diameter and 92 feet high, arranged in three equidistant radial arms. The arms form a Y-shaped array in which two arms are 13 miles long and the third is 11.8 miles. The antennas can be moved to 72 observing stations by a 65-ton self-propelled transporter that runs on railroad tracks between them. At the center of the complex is a control building that communicates with the antennas via three 60 millimeter transmission wave guides running to the observing stations. The VLA Radio Telescope is the world's largest single radio interferometer and is a project of the National Science Foundation, Associated Universities, Inc., Washington, D. C., The National Radio Astronomy Observatory and BWH–CVA Joint Venture, Albuquerque.

Oak Ridge National Laboratory has improved a magnetic separation technique to permit the removal of 40 to 70 percent of the inorganic ash and sulfur from coal. The new process, called high-gradient magnetic separation, places finely ground coal into wedged-shaped containers in a carousel ring that rotates through a magnetic chamber. Within each container are spaced discs of stainless steel mesh, each wire of which becomes magnetized as it enters the magnetic field, enhancing the inhomogeneity of the field. Because coal has a lower magnetic susceptibility than the impurities, the magnetized wires selectively attract and retain the impurities. This process was found to be more effective and cheaper than the traditional washing method now used.

At Kahuku, Hawaii a 200-kW wind turbine named Makani Huila is generating enough energy to save 1900 barrels of oil a year. Makani Huila, built on a site 350 feet above sea level on Oahu's north shore, consists of a horizontal-axis rotor with two blades that together measure 125 feet. The rotor, which looks like a large airplane propeller, turns at 40 revolutions per minute and drives an 1800 rpm alternator through a gearbox. The assembly is mounted on a 100-foot tower and is able to achieve its 200-kW output due to the almost constant winds in the area; the speed of these trade winds ranges from 15 to 35 mph. Built by Westinghouse Corporation, the turbine is a project of the Department of Energy and the National Aeronautics and Space Administration and is operated with the cooperation of the Hawaiian Electric Company.

James L. White wins 1981 Bingham Medal

The Society of Rheology has made its annual presentation of the Bingham Medal for 1981 to James Lindsay White. The medal is awarded to a

North American resident who has made an outstanding contribution to the science of rheology or has performed meritorious service to the society.

White is recognized for his researches in rheology, which have focused on the relationship of structure

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development to polymer processing. He contributed extensively to the understanding of polymer flow phenomena through his development of tensor constitutive equations relating stress and deformation history, his introduction and application of dimensionless groups to solve flow problems, and his development of a new method of representing biaxial orientation in polymers.

White received his BS from the Polytechnic Institute of Brooklyn in 1959 and his PhD in chemical engineering from the University of Delaware in 1965. After working with Uniroyal Inc., he joined the University of Tennessee in Knoxville in 1967, where he is currently in charge of the Polymer Engineering Program of the Department of Chemical, Metallurigical and Polymer Engineering, a program he was instrumental in creating.

in brief

The first Von Braun Fellowship in Space Physics has been awarded by the University of Alabama (Huntsville) to **A. Gordon Emslie**, currently a research associate at the Stanford Institute for Plasma Research, where he has been studying solar flares.

Paul Kramer has been promoted from physics department chariman to dean of academic services at SUNY, Farmingdale. Lloyd Makarowitz is the new