Robert F. Davis

Robert F. Davis, Ph.D.
John & Clare Bertucci Distinguished Professor of Materials Science & Engineering
Carnegie Mellon University

Robert F. Davis is John and Clare Bertucci Distinguished Professor of Materials Science and Engineering at Carnegie Mellon University. Prior to joining CMU, he was the Kobe Steel Ltd. Distinguished University Professor of Materials Science and Engineering at North Carolina State University from 1972 to 2004. He received his B. S. degree in Ceramic Engineering from North Carolina State University (NCSU) in 1964, M. S. and Ph.D. degrees in Materials Science and Engineering from The Pennsylvania State University and the University of California, Berkeley in 1966 and 1970, respectively. He worked as a staff scientist at the Corning Glass Research Center from 1970 to 1972.

Professor Davis is member of the National Academy of Engineering, a Fellow of the American Ceramic Society and a member of the Materials Research Society and The Minerals, Metals and Materials Society (TMS). He has won numerous awards including the ALCOA Distinguished Research Award, the ALCOA Award for Research Performance in a Given Year, the NCSU Alumni Research Award, the Oak Ridge National Laboratory Excellence in Publications Award, the Richard M. Fulrath Memorial Award from the American Ceramic Society and the R.J.R. Reynolds Award for Outstanding Research, the Alexander Holladay Medal for Excellence in Teaching, Research and Outreach and the John Bardeen Award from TMS. He has been a guest lecturer of the Troisiéme Cycle de la Physique en Suisse Romande.

Teams of his student scholars have established several corporations including Cree, Inc and the Nitronex Corporation as an outgrowth of the research they conducted under his direction.

His research interests include (i) growth and characterization of, GaN, AlN, SiC and ZnO, and nitride alloy thin films, (ii) the growth and characterization of light emitting diodes, and (iii) the fabrication of nanostructures via STM-based decomposition of adsorbed molecules. He has edited or co-edited seven books, authored or co-authored more than 270 chapters in edited proceedings or in books, published more than 400 peer reviewed papers in archival Journals

and given more than 160 invited presentations. The National Science Foundation, Office of Naval Research, Army Research Office, Department of Energy, Defense Advanced Research Projects Agency, the National Technology Energy Laboratory and the Semiconductor Research Corporation have funded his research efforts.