

RESERVATION FORM

Mail to: Warren W. Miller
 Department of Chemistry
 115 Whitmore Laboratory
 The Pennsylvania State University
 University Park, Pennsylvania

1st Annual Meeting
 American Nuclear Society
 June 27-29, 1955

Kindly make a reservation for me

Name.....

Address.....

() Reserve residence hall room and meals () Male () Sunday
 () Female () Monday
 () Man and Wife () Tuesday
 () Wednesday

() Enclosed is check for \$_____ payable to The Pennsylvania State University
 (\$5 for members -- \$10 for nonmembers)

I plan to travel by () Train () Altoona
 () Plane Arriving at () Lewistown Time of Arrival _____
 () Car () Black Moshannon Airport

ACCOMMODATIONS

A section of the University's residence halls is being reserved for the Society. A very limited number of single rooms is available, but sufficient double rooms with twin beds at \$2.50 per night per person have been reserved. Private baths are not available. Accommodations in Residence Halls are on the American plan.

Meals for those staying in the residence hall will be served in Waring Dining Hall. This will include breakfast on Monday, June 27, through lunch, Wednesday, June 29 (except for Tuesday dinner, at which time the banquet will be held in Hetzel Union Building).

A charge of \$7.50 for the period of the meetings will be made for meals in the dining hall.

For those who prefer to stay at a hotel or motel, requests for reservations should be made directly to any of the following: Autoport Motel, Horlacher's Motel, College Court Motel, Nittany Manor Motel, Ranch Court Motel, Taylor's Motel, Travelers Lodge, and State College Hotel. These accommodations are located in the Borough of State College, Pa.

HOW TO REACH THE UNIVERSITY

Penn State is in the Borough of State College, Pennsylvania, near the geographical center of the State. It is on highway routes 45 and 322, and may be reached in less than six hours by car from any part of the State. The community is on the east-west route of the Greyhound and Edwards Lakes-to-Sea bus lines.

Those traveling by train (Pennsylvania Railroad) should get off at Lewistown (from the east), and at Altoona or Tyrone (from the west) where bus connections to State College are available.

Allegheny Airlines serves central Pennsylvania, stopping at Black Moshannon Airport where limousine or cab service to the campus is available.

TECHNICAL PROGRAM COMMITTEE

- Chairman: J. A. Lane (ORNL)
 Session 1: R. P. Peterson (Republic Steel Co.)
 B. I. Spinrad (ANL)
 Session 2: Irving Kaplan (BNL)
 Fred Reines (Los Alamos)
 Session 3: C. K. Beck (North Carolina State College)
 Kenneth Kasschau (American Locomotive Co.)

- Session 4: W. A. Loeb (NDA)
 John Howe (NAA)*
 Session 5: J. F. Flagg (KAPL)
 W. A. Johnson (WAPD)*

* Participated part-time

Note: Abstracts of papers will be available during meetings

AMERICAN NUCLEAR SOCIETY, INC.

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 Karl Cohen, Treasurer
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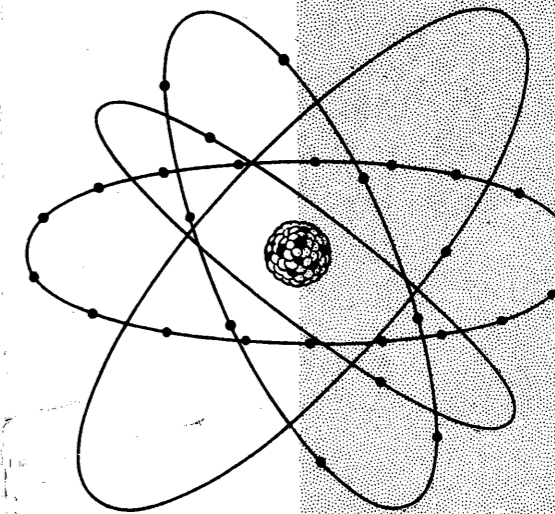
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1st Annual Meeting



AMERICAN
 NUCLEAR
 SOCIETY

June 27-29, 1955

THE PENNSYLVANIA STATE UNIVERSITY

American Nuclear Society

MEETINGS

Headquarters for the 1st Annual Meeting of the American Nuclear Society is the Extension Conference Center on the campus of The Pennsylvania State University.

A registration and information desk in the lobby will serve as a center for messages. All sessions (except the banquet) will be conducted in the auditorium of the Extension Conference Center.

Please note that mail should be addressed in care of the Extension Conference Center, The Pennsylvania State University, University Park, Pennsylvania. In the event of difficulty with telephone calls or telegrams, inform the operator that University Park is located in the Borough of State College, Pa. The telephone number is ADams 8-8441, Ext. 2517.

REGISTRATION

Advance registration should be made by using the form attached to this announcement. Please note that registration is not limited to the Society membership.

Final registration will be made upon arrival, Sunday, June 26, from 3 to 10 p.m., in the lobby of Waring Hall, at which time room assignments to a University residence hall will be made. Registration will continue, Monday through Wednesday, at the Extension Conference Center.

Those with automobiles will receive a parking permit, assigning them to a certain parking area on the campus.

The registration fee is \$5 for members, and \$10 for nonmembers. Application for membership in the Society may be made during the meeting. After action by the Board accepting the application, the nonmember differential in the registration fee will be applied to the first year's dues. This will apply only for those who apply for membership during the meeting.

PROGRAM

(All sessions, except banquet, in Extension Conference Center)

Monday, June 27

SESSION NO. 1 - "Fast Reactor Technology"

Chairman: Walter H. Zinn, Argonne National Laboratory

- 9:00 Welcome: Eric A. Walker, Dean
a.m. College of Engineering and Architecture
The Pennsylvania State University
- 9:10 Introductory Remarks: Mr. Zinn
- 9:15 "The Design and Fabrication of Electromagnetic Pumps for Liquid Metal Application"
R. G. Rhudy and S. A. Shuler (KAPL)
- 9:50 "Powder Metallurgy of Uranium"
Henry H. Hausner
Sylvania Electric Products
- 10:20 "Centrifugal Casting of Uranium"
J. Schumar (ANL)
- 10:50 Coffee Break
- 11:05 "An Estimation of Doppler Effect in Fast Neutron Reactors"
Gerald Goertzel (NDA)
- 11:40 "Pyrometallurgical Processing of Reactor Fuels"
L. Burris, Jr. (ANL)

SESSION NO. 2 - "Experimental Nuclear Techniques"

Chairman: Alvin M. Weinberg, Oak Ridge National Laboratory

- 2:00 Introductory Remarks: Mr. Weinberg
p.m.
- 2:05 "Experimental Neutron Techniques"
D. J. Hughes (BNL)
- 2:45 "X-Ray and Neutron Diffraction"
Raymond Pepinsky (Penn State)

- 3:25 Coffee Break
- 3:35 "Critical Assemblies at Los Alamos."
H. Paxton (Los Alamos)
- 4:15 "Dosimetry in Radiation Protection"
G. Failla (Columbia University)
- 8:00 Business Meeting

Tuesday, June 28

SESSION NO. 3 - "Radiation Effects"

Co-chairmen: C. K. Beck, North Carolina State College
Kenneth Kasschau, American Locomotive Co.

- 9:00 "Chemical Protection of Biological Materials
a.m. from Radiation Effects"
Alexander Hollaender (ORNL)
- 9:30 "Examples of the Use of Radioisotopes in Pharmaceutical Research"
J. M. Kelly, Squibb Institute for Medical Research
- 9:55 "Chemical Effects of Radiation"
Milton Burton, University of Notre Dame
- 10:20 Coffee Break
- 10:35 "Accidental Radiolytic Precipitation in a Homogeneous Reactor"
Mr. Beck
- 11:00 "Recent Results in the Use of Ionic Components in Protecting Glasses from the Effects of Radiation"
R. Hensler, Bausch and Lomb
- 11:30 "Radiation Effects in Metals"
D. S. Billington (ORNL)

SESSION NO. 4

Chairman: L. J. Haworth, Brookhaven National University

- 2:00 "Economics of the Large Scale Isotope
p.m. Enrichment of Nitrogen-15"
J. S. Drury (ORNL)
- 2:30 "Recent Developments in the Technology of Ceramic Materials for Nuclear Energy Service"
J. M. Warde (ORNL)
- 3:00 "Heavy Water Production"
Paul Harteck (Rensselaer Polytechnic Institute)
- 3:30 Coffee Break
- 3:40 "Beryllium Materials and Compounds for High Temperature Application"
W. W. Beaver, Brush Beryllium Co.
- 4:10 "Mechanism of Dimensional Instability in Uranium"
L. Seigle (Sylvania Products, Inc.)
- 6:15 Annual Banquet (Hetzl Union Bldg.)
Installation of Officers

Wednesday, June 29

SESSION NO. 5 - "Nuclear Chemical Problems"

Chairman: Stephen Lawroski, Argonne National Laboratory

- 9:00 "Operating Experience with a Small Versatile
a.m. Radiochemical Processing Plant"
H. K. Jackson and G. S. Sadowski (ORNL)
- 9:30 "Chemical Processing of Liquid Metal Fuels"
R. H. Wiswall (BNL)
- 10:00 "The Impact of Waste Disposal on Chemical Processing"
C. P. Straub (ORNL)
- 10:30 Coffee Break
- 10:45 "Fission Product Build-up and Distribution in Long Burning Thermal Reactors"
W. L. Robb (KAPL)
- 11:15 "Relative Biological Hazards Associated with Nuclear Reactors"
E. D. Arnold and A. T. Gresky (ORNL)