

Abstract Submitted
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Preparation and transport studies of single layer graphite oxide and graphene films SONG HAN, Electrical Engineering Department, University of California, Los Angeles, SCOTT GILJE, RICHARD KANER, Department of Chemistry and Biochemistry, University of California, Los Angeles, KANG WANG, Electrical Engineering Department, University of California, Los Angeles — Single sheet graphite oxide films are synthesized by intercalation and exfoliation routes of graphite. Because of its layered structure, graphite can readily be intercalated using alkali metals. Such method opens up the possibility of synthesizing ultra-thin layers of graphite by reducing the graphite oxide films. The as-synthesized graphite oxide films are deposited on SiO₂/Si substrates. Ebeam lithography is used to fabricate graphite oxide Field Effect Transistors (FETs). The transport properties of these devices are studied before and after the reduction of graphite oxide films.

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