Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Electronic Supplementary Information (ESI)

Antimonene: a monolayer material for ultraviolet optic nanodevices

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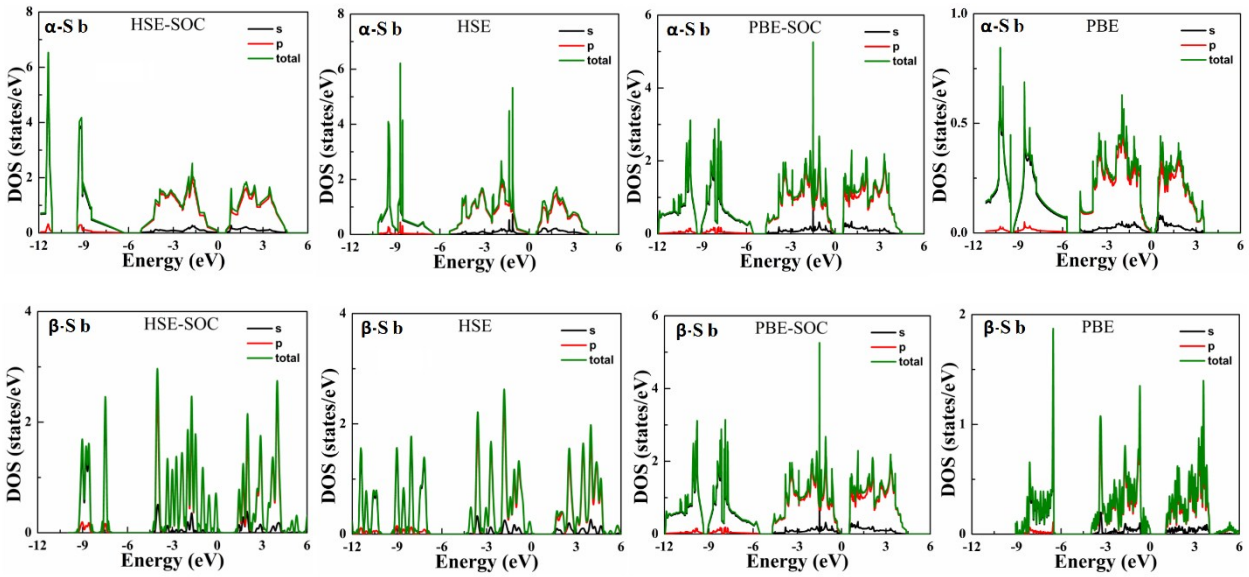

Fig. S1 Comparison of the electronic densities of states (DOS) of two antimonene allotropes α-Sb (up) and β-Sb (down) obtained using PBE and HSE06 functionals with and without the spin-orbit coupling.

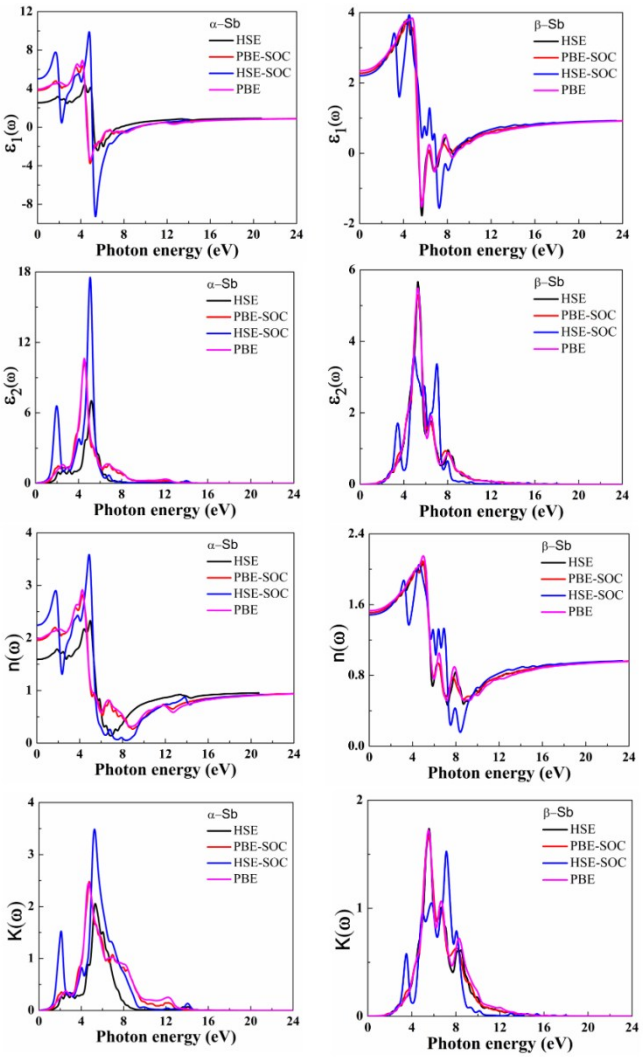

Fig. S2 The real and imaginary parts of complex dielectric function along with the refractive index *n(ω)* and extinction coefficient *K(ω)* of α-Sb (left) and β-Sb (right) monolayers obtained using PBE and HSE06 functionals with and without the spin-orbit coupling.

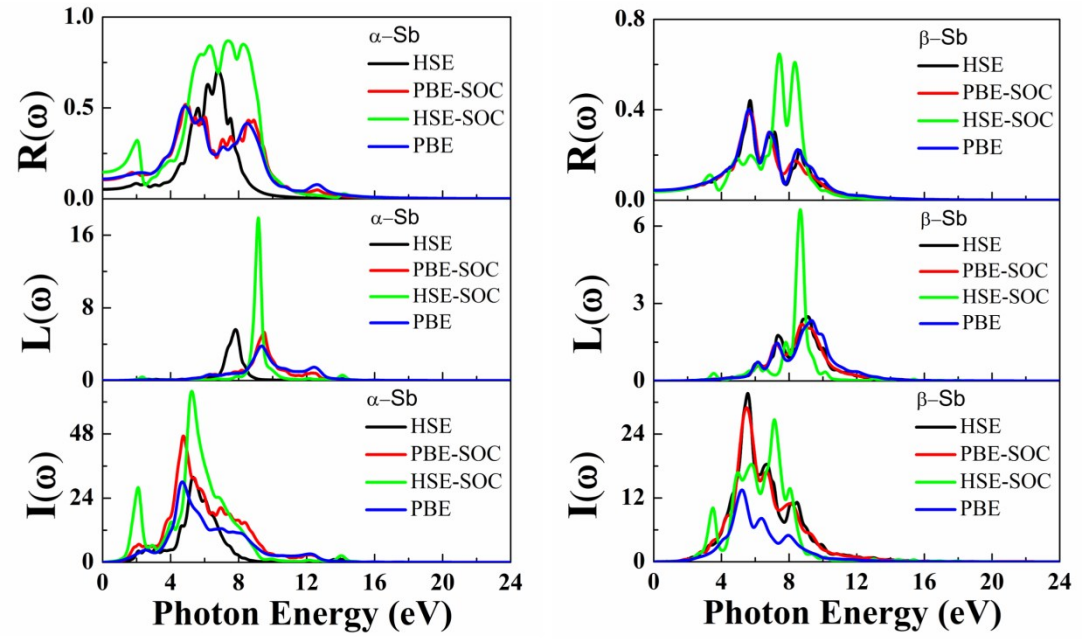

Fig. S3 The absorption coefficient *I(ω)*, energy loss spectrum L(ω) and reflectivity R(ω) of α-Sb (left) and β-Sb (right) monolayers obtained using PBE and HSE06 functionals with and without the spin-orbit coupling. The unit of absorption coefficient is 10^5/cm.