

ACADEMIES AND SOCIETIES

National Institute of Sciences of India,
Calcutta:

August 25-26, 1939.—R. R. BAJPAI AND K. B. MATHUR: Absorption of electromagnetic waves in the earth's atmosphere. B. N. SRIVASTAVA: Heat of ionic dissociation of the chloride and bromide of rubidium. K. B. MATHUR: Absorption and reflection of radio waves of oblique incidence and their relationship with vertical incidence phenomena. M. ISHAQ: The extension of the (O, O) band of OD.

SYMPOSIUM ON COAL IN INDIA

E. R. GEE: History of the development of the coal industry; The history of coal-mining in India; The geology of Indian coal. M. S. KRISHNAN: India's coal reserves; India's position in the world as a coal producer; Conservation of coal. CYRIL S. FOX: Coal in relation to metallurgical operations; Coal in relation to power. B. WILSON HAIGH: Carbonisation of coal and recovery of by-products. W. J. SAVAGE: Carbonisation of coal. S. K. ROY AND S. S. GHOSH: Fuel oil from inferior Jharia coals. C. FORRESTER: Briquetting of coal in India. A. N. MUKHERJEE: Briquetting of coal. CYRIL S. FOX: The underground gasification of coal. N. N. CHATTERJEE: Domestic coke. C. FORRESTER: Domestic coke. N. N. CHATTERJEE: Fuel research. C. FORRESTER: Fuel research in India. CYRIL S. FOX: Fuel research: Indian coal. H. K. NAG: Safety in mines through education. E. B. PARK: Safety in coal mining. R. P. SINHA: Safety in coal mining. L. J. BARRACLOUGH: Packing with incombustible material in coal mines. W. KIRBY: Some physical conditions which affect spontaneous heating in coal mines. E. B. PARK: Fires and ignition in mines. C. FORRESTER: Storage of coal. E. R. GEE: Storage of coal. C. A. INNES: Indian export trade in coal; The marketing of coal in India. A. L. OJHA: Some problems of Indian coal. N. N. CHATTERJEE: Chemical constitution of coal; Methods of analysis of coal. C. FORRESTER: Methods of analysis of coal in India. J. SANJANA: Sampling of coal. C. FORRESTER: Coal cleaning and beneficiation in India. E. R. GEE: Coal cleaning and beneficiation. N. N. CHATTERJEE: Sulphur in coal. E. R. GEE: Moisture in coal. J. S. SANJANA: Moisture in coal. R. K. DUTTA ROY: A critical study of some Indian coal ashes. J. S. SANJANA: Ash in coal. C. FORRESTER: Volatile matter in coal. M. S. KRISHNAN: Classification of coal. N. N. CHATTERJEE: Micro-structure of some Indian fusains. S. K. ROY: Microscopic determination of the Barakar and Raniganj sandstones of the Jharia coalfield. C. MAHADEVAN: Studies in coal by X-ray diffraction methods. R. K. DUTTA ROY: Studies on the action of solvents on Indian coal. B. SAHNI: The Palaeobotanical correlation of coal seams in India. M. S. KRISHNAN: State control in the coal industry. D. D. THACKER: The present status of the coal industry.

Indian Academy of Sciences:

October 1939. SECTION A.—H. J. BHABHA, H. CARMICHAEL AND C. N. CHOU: Production of

bursts and the spin of the meson. S. BHAGAVANTAM: On the occurrence of overtone lines in Raman effect.—It should be quite possible to record the overtone of the hydrogen frequency at approximately double the normal Raman shift as its intensity is expected to be only 1/155 of that of the fundamental. V. R. THIRUVENKATA CHAR: Note on some formulæ involving the Laguerre and Hermitian polynomials and Bessel functions. S. RAMACHANDRA RAO AND S. R. GOVINDARAJAN: The crystal diamagnetism of tellurium.—The principal susceptibilities are found to be -0.329 parallel to the trigonal axis and -0.296 perpendicular to same, leading to 1.11 for magnetic anisotropy. Influence of temperature and small admixtures of other elements have been studied. K. BAPAYYA: A study of the continuous wings occurring in Raman effect.—Besides the optical anisotropy, other physical properties of the liquid, such as its viscosity and dipole association play a prominent part in determining the intensity of the wings. W. BUKHSH AND R. D. DESAI: Heterocyclic compounds—Part X. The synthesis of substituted 1:2:3:4-tetrahydroacridones. P. SURYAPRAKASA RAO, V. D. NAGESWARA SASTRI AND T. R. SESHADRI: Geometrical inversion in the acids derived from the coumarins—Part VII. The behaviour of acetyl coumaric acids. D. N. MOGHE: On isotropic manifolds in the theory of relativity. R. K. MEHRA AND K. C. PANDYA: The condensation of aldehydes with amides—Part IV. Of m-hydroxybenzaldehyde. M. MANZUR AND K. C. PANDYA: The condensation of aldehydes with amides—Part V. Of p-hydroxybenzaldehyde. R. K. MEHRA AND K. C. PANDYA: The condensation of aldehydes with amides—Part VI. The condensations of o-, m- and p-methoxybenzaldehydes. K. SUBBARAMAIAH: Studies in colloid optics—III. Scattering of light by stearic acid hydrosols and by sodium stearate sols and gels.—The micelles in stearic acid sol are appreciably large and increase continuously on heating due probably to partial coagulation by heat. The asymmetry in shape of micelles diminishes with rise in temperature. A. MOESSNER: Einige numerische Identitäten. G. V. L. N. MURTY AND T. R. SESHADRI: Raman effect and chemical constitution. Influence of constitutive and other factors on the double bonds in organic compounds.—Part II. Effect of the phenyl group on the carbonyl bond in esters.—The phenyl group attached directly to the carbon of the C=O group as in esters of aromatic acids and in aromatic ketones, etc., markedly lowers the carboxyl frequency whereas the same group attached to the C=O through an oxygen atom as in phenyl esters markedly enhances the frequency.

October 1939. SECTION B.—G. N. RANGASWAMI AYYANGAR AND B. W. X. PONNAYIA: Studies in Sorghum sudanense, Stapf.—The Sudan Grass. G. W. CHIPLONKER: Lemnibranchs from the Bagh Beds. MANOHAR LAL MISRA: On some stone implements from Hoshangabad (Central Provinces).