세미나 초록

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발표 주제	Computational insights into novel low-dimensional materials for next-generation semiconductor applications
발표 내용	Low-dimensional materials such as two-dimensional materials, novel metal-halide crystals with internal low-dimensional polyhedrons, and colloidal quantum dots attract great attention due to their exceptional tunability of electrical and optical properties. These materials are expected to be important building blocks in the development of various functional semiconductor devices. In this presentation, several computational studies based on density functional theory (DFT) will be introduced for the application of low-dimensional materials to next-generation semiconductor devices. In particular, it will be highlighted that the material engineering parameters revealed by electronic structure calculations can act as key components toward seamless collaborations with experiments.