

AAAS NEWS

(Continued from page 992)

als in the not-too-distant future; and the capital and financial constraints which are tighter now than at any time in recent memory. This volume brings together papers (all previously published in *Science*) by 36 of this country's authorities which provide a critical, in-depth look at these and other related issues crucial to the health of industrial economies, the future of materials research, and, ultimately, to both the global and local quality of life. Among the contributors are Alvin Weinberg, past director of the Oak Ridge National Laboratory and current director of the Institute for Energy Analysis at Oak Ridge; Hans Landsberg, widely published resource economist who for many years has been with Resources for the Future; and James Bethel, dean of the College of Forest Resources at the University of Washington and chairperson of the National Research Council Committee on Renewable Resources for Industrial Materials. Copies of this book may be ordered from AAAS, 1515 Massachusetts Avenue, NW, Washington, D.C. 20036 (member prices shown above).

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The Double Bind: The Price of Being a Minority Woman in Science by Shirley Mahaley Malcom, Paula Quick Hall, and Janet Welsh Brown, has just been published by the AAAS Office of Opportunities in Science. It contains the findings and recommendations of the AAAS Conference of Minority Women Scientists, held in December 1975. Single copies are available without charge on request from the Office of Opportunities in Science, AAAS, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036.

Notes from Other Offices

The French Association for the Advancement of Science will hold its 95th Congress in Marseille, 5-10 July. AAAS members planning to be in the area who are interested in representing AAAS should contact the Office of International Science, AAAS.

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Reprinted: *Culture and Population Change*, a report prepared for the Bucharest Population Conference by the Office of International Science, has been revised and reprinted. Copies are available at \$3 for members and \$3.50 retail from the Sales Department, AAAS.

4 JUNE 1976

Precision balances and weighing systems by SAUTER.

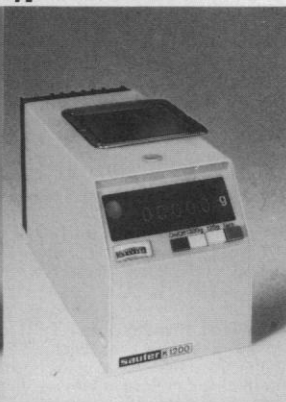
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SAUTER balances have earned a reputation for ease of operation, economy and practical technology. No wonder SAUTER balances are the choice in research and development laboratories, in industry and scientific institutions just about everywhere.

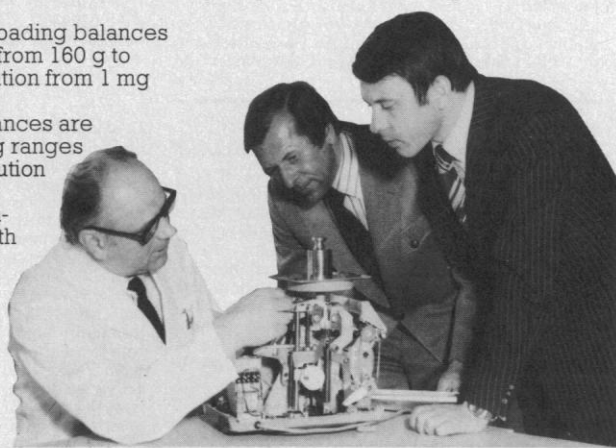
SAUTER precision toploading balances have weighing ranges from 160 g to 10 kg and more. Resolution from 1 mg to 1 g.

SAUTER analytical balances are available with weighing ranges of 100 and 200 g. Resolution of 0.01 mg of 0.1 mg.

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Shown here is but a small sample of the complete SAUTER line affording high accuracy in weighing ranges from a few grams up to a ton. Please write and let us help to solve your particular balance problems.

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August Sauter of America,
80 Fifth Ave., New York, N. Y. 10011.

Personnel Placement

POSITIONS WANTED

Biochemist, Ph.D. 1970. Research experience in various areas of biochemistry and molecular biology. Possesses a 3-year grant with a project. Interests: enzymes involved in biological methylations; enzyme purification, kinetics and reaction mechanism; regulatory properties and subunit structure of enzymes; isozyme studies; enzyme structure and function in relation to phylogeny and ontogeny; behavioral biochemistry, metabolism of catecholamines; brain research; and so forth. Publications. Seeks challenging position in large university/college. Box 272, SCIENCE. X

Biochemist-Chemist. Ph.D. 1966. Broad biomedical research and teaching experience. Publications. Research interest includes lipid biochemistry, neurochemistry, membranes, proteins. Research in metabolic disorders, natural product chemistry. Strong background in analytical methods and radioisotopes. On medical school faculty for past 6 years. Seeks challenging research/teaching position. Box 273, SCIENCE. X

Geneticist/Microbiologist. Ph.D. July 1976. Four years of high school teaching experience (BSCS), publications. Seeks teaching position in genetics, microbiology, molecular biology, microbial genetics, or general biology. R. Zimmerman, Department of Genetics, Box 5487, North Carolina State University, Raleigh, North Carolina 27607. X

Meteorological Technician: A.A. and B.A. degrees. Will work for private sector or government. L. Baril, 10840 SW 42 Street, Miami, Florida 33165. Telephone: 305-221-1340. 6/4, 11, 18

Molecular Biologist. Ph.D. (in pathology) 1976. Seeks postdoctoral research position studying translational control mechanisms. Strong research background with publications involving chemical carcinogens and protein synthesis. Available immediately. Box 274, SCIENCE. X

M.T., Ph.D., **Pathology**: seeks position as chairperson or director of a functional or developing Department of Medical Technology at an educational institute with hospital affiliations. Extensive experience in all areas of clinical laboratory services, administration, education and computer applications. Box 275, SCIENCE. X

Foreign-born **Scientist**, with strong background in hydrological and planktological investigations and much experience in work at sea and in lagoon and estuarine environments, seeks research or academic position. Available around June 1976. Box 260, SCIENCE. 6/4, 11, 18

Zoologist/Biochemist, M.S. Experienced analyst of chlorinated hydrocarbons. Interested in physiological effects of toxic compounds. Desires employment involving research into environmental contaminant and drug metabolism. A. Edwards, Hopkins Marine Station, Pacific Grove, California 93950. 6/4, 11

POSITIONS OPEN

In accordance with University principles of fair-practice employment, the Department of Pathology of the University of Pennsylvania School of Medicine invites applications for **academic positions** in the Chemistry Section of the Clinical Pathology Division. Minimum qualifications are: completion of an approved residency training program in laboratory medicine and Board certification in clinical pathology. Candidates with a strong academic background, an interest in teaching, and with experience in one or more phases of clinical chemistry would be given preference.

Send curriculum vitae to:

Dr. Dean A. Arvan
William Pepper Laboratory
Hospital, University of Pennsylvania
704 Gates Building/G1
Philadelphia, Pennsylvania 19104

POSITIONS OPEN

ASSISTANT DIRECTOR

The University of Wisconsin Regional Primate Research Center is seeking candidates for the position of assistant director. The mission of the Center is to conduct basic research in the areas of reproduction, neuroscience, and behavior of nonhuman primates. Candidates should hold the Ph.D. or equivalent degree and have at least 3 years of postdoctoral research experience in a field closely related to the Center's mission. Administrative experience in the management of grant funds and in personal matters is desirable but not required. The successful candidate may pursue his personal research interests on as much as a 50 percent basis. Salary will be commensurate with training and experience. Interested and qualified candidates should send their curriculum vitae, bibliography, and names of three references by 1 July 1976 to:

Search Committee
Wisconsin Regional Primate Research Center
1223 Capitol Court
Madison, Wisconsin 53706
*An Equal Employment Educational Institution
(Title IX, Title VI)*

ASSISTANT PROFESSOR, MICROBIAL GENETICS, ANATOMY-PHYSIOLOGY AND HUMAN BIOLOGY. Ph.D. required. \$11,000 to \$12,000, academic year. Send curriculum vitae and three letters of reference by 20 June 1976 to Dr. Edmund Gianferri, Chairman, Biology Search Committee, Science Department, Keene State College, 229 Main Street, New Hampshire 03431. *Keene State College is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSORS

Applications are invited for two positions at the level of assistant professor in the Section of Developmental Therapeutics of the Yale Comprehensive Cancer Center; academic appointments and teaching will be in the Department of Pharmacology. Applicants must have the Ph.D. degree, postdoctoral experience, and a strong commitment to the collaborative and independent research programs necessary for the development of antineoplastic agents. One position is for a **medicinal chemist** with interest and experience in synthesis of anticancer agents and the other for an individual trained and experienced in **biochemistry, pharmacology, and/or molecular biology or virology** with special interest in elucidating the molecular mechanism of action of cytotoxic agents. Interested candidates should send curriculum vitae, transcripts, reprints, description of areas of research interests, and the names of three possible references by 15 June 1976 to Dr. Alan C. Sartorelli, Department of Pharmacology, Yale University School of Medicine, New Haven, Connecticut 06510. *Equal Opportunity/Affirmative Action Employer.*

ASSISTANT ADJUNCT PROFESSOR (two positions)

- 1) M.D. and/or Ph.D. Previous training in neuroendocrinology. Basic and clinical investigations concern hypothalamic pituitary dynamics. Graduate teaching. \$14,000 per year at 70 percent time.
- 2) Ph.D. Previous training in receptor studies for both steroid and peptide hormones. Graduate teaching. \$16,000 to 17,000 per year at 85% time. Send curriculum vitae to: Samuel Yen, M.D., Professor and Chairman Department of Reproductive Medicine C-015, University of California, San Diego, La Jolla, Calif. 92093. *Equal Opportunity/Affirmative Action Employer*

ASSISTANT PROFESSOR BIOCHEMISTRY

Teaching and research position available July 1976. Ph.D. degree in biochemistry or related field and postdoctoral experience. Experience preferred in molecular aspects of hormone action, biochemistry of cancer, or developmental biochemistry. Send résumé with three letters of recommendation to Box 24V, Waterman Building, University of Vermont, Burlington, Vermont 05401. *An Affirmative Action Employer*

BIOCHEMIST. Assistant professor. Teach introductory biochemistry and organic chemistry courses. Participate in team-taught interdisciplinary science course. Direction of undergraduate research encouraged. One-year appointment with the possibility of renewal for at least one additional year. Send curriculum vitae, transcripts, and three letters of reference to Dr. D. E. Wetmore, Chairman, Chemistry Program, St. Andrews Presbyterian College, Lenoir, North Carolina 28552. *The College is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR OF CHEMISTRY. Fall 1976 preferred. Ph.D. required. Salary open. Must be qualified to teach and supervise research of undergraduate and graduate students. Specialization in biochemistry or analytical chemistry preferred. Indication of ethnicity and sex is requested but not required. Send curriculum vitae, plans for research, and three letters of reference by 1 July 1976 to:

Alexander L. Clark, Vice President for Academic Affairs, The University of Texas at Dallas, P.O. Box 688, Mail Station AD11E, Richardson, Texas 75080. *The University of Texas at Dallas is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR OF PHARMACOLOGY—Position available at beginning of 1976–77 academic year. Appointee will participate in teaching of medical students and graduate students, and will be expected to develop a strong independent research program. Candidates must have a Ph.D. or M.D. degree and at least 2 years of postdoctoral experience. Preference will be given to individuals who have already demonstrated productivity in original research and proficiency in teaching. Research interest in one of the following areas is desirable, but not exclusive: drug metabolism, cellular and molecular pharmacology, neuropharmacology, and endocrine pharmacology. Send curriculum vitae, reprints of publications, a brief description of research interests and teaching experience, and names of three references to Dr. Robert F. Furchgott, Chairman, Department of Pharmacology, State University of New York Downstate Medical Center, Brooklyn, New York 11203. *An Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF CALIFORNIA, IRVINE SCHOOL OF BIOLOGICAL SCIENCES CHAIR, ECOLOGY AND EVOLUTIONARY BIOLOGY

A position is now available for an appointment at the full professor level as chair in the Department of Ecology and Evolutionary Biology in the School of Biological Sciences at the University of California, Irvine. Candidates must have an active research program. Marine biology or ecological energetics are preferred, although individuals in other areas of ecology and evolutionary biology will be considered. Candidates should submit vitae particulars as soon as possible to Dean Howard A. Schnelderman, School of Biological Sciences, University of California, Irvine, Irvine, California 92717. *Applications from all qualified candidates are welcome; minorities and women are encouraged to apply.*

CELL IMMUNOLOGIST

Able to do research and teaching in the area of tumor immunology, immunodeficiency diseases, and immunopathology. Large eastern hospital.

Box 265, SCIENCE

An Equal Opportunity/Affirmative Action Employer

IMMUNOGENETICIST

Capable of directing clinical immunology laboratory, including tissue typing, cross matching and procedures necessary for transplant program. Large eastern hospital.

Box 266, SCIENCE

An Equal Opportunity/Affirmative Action Employer

IMMUNOPATHOLOGIST

Particularly experienced in teaching, research in kidney disease, and surgical pathology. Large eastern hospital.

Box 267, SCIENCE

An Equal Opportunity/Affirmative Action Employer

EXPERIENCED PATHOLOGIST

Capable of directing surgical pathology unit in large eastern hospital.

Box 268, SCIENCE

An Equal Opportunity/Affirmative Action Employer

POSITIONS OPEN

BIOCHEMIST

Loyola University of Chicago School of Dentistry has opening for Ph.D. in biochemistry. Assistant professor to teach dental students. Classroom teaching experience required. Independent research time and facilities available. Send curriculum vitae and three references to **Dr. G. W. Rapp, Chairman, Department of Biochemistry, Loyola University School of Dentistry, 2160 South First Avenue, Maywood, Illinois 60153.** *Loyola University is an Affirmative Action/Equal Opportunity Employer and encourages responses from all qualified applicants.*

CASE WESTERN RESERVE UNIVERSITY DEAN OF SCIENCE AND ENGINEERING

Nominations and applications are sought for the position of dean of science and engineering for Case Institute of Technology. The deanship assumes responsibility for undergraduate and graduate programs and for faculty development in the School of Engineering and in Mathematics and the Natural Sciences for students of Case Institute of Technology and Western Reserve College as well as joint educational and research programs with other schools and colleges.

Applicants and nominees should have an established reputation in teaching and research with a growing interest in academic administration. Inquiries and applications should be addressed to:

Professor Robert E. Collin
Chairman, Search Advisory Committee
Glennan Building
Case Western Reserve University
Cleveland, Ohio 44106

Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer

DENTAL PHARMACOLOGIST

Applications are invited for the position of instructor in the Basic Dental Sciences Department of the University of Florida College of Dentistry. Teaching in both basic science and clinical courses and instruction in the clinical setting are required. Field of research should be related to dentistry. Applications, including a complete curriculum vitae and names of three persons to be contacted as references, should be sent to:

Dr. Parker E. Mahan
College of Dentistry
University of Florida
Box J-424
Gainesville, Florida 32610

An Affirmative Action/Equal Opportunity Employer

OHIO STATE UNIVERSITY

Applications are invited for **DIRECTOR** of Computer Assisted Instruction (CAI). Applicants should have a doctoral degree with experience in instructional development and administration in CAI and background in university teaching and research. Eligible for faculty appointment. Salary competitive. Résumés and inquiries should be sent to **Roy F. Reeves, Associate to the Provost, Room 406A Baker Systems Engineering Building, 1971 Neil Avenue, Columbus, Ohio 43210.**

The Deep Sea Drilling Project, Scripps Institution of Oceanography, University of California, San Diego, is currently seeking to fill positions for qualified **EARTH SCIENTISTS**. Several positions exist as project staff scientists who will engage in project-related scientific research. Appointment anticipated in the assistant through associate professional research series: salary commensurate with experience. Ph.D. in earth sciences required for all positions. Please send completed résumé and names of at least three referees to **Dr. David G. Moore, Deep Sea Drilling Project, P.O. Box 1529, La Jolla, California 92093.**

The University of California is an Equal Opportunity/Affirmative Action Employer; women and minorities are encouraged to apply.

EPIDEMIOLOGIST

Faculty appointment available for epidemiologist (M.D.) to work in problems relating to environmental cancer. Young person eligible, but publications in field desirable. Rank and salary will be based upon qualifications. Please write to **Dr. Norton Nelson, Chairman, Department of Environmental Medicine, New York University Medical Center, 550 First Avenue, New York, New York, 10016.**

POSITIONS OPEN

DEPUTY ASSISTANT ADMINISTRATOR FOR HEALTH AND ECOLOGICAL EFFECTS

The Environmental Protection Agency (EPA) is seeking a manager with a strong background in health and ecological effects who will be responsible for the planning, management, and evaluation of a large multidisciplinary research and development office made up of staff offices and field laboratories. The mission of the office is to develop health and ecological data needed for the establishment of standards and criteria for those components of the environment in which specific pollutants or activities may require control; determine the fate, transport, and exposure effect of environmental pollutants; develop and verify methods and models for analyzing the socioeconomic impact of environmental degradation; assess the environmental and socioeconomic impacts of existing and proposed policies and standards; and coordinate Agency policies and programs related to carcinogens and similar agents. Candidates must have a bachelor's or higher degree (preferably Ph.D. and/or M.D.) with major study in biological, health, or physical sciences and extensive (3 years or more) experience relating to the mission of the office. At least 1 year of this experience must have been in a high-level management position. Location: Washington, D.C. Salary: \$37,800 plus civil service benefits. Please send a detailed résumé or a completed Standard Form 171 (Personal Qualifications Statement), which can be obtained from any federal government personnel office, to reach EPA no later than 17 June 1976, to:

Brenda Cunningham (PM-212)
Personnel Management Division
Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460
An Equal Opportunity Employer

DIRECTOR MARINE SCIENCE CENTER

Oregon State University invites applications from qualified individuals for the position of director of the Marine Science Center in Newport, Oregon. Candidates should possess a doctoral degree and should have significant experience in marine science. The successful applicant should have administrative experience and scholarly achievements in teaching and research. He/she should possess an aptitude for developing educational and basic/applied research programs, as well as the ability to work with a variety of scientists and administrators from a broad range of disciplines. Director will have faculty rank in an appropriate academic department. Applications including a curriculum vitae will be accepted until 15 August.

Send to:

John V. Byrne, Chairman
Marine Science Center Search Committee
c/o School of Oceanography
Oregon State University
Corvallis, Oregon 97331

Oregon State University is an Equal Opportunity/Affirmative Action Employer.

EXECUTIVE OFFICER, American Society of Biological Chemists to assist the officers and council of the Society in managing the Society's administrative matters; responsibilities include: administration of financial affairs of the society, participation in the society publication operations, organization of the annual meeting, and liaison with national and international organizations. Administrative/managerial ability essential; candidates with experience in scientific administration are preferred. Salary open; excellent fringe benefits. Please send résumé to **Richard Snyder, c/o American Society of Biological Chemists, 9650 Rockville Pike, Bethesda, Maryland 20014.**

GENETICS

Applications are invited for an assistant professor in the area of **population genetics**. It is primarily a research position with emphasis on experimental investigations on genetic variation in *Drosophila* populations. Send curriculum vitae, list of publications, three letters of recommendation, and summary of research interests to:

Dr. John G. Scandalios
Professor and Head
Department of Genetics
North Carolina State University
Post Office Box 5487
Raleigh, North Carolina 27607

An Affirmative Action/Equal Opportunity Employer

STUART MUDD CHAIR IN BIOLOGY COLLEGE OF SCIENCE AND ENGINEERING

Harvey Mudd College, a coeducational undergraduate member of the Claremont Colleges specializing in the physical sciences and engineering, is initiating a biological program to complement both its own curriculum and existing life sciences programs in Claremont. The college seeks a candidate with demonstrated interest and ability in undergraduate instruction and a broad interest in basic principles of physical as well as biological sciences. Ample funds have been committed to laboratory facilities and equipment for teaching and research. Initial duties will include development of an introductory biology course which utilizes the interests and abilities of students in mathematics, physics, chemistry, and engineering. Research interests should be in an area that utilizes interdisciplinary knowledge and maintains a perspective of the organism as a whole.

Appointment is to be made during the 1976/77 academic year. The successful candidate should expect to join the college by June 1977. It is expected that the appointment will be made at a senior level. Exact rank and salary will be commensurate with qualifications.

Replies should be received by July 15, 1976. Send resume, statement of research and teaching interests, and names of three references to: **B. S. Tanenbaum, Dean of Faculty, Harvey Mudd College, Claremont CA 91711.**

An Equal Opportunity/Affirmative Action Employer

RESEARCH CHEMIST

The Staley Company—a rapidly growing "Fortune 300" company diversified in food ingredients, agri-business, and industrial products—has an excellent opportunity for a Research Chemist.

The successful candidate will possess a Ph.D. in Biochemistry or in Food Science with a strong biochemistry background plus one to three years of industrial or post doctoral experience in enzymatic research. Primary responsibilities will include protein ingredient development for food and non-food applications with major research emphasis in the area of enzymatic modifications of vegetable protein.

As a leader in our field, Staley offers an excellent starting salary plus benefits. If you are interested in this growth opportunity, please send resume, including salary requirements, in confidence to:

Bruce G. Raak,
Employment Supervisor
A. E. Staley
Manufacturing
Company
2200 East Eldorado Street
Decatur, Illinois 62523

An Equal Opportunity/Affirmative Action Employer M/F



POSITIONS OPEN

GEOLOGICAL OR GEOCHEMICAL OCEANOGRAPHY

Research interests should include one or more of the following:

Estuarine, coastal, and continental shelf sedimentation; littoral processes; coastal engineering; effects of dredging and spoil disposal; animal-sediment relationships; radiochemistry and geochemistry of recent sediments.

Salary and rank are open and will depend upon the qualifications of the candidate. Duties will include research and limited teaching.

The Marine Sciences Research Center is the oceanographic research center for the State University of New York system and has its only graduate programs in oceanography and marine environmental sciences.

We hope to fill the position by 1 September 1976. Candidates should send curriculum vitae, bibliography and reprints, and have three references mailed directly to:

J. R. Schubel, Director
Marine Sciences Research Center
State University of New York at Stony Brook
Stony Brook, New York 11794

The State University of New York is an Equal Opportunity Employer with an Affirmative Action Program.

LECTURERS IN ECOLOGY

Two temporary 9-month lectureships starting 1 September 1976. Ph.D. and teaching experience required. Salary approximately \$13,000.

- (1) Marine Ecology
- (2) Quantitative Ecology

In addition to one of the above undergraduate courses, teaching responsibilities may include coordination of ecology laboratories, lecturing in ecology, and a graduate seminar.

Applications from all qualified candidates are welcome; minorities and women are encouraged to apply. Submit by 30 June 1976, a complete résumé and three letters of recommendation to:

Dr. Peter R. Atsatt
Department of Ecology and Evolutionary Biology
University of California, Irvine
Irvine, California 92717

LECTURER IN BIOCHEMISTRY UNIVERSITY OF CALIFORNIA, DAVIS

The Department of Biochemistry and Biophysics is seeking a qualified full-time lecturer in biochemistry, starting 1 October 1976. This is a 9-month teaching position with no research responsibilities or facilities. Reappointment is on an annual basis.

The lecturer will be expected (i) to teach up to two undergraduate (junior-senior level) lecture courses or one lecture and one laboratory course during each of the three quarters of the academic year, and (ii) to participate in the academic and career advising of undergraduate biochemistry majors. A Ph.D. degree (preferably in biochemistry) is required. *The University of California is an Affirmative Action Employer.*

Applicants should submit a curriculum vitae, at least two letters of recommendation (with emphasis on teaching experience or potential), and other supporting documents to:

Professor I. H. Segel, Chairman
Lecturer Search Committee
Department of Biochemistry and Biophysics
University of California
Davis, California 95616

Telephone: 916-752-3193 or 752-3611

The deadline for applications is 30 July 1976.

NEUROBIOLOGIST

Applications are invited for three faculty positions at the assistant or tenured professor levels to be filled by 1 June 1977. Preference will be given to candidates with research interests in anatomical, developmental, and molecular neuroscience. Candidates must have postdoctoral experience and have demonstrated exceptional research talent. At least one of the positions will involve teaching in an integrated, multidisciplinary medical neuroscience course. Applicants should send (before 15 July) a curriculum vitae, the names of three referees, and sufficient supporting material to allow preliminary evaluation of his/her potential for both teaching and research to **Ernest Peck, Chairman of the Neuroscience Search Committee, Department of Cell Biology, Baylor College of Medicine, Houston, Texas 77030.** *Baylor College of Medicine is an Equal Access/Opportunity Employer.*

POSITIONS OPEN

GENETICIST, Ph.D., for studies of biological effects of magnetic fields and environmental pollutants. Team effort with biologists and biophysicists. Experience with *Drosophila* preferred. Position available about October 1976. Contact **Dr. John W. Baum, Safety and Environmental Protection Division, Brookhaven National Laboratory, Associated Universities, Inc., Upton, Long Island, N.Y. 11973.** *An Equal Opportunity Employer M/F*

HERBARIUM CURATOR—The University of Texas, Austin, Texas, seeks an M.S., preferably with curatorial experience, to supervise and help manage a large plant collection (approximately 800,000 specimens), mostly from Latin America. Salary \$10,000 per year beginning 1 September 1976. Submit applications to

M. D. Johnston
Professor of Botany
University of Texas at Austin
Austin, Texas 78712

An Equal Opportunity/Affirmative Action Employer

NEUROLOGIST

The Department of Neurology, Center for Health Sciences, University of Wisconsin, is seeking applications for a neurologist with competence in electroencephalography for appointment at the assistant professor level. Position entails being director of Laboratory of Electroencephalography and Clinical Neurophysiology as well as some responsibilities in clinical neurology. Board certification (or eligibility) in neurology and/or EEG is necessary. Send curriculum vitae and bibliography to: **Dr. Harold E. Booker, Neurology Department, 1954 East Washington Avenue, Madison, Wisconsin 53704.**

OPPORTUNITIES IN CANCER BIOLOGY, BIOCHEMISTRY WISCONSIN CLINICAL CANCER CENTER

Junior faculty positions available in basic cancer biology and biochemistry in the Department of Human Oncology for research programs in enzymological, biochemical, and immunogenetic markers of high risk for development of human lung, bladder, and colon cancers. Desire Ph.D.'s with 3 to 5 years of relevant experience. Address inquiries and curriculum vitae to **Dr. Harold P. Rusch, Director, Wisconsin Clinical Cancer Center, 701C University Hospitals, 1300 University Avenue, Madison, Wisconsin 53706.**

The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer.

Ph.D. POSITION: chemist, biochemist, or physiologist to assume direction of research laboratories in thoracic surgery. Research activities include pulmonary function and biochemical studies to assess effects of tobacco smoke exposure in primates and development of radioenzymatic assay for norepinephrine. At least 1 year of postdoctoral experience in experimental biochemistry required with working knowledge of analytical instrumentation and statistical methods of data reduction. Salary negotiable. **Lester R. Bryant, M.D., Department of Surgery, Louisiana State University Medical Center, New Orleans, Louisiana 70112.**

Permanent position in the Department of **PHYSICS AND ASTRONOMY** beginning 20 August 1976. Rank and salary dependent upon experience. Required: Ph.D., proven ability and interest in undergraduate instruction, and strong motivation to carry on research involving students. Preference will be given to candidates who have five or more years of experience beyond the doctorate and who have demonstrated their potential for securing research funding. Specialization areas of the present faculty include: atmospheric physics (1), atomic physics (1), biophysics (2), cosmology and astrophysics (1), extragalactic astronomy (3), instructional strategies (4), nuclear physics (1), radio astronomy (2), solid state-thermoluminescence (1), spectroscopy (1), and theoretical physics (1). Additional information will be supplied upon request. *Western Kentucky University is an Equal Opportunity/Affirmative Action Employer.* Send letter of application, résumé, and three letters of reference to:

Dr. Frank Six, Chairman
Department of Physics and Astronomy
Western Kentucky University
Bowling Green, Kentucky 42101
Telephone: 502-745-4357

POSITIONS OPEN

MANGANESE RESEARCH

The Scientific Advisory Committee of the Manganese Nodule Project sponsored by the office for the International Decade of Ocean Exploration, National Science Foundation, invites scientists interested in participating in a multidisciplinary program of manganese nodule research to submit letters of interest outlining their proposed research. These letters of intent will be evaluated by the Scientific Advisory Committee within the framework of a comprehensive program, which has as its goal the understanding of the processes responsible for the formation of marine manganese nodules. Endorsement by the Scientific Advisory Committee neither ensures nor implies funding. All final proposals will be evaluated by the National Science Foundation.

The letter of intent should not exceed five pages. Tentative budgets should be included but detailed justifications are not necessary at this time. The letter of intent must be received prior to 14 June 1976 to be considered for inclusion in the 1977 research program. The letter and any further questions should be directed to:

J. Greenslate, A-015
Scripps Institution of Oceanography
La Jolla, California 92093
Telephone: 714-452-4369

POSTDOCTORAL FELLOW (Research Associate)

ANALYTICAL CHEMIST, starting June 1976 for 18 months. Atomic absorption, spectroscopic determination of trace metals in animal tissue and feed stock. Environmental health background helpful. Send résumé to:

Dr. Amer El-Ahraf, Chairman
Department of Health, Science
and Human Ecology
California State College
5500 State College Parkway
San Bernardino Calif.

POSTDOCTORAL POSITIONS (3) available immediately. Research on RNA tumor viruses (antigenic characterization, tissue culture studies, and so forth.). Experience in immunology and/or virology preferred. Send résumé and letter of recommendation to

Box 269, SCIENCE

POSTDOCTORAL POSITION available, beginning 1 July to 15 September, for project-oriented studies on synaptic morphology in amphibian optic tectum. EM experience and background in neuroanatomy preferred. Send curriculum and bibliography to:

Dr. Frank Scalia
Department of Anatomy
Downstate Medical Center
450 Clarkson Avenue
Brooklyn, New York 11203

An Equal Opportunity/Affirmative Action Employer

An opening for a **POSTGRADUATE RESEARCHER IN METEOROLOGY** (\$10,476 to \$13,368) exists at the Scripps Institution of Oceanography. Preference is for a candidate with a strong background in one of the following areas: (i) analytical modeling of large-scale air/sea interactions, (ii) climate dynamics, or (iii) long-range prediction of climatic variability. Address inquiries and résumés to: **Dr. Jerome Namias, Climate Research Group, University of California, San Diego/Scripps Institution of Oceanography, A-024, La Jolla, California 92093.** *The University of California, San Diego, is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

RESEARCH ASSOCIATE HEALTH SCIENCES ECONOMICS

To participate in research activities in Drug Utilization Studies. Applicants should hold a Ph.D. or equivalent in the areas of pharmacy, economics, or sociology. The successful candidate will have a strong interest in research in health services delivery, capability in his specialty area, and in written and oral communications. Applications, including detailed curriculum vitae and the names of two referees, should be received before 1 June 1976 by **Dr. Donald C. Brodie, Adjunct Professor of Medicine and Pharmacy, University of Southern California School of Pharmacy, 700 P.S.C., 1985 Zonal Avenue, Los Angeles, California 90033.**

Equal Opportunity Employer/Affirmative Action

PhD

Laboratory Automation

Play a key role in Merck's Laboratory Automation Group collaborating with our research scientists to develop and install laboratory computer systems in a variety of the experimental sciences.

PhD or equivalent in Microbiology or a related biological science plus experience in real-time data acquisition and control of laboratory instruments are required. Competence in distribution system/computer network technology would be an asset.

Merck is noted for its professional environment, excellent salaries and outstanding benefits program. To explore this opportunity, forward credentials with earnings history in confidence to: Mrs. G. A. Milsom,



Merck & Co., Inc.
Rahway, N.J. 07065

an equal opportunity employer m/f

THE UNIVERSITY OF CALGARY

DEPARTMENT OF BIOLOGY

Two instructorships will be open in the Department of Biology. Applicants should have a strong commitment to undergraduate teaching in multi-section laboratory courses, and should possess at least an M.Sc. degree in the appropriate discipline. The appointments will begin August 1, 1976.

1. Instructor in Zoology: responsibilities will be to direct and coordinate the laboratories in a large multi-section introductory zoology course.
2. Instructor in Ecology: responsibilities will be to direct and coordinate tutorials, laboratories and field courses in introductory and advanced courses. Applicants should have good practical and theoretical knowledge of both plant and animal ecology.

Both positions will involve a major input into planning of the respective courses. The salary floor for Instructor is \$13,100.

Applicants should send curriculum vitae and name and addresses of 3 referees to: Dr. D. Parkinson, Head, Department of Biology, University of Calgary, Calgary, Alberta, Canada T2N 1N4 by 15 June, 1976.



SENIOR AQUATIC ECOLOGIST

The Environmental Sciences Division of the Oak Ridge National Laboratory announces an opening for Aquatic Ecology Section Head. The candidate must be an established senior level aquatic ecologist, with a broad perspective, having a minimum of Ph.D., or equivalent, with 5-10 years experience in research and administration. The candidate must have a demonstrated capability for program and personnel management. The Aquatic Ecology Section Head will be responsible for intellectual and scientific leadership of both basic and applied research programs in the general area of Aquatic Ecology, and will contribute to the development of multidisciplinary research both within and outside the Environmental Sciences Division. The Aquatic Ecology Section, with 30 scientific staff, is one of five sections in the Division and is conducting research for a wide variety of agencies on population dynamics, the behavior of environmental contaminants, and the ecological effects of energy technologies.

The Oak Ridge National Laboratory offers excellent working conditions and is located less than ten miles from Oak Ridge and twenty miles west of Knoxville, Tennessee. The Laboratory is in the heart of East Tennessee's mountain and lake region near the Great Smoky Mountain National Park. Oak Ridge National Laboratory is operated by the Nuclear Division of Union Carbide for the Energy Research and Development Administration.

Send detailed resume including salary requirements and transcripts by July 1, 1976 to:



Dr. J. J. Pinajian
Employee Relations Division
Oak Ridge National Laboratory
Post Office Box X
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POSTDOCTORAL BIOORGANIC CHEMIST for 3 years of work on action of chemical carcinogens on sterols and bile acids related to colon cancer. Salary open. Position available July 1976, in research facility in New York City. Send résumé and three references to: **Personnel Department BC, Public Health Research Institute, 455 First Avenue, New York, New York 10016.**

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EASTERN MICHIGAN UNIVERSITY HAS AN OPENING FOR RESEARCH OFFICER

Eastern Michigan University seeks a dynamic leader to direct their Special Projects and Research Development Office. Individual capable of meeting challenge to expand existing research program in areas of interdisciplinary/institutional, basic, and applied research.

A doctorate is preferred or the equivalent combination of education and experience. Expertise in grants administration, proposal writing, interpersonal skills, and a working relationship with governmental agencies and private foundations is necessary. Deadline: 15 July 1976.

Apply:

Chairperson, SPARD Search Committee
143 Pierce Hall
Eastern Michigan University
Ypsilanti, Michigan 48197

RESEARCH PHYSIOLOGIST PHYSIOLOGY AND BIOPHYSICS

Position available immediately for fundamental studies of the mechanical properties of arterial resistance vessels and their relationship to hypertension. Expertise in following areas desirable: muscle physiology, vascular system, physical sciences, application of advanced electronic instrumentation, and use of computers. Send résumé to **Box 24W, Waterman Building, University of Vermont, Burlington, Vermont 05401.**

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RESEARCH POSITION: An opportunity is available for an outstanding individual who desires a position in a relatively large, very active, molecular-endocrine research laboratory. Primary responsibilities will be to assist in the development of new methods and procedures in the area of molecular endocrinology, to maintain an awareness and understanding of particular areas of investigation through outside reading and attendance of daily research seminars, and to assist in the execution, evaluation, and interpretation of designed experiments. Experience (B.S. or M.S.) in the fields of biochemistry and/or molecular biology with strong interests in the regulation of protein synthesis and mechanisms of protein and steroid hormone action is desired. Send résumé and letters of reference to:

JoAnne S. Richards, Ph.D.
Reproductive Endocrinology Program
The University of Michigan
Ann Arbor, Michigan 48109

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SENIOR RESEARCH ASSOCIATE Ph.D. in biochemistry of proteins. To assist, support and conduct research in the areas of membrane biology and protein hormone action. Experience with immunology, cyclic nucleotides, and steroids would be helpful. Activities to involve daily interaction with graduate students and postdoctoral fellows in a relatively large laboratory, and participation in frequent program-related seminars and courses. Send résumé, transcripts, reprints, and names of three references to:

A. Rees Midgley, Jr., M.D., Director
Reproductive Endocrinology Program
The University of Michigan
Ann Arbor, Michigan 48109

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STAFF DIRECTOR

A Washington, D.C., nonprofit national organization is seeking a staff director for a multidisciplinary committee undertaking a 12-month study of issues involving the relationship of technology, public policy, and governmental policy-making. Candidates should have demonstrated capabilities in these areas as well as an advanced technical or professional degree. The ability to organize and write clearly is essential. Candidates should send résumés to **Box 262, SCIENCE.**

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POSITIONS OPEN

RESEARCH SCIENTIST

A growing pharmaceutical company is seeking a dermatologist to head the R & D effort of its Dermatology Division. The successful candidate must have a Ph.D. degree (or equivalent in experience). Knowledge of pharmacokinetics, biopharmaceutics, and drug evaluation in animal models as related to dermatologicals is desired. Recent graduates and/or postdoctorals will be considered.

We offer excellent employee benefits and working conditions including free employee life and medical care insurance as well as an excellent profit sharing program. Please send résumé in confidence to:

Box 270, SCIENCE

An Equal Opportunity Employer M/F

THE CALIFORNIA INSTITUTE OF TECHNOLOGY INVITES APPLICATIONS FOR A SENIOR RESEARCH FELLOW IN RADIO ASTRONOMY

Applicants should have several years of postdoctoral experience in research on extragalactic radio sources, including observational experience in radio interferometry. The Fellow will be expected to participate in some of the VLBI programs at the Owens Valley Radio Observatory. The initial appointment will be for 3 years.

Applications should include (i) a résumé of educational background and professional experience; (ii) a list of all publications; (iii) copies of all manuscripts submitted for publication but not yet published; and (iv) a statement of current research interests and future research plans. The applicant should ask two or three scientists who know the applicant personally to send letters of evaluation to **Professor Alan T. Moffet, Director, Owens Valley Radio Observatory, California Institute of Technology, Pasadena, California 91125.** Completed applications and letters of evaluation should be received by 30 June 1976. We hope to make an appointment in the late summer or autumn.

California Institute of Technology is an Equal Opportunity Employer with an Affirmative Action Program. We encourage applications from qualified women and members of minority groups.

SENIOR SPECIALIST IN MEDICAL NUTRITION

The Agency for International Development has need for an individual to be responsible for supervising multidisciplinary programs in maternal and child health and for relating nutrition to health and family planning. These programs are financed by the United States government in developing countries.

LOCATION: Washington, D.C.

QUALIFICATION: An M.D. or Ph.D. with a specialization in nutrition, public health, pediatrics, population, or family planning. Must have at least 10 years of experience with programs elucidating the relationships between nutrition, health, and family planning. Should have engaged in project management as well as research. Overseas experience highly desirable. Must be a U.S. citizen.

SALARY: \$31,309 to \$37,800 depending on qualifications.

TO APPLY: Send a résumé with salary history or a Personal Qualifications Statement (SF-171) to **Robert Wartholowitz, Recruitment Staff, Office of Personnel and Manpower, Agency for International Development, Washington, D.C. 20523.**

The Agency for International Development is an Equal Opportunity Employer.

FOUR TEMPORARY POSITIONS AVAILABLE

Biology Department at UCLA has three temporary teaching and one teaching/coordinator positions available September 1976. Applicants should have Ph.D. degree and ability to teach large undergraduate courses and graduate seminars. Positions are: (i) teach introductory biology, core course in general and cell physiology, and seminar; (ii) teach introductory biology, core course in general or animal physiology, and course in sensory physiology; (iii) teach introductory biology, core course in developmental biology, and seminar; (iv) coordinate and teach in introductory biology—this position requires administrative ability and experience in a very large course (about 800 students per quarter). Send curriculum vitae and names of three references before 1 July 1976 to: **Search Committee, Biology Department, University of California, Los Angeles, Calif. 90024.**

An Equal Opportunity/Affirmative Action Employer. Members of minority groups and women are encouraged to apply.

POSITIONS OPEN

A **POSTDOCTORAL POSITION** for a qualified Ph.D. with experience in lipid biochemistry and lipid analyses to work on chemistry of lipid oxidation and dietary lipids versus prostaglandin biosynthesis. Contact: **Dr. J. E. Kinsella, 101 Stocking Hall, Cornell University, Ithaca, N.Y. 14853.**

FELLOWSHIPS

CLINICAL FELLOWSHIPS HUMAN ONCOLOGY/UNIVERSITY OF WISCONSIN HOSPITALS

Responsibilities in first year mostly clinical in appropriate specialty area; program in second and third years either clinical or research to meet objectives of fellow. Core of program is interdisciplinary approach between clinical specialties and the research areas with didactic lectures on basic, pathological, and clinical aspects of neoplasia with close peer and faculty interaction. Candidates must be Board eligible in appropriate specialty area. Directors of subspecialty programs are radiotherapy: William Caldwell, M.D.; medical oncology: Paul Carbone, M.D.; hematologic oncology: Robert Schilling, M.D.; gynecologic oncology: Dolores Buchler, M.D.; pediatric oncology: Nassrollah Shahidi, M.D. Stipend level: base \$11,500. Most positions begin July 1977. A limited number of full-time research fellowships in areas of carcinogenesis, endocrinology, pharmacology, radiobiology, serum markers, statistics, and virology also are available. Inquiries should be addressed to **Clinical Cancer Education Program, 701C University Hospitals, University of Wisconsin Center for Health Sciences, 1300 University Avenue, Madison, Wisconsin 53706.**

POSTDOCTORAL FELLOWSHIPS

Available for research on purification and characterization of androgen receptors of erythropoietic cells. The position is open to recent Ph.D. graduates (biochemistry, pharmacology, or related fields) and is for a 1- to 2-year period. The stipend is \$13,404, excluding fringe benefits. Locale is upstate New York research laboratory.

Box 271, SCIENCE

POSTDOCTORAL FELLOWSHIP: Biochemist or bioorganic chemist to use chemical probes for analysis of membrane protein structure/function. The position is available immediately. Appointment is for 1 year but may be renewed for a second year. Send résumé, names of two references, and a brief description of research interests to **Professor Ellen J. Henderson, Room 18-031, Department of Chemistry, Massachusetts Institute of Technology, Cambridge, 02139.**

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ANNOUNCEMENTS

An **INTERNATIONAL CONGRESS ON CELL BIOLOGY** will be held in Boston from 5 to 10 September of the bicentennial year, 1976. Sponsored by the International Federation for Cell Biology and organized by the American Society for Cell Biology, the Congress will be a joint meeting of these two societies. No other meeting of the ASCB will be held in 1976.

The program will comprise symposia on selected topics, workshops, sessions for contributed papers, and demonstrations.

The headquarters of the Congress will be the Sheraton-Boston Hotel and many of the scientific and social events will be centered there.

Persons planning to attend the Congress should advise **Joyce Albersheim, P.O. Drawer ICCB, Boulder, Colorado 80302**, and thus assure themselves of receiving registration forms and other information. The final date for advance registration is 30 June.

MARKET PLACE

FOR SALE: Used electron microscope Hitachi 11C, complete. Excellent condition (in present use) and under continuous service. For details contact: **Dr. L. L. Ross, Medical College of Pennsylvania, Philadelphia, Pennsylvania 19129.** Telephone: 215-842-7032.

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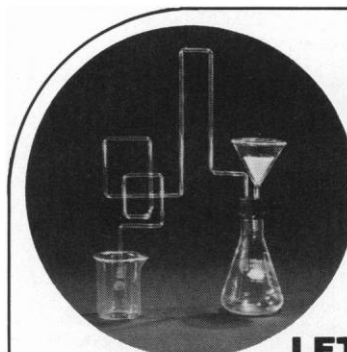
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Western Electric Reports:

Electron beam mask marvel.

Integrated circuits can be seen as the ultimate extension of the art of silk-screening and modern electronics. Using masking techniques which go far beyond those of silk-screen artists, it is possible to generate thousands of electronic components on a tiny chip the size of a matchhead.

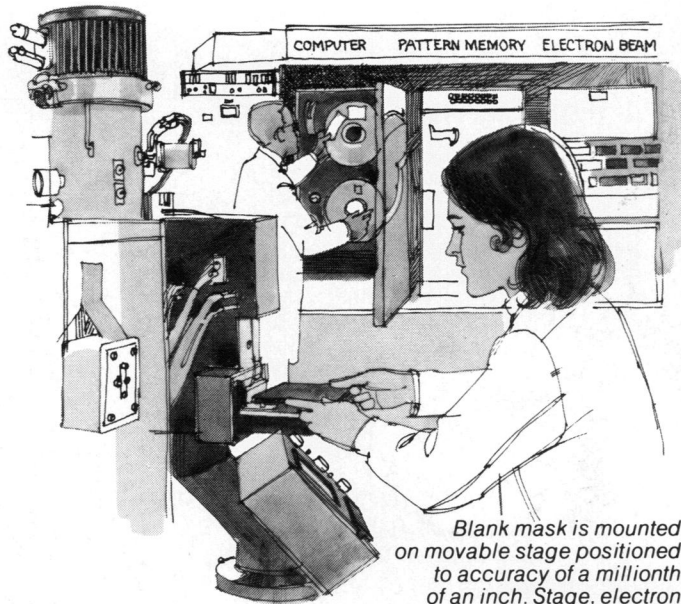
But as designers pack more and more components onto these chips, the masks used to generate them must be made with even greater precision. Conventional photographic mask-making techniques are proving too crude to produce such masks economically, severely limiting integrated circuit technology.

But now a Bell System team has made a major advance in the mass production of extremely precise masks. Bell Labs engineers have devised a method of using a beam of electrons to make the masks. And Western Electric engineers have helped design practical production equipment.

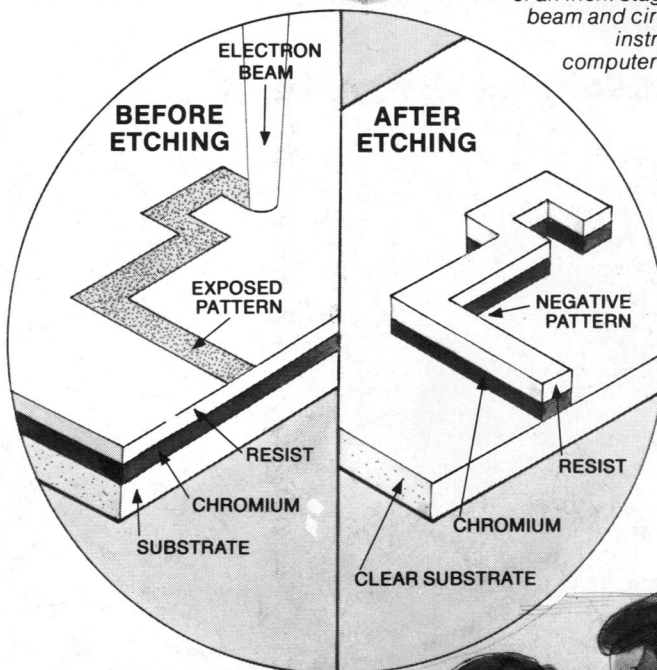
The new method is faster, more reliable, more precise and less expensive than existing photographic techniques. Because an electron beam has a shorter equivalent wavelength than light, it is a much sharper stylus. It can be focused to a spot 10 millionths of an inch in diameter.

The electron beam is used to draw an intricate pattern on a chromium-coated glass substrate, covered with a chemical film sensitive to the beam. The chemical film, called a resist, polymerizes or "sets" after exposure to the beam, becoming impervious to the chemicals that will subsequently be used to etch out the mask. The unexposed portions of this film and the underlying chromium are etched away, leaving a negative mask pattern of chromium on glass.

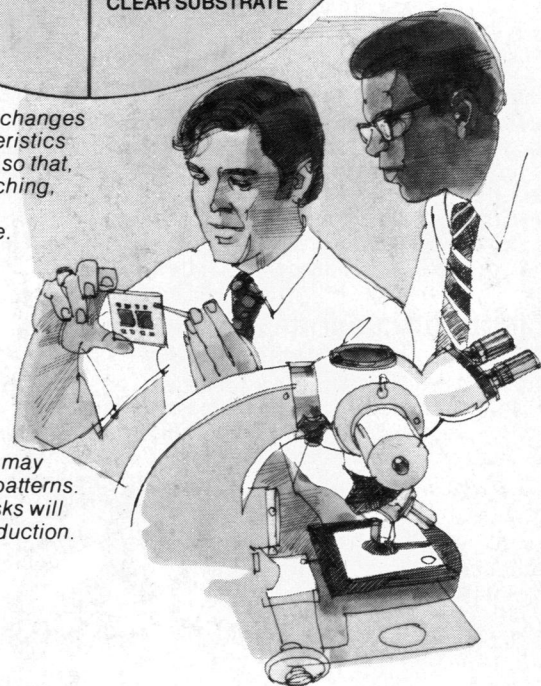
Benefit: Electron beam mask-making is one more manufacturing innovation that allows the Bell System to meet your communication needs reliably and economically.



Blank mask is mounted on movable stage positioned to accuracy of a millionth of an inch. Stage, electron beam and circuit design instructions are computer controlled.



Electron beam changes physical characteristics of exposed resist so that, after chemical etching, pattern is left on clear substrate.



Finished substrate may contain 10,000 mask patterns. Copies of master masks will be used in actual production.



Western Electric