PDoS for Graphene-BC₃ by HSE06 Total PDoS PDoS for Carbon in Graphene 10 3.0 Fermi energy -0.940 (eV) Fermi energy -0.940 (eV) (a) (b) Total PDoS Total PDoS $s \; \mathsf{PDoS}$ $s \; \mathsf{PDoS}$ p_x PDoS p_x PDoS 2.5 p_y PDoS p_y PDoS 8 p_z PDoS p_z PDoS --- Fermi energy --- Fermi energy Density of states 2.0 1.5 -2 -2PDoS for Boron in BC₃ PDoS for Carbon in BC₃ 3.0 3.0 Fermi energy -0.940 (eV) Fermi energy -0.940 (eV) (c) (d) Total PDoS Total PDoS $s \; \mathsf{PDoS}$ $s \; \mathsf{PDoS}$ p_x PDoS p_x PDoS 2.5 2.5 p_y PDoS p_y PDoS p_z PDoS p_z PDoS --- Fermi energy --- Fermi energy Density of states 0.7 0.7 0.7 2.0 1.5 0.5 0.5

Energy (eV)

Energy (eV)