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Boron Nitride Nanosheets as a platform for fluorescence sensing

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Abstract

Hexagonal boron nitride nanosheets (BNNS), one kind of inorganic graphene analogue, exhibit high fluorescence quenching ability via the photo-induced electron transfer (PET) and different affinity toward single-stranded DNA (ssDNA) and double-stranded DNA (dsDNA). As a proof of concept, the BNNS was first used as a sensing platform for the rapid detection of DNA and small molecules with high sensitivity and selectivity in this study. This strategy is versatile and quick fluorescence sensing of DNA and extensive DNA related analytes such as metal cations and small molecules. Moreover, this strategy might be available for the

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