Abstract Submitted
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Production and Electrical Characterization of Graphene Nanoribbons from Pristine Graphite in Solution[1] CHENG LING, GABRIEL SETZLER, JIN JIN, SEUNGSOO KIM, HYEUN JOONG YOON, MARK MING-CHENG CHENG, ZHIXIAN ZHOU, Wayne State University — We have produced graphene nanoribbons by sonicating pristine graphite in solution. Atomic force microscopy (AFM) was used to characterize individual graphene Nanoribbons deposited onto Si/SiO2 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.

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