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Optical Maser Research
Cooling of Infrared and Ultra-Violet Detectors
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WE HEAR THAT

Joseph Kaplan, professor of physics at the University of California at Los Angeles, has been elected to succeed V. V. Belousov of the Soviet Union as president of the International Union of Geodesy and Geophysics. Results of the election were announced at the close of the organization's 13th General Assembly, which was held in Berkeley during the latter part of August.

Nicholas Kurti of the Clarendon Laboratory will serve during the current semester as Buell G. Gallagher Visiting Professor at the City College of New York. Daniel Greenberger of the University of California's Lawrence Radiation Laboratory has joined the CCNY Physics Department as an assistant professor.

Recent promotions in the University of Maryland's Department of Physics and Astronomy include those of Hans Griem and William MacDonald from associate professor to professor of physics and of O. W. Greenberg and Phillip Steinberg from assistant professor to associate professor. The department has also announced the appointment of J. R. Shakeshaft of Cambridge University as visiting professor of astronomy for the current semester. Dr. Shakeshaft, a specialist in radio astronomy, is visiting the United States under the sponsorship of the American Astronomical Society. Albert Altman of the University of Virginia and Frank C. Young from the Naval Research Laboratory have been appointed visiting assistant professors of physics, and Noboru Tsuya, former research professor at Tohoku University, Sendai, Japan, has been appointed visiting research associate in physics at Maryland. Newly appointed associate professors of physics are Carroll O. Alley, Jr., formerly assistant professor at the University of Rochester's Institute of Optics, and N. Sanders Wall, an experimental nuclear physicist who has been in charge of cyclotron activities at the Massachusetts Institute of Technology. Dr. Wall is currently in Cambridge on leave of absence and is expected to join the Maryland staff next year. Elske van Panhuys Smith, until recently a visiting fellow at the Joint Institute for Laboratory Astrophysics in Boulder, Colo., has been appointed associate professor of astronomy in the Maryland department.

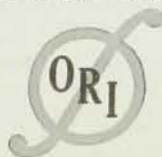
S. T. Epstein, formerly of the University of Nebraska, has received a joint appointment as professor of physics in the Department of Physics and the Institute of Theoretical Chemistry at the University of Wisconsin. L. G. Pondrom from Columbia has joined the Wisconsin Physics Department as an associate professor. Within the Department, C. H. Blanchard has been promoted to professor, L. W. Anderson, A. M. Bincer, and K. W. McVoy have been named associate professors, and R. R. Borchers has become an assistant professor. Two professors are on leave of



DECISIVE THOUGHT

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absence. W. D. Walker will work at the Rutherford High-Energy Laboratory during the fall semester, and R. Rollefson continues on leave as Director of International Science Affairs with the State Department.

John A. Pople of the National Physical Laboratory, Teddington, England, will serve during the 1963-64 academic year as a Carnegie professor of chemical physics at the Carnegie Institute of Technology.

Morton F. Kaplon, director of the Cosmic Ray Group of the University of Rochester's Department of Physics and Astronomy since 1957, has been named associate dean of the University's College of Arts and Sciences. Professor Kaplon will retain his post as associate director of the University's Space Sciences Center. The University has also announced that W. Beall Fowler and Arthur H. Vaughan have been named to receive the 1963-64 Eastman Kodak Scientific Awards of \$1000 for graduate work in physics. Eastman Kodak fellowships for graduate study have been awarded to Anna Julia Calpacas and Jack Mochel.

Sol H. Krasner, formerly with the Nuclear Physics Branch of the Office of Naval Research, has been named dean of students in the Division of the Physical Sciences at the University of Chicago. He succeeds Harold R. Voorhees, who will continue at the University as emeritus professor to coordinate government fellowship programs and to serve as consultant to the dean. Dr. Krasner will also serve as professorial lecturer in the Department of Physics. The University has also announced that William H. Reid has been named to receive the first joint faculty appointment in its Departments of Geophysical Sciences and of Mathematics. Dr. Reid, a specialist in hydrodynamic theory, was named associate professor. He was previously associate professor of applied mathematics at Brown University.

Dwight E. Gray, scientific liaison officer in the National Science Foundation's Office of Scientific Information for the past eight years, has returned to the staff of the Library of Congress, where he has been named chief of the Science and Technology Division. Prior to joining NSF in 1955, Dr. Gray headed the Library's former Technical Information Division (now the Defense Documentation Center in Arlington, Va.).

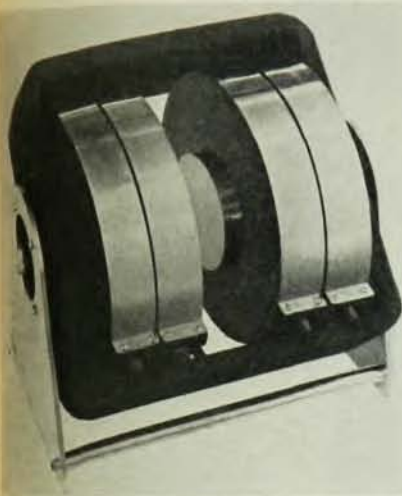
Arnold J. F. Siegert, professor of physics at Northwestern University, is continuing on leave during the present academic year. He will work in the Department of Physics at the Weizmann Institute of Science in Rehovoth, Israel, as a National Science Foundation senior postdoctoral fellow. The first part of his two-year fellowship was spent at the University of Amsterdam's Institute of Theoretical Physics.

Sanford C. Sigoloff has recently been elected a vice president of Electro-Optical Systems, Inc., in Pasadena, where he will continue to serve as corporate manager of operations. Russell A. Temple has been named manager of optical design and fabrication. Dwain B. Bowen has been promoted from associate manager to manager of the Quantum Physics Division and has been

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MODEL AL9500 NEW SIX INCH DIAMETER ELECTROMAGNET



The Model AL-9500 is a newly designed electromagnet using a one-piece frame cast of high grade, low carbon magnet steel. Pole faces are ground to tolerances better than a thousandth of a cm to produce fields of excellent homogeneity. A variety of pole caps to provide gaps from 1/4" to 3", and larger pole caps (over 6"), as well as tapered pole caps to 1/4", are readily available. Special pole cap arrangements such as are required for Curie & Gouy susceptibility investigations can be furnished, as well as pole caps with holes through the center for Faraday rotation experiments.

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The magnet is mounted on a supporting stand at a 45° angle to permit ready access for NMR and EPR probes and Dewar flasks from above. The pole faces are aligned for maximum homogeneity with ALPHA'S AL-67 Nuclear Magnetic Gaussmeter, and a variety of matching power supplies are available on short delivery.

One pair of 6-inch diameter pole caps are furnished as standard. These may be chosen with 2", 1", or 3/4" spacing. Using the 6-inch 3/4" spaced pole caps, the field is 12,000 gauss with a homogeneity of one part in 100,000 over a volume exceeding one cubic cm.

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4-inch, High Homogeneity Magnet, with Stand—\$585.00

Aluminum strip windings for high efficiency — current sheet design. 95% filling factor. 10,000 gauss with 4" pole caps, 1" gap. 6" pole caps in 1/2" to 2" spacing. Tapered 3", 2", 1" and 1/2" pole caps with spacing of 1/4" to 2". 15,000 gauss with 2" x 0.5" pole caps. Used for NMR, EPR work. Pole caps for susceptibility measurement, magnetic beam deflection, and Faraday rotation available. Water cooling optional for high fields. Matching power supply \$395.00

2,000 Gauss, High Homogeneity Six Inch Electromagnet with Stand

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Power Supplies — Optional Choices depending on field

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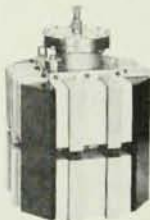
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MINIMUM STRAY FIELD By careful design and use of pole pieces which confine and maximize the field across the pumping elements, Ultek THINLINE pumps produce far less stray magnetic field at the pump inlet than other ion pumps.

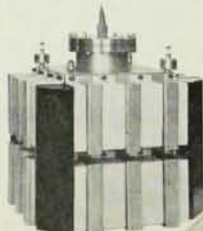
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succeeded in his former post by **Paul Fletcher**, who was previously in charge of the Division's Laser Department.

The appointment of **John T. Wilson** as deputy director of the National Science Foundation was announced on July 1. He was formerly special assistant to the president of the University of Chicago.

The Air Force Cambridge Research Laboratories has presented its 1963 Guenter Loeser Memorial Award to **Herman Yagoda** of the Cosmic Radiation Branch of the AFCRL Space Physics Laboratory in recognition of his outstanding work in geophysics.

The Department of Physics of the University of Florida in Gainesville assumed in September 1962 the responsibility for instruction and research in astronomy. The combined Department of Physics and Astronomy continues under the chairmanship of **Stanley S. Ballard**; the instructional program in astronomy is under the supervision of **Alexander G. Smith**. Professors **Smith**, **Guy C. Omer**, **Thomas D. Carr**, and **Leon H. Roberts** have been given joint appointments in astronomy. **Kwan-Yu Chen**, recently of the University of Pennsylvania, joined the Florida staff in September 1963 as assistant professor of astronomy. New faculty appointments in physics are as follows: **Alex E. S. Green**, graduate research professor; **Arthur R. Quinton** and **Richard E. Garrett**, associate professors; **Bernard Chern** and **Charles F. Hooper**, assistant professors.

New appointments in the Physics Department of the Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, include Lt. Col. **Eugene Gibb Sharkoff**, as assistant professor of physics, and Capt. **Gordon Wepfer**, as an instructor in the graduate nuclear engineering program.

Billy M. McCormac, former chief of the Electromagnetic Branch of the Defense Atomic Support Agency, is now scientific advisor to the Physics Division of the IIT Research Institute (previously the Armour Research Foundation) at the Illinois Institute of Technology in Chicago.

Maurice Glicksman has been named to succeed **Martin C. Steele** as director of research in the Tokyo branch of Radio Corporation of America Laboratories. Dr. Steele will be in charge of plasma research in the Microwave Laboratory of RCA's David Sarnoff Research Center in Princeton, N. J. **Jules D. Levine** of MIT and **Wolfram A. Bösenberg**, formerly with the RCA Semiconductor and Materials Division, have joined the Center's research staff. RCA's Electron Tube Division in Harrison, N. J., has announced the appointment of **Markus Nowogrodzki** as manager of microwave engineering programs. He has been succeeded in his previous post as manager of microwave product engineering by **Frank E. Vaccaro**, formerly manager of microwave applied research. The latter position is now filled by **Fred Sterzer**.

ON THE SEXUAL ASPECTS OF HIGH VACUUM CONNECTIONS

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Furthermore, they're compatible with all standard high vacuum equipment, and interchangeable with seals produced by our best competitors. And we've made them available not in just a few sizes, but nine (1" thru 8"), five of which are rotatable.



Would you like to receive, in a plain wrapper, a copy of our enlightening catalog sheet on CURVAC fittings? Send in your name today, or if you're sending in for a friend, send his name. We'll understand. Ask for data #90.

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