

2D materials for quantum integrated photonics

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Abstract. Quantum technologies, such as quantum networks and photonic processors, need the interfacing of numerous single photons on a chip for their implementation. Integration between quantum light sources and photonic devices, such as waveguides and cavities, is crucial for this purpose. Here, we present the integration of hBN quantum emitters into photonic waveguides and photonic cavities.

Biography. Sejeong Kim is a lecturer at the University of Melbourne, Australia. She obtained her PhD in Physics from Korea Advanced Institute of Science and Technology (KAIST) in 2014. She was a research fellow at the University of Technology Sydney (UTS) from 2017 to 2020. Her research focuses on developing light-matter interaction at the nanoscale, particularly using optical/plasmonic cavities. This includes studies of photonic crystal cavities for microlasers, sensors and quantum applications, as well as the development of an integrated photonics platform.