ACADEMIES AND SOCIETIES

Indian Academy of Sciences: (*Proceedings*)

February 1942. SECTION A.—SIR C. V. RAMAN: *New concepts of the solid state.* Presidential address to the Indian Academy of Sciences, 1941. R. P. SHINTRE: *Studies in educational statistics. Part IV. A criterion of examination efficiency by the method of adjusted plot yields.* K. NEELAKANTAM AND L. RAMACHANDRA ROW: *Fluorescence reactions with boric acid and o-hydroxy-carbonyl compounds, and their application in analytical chemistry.* VIKRAM SARABHAI: *The time distribution of cosmic rays.* At least upto the small time intervals 1/50 sec. reached in the experiment, the arrivals of cosmic rays follow a law to be expected from time randomness; and their behaviour is therefore similar to that shown by radiations from radioactive sources. H. J. BHABHA AND D. BASU: *The theory of particles in spin half and the Compton effect.* The formula for the scattering of radiation by a free electron on the hole theory is calculated. The hole theory is in definite disagreement with experiments on scattering although it is in at least qualitative agreement with nature in describing the existence of the position and the process of pair creation, and is the only form in which the Dirac theory is logically tenable. L. RAMACHANDRA ROW AND T. R. SESHADRI: *Flavylium salts containing pyrone rings.* P. SURYAPRAKASA RAO: *Occurrence of luteolin in the flowers of* Chrysanthemum indicum. S. S. PILLAI: *On numbers of the form* $2^a \cdot 3^b$ *(I).* S. S. PILLAI AND ALLEYAMMA GEORGE: *On numbers of the form* $2^a \cdot 3^b$ *(II).* T. K. KRISHNASWAMY: *Estimation of cystine by nitroprusside.* The method described has the advantage of simplicity over the Sullivan reaction, and is more specific than the Folin and Marenzi uric acid reagent.

SECTION B.—SIR C. V. RAMAN: *New concepts of the solid state.* T. S. RAGHAVAN AND V. K. SRINIVASAN: *A contribution to the life-history of* Vahlia viscosa, *Roxb., and* Vahlia oldenlandioides, *Roxb.* N. K. IYENGAR: *Trypsin-kinase in blood.* N. K. IYENGAR: *Anti-tryptic components of blood.* N. K. IYENGAR: *Prothrombin and plasma trypsin.*

Indian Chemical Society: (*Journal*)

November 1941.—N. N. GODBOLE, B. G. GUNDE AND P. D. SRIVASTAVA: *The seed fat of* Buchanania latifolia. T. L. RAMA CHAR: *Studies on the photochemical activity of mixtures of vanadic acid and tartaric acid. Part II. Photocatalysis by colloidal micelle obtained by the reduction of vanadic and tartaric acid.* Induced optical activity by circularly polarised light. PRODOSH CHANDRA RAYCHOUDHURY: *Normal aluminium chromate.* PRODOSH CHANDRA RAYCHOUDHURY: *Periodates of tervalent metals.* R. P. DAROGA: *The colorimetric (p-dimethylaminobenzaldehyde-sulphuric acid) method for determining small quantities of atropine.* P. L. KAPUR AND BADAR-UD-DIN: *Estimation of copper in presence of iron.* R. K. BAHL, SURJIT SINGH AND NARINDRA K. BALI: *Estimation of iodine in periodates.* S. SIDDIQUI AND Z. AHMAD: *A note on the new formula for chaksine.* D. P. CHATTERJEE: *A note on the separation of silicon and tin in tin-silica mixture welding brasses and silicon brasses by alkali sulphate.*

Tin and Its Uses:

October 1941, No. 11.—"The current issue of *Tin and Its Uses,* the Quarterly Review of the Tin Research Institute, examines the various trends in tin consumption in the United States in the present emergency. The relative merits of tin and the suggested alternatives are discussed, and it is concluded that major changes in the use of tin would involve substantial expenditure on research and new equipment, and are likely to be deferred so long as the supply position permits. American stocks and deliveries of tin are particularly favourable at present, and if the analogy of British experience is followed, war production will still further stimulate, rather than diminish, the consumption of tin.

"Progress in the Institute's programme of industrial research is reported in this issue. The causes of difficulty in tinning certain batches of mild steel are explained, and various simple means of rectification are described. It is emphasised that there need be no steels difficult to tin provided that suitable precautions are taken in manufacture, and that buyers should be able to avoid troubles by specifying steel of "good tinning quality".

"The Institute has carried out tests on alternatives for palm oil and tallow in the hot-tinning process. Certain oils have been compounded which have excellent stability at high temperatures and considerable freedom from fuming and from fire hazard. Trials of these oils in industrial plants have been highly successful.

"Other articles in this issue include a description of an Australian test of the Institute's process for protecting tinplate against sulphur-staining by foodstuffs; a review of the use of tin in printing metals: an account of further improvements in tinfoil; and a pictorial record of special uses of canned foods in war-time England."

ERRATUM

Vol. 11, No. 2, February 1942, Page 81, in the table pertaining to Magnetic Notes: Under Quiet days, figure 18 has been omitted, and under moderate days for 2 ***read*** 17.