

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 $Hg\ I\ \lambda 5461\text{\AA}$ 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-a-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 Myxophyceæ 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 Tervalent 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, iso-Pedicin, 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.*