

Abstract Submitted
for the MAR16 Meeting of
The American Physical Society

Replace this text with your abstract title. YANG LI, Ohio University Argonne National Laboratory, ANDREW DILULLO, BRANDON FISHER, Argonne National Laboratory, SAW-WAI HLA, Argonne National Laboratory Ohio University — We investigate the interaction of graphene nanoribbon (GNR) with cobalt-porphyrin (Co-TBrPP) molecules using low temperature scanning tunneling microscopy (STM), tunneling spectroscopy, and atomic/molecular manipulation schemes. GNRs are formed by fusing 10,10'-dibromo-9,9'-bianthryl molecules on a Au(111) surface. Due to a weak binding, the Co-TBrPP molecules are mobile on GNR. The lateral manipulation scheme using the STM tip is employed to investigate the diffusion of the molecule on this surface. Guided by the edges of the GNR, the molecules diffuse in one-dimensional paths. We will also discuss the electronic properties of Co-TBrPP on GNR measured by using tunneling spectroscopy and spectroscopic mapping. We acknowledge the support of DOE SISGR grant: DE-FG02-09ER16109.

Yang Li
Ohio Univ

Date submitted: 05 Nov 2015

Electronic form version 1.4