

ACADEMIES AND SOCIETIES

Indian Academy of Sciences

June 1939. SECTION A.—SIR C. V. RAMAN AND K. SUBBA RAMAIAH: *On the Wave-like Character of Periodic Precipitates*. Fourteen micro-photographs and enlargements of Liesegang precipitates are reproduced to show the characteristic superposition effects observable with waves. The examples illustrate the varying effects of the superposition of two wave-trains when their wave-length, direction, and amplitude are individually and collectively different. The so-called primary and secondary rings obtained with silver-chromate precipitates in gelatin are related to each other as a group is to the individual waves of which it is composed. K. SUBBA RAMAIAH: *Studies on Liesegang Rings*. It is shown that the fine secondary rings consist of silver chromate and are not due to the presence of impurities in the gelatin. Under suitable conditions, the precipitation of silver chloride and silver phosphate in gelatin is a periodic process, giving rise to a series of extremely fine rings. The rings exhibit interesting optical effects, such as diffraction spectra and different coloured haloes. S. MINAKSHI SUNDARAM: *On Non-Linear Partial Differential Equations of the Parabolic Type*. S. MINAKSHI SUNDARAM: *On Non-Linear Partial Differential Equations of the Hyperbolic Type*. M. W. CHIPLONKAR: *A Simple Cylindrical Lens Spectrograph for the Optical Determination of the Concentration of Ozone in the Atmospheric Layers near the Ground*. The slit and collimator are dispensed with, and the spherical camera lens is replaced by a cylindrical lens with its axis parallel to the refracting edge of the prism. R. K. MEHRA AND K. C. PANDYA: *The Condensation of Aldehydes—Part X. Of p-Tolylaldehydes with Amides; Part XI. Of p-Tolylaldehyde with Malonic Acid and Malonanilic Acid*. The amides give bisamide products, and malonanilic acid the cinnamaldehyde. K. C. PANDYA, T. S. SODHI AND D. S. MITTAL: *Condensation of Aldehydes with Malonic Acid—Part XII. The Influence of Groups and of Other Factors*. The hydroxy group generally diminishes the yield, which rises when the group is methylated. The nitro-group has no influence. R. NARAYANASWAMI: *Some Measurements of Chloride, Nitrate and Nitrite Present in the Water of the Monsoon Rains at Bombay*. S. RANGASWAMI AND T. R. SESHADRI: *The Question of the Fixation of the Aromatic Double Bonds in Hydroxy-Chromones and Coumarins. Formation of Azo-Dyes*. T. VENKATARAYUDU: *The 7-15 Problem*.

June 1939. SECTION B.—B. N. SINGH AND S. N. SINGH: *Photoperiodism and the Phasic Development of Crotalaria juncea*. B. N. SINGH, S. N. SINGH AND K. M. NAIR: *The Influence of Moisture Content and Nitrate Feeding on the Nitrogen Cycle in the Soil both under Aerobic and Anaerobic Conditions*. N. KESAVA PANIKKAR AND R. GOPALA AIYAR: *Observations on Breeding in Brackish-Water Animals of Madras*. SHYAM SUNDER LAL: *The Internal Ear of Scoliodon sorrakowah (Cuvier)*.

Indian Chemical Society

April 1939.—R. N. MITTRA: *Formation of periodic precipitate in the absence of a foreign gel—Part II. Ferric hydroxide sol by different methods*. R. N. MITTRA: *Cupric hydroxide sol*. PRAFULLA KUMAR BOSE AND JOGENDRALAL BOSE: *Natural Flavones—Part III. On the constitution of tambulin*. K. P. BASU AND M. K. HALDAR: *Supplementary relations between the proteins of pulses and those of milk by the balance-sheet and growth methods*. P. C. MITTER AND LAKSHMI KANTA DE: *Studies in the γ -ketonic acids—Part II*. K. P. BASU AND M. K. HALDAR: *Biological value of the proteins of Cicer arietinum (Bengal gram) and Cajanus indicus (Arhar) by the balance-sheet and growth methods*. SISIR KUMAR GUHA: *On the preparation of 7-methyl-3-hydroxythionaphthene and its condensation with isatin*.

May 1939.—S. M. MEHTA AND M. B. KABADI: *The electrical conductivity of solutions containing zinc hydroxide and sodium hydroxide*. M. C. NATH AND P. L. MUKHERJEE: *Crystallographic investigation of artostenone, the stenone isolated from the Indian summer fruit, Artocarpus integrifolia by means of Goniometer and X-rays*. W. V. BHAGWAT: *Dissociation constants of some organic acids from solubility measurements*. PANCHANAN NEOGI AND KANAI LAL MONDAL: *Resonance reaction—Part II*. BAIDYANATH GHOSH: *Vitamin C and Toxins—Part III. The effect of diphtheria toxin on Vitamin C metabolism*. R. K. BAHL AND SURJIT SINGH: *Action of fuming nitric acid on iodine*. S. S. BHATNAGAR, A. N. KAPUR AND MAHENDRA SARUP BHATNAGAR: *Adsorptive properties of synthetic resins—Part II. Adsorption of potassium salts of various anions*. S. R. PALIT AND G. N. BHATTACHARYA: *A note on the basicity and molecular weight of shellac*.

Meteorological Office Colloquium, Poona

June 9, 1939.—V. SATAKOPAN: *Orthogonal polynomials vs. Harmonic functions in Meteorology and Geophysics*.

Errata

Vol. 8, No. 6, June 1939:

- Note entitled "A Magnetic Study of the Oxides of Chromium and Manganese": insert the following between lines 22 and 23 in column 2 on page 253:—"at 65° after which there is a continuous fall".

- The article entitled "Agricultural Marketing in Northern India": Page 277, column 1, substitute the word "linseed" in line 45 by "licensed" and omit the words "the failure of" appearing in lines 11 and 12 in column 2 of the same page.