Angus Rockett

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ANGUS ROCKETTis a Professor in the Department of Materials Science and Engineering at the University of Illinois. He was President in 2011 of and is a Fellow of the American Vacuum Society. He was the 2012 Program Chair and will be the 2016 General Chair of the IEEE Photovoltaic Specialists Conference. He has held numerous other offices in the management of this conference.He was a rotating Research Program Administrator at the Office of Basic Energy Sciences at the U.S. Department of Energy in 2000. He holds a Sc.B. in Physics from Brown University (1980) and a Ph.D. in Materials Science from the University of Illinois (1986). He has won numerous awards for teaching and advising from the College of Engineering at the University of Illinois. His teaching has ranged from introductions to materials engineering for business and engineering students to senior and graduate courses on electronic materials (including a recent book The Materials Science of Semiconductors). His research has concerned ion-assisted growth of semiconductors and fundamental science of growth of materials by molecular beam epitaxy. This was extended to theoretical treatments of the same subject by lattice Monte Carlo and density functional theory methods. At the same time he worked on sputtered hard coatings deposited by reactive magnetron sputtering. He has studied the basic science of solar cell materials and the operation of solar cell devices for 20 years using virtually all of the common materials microchemical and microstructural analysis techniques from SIMS and TEM to STM and photoluminescence. He has also worked on self-assembled nanostructures, MEMS devices, silicide reactions for VLSI contacts, Si-Ge oxidation kinetics for gate dielectrics, superconducting cavity resonators as temperature probes, and optical spectroscopic analysis of combustion. He is an AVS Short Course Instructor for the Photovoltaics and Sputter Deposition of Thin Films short courses. He has also given short courses in fundamentals of thin film solar cells at the IEEE Photovoltaic Specialists Conference, on characterization of photovoltaic materials at the Materials Research Society, and has given short courses on sputter depostion, thin films and photovoltaics in China, Mexico, Sweden, Israel, Brazil, Argentina, and elsewhere. He has published over 150 papers and has given many invited and plenary talks on subjects related to his research including 10 in the past year.