

Abstract Submitted  
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**Preparation of macroscopic graphene oxide membranes<sup>1</sup>** ZHENG-TANG LUO, YE LU, LUKE SOMERS, A.T. CHARLIE JOHNSON, Department of Physics and Astronomy, University of Pennsylvania, Philadelphia, PA — Graphene oxide membranes up to 2000 square micrometers in size can be synthesized with 90 % yield in bulk quantities through a microwave assisted chemical method. Membranes are readily visualized on oxidized silicon substrate, which enables efficient fabrication of electronic devices and sensors. Field effect transistors made of the membrane show ambipolar behavior, and their conductivity is significantly higher than previously reported values.

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