

Supporting Information

Gd doped molybdenum selenide/carbon nanofiber: an excellent electrocatalyst for monitoring endogenous H₂S

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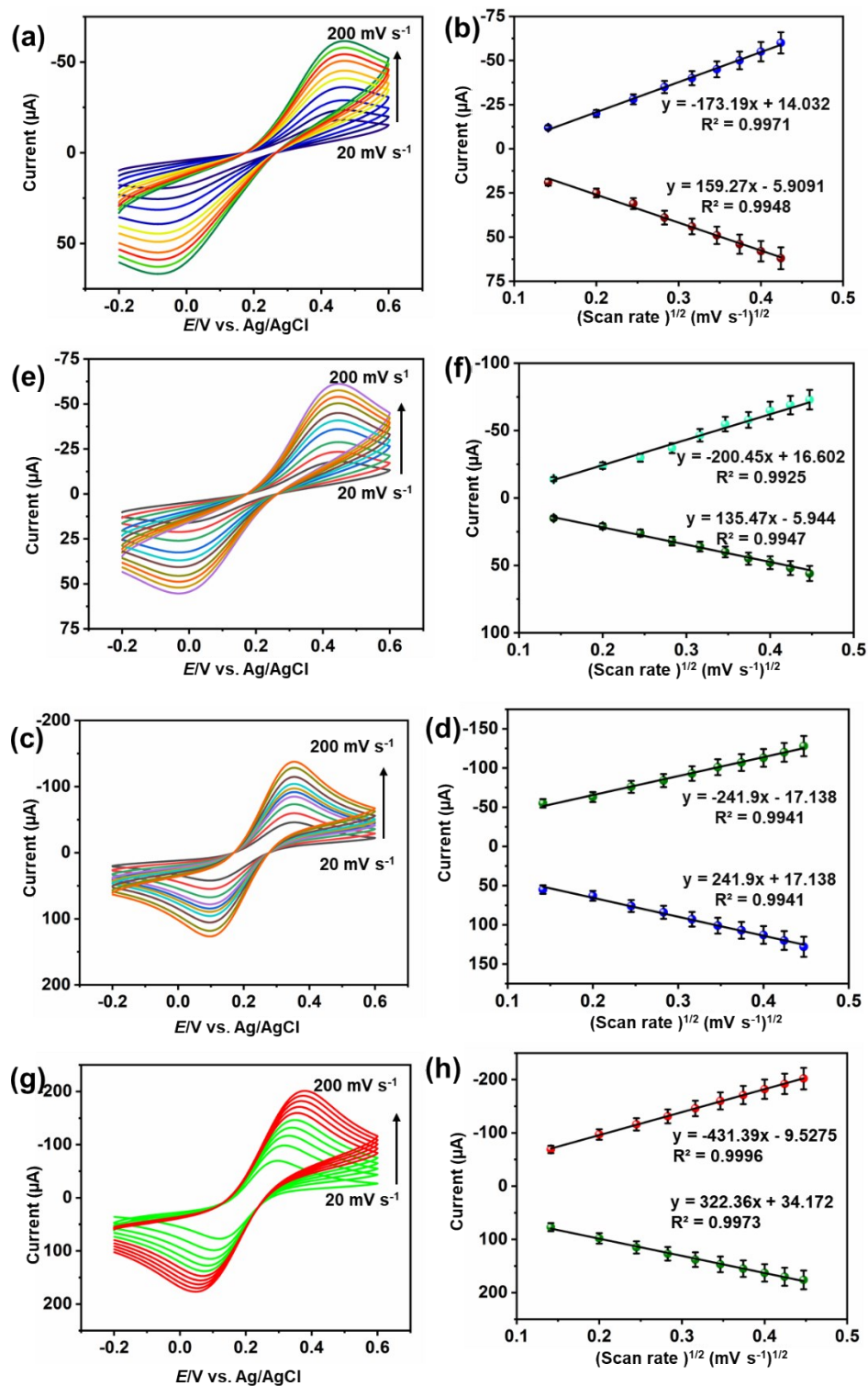


Figure. S1. CVs of unmodified GCE (a), CNF/GCE (c), Gd-MoSe₂/GCE (e) and Gd-MoSe₂/CNF/GCE (g) in 0.1 M KCl containing 5 mM [Fe(CN)₆]³⁻ at different scan rates varying from 20-200 mV/s. Figures (b), (d), (f), (h) displays the plots between current and square

root of scan rates for the unmodified GCE, CNF/GCE, Gd-MoSe₂/GCE and Gd-MoSe₂/CNF/GCE, respectively.

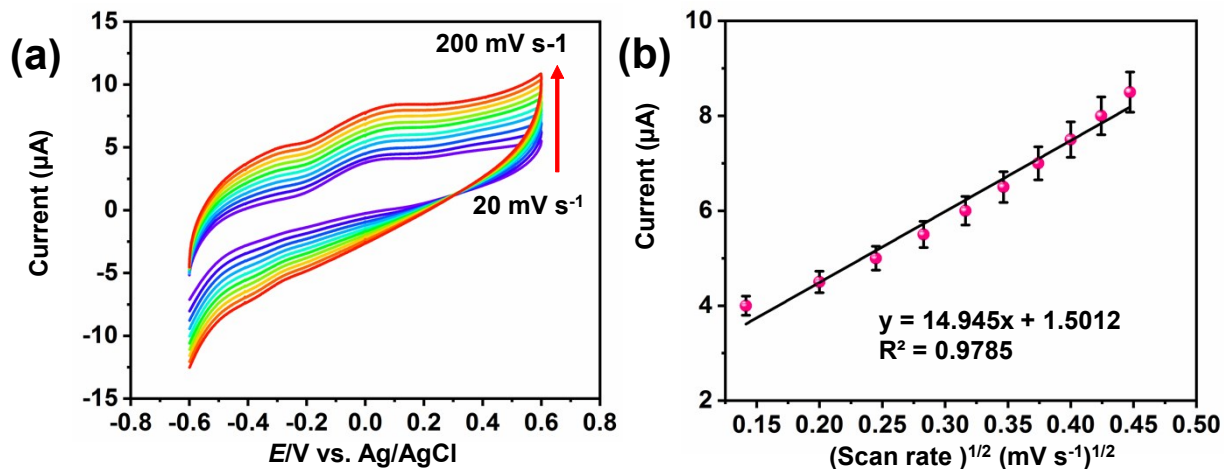


Figure.S2.(a) CVs of 125 μM H_2S at Gd-MoSe₂/GCE with different scan rates (20–200 mV s^{-1}) in 0.05 M PB (pH 7.0).(b) The plot of peak current vs. square root of the scan rate

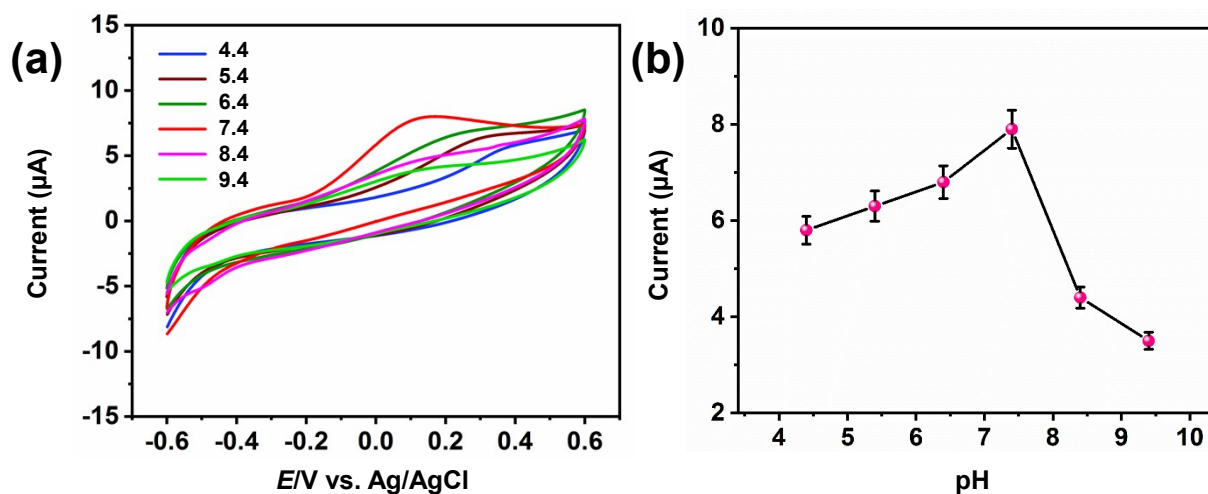


Figure.S3. (a)CVs response of Gd-MoSe₂/CNF/GCE in various pHs ranging from PBS 4.4 to 9.4 in the presence of 125 μM H_2S at a scan rate of 50 mVs^{-1} . (b) The plot of peak current vs. pH.

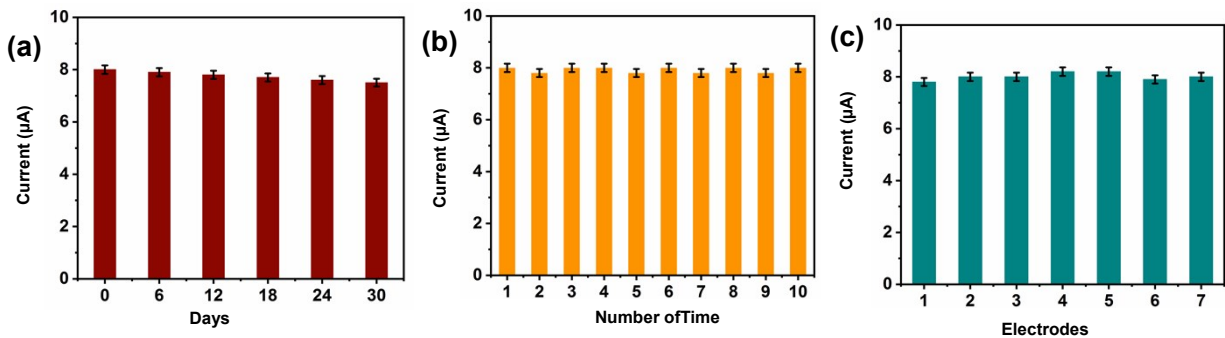


Figure S4. (a) Response current of Gd-MoSe₂/CNF/GCE toward 125 µM H₂S for 1 month (n = 3). (b) Response current of ten repetitive CVs of the same Gd-MoSe₂/CNF/GCE in 0.1 M PBS (pH 7.4) with 125 µM H₂S (n=3). (c) Response current of seven different Gd-MoSe₂/CNF/GCE prepared with identical protocols in 0.1 M PBS (pH 7.4) with 1 mM 125 µM H₂S (n = 3).