

**Quasi-one-dimensional graphene nanoribbons supported MoS₂
nanosheets for enhanced hydrogen evolution reaction**

Electronic Supplementary Information

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Figure captions

Fig. S1 XRD patterns of MWCNTs and GONRs.

Fig. S2 FESEM image of GNR@MoS₂-1 hybrid and its corresponding EDS mapping with atomic ratio.

Fig. S3 (A) FESEM image of MoS₂ and (B) TEM image of GNRs.

Fig. S4 TEM image of MWCNT@MoS₂ hybrid.

Fig. S5 Raman spectra of GONRs, GNRs and GNR@MoS₂-1 hybrid.

Fig. S6 TGA curves of GNRs, MoS₂ and GNR@MoS₂ hybrids.

Fig. S7 Enlarged figure of the Nyquist plots of GNRs, MoS₂, MWCNT@MoS₂ and GNR@MoS₂-1 hybrids.

Table S1. Comparison of the HER performance between different materials.

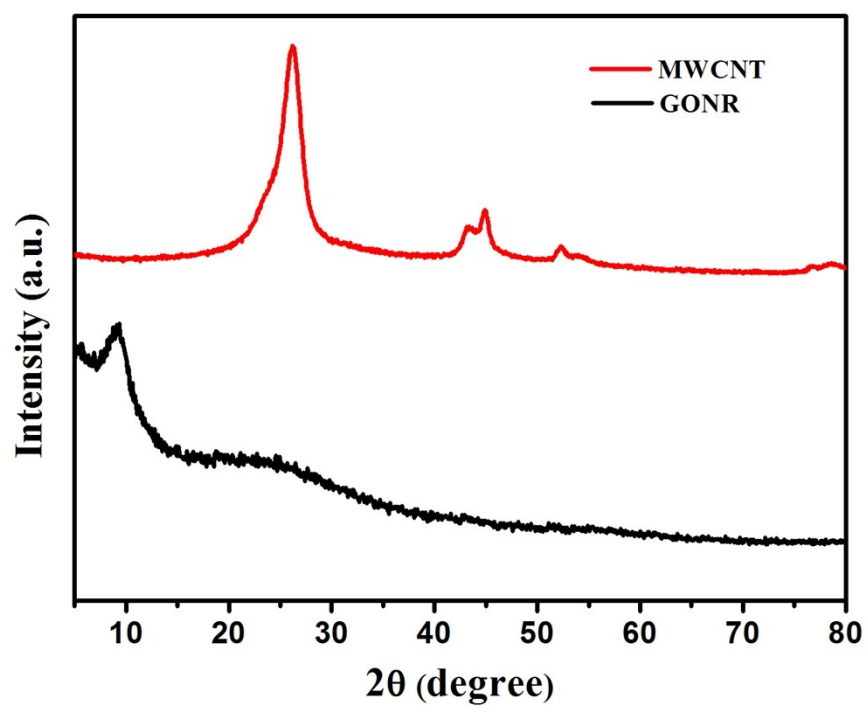


Fig. S1

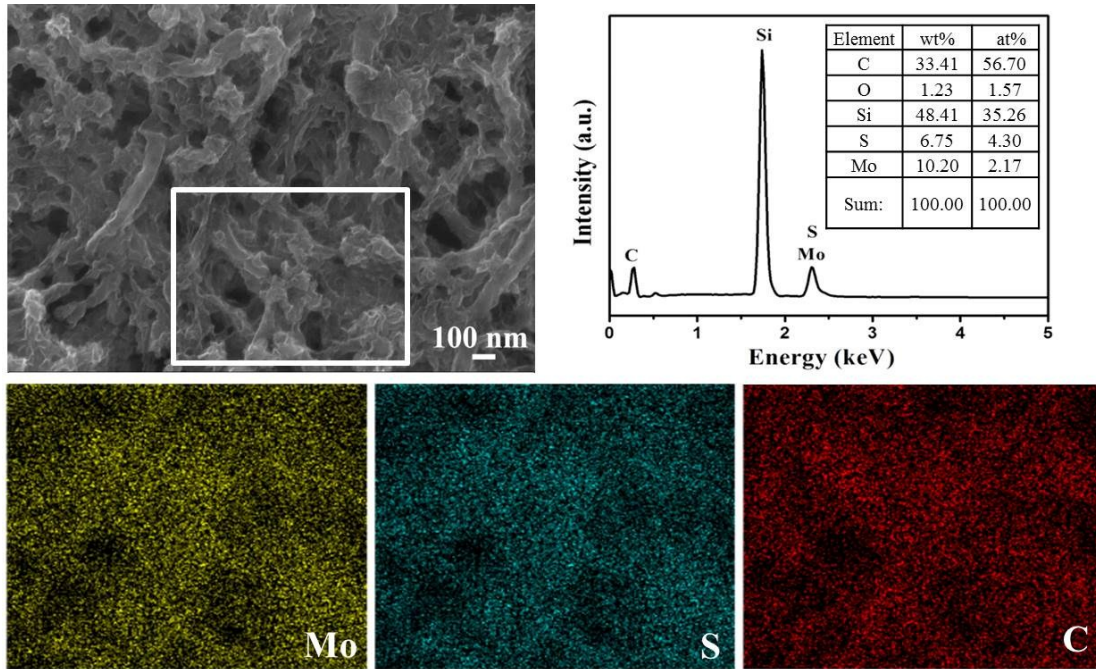


Fig. S2

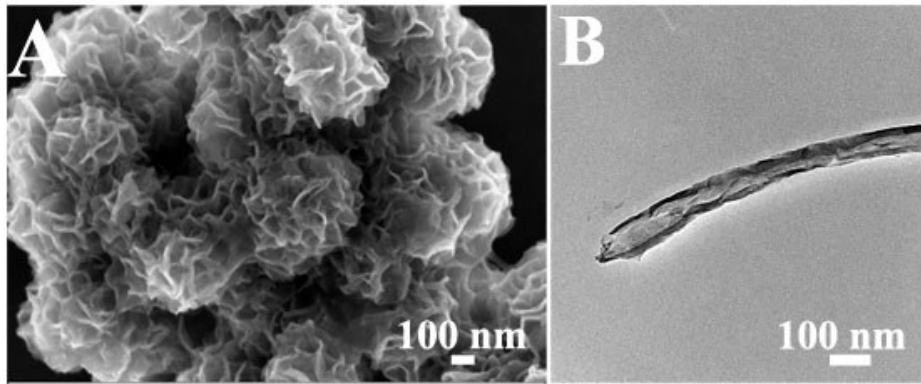


Fig. S3

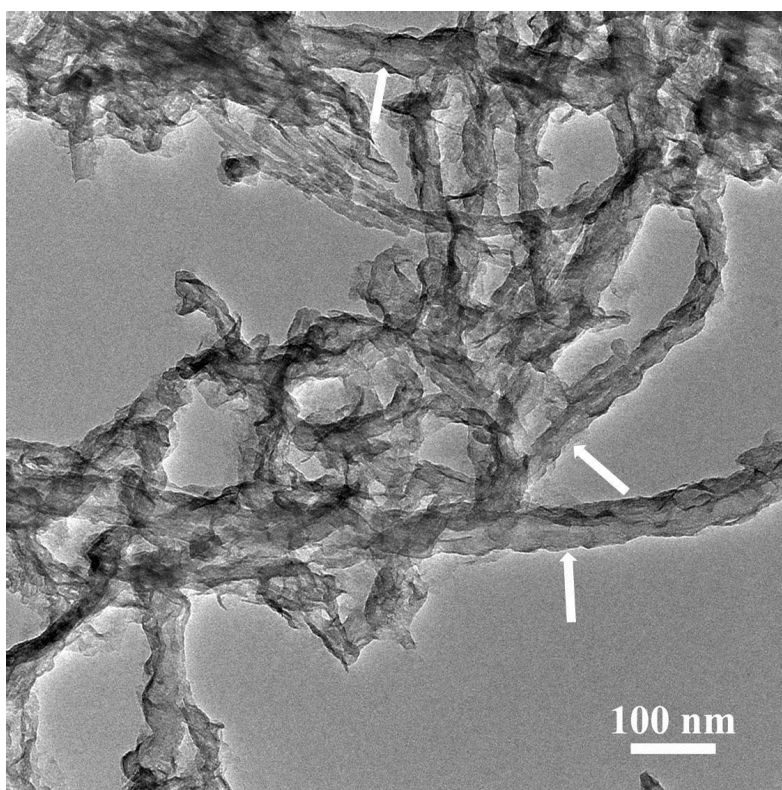


Fig. S4

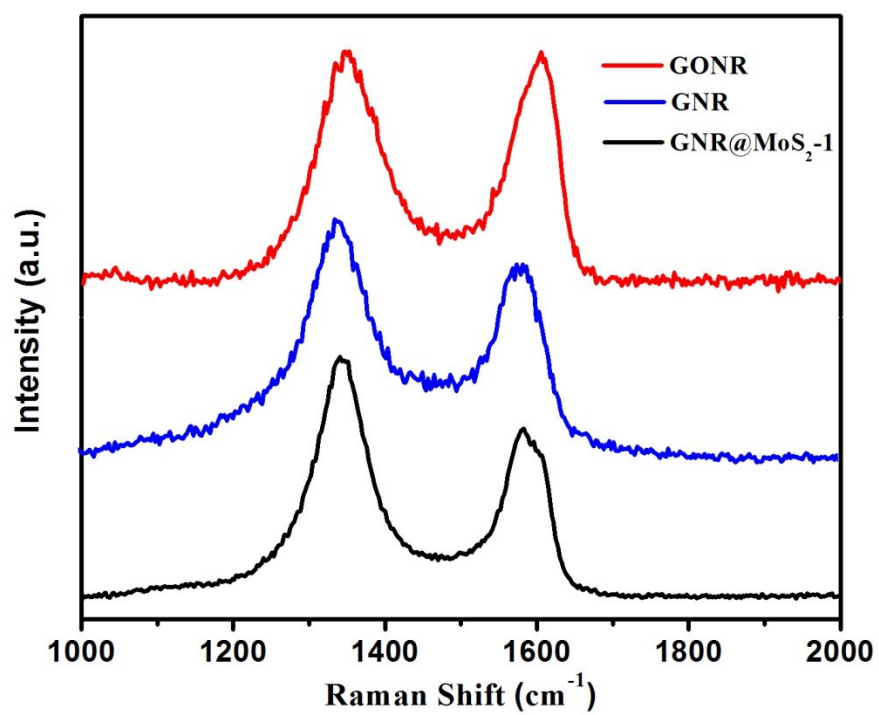


Fig. S5

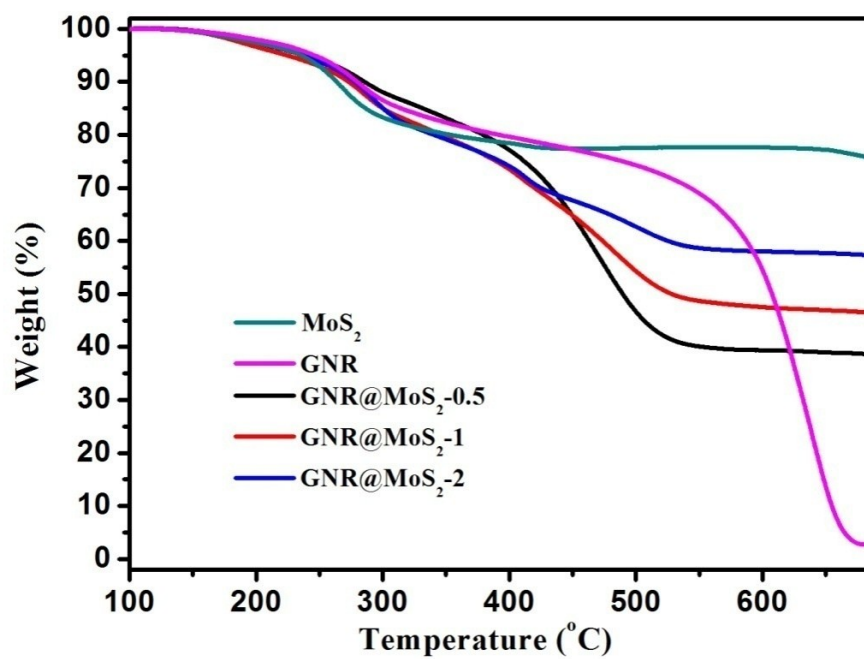


Fig. S6

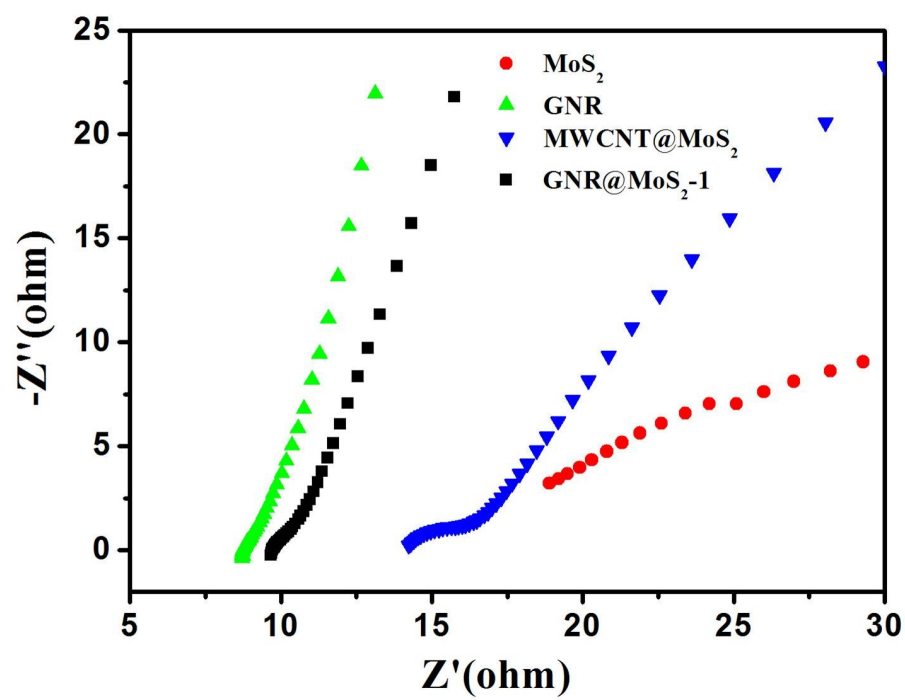


Fig. S7

Table S1

Sample	Tafel slope (mV per decade)	Onset potential (V vs. RHE)	Refs
MoS ₂ nanoflowers coated on reduced graphene oxide paper	95	-0.19	1
Low crystalline MoS ₂ nanosheet-coated CNTs	44.6	-0.09	2
MoS ₂ formed on mesoporous graphene	42	-0.1	3
Ultrathin MoS ₂ -coated carbon nanospheres	53	-0.14	4
MoS ₂ nanoparticles grown on graphene	41	-0.1	5
Carbon paper loaded MoS ₂	120	-0.2	6
Graphene film-confined molybdenum sulfide nanoparticles	43	-0.13	7
MoS _x grown on graphene-protected 3D Ni foams	42.8	-0.109-0.141	8
MoS ₂ nanosheets decorated graphene nanoribbon	43.4	-0.11	Present work

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