

Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

Electronic magnetic properties of slipped bilayer graphene nanoribbon¹ BI-RU WU, department of natural science, Center for General education, Chang Gung University — We use a first-principles method for investigating the electronic and magnetic properties of slipped bilayer graphene nanoribbon. The band dispersion in the low energy region are dominated by the stacking manner, because that alters the interlayer interaction so much. The magnetic properties of zigzag edged bilayer graphene nanoribbon depend on the interaction between edges belong to different layers. It was found that a transition of antiferromagnetic semiconductor to nonmagnetic metal occurs during the slipping process. The armchair edged bilayer graphene exhibits as nonmagnetic semiconductor with a rule similar to the armchair edged monolayer graphene nanoribbon. This founding will provide an opportunity for tuning the electronic properties and magnetic properties of the devices made by bilayer graphene nanoribbon.

¹We thank the Physics Division, National Center for Theoretical Sciences, and the funding support by the ministry of science and Technology, R.O.C. with grant number MOST 105-2112-M-182-002-My3

Bi-Ru Wu
department of natural science, Center for General education, Chang Gung University

Date submitted: 10 Nov 2016

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