

FIGURE CAPTIONS of SUPPORTING MATERIAL

Figure S1. Landau levels at $B_0 = 40$ T corresponding to eight combinations of four interlayer interactions are shown in (a) to (h), respectively.

Figure S2. The optical-absorption spectra, derived under the same conditions as in Fig. S1, are shown in (a) to (h), respectively.

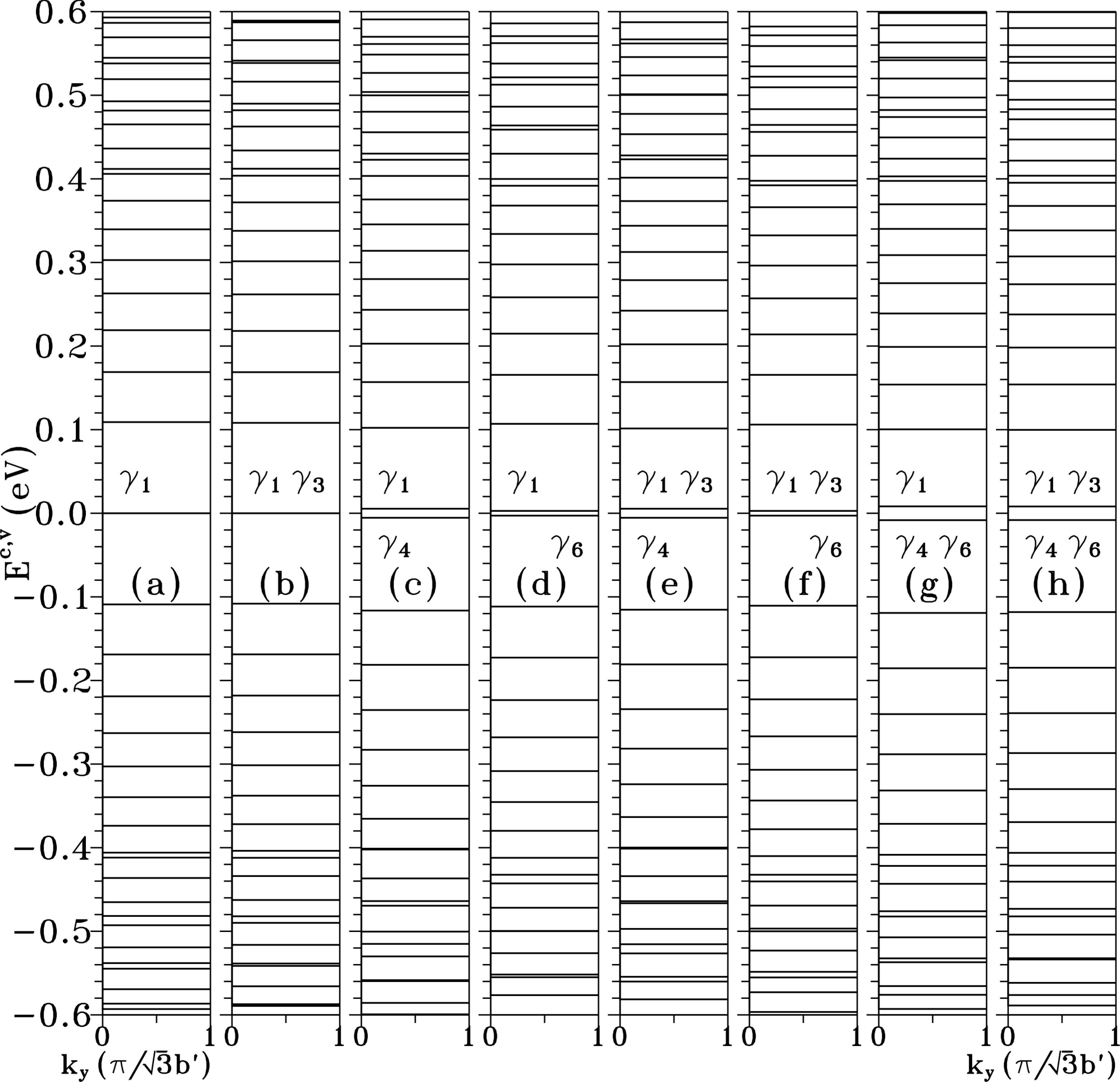
Figure S3. (a) Landau levels at $B_0 = 40$ T calculated with the parameters used in our work. (b), (c), and (d) are the results calculated with three other sets of parameters commonly used in the investigations of AB-stacked bilayer graphene.

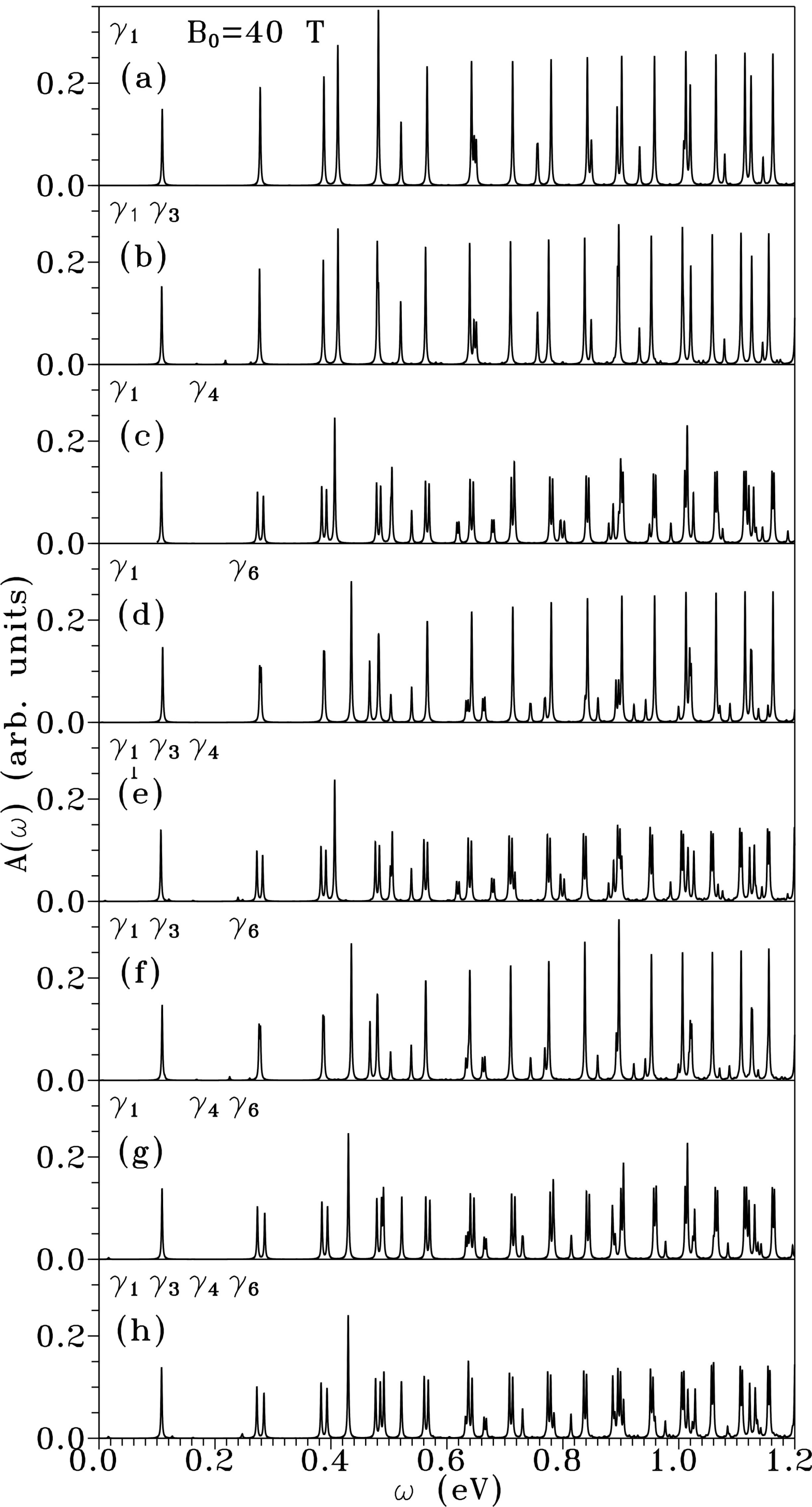
Figure S4. The optical-absorption spectra, derived under the same conditions as in Fig. S3, are shown in (a) to (d), respectively.

Figure S5. The optical-absorption spectra obtained with the four broadening parameters (a) $\Gamma = 1$ meV, (b) $\Gamma = 2$ meV, (c) $\Gamma = 5$ meV, and (d) $\Gamma = 10$ meV.

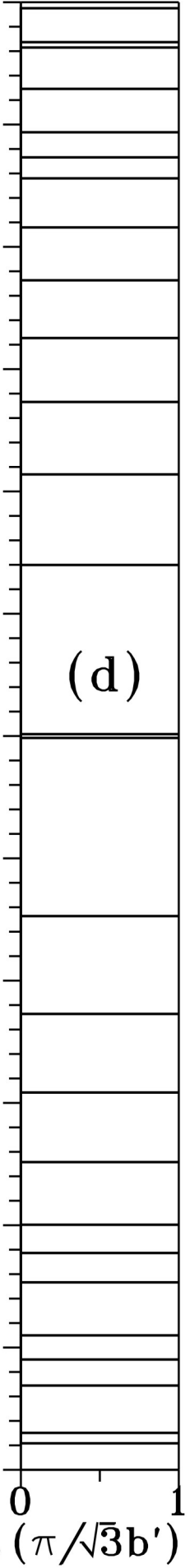
Figure S6. (a) The low energy bands in a zero field, (b) the two groups of Landau levels at $B_0 = 40$ T, and (c) the Landau-level wave functions of AA-stacked bilayer graphene.

Figure S7. The optical-absorption spectra of AA-stacked bilayer graphene at $B_0 = 40$ T and $B_0 = 0$, indicated by the black and blue lines, respectively.

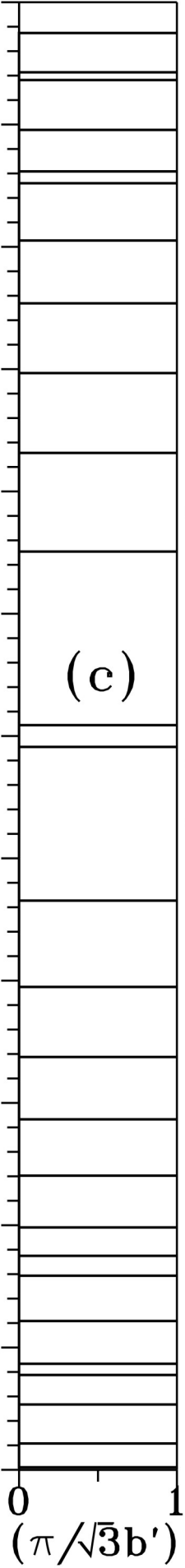




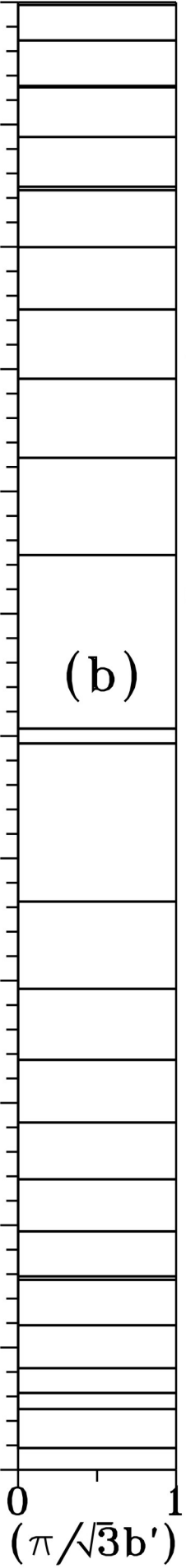
A. B. Kuzmenko, et al., Phys. Rev. B (80) 165406



B. Partoens, et al., Phys. Rev. B (74) 075404



K. Nakao, J. Phys. Soc. Japan (40) 761



J.-C. Charlier, et al., Phys. Rev. B (46) 4531

