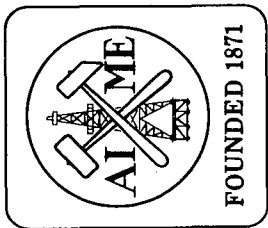
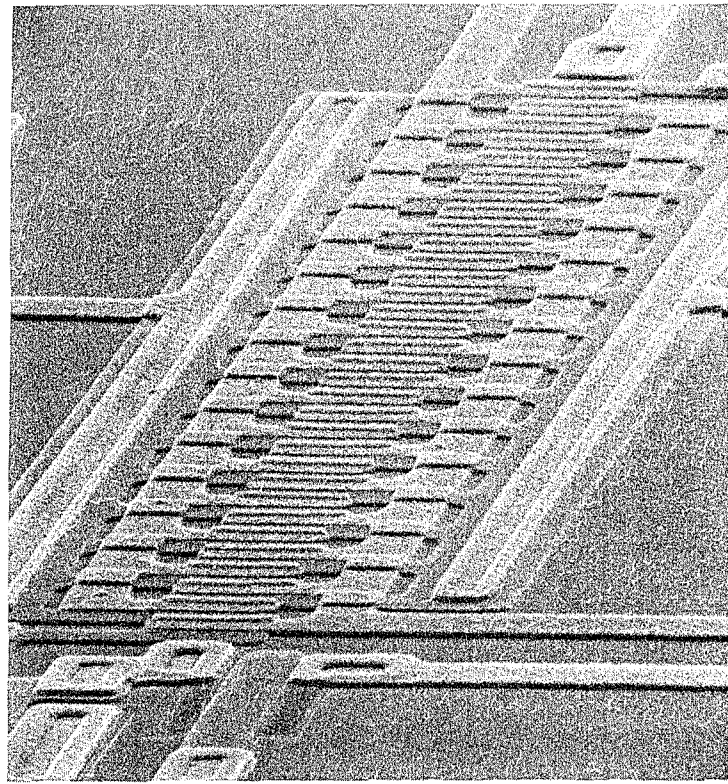


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THE



THE
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 OF
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 PRESENTS
 THE FIFTH ANNUAL
 ELECTRONIC MATERIALS SYMPOSIUM

A One Day Symposium on Electronic Materials
 Featuring Outstanding Authorities
 in Their Respective Fields

CABAÑA HYATT HOUSE
 4290 EL CAMINO REAL
 PALO ALTO, CA 94306

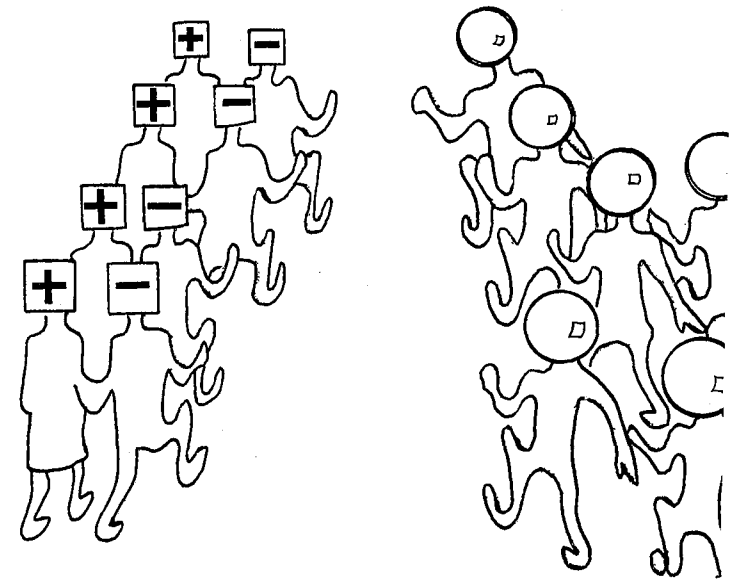
WEDNESDAY
 MARCH 30, 1977
 7:30 A.M.

PROGRAM

Wednesday, March 30, 1977

Cabaña Hyatt House

- 7:30 Registration
 MORNING SESSION (Circus Maximus Central)
 Session Chairman: Dr. Max Lorenz
 IBM Corporation
 San Jose, California
- 8:30 Welcoming Remarks and Introduction
 Dr. Gerald B. Stringfellow
 Chairman, Electronic Materials Symposium
 Hewlett-Packard Laboratories
 Palo Alto, California
- 8:40 "Si Materials Advances - The Challenge of High Resolution"
 Prof. William G. Oldham
 University of California
 Berkeley, California
- 9:30 "CCD's: Measuring Up to Expectations?"
 Dr. Ronald J. Whittier
 Intel Corporation
 Santa Clara, California
- 10:20 COFFEE BREAK
- 10:50 "Magnetic Bubbles - Present and Future"
 Mr. John L. Archer
 Rockwell International
 Anaheim, California
- 11:45 LUNCHEON (Circus Maximus North)
- 12:20 Ross N. Tucker Memorial Award Presentation to Mr. Robert M. Westervelt,
 Department of Physics, University of California, Berkeley, California
- 12:30 "Nuclear Energy - The People or the Politicians"
 Prof. Edward Teller
 University of California
 Berkeley, California
- AFTERNOON SESSION (Circus Maximus Central)
- Session Chairman: Dr. Richard Keezer
 Xerox Research Center
 Palo Alto, California
- 1:30 "High Resolution Lithography, Including the Use of Synchrotron Radiation"
 Dr. Dean E. Eastman
 IBM Corporation
 Yorktown Heights, New York
- 2:15 "Epitaxial Regrowth of Implanted-Amorphous Si"
 Prof. James W. Mayer
 California Institute of Technology
 Pasadena, California
- 3:00 COFFEE BREAK
- 3:30 "High Frequency FETs"
 Dr. Charles A. Liechti
 Hewlett-Packard Laboratories
 Palo Alto, California
- 4:15 "Semiconductor Manufacturing and RF Plasma"
 Mr. B. F. (Jack) Shelton, Jr.
 Motorola Incorporated
 Phoenix, Arizona
- 5:00 HOSTED COCKTAIL PARTY
 Cabaña Hyatt House (Circus Maximus North)
- *****
- VENDORS SHOW (Circus Maximus South)
- 8:00 - 5:00 Vendors Exhibits



GENERAL INFORMATION

- The registration fee for the symposium covers admission to symposium sessions, extended abstracts of symposium presentations, luncheon, a vendor's exhibit, and a portion of a hosted cocktail hour following the symposium. Physical limitations require that attendance be limited to the first 350 registrants.
- Costs for the symposium have been kept to a minimum to encourage attendance. A surcharge will be required from those who do not preregister by Wednesday, March 16, 1977, because of added costs for arrangements after that date. To reserve your place at the symposium and luncheon, we urge you to register early by mail, using the form provided. No refunds of registration fees will be made after Wednesday, March 16, 1977.
- During the symposium, the second annual Ross N. Tucker Memorial Award will be presented to Mr. Robert M. Westervelt of the Department of Physics, University of California, Berkeley, California, for his work on nucleation phenomena and thermodynamic properties of electron-hole droplets in ultra pure Ge.
- We are honored to have Professor Edward Teller as our luncheon speaker. His topic will be "Nuclear Energy - The People or the Politicians".
- A feature of this symposium will be a vendor's exhibit. Information displays on new materials, processing equipment and analytical instruments will be presented by manufacturing representatives.
- A hosted cocktail party will follow the final symposium presentation, providing an opportunity for informal discussions with symposium speakers and guests.
- Registration material and extended abstracts of the symposium presentations will be available at the symposium. The opening session will begin promptly at 8:30 a.m.
- Further questions regarding the symposium should be directed to G. B. Stringfellow, Hewlett-Packard Laboratories, 1501 Page Mill Road, Palo Alto, California, 94304. Telephone: (415) 493-1501, Ext. 3183.

ABOUT THE SPEAKERS

MR. JOHN L. ARCHER received his B.S. and M.S. degrees from Iowa State University in Ceramic Engineering and Electrical Engineering. He joined Rockwell International in 1963 and is presently head of the Applied Magnetics Department of the Electronics Research Division. The primary emphasis in his department for the past four years has been the development of bubble domain memories. His research contributions were in bubble device modeling and in component design. He has authored and co-authored numerous papers in the field of magnetics and recently lectured in the USSR as a guest of the Academy of Sciences.

DR. DEAN E. EASTMAN is an IBM Fellow, and is also manager of the Surface Physics Group at the IBM T. J. Watson Research Center. He received his B.S., M.S. and Ph.D. degrees in Electrical Engineering at MIT in 1962, 1963 and 1965, respectively, and has been an IBM Research Staff Member since 1963. Currently, he is a Fellow of the American Physical Society and a member of the Solid State Sciences Committee of the National Academy of Sciences. His research interests include developing new surface spectroscopy techniques -- especially photoelectron spectroscopy -- and applying them to a broad range of studies of the electronic properties of solids, surfaces and interfaces. Also, he has been involved in high resolution photolithography studies, especially the application of synchrotron radiation to x-ray photolithography. He is the author or co-author of over 80 publications.

DR. CHARLES A. LIECHTI received the M.S. degree in Physics and the Ph.D. degree in Electrical Engineering both from the Swiss Federal Institute of Technology in Zurich, Switzerland. In 1968 he joined Hewlett-Packard Company in Palo Alto, California. Since 1971 he has been heading a group for the development of GaAs field-effect transistors, microwave amplifiers, and GaAs integrated circuits at the Solid State Laboratory. Dr. Liechti received two outstanding contributed paper awards from the International Solid State Circuits Conference and the Microwave Prize from the IEEE Microwave Theory and Techniques Society.

PROF. JAMES W. MAYER received a Ph.D. degree in Physics at Purdue University in 1960 and worked at Hughes Research Laboratories until 1967. He joined the California Institute of Technology in 1967 and is Professor of Electrical Engineering, Master of Student Houses and teaches SCUBA. His areas of research include nuclear-particle detectors, ion implantation in semiconductors, MeV ion backscattering spectrometry and metal-semiconductor, solid-phase reactions.

PROF. WILLIAM G. OLDHAM received the Ph.D. degree in Electrical Engineering from Carnegie-Mellon University in 1963. He worked at Siemens (Erlangen) for one year and since that time has been associated with the University of California, Berkeley, where he is a Professor of Electrical Engineering and Computer Science. His research interests have included heterojunctions, vapor growth, III-V compound optoelectronic devices, avalanche devices, ellipsometry, and integrated circuit technology. In 1974-75 he was on a leave of absence at Intel Corporation, Santa Clara, CA, where he was Manager of 16K RAM Development.

MR. B. F. (JACK) SHELTON received his B.S. degree in Chemistry from Arkansas State University. Between 1962 and 1968 he worked as an industrial chemist for several chemical companies. In 1968 he joined Motorola Inc. where he has worked as an R&D analytical chemist, photoresist process engineer, and process development engineer.

DR. EDWARD TELLER was born in Budapest in 1908, and received his Ph.D. from the University of Leipzig in 1930. After research and teaching in Göttingen, Copenhagen and London in the early 1930's, he came to this country and was Professor of Physics at the George Washington University, Washington, D.C., from 1935 to 1941. His wartime assignment to help develop the atomic bomb took him to the University of Chicago until 1952. After World War II, Dr. Teller made significant contributions to developments of atomic weapons and to the design of the world's first hydrogen bomb. He was a member of the General Advisory Committee of the U.S. Atomic Energy Commission [now Energy Research and Development Administration (ERDA)] from 1956 to 1958, helped establish the nation's second weapons laboratory at Livermore, California, and served as Director of this laboratory from 1958 to 1960. Dr. Teller returned to academic life and is now a Professor Emeritus at the University of California, Berkeley, having been a University Professor of Physics there for many years. He is a Senior Research Fellow at Stanford University's Hoover Institution and continues to serve as an Associate-Director-at-Large at Lawrence Livermore Laboratory. He is also a member of the Scientific Advisory Board of the U.S. Air Force, and is a member of the Commission on Critical Choices for Americans and authored a report on our energy problems. Other activities are connected with applications of nuclear energy, with astrophysics, and with molecular physics, and he has also involved himself with the teaching of high school science and of applied science on the graduate level.

DR. RONALD J. WHITTIER received his B.S. degree in Engineering from the University of California, Berkeley, in 1960 and his Ph.D. degree in Engineering from Stanford University in 1965. In 1965 he joined Fairchild's Research and Development Laboratories where he worked on technology and physics of semiconductor devices. At the time he left Fairchild, in 1970, he was manager of the Physics Department. Since 1970 he has been with Intel Corporation, principally involved in technology and product development activities. He is currently the Director of Engineering of the Components Division.

REGISTRATION FORM

1977 Fifth Annual AIME Electronic Materials Symposium

Name _____ Title _____
 Organization _____
 Mailing Address _____
 City _____ State _____ Zip Code _____

Registration Fee:

<input type="checkbox"/> AIME Member	\$15.00	Payment Received on or Before March 16, 1977	<input type="checkbox"/> \$25.00
<input type="checkbox"/> Non-member	\$20.00	Payment Received After March 16, 1977	<input type="checkbox"/> \$30.00
<input type="checkbox"/> Full-Time Registered Student	\$7.50		<input type="checkbox"/> \$17.50

Make checks payable to: "N. Cal. Met. Section, AIME," and send with the above information to: G. B. Stringfellow, Hewlett-Packard Laboratories, 1501 Page Mill Road, Palo Alto, California, 94304. Do not send Purchase Orders. Others may register by supplying the information requested above and sending it with the registration fee.