

ACADEMIES AND SOCIETIES

Indian Academy of Sciences:

March 1939. SECTION A.—S. S. PILLAI: On v(k). P. SURYAPRAKASA RAO AND T. R. SESHADRI: Pigments of Cotton Flowers. Part VII. Position of the glucose residue in Gossypitrin.—The constitution of Gossypitrin has been established as the 7-glucoside of the flavonol Gossypetin. S. RAMACHANDRA RAO AND S. ARAVAMUTHACHARI: The Magnetic Susceptibility of Mercury and of some Dilute Alkali Amalgams.—From the observed susceptibility value of -33.3 for mercury in the liquid state, it is suggested that the mercury atoms exist in the liquid as divalent ions Hg^{++} . In the dilute amalgams, Li caused an increase in diamagnetic susceptibility and the other alkalis a decrease. It is suggested that the alkali atoms are dispersed as single atoms at low concentrations, and double atoms at relatively larger concentrations. S. CHOWLA: A Definite Integral. L. SIBAIYA AND T. S. SUBBARAYA: Zeeman Effect of Hyperfine Structure in Intermediate Fields.—The green line $Hg I \lambda 5461A$ has been studied at field strengths up to 4000 gauss. The results show a good agreement with theory both as regards separations as well as intensities. L. SIBAIYA: On the Self-Reversal of Spectral Lines. S. BHAGAVANTAM AND T. VENKATARAYUDU: Raman Effect in Relation to Crystal Structure.—A theory of the normal oscillations of crystal lattices is presented and the normal modes of oscillations of some typical crystal lattices are worked out. S. RANGASWAMI AND T. R. SESHADRI: Synthetic Experiments in the Benzo-pyrone series. Part I. Synthesis of Karanjin- α -Carboxylic Acid. N. JAYARAMAN: The Cause of Colour of the Blue Quartzes of the Charnockites of South India and of the Champion Gneiss and other Related Rocks of Mysore. M. DE HEMPTINNE AND C. MANNEBACK: Raman Effect and the Potential Function of the Ethylene Molecule.

March 1939. SECTION B.—D. V. BAL AND S. K. MISRA: A Study of the effect of different types of rations on the quality of milk, milk yield and the general condition of milch buffaloes.—Cotton seed significantly affects the characteristics of the butter fat by increasing its melting point, and by lowering the proportion of the volatile water-soluble and insoluble fatty acids contained in it. V. S. ABHYANKAR, W. V. KOTASTANE AND N. NARAYANA: The Proteins of Bajri (*Pennisetum typhoideum*).—The nitrogen distribution of prolamin and total globulin and its two fractions globulin-A and globulin-B have been studied and their essential amino acids determined. B. N. SINGH AND M. L. MEHTA: Studies on Physico-Chemical relations of Soil and Water—I. Water retentive force of soil as influenced by chemical fertilisers.—The effects of ammonium sulphate (N), potassium sulphate (K) and double superphosphate (P), singly and in combinations (total 8 treatments) on the water retentive force of the soil at different moisture contents have been recorded. C. SURYAPRAKASA RAO: The Myxophyceae of the Bihar Province, India—I.—Twenty-five forms

have been recorded and out of these, three varieties and three forms are new.

Indian Association for the Cultivation of Science: (Proceedings, 21, Part 5)

November 1938.—P. KOTESWARAM: Dissociation in sulphuric acid with temperature. SUDHENDU BASU AND A. T. MAITRA: Thermal coefficient of Rocksalt by X-ray reflection. MOHINIMOHAN GHOSH: Dynamics of the piano-forte String and the Hammer, Part I (Hard hammer). S. K. MUKERJI: On the Hyper-fine structure and analysis of some complex Lines in the first spark spectrum of arsenic in the Ultra-violet Region. SARAJUPRASAD GHOSH: Dispersion, Absorption and Polarisation Curves for Radio-wave propagation in the Ionosphere. JAGANNATH GUPTA: The origin of low frequency Raman lines in Solids. J. N. BHAR: Stratification of the Ionosphere.

Indian Chemical Society:

December 1938.—A. MUKHERJI: The Vitamin B Complex in Toxic Conditions. K. MITRA: Nutrition Studies in Bihar, Part II. Chemical Composition of some Local Edibles. T. N. MEHTA AND V. B. THOSAR: The Reaction of some Aromatic Diamines with Ethyl Malonate. PRIYADARANJAN RAY AND HARIBOLA SAHA: Complex Compounds of Biguanides with Trivalent Metals. Part V. Thiocyanates of Chromium Biguanides. N. N. CHATTERJEE AND GIRINDRA NATH BARPUJARI: Spiro-compounds. Part V. The formation and transformation of Spiro-compounds from 3- and 2-Methylcyclohexanones. B. L. MANJUNATH AND M. S. SHANKARA RAO: Chemical Examination of *Bragantia wallichii* (Lour.). G. V. JADHAV AND D. R. SUKHTANKAR: Interaction of Sulphuryl Chloride with Arylamides of Aromatic Acids. Part I. B. L. MANJUNATH AND M. S. SHANKARA RAO: Note on the Occurrence of Behenic Acid in the Oil from the Seeds of *Pongamia glabra*, Vent.

January 1939.—VISWANATH SHARMA AND SALIMUZZAMAN SIDDIQUI: The constituents of *Didymocarpus Pedicellata*. Part II. Comparative studies in the Constitution of Pedicin, isopedicin, Pedicinin and Pedicellin. H. KRALL: The Tautomerism of Nitrous acid. M. K. INDRA: Variation of the cataphoretic velocity of silver halides in presence of different dyestuffs. MAHAN SINGH: Studies on Rotatory power and chemical constitution. Part IV. BALAWANT SINGH AND SOHAN SINGH: Potentiometric studies in oxidation-reduction reactions. Part IV. Oxidation with potassium chlorate. KUNJ BEHARI LAL AND HANS KRALL: The Phenylthiocarbamides. A contribution to the study of the Triad -N.C.S-. Part VIII. The Chemistry of Hector's Base and attempts towards its synthesis. P. C. MITTER AND SHYAMAKANTA DE: Studies in γ -Ketonic acids. Part I. H. S. JOIS, A. KUPPASAMI AND B. L. MANJUNATH: Isomerisation of Benzylidene Derivatives. Part I. BAIDYANATH GHOSH: Studies on the changes of Blood-lipoids of Normally fed and Vitamin C-deficient Guinea-pigs.