

## ACADEMIES AND SOCIETIES

## Indian Academy of Sciences:

## (Proceedings)

January 1942. SECTION A.—R. D. DESAI AND C. K. MAVANI: Heterocyclic compounds. Part XV. Coumarins from pyrogallol derivatives. P. I. ITTYERAH AND KANTILAL C. PANDYA: The condensation of aldehydes with amides. Part IX. The condensation of o-nitrobenzaldehyde. The condensation product in every case has been of the benzylidene bis-amide type. R. D. DESAI AND C. K. MAVANI: Heterocyclic compounds. Part XVI. Coumarins from hydroquinone derivatives. SAHIB RAM MANDAN: Umbilical projection. V. SUBBA RAO AND T. R. SESHADRI: Chemical investigation of Indian lichens. Part IV. Constitution of montagnetol. The constitution has been established as the erythrityl ester of orsellinic acid. D. VENKATESWARA RAO: Scattering of light in binary liquid mixtures. The isothermal variation of  $\rho_u$ ,  $\rho_r$  and  $\rho_h$  with concentration in mixtures of carbon disulphide and methyl alcohol is investigated. The results clearly point to the existence of molecular clustering in the critical composition mixtures at the laboratory temperature. S. RAMACHANDRA RAO AND S. R. GOVINDARAJAN: The diamagnetism of the halogens. The magnetic susceptibility of the halogens dissolved in a few organic solvents show that in all cases studied, except cyclohexane solutions, the susceptibility is greater than the corresponding value for the free halogen. The probable causes for such changes are examined. ANNA MANI: Fluorescence, absorption and scattering of light in ruby. The emission bands can be divided into two groups, viz., (1) electronic bands caused by transitions of the shielded electrons of  $\text{Cr}^{++}$  ion, (2) vibrational bands arising from a modulation of the electronic transitions by the crystal lattice vibrations. The frequency shifts of eight of the vibrational bands from the principal doublets agree fairly well with one or the other of the observed Raman and infra-red frequencies of alumina.

SECTION B.—M. D. PAUL: Studies on the growth and breeding of certain sedentary organisms in the Madras harbour. A. ANANTHANAPAYANA AYER: The external morphology of brain of *Semnopithecus entellus* (A comparative study). M. B. LAL: The egg-capsule of the millipede, *Thyroglutus malayus attems* (Syn. *Thyropygus malayus carl.*) T. S. RAGHAVAN AND A. R. SRINIVASAN: Cytogenetical studies in *Datura*. I. Cytology of the parents and of the  $F_1$  hybrid between *Datura fastuosa* and *Datura* sp.

## Indian Association for the Cultivation of Science: (Proceedings)

October 1941.—S. R. RHASTGIR: Theory of the variation of the resistance of a thermionic

valve with frequency. RAM PARSHAD: Propagation of supersonic waves in liquid mixtures and intermolecular forces. BRIJ MOHAN: Formula connecting self-reciprocal functions. R. G. BASAK: On the high-frequency conductivity and effective dielectric constant of electronic medium in a (high-vacuum) thermionic valve. DR. G. B. BANERJEE AND B. MISHRA: Raman effect in deuterionitric acid. S. P. CHAKRAVARTI AND N. L. DUTT: Electrical interference to radio broadcast reception. K. DAS GUPTA, S. R. DAS AND B. B. RAY: A study of allotropes of selenium by the X-ray diffraction method.

## Indian Chemical Society: (Journal)

October 1941.—T. L. RAMA CHAR: Studies on the photochemical activity of mixtures of vanadic acid and tartaric Acid. Part I. Optical properties of mixtures of vanadic acid and tartaric acid. Reduction of these mixtures in light and in the dark. L. SIBAIYA AND M. S. VENKATASUBBA RAO: Spectrum analysis of mineral contents of fruits. C. S. NARWANI AND G. T. GURSAHANI: Base-exchange of mercuric ions adsorbed on wool. C. S. NARWANI AND G. T. GURSAHANI: Rhythmic precipitation of silver chloride in gelatin tanned with chromium chloride. KESHO DASS JAIN AND J. B. JHA: Adsorption of hydroxybenzenes by sugar charcoal. Discontinuities in the adsorption of phenol, resorcinol and quinol from aqueous solutions. S. S. BHATNAGAR, BRAHM PRAKASH AND MOHAMMED ABDUL QAYYUM: Magnetic susceptibilities of metallic oxides and their molecular structures with special reference to those of cobalt.

## Indian Botanical Society: (Journal)

January 1942.—L. B. KAJALE: A contribution to the embryology of the Genus *Portulaca*. T. TATHACHAR: Studies in *oralidaceæ* (*Biophytum sensitivum* DC., *Averrhoa carambola*, L. and *Averrhoa bilimbi*, L.). SACHINDRANATH BANERJEE: Importance of anatomical characters of the sporophores in the taxonomy-study of thelephoraceæ of Bengal. S. M. SIRCAR: Studies in the physiology of rice—II. Photoperiodic response in one variety of winter paddy (a preliminary report). C. V. KRISHNA IYENGAR: Development of embryo-sac and endosperm-haustoria in *Rehmannia angulata* Hems. M. J. THIRUMALACHAR: Morphology and parasitism of *Trochodium Sampathense* Thirumalachar, Spec. Nov. K. SUBRAMANYAM: Gametogenesis and embryogeny in a few members of the Melastomaceæ. H. L. CHAKRAVARTY: The identity of punarnaba. BALAI CHAND KUNDU: The anatomy of two Indian fibre plants, *Cannabis* and *Corchorus* with special reference to fibre distribution and development. K. R. RAMANATHAN: On the oogamous sexual reproduction in a *Carteria*.