



Supplementary Materials: Robust Carbon-Stabilization of Few-Layer Black Phosphorus for Superior Oxygen Evolution Reaction

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Figure S1. (a) Equipment for synthesizing Ex-BP/NGS@C. (b) Photos of the synthesis process. (c) Image of Ex-BP/NGS@C aqueous dispersion.



Figure S2. TEM image of Ex-BP nanosheets.



Figure S3. AFM image of Ex-BP nanosheets.



Figure S4. FTIR spectrum of Ex-BP/NGS@C.

Figure S4 further demonstrates the interaction between Ex-BP/NGS@C hybrids using FTIR. Usually, Ex-BP/NGS@C is partially oxidized when exposed to air during the measurement process. Therefore, the FTIR spectrum of BP shows a characteristic peak of P-O (~1000 cm⁻¹). The characteristic peak of P-C appeared at 1050 cm⁻¹, which may come from the interaction between NGS and black phosphorus [1].

Reference

 Song, T.; Chen, H.; Xu, Q.; Liu, H.; Wang, Yo.; Xia, Y.; Black Phosphorus Stabilizing Na2Ti3O7/C Each Other with an Improved Electrochemical Property for Sodium-Ion Storage. ACS Appl. Mater. Interfaces 2018, 10, 37163–37171. doi: 10.1021/acsami.8b14971



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