## **NVMTS 2024**

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## Prof. Mann-Ho Cho

(Department of Physics, Yonsei University, Republic of Korea)

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Dr. Mann-Ho Cho is a professor in the Department of Physics and an adjunct professor in the Department of Systems Semiconductor Engineering at Yonsei University. His research group is mainly working on semiconductor materials utilizing chalcogen compounds to study interfacial contact properties of two-dimensional semiconductors, phase change memory, and spintronics properties utilizing the strong spin-orbit coupling of topological insulators. During the period from 1994 to 2001, Dr. Cho conducted front-end process research at Samsung Semiconductor Research Center, where he studied high-k materials and metal gates. He conducted and reported the first research on the application of ALD process to high-k material and the first research on the application of metal to gate. From 2002 to 2003, he conducted semiconductor interface structure research as a postdoctoral fellow in the Materials Science and Engineering Department at Stanford University, and then from 2003 to 2007 at the Korea Institute of Standards and Science (KRISS), where he studied various properties at semiconductor-oxide interfaces using ion scattering sepctroscopy. He received his Ph.D. from the Department of Physics, Yonsei University, where he studied oxide epi-growth and its use for MOS characterization. He has reported more than 330 SCI(E) papers related to various semiconductor materials and devices, including PCRAMs, and holds more than 60 patents related to materials synthesis and semiconductor processes.