

ACADEMIES AND SOCIETIES

Indian Academy of Sciences:

September 1939. SECTION A.—M. W. CHILONKAR: *Measurements of atmospheric ozone at Bombay*.—The average amount of ozone and its seasonal variation found at Bombay are in general agreement with those to be expected from Dobson's world-wide ozone survey in 1930. There is practically no correlation between the daily value of ozone, and the pressure at ground level. K. S. VENKATARAMAN: *The adiabatic piezo-optic coefficients of water and the alcohols*.—The elasto-optic coefficients calculated for pressure changes at constant temperature and at constant entropy are always higher than the theoretical value given by the Lorentz formula and the difference between that at constant temperature and the theoretical value, which is due to the anisotropy of the polarisation field is considerably smaller in the alcohols than in carbon disulphide or benzene. J. BHIMASENACHAR: *A modified method of using Poiseuille's apparatus*.—The viscosity of glycerin has been measured at different temperatures. S. PARAMASIVAN: *Technique of the painting process in the rock-cut temples at Badami*. S. S. BHATNAGAR, B. PRAKASH AND J. C. MAHESHWARI: *Magnetism and molecular constitution of some manganese compounds*.—The valency states of manganese in some mangano-halides of pyridine, K_2MnCl_6 , $AgMnO_4$, and $K_2Mn(CN)_6$, have been studied. K. VENKATESWARALU: *Polarisation of Raman lines in relation to molecular structure: $SOCl_2$, CH_3Cl and BCl_3* .— $SOCl_2$ has a plane structure, and not a pyramidal one as suggested by the results of Cabannes and Rousset. B. SUNDARA RAMA RAO: *Raman effect in relation to crystal structure—I. Calcite and Sodium Nitrate*. B. S. SASTRY: *Note on a type of generalized Laguerre polynomial*. K. S. K. IYENGAR: *A new proof of the formula for the generating function of Laguerre polynomials and other related formulæ*. P. S. SRINIVASAN: *Ultra-violet irradiation of rubber*.—Irradiation with ultra-violet light makes rubber more transparent when dissolved in non-polar solvents and less transparent when dissolved in polar solvents. T. M. K. NEDUNGADI: *Effect of crystal orientation on the Raman spectrum of sodium nitrate*.—Twenty-three different spectrograms have been obtained with a single crystal of sodium nitrate corresponding to different orientations of the crystal relative to the directions of incidence and observation and different states of polarisation of the incident and scattered radiations. K. S. K. IYENGAR: *A new proof of Mehler's formula and other theorems on Hermitean polynomials*. B. S. MADHAVA RAO: *Quantum-mechanical interpretation of a result concerning Hermite polynomials*.

September 1939. SECTION B.—B. N. ACHARYA AND S. C. DEVADATTA: *Compounds of Phosphorus in Milk—I*. B. N. ACHARYA AND S. C. DEVADATTA: *Phosphorus, Calcium and Magnesium in Milk*.

Indian Chemical Society:

July 1939.—S. S. BHATNAGAR, BRAHM PRAKASH AND JARNAIL SINGH: *Colour and magnetic properties of manganous sulphide*. BIJAN BIHARI LAL: *Decomposition of hydrogen peroxide by potassium ferrocyanide—Part I*. A. MOKTADER AND S. S. GUHA-SIRCAR: *On the bitter principle from Andrographis paniculata Nees—Part I*. R. K. BAHL AND SURJIT SINGH: *The action of hydrogen sulphide on an aqueous solution of paraperiodic acid*. BALWANT SINGH AND SOHAN SINGH: *Potentiometric studies in oxidation-reduction reactions—Part VI. Iodometric determination of organic acids*. BALWANT SINGH AND SOHAN SINGH: *Potentiometric studies in oxidation-reduction reactions—Part VII. Determination of aromatic compounds with potassium chlorate*. SURESH CHANDRA SEN-GUPTA: *Studies in dehydrogenation—Part IV*. MATA PRASAD, JAGDISH SHANKAR AND PRABHAKAR N. BALJEKAR: *Space-group determination of the crystals of p-Nitrophenol (Metastable), Phenacetin and Tribenzylamine*. S. J. DAS-GUPTA: *Acridine derivatives as antimalarials—Part IV*.

August 1939.—M. K. SRINIVASAN AND B. PRASAD: *Viscosity of aqueous solutions of formic, cyanoacetic and oxalic acids*. R. K. BAHL AND SURJIT SINGH: *Periodates of Yttrium, Erbium and Cerium*. S. M. MEHTA AND M. B. KABADI: *The hydrogen-ion concentration of solutions containing zinc hydroxide and sodium hydroxide*. C. T. ABICHANDANI AND S. K. K. JATKAR: *Dissociation constant of β -Resorcylic acid*. DUHKHAHARAN CHAKRAVARTI AND BRAJESWAR MAJUMDAR: *Synthesis of coumarins from o-Hydroxy-arylalkyl ketones—Part II. Formation of o-Coumaric acids from o-Hydroxy-aldehydes*. P. C. MITTER AND HITENDRANATH MUKHERJEE: *Action of oxalyl chloride on phenolic ethers*. RAFAT HUSAIN SIDDIQUI: *Strychnine and Brucine—Part I. The alkaline degradation of strychnine*. RAFAT HUSAIN SIDDIQUI: *Strychnine and Brucine—Part II. The alkaline degradation of brucine*. P. C. MITTER AND PHANINDRA NATH BAGCHI: *Studies in long-chain acids—Part I. An extension of the isoprene rule*. RAVI SARUP JALOTA, KARTAR SINGH NARANG AND JNANENDRA NATH RAY: *Rottlerin—Part IV. Derivatives of iso-Rottlerin*. RAFAT HUSAIN SIDDIQUI: *Studies in the Pyridine Series—Part I. An attempt to synthesise 2-methyl-4-ethyl-pyridine*. RAFAT HUSAIN SIDDIQUI AND ABDUL QUDDUS KHAN: *Studies in the Pyridine Series—Part II. A new synthesis of 2-methyl-4-ethylpyridine*. HARENDRA NATH ROY: *Rapid method of estimating small amounts of iron and manganese in copper-nickel-zinc alloys*. SALIMUZZAMAN SIDDIQUI: *A note on the alkaloids of Rauwolfia serpentina, Benth.*

Meteorological Office Colloquium, Poona:

August 15, 1939.—P. C. MAHALANOBIS: *Some recent work in the Statistical Laboratory at Calcutta*.