# BLOEMBERGEN ELECTED VICE PRESIDENT; CRASEMANN TO HEAD NOMINATING GROUP

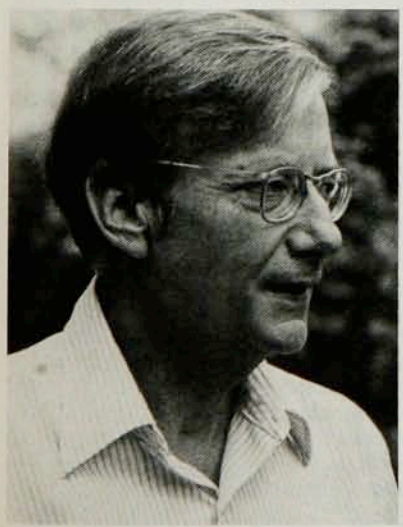
Nicolaas Bloembergen of Harvard University has been elected vice president of The American Physical Society. He will assume the vice presidency this month, as Eugen Merzbacher becomes president-elect and James A. Krumhansl of Cornell University becomes APS president, succeeding Val Fitch of Princeton University. Bloembergen will be APS president in 1990.

Bernd Crasemann was elected vice chair of the nominating committee. New APS councilors-at-large are Leroy L. Chang (IBM Thomas J. Watson Research Center), Stuart Crampton (Williams College) and Lillian McDermott (University of Washington).

A native of the Netherlands, Bloembergen obtained his undergraduate degree in physics at the University of Utrecht. He came to Harvard in 1946 and carried out research on nuclear magnetic relaxation with Edward Purcell and Robert Pound. He became an associate at the University of Leiden's Kamerlingh Onnes Laboratory in 1947 and received a PhD from the university in 1948.

Bloembergen returned to Harvard as a faculty member in 1949. He was named Gordon McKay Professor of Applied Physics at Harvard in 1957, Rumford Professor of Physics in 1974 and Gerhard Gade University Professor in 1980. He became a naturalized citizen of the United States in 1958.

**Nicolaas Bloembergen**



Bloembergen has done research in both pure and applied physics, in the broad fields of magnetic resonance, masers and quantum electronics. He has served as a consultant to various industrial and governmental research organizations.

Bloembergen has served on the editorial boards of the *Physical Review*, the *Journal of Chemical Physics*, *Applied Physics Letters*, and *Optics Communications*. His most recent service to The American Physical Society was as cochair, with C. Kumar N. Patel (AT&T Bell Labs, Murray Hill), of the study group on the physics and technology of directed-energy weapons (see PHYSICS TODAY, May 1987, page S1).

In his candidate's statement, Bloembergen expressed his hope that APS would continue to represent and serve the professional interests of the broad spectrum of physicists who constitute its membership. Having observed physics steadily become more specialized, Bloembergen feels that APS must maintain a balance among diverse interest groups, including practioners of small- and large-scale physics; academic, governmental and industrial constituencies; researchers in fundamental and applied physics; and graduate students, young physicists starting careers and established professionals.

Bloembergen observes that while the rapid growth of APS publications and meetings attests to the vitality of the society, it also poses problems of cost control and communication among the subfields of physics. Improving and maintaining contacts and cooperation with scientific and engineering societies in the United States and abroad also is a priority for him, because he feels that the international and universal character of physics requires that these relationships be strong.

Bloembergen says it is of prime importance that APS avoid compromising its scientific character. APS should refrain from issuing politically motivated public pronouncements, he believes, but it should continue to contribute unbiased scientific analyses relevant to political issues, on the model of the APS-sponsored studies of nuclear reactor safety, solar power and, most recently, directed-energy weapons.

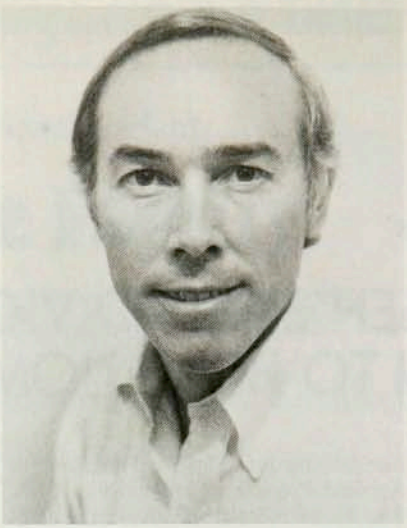
Physics education at every level, including pre-college instruction and communication with the general public concerning physics and physics-related public issues, is an appropriate issue for the APS to address, Bloembergen feels.

## Crasemann

Crasemann, who will become chair of the nominating committee in 1990, was born in Hamburg, Germany. He attended primary and secondary schools in Chile, received a BA from the University of California, Los Angeles in 1948 and got a PhD from the

**Bernd Crasemann**

Leroy L. Chang



Stuart Crampton

Lillian McDermott

University of California, Berkeley in 1953. After that he joined the University of Oregon physics department, which he headed from 1976 to 1982 and again from 1983 to 1984. He served as director of the Chemical Physics Institute at the University of Oregon from 1984 to 1987, and he received the university's Ersted Award for distinguished teaching in 1959.

While on leave from the University of Oregon, Crasemann has visited at Brookhaven National Laboratory; the University of California, Berkeley; the University of Paris VI; Lawrence Livermore National Laboratory; the Ames Research Center; and Stanford University. His research is in experimental and theoretical aspects of atomic physics and its interface with nuclear physics.

Crasemann headed the APS division of electron and atomic physics (now atomic, molecular and optical physics) in 1981 and was divisional councilor from 1983 to 1986. He has led the publications committee, the subcommittee on international scientific affairs and the Plyler Prize committee. He also has been a member of the APS executive committee, the executive committee of the international physics group, and the editorial board of *Physical Review C*.

In his candidate's statement, Crasemann enumerated the challenges that APS elected officers must face: policy decisions for APS publications, possible restructuring of the society's numerous meetings, improving the representation of women and minorities in the APS leadership, and strengthening science education. While the contribution of the nominating committee is limited in scope, Crasemann said, it is crucial for the committee to identify individuals who will be able to meet these challenges in a manner that respects the points of view of the various segments of APS membership.

## Councilors

The three new councilors-at-large, Chang, Crampton and McDermott, will serve four year terms.

Chang was born in China and graduated from the National Taiwan University in 1957. He received his PhD from Stanford in 1963 and joined the IBM Watson Research Center later that year. Except for a year he spent as an associate professor at MIT in 1968–69, Chang has stayed at IBM, where he currently is manager of quantum structures research.

Chang's work on semiconductor superlattices and quantum wells, and his success in fabricating these structures on the atomic scale, contributed greatly to the development of the interdisciplinary field known as semiconductor heterostructures or artificially structured materials. He shared the APS International Prize for New Materials in 1985. Chang is a member of the American Vacuum Society and IEEE, and he has been active on various committees for these organizations, particularly on conference organizing and program committees.

Crampton is a native of New York City. His earned his BA from Williams College (1958), a BA Honours from Oxford University (1960), and a PhD in atomic physics from Harvard (1964). He joined the physics faculty at Williams and, starting in 1970, served as department chair for ten years; he became a full professor in 1975. He has taken leaves at Harvard, MIT, Paris and the University of Massachusetts, Amherst. Recently he has been interested in the theory of collisions in low-temperature hydrogen atom gas and has developed a hydrogen maser that uses frozen neon surfaces to provide an experimental window on hyperfine induced collisional frequency shifts at 10 K.

Crampton has served on the fellowship committee of the APS division of electron and atomic physics, and on the prize committee for the APS award for research at an undergraduate institution. He is vice chair of the Council on Undergraduate Research, a society for the advancement of undergraduate scientific research, and director of the New England Consortium for Undergraduate Science Education; he also has served on a number of science education advisory committees.

McDermott earned her undergraduate degree at Vassar (1952) and received her PhD in experimental nuclear physics from Columbia (1959). She taught at City College in New York in 1961–62 before moving to a position at Seattle University. She has been a full professor at the University of Washington since 1981.

In addition to standard physics courses, McDermott has taught special courses for pre-college teachers and underprepared college students, and she directs a year-round physics program for teachers at the elementary and high school levels. She is director of the physics education group at the University of Washington, in which students earn PhDs in physics for research in physics education. McDermott's own current research is on identifying and addressing specific difficulties students have in learning physics. McDermott has served on the APS committee on education since 1985 and has headed the committee for the past two years. ■