

Supplementary Program

EPS1. Interface Potentials and Ion Migration. C. H. KILLIAN, *Brooklyn, New York*.—The observed forms of diode characteristics can be very closely represented either by *titration* types of curves or by *interface potential* types of curves. The latter are preferred because of the establishment of an orthosilicate interface between the oxide coating and the cathode sleeve. Application of the reasoning of R. W. Gurney (Proc. Roy. Soc. (London) **A136**, 378 (1932)) leads to the following equation for the interface potential:

$$\frac{eV}{kT} = \frac{U_{\epsilon} - U_{\epsilon}'}{kT} + \log \left\{ C_{\epsilon} \beta_{\epsilon} + C_B \beta_B \exp \left[\frac{U_B - U_B' - U_{\epsilon} + U_{\epsilon}'}{kT} \right] \right.$$

$$\left. + C_{Si} \beta_{Si} \exp \left[\frac{U_{Si} - U_{Si}' - U_{\epsilon} + U_{\epsilon}'}{kT} \right] + C_{St} \beta_{St} \exp \left[\frac{U_{St} - U_{St}' - U_{\epsilon} + U_{\epsilon}'}{kT} \right] + \dots \right\},$$

where U' is the lowest energy level of the ion identified by an appropriate subscript at the interface, C is the ionic concentration of the ion identified by the subscript, U is the energy level of the ion identified by the subscript, β is the ratio of the probabilities of an ion emission to an ion deposition, and all other symbols have their usual significance. (B=barium, Si=silicon, St=strontium.)

MINUTES OF THE 1951 SPRING MEETING OF THE OHIO SECTION OF THE AMERICAN PHYSICAL SOCIETY
AT MIAMI UNIVERSITY, OXFORD, OHIO, APRIL 6-7, 1951

THE regular spring meeting of the Ohio Section of the American Physical Society was held jointly with the Ohio Academy of Science at Miami University, Oxford, Ohio, on April 6-7, 1951. The attendance was very good. There were fifty in the room at the beginning and thirty-five when the final paper was finished.

The officers chosen for the year 1951-1952 are as follows: Chairman, Dr. Forrest G. Tucker, Oberlin College; Vice-chairman, Dr. John E. Edwards, Ohio University, Athens, Ohio; Secretary-Treasurer, Leon E. Smith, Denison University, Granville, Ohio.

The programme follows:

Friday, April 6th: Contributed papers, "The formation of meteor craters," Lloyd Wylie, Wittenberg College; "Probes in an oscillating glow discharge," Albert B. Stewart, Antioch College; "Experimental study of sliding friction," Charles A. Maney, Defiance College. SYMPOSIUM—Physical Methods in Qualitative and Quantitative Analysis: A. Emission Spectroscopy, E. R. Vance, Timken Roller Bearing Company, Canton, Ohio; B. Absorption Spectroscopy, D. L. Timma, Mound Laboratory, Monsanto Chemical Company, Miamisburg, Ohio; C. Infrared Analysis, Robert Oetjen, The Ohio State University; D. Nonradioactive Isotopes—Mass Spectrometer, D. R. Lawler, The B. F. Goodrich Research Center, Brecksville, Ohio; E. Radioactive Isotopes—Tracer Techniques, George

D. Calkins, Battelle Memorial Institute, Columbus, Ohio; F. X-Ray Applications, Charles H. Shaw, The Ohio State University.

Saturday, April 7th: SYMPOSIUM—The Undergraduate Physics Curriculum: A. In the Liberal Arts College, Thomas D. Phillips, Marietta College; B. In the Engineering College, Dudley Williams, The Ohio State University; C. From the Point of View of Industry, Mound Laboratory, The Monsanto Chemical Company, Miamisburg, Ohio; D. As a Preparation for Graduate Study, R. L. Edwards, Miami University, Oxford, Ohio. The contributed papers were: "A jet propulsion apparatus," James Dueker, Wittenberg College; "A laboratory current balance," Albert Paschkis and Albert Stewart, Antioch College; "The effect of small diameter tubes in loudspeaker damping," V. B. Yeich, Wittenberg College; "Recurrent misunderstandings of Einstein's General Theory," Frank Estabrook, Miami University; "The contributions of physics in a liberal arts curriculum," Harold Loudin, Kent State University, Kent, Ohio; "Engineering aspects of sound," Andrew Weber, University of Dayton; "An advanced undergraduate laboratory experiment on coupled oscillators," Franklin Miller, Kenyon College, Gambier, Ohio.

LEON E. SMITH, *Secretary*
Ohio Section
American Physical Society
Denison University
Granville, Ohio