### Tunable diode laser instruments from the technology originators

Laser Analytics, Inc., the company whose founders developed the technology, now offers you a family of infrared analytical spectros-

copy instruments based on tunable diode lasers. Features include 0.0001 resolution, rapid spectral scanning, and complete spectral coverage between 2.7 and 33 micrometers.

Actually a new class of analytical instruments which provide never before possible, tunable diode laser instruments are used in ultra-high resolution spectroscopy, laser photochemistry, isotope

> separation, pollution monitoring, process control, heterodyne radiometry, infrared detector characterization, and other applications. For complete information, write Laser Analytics, Inc., 38 Hartwell Avenue, Lexington, Massachusetts 02173. Or



## A WIDEBAND AMPLIFIER ITH WIDEBAND FEATURES

It's IFI's Model 5100. Exclusive features include automatic remote leveling and remote level control. Also prominent in its broad performance spectrum: auto pulse and auto limit to confine amplifier current to safe levels in operation...Operates into any load from open to short...Frequency range, 10 KHz to 250 MHz...Peak RF input, 1 V; 40 dB gain; output, 10 W...Model 5100 was designed primarily as a preamplifier for IFI and other high power wideband amplifiers. As such, it's a direct replacement for IFI's Model 5000-with all of that unit's proven performance AND the advanced features you will find only in Model 5100. Write for technical data.





# instruments for industry, inc.

151 TOLEDO STREET . FARMINGDALE, N.Y. 11735 516-694-1414 Cable: Electronic Hallendale, Fla. Telex: 51-43-32

Circle No. 82 on Reader Service Card

#### we hear that

prize, which carries a \$12 000 stipend, was awarded on 21 November in Göttingen, West Germany. Anderson was cited for his pioneering theoretical contributions to the physics of condensed materials, and particularly for his elucidation of the phenomenon of "Anderson localization" (the inability of an electron to hop from site to site in a crystal).

Anderson received his PhD in 1949 from Harvard University and joined Bell Laboratories in the same year. His research concentrates mainly on studies of materials in the solid or liquid state, such as various kinds of magnetic crystals, amorphous glassy materials, semiconductors and quantum liquids such as liquid helium. He has held numerous teaching posts, in addition to his professorship at Princeton University: during the period September 1953-March 1954 he held a Fulbright Lectureship in physics at Tokyo University; he lectured at the Cavendish Laboratory and was an Overseas Fellow at Churchill College, Cambridge University, during the 1961-62 academic year; and he was visiting professor of theoretical physics at Cambridge during 1967-75.

### **European Physical Society** honors four physicists

Three Soviet physicists and a French physicist have been awarded the first Hewlett-Packard-Europhysics Prize for outstanding achievements in solid-state physics. Victor S. Bagaev, Leonid V. Keldysh and Jaroslaw E. Pokrovsky of the Lebedev Physical Institute in Moscow and Michel Voos of the solid-state physics group of the Ecole normale supérieure in Paris will share the prize for their discovery of the condensation of excitons. The award consists of 20 000 Swiss francs and was presented by the European Physical Society at the general conference held in Bucharest on 9-12 September.

Walter Schreiner, formerly with Brookhaven National Laboratory, has joined Philips Laboratories where he will be working in the instrument automation program on the development of computer-controlled x-ray analytic instruments.

John E. Cummings, former director of energy programs in the optical systems division of Itek Corporation, has joined the Electrical Power Research Institute as a member of the technical staff of the fossil-fuel and advanced-systems diviJoseph F. Clayton, formerly general manager of Bendix Aerospace Systems Division, has joined the staff of the president of KMS Fusion Inc. Clayton is program director for a KMS Fusion contract with the Energy Research and Development Administration.

The following new appointments have been made in the Yale University astronomy department: Beatrice M. Tinsley, formerly assistant research astronomer and lecturer at the University of California at Santa Cruz, has been named associate professor, Augustus C. Oemler Jr of Kitt Peak National Observatory has been appointed J. Willard Gibbs Instructor, and the new lecturers are Robert B. Hanson of Lick Observatory and Christopher P. Wilson of Hale Observatories.

Sam Werner of the Ford Motors Laboratory and Haskel Taub of Brookhaven National Laboratory have joined the physics department at the Columbia campus at the University of Missouri. William Yelon, formerly of the Institut Max Von Laue-Paul Langevin in Grenoble, has joined the research reactor facility along with research associates Kay Fair and Erdogen Gurmen. All will be working with the neutron-scattering research group.

Robert Nathans, professor of physics at the State University of New York at Stony Brook and director of its urban and policy sciences program, has been appointed dean of the new W. Averell Harriman College for Urban and Policy Sciences there. Before joining the Stony Brook faculty in 1969, Nathans was a senior physicist at Brookhaven National Laboratory.

Thomas N. Padikal, former lecturer in physics at Cleveland State University, has been appointed assistant professor of radiology at George Washington University Medical Center.

John Ho of the University of Houston has been appointed associate professor of physics at the State University of New York at Buffalo.

In the physics department at Montana State University, associate professor Wendland Beezhold has been named director of magnetohydrodynamics program and Denny Lee has been appointed assistant professor. Allen Baker, Dick Pollina and Richard Smith are the new research associates.

John E. Littleton of Harvard College Observatory and Pedro A. Montano of the University of California at Santa Barbara have joined the department of physics at West Virginia University as assistant professors.

Eberhard K. Riedel, formerly at Duke University, has been appointed associate professor of physics at the University of Washington. Thompson H. Burnett has been named assistant professor, Stephen D. Ellis and Gerald A. Miller have been appointed research assistant professors and Geoffrey R. Golner, Choonkyu Lee and Rainer Sielemann are newly-appointed research associates.

Don L. Williamson of the University of North Carolina, Chapel Hill, has been appointed assistant professor of physics at the Colorado School of Mines.

Howard L. Malm, formerly of Atomic Energy of Canada Ltd, has been appointed technical director of the nuclear-radiation developments division of Aptec Engineering Ltd, Ontario, Canada. Michael Watt of the Laboratory of Nuclear Medicine at UCLA has also joined Aptec/NRD.

Milton Cole, formerly of Pennsylvania State University, has been appointed associate professor of physics at Brooklyn College.

## obituaries

#### **Gustav Hertz**

Gustav Hertz is best known for the famous experiment with James Franck that demonstrated that spectral lines require discrete energies for excitation by impinging electrons. This pioneering work was done in 1914, just before the first World War, and it provided decisive support for Bohr's quantized model of the atom. For this work Hertz and Franck shared many honors, among them the Nobel Prize in 1925.

Hertz was severely wounded in the war, and when he returned to Berlin in

1917 the only available position was an unpaid lectureship at the University. In the early 1920's he joined the newly founded research laboratory of the Philips Company in Holland, one of the very first industrial laboratories in which basic research was pursued. It was in those years that I was able to know and appreciate Hertz as a person. On my visits to Philips he not only received me cordially, but he gave me, a young student, much needed encouragement. In 1925 he finally was offered a professorship in Germany at the University in Halle. Three years later he



- X and Y travel up to ±0.500" within 0.001"; Z travel up to 1" within 0.002" (3" Z travel also available).
- Ultrahigh vacuum compatible bakeable to 250°C.
- 2.75" O.D. CFF flange allows attachment to a standard feedthrough port.
- Provides rotational movement when used with an Ultek Rotary Motion Feedthrough.

For a product bulletin, please contact Perkin-Elmer Ultek Inc., P.O. Box 10920, Palo Alto, CA 94303; (415) 967-2100.



PERKIN-ELMER

Circle No. 83 on Reader Service Card