



Dr. Jouhahn Lee

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Dr. Jouhahn Lee's research interest is mainly focused on the analysis of the interface electronic structures of the various new materials, particularly a low 2D materials such as graphene, MoS₂, and Phosphorene (a single layer of Black Phosphorous). He started the professional research from surface science, the chemical and physical phenomena occurring on either the surface or the interface in the combined materials are main research targets. In addition the organic light-emitting devices (OLED) and other related organic electronics structures were also intensively studied using various ways of surface analysis techniques. Basically, he is a condensed matter experimental physicist in the field of photoemission using XPS and UPS. The characterization of electrical transport properties in thin films and multilayers, growth and characterization of metal oxide thin films using electron beams are also his research interests. As a founder of Nano Surface research group in Korea Basic Science Institute (KBSI), he is in charge of managing the whole operation about surface science research activities including maintaining high-tech scientific instruments, designing the experiments and analyzing the scientific demands from the latest new materials. He has built the Multi-disciplinary Nano-Surface in situ Analysis system and awarded the government prize for the excellent 100 research works. This system consists of 6 analytical instruments and 8 sample process instruments. A XPS, an Ambient Pressure XPS, a LEEM/PEEM, a Raman spectroscopy, a STM/AFM, a LEED and an Angle Resolved PES with DA30 analyzer are installed as analytical instruments. An Ion sputter, a thermal evaporator, a CVD and an ALD are also connected with the in situ sample transfer system into those analytical instruments. He also has initiated and completed the whole strategic report for the new synchrotron radiation source in Ochang, Korea as a director of Large Research Infrastructure Division

Currently he is the project leader of PAL-KBSI beamline APXPS project. He is the vice president of Korean Society of Surface Analysis and a board member of Korean Vacuum Society. He graduated King's College London with PhD in Physics 2000. Then he became a technical leader of the OLED development team in Samsung Electronics. Then he joined the Korea Basic Science Institute in 2004. KBSI is one of the leading national institutes of Korea, which is specialized with the operation of big scientific instruments, providing the analysis service to the public.