

Facile and Visual Detection of Acetylcholinesterase Inhibitors by Carbon Quantum Dot

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Supplementary Data

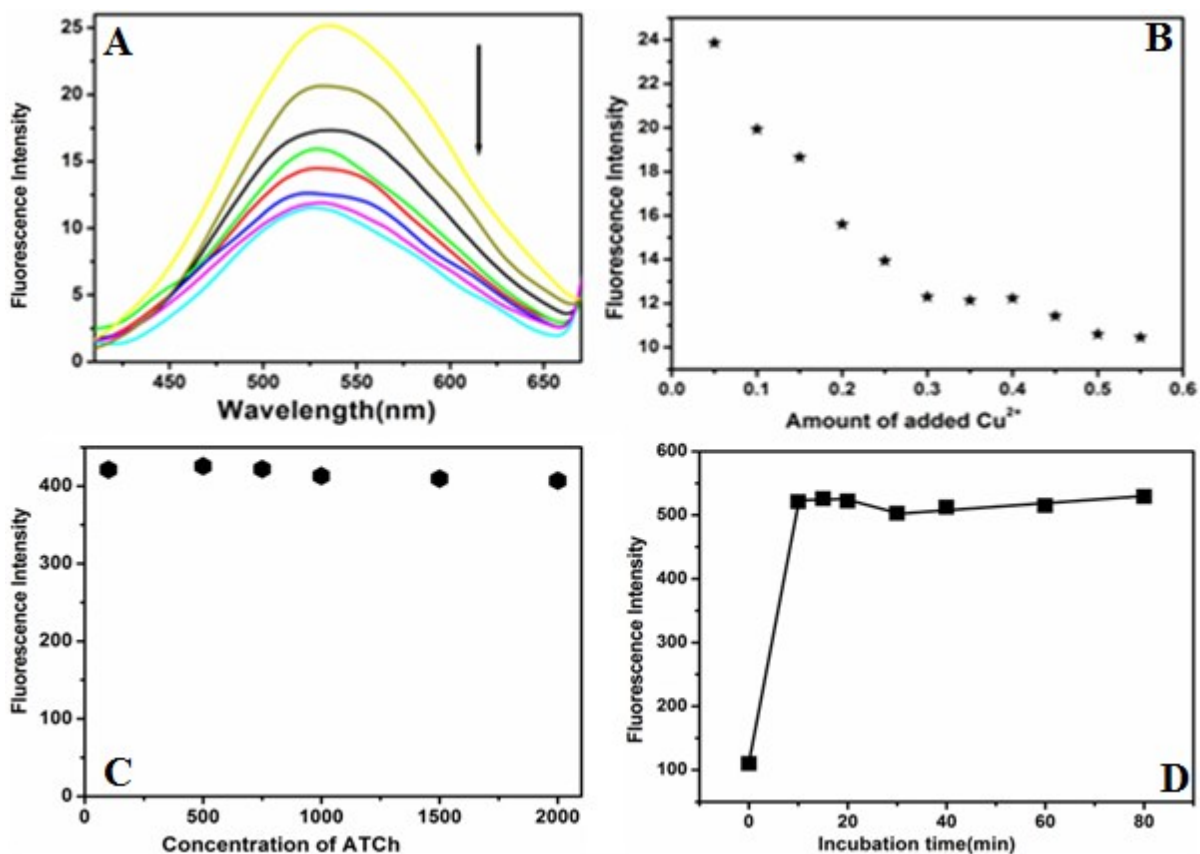


Figure S1 (A) Fluorescence spectra of CQDs-Cu²⁺ system (increasing amount of Cu²⁺) (B) The fluorescence intensity of CQDs and Increasing amount of Cu²⁺ (C) The influence of amount of added ATChI on the fluorescence of CQDs- Cu²⁺ (D) The fluorescence intensity of CQDs- Cu²⁺-ATChI-AChE verses different incubation time at room temperature.

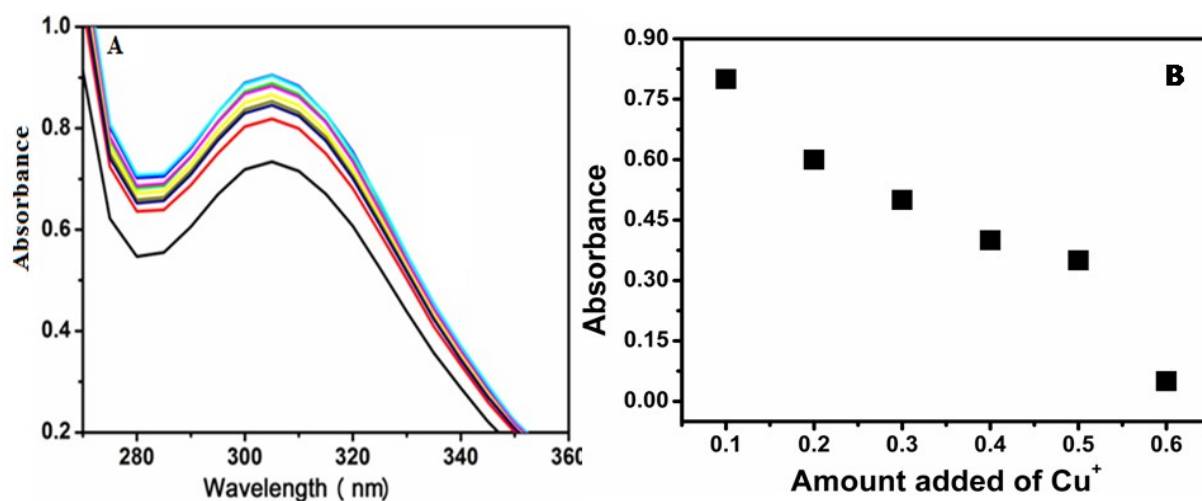


Figure S2 (A) UV-Vis spectra of CQDs-Cu²⁺ system (increasing amount of Cu²⁺) (B) The absorbance of CQDs and Increasing amount of Cu²⁺

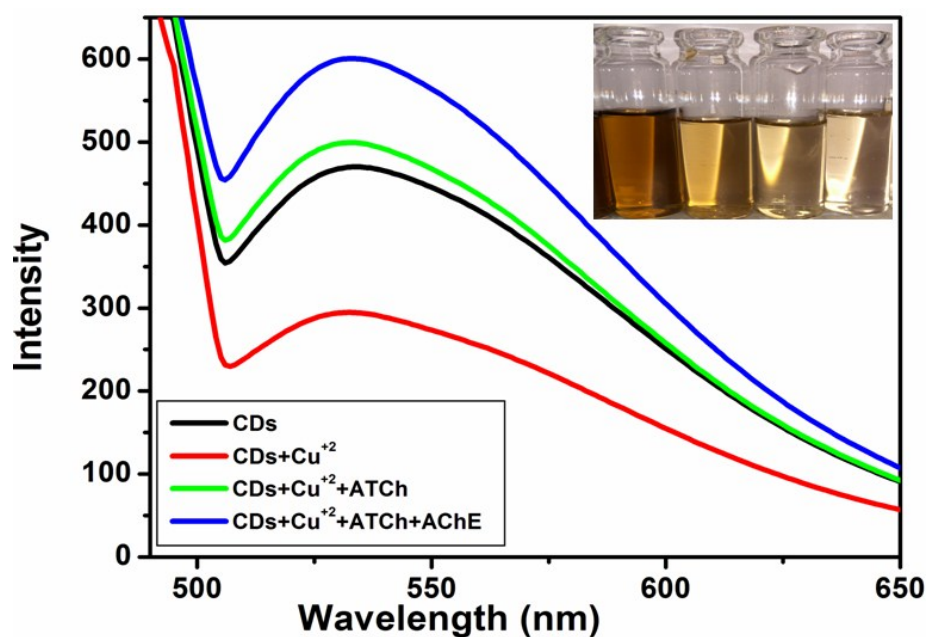


Figure S3. Changes of fluorescence spectra of CQDs in the presence of different composition: (a) mere CQDs, (b) in the presence of Cu²⁺ (10.5 μ M), (c) in the presence of Cu²⁺ (10.5 μ M) and ATCh (1257.5 μ M), (d) in the presence of Cu²⁺ (10.5 μ M), ATCh (1257.5 μ M) and AChE (50 mU/ml) after 60 min incubation.

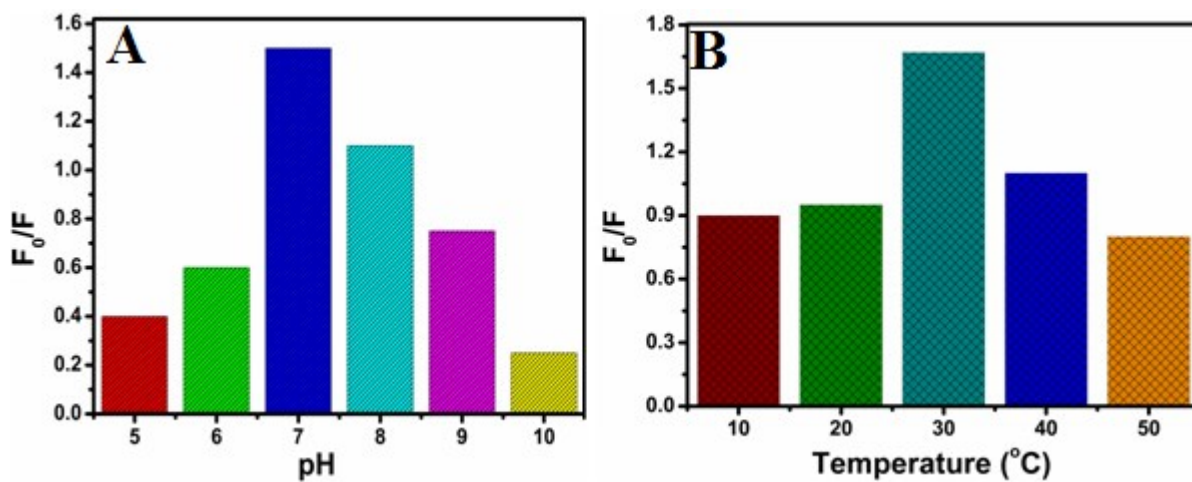


Figure S4 (A) The pH effect; (B) temperature effect of mixture (CQDs, Cu^{2+} , ATChI, AChE).

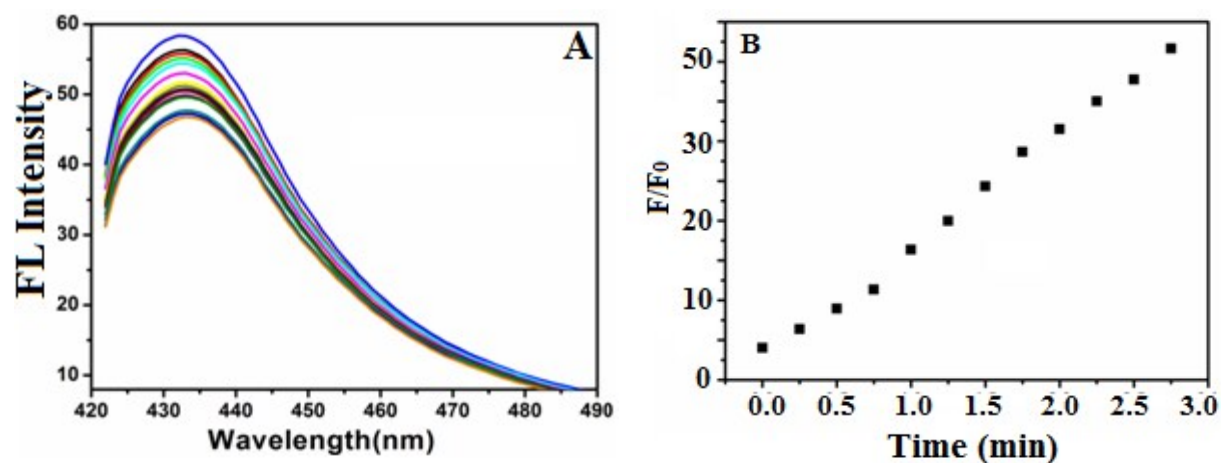


Figure S5. (A) Emission spectra of the assay solution containing CQDs, Cu^{2+} and ATChI with increasing level of AChE (B) The fitting curve between fluorescence intensity and AChE level at room temperature.

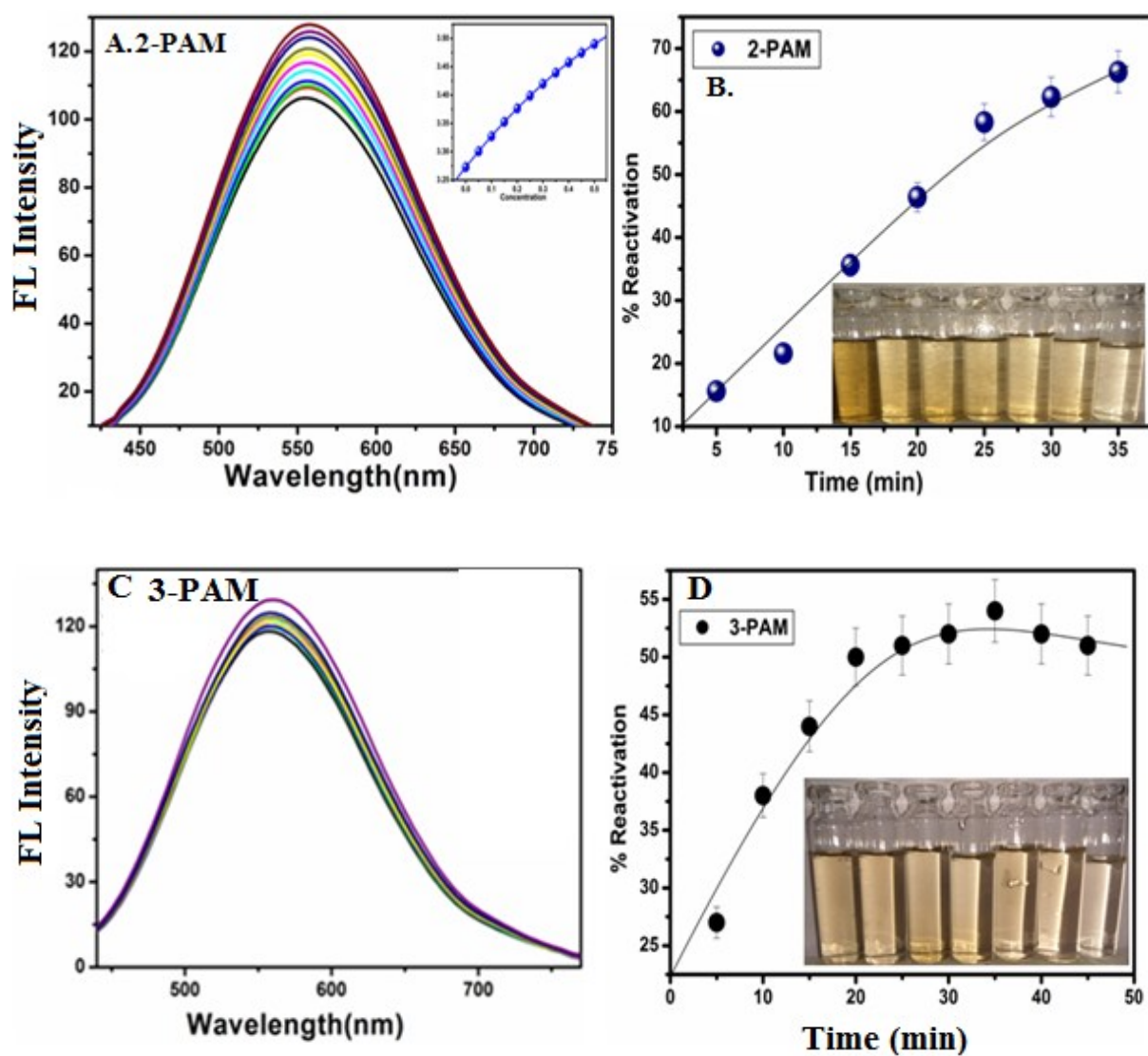


Figure S6 Fluorescence spectra of time and concentration-dependent reactivation of POX-inhibited AChE by (A&B) 2-PAM ; (C&D) 3-PAM at room temperature (pH 7.4).