary Stage, 1886-93: W. J. Harrison (Blackie).—Guide to the Exams. in Heat and Answers to Questions, Advanced Stage, 1881-93 (Blackie).—Di un Nuovo Elettrometro Idiostatico: Prof. A. Right (Bologna).—On the Modifications of Clouds, London, 1893: L. Howard; No. 3 of Neudrucke von Schriften und Karten über Meteorologie und Erdmagnetismus (Berlin, Asher).—Bird-Life in Arctic Norway: R. Collett, translated by A. H. Cocks (Porter).

SERIALS.—Journal of the Royal Statistical Society, March (Stanford).—Minnesota Botanical Studies, Bulletin No. 9, Part 2 (Minn.).—Geological Magazine, April (K. Paul).—Medical Magazine, April (Southwood).—Annals of Scottish Natural History, April (Edinburgh, Douglas).—Zeitschrift für Physikalische Chemie, xiii. Band, 3 Heft (Leipzig, Engelmann).—Engineering Magazine, April (New York).—Himmel und Erde, April (Berlin).

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