Supporting information

Nitrogen-doped porous graphene as a highly efficient cathodic electrocatalyst for aqueous organic redox flow battery application

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Fig. S1 Rotating disk electrode (RDE) measurements of 1 mM BQDSH$_2$ in 1 M H$_2$SO$_4$ on glassy carbon (a) and NPGs (c) electrode, respectively, at different rotation rates. Koutecky’-Levich plot derived from RDE data of glassy carbon (b) and NPGs (d) electrode, respectively, at six different BQDSH$_2$ oxidation overpotentials.
Figure S2

Fig. S2 The contact angles of water distributed on different cathodes. (a) Vulcan XC72R carbons coating on Toray carbon paper, (b) NPGs coating on Toray carbon paper, and (c) bare Toray carbon paper.
Fig. S3 Internal resistance versus the concentration of sulfuric acid added in the catholyte for the AQDS/BQDS RFB with and without NPGs at the operating temperature of 35 °C.