Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting Information

Mo_2C-embedded biomass-derived honeycomb-like nitrogen-doped carbon nanosheet/graphene aerogel films for highly efficient electrocatalytic hydrogen evolution

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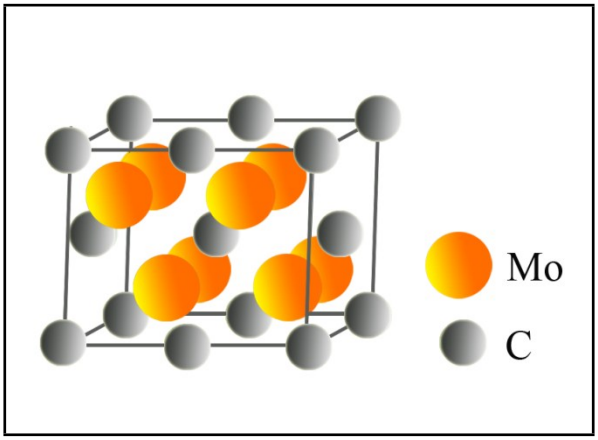

Fig. S1 The crystal structure of hexagonal Mo_2C.

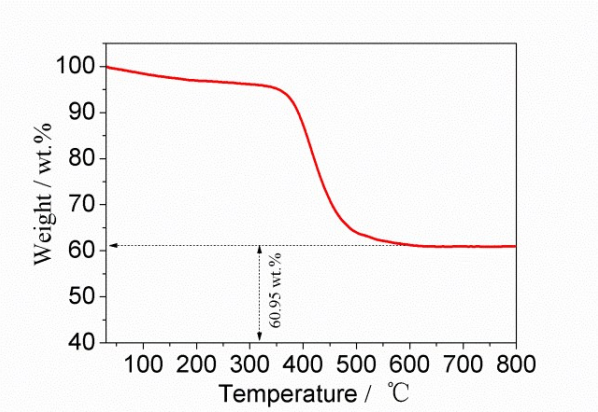

Fig. S2 The TGA curves for Mo_2C@N-DC/G-5 aerogel films..

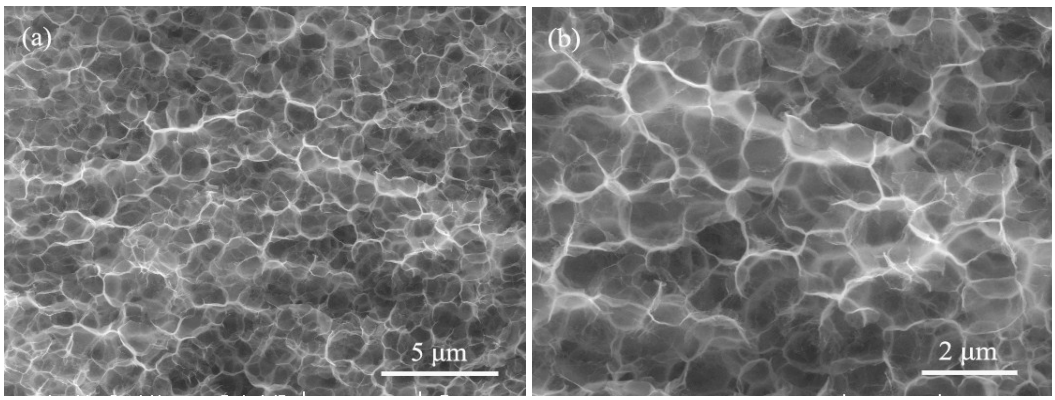

Fig. S3 SEM images of cross-sections of the N-DC/G aerogel films at different magnifications..

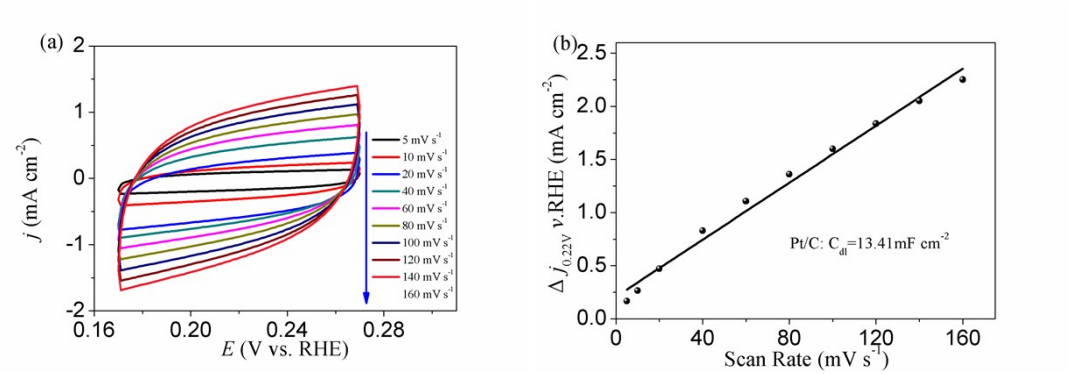

Fig. S4 (c) Cyclic voltammograms curves of commercial Pt/C at different scan rates from 5 to 160 mV s^{-1}, respectively. (d) The capacitive currents at 0.22 V *vs.* RHE as a function of scan rate for Pt/C. The C_{dl} of electrocatalysts were confirmed by the slope of the fitted line.

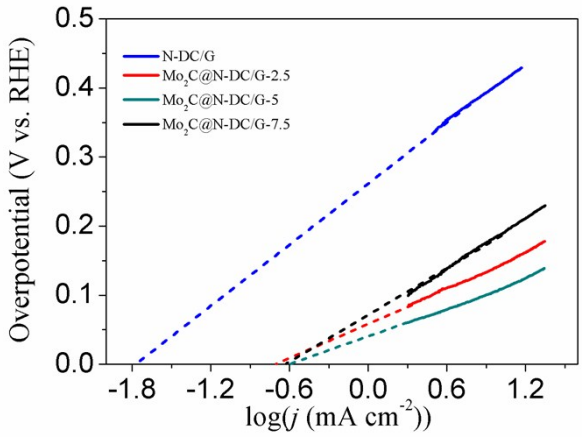

Fig. S5 Calculated exchange current density for Mo_2C@N-DC/G in 0.5 M H_2SO_4.

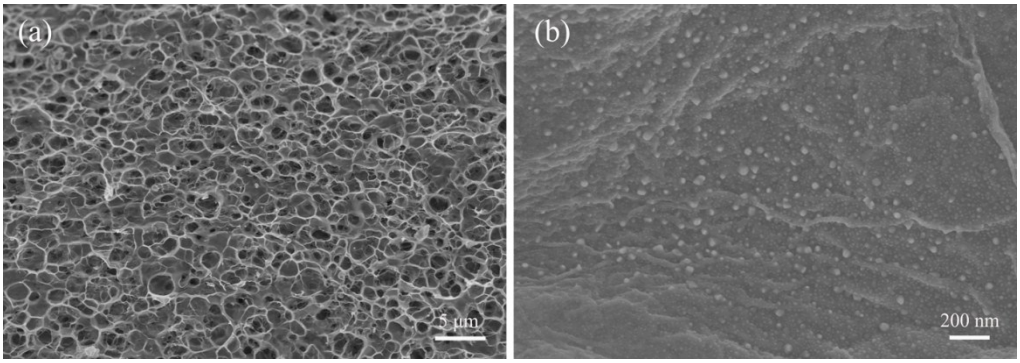

Figure S6. SEM images of Mo_2C@N-DC/G-5 after being used for 15 h in HER for stability test in 0.5M H_2SO_4.