Contributors

Henry Berger (M'64) was born in New York, N. Y., on February 8, 1936. He received the B.S. and M.S. degrees in physics in 1957 and 1959, respectively, and the Ph.D. degree in electrophysics in 1967, all from the Polytechnic Institute of Brooklyn, Brooklyn, N. Y.

From 1957 to 1959 he was a Research Assistant in the Rocket Propulsion Laboratory of the Polytechnic Institute of Brooklyn where he was engaged in studies of nonlinear wave phenomena. From 1959 to 1962 he was an Engineer at the Sperry Gyroscope Company, Great Neck, N. Y., where he worked on the research and development of microwave devices. In 1962 he began full-time graduate work towards the Ph.D. degree, performing research in the areas of transient wave propagation in dispersive waveguides, microwave device theory, and the relativistic electrodynamics of moving media. Upon graduation he joined the General Telephone and Electronics Laboratories, Inc. Bayside, N. Y., in the Exploratory High-Frequency Solid-State Devices Group.

Dr. Berger is a member of the American Physical Society and Sigma Xi.

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John W. E. Griemsmann (M'39 – SM'57 – F'59) was born in Brooklyn, N. Y., on May 31, 1916. He received the M.E.E. degree in 1938 and the D.E.E. degree in 1946 from the Polytechnic Institute of Brooklyn, Brooklyn, N. Y.

He was a Research Engineer in the area of dielectrics and insulation at the Westinghouse Research Laboratories from 1938 to 1942. He then returned to the Polytechnic Institute of Brooklyn where he did research in microwave components and instrumentation under O.S.R.D. which became the Microwave Research Institute in 1945. He became Associate Director there in 1952. In 1953 he was appointed a Professor at the Polytechnic Institute of Brooklyn, first in the Department of Electrical Engineering and then, in 1960, in the newly formed Department of Electrophysics, Farmingdale, N. Y. Later he served as Administrative Officer and as Acting Head of the Department. His outside professional activities are associated primarily with the microwave area and include research standardization, and research coordination.

Dr. Griemsmann is a fellow of the American Association for the Advancement of Science and a member of Sigma Xi and Eta Kappa Nu. He served as a participant in the Army-Navy RF Cable Coordinating Committee and as a member of the R.D. Sub-Panel on Transmission Lines and Components. As a member of the EIA he served as Joint Chief Delegate for the U. S. to various transmission line committee meetings of the International Electrotechnical Commission. He has also served as Chairman of the Fellow Awards Committee of the Long Island Section of the IEEE.

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Arthur Karp (S'47–A'48 – M'53' – SM'56) was born in Bronx, N. Y., on April 26, 1928. He received the B.E.E. degree from The City College of New York, N. Y., in 1948; the S.M. degree from the Massachusetts Institute of Technology, Cambridge, in 1950; and the Ph.D. degree from Cambridge University, Cambridge, England, in 1962.

From 1948 to 1960 his main research interest was microwave and millimeter-wave tubes. He was at M.I.T.'s Research Laboratory of Electronics from 1948 to 1950; at the Laboratoire Central de Télécommunications, Paris, from 1950 to 1951 on a French government scholarship; at Bell Telephone Laboratories, Holmdel, N. J., from 1951 to 1956; and at the Engineering Laboratory, Cambridge University, from 1956 to 1959, on an Admiralty grant. From 1960 to 1964 he was at the W. W. Hansen Laboratories, Stanford, Calif., where dielectric resonators was one area of interest. Since 1964 he has been a Senior Research Engineer in the Electromagnetic Techniques Laboratory, Stanford Research Institute, Menlo Park, Calif.

Dr. Karp is a member of Tau Beta Pi, Eta Kappa Nu, and Sigma Xi. He is a recipient of the IRE Browder J. Thompson Memorial Prize Award for 1958.

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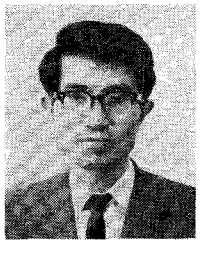

Shojiro Kawakami was born in Gifu, Japan, on November 8, 1936. He received the B.E. degree in 1960, the M.E. degree in 1962, and the Ph.D. degree in 1965, all from the University of Tokyo, Tokyo.

In 1965 he was appointed Research Assistant at Tohoku University, Sendai, and since 1966 he has been Associate Professor. From 1960 to 1965, he was engaged in the study of millimeter waves and microwave switching circuits. Since 1965, he has been engaged in the study of optical transmission at Tohoku University.

Dr. Kawakami is a member of the Institute of Electronics and Communication Engineers of Japan.

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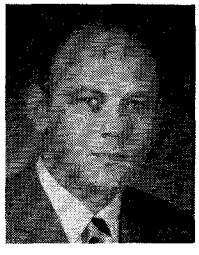

Hans J. Liebe was born in Insterburg, East Prussia, Germany, on January 21, 1934. He received the Diplom-Ingenieur (MSEE) and the Doktor-Ingenieur (PhD) degrees from the Technische Universität, West Berlin, Germany, in 1959 and 1964, respectively.

From 1958 to 1964 he was a Research Assistant at the Institut für Hochfrequenztechnik, Techn. Univ., Berlin, primarily engaged in research on microwave refractivity of atmospheric constituents. In 1965 he came to the United States. After staying four months with the U. S. Army Signal Corps, Ft. Monmouth, N. J., he joined the Quantum Electronic Department of TRG, Melville, N. Y., as Senior Scientist working on problems of new mm-wave techniques. Since August 1966 he has been with ESSA Research Laboratories, Institute for Telecommunication Sciences, Boulder, Colo., where he is presently investigating the potentialities of microwave refraction for quantitative gas spectroscopy.

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Ralph S. Mueller (S'61–M'67) was born in St. Louis, Mo., on December 3, 1939. He received the B.S., M.S., and D.Sc. degrees in electrical engineering from the Sever Institute of Technology at Washington University, St. Louis, Mo., in 1962, 1964, and 1967, respectively. From 1965 to 1967, while holding an NASA traineeship, he investigated electromagnetic wave propagation in ferrite-filled waveguides.

He is currently employed by the McDonnell Douglas Corporation, St. Louis, Mo., where he is engaged in research on solid-state lasers.

Dr. Mueller is a member of Sigma Xi.

Toshio Nemoto (M'63) was born in Tokyo, Japan, on November 16, 1934. He received the B.S.E.E. degree from Maiji University, Tokyo, in 1958.

From 1958 to 1961, he was associated with the Research Laboratory of Precision Machinery and Electricity, Tokyo Institute of Technology, Tokyo, where he was engaged in research on microwave high-power measurements and Q measurements. Since 1961, he has been associated with the Electrotechnical Laboratory, Ministry of International Trade and Industry, Tokyo, where he has been concerned with the establishment of the National Standards on Microwave Impedance. From 1966 to 1968, he worked in the National Bureau of Standards, Boulder, Colo., as a guest worker.

Mr. Nemoto is a member of the Institute of Electrical Communication Engineers of Japan.

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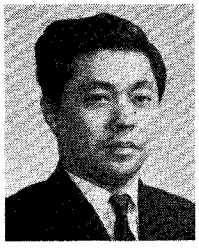

Jun-ichi Nishizawa (SM'62) was born in Sendai, Japan, on September 12, 1926. He received the B.E. degree in 1948 and the Ph.D. degree in 1960 from Tohoku University, Sendai.

He was appointed Research Assistant at Tohoku University in 1953, Associate Professor in 1954, and Professor in 1962. Since 1948, he has been engaged in the study of solid-state electronics. He has been working in the field of semiconductor materials, transistors, diodes, semiconductor lasers, and optoelectronics.

Dr. Nishizawa is a member of the Institute of Electrical Engineers of Japan, the Institute of Electronics and Communication Engineers of Japan, the Physical Society of Japan, the American Physical Society, the American Institute of Physics, and a fellow of the Physical Society of London.

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Fred J. Rosenbaum (S'57–M'63), for a photograph and biography, please see page 267 of the April, 1968, issue of this TRANSACTIONS.

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Eugene W. Sard (A'49–M'55) was born in Brooklyn, N. Y., on December 21, 1923. He received the B.S. and M.S. degrees in electrical engineering from the Massachusetts Institute

of Technology, Cambridge, in 1944 and 1948, respectively.

From 1944 to 1946, he served in the U. S. Naval Reserve as a Radar Officer. From 1946 to 1948, he was a Research Assistant in the Department of Electrical Engineering at M.I.T., working on digital computers. Since 1948, he has been with Airborne Instruments Laboratory, now a Division of Cutler-Hammer, Inc., Melville, N. Y., at first in the Radar and the Applied Electronics Departments, and more recently in the Electrophysics Department, where he is presently a Consultant. For the past ten years he has been working on semiconductor devices with special emphasis on the application of varactors and tunnel diodes to various fields including fast switching, harmonic generation, low-noise amplification, frequency conversion, and detection.

Mr. Sard is a member of Sigma Xi.

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Herbert J. Shaw (M'55) was born in Seattle, Wash., on June 2, 1918. He received the B.S. degree from the University of Washington, Seattle, in 1941, and the M.A. and Ph.D. degrees from Stanford University, Stanford, Calif. in 1943 and 1948, respectively.

In 1941 he was a Test Engineer at General Electric Company, Schenectady, N. Y. Since 1942 he has been at Stanford University where he is presently a Senior Research Associate in the Microwave Laboratory and a Research Associate in the Physics Department. He has been primarily engaged in research in microwave tubes and microwave physics.

Dr. Shaw is a member of Tau Beta Pi and Sigma Xi.

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Minoru Toda was born in Kyoto, Japan, on November 28, 1936. He received the B.S. degree in electrical engineering from Shizuoka University in 1960, and the D.Sc. degree from Tokyo University in 1968.

From 1960 to 1962 he was engaged in the research and development of millimeter wave circuit components at Shizuoka University. He joined the research staff of Laboratories RCA, Inc., Tokyo, in 1962, and since then has specialized in solid-state plasma studies related to high frequency phenomena. His work in solid-state plasmas includes the first direct observation of the pinch effect and density waves, nonreciprocal microwave propagation with application to semiconductor isolators, and theoretical and experimental studies of microwave radiation from InSb. In 1965, he spent 9 months at RCA Laboratories, Princeton, N. J., where he did research on ferrimagnetic thin films.

Dr. Toda is a member of the Physical Society of Japan, and the Institute of Electronics and Communication Engineers of Japan.

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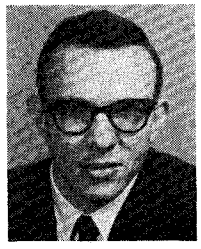

David F. Wait was born in Sidney, Neb., on September 28, 1933. He received the B.S. and M.S. degrees in physics from Colorado State University, Fort Collins, in 1955 and 1957, respectively, and the Ph.D. degree in physics from the University of Michigan, Ann Arbor, in 1962.

In 1963, he was a Senior Scientist with the Saturable Filter Group at the Laser System Center of Lear Siegler, Inc., Ann Arbor, Mich. From 1964 to the present he has been with the National Bureau of Standards, Boulder, Colo., where he has worked on cryogenic microwave noise standards.

Dr. Wait is a member of the American Physical Society, Scientific Research Society of America, Kappa Mu Epsilon, Kappa Kappa Phi, and Omicron Delta Kappa.

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Donald K. Winslow (SM'57) was born in Hanford, Calif., on September 25, 1914. He received the B.A. and M.A. degrees in mathematics from the University of California, Berkeley, in 1936 and 1939, respectively, the M.S. degree in meteorology from the California Institute of Technology, Pasadena, in 1943, and the M.S. and Ph.D. degrees in physics from Stanford University, Stanford, Calif., in 1954 and 1957, respectively.

From 1938 to 1947 he taught in California high schools and junior colleges. He served as a Navy Aerological Officer from 1942 to 1946 and is, at present, a Commander in the Naval Reserve. From 1947 to 1951 he was an Assistant Professor of Physics at Fresno State College, Fresno, Calif. During graduate study at Stanford University he was a Research Assistant and since 1956 has been a Research Associate and Research Engineer in Stanford University's W. W. Hansen Laboratories of Physics.

Dr. Winslow is a member of the American Physical Society and Sigma Xi.