



Boys Prize from the Institute of Physics, London (1991). In 2001, he was named *R&D Magazine*'s first Innovator of the Year. Parkin has authored ~400 papers and has ~93 issued patents.

The MRS Von Hippel Award includes

a \$10,000 cash prize, honorary membership in MRS, and a unique trophy—a mounted ruby laser crystal, symbolizing the many faceted nature of materials research. The award recognizes those qualities most prized by materials sci-

entists and engineers—brilliance and originality of intellect, combined with vision that transcends the boundaries of conventional disciplines, as exemplified by the life of Arthur von Hippel (<http://vonhippel.mrs.org>).



## Robert Sinclair selected for 2012 David Turnbull Lectureship

The Materials Research Society's David Turnbull Lectureship recognizes the career of a scientist who has made outstanding contributions to understanding materials phenomena and properties through research, writing, and lecturing, as exemplified by the late David Turnbull of Harvard University. This year Robert Sinclair, chair of the Materials Science and Engineering Department of Stanford University and Charles M. Pigott Professor in the School of Engineering, and founding director of the Stanford Nanocharacterization Laboratory, has been selected to give the 2012 Turnbull Lecture. Sinclair is cited for his "original contributions to the understanding of atomic arrangements in solids and their relationship to diverse materials phenomena including martensitic transformations, dislocation interactions with interfaces, phase equilibria in complex thin film systems, and nanoscale interactions in soft matter, for seminal contributions to in-situ and high resolution transmission electron microscopy, development of their combined use, and for passionate and dedicated teaching, advising, and academic leadership." Sinclair will be presented with the award at the 2012 MRS Fall Meeting in Boston.

Broadly acknowledged as a pioneering contributor to the evolution of ana-

lytical and high-resolution electron microscopy as an essential research tool for developing fundamental understanding of the relationship between the atomic structure of materials, defects, phase transformations and equilibria, and diverse properties of interest, Sinclair's work has encompassed a broad range of materials including semiconductor materials (Si and III-V) and metal silicides, magnetic recording media, shape-memory alloys, hard materials, and most recently soft (nanobio) matter. He developed techniques for *in situ* transmission electron microscopy (TEM) observations of transient phenomena at the atomic level, thereby producing the first direct observations of atomic behavior during controlled materials reactions.

Under his leadership, electron microscopy in particular and materials research more broadly has, at Stanford University, experienced a dramatic growth in capabilities, as most recently signified by the addition of the Nanocharacterization Laboratory. Sinclair has also taken passionate interest in developing introductory and graduate level courses in materials science and characterization that have trained hundreds of students, many of whom have chosen to specialize in materials research. His transition to the Department chair position

has resulted in substantial improvements in the undergraduate and graduate curriculum in the Department, and the addition of young faculty, world renowned for their research in diverse fields such as energy and environmental materials, plasmonics, and nanophotonics.

In addition to teaching at Stanford, Sinclair has long been active in the education of researchers outside of his own university. He was among the first faculty members to travel to China in 1980, where he taught a course on TEM theory and practice. He has presented extensively in conferences worldwide and is known for his lucid delivery, often interspersed with levity, and for making difficult concepts simple to grasp. He has also taught extensively in industrial settings in order to familiarize workers with the efficacy and flexibility of various analytical techniques. Simultaneously, he has always encouraged independent thinking, allowing his students to flourish on their own, and to develop their own research areas instead of following his model.

Sinclair received his BA (1968) and PhD (1972) degrees in materials science from Cambridge University. He has over 200 refereed publications and three patents. His honors include the Robert Lansing Hardy Gold Medal, The Metallurgical Society of AIME; Eli Franklin Burton Award, Electron Microscopy Society of America; Alfred P. Sloan Foundation Fellowship; Marcus E. Grossman Award, American Society for Metals; Excellence in Undergraduate Teaching twice, once from the Stanford University Society for Black Scientists and Engineers and again from the Stanford Society of Chicano/Latino Engineers and Scientists; and Fellow (inaugural class) as well as Distinguished Scientist, Physical Sciences, of the Microscopy Society of America.