

Abstract Submitted
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Suspended graphene device under strain FEN GUAN, BENT NIELSEN, XU DU, Stony Brook University — It has been theoretically proposed that strain can induce changes in band structure and electrical transport properties of graphene. While some evidences have been reported on spectroscopy measurements, transport study on strained graphene has been limited and is mostly based on non-suspended graphene, where the detrimental effect of the substrates may smear out the intrinsic response. To overcome this problem, we report the fabrication of suspended monolayer and bilayer graphene devices on flexible substrates. By bending the substrate and measuring the transport characteristics of graphene as a function of temperature and gate voltage, these devices allow study of the intrinsic properties of the materials under strain.

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