

Two-Dimensional Nanomaterials Used In Spintronic Devices for Various Applications

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Extended Abstract

Spintronic devices exhibit unique properties by manipulating not only the charge of electrons but also their spin. Currently, the major challenges in this field are the high-dimensional materials with low spin-current generation efficiency and the expensive fabrication processes. Two-dimensional materials, including graphene nanosheets, are emerging as promising alternatives for spintronic devices due to their unusual spin-electrical transport properties. This talk will present our recent advancements in developing two-dimensional nanomaterials for spintronic devices, with a focus on applications in sensing technology.