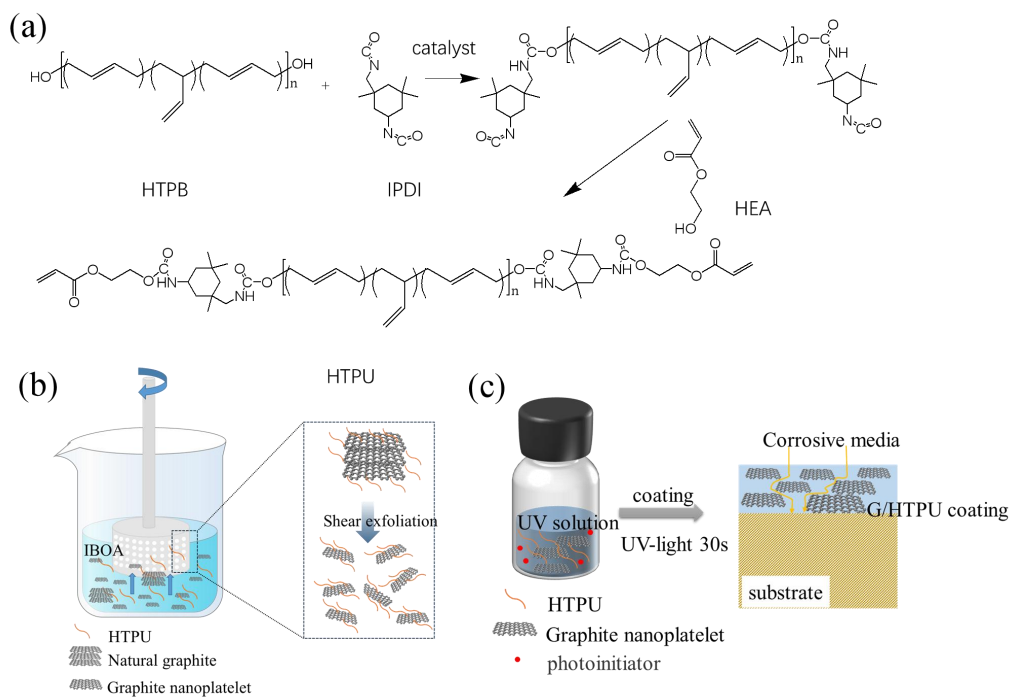


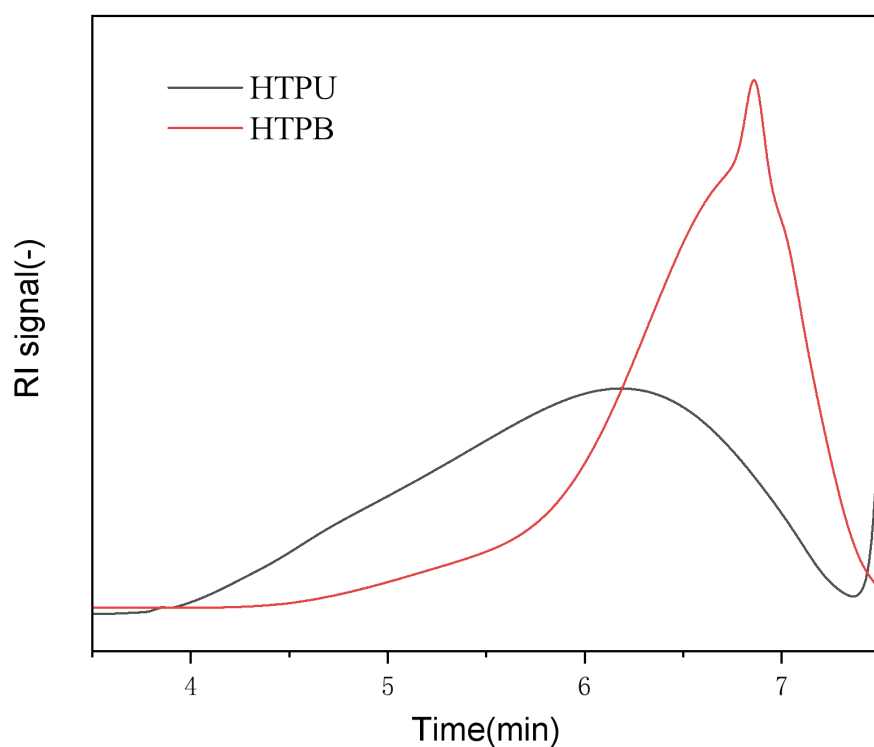
Supplementary information

# In-situ mechanical exfoliation of graphite to UV curable graphene/acrylate coatings and their corrosion resistance properties

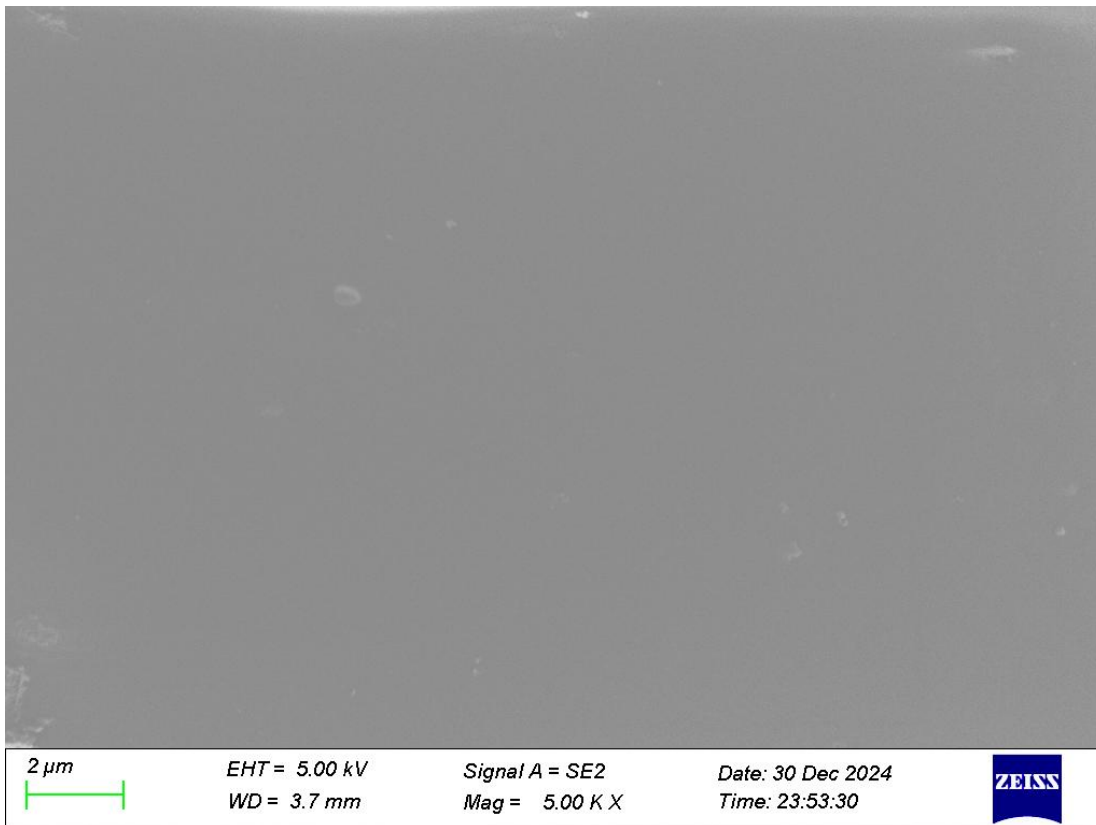
Zihan Shen, Mengya An, Sichen Li, Xin Mi, Qiang Xiao



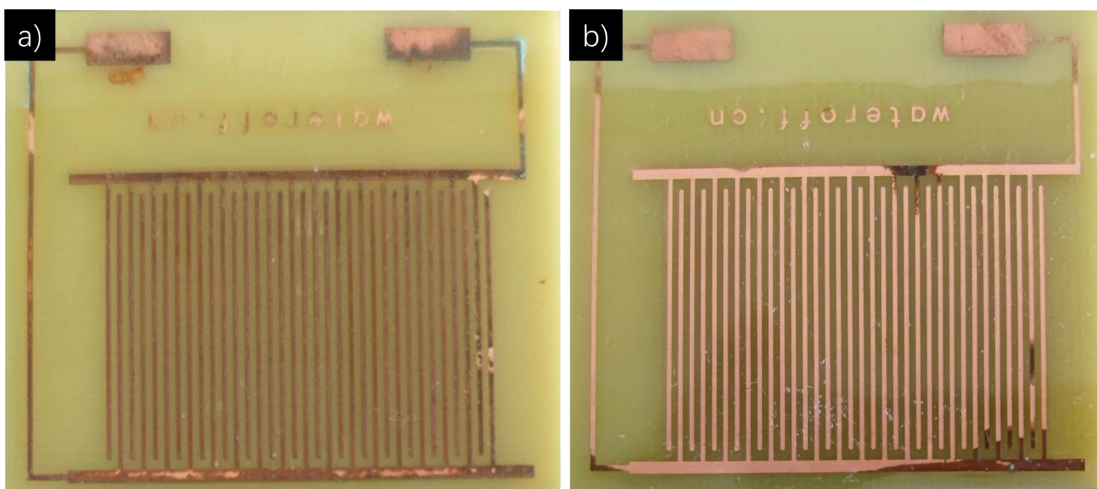
**Scheme 1.** (a) synthesis of HTPU; (b) In-situ shear exfoliation; (c) UV-curing process. HTPU: hydroxyethylacrylate terminated polybutadiene urethane.



**Figure S1.** GPC profiles of the HTPB and HTPU. GPC: gel permeation chromatography; HTPU: hydroxyethylacrylate terminated polybutadiene urethane.



**Figure S2.** SEM image of the G/HTPU-2 coating surface after salt spray test for 72 h. SEM: scanning electron microscopy; HTPU: hydroxyethylacrylate terminated polybutadiene urethane.



**Figure S3.** Photographs of HTPU (a) and G/HTPU-1 (b) coated IPC board after testing at 12 V for 24 h. HTPU: hydroxyethylacrylate terminated polybutadiene urethane; IPC: International Printed Circuit.