

ACADEMIES AND SOCIETIES

Indian Academy of Sciences:

February 1940. SECTION A.—S. S. PILLAI: *On m Consecutive Integers—II.* V. SEETHARAMAN: *Methods of Generating Differential Invariants with Special Reference to Path-Spaces of Order 2.* T. M. K. NEDUNGADI: *Effect of Temperature on the Raman Spectrum of Quartz.* The lines are observed to broaden and shift to lower frequencies as the temperature of the crystal is raised over the range from liquid air temperature to 530° C. The line 207 broadens in an unsymmetrical and exceptionally enormous manner as the transition temperature 575° C. is approached. It is possible that this mode of vibration is responsible for the transition itself. SIKHIBHUSHAN DUTT AND B. M. S. AGARWAL: *Colour in Relation to Chemical Constitution of the Organic Salts and Metallic Derivatives of Isonitroso-Diphenyl-Thiohydantoin.* The change in colour of the above compound in the presence of alkali has been studied. This has been shown to be due to a fundamental change in the constitution of the molecules from an oximinoketonic to a nitroso-enolic form. P. R. SUBBARAMAN AND K. R. KRISHNASWAMI: *A Rapid Volumetric Method for Estimation of Iron and Titanium and its Application to Ilmenite Analysis.* Titration is effected with solutions of (a) ferric sulphate and (b) potassium permanganate. N. JAYARAMAN: *A Chemical and Mineralogical Study of the Feldspars from the Mica-Pegmatites of Nellore, Madras.* The feldspars could be grouped as non-perthitic, perthite-micropertthite, and micropertthite. There is mutual solubility, although to a limited extent, between the soda and potash feldspars and between soda feldspar and anorthite. The colour of these feldspars is not schiller colour but due to an iron compound.

February 1940. SECTION B.—JAI CHAND LUTHRA AND INDAR SINGH CHIMA: *Some studies on the metabolism and growth of Malta oranges.* PRAHLAD NARAIN MATHUR: *The venous system of the pond-turtle, Lisssemys punctata (Bonnatere).* S. B. KAUSIK: *A contribution to the embryology of Enalus acoroides (L. fil.), Steud.* M. ANANTASWAMY RAU: *An embryological study of Suriana maritima Linn.* D. SRINIVASACHAR: *Embryological studies of some members of Rhamnaceæ.*

Indian Association for the Cultivation of Science (Proceedings):

November 1939.—HAZARILAL GUPTA AND ABINASH CHANDRA: *Evaporation from earthen jugs.* SH. NAWAZISH ALI: *Absorption spectra of compounds of phosphorus.* F. C. AULUCK: *Linear extension of reflected image produced by a surface traversed by waves.* P. C. MAHANTI AND A. K. SEN GUPTA: *Isotope effect in Band Spectrum of tin monoxide.* SACHINDRA MOHAN MITRA: *On the polarised fluorescence of organic compounds.*

Mining, Geological and Metallurgical Institute of India:

December 1939.—A paper of great industrial importance dealing with the possibilities of manufacturing Carbon Electrodes in India by Dr. D. Swarup, Mr. V. G. Iyer, and Mr. A. H. K. Iyer, appears in the *Transactions of the Institute* (Vol. 35, No. 3). After giving a brief introduction regarding the nature of the raw materials required, the authors have investigated the possible sources of these materials in India, and their use in the manufacture of the different types of electrodes. A detailed description is then given of the several processes involved in this work, together with estimates of probable cost. At the conclusion of the paper, there is the Report of a valuable discussion on the several points raised by the authors in the course of their communication, which serves to draw our attention to other aspects of the problem.

The *Journal* also contains a paper on "The correlation of the Satpukuria Seam in the Raniganj coal-field" by Mr. M. M. Mukherji, on which Mr. E. R. Gee contributes a valuable Note.

Society of Biological Chemists, India:

January 30, 1940.—C. V. GANAPATI: *Coagulation of Milk by Enzymes.*

February 9, 1940.—DR. B. ANANTHASWAMY RAO: *Biological Methods of Malaria Control.*

March 4, 1940.—P. L. N. RAO: *Chemotherapy of Selenium and Tellurium Compounds.* P. R. VENKATARAMAN: *Water-soluble Nitrogen of Garlic (Allium sativum).* C. V. GANAPATI: *Nature of the Milk-clotting Enzyme in Papain.*

Entomological Society of India (Bengal Branch):

February 15, 1940.—D. P. RAICHOUDHURY AND DINESH CH. SARKAR: *Determination of the percentage of mortality in Bengal silk worm Bombyx mori L. (Nistid variety) and the effect of seasonal changes.* The author dwells on the effect of temperature and humidity as recorded by maxima and minima thermometers and dry and wet bulb thermometers day to day throughout one year. The observations were made on the larvæ reared in the laboratory from disease-free and healthy moths. The authors concluded that high temperature was inimical to the growth of the silk worm at the last larval stage when the highest mortality occurred.

Meteorological Office Colloquium, Poona:

December 19, 1939.—DR. A. L. NARAYAN: *A new photo-electric micro-photometer for the measurement of the contours of spectral lines.*

February 13, 1940.—C. W. B. NORMAND: *The International Meteorological Meetings at Berlin in June 1939.*

February 20, 1940.—N. K. SUR: *The results of sounding balloon ascents during a depression in July 1937.*