Speaker Bios

SPEAKER BIOS

Alternative Energy

Se-Hee Lee is an associate professor in the Department of Mechanical Engineering at the University of Colorado at Boulder. He received a B.S. and an M.S. in metallurgical engineering from Seoul National University, and a Ph.D. in materials science and engineering from Seoul National University. Previously, Dr. Lee was with the National Renewable Energy Laboratory (NREL) for ten years as a staff research scientist and as a post-doctoral research associate working on fundamental studies of ion intercalation materials. Dr. Lee's primary research interests have concentrated on the investigation of the electro-optical and electrochemical properties of transition metal oxides as well as their micro-structural characteristics. His laboratory expertise is extensive and includes thin-film deposition (evaporation, sputtering, PE-CVD, sol-gel synthesis, etc.), electro-optic characterization, AC impedance spectroscopy, and electrochemical deposition and analyses techniques. He has been engaged in the research and development of a variety of technical subjects across his tenure: solid-state nano-composite supercapacitors for energy storage, solid-state lithium batteries, ion-insertion mechanisms in advanced materials, fiber-optic hydrogen sensors based on chemochromic actuation and novel opto-electronic phenomena involving nano-scale materials. He has gained international recognition for his technical contributions, having more than 60 professional publications to his credit in journals such as *Advanced Materials*, *Applied Physics Letters*, *Electrochemical and Solid-State Letters*, *Journal of the Electrochemical Society*, and *Electrochimica Acta*, among others. He is an active member of the Electrochemical Society and Materials Research Society. He holds five U.S. patents and has eight patents pending.