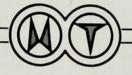


### 0-5 kV : 0.5 mA POWER SUPPLY



Model 256 \$625.00



- Single Width NIM
- 0 to 5 k V Output with Front Panel Meter
- Reversible Polarity with Front Panel Indicators
- Output Short Circuit and Arc Protected

**Mech-Tronics** 

NUCLEAR

1701 North 25th Ave., Melrose Park, IL. 60160

For more information WRITE OR CALL COLLECT (312)344-0202 partment of the University of Iowa as an assistant professor of physics. His research is in experimental intermediate- and high-energy physics.

W. Arthur Porter, director of Texas A&M's Texas Engineering Experiment Station, became the president of the Houston Area Research Center on 1 January 1985. He succeeds David Gottlieb of the University of Houston, who had been serving as interim president of the Center.

West Georgia College has made the following appointments to its physics department: Jacobson A. Petterson, formerly assistant professor of physics at the New Mexico Institute of Technology, has been appointed associate professor and chairman of the department;

Roger D. Chelf, formerly assistant professor at the University of North Alabama, has been appointed assistant professor.

Nader C. Dutta, formerly a research physicist with Shell Development Company in Houston, has joined ARCO Resources Technology in Plano, Texas, as research director of the geoseismic interpretation group.

The UCLA physics department has made the following appointments: Sergio Ferrara, formerly of the theory division at CERN, will join the department; and John Wheatley, of Los Alamos National Laboratory, has been named a University of California-Los Alamos Fellow, associated with the Center for Material Science and the physics division at Los Alamos.

### obituaries

### William Weber Buechner

William Weber Buechner, professor emeritus at the Massachusetts Institute of Technology, died on 12 March 1985 after a long illness.

Buechner was born in Vallejo, California in 1914 and received his BSc in 1935 and his PhD in 1939, both from MIT. He worked with the later Robert J. Van de Graaff in the 1930s on the development of the first large Van de Graaff generator at the Round Hill Estate in South Dartmouth, Massachusetts. In 1937 this machine was moved to MIT, where it remained in service until 1951. It was moved in 1955 to Boston's Museum of Science, where it is now the centerpiece of lightning displays.

In the late 1930s, the goal of the Van de Graaff group was to study nuclear reactions and to construct precision equipment for this purpose. However, when World War II began, this work was set aside. The High Voltage Laboratory then, in an all-out effort, developed high-voltage x-ray generators for the US Navy. In 1942, Buechner was appointed associate director of the Laboratory, under Van de Graaff.

After the war, the Laboratory turned back to the work for which it was constructed, nuclear physics. Originally under Van de Graaff's directorship, and later under Buechner's, the Laboratory pioneered precision nuclear-energy-level measurements, using the Van de Graaff generator and the magnetic spectrometer. At the time, most nuclear-physics laboratories favored the cyclotron, which could produce higher energies than the Van de Graaff generator. The tables began to turn, however, as physicists recognized the



BUECHNER

need for the precision measurements only the Van de Graaff could provide. The work coming from Buechner's group contributed in a substantial way to this change in attitude.

Buechner had a large number of scientific contacts around the world and he attracted a large number of people from foreign lands to the High Voltage Laboratory. These visitors were welcomed to the Lab and very gracefully received at Buechner's home in Arlington, where he and his wife, Christina, gave many parties. A large number of the foreign visitors—and for that matter, American visitors—went back to their home institutions and started new groups to study nuclear energy levels. Many of them also made repeat visits to the group at MIT.

Buechner was a true cosmopolitan, and so is Christina Buechner. They have traveled extensively: They spent three months in India, where Buechner

## The affordable, flexible way to automate your vacuum process.



The best way to improve productivity and provide fault protection is through fully automatic vacuum system operation, especially in complex systems or in systems operated by inexperienced personnel. To design such automation yourself is costly, as well as time consuming.

To work without automation can cost even more if it results in low yields. Even with experienced operators and constant tending of the system, the chance for error is substantial. It's difficult to produce "hightech" results with "low-tech" instrumentation.

#### The solution is here.

It's Granville-Phillips' new 303 Vacuum Process Controller (VPC). This highly versatile instrument is a multiple gauge controller with an integral microprocessor that enables you to automate your vacuum processes from 5 x 10<sup>-11</sup> to 1000 Torr. VPC's can help you avoid considerable costs by replacing and/or signifi-

cantly simplifying both your system and process controls in many applications. Programming is simple and designed for non-programmers.

## Flexibility to meet many control needs.

Modular construction allows you to select measurement and control options to meet your specific needs. And you can use external signals related to time, temperature, process status, and similar important parameters in addition to the pressure and time signals generated by the VPC. The built-in alarms, timers, and logic circuitry plus remote enable capability can replace thousands of dollars in equipment and custom circuitry normally required to provide these control functions.

# Also serves as a wide range multiple gauge controller.

The VPC is a good choice for just your gauging needs if automation is provided by other instruments, or is not required.

You can utilize two ionization gauges and two Convectron gauges continuously anywhere in your system and display two gauges simultaneously. Many gauge functions can be programmed including automatic turn-on of the ionization gauge filaments by the Convectron gauges. The VPC's modular construction gives you the flexibility to add control options when your needs expand.

### Compare for yourself.

This unique combination of versatility, performance and price puts the VPC in a class by itself. To order, or request additional information or a VPC demonstration, call (303) 443-5442. Or write to Granville-Phillips Co., 5675 East Arapahoe Ave., Boulder, CO 80303, U.S.A. Telex: 045791, or International Telex: 4322093 ITT.

#### GRANVILLE-PHILLIPS



# It took an idea this simple to revolutionize LEEDs.

Introducing the SPECTALEED from Omicron.

The simplest ideas always turn out to be the best.

And the new SPECTA-LEED from Omicron is a perfect example.

perfect example.
Instead of making
you view the screen
from across the
chamber as in
other LEEDs,
Omicron put
the viewport
behind the
screen. And that
simple improvement has yielded dramatic results:

A shorter viewing distance. A brighter image. Higher resolution. Easy

viewing of even large specimens, since the sample no longer obscures the diffraction pattern.
And the port that normally would be used for viewing is freed up for other analytical instruments.
The new "Rearview" LEED.
Another innovative product from Microscience.
For details, write Microscience,

Inc., Forbes Business Center, 182 Forbes Rd., Braintree, MA 02184. Or, call (617) 849-1952.



### **III** MICROSCIENCE

We deliver innovation.

AVS SHOW-BOOTHS #715, 716, 717 Circle number 79 on Reader Service Card

NEW **UV CURING RADIOMETER** Self contained unit for measuring total exposure in UV Curing Ovens. (Back) Direct readout after exposure (Front) Input aperture IL 390 "LIGHT BUG" · Self contained- Low cost—Under \$1000 No radiometer required . Low profile-Only 1/2" high · Designed for the high · Direct reading-.0001 to 20 joules/cm2 temperature environments found in UV curing ovens · Battery powered Write for further information internationa Specialists in Light Measurement Since 1965 DEXTER INDUSTRIAL GREEN, NEWBURYPORT, MA 01950 U.S.A. ■ TEL. 617-465-5923 ■ TELEX 94-7135 Write for name of sales representative in your area (over 40 countries worldwide)

Circle number 80 on Reader Service Card

followed a grueling schedule, giving talks in a new place almost every day. For work in Mexico, Buechner was given the title Professor Extraordinario for Life at the University of Mexico and, later, an honorary PhD from the same institution. In academic processions at MIT he proudly wore his Mexican attire.

When the High Voltage Engineering Corporation was formed, originally for the purpose of developing tools for radiation therapy, Buechner was involved from the beginning as an adviser. As it turned out, other tools for radiation therapy became popular, but the further development of the Van de Graaff generator at High Voltage had an enormous impact on nuclear physics. Buechner was a director of High Voltage from 1954 until his death.

When I think of Buechner the group leader, one characteristic stands out: enthusiasm. Many times I have walked into his office to discuss some idea, sound or not, and have always been received with enthusiasm. I think I speak for all who worked for him when I say that Buechner gave us room to run. When we produced a piece of work, it was ours; he only wanted to share the honor or the authorship if he had contributed directly.

Buechner was a superb teacher and will be remembered as such by a large number of readers of Physics Today. There were no frills about his teaching. He was direct and concise and knew exactly how to present the matter to make it as easy as possible for the students to absorb it. He hated sloppiness, and his own work was a model in neatness.

Buechner was a member of the Committee on Nuclear Masses of the Union of Pure and Applied Physics. He was chairman of the physics department at MIT from 1961 to 1967. He retired from MIT in 1978.

HARALD A. ENGE Massachusetts Institute of Technology

#### **James Welles Shearer**

James W. Shearer, senior physicist of the Magnetic Fusion Energy Program of Lawrence Livermore National Laboratory, died on 9 October 1984, in Livermore, California. He was 60 years old.

Before coming to Livermore, Shearer was a senior physicist at Tracer Lab Inc in Waltham, Massachusetts, from 1951–57, and a teaching fellow in physics at MIT from 1945–49. He received his PhD in physics from MIT in 1950.

Shearer began his employment at Lawrence Livermore Lab in October 1957 in the experimental-physics department. From the start, he demonstrated an unusual blend of theoretical