RYERSON PHYSICAL LABORATORY
THE UNIVERSITY OF CHICAGO
CHICAGO, ILLINOIS

湯川秀樹

CHICAGO, ILL.
MAY 27
7[30] PM
1948

UNITED STATES POSTAGE
1 CENT 1

UNITED STATES POSTAGE
½ CENT ½

Dr. H. Yukawa
Department of Physics
Osaka Imperial University
Osaka, Japan

THE UNIVERSITY OF CHICAGO

Summer Quarter, June 19 to August 23, 1940

Special Opportunities in Physics and Chemistry -

An unusual opportunity will be offered in the Summer Quarter at the University of Chicago for those interested in the theoretical and experimental aspects of cosmic rays. Professor Enrico Fermi, holder of the Nobel Prize in Physics for 1938, will be visiting lecturer. Also Dr. Bruno Rossi, recently Professor of Physics at the University of Padua, will lecture in this field. Professor Fermi is one of the world's outstanding authorities in the fields of theoretical and nuclear physics. He is particularly known for his contributions to the statistical theory of matter and to the theory of radiation, as well as for his studies on the artificial radioactivity produced by neutrons.

Similarly, the Department of Chemistry will present to its summer students in the First Term Professor Peter Debye, Director of the Kaiser Wilhelm Institute for Physics at Berlin, and holder of the Nobel Prize in Chemistry in 1936. He will give two series of lectures on the subject "Structure of Molecules and of Liquids from the Point of View of Interference Phenomena." Professor Debye is particularly noted for his ability to combine mathematical analysis with physical reality; his original points of view have enabled him to make contributions that have opened up entirely new lines of investigation in many fields. Specifically there may be mentioned his contributions to knowledge of specific heats, his work with dipole moments and their relation to structure, the Debye-Hückel theory for strong electrolytes, his development (with Scherrer) of the powder diffraction method for x-rays and his use of x-ray diffraction methods for the study of gaseous molecules and of liquids.

Besides these outstanding features, the program in Physics and Chemistry will include the courses listed below, as well as less advanced courses, the usual research courses for advanced degrees, and special seminars.

X-Rays and Electrons - A. H. Compton
Classical Mechanics - W. H. Zachariasen
Thermodynamics - A. J. Dempster
Electrodynamics I - F. C. Hoyt
Statistical Theories of Thermodynamics - C. Eckart
Line Spectra and Atomic Structure - C. Eckart
Band Spectra & Molecular Structure (Diatomic Molecules) - R. S. Mulliken

Advanced Inorganic Chemistry - H. I. Schlesinger & W. C. Johnson
Experimental Inorganic Chemistry - H. C. Brown and W. C. Johnson
Advanced Organic Chemistry - M. S. Kharasch
Qualitative Organic Analysis - W. G. Brown and F. R. Mayo
Organic Preparations - W. G. Brown and F. R. Mayo
Polynuclear Compounds - F. R. Mayo
Chemistry of Nitrogen Compounds - F. H. Westheimer
Organic Elementary Analysis - T. S. Ma
Colloids - G. Boyd
Spectrographic Analysis - W. C. Pierce
Chemical Reactions within Solids and on Their Surfaces - Simon Freed
Organic Chemistry for Teachers - Members of the Organic Staff

The University of Chicago

Departments of Physics and Chemistry

RECENT PUBLICATIONS

(April 1, 1939, to April 1, 1940)

[Reprints in limited numbers are available for free distribution, **except in cases marked with an asterisk** (*). If you have use for copies of any of these, please fill out and return *attached form* (see end of list), or make out similar forms. Address to Secretary, Department of....., University of Chicago, Chicago, Illinois; insert name of department from which most reprints are desired. Reprints of earlier articles will also be sent on request, if available.]

PHYSICS

P40.60 Allison, S. K., Graves, E. R., and Skaggs, L. S. Alpha-particle groups from the disintegration of beryllium by deuterons. Phys. Rev. **57,** 158.

P40.61 Allison, S. K., Skaggs, L. S., and Smith, N. M., Jr. Correction to electrostatic analyzer measurements. Phys. Rev. **57,** 550.

P39.62 Re-measurement of the energies released in the reactions Li^7 (P, α) He^4 and Li^6 (d, α) He. Phys. Rev. **56,** 288.

P40.64 Beardsley, N. F. Correlation between cosmic-ray intensity and upper air pressures and temperatures. Phys. Rev. **57,** 336.

* P39.65 Beutler, H. Absence of new exchange forces in H_2 as shown from band spectra. (A) Phys. Rev. **55,** 1118.

* P39.66 Influence of pressure and temperature upon the absorption and fluorescence of spectral lines. Astrophys. J. **89,** 294.

P40.67 Beutler, H., and Metropolis, N. A high power tungsten light source. J.O.S.A. **30,** 115.

P39.68 Compton, A. H. Chicago Cosmic Ray Symposium. Sci. Mthly. **49,** 280.

P39.69 The first of the sciences. Pop. Astr. **47,** 349.

P39.70 Time variations of cosmic rays. J. Franklin Inst. **227,** 607.

P39.71 Compton, A. H., and Gill, P. S. Cosmic rays on the Pacific Ocean. Rev. Mod. Phys. **11,** 136.

P39.72 Compton, A. H., Schein, M., and Gill, P. S. Cosmic ray intensity and the thermal expansion of the atmosphere. Sci. **89,** 398.

(*See also* Monk)