

Abstract Submitted  
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**Production and Characterization of Graphene Nanoribbons**

GABRIEL SETZLER, L.K.K.D. CHAMATH, SEUNGSOO KIM, HYEUN JOONG YOON, MARK MING-CHENG CHENG, ZHIXIAN ZHOU, Wayne State University — We have produced graphene nanoribbons by sonicating various types of graphite in solution. Atomic force microscopy (AFM) was used to characterize individual graphene Nanoribbons deposited onto Si/SiO<sub>2</sub> substrates. Monolayer and few layer graphene nanoribbons were observed. Field effect transistor devices of individual nanoribbons were fabricated, and their electrical transport properties were measured. Possible mechanisms of graphene nanoribbon formation and electrical transport data on graphene nanoribbon devices will be discussed.

Zhixian Zhou  
Wayne State University

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