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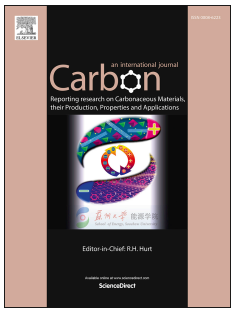

Enhanced electrical, mechanical and thermal properties by exfoliating graphene platelets of larger lateral dimensions

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PII: S0008-6223(17)31267-8

DOI: 10.1016/j.carbon.2017.12.034

Reference: CARBON 12664

To appear in: *Carbon*

Received Date: 27 October 2017

Revised Date: 6 December 2017

Accepted Date: 9 December 2017

Please cite this article as: T. Wang, M. Quinn, S.M. Notley, Enhanced electrical, mechanical and thermal properties by exfoliating graphene platelets of larger lateral dimensions, *Carbon* (2018), doi: 10.1016/j.carbon.2017.12.034.

Enhanced Electrical, Mechanical and Thermal Properties by Exfoliating Graphene Platelets of Larger Lateral Dimensions

A way to highly effectively produce graphene sheets with large lateral dimension in aqueous solution is demonstrated by combining electrochemical and ultrasonic methods. Electrical and mechanical properties of graphene film materials fabricated with these graphene sheets are largely improved. As well, polymer-graphene composites can be prepared conveniently both for water soluble polymers and for organic soluble polymers.