Supporting Information for

Anisotropic optical properties of GeS investigated by optical absorption and photoreflectance

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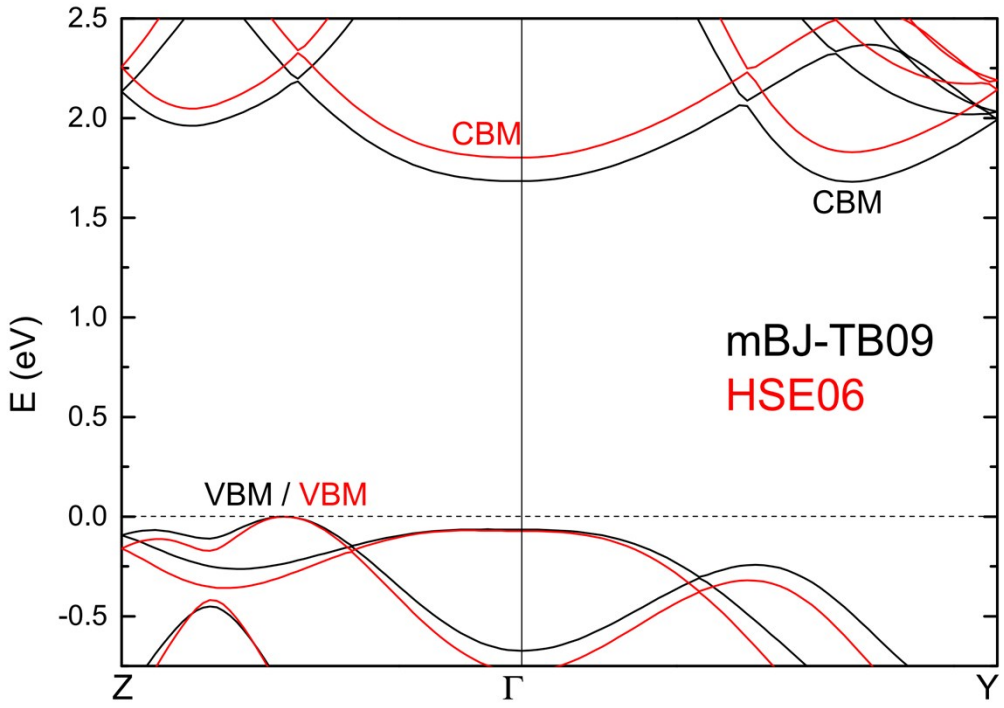

Fig. S1. Electronic band structures calculated with mBJ-TB09 (black) and HSE06 (red). Positions of VBM and CBM are indicated.

Table S1. The energies of optical transitions E_0, E_1 and E_2 calculated using mBJ-TB09 potential and HSE06 hybrid functional.

Transition	Assignation	Energy (eV)		
		Experiment	Calculation – mBJ-TB09	Calculation – HSE06
E_0	Γ-Z→Δ	1.685	1.607	1.829
E_1	Γ	1.701	1.628	1.875
E_2	Δ	1.797	2.039	2.322

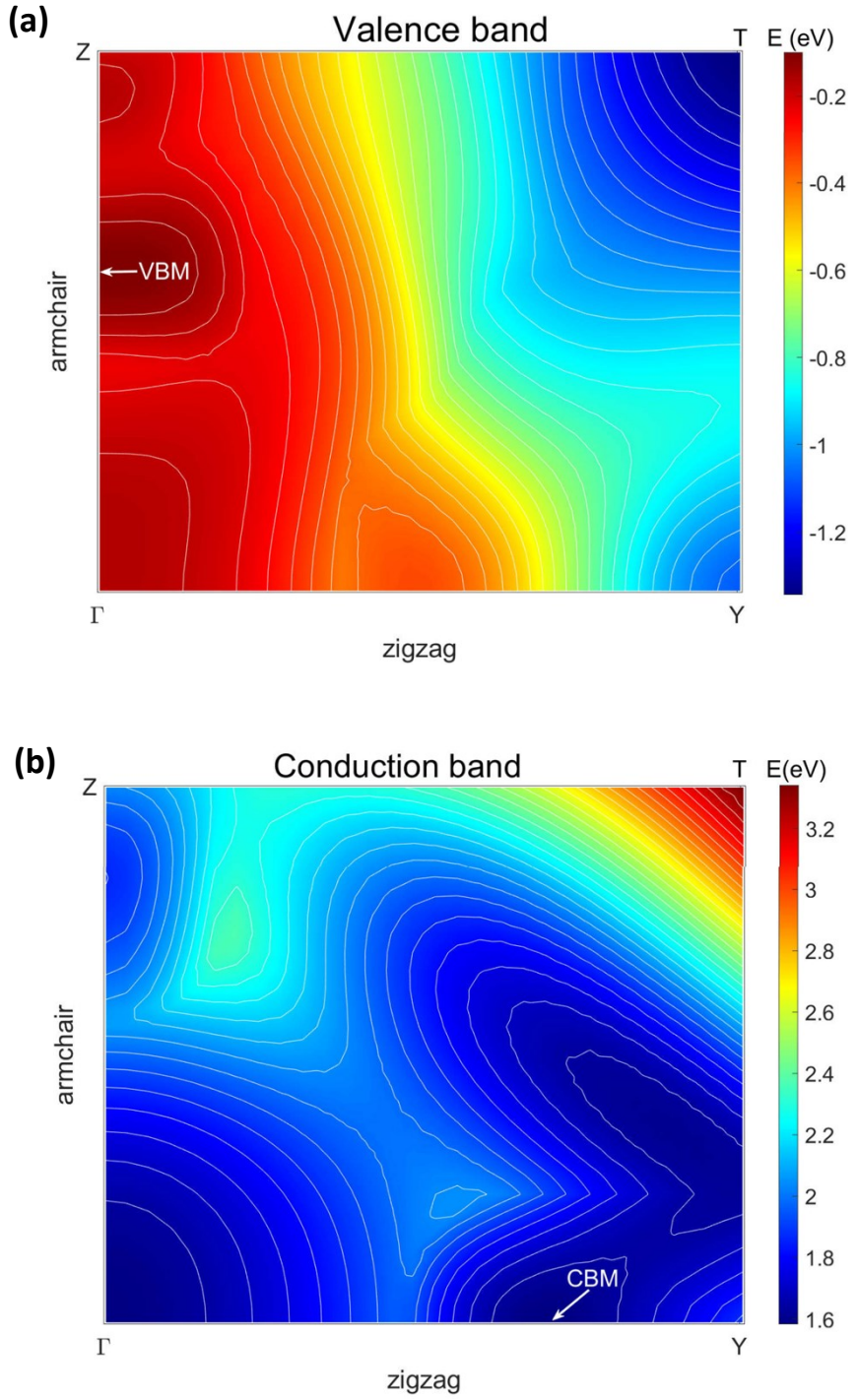

Fig. S2. Valence band (a) and conduction band (b) on Γ-Z-T-Y plane.

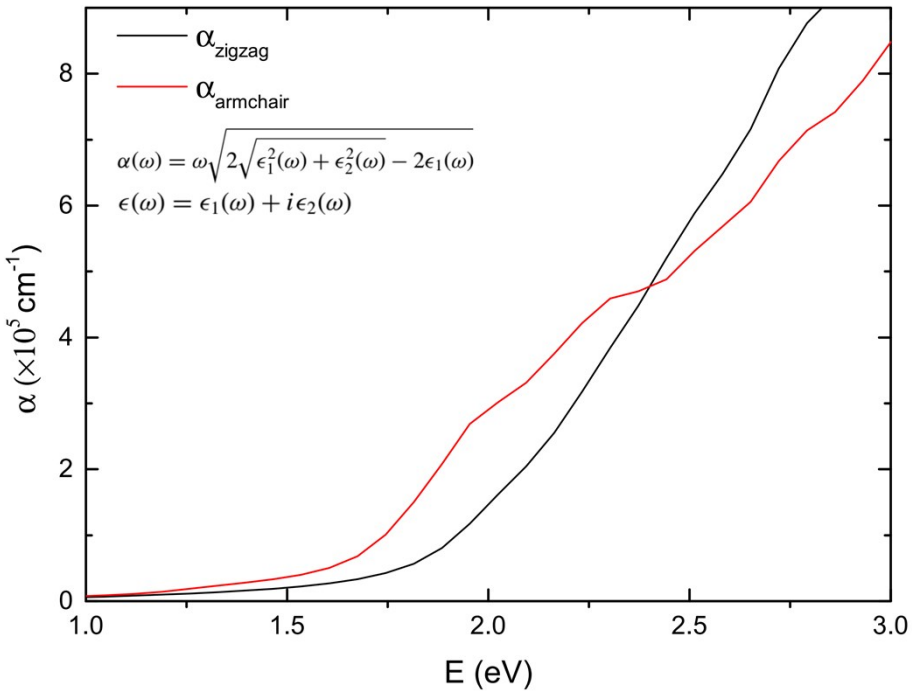

Fig. S3. Calculated absorption coefficient on zigzag and armchair directions.