

An important result of these investigations has been the construction and preliminary test of apparatus for generating very penetrating x-rays, which possesses several advantages as compared with machines hitherto available. The penetrating x-rays have their practical application in the treatment of internal cancer. The present apparatus consists of a Van de Graaff belt generator, coupled with a modified Lauritsen x-ray tube, in which all aspects of the equipment have been satisfactorily tested for production of x-rays up to 700,000 volts.

SYMPOSIUM ON IONIC PHYSICS AT CORNELL UNIVERSITY

ARRANGEMENTS have been made for holding a Symposium on Ionic Physics at Ithaca, N. Y., during the week end immediately preceding the opening of the Cornell 1935 Summer Session.

A three-day program (July 4, 5, 6) devoted to a discussion of photoelectricity and thermionics has been prepared. It is the purpose of this symposium to provide a comprehensive survey of these fields, with ample time and opportunities for discussion.

The various phases of the subjects will be introduced by the following invited papers:

Thursday Morning, July 4, 9:30 o'clock (E.S.T.)

"The Present Status of Thermionics," Saul Dushman, General Electric Company.

"Surface Ionization Potentials," J. A. Becker, Bell Telephone Laboratories.

Thursday Afternoon, 2 o'clock

"Optical Factors in the Photoelectric Effect," H. E. Ives, Bell Telephone Laboratories.

"Photoelectric Conductivity," F. C. Nix, Bell Telephone Laboratories.

Friday Morning, 9 o'clock

"Photoelectricity, Experiment *versus* Theory," L. A. DuBridge, University of Rochester.

"Theory of Metals and Electron Emission Phenomena," J. C. Slater, Massachusetts Institute of Technology.

Friday Afternoon, 2 o'clock

"Fluorescence and Photochemistry, Applied to the Assimilation Process of Carbon Dioxide," J. Frank, The Johns Hopkins University (visiting lecturer in physics, Cornell Summer Session).

Saturday Morning, 8:30 o'clock

"Electron Optics," C. J. Davisson, Bell Telephone Laboratories.

"Properties of Thoriated Tungsten Filaments," W. B. Nottingham, Massachusetts Institute of Technology.

"The Electrical Properties of Adsorbed Films on Metals," Irving Langmuir, General Electric Company.

There will be a registration fee of one dollar for those attending the symposium.

Arrangements will be made for housing the group in attendance, including families, in one of the university dormitories for the nights of July 3, 4 and 5, at \$2.00 per night per person (\$5.00 per person for the three nights). Reservations for such rooms should be made in advance with the Manager of Residential Halls, Morrill Hall, Ithaca, N. Y. For further information, address Professor R. C. Gibbs, Rockefeller Hall, Ithaca, N. Y.

MEETINGS OF SIGMA XI

A CHAPTER of Sigma Xi was installed at Smith College on May 1. Dr. Harold Clayton Urey, of Columbia University, was the guest lecturer; Professor George Howard Parker, of Harvard University, national president, and Professor Edward Ellery, of Union College, national secretary, were the installing officers. In addition to those already members of Sigma Xi, fourteen members of the faculty were initiated. Delegates from Sigma Xi chapters of thirteen colleges attended the installation ceremony.

Dr. E. C. Stakman, plant pathologist at the University of Minnesota, was guest speaker on May 16 at the Sigma Xi initiation banquet at Cornell University. He spoke on the subject "Routing the Red Scourge of Wheat." Dr. Stakman also gave a public Sigma Xi lecture on "Rubber Growing in Liberia and the East Indies" on May 17. He was the guest of the department of plant pathology during the entire week.

At the first annual meeting of the Tulane Chapter of the Society of the Sigma Xi twenty-one associate members were initiated. The annual address, entitled "A Problem of Three Bodies," was given by the retiring president, Professor Herbert E. Buchanan, head of the department of mathematics of Tulane University. The officers for the coming year are as follows: *President*, Dr. Ernest Carroll Faust, professor of parasitology; *Vice-president*, Professor William B. Gregory, of the department of sanitary engineering; *Secretary-Treasurer*, Dr. Harley N. Gould, head of the department of biology, Newcomb College; additional members of the *Executive Committee*, Dr. Nola Lee Anderson, department of mathematics, Newcomb College, and Dr. Edward S. Hathaway, head of the department of zoology, Tulane University.

The District of Columbia Chapter of Sigma Xi at a meeting on May 14 elected the following officers: *President*, Dr. William Bowie, chief, Division of Geodesy, U. S. Coast and Geodetic Survey; *Vice-president*, Dr. Frederick V. Coville, Bureau of Plant Industry; *Secretary*, Dr. V. A. Pease, Bureau of Chemistry and Soils; *Treasurer*, William Lerch, National Bureau of Standards. At this meeting the following