## Interaction between Cu and CNT triggered their mutual role in the enhanced photodegradation of *p*-chloroaniline

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## **Supplementary materials**



Fig. S1. N<sub>2</sub> adsorption-desorption isotherm plots of A) CNT B) 1 wt% Cu/CNT C) 3 wt% Cu/CNT D) 5 wt% Cu/CNT and E) pore size distribution of the catalysts. Insert Figure: pore size distribution at smaller diameter.



Fig. S2. (A) Effect of pH on degradation of PCA [ $C_{PCA} = 10 \text{ mg } L^{-1}$ ,  $W = 0.375 \text{ g} L^{-1}$ , t = 1 h (dark), 5h (UV), 3 wt% Cu/CNT] and (B) The isoelectric point (pH<sub>PZC</sub>) of 3 wt% Cu/CNT catalyst.



Fig. S3. Effect of catalyst dosage on degradation of PCA. [ $C_{PCA} = 10 \text{ mg } L^{-1}$ ; pH =7; t = 1h (dark), 5h (UV); 3 wt% Cu/CNT]



Fig. S4 Mass spectra of PCA (m/z 127) and CO<sub>2</sub> (m/z 44) along the photocatalytic testing.



Fig. S5 Mass spectra of PCA's intermediate product at A) 0 hr, B) 1hr, C) and D) 6hr.