

Supporting Information

Ultrathin Ni-Ni₃Se₂ nanosheets on graphene as a high-performance counter electrode for dye-sensitized solar cells

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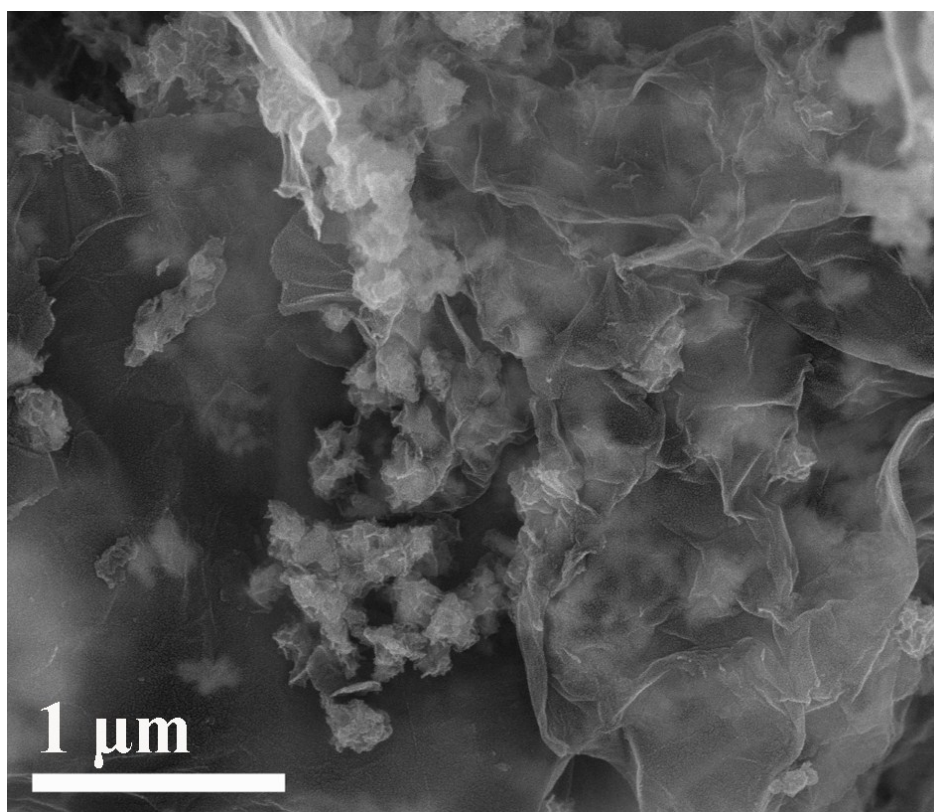


Fig. S1 TEM image of ultrathin Ni-Ni₃Se₂/graphene nanosheets.

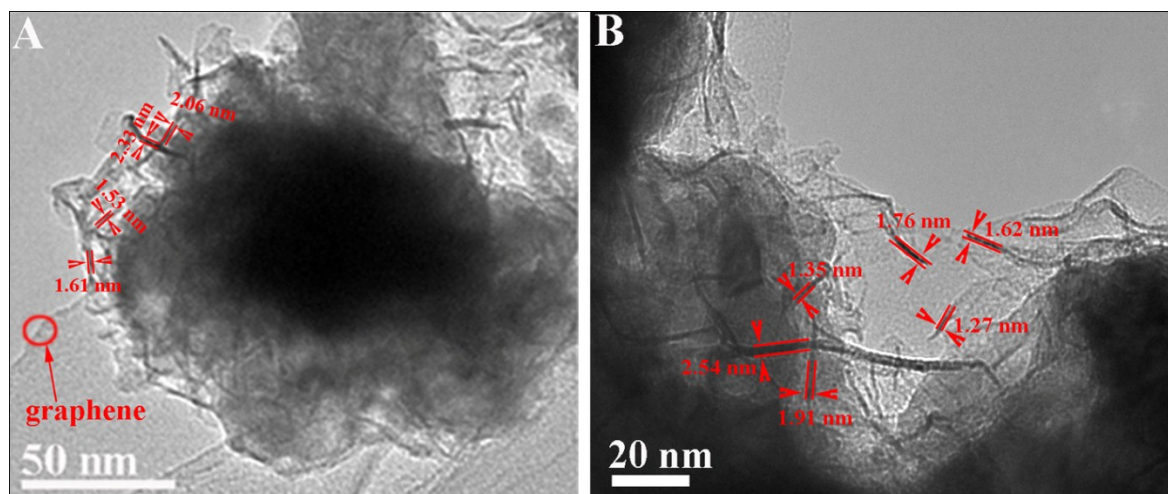


Fig. S2 TEM images and the thickness of ultrathin Ni-Ni₃Se₂/graphene nanosheets.

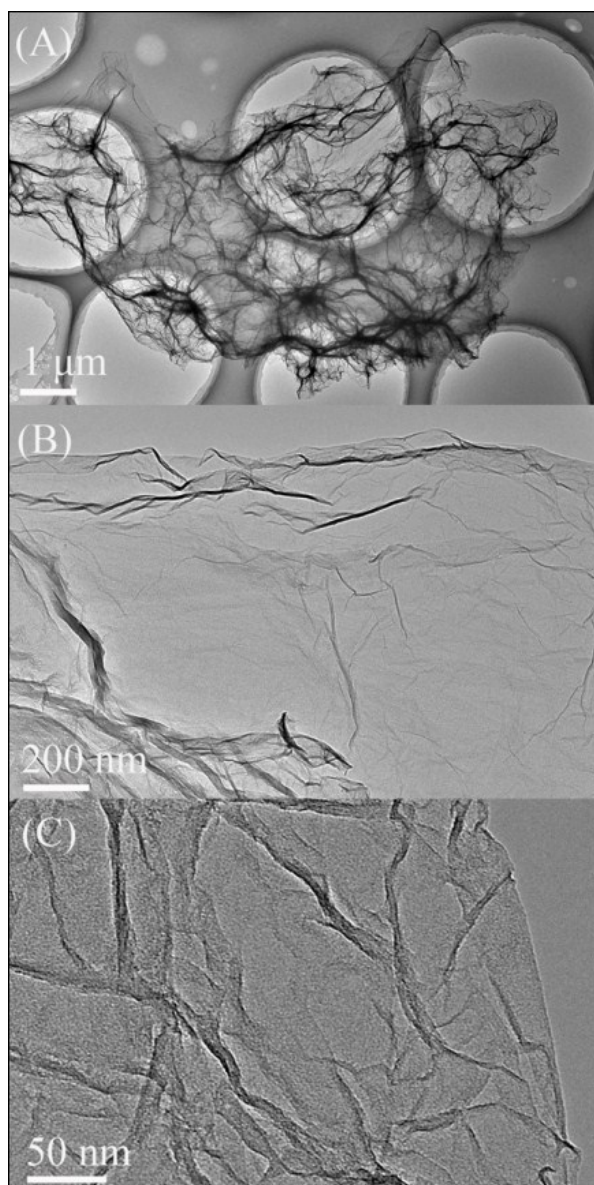


Fig. S3 TEM images of graphene at different magnifications.

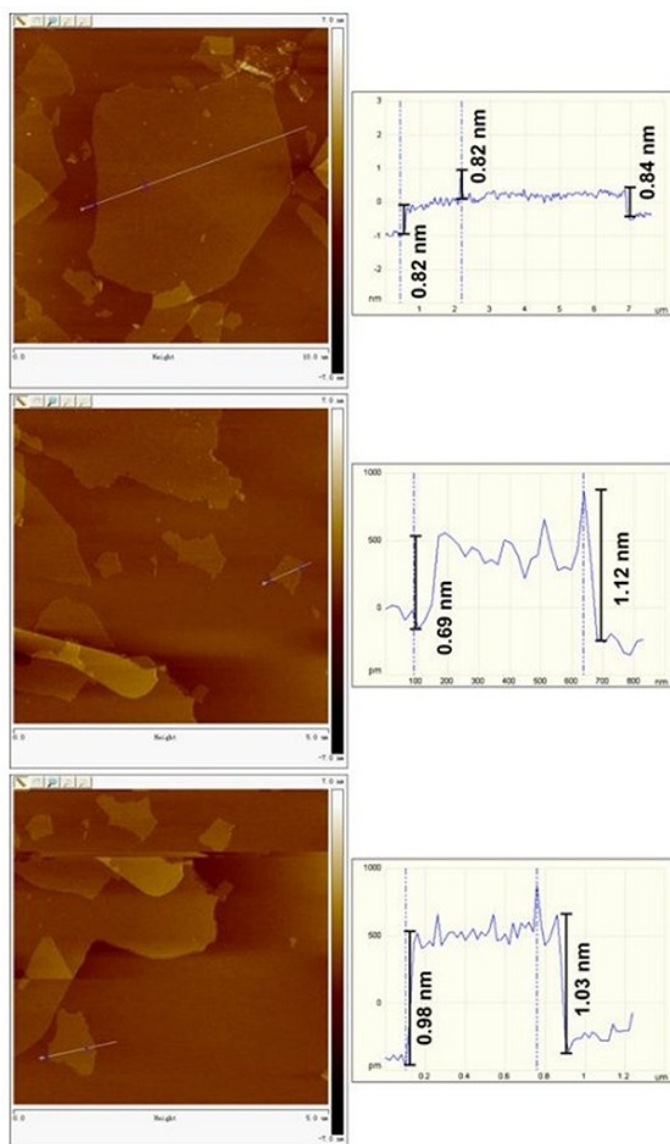


Fig. S4 AFM images of GO nanosheets prepared through a modified Hummers' method.

Table S1. EIS and Tafel polarization parameters of the DSSCs with Ni-Ni₃Se₂/graphene, Pt and graphene as counter electrode.

CEs	R_s/Ω	$J_{lim}/\log(\text{mA cm}^{-2})$	$J_0/\log(\text{mA cm}^{-2})$
Ni-Ni ₃ Se ₂ /graphene	12.70	1.86	0.72
Graphene	13.03	1.55	0.18
Pt	12.99	1.64	0.47