

The 19th U.S.–Korea Forum on Nanotechnology

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Dr. Jung-Hoon Lee is a materials scientist specializing in thin film deposition technologies, particularly Atomic Layer Deposition (ALD) with strong expertise in the fields of oxide semiconductors, metal thin films, and display/semiconductor device fabrication. He received his B.S. and Ph.D. degrees in Materials Science and Engineering from Hanyang University, Korea, where his doctoral research focused on the development of p-type oxide semiconductors and their integration into Thin-Film Transistors (TFTs) via ALD.

Following his academic training, Dr. Lee gained extensive industrial experience. At Isac Research, he led efforts in ALD/PEALD equipment development, novel precursor engineering, and passivation layers for Micro-LED/OLED applications. During his tenure at Samsung Display, he played a key role in process architecture design for next-generation OLED panels, focusing on oxide semiconductor TFTs and device reliability. Since 2023, he has served as a Senior Researcher at Korea Research Institute of Chemical Technology (KRICT), where he is engaged in novel precursor assessment and development for both ALD and MO-CVD processes, enabling advanced device applications in the semiconductor industry.

With his unique combination of fundamental research expertise and industrial insight, Dr. Lee is actively contributing to the advancement of next-generation electronic materials and devices, particularly at the intersection of semiconductor process innovation and display technology evolution.