

Preparation and Heat Dissipation Performance of Vertical Graphene Nanosheets/Carbon Fibers Composite Film

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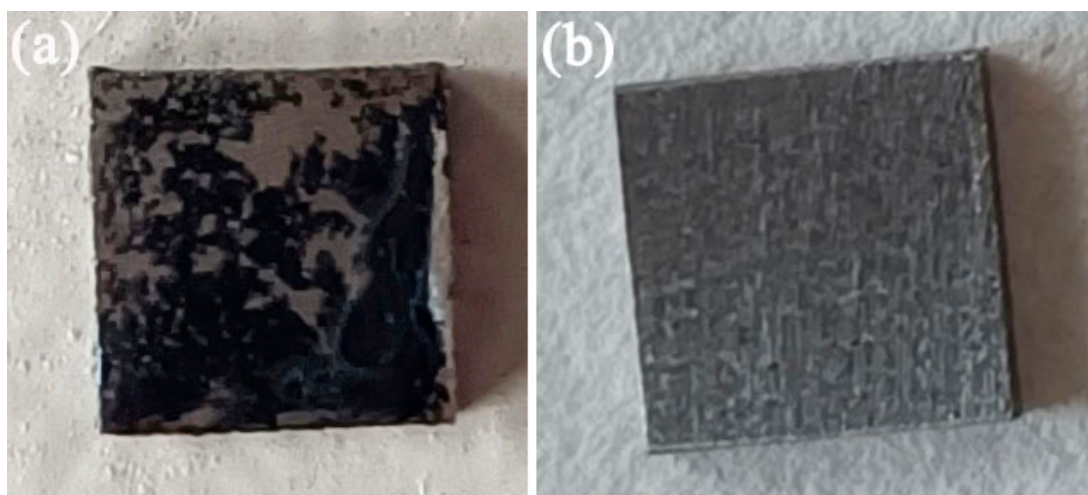


Figure S1. Optical photographs of VGNs/CF films on RSS surfaces prepared by (a) spin-coating (b) spraying techniques.

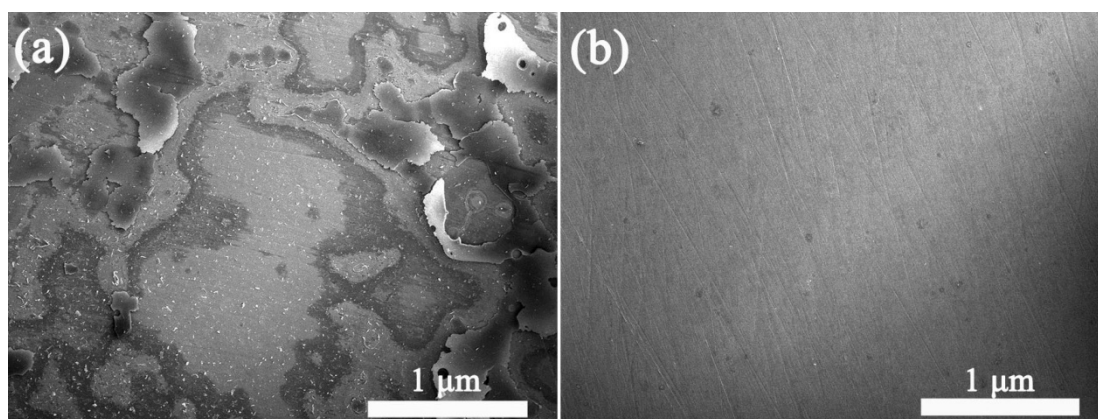


Figure S2. Comparison of SEM images after heating films prepared by (a) spin-coating and (b) spraying techniques.

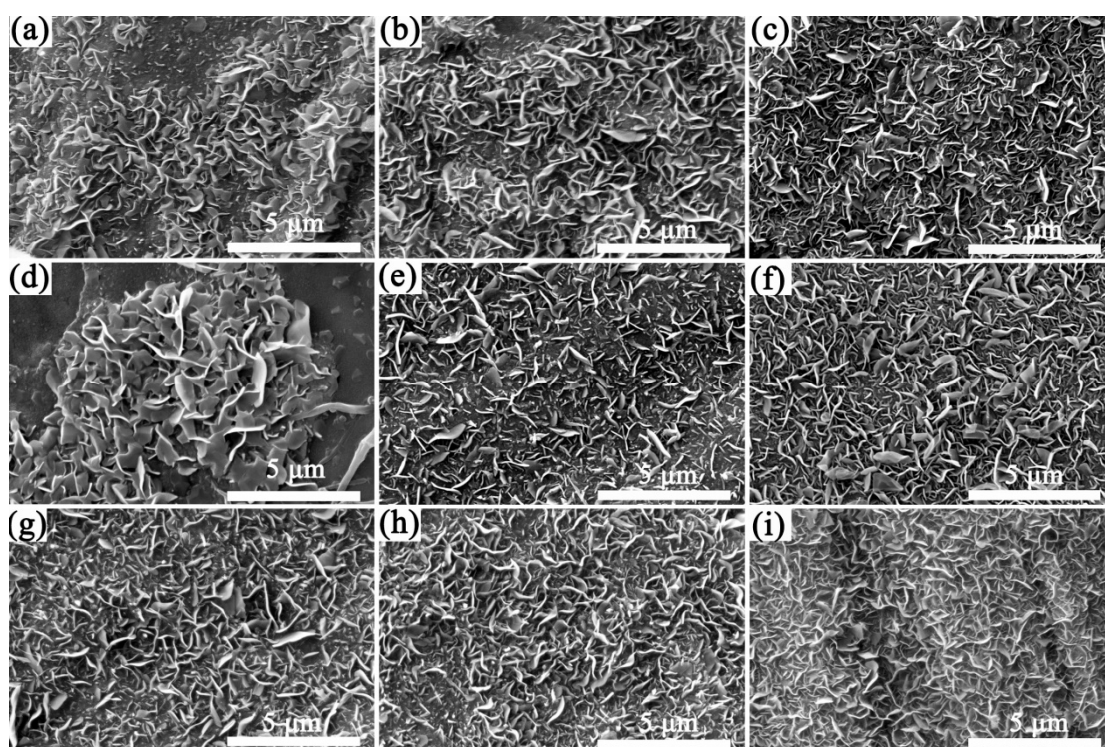


Figure S3. SEM images of VGNs/CF composite films on RSS surfaces grown at 850°C for 3 h using different concentrations and dosages of precursor solutions: (a) 0.4 g/mL, 0.6 mL; (b) 0.4 g/mL, 0.8 mL; (c) 0.4 g/mL, 1.0 mL; (d) 0.6 g/mL, 0.6 mL; (e) 0.6 g/mL, 0.8 mL; (f) 0.6 g/mL, 1.0 mL; (g) 0.8 g/mL, 0.6 mL; (h) 0.8 g/mL, 0.8 mL; (i) 0.8 g/mL, 1.0 mL.

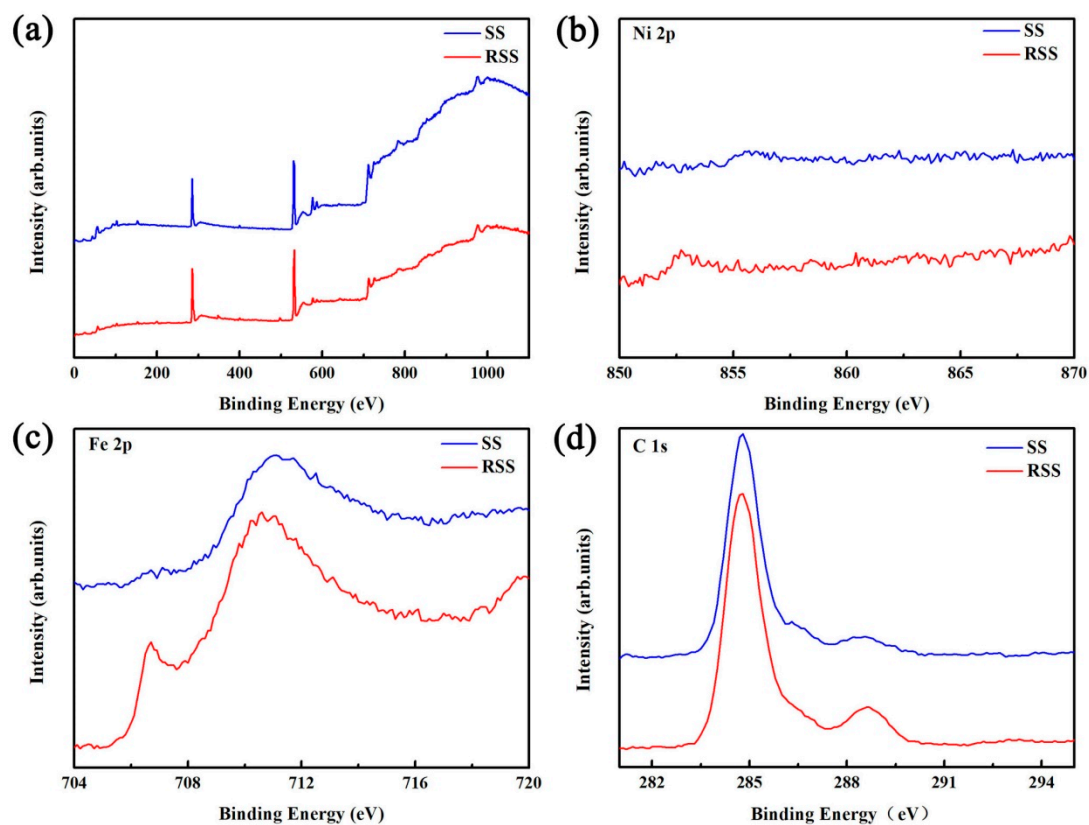


Figure S4. XPS images of stainless steel (SS) substrate before and after roughening treatment.

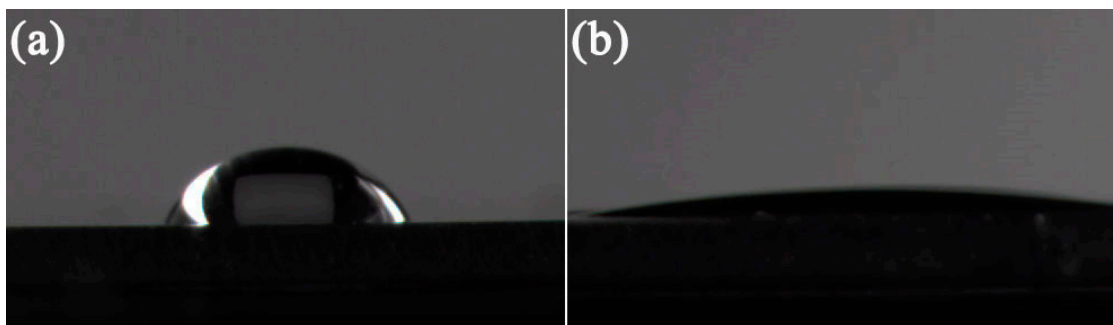


Figure S5. Wettability comparison of water droplet on RSS substrate surface (a) before and (b) after oxygen plasma pretreatment.

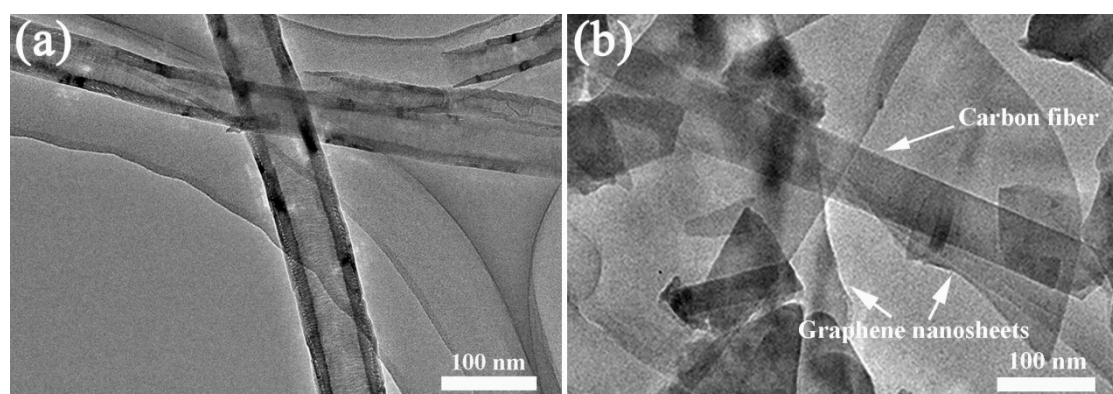


Figure S6. TEM images of (a) the CF and (b) the CF in VGNs/CF composite film.