Mynatt and his coworkers have led in the development of computer codes for problems in radiation shielding for nuclear reactors. These codes, together with Monte Carlo and other techniques, now form the basis for the design of radiation shields throughout the world.

The citation for Selby's award recognizes his "development of a series of radiation-induced dominant skeletal mutations in the mouse that have important applications for the determination of risk estimates of low-level radiation exposure."

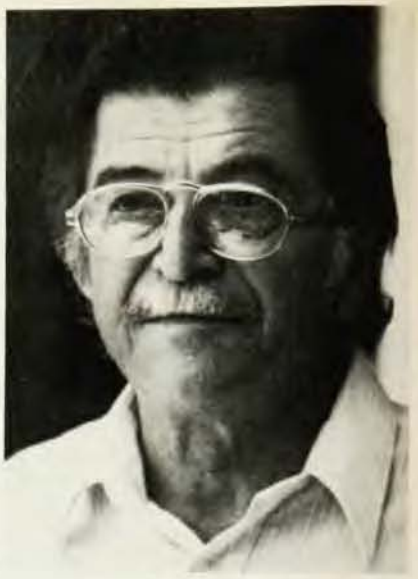
After receiving his PhD in biomedical science from the University of Tennessee in 1972, Selby spent three years at the Gesellschaft für Strahlen- und Umweltforschung in Neuherberg, West Germany. In 1975 he joined Oak Ridge, where he now is a research associate in the biology division.

Selby's work, in providing a direct measure of the rate at which dominant mutations are induced in mammalian skeletal tissue, has contributed significantly to our understanding of genetic effects of ionizing radiation. Selby has also participated in the development of radiation-protection criteria for humans, and has contributed other studies on somatic and genetic effects of radiation.

Wood was honored for "his outstanding contributions to national security in the areas of directed energy, inertial confinement fusion, underwater communications, nuclear weapon design concepts and computer technology."

In 1965 Wood received his PhD in astrophysics from the University of California, Los Angeles, where he remained as a teacher until 1972. During this period he also served on the staff at the University of California, Davis. He joined the staff of the Lawrence Livermore National Laboratory in 1966, and is now the special-studies group leader for the physics department.

Throughout his career at Livermore, Wood has contributed to the advancement of applied science as it relates to national-defense technology and to the training and recruitment of young scientists to work in defense research. In collaboration with others, Wood initiated research, including preliminary experimentation, that was necessary to develop one form of directed energy. In 1969 he and John H. Nuckolls proposed using high-power lasers to ignite thermonuclear reactions. Wood has also made significant contributions, with J. Marling, to the development of ultrasensitive isotropic blue-green light detectors for strategic communications. He has also done substantial work in the area of computer development, especially in the area of rapid, largely automated, hierarchical design of supercomputers.



RUDNICK

Acoustical awards to Rudnick and Baer

The Acoustical Society of America has presented a gold medal to Isadore Rudnick of the University of California, Los Angeles, and its biennial service award to Ralph N. Baer of The Naval Research Laboratory.

The gold medal, given annually to recognize contributions to acoustics, was presented to Rudnick "For his ingenious and masterly contributions to acoustical research and teaching, and for his distinguished leadership and service to the Society."

BAER

Rudnick received his PhD from the University of California, Los Angeles, in 1944. He served as a research physicist at Brown University from 1942 to 1945. He went on to teach physics at Pennsylvania State College from 1945 to 1948. In 1948 he joined the faculty of the University of California, Los Angeles, where he is now a professor of physics. During his career at the University of California he has served as a visiting professor at the Royal Institute of Technology in Copenhagen, The Israel Institute of Technology, The University of Paris and the University of Tokyo.

His research interests have included ultrasonics, high-intensity acoustics, cavitation, elastic-wave damping in metals and other nonlinear phenomena. In the 1960s he began to work on low-temperature physics and quantum liquids. His discovery of fourth sound, a propagating acoustic wave of superfluid in a tightly packed porous medium, provided experimental confirmation of a theoretical prediction as well as detailed definitive measurements. Rudnick has also studied third, second and zero sound as part of his investigations in low-temperature physics. His work, for example, led to a simple physical understanding of zero sound in terms of the behavior of an ideal viscoelastic liquid. In addition, his guidance as a teacher and inventor has advanced the field of acoustics through the contributions of his many students.

The biennial award of the Acoustical Society of America honors a member, under 35 years of age, who has contributed substantially to the advancement of acoustics through papers published during the two or more years prior to receiving the award. Baer is recognized "for important contributions toward a better understanding of the propagation of sound in the ocean and, in particular, the effects of Rossby waves and eddies."

Baer specialized in applied mathematics and received his PhD in 1974 from Rensselaer Polytechnic Institute. He served as a research assistant under an Office of Naval Research contract from 1971 to 1974, studying underwater environmental acoustics. In 1974, he joined the Acoustics Division at The Naval Research Laboratory, where he is now head of the Stochastic Propagation Section of the Large Aperture Acoustics Branch.

His research accomplishments were attributed by the awards committee to "an uncommon ability to meld physics, mathematics, and computing." Baer's published research includes using geophysical fluid dynamics to determine the effects of an assumed Rossby wave on sound speed in the ocean, and the subsequent application of these results to studies of sound propagation through a Rossby wave.