

Abstract Submitted
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Electronic transport experiments on adatom-decorated graphene

E.A. HENRIKSEN, J.P. EISENSTEIN, California Institute of Technology — Single-layer graphene is expected to exhibit a wide range of novel behaviors when decorated with a disperse coating of various adatom species. Toward conducting experiments on these systems, we are developing a cryogenic ultra-high vacuum probe with the capability to explore the electronic transport of graphene and other materials that have been cleaned and annealed *in situ*, followed by coating via the controlled deposition of sub-monolayer coverages of a range of elements. We will report our progress on the fabrication of such thin layers, and on the characterization of surface-modified graphene devices. This work is supported by the DOE under grant No. DE-FG03-99ER45766 and the Gordon and Betty Moore Foundation.

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