

ACADEMIES AND SOCIETIES

Indian Academy of Sciences:
(Proceedings)

July 1941, SECTION A.—P. G. N. NAYAR: *The luminescence, absorption and scattering of light in diamonds. Part III. Absorption.* The features of the absorption in diamond observed by the author and earlier workers are shown to be inconsistent with the electronic energy levels obtained from the theoretical calculations of Kimball. Thus crystals do not actually conform to the ideal lattice, and a certain secondary structure brings about new intermediate levels. KANTILAL C. PANDYA AND P. GEORGE VARGHESE: *The condensation of aldehydes with amides. Part VII. The condensation of Piperonal.* KANTILAL C. PANDYA AND P. GEORGE VARGHESE: *The condensation of aldehydes with amides. Part VIII. The condensations of 6-Nitropiperinal.* P. SURYAPRAKASA RAO AND T. R. SESHADRI: *Constitution of Butrin.* P. SURYAPRAKASA RAO: *A note on the methylation of quercetagenin.* B. R. SETH: *On Guest's law of elastic failure.* B. LAKSHMAN RAO: *Raman effect in potassium tartrate crystal.* G. V. L. N. MURTHY: *Colour analysis and colorimetry. Part I. Nitrate estimation.* B. LAKSHMAN RAO: *Raman spectra of some crystalline nitrates and sulphates.* The sulphates examined in the form of single crystals have yielded all the frequency shifts characteristic of the internal oscillations of the sulphate ion, including some of the split components of the degenerate lines and also some new lattice frequencies. P. RAMA PISHAROTY: *On the geometry of the quantum reflection of X-rays in diamond.* The appearance of quantum reflections outside the plane of incidence in cases when it is not a plane of symmetry is worked out quantitatively and the agreement with observation is a striking evidence of the definite orientation of the phase waves associated with the lattice vibrations in this case. The streamers and the two subsidiary spots accompanying the modified reflection (Raman and Nilakantan), their behaviour with changes of crystal setting, the tripling of the spots in a particular setting (Jahn and Lansdale), the changes with changes in angle of incidence—all these different phenomena are shown to be geometrical consequences of a postulate of three sets of phase waves. M. W. CHIPLONKAR: *The brightness of the zenith sky during twilight.* BRAJ KISHORE MALAVYA AND SIKHIBHUSHAN DUTT: *Chemical examination of the fixed oil derived from the seeds of *Lallemantia royleana* Benth. or *Tukhm-i-malanga*.* N. ANANTHANARAYANAN: *Spectroscopic examination of the diffraction of light by a thin metallic half-plane.*

SECTION B.—S. B. KAUSIK: *Structure and development of the staminate flower and the male gametophyte of *Enalus acoroides* (L.fil.), Steud.* G. N. RANGASWAMI AYYANGAR AND B. W. X. PONNAYYA: *Studies on Para-Sorghum Snowden—the group with bearded nodes.* S.

RAMANUJAM: *A haploid plant in *Toria* (*Brassica campestris* L.).* T. S. RAGHAVAN AND A. R. SRINIVASAN: *Cytogenetical studies in *Nicotiana*. Part II. Morphological features of *Nicotiana glutinosa* and the hybrid between *Nicotiana glutinosa* and *N. tabacum*.* JAI CHAND LUTHRA AND INDER SINGH CHIMA: *Some studies on the potentiality of shrivelled wheat grains.* I. FROILANO DE MELLO: *First record of an *Amoeba* parasite of an Indian Termite.*

Indian Chemical Society:
(Journal)

April 1941.—J. C. GHOSH, S. K. BHATTACHARYA, M. M. DUTT AND M. J. RAO: *Iodination. Part I. Studies on the equilibrium in systems of iodine and various unsaturated organic compounds in the dark in different non-polar solvents.* DUSHYANT NARASINGASA SOLANKI AND BHASKAR GOVIND JOSHI: *Electrodeposition of cadmium on Iron.* P. V. KRISHNAMURTHY AND K. V. GIRI: *Studies in Vitamin-C oxidation. Part II. Influence of various substances occurring in plant and animal tissues on the catalytic oxidation of Vitamin-C.* NRIPENDRA NATH CHATTERJEE AND AMALENDU BOSE: *A new synthesis of eudalene.* P. V. KRISHNAMURTHY: *Studies in Vitamin-C oxidation. Part III. The retardation of Vitamin-C oxidation by oxalic acid.* K. N. GAIND, R. P. SEHGAL AND J. N. RAY: *Sulphonamides. Part II.* K. N. GAIND, (MISS) S. KAPOOR AND J. N. RAY: *New method of synthesis of isoquinoline derivatives.* PRIYADARANJAN RAY AND BHUPENDU CHANDRA PURAKAYASTHA: *Complex compounds of biguanide with bivalent metals. Part III. Nickel biguanidines.* RAMACHANDRA SAHASRABUDHEY AND HANS KARALL: *The phenylthio-carbamides. A contribution to the study of the triad-N.C.S.* Part X. *Action of hydrolytic agents, alkaline lead acetate and nitrous acid on thiosemicarbazide.* T. V. SUBHA RAO AND G. GOPALARAO: *Decomposition of potassium nitrate in sunlight.* PHININDRA CHANDRA DUTTA: *A new synthesis of cadalene.*

Indian Botanical Society:
(Journal)

July 1941.—GIRIJA P. MAJUMDAR: *The sliding, gliding, symplastic or the intrusive growth of the Cambium cells and their derivatives in higher vascular plants.* SULTAN AHMAD: *Gasteromycetes of the Western Himalayas I.* R. K. SAKSENA: *Importance of growth-promoting substances in the metabolism of *Pythium indigofera* Butler.* V. NARAYANASWAMI: *A new Gymnosporia from Bastar State, India *Gymnosporia Bailadillana* Narayanaswami et Mooney spec. nov. (Celastraceae-Celastraceae).* F. R. BHARUCHA AND MISS D. B. FERREIRA: *The biological spectra of the Matheran and Mahabaleshwar flora.* GHIAS-UD-DIN AHMAD: *Effect of light intensity and temperature on the growth of *Azolla filiculoides*.*