

Supplementary Information
Hydrophilic Graphene Preparation from Gallic Acid Modified
Graphene Oxide in Magnesium Self-Propagating High
Temperature Synthesis Process

Lei Cao, Zhenhuan Li*, Kunmei Su, Bowen Cheng

State Key Laboratory of Separation Membranes and Membrane Processes, School of
Materials Science and Engineering, Tianjin Polytechnic University, 300160 Tianjin,
China.

***Corresponding Authors**

Tel: +86 022 83955358; fax +86 022 83955055;

e-mail: zhenhuanli1975@aliyun.com or lizhenhuan@tjpu.edu.cn

In order to discuss the effects of addition amount of GA on sheet area, smooth, edge defects and hydrophobic property of graphene sheets, 1.0g, 1.5g and 2.0g GA were loaded into equal mass of GO solution, and then reduced by magnesium with the same methods. The resulting materials are denoted as rGO_{GA1} , rGO_{GA} and rGO_{GA2} , respectively.

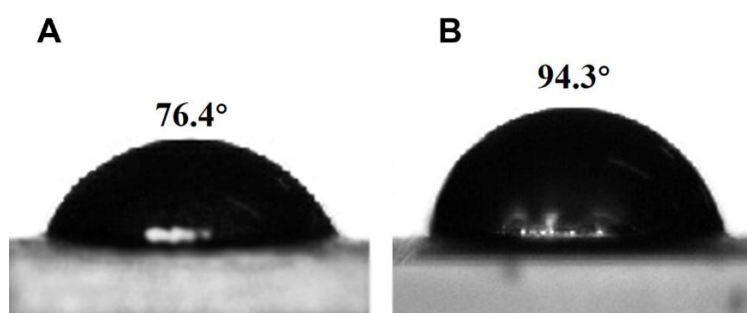


Figure S1. contact angle of rGO_{GA1} and rGO_{GA2} .

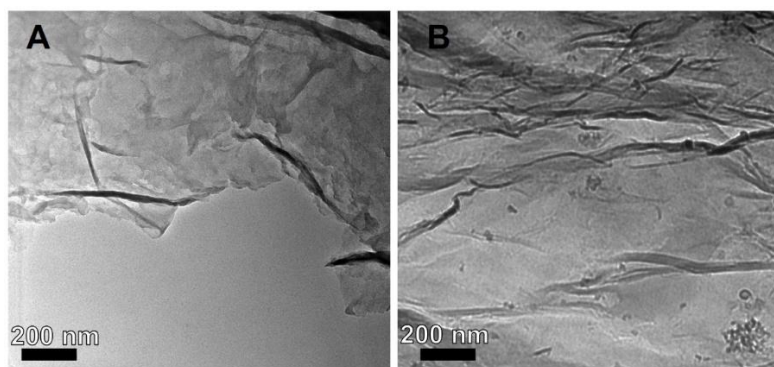


Figure S2. TEM images of rGO_{GA1} and rGO_{GA2} .

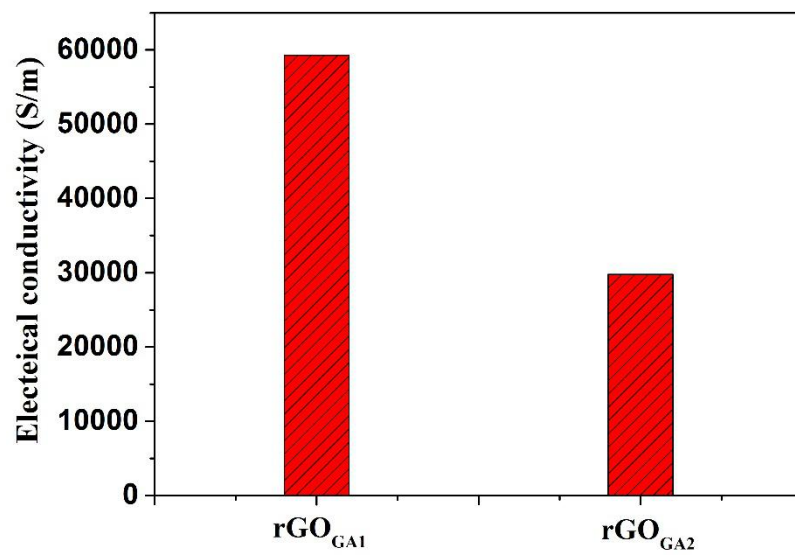


Figure S3. The electrical conductivity of rGO_{GA1} and rGO_{GA2}.