P2. A Stabilized Synchronous Amplifier. R. G. Nuckolls and L. J. Rueger, National Bureau of Standards.

P3. A Crutucak-Flow Pneumatic Hygrometer. W. A. Wildhack, T. A. Perls, and J. W. Hayes, National Bureau of Standards.

P4. Distribution of Potential in an Electrically Excited Nonhomogeneous Medium. Lachlan Gilchrist, University of Toronto.

P5. Propagation of Short Radio Waves Well Beyond the Horizon. Thomas J. Carroll, National Bureau of Standards.

P6. Electromagnetic Field Measurements in the Plane of a Circular Aperture. Robert E. Houston and Robert H. Noble, Michigan State College.

P7. Velocities of Ionized Air Shocks Near Detonating Explosives. J. Savitt and R. H. Stresau, Jr., U. S. Naval Ordnance Laboratory.

P8. Synchronized Rotating Mirror System. Richard G. Fowler and Robert J. Lee, University of Oklahoma.

Saturday Afternoon, October 27, at 2:00

HOTEL SHERMAN, LOUIS XVI ROOM

SESSION Q: BETA-DECAY, NUCLEAR ISOMERISM, ETC.

(**A. C. G. Mitchell,** presiding)

Contributed Papers

Q1. Empirical Analysis of Nuclear Shell Effects in Beta-Energetics. C. D. Coryell, R. A. Brightsen, and A. C. Pappas, Massachusetts Institute of Technology.

Q2. Atomic Binding Energy Considerations in Negative Beta-Decay. H. M. Schwartz, University of Arkansas.

Q3. The K-Auger Yield for Ba. C. D. Broyles and S. K. Haynes, Vanderbilt University.

Q4. Proposed Methods for Determining K-Capture Partial Lifetimes. A. J. Saur and H. M. Schwartz, University of Arkansas.

Q5. Beta-Spectra of Ce^{144} and Pr^{144}. Fred T. Porter and C. Sharp Cook, Washington University.

Q6. Relative Internal Conversion in the L Sub-shells. J. W. Mihelich and E. L. Church, Brookhaven National Laboratory.

Q7. 514-kev Energy Level of Rubidium 85. W. S. Emmerich and J. D. Kurbatov, Ohio State University.

Q8. Isomerism of Sr^{85}. A. W. Sunyar, J. W. Mihelich, G. Scharff-Goldhaber, M. Deutsch, and M. Goldhaber, Brookhaven National Laboratory.

Q9. Disintegration Scheme of Lu^{176m}. G. Scharff-Goldhaber, E. der Mateosian and J. W. Mihelich, Brookhaven National Laboratory.

Q10. The Radioactivity Decay of Te^{125m}. P. Axel and J. C. Bowe, University of Illinois.

Q11. The Second Transition in the Decay of Sn^{119m}. J. C. Bowe and P. Axel, University of Illinois.

Q12. The Decay of Rh^{106}. David M. Alburger, Brookhaven National Laboratory.

Q13. A Clarification of the Radioactivity of Nd^{151} and Pm^{151}. W. C. Rutledge, J. M. Cork, and S. B. Burson, Argonne National Laboratory.

Q14. Mass Designation of the 51.5 Min—Tc Isomer. Heinrich A. Medicus and Harry T. Easterday, University of California at Berkeley.

Saturday Afternoon, October 27, at 2:00

HOTEL SHERMAN, WEST ROOM

JOINT SYMPOSIUM OF THE AMERICAN PHYSICAL SOCIETY AND THE PHILOSOPHY OF SCIENCE ASSOCIATION

(**H. Margenau,** presiding)

R1. Inductive Logic and Science. R. Carnap, University of Chicago. (45 min.)

R2. Philosophical Interpretations of Modern Physics. P. Frank, Harvard University. (45 min.)

R3. Quantum Measurement as an Amplifying Process. W. M. Elsasser, University of Utah. (45 min.)

AMERICAN ASSOCIATION OF PHYSICS TEACHERS

OCTOBER 26–27, 1951

Friday Morning, October 26, at 9:30

HOTEL SHERMAN, BAL TABARIN ROOM

(**M. W. Zemansky,** presiding)

Contributed Papers (10 minutes each)

1. Some Applications of Physics in the Manufacture of Electron Tubes. Donald C. Martin, Marshall College.

2. Hauksbee's Early 18th Century Triboelectric Generator. Duane Roller, Wabash College, and Duane H. D. Roller, Harvard University.

3. Technical Transfer-Training Technique. Frank A. Petry, West Los Angeles, California.

Invited Papers

A. Photoelasticity and Photoplasticity. Demonstration lecture on methods of stress analysis by polarized light. M. Hetenyi, Northwestern University Technological Institute.

B. Solar Disturbances (Motion pictures). R. R. McMath, The McMath-Hulbert Observatory.

Friday Afternoon, October 26, at 2:00

HOTEL SHERMAN, BAL TABARIN ROOM

(**W. S. Webb,** presiding)

Contributed Papers

4. The Contribution of the Joint Program of the Office of Naval Research and the Atomic Energy Commission to the Supply of Trained Scientific Workers. William E. Wright, Office of Naval Research.

5. Some Considerations of an Employer Hiring Physicists for Applied Research. Sevelle Chapman, Cornell Aeronautical Laboratory.

Invited Papers

C. Ultrasonics. H. K. Schilling, Pennsylvania State College.

D. Phase Difference Between Ordinary and Extraordinary Beams (Demonstration). J. G. Winans, University of Wisconsin.

E. National Educational Programs. (a) The National Science Foundation: Its Organization and Purposes. Alan T. Waterman, Director, National Science Foundation. (b) The Fulbright Program. Walter Johnson, University of Chicago.

Friday Evening, October 26, at 8:00

HOTEL SHERMAN, BAL TABARIN ROOM

(**P. E. Klopsteg,** presiding)

Principles of Color Photography (Demonstrations and Slides). Adrian Terlouw, Eastman Kodak Company.

Saturday Morning, October 27, at 9:30

HOTEL SHERMAN, BAL TABARIN ROOM

(**Duane Roller,** presiding)

Contributed Papers (10 minutes each)

6. Modes, Nodes and Antinodes. R. W. Young, U. S. Navy Electronics Laboratory.

7. The Use of Cine—loope in Physics Teaching. Francis E. Throw, Cornell College.

8. Apparatus for Radioactivity. Measurements in the Undergraduate Laboratory. Ralph A. Loring, University of Pennsylvania.

Invited Papers

F. Some Notes on Flight at and near the Speed of Sound. Herbert A. Hoover, NACA Langley Aeronautical Laboratory.

G. Panel—Cooperation of High Schools and Colleges on Problems of Physics Teaching. (a) William F. Einbecker, Highland Park, Illinois, High School. (b) Ralph Lefler, Purdue University. (c) V. L. Bollman, Occidental College.

Saturday Afternoon, October 27, at 1:30

HOTEL SHERMAN, BAL TABARIN ROOM

(**R. F. Paton,** presiding)

Contributed Papers (10 minutes each)

9. Animated Diagrams for Physics Demonstrations. Robert Petry, University of the South.

10. Intermediate Laboratory Experiments in the Kinetic Theory of Gas. Carl E. Adams and E. G. Andresen, University of Louisville.

11. How to Solve a Physics Problem—A Suggestion. Leo Seren, Naval Research Laboratory.

12. Ultrasonics as a Subject in the Physics Curriculum. Paul J. Ernst and Charles W. Hoffman, Temple University.

13. An Undergraduate Course in Radiation Physics. Clayton M. Zieman, Wabash College.

14. Bibliography with Annotations for Science in General Education at the College Level. Vaden W. Miles, Wayne University.

15. From Simple Harmonic to Wave Motion. C. J. Overbeck, Northwestern University.

16. A Wave Motion "Slide Rule". J. D. Richards, Northwestern University.

17. Modification of Hebb's Method of Measuring the Open Air Velocity of Sound. Harald C. Jensen, Lake Forest College.

18. Dissecting the Cathode Ray Oscilloscope. William J. Shonka and John J. Spokas, St. Procopius College.

19. Demonstration of the Timbre of Sound. Rose A. Carney and John J. Spokas, St. Procopius College.

AMERICAN CRYSTALLOGRAPHIC ASSOCIATION

OCTOBER 22–27, 1951

TENTATIVE PROGRAM

Monday Evening, October 22, at 7:00

HOTEL SHERMAN, PARLORS M AND O

JOINT COMMITTEE ON CHEMICAL ANALYSIS BY X-RAY DIFFRACTION METHODS

Wednesday Morning, October 24, at 10:00

HOTEL SHERMAN, WEST ROOM

GENERAL DIFFRACTION STUDIES

1. Powder Pattern Geometry. K. L. Yudowitch, Florida State University.