

Abstract Submitted
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Graphene xylophone: Mechanical properties of graphene based nano resonators¹ SANG WOOK LEE, HAKSEONG KIM, HOYEOL YUN, JEONG-AH LEE, Konkuk University, YOUNGWOOK KIM, JUN SUNG KIM, POSTECH — Mechanical properties of graphene xylophone structure were investigated. The arrays of the graphene ribbon patterns were prepared using nano lithography and suspended graphene structure was realized on the pre-patterned trench by the micro contact transfer printing method. Xylophone like structure was prepared for studying length and thickness dependence of mechanical properties of graphene resonator. The various mechanical behaviors, such as frequency tuning, non-linearity and bistability of single, bi and multi layer graphene structure will be discussed in this presentation. The potential application of our graphene xylophone structure for RF component will be suggested in the end of this presentation.

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