

Supplementary Information

A Label-Free Fluorescent Peptide Probe for Sensitive and Selective Determination of Copper and Sulfide ions in Aqueous System

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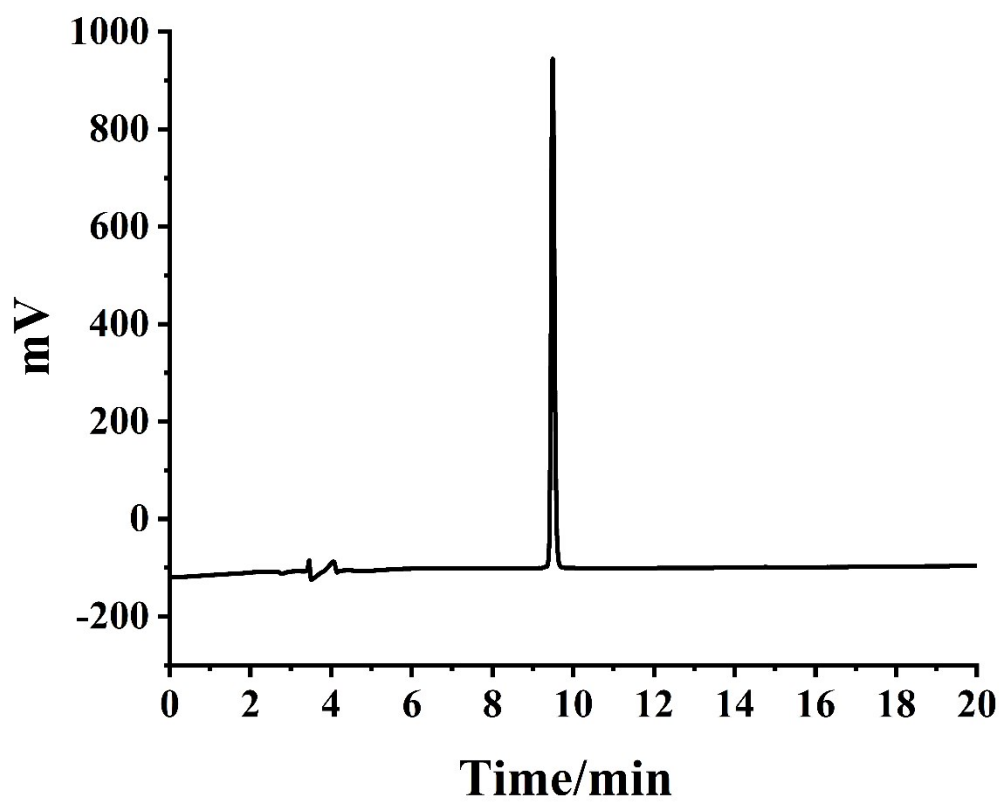


Fig. S1 HPLC spectrum of HDSGWEVHH.

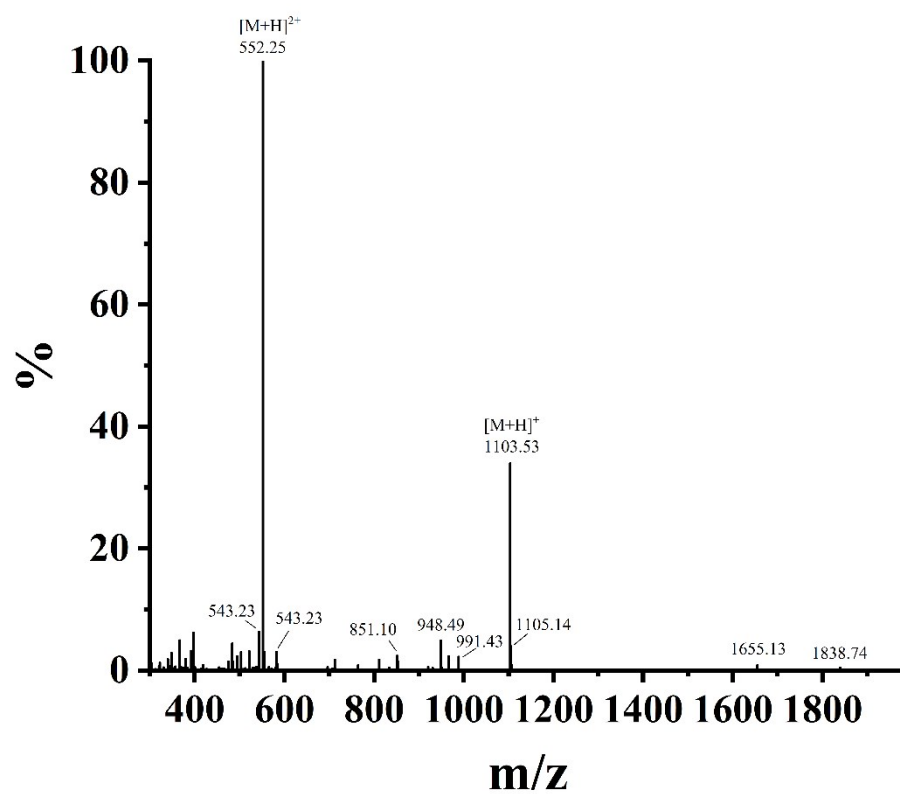


Fig. S2 LC-MS spectrum of the HDSGWVHH.

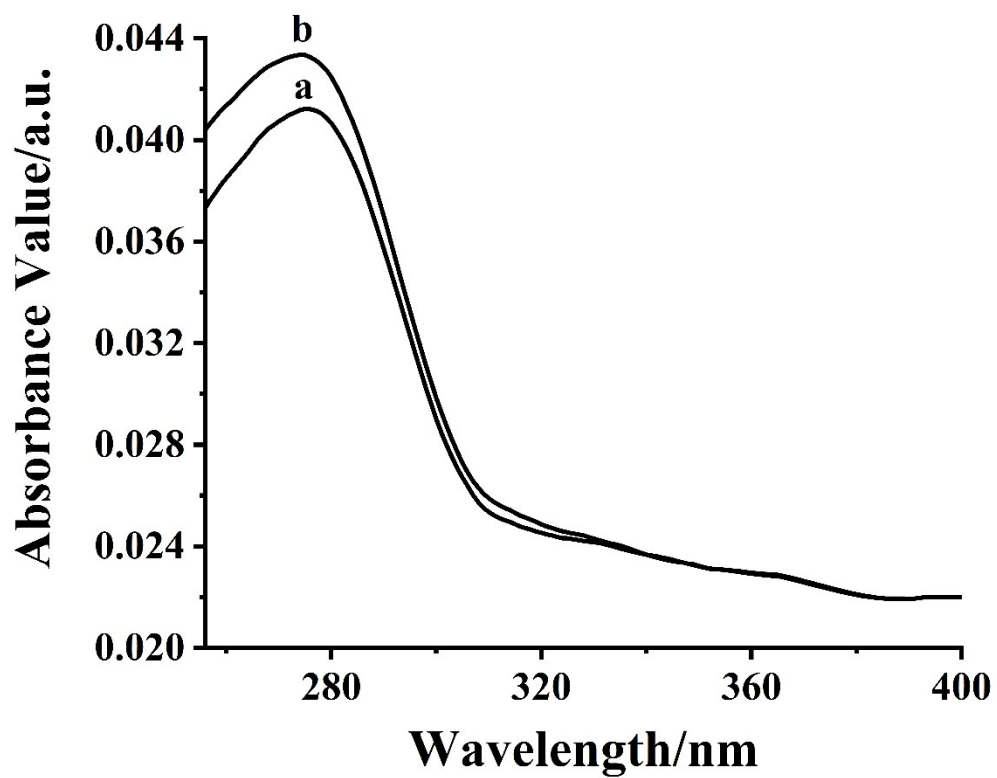


Fig. S3 UV-Vis absorption spectra of HDSGWEVHH in absence of Cu^{2+} (line a) and presence of Cu^{2+} (line b). The spectra were obtained in 10 mM HEPES buffer (pH 7.4). The concentration of HDSGWEVHH was at 2 μM , and the one of Cu^{2+} was 1 μM .

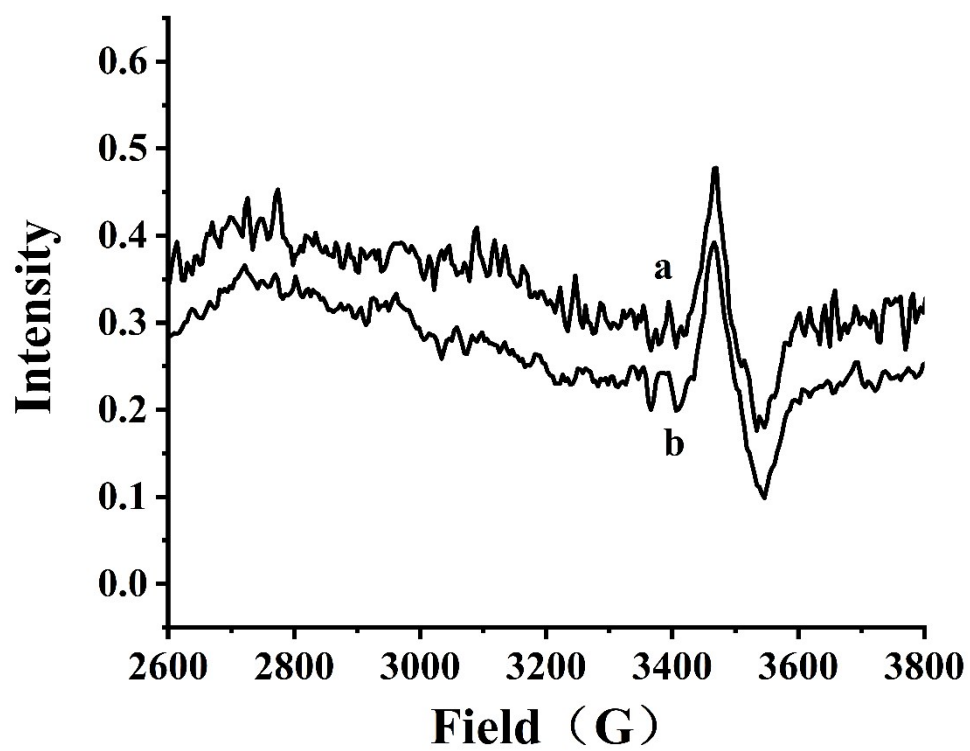


Fig. S4 EPR spectra of the 2 μM HDSGWVHH solution (a) and 2 μM HDSGWVHH/1 μM Cu^{2+} mixture (b).

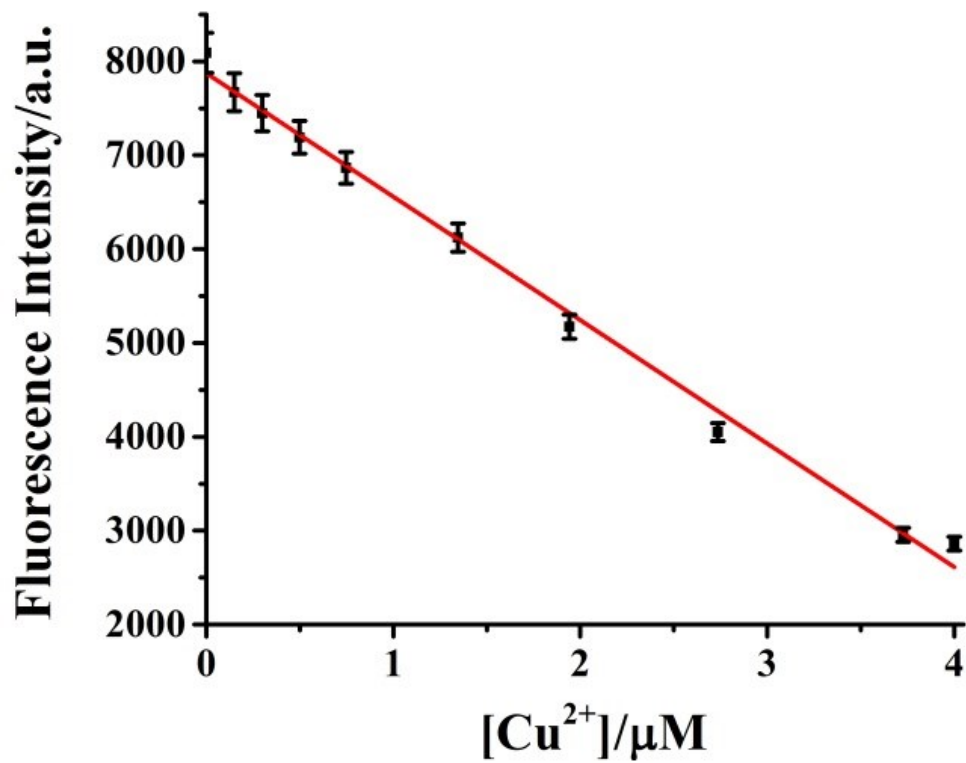


Fig. S5 Calibration curve of 8 μM HDSGWEVHH for Cu^{2+} concentration determination. The linear regression yields $y = -1315.3[\text{Cu}] + 7874.1$ ($R^2 = 0.9947$) (in μM). A HEPES (10 mM, pH 7.4) buffer was used. The error bars were computed from at least three replicates.

Table S1 Stepped temperature program of graphite digestion procedure

Temperature/°C	Time/min
95	30
120	60
160	60
190	60
240	60