

- "Agricultural College Magazine, Nagpur," Vol. 12, No. 3.
 "Indian Journal of Agricultural Science," Vol. 8, No. 1.
 "Monthly Bulletin of Agricultural Science and Practice," Vol. 29, No. 2.
 "Agriculture and Live-Stock in India," Vol. 8, Part 2.
 "The Philippine Agriculturist," Vol. 26, No. 10.
 "Allahabad Farmer," Vol. 12, No. 2.
 "Biochemical Journal," Vol. 32, No. 2.
 "Berichte Der Deutschen Chemischen Gesellschaft," Vol. 71, No. 3.
 "Chemical Age," Vol. 38, Nos. 973-77.
 "Calcutta Medical Journal," Vol. 33, Nos. 3-4.
 "Current Titles from Engineering Journals," Vol. 2, No. 2.
 "Experiment Station Record," Vol. 78, No. 2.
 "Transactions of the Faraday Society," Vol. 34, No. 203.
 "Indian Forester," Vol. 64, Nos. 3-4.
 "Forschungen und Fortschritte," Vol. 14, Nos. 6-9.
 "Genetics," Vol. 23, No. 1.

- "Journal of the Royal Society of Arts," Vol. 86, Nos. 4448-52.
 "Journal of Chemical Physics," Vol. 6, No. 3.
 "Journal of the Indian Chemical Society," Vol. 15, No. 1.
 "Journal de Chemie Physique," Vol. 35, No. 1.
 "American Museum of Natural History," Vol. 41, No. 3.
 "Nature," Vol. 141, Nos. 3564-3568.
 "Journal of Nutrition," Vol. 15, No. 3.
 "Canadian Journal of Research," Vol. 16, No. 2.
 "Journal of Research, National Bureau of Standards," Vol. 19, No. 6.
 "Sky," Vol. II, No. 5.
 "Indian Trade Journal," Vol. 128, Nos 1655-59.

Catalogues.

Cambridge University Press: Books for Spring 1938.

Weidon & Wesley Ltd., "Monthly List of Books, on Natural History and Science", February-March. 1938.

"Verlag von Gustav Fischer in Jena", No. 2, 1938.

ACADEMIES AND SOCIETIES.

Indian Academy of Sciences :

March 1938. SECTION A.—B. V. RAGHAVENDRA RAO: *Dispersion of Acoustic Velocity in Liquids*.—Dispersion in the hypersonic region is definitely established in the case of two liquids carbon tetrachloride and acetone, by interferometric measurements. S. CHOWLA: *On a Trigonometric Sum*. P. SURYAPRAKASA RAO, C. VENKATA RAO AND T. R. SESHADRI: *Chemical Examination of Erythrina indica*.—A fixed oil and a water-soluble alkaloid (hypaphorine) have been isolated from the seeds. The barks and leaves have also been examined to contain the same base. I. A. RAMDAS AND P. S. VAIDYANATHAN: *Studies on the spreading of certain substances on a clean surface of water. Part I*.—With a soluble substance like camphor, the phenomena of surface solution and internal solution have been studied quantitatively. R. ANANTHAKRISHNAN: *Effect of temperature on the Raman Spectrum of Liquid CCl₄*. While the ratio of the intensities of the Stokes and anti-Stokes lines tend to approach unity with increasing temperature in accordance with Placzek's theory, there is no corresponding increase in the absolute intensities of the Stokes and anti-Stokes lines as is to be expected from the theory. It is suggested that the effect of the unharmonicity of nuclear vibrations and the centrifugal stretching of the molecule due to rotation, is probably responsible for this departure from the expected increase in intensity. A. VEERABADHRA RAO: *Effect of Oblique Refraction at the Prism Surfaces on the Relative Intensities of Raman Lines*.—It is shown that if illumination from the side is adopted, the intensity of the well-polarised lines is apparently diminished in relation to the unpolarised ones, and the reverse, if illumination from the top is adopted. G. R. GOGTE: *Chemistry of β-Aryl Glutaconic Acids, Part IV.—C-Acetylation of β-Aryl Glutaconic Anhydrides: Derivatives of α-Acetyl-β-aryl-glutaconic Acids*. P. PATTABHI-

RAMAYYA: *A Study of the Raman Effect in Sodium Nitrate*.—The changes with temperature in the Raman lines obtained with a large single crystal have been studied. P. PATTABHIRAMAYYA: *The Dispersion and Optical Anisotropy of Molecular Oxygen in Relation to its Absorption Spectrum*.—A new dispersion formula for gaseous oxygen has been worked out, which is simultaneously able to explain the observed optical anisotropy of the oxygen molecule and its dispersion. S. BHAGAVANTAM: *Specific Heats of Liquids in Relation to Raman Effect Data*.—The specific heats of liquid benzene, CCl₄ and CS₂ are calculated with the help of the known fundamental frequencies in each case at different temperatures. It is concluded that in liquids, thermal movements of molecules are partly in an organised manner constituting Debye elastic waves as in a solid, and partly in a random manner as in a gas. P. G. N. NAYAR: *Raman Spectrum and Constitution of Pentarythritol*.—The spectrum corresponds to a tetrahedral symmetry; the O—H frequency is characteristic of the presence of hydrogen bonds.

March 1938. SECTION B.—B. P. PAL AND NEK ALAM: *The Effect of Certain External Factors upon the Manifestation of Hybrid Vigour in Wheat*.—Studies relating to hybrid vigour in a cross between two varieties of *Triticum vulgare*, viz., Pusa 52 and Pusa 165, under different dates and times of sowing, different depths of sowing and different conditions of sowing. M. K. SUBRAMANIAM: *Studies on the Structure of the Golgi Apparatus*.—Confirms the previous observations that the double-rimmed Golgi batonettes originate from vesicles, thus conclusively showing that the idiosome forms only a core to the double-rimmed batonettes. There appears to be a fundamental plan in the Golgi apparatus common to all cells, vertebrate or invertebrate, and the different patterns in different

cells when analysed resolve into variations of a single basic procedure. J. DAYAL: *Studies on the Trematode Parasites of Fishes. A New Trematode Neoganada barabankiæ* (Nov. Gen., Nov. Sp.) from *Clarias batrachus*. J. DAYAL: *A New Trematode Phyllochorus macronius*, N. Gen., N. Sp. belonging to the Family Gorgoderidæ Looss (1910), from the Body-cavity of a Fresh-water Fish *Macrones tengara*. B. N. SINGH, G. P. KAPOOR AND R. S. CHOUDHRI: *The Light Factor in Crop Production*.

National Academy of Sciences, India :

March 29, 1938.—J. DAYAL: *On a New Species of the Genus Astrotrema Looss (1901) from the Intestine of a Fresh-water Fish, Clarias batrachus*. M. ABDUL SALAM: *On the Occurrence of Skrajbinema ovis (Skrajbin, 1915) in India*. SATYA PRAKASH AND S. B. DUTT: *Colour and Chemical Constitution of the Organic and Inorganic Salts of Di-phenyl-violuric Acid*. V. L. VERMA AND S. B. DUTT: *Condensation of Di-phenyl-thiobarbituric Acid with Aldehydes, Quinones and Nitroso Compounds, Indigoid Dyes Derived from Chrysoquinone*.

Indian Association for the Cultivation of Science :

December 1937.—P. C. MUKHERJI: *On the Relation between the Emission Spectra of Nd^{+++} ions in Phosphorus and the Absorption Spectra of the same in Crystals*. D. S. SUBRAHMANYAM: *Verification of Stokes' Theory of a Sphere Oscillating in a Liquid*. M. SEN GUPTA: *On the Theory of Semi-Conductors in Magnetic Field*. JAGANNATH GUPTA: *A Note on (CH) Vibration in Sodium Formate*. SURIAN SINGH SIDHU: *Technique for making Colloidion Filter for the K_{α} Chromium Radiation*. K. PROSAD AND R. P. GUPTA: *An Application of the Ray-Displacement Refractometer to the Study of Anomalous Dispersion of Didymium Glass*. S. C. SIRKAR: *On the Intensities of Raman Lines due to Lattice Oscillations*. SURIAN SINGH SIDHU: *The Calculation of Interplanar Spacings of Crystal System by Vectors*.

Indian Chemical Society :

January 1938.—J. C. GHOSH: *The Physico-Chemical Properties of Ascorbic Acid*. C. A. ROTHENHEIM, H. S. SHAIK MAHAMUD AND S. S. COWLAGI: *Vitamin C contents of Indian Food-stuffs. Chillies (Capsicum)*. SISIR KUMAR GUHA: *Dyes derived from Acenaphthenequinone, Part VI.—2-(4-Methyl)-thionaphtheneacenaphthyleneindigos*. C. J. DASA RAO, D. G. WALAWALKAR AND B. S. SRIKANTAN: *On the Anthocyanin Pigment in the Rind of Sugarcane (Purple Mauritius)*. S. K. MITRA: *Thioketonic Esters. Part V*.

JAMAIT V. LAKHANI AND RUSTAM P. DAROGA: *The Determination of the Parachors of Inorganic Salts in Solutions and their Structure. Part I.—Potassium Salts*. SUSIL KUMAR RAY: *Determination of Parachor in Solution. Part II.—Parachor of Inorganic Salts in Aqueous Solution*. MATA PRASAD AND R. N. MERCHANT: *Study of the Crystals of p-Nitroaniline and p-Nitrotoluene by the X-Ray Single crystal Rotation Method*. MATA PRASAD AND A. B. KHAN: *Space Group Determination of the Crystals of Ortho- and Para-Benstoluides by the X-ray Rotating Crystal Method*. S. K. MITRA: *On Thioaldehydes and Thioketones. Part II*. CHUHARMAL S. NARWANI AND NALEJAH B. SIDHWA: *Optical Inactivity of Gelatin in the Adsorbed State at the Liquid/Liquid Interface and its Use as a Measure of Adsorption*. PHULDEO SAHAY VARMA AND V. SUBBA RAO: *Halogenation, Part XX.—Halogenation of Fluorene*.

Botanical Society of Bengal :

March 30, 1938.—S. N. BAL: *Some Medicinal Plants of Kashmere*. S. MEYER: *Studies in the Family Apocyanaceæ*.

Society of Biological Chemists :

March 4, 1938. (Bangalore).—B. SANJIVA RAO AND K. S. SUBRAMANIAM: *Essential Oil from Hemidesucus indicus (Indian Sarasaparilla)*. K. V. GIRI AND N. S. DOCTOR: *The Use of Pyrophosphate in the Determination of Vitamin C Content of Plant and Animal Tissues*. K. V. GIRI: *Spectrophotometric Study of a New Colorimetric Method for Vitamin C*. C. N. AGRIARYA: *Inference of Soil in the estimation of Cellulose*.

March 14, 1938. (Indore).—Y. D. WAD AND I. N. DESAI: *Variation in Seed Composition of Crop Plants. Part I.—Influence of Soil and Climate*. V. G. PANSE: *Application of Statistics to Biological Experiments*.

March 17, 1938. (Bombay).—B. B. DIKSHIT: *The Formation of Acetyl Choline by the Tissues*. V. N. PATWARDHAN AND R. G. CHITRIE: *The Effect of Hypervitaminosis D on Calcium and Phosphorus Metabolism in the Albino-rats*.

Meteorological Office Colloquium, Poona:

February 25, 1938.—Dr. V. I. Vaidyanathan (Irrigation Research Institute, Lahore), addressed the Colloquium on "The Applications of Physics to Problems of Irrigation". He referred to the various ways in which the physicist could be of practical assistance to the Irrigation Engineer and described some interesting experiments conducted at the Institute.

March 22, 1938.—Dr. S. N. Sen, "On the Mechanism of Cyclones in the Bay of Bengal, particularly from the Point of View of Deformation fields".

Errata.

Vol. VI, No. 9, March 1938.

Page 450, note entitled "The Coupling of 6-Hydroxyflavone with Diazo Salts," line 16, for "diazo" read "disazo".

Page 482, column 2, under National Academy of Sciences, para 2, last line, for "Evolution or Revolution in Plant Work" read "Evolution and Revolution in the Plant World".