Electronic Supplementary Material (ESI) for Analytical Methods.

Supporting information

A protein amantadine-BODIPY assembly as the turn-on sensor of free copper (II)

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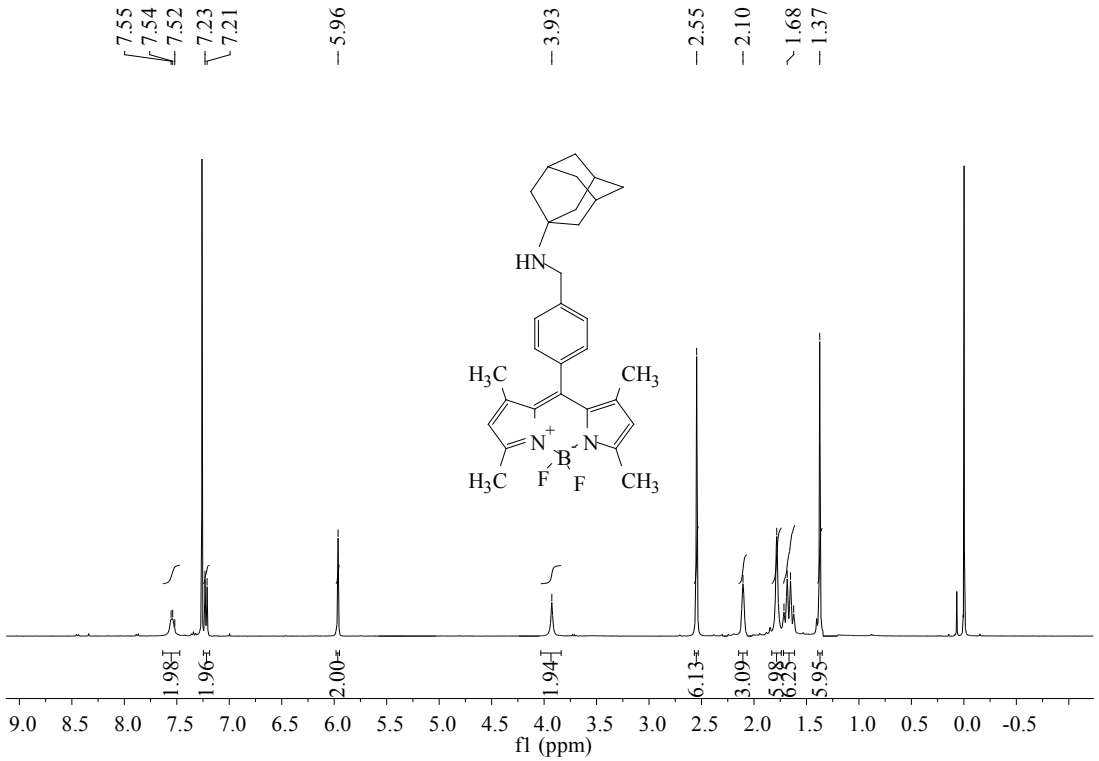


Fig.S1 ^{1}HNMR spectrum of BOD-Ad in chloroform ($CDCl_3$).

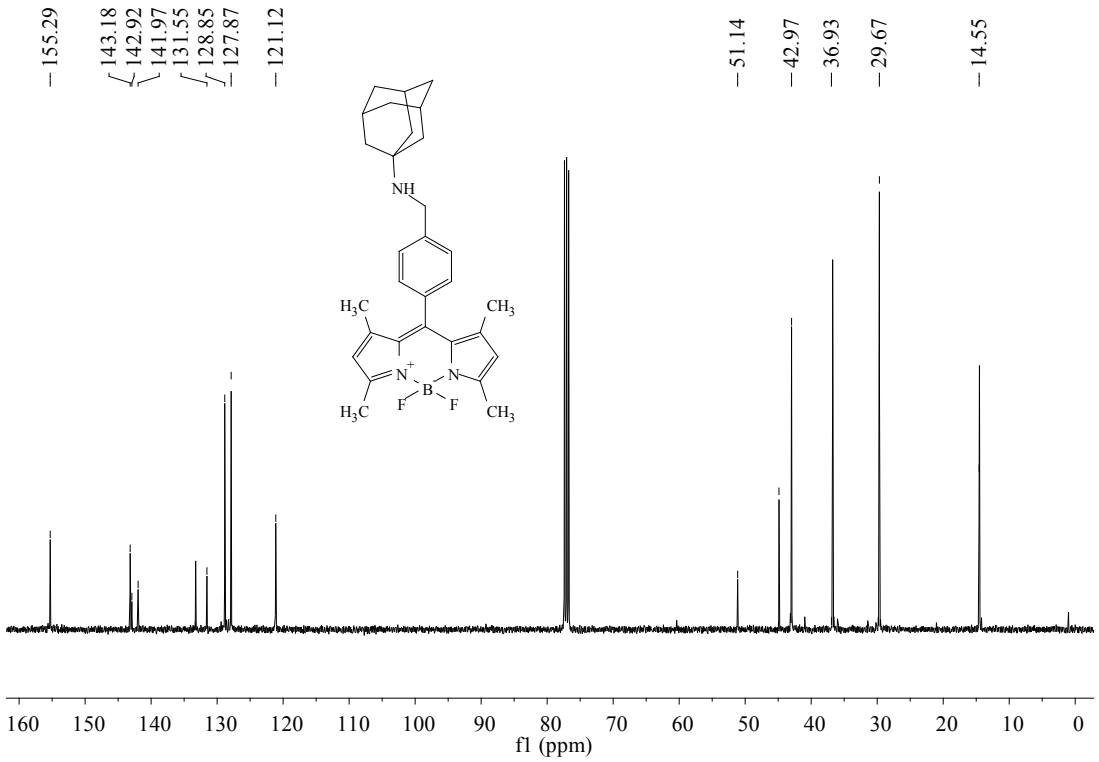


Fig.S2 ^{1}CNMR spectrum of BOD-Ad in chloroform ($CDCl_3$).

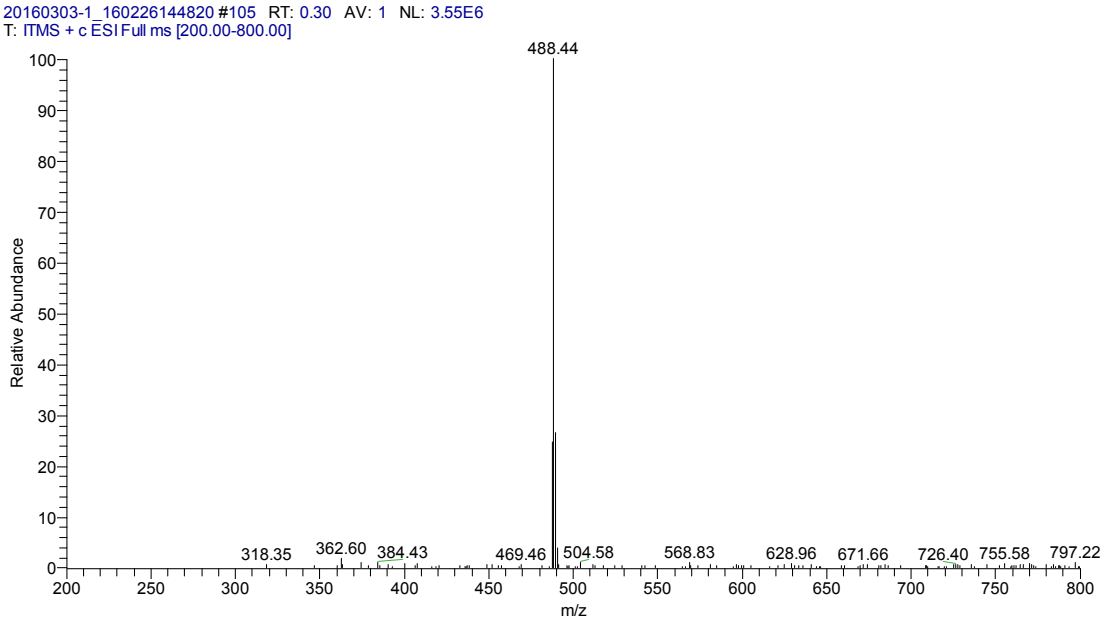


Fig.S3 The ESI-MS of BOD-Ad in CH_3CN.

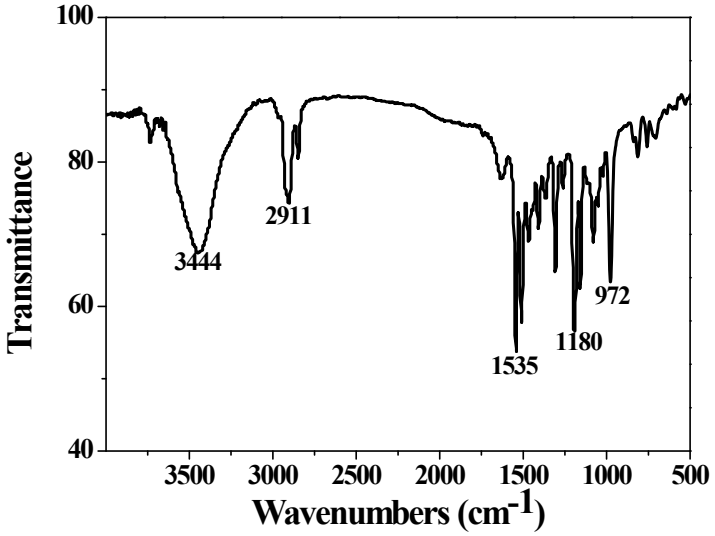


Fig.S4 FI-IR spectra for BOD-Ad.

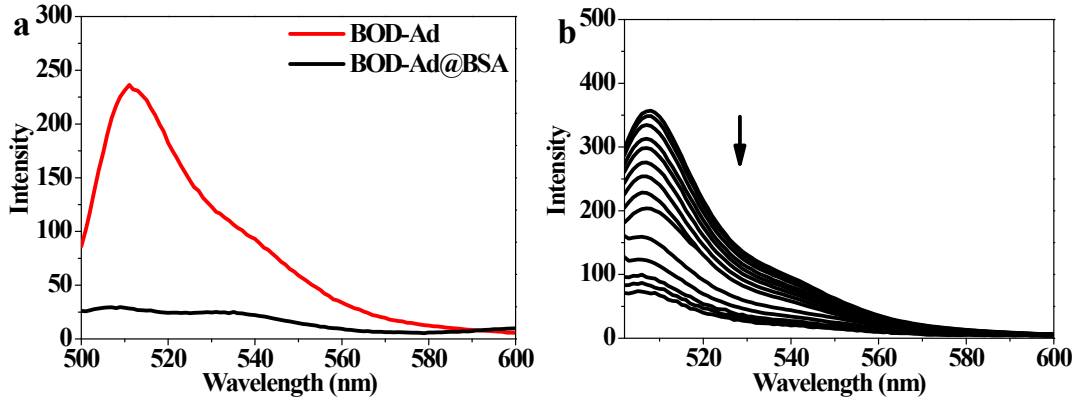


Fig.S5 (a) Fluorescence spectra of BOD-Ad (2×10^{-5} M) and BOD-Ad@BSA ([BOD-Ad]= 2×10^{-5} M, [BSA]=0.1 mg/mL, CH_3CN). (b) Fluorescence titration spectra of BOD-Ad in CH_3CN (3×10^{-5} M) in the presence of increasing amounts of BSA. [BSA] = 0-2 μM from top to bottom.

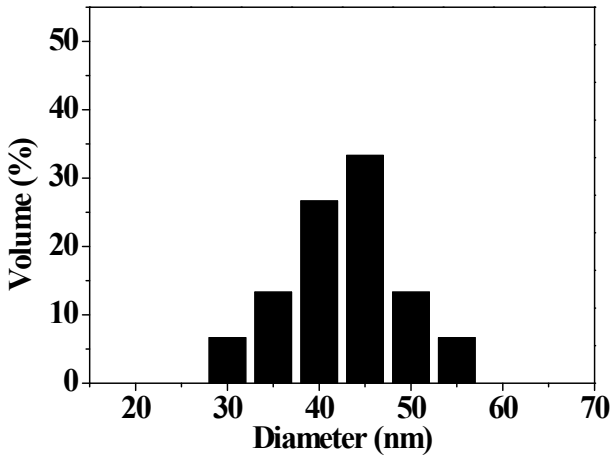


Fig.S6 The size distribution of BOD-Ad@BSA.

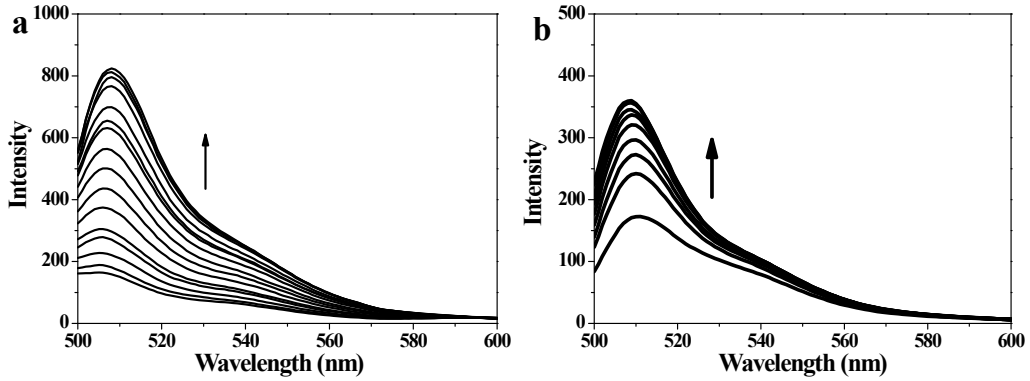


Fig.S7 Fluorescence spectra of BOD-Ad@BSA (a, BOD-Ad: 20 μM, 2 mL, H_2O: DMSO=10:1; BSA: 60 μL, 10 mg/mL) and BOD-Ad (b, 20 μM) in the presence of increasing amounts of Cu^{2+} (0-35 μM) (λ_{ex}= 498 nm, silt= 5 nm).

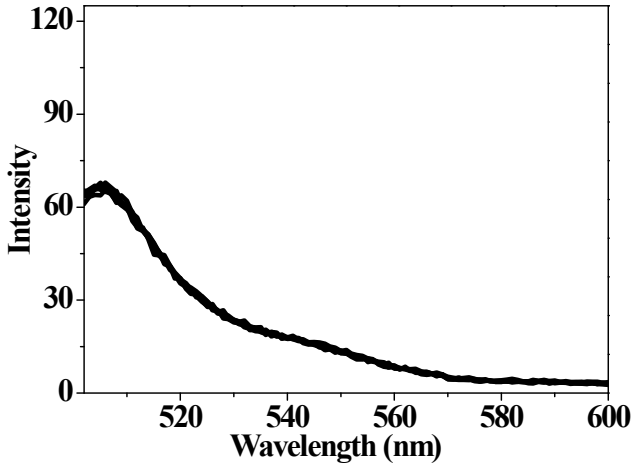
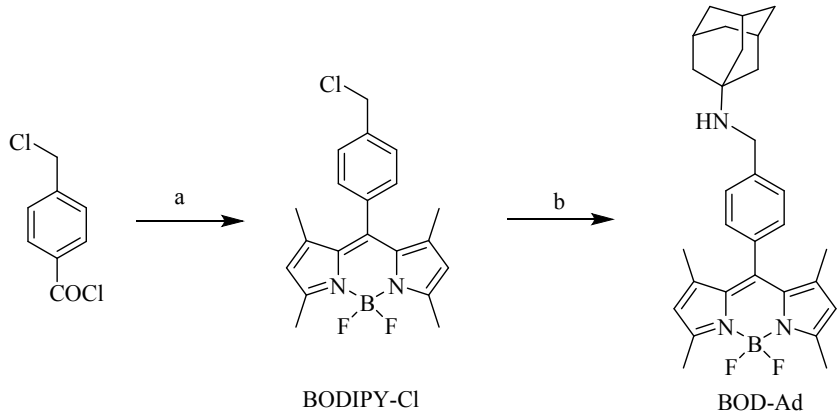


Fig.S8 Fluorescence spectra of BOD-Ad@BSA in the presence of increasing amounts of H_2O (0-100 μL).



(a) 2, 4-dimethylpyrrole, trimethylamine, $BF_3{\cdot}(Et_2O)$, 50 ºC; (b) Amantadine, KI, 18-crown-6, trimethylamine, 65 ºC.

Scheme S1 The synthetic route of BOD-Ad.