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Screening Effect of Hexagonal Boron Nitride on Half Fluorinated Graphene[1] CRISTIAN CERNOV, SHAYAN HEMMATIYAN, JAIRO SINOVA, Department of Physics, Texas A&M University, College Station, TX 77843-4242, USA — Based on first principle calculations, we present the screening effects of hexagonal boron nitride (h-BN) on the creation of a preference site for fluorine adsorption limited to one graphene sublattice. Furthermore, spin-polarized calculations indicate the overall magnetization of the system is anti-ferromagnetic. We also propose a possible spintronics application of half-fluorinated h-BN heterostructures.

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