Bruno H. Zimm receives '63 Amer. Phys. Soc. High-Polymer Physics Award

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Bruno H. Zimm, Professor of Chemistry, School of Science and Engineering, University of California, San Diego, has been named the 1963 recipient of the American Physical Society's High-Polymer Physics Prize, sponsored by the Ford Motor Company.

Dr. Zimm will accept the prize, which carries a cash award of $1,000, at a meeting of the Society in St. Louis in March.

First given in 1962, to Professor Paul J. Flory of Stanford, the Prize is awarded "for outstanding accomplishment and excellence of contributions to research in high-polymer physics.

High polymers are compounds of high molecular weight. They have been the object of intensive study both because of their intrinsic scientific interest and because of their many commercial uses. The "plastics" of which many of our everyday articles are increasingly made are high polymers, for example.

Dr. Zimm has spent 15 years of research on high polymers. He was given the award for "his contributions toward a rigorous understanding of the light-scattering, thermodynamic, and viscoelastic properties of polymer solutions, and of macromolecular behavior of biological materials."

Dr. Zimm spent nine years with the General Electric Research Laboratory before joining the faculty of the School of Science and Engineering in 1960.

Dr. Zimm's research interests have included the theory of liquids, solutions, and long-chain molecules, as well as experimental researches on various phases of high polymer physical chemistry. He is known as the originator of the "Zimm plot," a method of plotting light scattering data on a grid of parallel lines to determine molecular size and shape. His work in the polymer field has been concerned principally with the theory of high polymer solutions. Dr. Zimm has further developed the method of normal coordinates, originally devised by P. E. Rouse, Jr., and F. Bueche, and has applied it to problems of non-Newtonian flow, double refraction of flow, and dielectric behavior. He has also developed a viscometer for determining the viscosity of high polymer solutions as a function of frequency with oscillating shear at acoustical and ultrasonic frequencies.