

# RHEOLOGY SOCIETY PRESENTS BINGHAM MEDAL IN SANTA FE

The Society of Rheology has selected Guy C. Berry of Carnegie-Mellon University to receive the 1990 Bingham Medal. Berry, who will be presented with the medal this month at the society's 62nd annual meeting in Santa Fe, New Mexico, was chosen for his "contributions to the molecular understanding of rheological behavior in polymer systems."

During the 1960s Berry studied the viscosity of polymer melts and concentrated solutions and also looked at thermodynamics and flow behavior in dilute polymer solutions. More recently Berry's work has dealt with rod-like, heterocyclic condensation polymers, which he has compared and contrasted with flexible-chain polymers. Among other things, Berry and his research group have demonstrated that isotropic solutions of rod-like polymers obey the same laws (with appropriately redefined coefficients) as flexible polymers, and they have documented the qualitative differences in linear response that develop above the ordering transition. Berry "is a superb experimentalist with sound theoretical instincts," the award citation said.

Berry received a PhD in chemical engineering from the University of Michigan in 1960. He then joined the faculty of the Mellon Institute, which later became part of Carnegie-Mellon University. He is currently a professor of chemistry and polymer science and was recently named head of the chemistry department at Carnegie-Mellon.

Last year the Bingham Medal was awarded to Irvin M. Krieger of Case Western Reserve University for his research in the rheology of concentrated dispersions. Krieger's work is considered by many to be the basis for the modern study of colloidal suspensions. According to the award citation, his research has helped eliminate ambiguities about particle size and shape and about effects of interparticle forces. He pioneered the use



Guy C. Berry

of dimensional analysis to interpret and generalize experimental results in the study of hard sphere dispersions. With P. Anne Hiltner and Yoram Papir, Krieger did studies of iridescence in deionized lattices that led to the discovery of the phase equilibrium between an ordered (crystalline) phase and a disordered (fluid) phase. His current research is on rheological measurements in visco-



Irvin M. Krieger

plastic and thixotropic fluids.

Krieger received a PhD in physical chemistry from Cornell University in 1951. He then joined the faculty of Case Western, where he is now a professor emeritus of physical chemistry and macromolecular science. He was the founder of Case Western's Center for Adhesives, Sealants and Coatings and served as its director from 1982 to 1988.

## IACHELLO WINS WIGNER MEDAL FOR NUCLEAR MODELS

At the 18th Colloquium on Group Theoretical Methods in Physics, held in Moscow in June, Francesco Iachello of Yale University received this year's Wigner Medal. The biennial honor is given by the Group Theory and Fundamental Physics Foundation, which cited Iachello for "developing powerful algebraic tools and models in nuclear physics."

In a series of papers published between 1974 and 1979 Iachello developed, with Akito Arima, the interacting boson model of nuclei. Based on

the dynamical group  $U(6)$ , this model predicted three reduction chains, two of which were known to occur, and the third of which was observed subsequently. The model has shaped the current understanding of a large class of nuclei. In the early 1980s, with Itzhak Bars and A. Baha Balantekin, Iachello discovered a supersymmetric approach generalizing the earlier  $U(6)$  model; the predictions of this new boson-fermion model were observed in several nuclear species. With Raphael D. Levine, Iachello