Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

Electronic properties of hybrid graphane/boron nitride nanoribbons with hydrogen vacancies.[1] CHI-HSUAN LEE, CHIH-KAI YANG, Graduate Institute of Applied Physics, National Chengchi University, Taipei, Taiwan, ROC — Electronic properties of hybrid graphane/boron nitride nanoribbons with hydrogen vacancies are investigated using density functional calculations. Two types of vacancies, line and chain, are studied. They reveal different electronic and magnetic properties. Formation of vacancies at different locations is also considered. Interaction between two separate chain vacancies within a graphane nanoribbon is also compared with that of a BN ribbon. The results should be useful for application in nanoelectronic devices. .

[1]Supported by the Ministry of Science and Technology of the Republic of China under grant numbers MOST 104-2112-M-004-003 and 105-2112-M-004-001-MY3.

Chih-Kai Yang
National Chengchi University

Date submitted: 20 Nov 2016 Electronic form version 1.4