Korean International Semiconductor Conference & Exhibition on Manufacturing Technology 2025

KISM 2025 BUSAN

Re:Innovation of Semiconductor Manufacturing for AI Ecosystem



Prof. Hyun-Dam Jeong

Chonnam Nat'l Univ., Korea

Hyun-Dam Jeong received his B.S. degree in Chemistry from Korea Advanced Institute of Technology in 1990, and continued his studies in the same department, specializing in Physical Chemistry, where he earned his M.S. degree in 1992 and Ph.D. degree in 1996. Following his doctoral graduation, he worked as a Senior Engineer at Samsung Electronics' Semiconductor Research & Development Center, focusing on low-k process development from 1996 to 1999. In 2000, he conducted research on the characterization of porous low-k materials at the Microelectronic Research Center of Georgia Tech in the United States. From 2001 to 2006, he served as the Project Leader and Principal Investigator at Samsung Advanced Institute of Technology, working on ultra low-k material projects and research on solution-processed inorganic semiconductor materials. Since 2006, He has been a faculty member in the Department of Chemistry at Chonnam National University, progressing through the ranks of Assistant Professor, Associate Professor, and Full Professor. His research has primarily focused on the properties of inorganic nanoparticle thin films and quantum dot thin films, and their applications in semiconductors. Recently, he has been exploring the use of tin-based inorganic nanoclusters and cyclic siloxane molecules as potential metal oxide or molecular resists for Extreme Ultraviolet (EUV) and Blue-X lithography, guided by experimental and computational studies within the framework of electron-driven chemistry