KISM 2025 BUSAN

Re:Innovation of Semiconductor Manufacturing for AI Ecosystem



Dr. Van Quang Nguyen

(ISAC Research Inc., Korea)

Biography

Dr. Van Quang Nguyen is currently a researcher at ISAC Research Company, South Korea. His work focuses on advanced thin-film deposition techniques such as Atomic Layer Deposition (ALD), Atomic Layer Etching (ALE), Chemical Vapor Deposition (CVD), and Molecular Beam Epitaxy (MBE) for the development of thermoelectric and semiconductor materials. He has extensive experience in epitaxial growth, temperature gradient crystal synthesis, and the fabrication of chalcogenide-based composites for energy and electronic applications.

Education

- 2007: B.Sc. in Physics, Hanoi National University of Education, Vietnam
- 2009: M.S. in Physics, Hanoi National University of Education, Vietnam
- 2018: Ph.D. in Physics, University of Ulsan, South Korea

Research Interests

Dr. Nguyen's research focuses on the synthesis and characterization of advanced thin films and single crystals. His main interests include:

- Molecular beam epitaxy (MBE) of thin films, superlattices, and thermoelectric single crystals
- Magnetic multilayers and artificial heterostructures
- Process development and optimization for ALD, ALE, and CVD systems

Expertise

- Single-crystal growth using temperature gradient techniques
- Molecular Beam Epitaxy (MBE)
- Atomic Layer Deposition (ALD)
- Atomic Layer Etching (ALE)
- Chemical Vapor Deposition (CVD)