

honors for his unique contribution and service to the scientific life of the nation. Of the many, there are three that he valued with a special sense of pride and satisfaction.

The first Captain Robert Dexter Conrad Award, given by the Office of Naval Research in recognition of outstanding technical and scientific achievements in research and development for the Navy, was conferred upon Alan Waterman on 19 March 1957 for his outstanding contribution to the organization, and long range scientific objectives of research administration in the Navy.

The nation's highest civilian honor, the Presidential Medal of Freedom, was awarded to Waterman by President Johnson on 6 December 1963. Recognizing him as both a physicist and a public servant, the President cited him for his use of the resources of government to improve the quality and increase the thrust of basic research.

The third was a very recent honor, highly prized by Alan because of its relationship to the field of physics and to the man for whom the Medal is named. On 1 October of this year the American Institute of Physics awarded to him its Karl Taylor Compton Gold Medal for Distinguished Statesmanship in Science, in recognition of his contributions to the science of physics and his leadership in the evolution of policy determining the growth and support of science in the US.

For those who shared with him its birthpangs and its growing pains, the National Science Foundation will always be Alan's great achievement—indeed, a living memorial to him. From this experience of sharing in ways large and small the triumphs and failures that attend such ventures, each of us will add to the many instances of public recognition, an affectionate memory of some personal event, reflecting the warmth, the sympathetic understanding and the unfailing integrity that, along with an ever-present air of outward calm, characterized Alan Waterman.

JOHN T. WILSON  
National Science Foundation

### Robert B. Sosman, Physical Chemist

Robert B. Sosman, a physicist and chemist who was a pioneer in ceramics, died on Oct 30 in Plainfield, N.J. He was professor of ceramics at Rutgers University from 1947 to 1962 and cooriginator of the Day and Sosman high-temperature scale, established in 1912. Sosman, who received his PhD from MIT in 1907, was physicist and assistant director of the geophysical laboratory of the Carnegie Institution during 1908–28. From 1928 to 1947, he was assistant director of the research laboratory of the United States Steel Corporation. He had also been a member of the research and development board of the Department of Defense.

### Carl Kiess, Astronomer And Spectroscopist, Dies

Carl C. Kiess of the astronomy faculty of Georgetown University died on 16 Oct. at the age of 80 years. He was born in Fort Wayne, Ind. and obtained his doctorate in astronomy at the University of California in 1913. He was associated with the astronomy departments of the University of Missouri, Pomona College, the University of Michigan, and Georgetown University. Kiess spent most of his career with the spectroscopy division of the National Bureau of Standards.

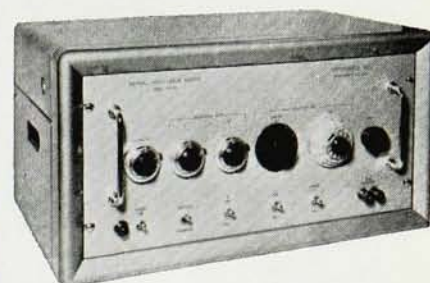
### John Charles Duncan, Astronomer, is Dead

Professor emeritus at Wellesley College, John Charles Duncan died on 10 Sept. at Chula Vista, Calif. He was 85 years old. He received his bachelor's and master's degrees at Indiana University, and his doctorate from the University of California. He had been a Fellow at Lowell Observatory, Flagstaff, Ariz. and Lick Observatory, Mount Hamilton, Calif.

Before joining the Wellesley faculty in 1916 as director of the Whitten Observatory and chairman of the astronomy department, Duncan taught at Radcliffe and Harvard. For 14 years after his retirement from Wellesley in 1950, he was visiting professor at Steward Observatory of the University of Arizona in Tucson. □

# CRYOGENIC VLF MUTUAL INDUCTANCE BRIDGE

Resolution:  $8 \times 10^{-4} \mu H$



## FEATURES

- New Stable, High-Gain, Low-Noise Bridge Circuit
- 0.05% Linearity
- Low Frequency—17 Hz or 155 Hz
- Self-Contained Signal Generator and Power Supply
- Standard Rack Panel
- Modular Plug-In Design
- Plug-In Range Changing
- Standard Range  $200 \mu H$

## OTHER INSTRUMENTATION

### CRYOGENIC AC RESISTANCE BRIDGE

for resistance measurements up to 12 megohms  $\pm .05\%$  absolute,  $\pm .005\%$  relative accuracy with only  $10^{-6}$  to  $10^{-10}$  watts sensor dissipation.

30 Day Delivery on all items  
Write for complete literature

# CRYOTRONICS INC.

WEST MAIN STREET • HIGH BRIDGE, N. J.