

*Supporting Information for*

**Metal-free B-Substituted Graphene with an Enhanced  
Electrocatalytic Activity for Hydrogen Evolution Reaction**

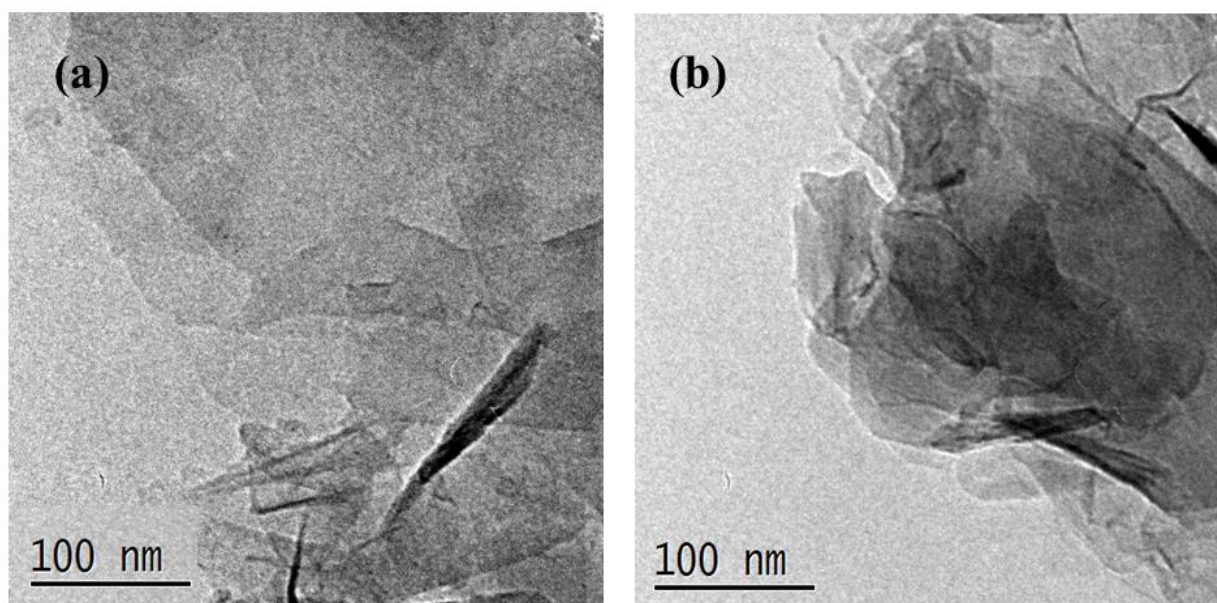
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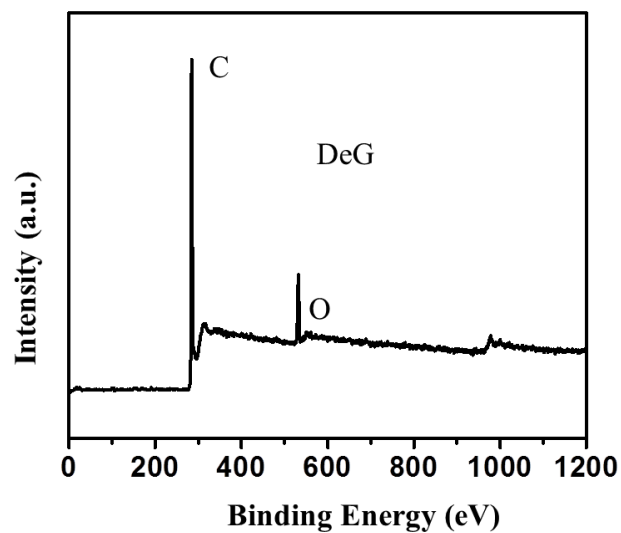
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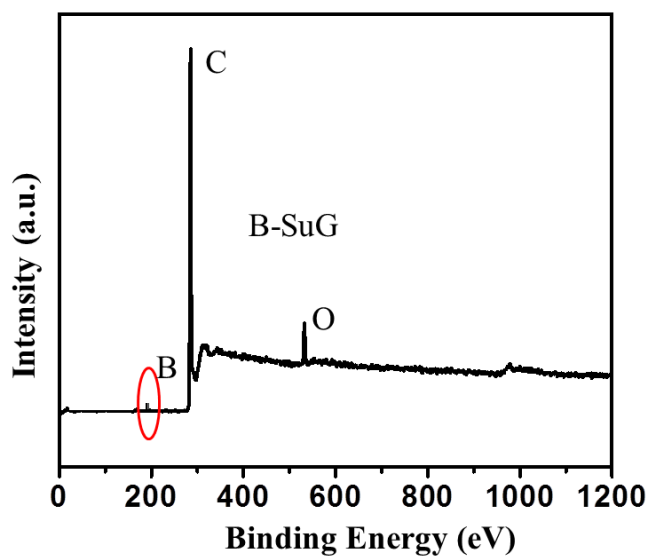
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**Figure S1.** Typical low magnification TEM images of (a) DeG (the precursor material) and (b) B-SuG synthesized by doping DeG with B using  $\text{BH}_3\text{-THF}$  as a borylating agent.



**Figure S2.** Full survey XPS spectrum of DeG. The compositions of C and O in the material in atomic percentage were found to be of 88.96 % and 5.45 %, respectively.



**Figure S3.** Full survey XPS spectrum of B-SuG. The compositions of C, O and B in the material in atomic percentages were found to be 88.96 %, 5.45 %, and 1.85 %, respectively.