

Abstract Submitted
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Local-Gating of Graphene Nanostructures JAMES WILLIAMS,
CHARLES MARCUS, Harvard University — We report on the fabrication and measurement of locally-gated single-layer graphene devices. Utilizing a non-covalent functionalization layer, the preservation of the unique electrical properties of graphene after deposition of the top-gate oxide is demonstrated. Novel top-gate geometries, including circular and multiple-rectangular gate designs, combined with oxygen-plasma etching allow for further elucidation of the unique transport properties of graphene p-n junctions and graphene constrictions. Research supported in part by INDEX, an NRI Center, and by the Harvard NSEC.

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