

Abstract Submitted  
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**Electronic properties of bilayer graphene ribbons with Bernal stacking in a strong magnetic field**<sup>1</sup> YUAN-CHENG HUANG, Center for General Education, Kao Yuan University, CHENG-PENG CHANG, Center for General Education, Tainan University of, MING-FA LIN, Department of Physics, National Cheng Kung University — We employ the Peierl coupling tight-binding method to study magneto-electronic properties of bilayer graphene ribbons with Bernal stacking. Because of the interlayer interactions, the magnetic energy bands of a bilayer graphene ribbon are different from those of a monolayer ribbon in the Landau-level energies, the energy spacing, the state degeneracy, and the number of the Landau levels. The low-frequency magneto- absorption spectra reveal the characteristics of the electronic properties. The spectra exhibit denser Landau peaks than those of a monolayer ribbon do. Meanwhile, the transition channels of the Landau peaks are also identified. The selection rule is  $\Delta\tilde{n} = \pm 1$ .

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