

Plan now to attend the largest annual international event devoted exclusively to instrumentation, systems, automatic control.



19th ANNUAL INTERNATIONAL

ISA

INSTRUMENT—AUTOMATION CONFERENCE and EXHIBIT

New York Coliseum
October 12-15, 1964

THE CONFERENCE — The most distinguished forum of its type for exchange of knowledge in the instrumentation technology — 90 technical sessions for industry, science, education, defense, including a special four-day Standards Laboratories & Measurement Standards Symposium.

THE EXHIBIT — More than 400 displays of newest product innovations for users of instrumentation, systems, automatic controls on three floors of the New York Coliseum — see demonstrations of new techniques that will benefit you, your company.

For copy of Advance Program and Complimentary Admissions to Exhibit write to:



Public Relations Department
**INSTRUMENT SOCIETY
of AMERICA**
530 William Penn Place
Pittsburgh, Pa. 15219

such investigations are submitted to the highest ethical scrutiny and self-discipline will this confidence be maintained. Mistaken, or misunderstood, investigations could do incalculable harm to medical progress. It is our collective duty as a profession to see that this does not happen and so to continue to deserve the confidence that we now enjoy.

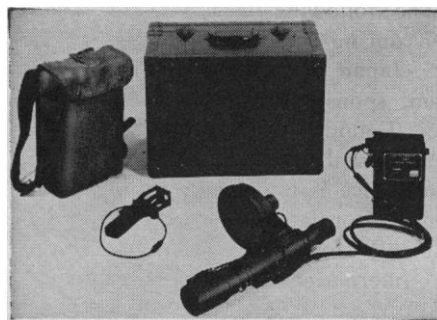
Announcements

A graduate program leading to the master's and doctor's degrees in **materials science** has been established at the University of Virginia. The curriculum, open to persons holding a bachelor's degree in engineering or science, will center on the quantum mechanics of solids, crystal structure of materials, and the theory of lattice defects. Experimental research will concentrate on work with electron microscopes, x-ray diffractometers, and high and low energy electron diffraction apparatus. A training and research program in medical and dental materials is also being established, supported by an NIH grant. Information on the new programs is available from H. G. F. Wilsdorf, Department of Materials Science, University of Virginia, Charlottesville.

The National Bureau of Standards' Institute for Basic Standards is starting a four-phase program to establish **standards for radar equipment**. The work is being done at the Boulder, Colorado, laboratories, for the Defense Department's Advanced Research Projects Agency. The program will concentrate on exploratory research and on technical requirements in measurements of radar power, noise, and antenna patterns. Additional information is available from J. M. Richardson, chief of the Radio Standards Laboratory, NBS, Boulder.

Meeting Notes

Papers on **theoretical and experimental physics** are invited for presentation at the American Physical Society meeting 21-23 December in Berkeley, California. Persons giving papers may be members of the society or non-members whose papers are sponsored by members. Deadline for receipt of abstracts: **16 October**. (W. Whaling, California Institute of Technology, 1201 E. California St., Pasadena)



LIMITED RELEASE—U.S. GOVT. SURPLUS SNIPERSCOPE INFRARED SET (M-3) for scientists, gun collectors, naturalists

Built in 1950 and 1951 by American Optical Co. in excellent working condition. Used by our troops for observing enemy in total darkness without being detected. Suggested uses: medical research, study of nocturnal animal life, mineralogy, industrial and medical research, crime detection. Rare item for gun collectors. Telescope is 16 3/4" long; clear aperture of lens is 50.4mm. A 5"-diameter filter is attached. Knob adjusts focus electrostatically; second knob adjusts reticle intensity. Reticle also has vertical and horizontal adjustments. Canvas carrying case and shoulder strap included. Complete unit includes 11" x 14" x 16" chest, telescope with RCA 6032 image tube, 20,000V power pack with canvas carrying case and shoulder straps, IR light source, steel carbine bracket, pistol-grip handle with switch control. Formerly highly classified. Limited supply. Orig. Govt. cost, \$800. Shipping wt., approx. 30 lbs. **Price \$249.50**



SNIPERSCOPE BATTERY

Rechargeable 6V power source for sniperscope. Excellent for many other 6V applications. Approx. shipping wt., 15 lbs.

\$9.95. Two for \$18.00

Prices F.O.B. Pasadena. No C.O.D.'s, please.
C & H SALES CO.
2186 E. Colorado St., Pasadena, Calif. / Murray 1-4925

THE HUMAN INTEGUMENT NORMAL AND ABNORMAL

Editor: Stephen Rothman 1959

AAAS Symposium Volume No. 54

A symposium presented on 28-29 December 1957, at the Indianapolis meeting of the American Association for the Advancement of Science and cosponsored by the Committee on Cosmetics of the American Medical Association and the Society for Investigative Dermatology. The volume offers a fair illustration of what has been achieved by modern research in cutaneous physiology and pathophysiology.

270 pp., 59 illus., index, cloth. **\$6.75**
AAAS members' cash orders **\$5.75**

Chapters

- 1) The Integument as an Organ of Protection
- 2) Circulation and Vascular Reaction
- 3) Sebaceous Gland Secretion
- 4) Pathogenetic Factors in Pre-malignant Conditions and Malignancies of the Skin

British Agents: Bailey Bros. & Swinfen, Ltd., Warner House, 48 Upper Thames Street, London, E.C.4

AAAS

1515 Massachusetts Ave., NW
Washington, D.C. 20005

The following meetings are scheduled during November as part of the **U.S.-Japan cooperative science program**, sponsored by the National Science Foundation and the Japan Society for the Promotion of Science. Attendance is by invitation only; additional information on the program is available from N. P. Neureiter, Office of International Science Activities, NSF, Washington 25.

4-7. Seminar on *bioclimatology*; Sapporo, Japan.

4-7. Seminar on *mechanisms of the dose rate effect at the genetic and cellular level*; Oiso, Japan.

6-7. Conference on *group structure and social interactions of primates*; Covington, Louisiana.

16-20. Conference on *chemistry education*, Hakone, Japan.

16-27. Conference on *narcotics and drug abuse*; Tokyo and other cities.

The call for papers has been issued for the 1965 international convention of the Institute of **Electrical and Electronics Engineers**. The meeting will take place in New York 22-26 March. The divisions of science and electronics, and of industry and applications are planning sessions, along with the various technical groups. Abstracts should be 50 to 100 words. Deadline: *16 October*. (E. L. Harder, IEEE, Box A. Lenox Hill Station; New York 10021)

The Human Factors Society will hold its annual meeting 19-21 October in Washington. The meeting will stress the applications of **human factors technology** in such areas as architectural design, industrial application, personnel subsystems, and the space program. (R. B. Sleight, Applied Psychology Corporation, 4113 Lee Highway, Arlington 7, Va.)

The Institute of Electrical and Electronics Engineers and the University of Pennsylvania will sponsor the 1965 international **solid-state circuits** conference, 17-19 February in Philadelphia. Papers are invited for the meeting. A 35-word abstract and a 300- to 500-word summary are required; major illustrations may be included. Deadline: *26 October*. (B. J. Lechner, RCA Laboratories, Princeton, N.J. 08540)

A symposium on "personnel dosimetry for accidental high-level **exposure to external and internal radiation**"

is scheduled 8-12 March in Vienna. The sponsors are the World Health Organization and the International Atomic Energy Agency. Papers are invited for presentation regarding measurement techniques, assessment of dose from the results of measurements, current practices and experience gained from previous accidents. Abstracts of 250 to 350 words are required. Deadline: *15 October*. (J. H. Kane, International Conferences Branch, Division of Special Projects, U.S. Atomic Energy Commission, Washington, D.C. 20545)

Courses

A course entitled "an engineering approach to the **control of contamination**" will be offered 19-25 October in Rochester, New York. The course will deal with problems encountered by administrative and supervisory personnel, and by technically oriented persons. The sponsors are Rochester Institute of Technology and the American Association for Contamination Control. Tuition is \$250. (H. M. Kentner, Rochester Institute of Technology, 65 Plymouth Avenue South, Rochester 14608)

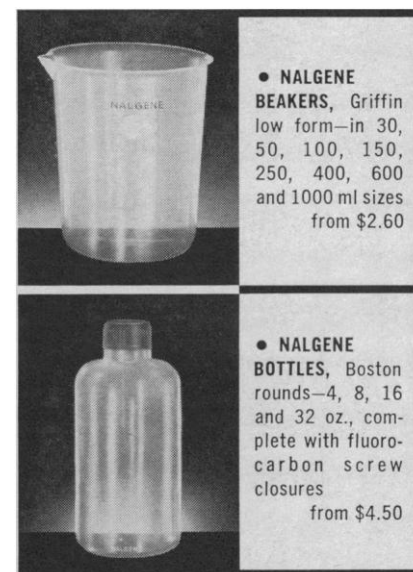
Georgia Institute of Technology plans a course on **automation, computers, and instrumentation**, 2-6 November. It is designed for senior technical personnel in manufacturing, commercial, and government organizations. The course fee is \$150, which will cover tuition, supplies, and textbooks. Deadline for receipt of applications: *21 October*. (Director, Department of Continuing Education, Georgia Institute of Technology, Atlanta, 30332)

Scientists in the News

Hugh L. Dryden, NASA deputy administrator, has received the 1964 Louis W. Hill award from the American Institute of Aeronautics and Astronautics. He was cited for his contributions in fluid mechanics research, in advancing civilian space activities, and in the X-15 research airplane program. The award carries a \$5000 honorarium.

Howard J. Teas, program director for metabolic biology at the National Science Foundation, has become chairman of the division of biological sciences at the University of Georgia, Athens.

Remarkable Nalgene® BEAKERS and BOTTLES made of TEFLON* FEP



Nalge manufactures them at production-run prices.

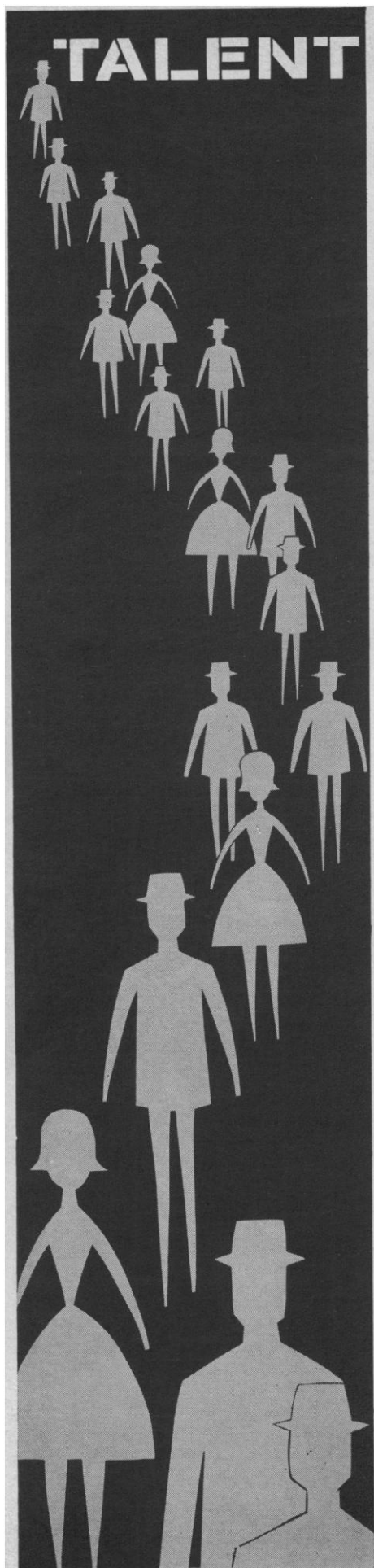
Nalgene labware made of TEFLON FEP is corrosion-proof and virtually indestructible. Once available only at fantastic custom prices, Nalge brings you these TEFLON FEP beakers and bottles at prices any laboratory can afford.

- Safe—rugged, shatterproof.
- Can be sterilized repeatedly by any method, without damage.
- Withstand temperatures from -270°C. to $+205^{\circ}\text{C.}$
- Unaffected by all known chemicals except fluorine at elevated temperatures, molten alkali metals and certain complex halogenated compounds.
- For cryogenic experiments or high-temperature applications over extended periods.
- Easy to clean—surface is non-porous, adhesion-resistant, and transparent.

See your lab supply dealer, or write Dept. 2109, The Nalge Co., Inc., 75 Panorama Creek Drive, Rochester, New York 14625.

*DuPont registered trademark





HAS NO RACE, CREED, COLOR, SEX OR NATIONAL ORIGIN

AT THE NAVAL LABORATORIES IN CALIFORNIA

A career in science or engineering has realistic demands . . . it has no place for false values at either the mechanistic or human level. Here at the Naval Laboratories in California, talent, skill, experience, intelligence, education and the ability to work well with associates are the only acceptable criteria for employment in any of the scientific disciplines . . . no others are considered.

These criteria apply whether you are a physicist or a mathematician, an electronic engineer or mechanical engineer, a metallurgist or a chemist . . . or a specialist in any of the many other major disciplines prevalent at the Laboratories.

The only basic qualifications for joining the team, for becoming a member of the scientific, engineering and technical staff at one of our Laboratories are an applicant's overall capability, his capacity to grow, to absorb, and to perform to the highest degree the function for which he or she has been selected.

With these qualifications in mind, interested personnel are cordially invited to explore the wide choice of excellent career opportunities available at the Laboratories listed below. Contact the Personnel Director, Dept. D, at the facility of your preference.

**U.S. NAVAL ORDNANCE TEST STATION (NOTS)
CHINA LAKE AND PASADENA**

**PACIFIC MISSILE RANGE (PMR) AND U.S. NAVAL
MISSILE CENTER (NMC), POINT MUGU**

**U.S. NAVY ELECTRONICS LABORATORY (NEL),
SAN DIEGO**

**U.S. NAVAL CIVIL ENGINEERING LABORATORY
(NCEL), PORT HUENEME**

**U.S. NAVAL ORDNANCE LABORATORY (NOLC),
CORONA**

**U.S. NAVAL RADIOLOGICAL DEFENSE LABORA-
TORY (NRDL), SAN FRANCISCO**

**U.S. NAVAL PERSONNEL RESEARCH ACTIVITY
(NPRA), SAN DIEGO**

**U.S. NAVAL WEAPONS STATIONS, QUALITY
EVALUATION LABORATORY (QEL), CONCORD**

**U.S. NAVAL WEAPONS STATION, QUALITY
EVALUATION LABORATORY (QEL), SEAL BEACH**

**U.S. NAVAL SHIP MISSILE SYSTEMS ENGINEER-
ING STATION (NSMES), PORT HUENEME**

**U.S. NAVAL FLEET MISSILE SYSTEMS ANALYSIS
AND EVALUATION GROUP (NFMSAEG), Corona**

U.S. NAVAL LABORATORIES IN CALIFORNIA

The University of North Carolina has named **Isaac M. Taylor** dean of the medical school. He is a professor of medicine at the school.

Hugo Dahlke, formerly with North American Aviation, in Columbus, Ohio, has joined the Ling-Temco-Vought research center in Anaheim, California, in charge of the acoustic instrumentation research program.

Franz Reichsman, formerly associate professor of medicine and assistant professor of psychiatry at the University of Rochester's medical school, has become professor of psychiatry at the State University of New York Downstate Medical Center, in Brooklyn.

William C. Leslie, assistant director of the E. C. Bain Laboratory for Fundamental Research, U.S. Steel Corporation, has been named Battelle visiting professor of metallurgy at Ohio State University for the coming academic year.

Cyril Hazard, formerly lecturer in astronomy at the school of physics, University of Sydney, Australia, has joined Cornell University's Center for Radiophysics and Space Research as senior research associate.

The University of Wisconsin has appointed **Gerald Nadler** to establish a graduate program in industrial engineering. He had been on leave as professor of industrial engineering and chairman of the human and organization factors area at the Washington University school of engineering.

Recent Deaths

Harold F. Balmer, 65; astrophysicist with the Air Force's Strategic Air Command; 25 July.

George S. Bryan, retired chief hydrographer for the Navy; 12 July.

Ernest Martin Hopkins, 86; retired president of Dartmouth College; 13 August.

Robert W. Gelinias, 41; research physicist at the Rand Corporation, Santa Monica, Calif.; 25 July.

Mitchell Gray, 46; visiting professor at the University of Illinois college of veterinary medicine; 27 July.

Louis R. Kaufman, 83; former director of surgery at New York Medical College; 19 August.