awarded to individuals who were active in teaching physics in 1937, when the Southeastern Section was formed. Whitlock joined the faculty of Mississippi College in 1969 and has been chairman of its physics department since 1970; in addition, he is a founding member of the Mississippi Association of Physicists. Edwards taught physics at Louisville Municipal College, Virginia State College and North Carolina A&T. At North Carolina A&T, he actually inaugurated the physics major, serving as the department's chairman until his retirement. Rhodes initiated the physics department at Memphis College in 1926; he became vice-president of the college in 1946 and president in 1948—a position he held until his retirement in 1965. The college has recently changed its name from Memphis College to Rhodes College.

MRS presents 1984 Von Hippel award to Brown

At its November meeting in Boston, the Materials Research Society presented the 1984 Arthur Von Hippel award to Walter L. Brown of AT&T Bell Laboratories for "his seminal role in the development of semiconductor materials science and technology."

Brown received his PhD in 1950, working under Edward Purcell at Harvard. He then joined Bell Laboratories, becoming head of the Radiation Physics Research Department in 1958. His early research on germanium, with Walter Brattain, William Shockley and Robert Fletcher, pioneered the field of semiconductor surface states and inversion layers. Subsequently Brown also became interested in the damage introduced in germanium by high-energy particles and the accompanying annealing process. His initial experi-

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ments, conducted with Fletcher, were to produce simple defects, which were classified according to their positions in the energy gap—deduced from measurements of the conductivity and the Hall coefficient of the material.

In the late 1950s and early 1960s, Brown became "enamored" of semiconductor p–n junction particle detectors. Working with Thomas M. Buck and G. L. Miller, he developed and flew experiments on Telstar I and II, to measure the components of a high-energy particle environment in space with detectors and electronic components. They were able to compare directly the degradation of solar cells to laboratory studies of the energy and particle dependence of defect formation. Two electronically produced radiation effects in transistors showed up in these experiments. The first was the predicted effect of electron–hole pairs produced by radiation-induced currents in the devices. The second, quite unexpected effect was the modification of surface chemistry through species ionization and the modification of junction properties as the ions moved under the influence of junction fields.

Brown also pioneered the use of accelerators for basic materials research and ion implantation for semiconductor doping and surface modification. In the late 1970s, working with John M. Poate, Harry J. Leamy and G. K. Celler, he conducted studies on laser annealing and solid- and liquid-phase regrowth of materials. During this period he also began, with Poate and J. W. Mayer, to study sputtering. As he notes in a brief autobiographical essay, sputtering is "a rather mundane phenomenon in many ways . . . [but] not so mundane when examined for alloy and compound systems where preferential effects are rampant. And not so mundane either when the materials are insulators and the sputtering is created by electronic excitation rather than by momentum-transferring collisions." His most recent research, with Alfred Wagner, is an outgrowth of the sputtering studies and is centered on the ion-beam modification of materials such as resists and high-brightness ion sources for high-resolution modification of surfaces.

Oppenheimer Prize presented to John A. Wheeler

The Center for Theoretical Studies at the University of Miami last November awarded the J. Robert Oppenheimer Prize to John Archibald Wheeler, professor of physics at the University of Texas in Austin. The prize has been awarded annually since 1969 in recognition of "outstanding contributions to