

Abstract Submitted
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Fabrication and characterization of nanopatterned ultrathin epitaxial graphite films.¹ ZHIMIN SONG, XUEBIN LI, TIANBO LI, CLAIRE BERGER, PHILLIP FIRST, WALTER A. DE HEER, Georgia Institute of Technology — High quality ultrathin graphite films, composed of less than 10 graphene layers, have been epitaxially grown on single crystal SiC substrate by thermal decomposition. Hall bar structures, top gate and side gated field transistor structures have been fabricated using electron beam lithography methods. Scanning Electron Microscopy (SEM), Atomic Force Microscopy (AFM) and Electrostatic Force Microscopy (EFM) have been used to characterize the structures. These results demonstrate that nanopatterned epitaxial graphite (NPEG) is a promising quasi-two-dimensional electronic material. .

¹NSF,NIRT,INTEL

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