

research professor is **C. S. Wu**, of the Jet Propulsion Laboratory, Cal Tech. **Stephen Brush** is associate professor, on joint appointment with the history department and **Theodore J. Rosenberg**, formerly of Rice, is research assistant professor. The institute's meteorology program named **Owen Thompson** and **Kenneth Gage** assistant professors.

Columbia Awards Vetlesen Prize to Birch and Bullard

Geophysicists Francis Birch and Edward C. Bullard received the Vetlesen Prize, given by Columbia University, for their work in solid-state physics and fundamental geophysics leading to knowledge of the earth's interior.

Birch, the Sturgis Hooper Professor of Geology at Harvard, has shown how seismic data can be used to determine densities, constitution and physical state of material in the earth's deep interior. His work includes application of theoretical and experimental thermodynamics to mineral systems, use of heat flow through the earth's crust as an index of the earth's thermal regime and application of shock-wave data to problems of the deep interior.

A professor of geophysics at Cambridge University, Bullard was one of

the first to apply computer methods to geophysical problems, such as continental drift. He has studied the earth's magnetic field and developed a method to determine heat flow through the ocean floor. Other achievements include measurement of gravity across the East-African rift valley, improvements in the accuracy of pendulum measurements of gravity and studies of geothermal heat.

Given every two years, the award was created at Columbia in 1959 by the G. Unger Vetlesen Foundation for achievement in the earth sciences. It consists of a gold medal and \$25 000, to be shared equally.

Missouri Science Educator Award to Wallace Hilton

The Science Teachers of Missouri presented their 1967-68 Missouri Science Educator Award to Wallace A. Hilton, chairman of the physics department at William Jewell College, Liberty, Mo.

The prize honors contributions to science teaching on the secondary or college level and consists of a plaque and citation. Indicative of Hilton's teaching excellence were increased enrollments in his physics classes at a time when the trend was downward. In the summers he has conducted or taught in ten training programs for high-school science teachers. A leader in the Missouri Cooperative College-School Program in Physics, he also has served two terms as a member

of the national council of Sigma Pi Sigma and is currently a member of the Council of the Society of Physics Students.

Hugh Wolfe of AIP Honored By US Standards Institute

Hugh C. Wolfe was among those honored by the USA Standards Institute



WOLFE

for his contributions to effective communications of scientific and technical information. Wolfe is chairman of the USASI committee for the International Standards

Organization's Technical Committee 12, and also a member of its international advisory panel.

The committee is currently working on general use of the International System of Units, based on meter, kilogram, second, ampere, kelvin and candela. Wolfe is director of the American Institute of Physics publication division.

Jerome Karle of NRL Given Navy Civilian Service Award

The head of the laboratory for structure of matter at the Naval Research Laboratory, Jerome Karle, received the Navy's Distinguished Civilian Service Award. He was recognized for his theoretical and experimental advances



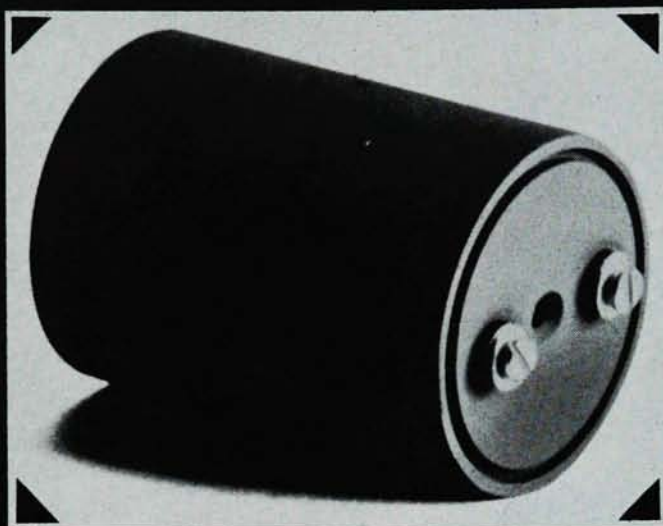
John Archibald Wheeler sits with a portrait of Joseph Henry at the dedication of the Joseph Henry Physics Building, State University of New York at Albany. For the occasion, Wheeler composed and recited a poem (right) on the man whose chair he holds at Princeton.

TO JOSEPH HENRY

You who came from a lowly home,
Remind us to search each new face for thoughtfulness;
You who had no great man to guide you,
Tell us, great reader, that a book gives each one of us the company of the great man of our choice.
You who discovered the laws of self induction, great principle of electromagnetism, winged carrier of sight and sound,
Remind us of the glittering central mechanisms of this universe still waiting to be uncovered.
You who refused to patent your early telegraph,
Remind us that science is the servant of society.
You who created America's first National Science Foundation, and breathed life into the science of this newly developing country,
Help us make each center of science a world leader in its own wisely chosen field of investigation.
To students from every walk of life you attempted always to present a coherent account of your subject, and in the process detected new avenues open for investigation.
Teach us to learn through teaching what to investigate.
You, greatest American scientist of your day, who abandoned a great career at the call of your country,
Remind us that each one of us is first of all a citizen.

JOHN ARCHIBALD WHEELER

Isomet's "400" laser modulator is still the best buy in its class.



SPECIFICATIONS

Half-wave voltage:
@ 633 nm 1800vp-p typical
Capacitance: 5 picofarads typical
Rise time: 1 nanosecond
Optical bandwidth: 200-1800 nm
Optical Power Handling Capability:
100 watts CW (visible, near IR)
Contrast Ratio: 1000:1 typical
Linear aperture: 2.5 mm
Angular aperture:
Intended for use with lasers
Optical Insertion Loss:
30% without AR coatings; 14% with
partial AR coatings; 8% with complete
AR coatings.
Size: 1 3/4" dia. x 2 1/4" in length

\$385. AR coatings available with slight increase in price.

And now the "401" with 1/3 less drive voltage.



SPECIFICATIONS

Half-wave voltage:
@ 633 nm 1250vp-p typical
Capacitance: 8.0 picofarads
Rise time: 1 nanosecond typical
Optical bandwidth: 200-1800 nm
Optical Power Handling Capability:
100 watts CW (visible, near IR)
Contrast Ratio: 500:1 typical
Linear aperture: 2.5 mm
Angular aperture:
Intended for use with lasers
Optical Insertion Loss:
38% without AR coatings; 21% with
partial AR coatings; 12% with complete
AR coatings.
Size: 1 3/4" dia. x 4-5/16" in length
Ends threaded to accommodate accessories

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and for his leadership in structure analysis of matter by electron, x-ray and neutron diffraction.

Earlier this year Karle was named to the Chair of Science for the Structure of Matter at NRL, created in recognition of his distinguished service.

AEC Honors Frenchmen For Atomic-Energy Research

The US honored four French scientists, Frederic Joliot and Hans Halban, posthumously, and Lew Kowarski and

Francis Perrin, for their contributions to the early development of nuclear energy. The award consists of a plaque, citation and honorarium. It recognizes the experimental research of Joliot, Halban and Kowarski in 1939 and 1940, and the theoretical work of Perrin. They were concerned with neutron emission in the fission process and the determination of critical cross sections of nuclear fields and moderators.

Kowarski, a senior scientist for CERN, is now teaching in the US. Perrin is high commissioner of the French atomic energy authority.

Strnat, Olson, Hoffer Get Materials-Technology Award

The Air Force Materials Laboratory gave its Cleary Award to Karl J. Strnat, John C. Olson and Gary I. Hoffer for their work in magnetic materials. They studied the anisotropic magnetization behavior of ferromagnetic intermetallic compounds.

The award is presented annually in recognition of outstanding scientific contributions to materials technology. It honors Charles J. Cleary who was with the laboratory for 25 years and was assistant chief at his death.

Velinsky Dies; Was Oakland Teacher, Beta Spectroscopist

Libor Jeri Velinsky, assistant professor of physics at Oakland University, died on 21 Oct. of heart failure while jogging on the Oakland campus. Velinsky, who was born in Brno, Czechoslovakia in 1931, received his BA degree from Vanderbilt University, his MA from the University of Rochester and his PhD from Michigan State University in 1964. Before going to Oakland, he taught at Michigan State University and at Albion College.

Velinsky's research field was beta-ray spectroscopy. At Michigan State he built a very-high-resolution, iron-free beta-ray spectrograph and was the author of studies of Auger and of internal-conversion electrons. He served as a consultant for the National Science Foundation Coöperative College-School Science Program and was especially active in developing student laboratory projects and lecture-demonstration equipment. He was a member of the American Physical Society and of Sigma Xi.

Jerzy Sawicki Dies in Crash; Was Theoretical Physicist

Jerzy Sawicki died on 11 Sept. in an airplane crash. He was returning from the Cargese Summer School in Theoretical Physics, where he had been giving two seminars.

Sawicki was born in Warsaw, Poland, in 1931. He studied there, obtaining his MA in 1954 and his PhD in 1957. The latter was the crowning of a series of works on the polarization of nucleons in reactions with deuterons, on the photodisintegration of the deuteron, Coulomb effects and

polarization phenomena in nuclear reactions, for which he was already well known to nuclear physicists. In 1957 he left the University of Warsaw to take up a position as research associate at the Palmer Physical Laboratory at Princeton. In 1959 he worked for several months at the physics department of the University of Washington, Seattle, then joined the theoretical nuclear physics group of the Radiation Laboratory at Berkeley, where he worked until 1961.

On returning to Europe, he went to Bologna, Italy, and directed a group of young nuclear physicists at the Institute of Physics; at the same time teaching at the Scuola di Perfezionamento in Fisica in Rome. From 1963 to 1965 he was visiting professor at the Institut de Physique Nucléaire, Faculté des Sciences at Orsay, France. In 1967, after a short stay at CERN and at the Centro de Investigacion y de estudios avanzados del Instituto Politecnico Nacional in Mexico, he became leader of the Theoretical Nuclear Physics group at the International Centre for Theoretical Physics in Trieste. Concurrently he taught theory of nuclear structure at the University of Trieste. There, until the last, he showed his talents as a dynamic and inspiring leader.

The abundant scientific works of Sawicki are concerned with nuclear matter as well as finite nuclei; light nuclei as well as heavy ones; spectroscopy as well as nuclear reactions. His last studies concerned the microscopic theory of nuclear structure—in particular the interpretation of excited states in nuclei and their electromagnetic properties, using realistic nucleon-nucleon potential. He had just brilliantly presented the first encouraging

results at Cargese when he was killed.

Sawicki had a striking personality and lived intensely and passionately. He spoke about ten languages and was also interested in mountaineering and archeology. In discussions he did not hesitate to interrupt and spared no one while expressing his disagreement. But his enthusiasm for research and his affinity for work were contagious, and an inspiration of the highest degree. He was also a pleasant friend, jovial and kind. In 1964 he married an Italian architect, Valeria Settimi.

ABDUS SALAM

*Director, International Centre
for Theoretical Physics, Trieste*

MAURICE JEAN

University of Paris

F. P. Bowden Was Surface Physicist at Cavendish

Frank Philip Bowden died on 3 Sept. after a long illness. He was professor



BOWDEN

of surface physics and director of the surface - physics subdepartment at the Cavendish Laboratory, University of Cambridge.

Bowden's first research was on the structure and topography of catalytic surfaces and on the stability of electro-deposited hydrogen and oxygen monolayers. At the Cavendish his interests included optical and electrical properties of solids, deformation of solids at high rates of strain, properties of finely divided matter, range of surface forces, and properties of solids at extremely high temperatures. He was a Fellow of the Royal Society. □