ACOUSTICAL SOCIETY OF AMERICA

OCTOBER 23–25, 1951

Tuesday Morning, October 23, at 10:00

HOTEL SHERMAN, CRYSTAL ROOM

SESSION A: INSTRUMENTATION

(**Frederick V. Hunt**, Chairman)

Contributed Papers

A1. A Resistively Terminated Probe Microphone. R. W. Leonard, University of California.

A2. Instantaneous Frequency Band Multiplication, Division, and Analysis. Friedrich Vilbig, Air Force Cambridge Research Center.

A3. A High Frequency, Wide Range Acoustic Interferometer for Biological Work. J. R. Richards and D. E. Goldman, Naval Medical Research Institute.

A4. New Methods of Indirect Ultrasonoscopy and Ultrasonography. Paul J. Ernst and Charles W. Hoffman, Ultrasonics Laboratory, Temple University.

A5. Accurate Prediction of Resonant Frequency of Water Loaded Transducers. Donald H. Robey, U. S. Navy Electronics Laboratory.

A6. Variable Resonant Frequency Crystal Transducer. Donald H. Robey, U. S. Navy Electronics Laboratory.

A7. Automatic Ultrasonic Flaw Plotting. Donald C. Erdman, Electro Circuits, Inc.

Tuesday Morning, October 23, at 10:00

HOTEL SHERMAN, WEST ROOM

SESSION B: SPEECH AND HEARING

(**Hallowell Davis**, Chairman)

Contributed Papers

B1. The Masking of Tones by White Noise as a Function of the Interaural Phases of Both Components. Lloyd A. Jeffress, Hugh C. Blodgett, and Bruce Deatherage, The University of Texas.

B2. Effects of Various Types of Nonlinear Distortion upon the Intelligibility of Speech. J. C. R. Licklider, Massachusetts Institute of Technology, and Richard Held, Psycho-Acoustic Laboratory, Harvard University.

B3. Observations on the Acoustic Impedance of Calibrating Couplers and Ears. Mahlon D. Burkhard and E. L. R. Corliss, National Bureau of Standards.

B4. Equal Loudness Contours for Hearing by Bone Conduction. Norman Watson and T. V. Frazier, University of California, Los Angeles.

B5. Pitch Changes Produced by Bone-Transmitted Thermal Noise or Pure Tone. T. V. Frazier, University of Nevada.

B6. The Mechanical Impedance of the Human Mastoid and Its Relation to the Calibration of Bone Conduction Transducers. Ernst K. Franke, Wright-Patterson Air Force Base.

B7. Study of One Factor in the Perception of the Unvoiced Stop Consonants. Alvin M. Liberman, Pierre Delattre, and Franklin S. Cooper, Haskins Laboratories.

Tuesday Afternoon, October 23, at 2:00

TRIPS TO MUSEUM OF SCIENCE AND INDUSTRY AND RIVERBANK LABORATORY

Tuesday Evening, October 23, at 8:00

HOTEL SHERMAN, LOUIS XVI ROOM

JOINT MEETING OF THE CHICAGO ACOUSTICAL AND AUDIO GROUP AND THE ACOUSTICAL SOCIETY OF AMERICA

SESSION C: GENERAL ACOUSTICS

(**Harold S. Renne**, Chairman)

Contributed Papers

C1. Avoidance of Crosstalk in Large Audiosystems Using Unshielded Wire. R. H. Tanner and G. B. Thompson, Northern Electric Company, Ltd., Canada.

C2. Phangle Meter. R. F. Brown, J. A. Mullen, and E. L. R. Corliss, National Bureau of Standards.

C3. Sound-Level Meter and Sound-Survey Meter. Arnold Peterson and Ervin E. Gross, General Radio Company.

C4. An Experimentation of Theory of the Reverberation Method of Measuring Acoustical Absorption. H. C. Hardy and F. G. Tyzzer, Armour Research Foundation.

C5. Acoustics of the Remodelled Legislative Chambers of the National Capitol. Paul E. Sabine, Colorado Springs.

C6. Reverberation by Ultraspeed Recording. James Y. Dunbar, William J. Scully Acoustics Corporation, and C. J. LeBel, Audio Instrument Company, Inc.

C7. Some Sounds from Marine Life in the Hawaiian Area. O. W. Schreiber, U. S. Navy Electronics Laboratory.

C8. Electronic Music Box. E. L. Kent, C. G. Conn, Ltd.

Wednesday Morning, October 24, at 9:00

HOTEL SHERMAN, CRYSTAL ROOM

SESSION D: SYMPOSIUM OF INVITED AND CONTRIBUTED PAPERS ON AIRCRAFT AND INDUSTRIAL NOISE CONTROL

(**Floyd A. Firestone**, Chairman)

Invited Papers

D1. The Aircraft Engine Noise Problem. Richard H. Bolt, of Bolt, Beranek, and Newman.

D2. Design Characteristics for Noise Control of Jet Engine Test Cells. Howard C. Hardy, Armour Research Foundation.

D3. Acoustical Design of Aircraft Gas Turbine Test Cell. Robert A. Fehr, General Electric Company.

Contributed Papers

D4. Noise Control in Aircraft Engine Testing. Richard D. Lemmerman, Industrial Sound Control, Inc.

D5. Quieting of the Jet Engine Testing Facilities in the Willgoos Turbine Laboratory. S. M. Potter, Pratt and Whitney Aircraft, and H. C. Hardy, Armour Research Foundation.

D6. Turbo-Jet Engine Noise. H. E. von Gierke, Horace O. Parrack, W. J. Gannon, and R. G. Hansen, Wright-Patterson Air Force Base.

D7. A Useful Theorem for the Testing of Isolation Mounts. Mark Harrison and A. O. Sykes, David Taylor Model Basin.

D8. On the Use of Metallic Noise Isolation Mounts. A. O. Sykes and Mark Harrison, David Taylor Model Basin.

D9. Description of a New Swaging Machine Silencer. Martin Hirschorn, Industrial Acoustics Company.

D10. Instrumentation and Techniques for Evaluation of Noise-Reducing Components in Piping Systems. D. B. Callaway, F. G. Tyzzer, and H. C. Hardy, Armour Research Foundation.

Wednesday Afternoon, October 24, at 1:30

HOTEL SHERMAN, CRYSTAL ROOM

SESSION E: ULTRASONICS

(Robert B. Lindsay, Chairman)

Contributed Papers

E1. Resonance in Barium Titanate Tubes. James F. Haskins, U. S. Navy Electronics Laboratory.

E2. Shift of the Transition Points in Barium Titanate by Partial Substitution. E. J. Brajer, Hans Jaffe, and Frank Kulcsar, The Brush Development Company.

E3. Measurement of the Shear Impedance of Viscous Liquids by Means of Travelling Torsional Waves. H. J. McSkimin, Bell Telephone Laboratories.

E4. Measurement of Colloidal Vibration Potentials with Pulse-Modulated Ultrasonic Waves. Ernest Yeager, Harry Dietrick, Frank Saunders, and Frank Hovorka, Western Reserve University.

E5. Use of a Differential Phase-Delay Method for Study of Ultrasonic-Wave Propagation in Swollen Rubberlike Materials. A. W. Nolle and J. F. Mifsud, The University of Texas.

E6. Resonant Effects of Mammalian Erythrocytes in Ultrasonic Fields. Eugene Ackerman, Pennsylvania State College.

E7. On the Failure of Plane Wave Theory to Predict the Reflection of a Narrow Ultrasonic Beam from a Plane Surface. M. S. Weinstein, Naval Ordnance Laboratory.

Wednesday Afternoon, October 24, 1:30

HOTEL SHERMAN, WEST ROOM

SESSION F: WAVES AND VIBRATIONS

(Horace M. Trent, Chairman)

Contributed Papers

F1. Reflection from an Inhomogeneous Medium. G. S. Heller, Brown University.

F2. The Modes of Vibration of Semi-Flexible Rod Under Tension. Ray W. Kenworthy and Vernon A. Jennings, University of Washington.

F3. Multiple Scattering by Two Parallel Cylinders. Vic Twersky, New York University.

F4. Radiation Loading of a Rigid Piston Source in a Finite Baffle. Robert B. Watson, U. S. Navy Electronics Laboratory.

F5. Steady Torques and Streaming Associated with Crossed Plane Waves. Wesley L. Nyborg, Brown University.

F6. Spherical Wave Radiation in Solid Media. F. G. Blake, Jr., California Research Corporation.

F7. Pulse Propagation in a Nonhomogeneous Medium. W. W. Garvin, California Research Corporation.

F8. The Transmission of Sound through Thin Plates. J. E. Young and R. H. Bolt, Massachusetts Institute of Technology.

Wednesday Evening, October 24, at 6:00

HOTEL SHERMAN, LOUIS XVI ROOM

INFORMAL SOCIAL HOUR AND BUFFET SUPPER. ENTERTAINMENT AND MUSIC FOR DANCING WILL BE FURNISHED BY MEMBERS OF THE SOCIETY

SOCIETY OF RHEOLOGY

OCTOBER 24–27, 1951

Wednesday Morning, October 24, at 9:00

HOTEL SHERMAN, PARLORS M AND O

JOINT SESSION WITH APS DIVISION OF SOLID STATE PHYSICS, APS DIVISION OF HIGH POLYMER PHYSICS, AND AMERICAN CRYSTALLOGRAPHIC ASSOCIATION

1. Survey of the Theory of Lattice Imperfections. J. S. Koehler, University of Illinois. (9:00–9:25)

2. X-ray Diffraction for Distorted Lattices. B. E. Warren, Massachusetts Institute of Technology. (9:35–10:00)

3. Effects of Cold Work on the Residual Resistance of Metals. R. R. Eggleston, D. B. Bowen and R. Kropschot, North American Aviation, Inc. (10:10–10:35)

4. Crystallographic Factors in Lattice Deformations. R. Smoluchowski, Carnegie Institute of Technology. (10:45–11:10)

5. Role of Vacancies in Atomic Mobility. A. S. Nowick, Yale University. (11:20–11:45)