ACADEMIES AND SOCIETIES

Indian Academy of Sciences (*Proceedings*):

June 1940. SECTION A.—SIR C. V. RAMAN AND V. S. RAJAGOPALAN: *Colour of Stratified Media —I. Ancient Decomposed Glass.* Brewster's explanation of the iridescence as due to films of air separating thin layers of glass is definitely erroneous. The material is optically and mechanically continuous, but has an open framework structure which is quasi-periodic or stratified. Nine microphotographs and twelve spectrograms illustrate the paper. SIKHIBHUSHAN DUTT: *Colour in Relation to Chemical Constitution of the Phthalein Dyes. Phthaleins of the Mixed Type.* The colour phenomena exhibited by the unsymmetrical and symmetrical phthaleins on treatment with alkali are quite comparable with similar phenomena exhibited by iso-nitroso-1 :3-diphenyl-thiohydantoin and iso-nitroso-1 :3-diphenyl-thiobarbituric acid under identical conditions as studied by Dutt and his pupils, and due to the same cause. A. NARASINGA RAO: *Studies in Turbine Geometry—IV. The Topology of Oriented and Non-oriented Line Elements in the Inversive Plane.* B. RAMAMURTI: *A Geometrical Proof of a Theorem of Spinors.* K. SAMBASIVA RAO: *Generalisation of a Theorem of Pillai-Selberg.* T. R. SESHADRI AND J. VEERARAGHAVIAH: *Chemical Investigation of Indian Fruits—Part I. Bitter Principles of Pamparapanas (Indian Shaddock).* The peels and rags contain 0·13% and 1% respectively of naringin. The seeds contain 0·15% naringin and about 0·6% of limonin and some isolimonin. N. W. HIRWE, K. D. GAVANKAR AND B. V. PATIL: *Studies in Chloralamides—Part II. Chloral Nitro- and Chloral Bromo-Salicylamides.*

June 1940. SECTION B.—I. FROILANO DE MELLO: *Experimental studies on diets deficient in Vitamin B and their influence on the intestinal yeast flora of animals.* Yeast infestation of the intestines of animals should be considered as a case of normal commensalism. The variations in the degrees of such an infestation may, however, be taken as an analytic test for deficiency arising from beriberigenic diets. There is a large increase in the number of yeasts when the animals are placed on beriberigenic diets, and the number generally decreases to the normal health level when the animals suffering from experimental avitaminosis are fed on normal diet. B. N. SINGH AND M. P. SINGH: *Diurnal march of carbohydrates in relation to biochemic constitution of leaves.* S. L. VENKITESWARAN AND M. SREENIVASAYA: *On Tyrosinase of* Dolichos lablab*—I. Methods of estimation and the oxidation of different substrates.* The general substrate specificity of the enzyme suggests that it is not a "laccase", since the enzyme preparations have been found to be inert towards *p*-dihydroxy compounds. C. SRIKANTIA, C. KRISHNASWAMI RAO AND T. PRASANNASIMHA ROW: *Glutathion in anæmias. Its variations in the blood and its relation to the erythrocyte count and hæmoglobin content.* There is a marked increase in the corpuscular glutathion in anæmias generally and in ankylostome anæmias the increase is higher. SHRI RANJAN AND V. R. JHA: *The effect of ethylene and sulphur dioxide on the fruits of* Mangifera indica. The physiology of the black tip disease of mangoes has been studied.

National Academy of Sciences (*Proceedings*):

May 1939.—SIR SHAH SULAIMAN: *The theory of a new relativity, Chapter XVI (Generalised Gravitation).* GIRJA DAYAL SRIVASTAVA: *Contribution to the morphology of* Orobanche ægyptiaca *Pers.* SIKHIBHUSHAN DUTT: *Composition of patent still molasses fusel oil of Indian origin—Part II.* JAGAT NARAIN TAYAL AND SIKHIBHUSHAN DUTT: *Chemical examination of the seeds of* Martynia diandra. *Composition of the fixed oil.* JAGRAJ BEHARI LAL: *Constitution of santalin.* A. B. SEN: *Migration of para halogen atom in a derivative of meta-cresol.* IONE NITRAVATI DHARAM DASS AND SIKHIBHUSHAN DUTT: *Colour in relation to chemical constitution of the organic and inorganic salts of iso-nitrosomalonyl-guanidine.*

August 1939.—RAM KRISHNA MEHRA: *New monostomes of the family pronocephalidæ looss,* 1902. R. N. MITTRA: *Formation of periodic precipitate in the absence of a foreign gel—Part III. Ferric phosphate and ferric arsenate sols.* R. N. MITTRA: *Formation of periodic precipitate in the absence of foreign gel—Part IV. Ferric borate sol.* S. N. BANERJI AND S. GHOSH: *Changes in the viscosity of agar sol with concentration.* S. N. BANERJI AND S. GHOSH: *Changes in the viscosity of agar sol with temperature.*

Mining, Geological and Metallurgical Institute of India (*Transactions*):

The recent number of the *Transactions of the Mining, Geological and Metallurgical Institute of India* (Vol. 35, Pt. 4, February 1940) contains three important papers; one by DRS. F. G. PERCIVAL AND E. SPENCER on *Conglomerates and Lavas in the Singhbhum-Orissa Iron Ore Series;* the second by MR. B. WILSON HAIGH on *Coal Carbonisation and Some of its By-products,* and the third on *Mineral Wool* by DR. M. S. KRISHNAN. The first paper deals with certain aspects of the geology of an area which has been attracting considerable attention within recent years. The second paper gives an account of the carbonisation of coal at high, medium and low temperatures, with special reference to the by-products derivable therefrom. The paper on Mineral Wool by Dr. M. S. Krishnan is of exceptional interest, and from