

Supporting information for

Three-Dimensional Graphitic Carbon Nitride Functionalized

Graphene-Based High-Performance Supercapacitors

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We investigated the mass ratio between g-C₃N₄ and graphene in the composite. Considering from the two respects of relatively high nitrogen content and three-dimensional (3D) structure in the composites, g-C₃N₄ of 10 mg, 7 mg, 4 mg and 2 mg was added respectively to the 15 mL GO aqueous (3 mg mL⁻¹) in the process of g-C₃N₄@G aerogels through hydrothermal reduction. It was founded that the sample A (10 mg g-C₃N₄) are not 3D structure composites; while, the 3D structure is fragile and serious shrinkage after freeze-drying in both the sample B (7 mg g-C₃N₄) and sample C (4 mg g-C₃N₄), as shown in **Figure S1a, b, and c**. Unlike previous structure, a perfect 3D structure just like the 3D graphene (Figure S1d) was obtained in the sample D (2 mg g-C₃N₄, the ratio that mentioned in the manuscript).

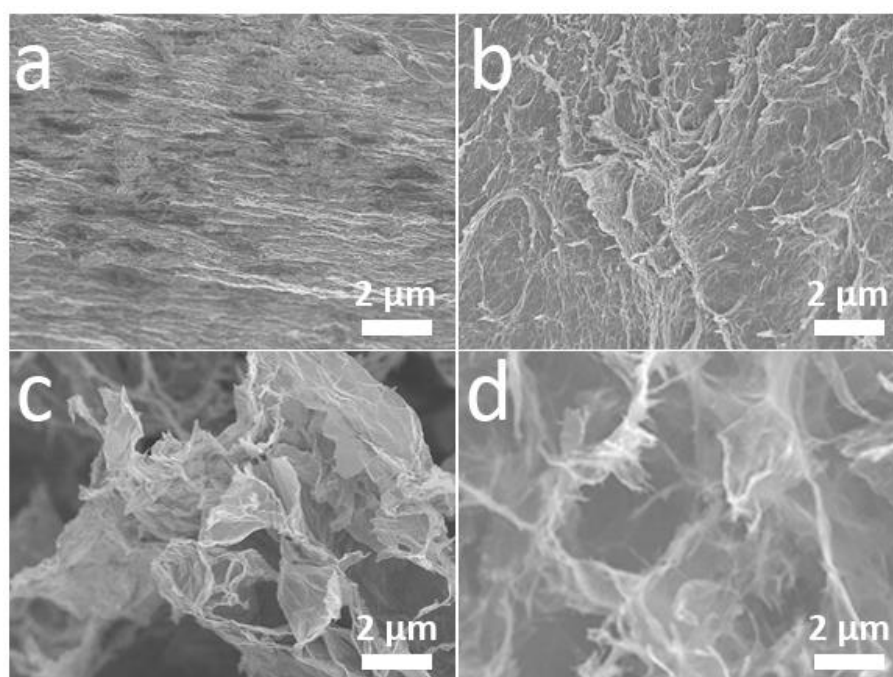


Figure S1. SEM images of the samples of A (a), B (b), C (c), and the pristine 3D graphene (d).

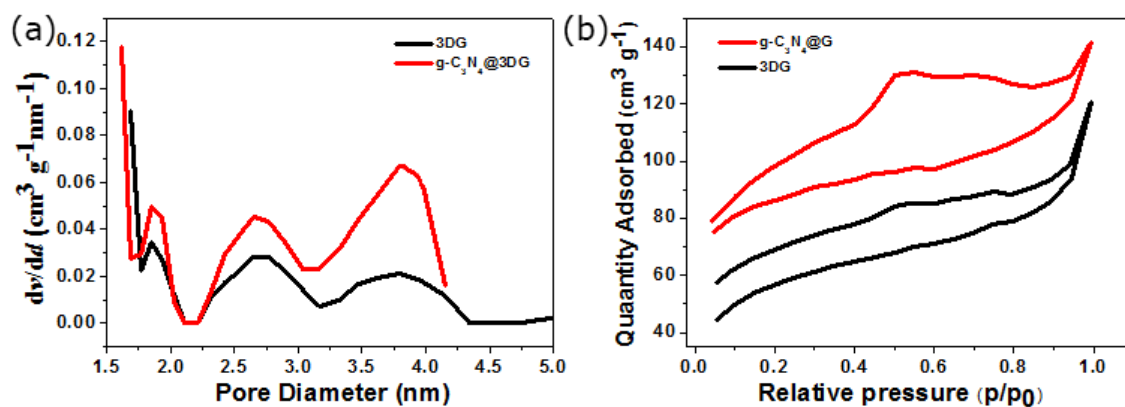


Figure S2. N₂ adsorption-desorption isotherms (a) and pore size distributions (b) of the 3D G and g-C₃N₄@G material, respectively.