

National Medals of Science honor outstanding researchers



PAULING



BLOEMBERGEN



CHANCE



PITZER



FLORY



FOWLER



KOMPFNER

National Medals of Science for 1974 have gone to thirteen researchers, seven of whom have had careers in physics or physics-related areas. Nicolaas Bloembergen, Britton Chance, Paul J. Flory, William A. Fowler, Rudolf Kompfner, Linus Pauling and Kenneth S. Pitzer are among those who have won the nation's highest recognition for achievements in science, mathematics and engineering. They were selected from 204 nominees.

Bloembergen, professor of physics at Harvard University, has specialized in nuclear and electronic magnetic resonance, solid-state masers and nonlinear optics. His previous honors include the Oliver E. Buckley Award in solid-state physics of The American Physical Society and the Franklin Institute's Ballantine Medal. Bloembergen has been at Harvard since 1949.

Chance, who holds doctorates in physical chemistry and physiology, is chairman of the biophysics department at the University of Pennsylvania. In research he has concentrated on the physics and chemistry of enzyme systems. Fellowships and US government appointments have taken him on travels through the US and Europe, and he has received numerous awards from sci-

entific societies on both continents.

Flory, professor of chemistry at Stanford University since 1962, has done extensive research on the physical chemistry of macromolecules. The 1974 Nobel Prize in Chemistry and the American Chemical Society's Priestley Medal are most recent among his many honors.

Fowler, now APS vice-president and chairman of the physics section of the National Academy of Sciences, is Institute Professor of Physics at the California Institute of Technology. His specialties are nuclear physics and astrophysics, and he has been a visiting lecturer at many institutions both in the US and abroad. Government agencies to which he has been an adviser or committee member include the National Science Foundation, the National Aeronautics and Space Administration, the Office of Naval Research and the Atomic Energy Commission.

Kompfner is professor emeritus of applied physics at Stanford University and professor of engineering at the University of Oxford. A specialist in microwave electronics, he was with the communications science division at Bell Labs during 1951-73.

Pauling has received two Nobel Priz-

es (Chemistry in 1954 and Peace in 1963) and honorary doctorates from more than 30 US and foreign universities. His research has run the gamut from quantum mechanics to the role of molecular abnormalities in disease, and he is perhaps as well known for consistently taking strong political stands as for his scientific prowess. He is now professor of chemistry at Stanford University.

Pitzer, professor of chemistry at Berkeley, has had a long career in teaching, research, university administration and government counsel. He holds a doctorate in physical chemistry and two law degrees and has served as adviser to the President and to AEC. His research has included molecular spectroscopy, chemical thermodynamics, and quantum theory and statistical mechanics applied to chemistry.

The six other scientists who received National Medals are Erwin Chargaff, Columbia University School of Medicine; Kurt Godel, Institute for Advanced Study; James Van Gundy Neel, University of Michigan Medical School; Ralph Brazelton Peck, Albuquerque, N.M.; James A. Shannon, Rockefeller University and Abel Wilman, Johns Hopkins University.

Gravity Research group presents essay awards

The Gravity Research Foundation has announced its 1975 awards for essays. The winners are Roger Penrose, Julian Schwinger, Niall Ó Murchadha and James W. York Jr, Frederick A. Kaempffer, and Robert V. Wagoner. The foundation also selected 29 other essays for honorable mention.

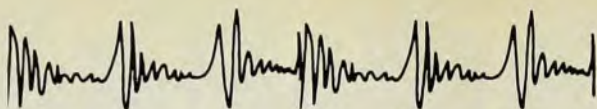
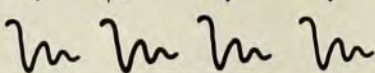
Penrose, of the Mathematical Institute at Oxford, England, was awarded

\$1500 for "The Non-Linear Graviton." Schwinger received \$500 for "Gravitons and Photons: The Methodological Unification of Source Theory." He is with the University of California at Los Angeles. Ó Murchadha and York, of the University of North Carolina at Chapel Hill, won \$200 for "Gravitational Potentials: A Constructive Approach to General Relativity." The foundation presented \$150 to Kaempffer (University of British Columbia, Canada), who wrote "On a Possible

Unification of Gravitational and Weak Interactions." Wagoner's essay, "A New Test of General Relativity," won \$100. He is with the Institute of Theoretical Physics in Stanford, California.

Karasz cited for work in thermal analysis

Frank Karasz has been named winner of the 8th Mettler Award in Thermal Analysis by the North American Ther-

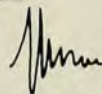
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mal Analysis Society. Karasz is professor of polymer science and engineering at the University of Massachusetts in Amherst. He has studied thermodynamic properties of crystalline polymers and theories of fusion. He joined the UM faculty in 1967.

The \$1000 Mettler Award is sponsored annually by the Mettler Instrument Corp in Princeton, New Jersey for work in kinetic thermal analysis; recipients are nominated and selected by an independent NATAS committee.

Brownell receives award for nuclear medicine

Gordon L. Brownell has received the Paul C. Aebersold award of the Society of Nuclear Medicine. Brownell, who specializes in medical physics, is professor of nuclear engineering at the Massachusetts Institute of Technology, research associate at Harvard Medical School and applied physicist at Massachusetts General Hospital.

Among the achievements for which SNM honored Brownell is development of a positron scanning system that was the first successfully used for detecting brain tumors. In gamma-ray dosimetry, he originated the concept of the absorbed fraction and the use of Monte Carlo techniques for calculations. He is now working on the development of positron imaging devices and true isotope tomography.

SNM also honored George V. Taplin, a physician participating in the atomic-energy project of the medical school at the University of California in Los Angeles. Taplin was awarded the Nuclear Medicine Pioneer Citation for his many years of research on radioactive tracers.

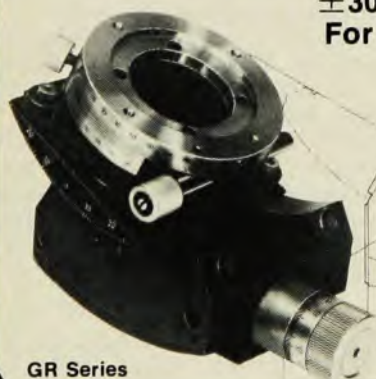
Fairchild grant goes to Lehigh University

A \$5.25 million grant from the Sherman Fairchild Foundation has enabled Lehigh University to establish two endowed professorships, a laboratory for solid-state studies (construction underway), eight graduate fellowships, ten undergraduate scholarships and a major lecture series. The university has appointed George D. Watkins, now a physicist with General Electric Co, first Sherman Fairchild Professor of Solid-State Studies; the other endowed chair, in electrical engineering, has yet to be filled.

Watkins has been with GE's research and development center in Schenectady, New York since 1952 when he received his PhD from Harvard University. He has held adjunct professorships

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