

ACADEMIES AND SOCIETIES.

Indian Academy of Sciences:

September 1938. SECTION A.—(MISS) IONE NITRAVATI DHARAM DASS AND SIKHIBHUSHAN DUTT: *Colour in Relation to Chemical Constitution of the Organic and Inorganic Salts of Iso-nitro-diphenyl-thio-Barbituric Acid and its Higher Homologues and Analogues.*—The orange coloured acid, on treatment with alkalis or organic bases, changes into intense blue and green coloured salts. This is shown to be due to a fundamental change in the constitution of the molecule from an oximino-ketonic to a nitroso-enolic structure. Inder Chowla: *A Theorem in the Additive Theory of Numbers.* R. Vaidyanathaswamy: *Quasi-boolean Algebras and Many Valued Logics.* V. D. Majumdar and M. B. Vajifdar: *Coefficient of Viscosity of Air.*—Using a modified form of Wagstaff's apparatus for measuring by the method of interference fringes, $\eta_{23}^{\circ}\text{C}$ has been determined as $(1834.38 \pm 0.35) \times 10^{-7}$ c.g.s. units. A. Narasinga Rao: *Studies in Turbine Geometry.—II. On the Sub-Geometries of Lie which belong to the Mobius-Laguerre Pencil.*

September 1938. SECTION B.—M. S. Randhawa: *Observations on Some Zygnemales from Northern India—Part I.* G. N. Rangaswami Ayyangar, V. Panduranga Rao and D. S. Rajabhooshanam: *Sorghum-Size Relationships of Seed Embryo, Seedling and the First Seedling Leaves.* C. Bhashyakarla Rao: *The Myxophyceæ of the Orissa Province, India—I.* A. Ramakrishna Reddy: *The Cytology of Digestion and Absorption in the Crab Paratelphusa (Oziotelphusa) hydrodromus (Herbst).* L. P. Mathur and Munshi Lal Sharma: *Observations on the Abnormalities in the Common Indian Frog, Rana tigrina Daud.* Jai Chand Luthra, Abdus Sattar and Sardul Singh: *Occurrence of Stem Canker Disease of Sugarcane (Cytospora sacchari Butyl) in the Punjab.* P. N. Mehra: *Apogamy in Adiantum lunulatum Burm., Part I. (Morphological).* P. N. Mehra: *Apogamy in Pteris biaurita Linn.* P. N. Mehra: *Some Abnormalities in the Female Strobilus of Ginkgo biloba L.* P. N. Mehra: *The Germination of Pollen Grains in Artificial Cultures in Ephedra foliata Boiss and Ephedra gerardiana Wall.* B. L. Bhatia and S. B. Setna: *On Some Gregarine Parasites from Certain Polychete Worms from the Andaman Islands.* V. Ranganathan and R. N. Sastri: *Procedure for Determining the Nature of the Degradation Products during Proteolysis.*

National Academy of Sciences:

June 1938.—Satya Prakash and Sikhibhushan Dutt: *Colour and Chemical Constitution. The Organic and Inorganic Salts of Diphenylvioluric Acid.* V. S. Dubey, Y. P. Varshney and R. S. Sharma: *Caustic Soda and Alumina from Salt and Bauxite.* Mahadeo Prasad Gupta and Sikhibhushan Dutt: *Chemical Examination of Indigofera linifolia Retz. The Isolation of its Active Principle.* J. Dayal: *Studies on the Trematode Parasites of Fishes,—A New Trematode Nixamia*

hyderabadi N. Gen., N. Sp., from the Intestine of a freshwater fish, Ophiocephalus punctatus.

August 25, 1938.—Shah Muhammad Sulaiman: *The Mathematical Theory of a New Relativity (Generalised Gravitation).* A. C. Banerji and P. L. Bhatnagar: *The Solution of Certain Types of Differential Equations.* R. D. Vidyarthi: *New Arian Trematodes (Family Diplostomidae) from Indian Birds.* Gauri Shankar Basu and S. B. Dutt: *Tungsten and Molybdenum Powder in Organic Synthesis.* S. B. Dutt: *Chemical Examination of Indian Molasses: Fusel Oil from the Patent Still Distillery of Messrs. Carew & Co., at Rosa, Shahjehanpur.* Anil Chandra Chatterji and Sikhibhushan Dutt: *Cadmium Powder as a Synthetic Reagent.* Binayendra Nath Sen: *The Formation of Liesegang Rings in the Presence of Precipitates.* R. C. Chatterji: *Annotated List of the Helminths recorded from Domesticated Animals of Burma, Part I. Trematoda.* B. N. Singh and M. L. Mehta: *Changes in Respiration and H-ion Concentration in Wounded Potato Tubers.*

Indian Association for the Cultivation of Science: (Proceedings, Volume 21, Part IV.)

August 1938.—Jagannath Gupta: *Hexaco-ordination in Telluric Acid and in Molybdates and Tungstates in Solution.* Bibha Majumdar: *The Theory of Absorption in Ionised Gas. I. Opacity in Stellar Material. II. Optical Properties of liquid metals.* K. Banerjee and Rajiuddin Ahmed: *Structure of Aromatic Compounds. Part IV. Space Group and Atomic Arrangements in Phloroglucine Dihydrate.* Krishnapada Ghosh and Bonbehari Ghosh: *On the Electric Conduction due to 4 Electrons in some Trivalent Rare Earth Compounds.* S. K. Mukerji and Abdul Aziz: *On the Raman Spectrum of Diphenyl.* G. R. Paranjpe and D. J. Davar: *Dielectric Properties of Some Organic Substances.* S. R. Khastgir and M. K. Chakravarty: *The Attenuation of Ultra-Short Radio Waves along with Earth.*

Indian Physical Society:

August 27, 1938.—Mrs. B. Majumdar: *Theory of Absorption in Ionised Gases—Part II. Optical Properties of Liquid Metals.* P. Koteswaram: *Dissociation in Sulphuric Acid with Temperature.* K. Banerji and R. Ahmed: *Structure of Aromatic compounds. IV. Space Groups and Atomic Arrangements in Phloroglucine Dihydrate.* P. Ghosh and B. B. Ghosh: *On the Electronic Conduction due to '4f' Electrons in Some Trivalent Rare Earth compounds.* S. Basu and A. T. Maitra: *Thermal Coefficient of Rock-Salt by X-ray Reflection.*

Indian Chemical Society:

July 1938.—Priyadarajan Ray and Nripendra Nath Ghosh: *Complex Compounds of Biguanide with Tervalent Metals. Part II. Chromium Biguanidines.* Priyadarajan Ray and Nripendra Nath Ghosh: *Complex Compounds*

of Biguanide with Tervalent Metals. Part III. Chromium Phenylbiguanidines. PRIYADARANJAN RAY AND HARIBOLA SAHA: Complex Compounds of Biguanide with Tervalent Metals. Part IV. Chromium bis-Biguanidines. SISIR KUMAR GUHA: Studies in Indigoid Dyes. Part III. MATA PRASAD, S. M. MEHTA AND MISS H. RATHNAMMA: Studies in Thixotropic Gelation of Thorium Molybdate gels. SHRIDHAR SARVOTTAM JOSHI AND T. V. SUBBA RAO: Electrodeposition of Lead on Base Metals. Part I. Behaviour of Alkaline Baths with Iron Cathodes at Low Current Densities. S. M. SETHNA AND R. C. SHAH: Pechmann Condensation of Methyl β -Resorcyate with Ethyl α -Alkylacetoacetates. M. K. MADHURANATH AND B. L. MANJUNATH: Chemical Examination of the Oil from the Seeds of *Santalum album* (Linn.). KARTAR S. NARANG, JNANENDRA NATH RAY AND BHARPUR SINGH ROY: *Rottlerin*, Part II. S. CHATTERJEE, M. SANYAL AND M. GOSWAMI: Studies in Catalytic Dehydration. MAHAN SINGH: Dimethylamino and Diethylaminophenyliminocamphors. Reagents for Mercury.

August 1938.—K. GANAPATHI: The Chemistry of Some Derivatives of Decalin, Part I. BALWANT SINGH AND G. AHMAD: Potentiometric Studies in Diazotisation. Determination of Aromatic Amides. MR. RAMART, K. G. NAIK AND C. M. MEHTA: Relation between Chemical Activity and Absorption in the Ultra-Violet of Certain Organic Molecules: Part I.—Study of the Absorption Spectra of the Chloro Derivatives of the Substituted Amides of Malonic Acid. K. G. NAIK, R. K. TRIVEDI AND C. M. MEHTA: Relations between Chemical Activity and Absorption in the Ultra-Violet of Certain Organic Molecules: Part II. Velocity of Saponification of the Chloro Derivatives of the Substituted Amides of Malonic Acid. S. CHATTERJEE, A. SHAH AND M. GOSWAMI: Composition of Boiled Oil. BAIDYANATH GHOSH AND B. C. GUHA: Vitamin C and Toxins: Part I.—The Effect of Vitamin C and other Reducing Substances on Diphtheria and Tetanus Toxins in vitro. BAIDYANATH GHOSH AND B. C. GUHA: Vitamin C and Toxins: Part II.—The Effect of the Administration of Vitamin C to Guinea pigs Injected with Diphtheria and Tetanus Toxins. BAIDYANATH GHOSH: Observations on the Relation between Pregnancy, Sex-hormones and the Vitamin C Content of the Tissues of Guinea-pigs. S. K. MITRA: Experiments on the Synthesis of Cytisine: Part I. Synthesis of 3:5 Dicarbethoxypyrrone-6-acetate and the corresponding Pyridones. MUHAMMAD QUDRAT-I-KHUDA, ASHUTOSH MUKHERJI AND PHANIBHUSHAN BANERJI (in part): Strainless

Monocyclic Rings. Part II.—Synthesis of 3-Methyl-cyclohexane-1-carboxyl-1-acetic acid and Separation of its Isomers. G. P. PENDSE AND JAGRAJ BEHARI LAL: Constituents of the Seeds of *Blepharis edulis* Pers. The Composition of the Oil. A Correction Note.

Indian Botanical Society:

September 1938.—BOERGESEN, F.: Contributions to a South Indian Marine Algal Flora—III. KAJALE, L. B.: Embryo and Seed Development in the Nyctaginaceae.—I. Studies in the Genus *Boehavia*. DASTUR, R. H., AND WINIFRED JOHN: The Growth of Rice Seedlings in Salt Solutions of Different H-ion Concentrations. SCHMID, E.: Contributions to the Knowledge of Flora and Vegetation in the Central Himalayas.

The Entomological Society of India: (New Delhi Branch.)

July 26, 1938.—E. S. NARAYANAN: Biology of Two Indian Species of *Apanteles* (*Braconidae*) of Economic Importance. L. N. NIGAM: Life-History of the ak Grasshopper, *Pæcilocerus pictus*.

The following exhibits were shown and commented upon: Three species of termites swarming in Delhi early in the rainy season (H. S. Pruthi); *Mylocerus Prox lactivirens* Marshall, damaging cotton at Delhi; *Anomala lineatipennis* damaging apple fruits in Simla; Egg clusters, pupæ and adults of *Epistictia viridimaculata* Boh. from leaves of *Steriospermum suaveolens* in Dehra Dun and grubs of *Podontia 14-punctata* (?) infesting *Dualia* *sonnertoides* in Dehra Dun (T. Ahmad); A nest of the red-ant, *Oecophylla smaragdina* F., from Karnal (Ghulam Ullah); *Chilomenes sex-maculata* F. (*Coccinellidae*) showing colour variations (A. P. Kapur); Nest of the spider *Stegodyphus sarasinorum* Karsch, and some of its fauna from Dehra Dun (K. B. Lal).

A resolution deeply regretting the death of Dr. Geza de Horvath of Budapest, one of the founders of the modern classification of Hemiptera, was passed unanimously.

Meteorological Office Colloquium, Poona:

August 31, 1938.—RAO BAHADUR Y. RAMACHANDRA RAO, Locust Research Entomologist, Karachi, on "The Locust Problem in India".