Supporting Information

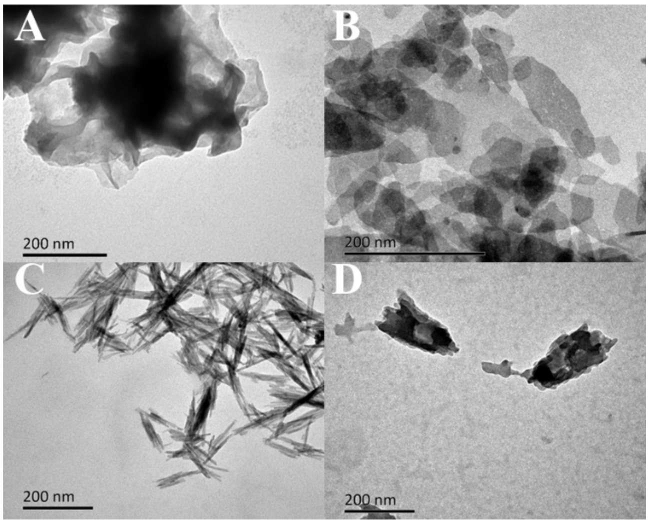

Figure S1. A) TEM image of CuCeTA; B) TEM image of CuTA; C) TEM image of CeTA; D) TEM image of poly(tannic acid) nanomaterials.

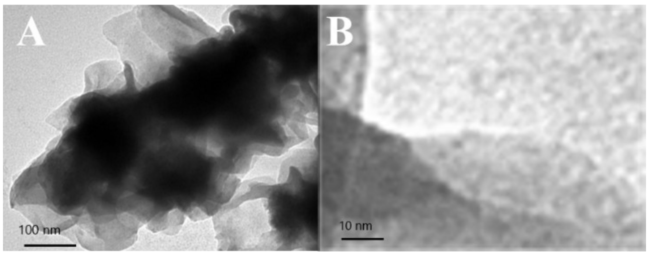

Figure S2. A) TEM image of CuCeTA; B) HTEM image of CuCeTA.

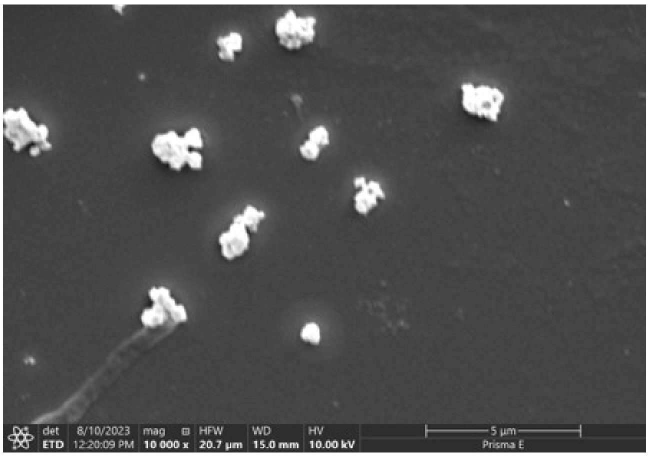

Figure S3. SEM image of CuCeTA.

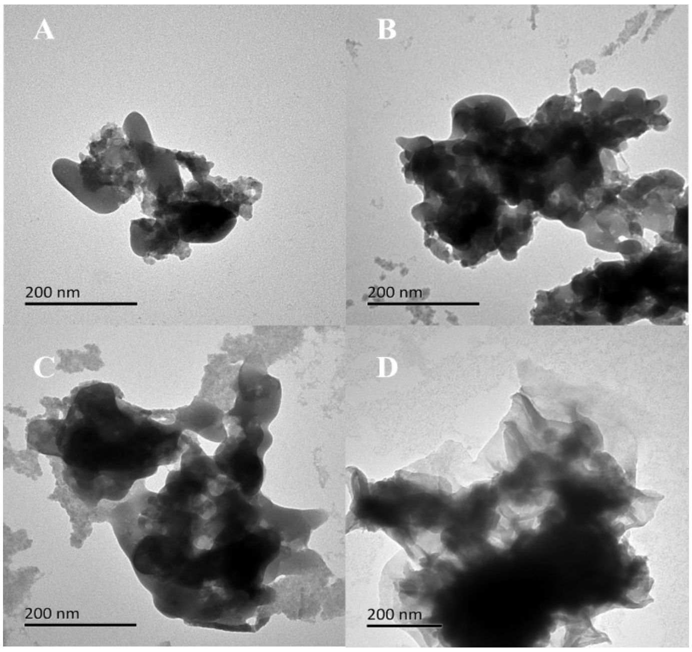

Figure S4. TEM images at different times: A) 0.5 h; B) 1.0 h; C) 2.0 h; D) 2.5 h.

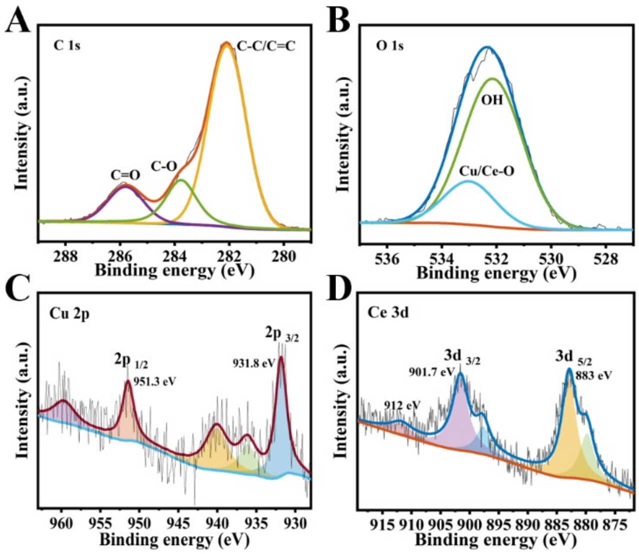

Figure S5. A) C 1s spectra of CuCeTA; B) O 1s spectra of CuCeTA; C) Cu 2p spectra of CuCeTA; D) Ce 3d spectra of CuCeTA.

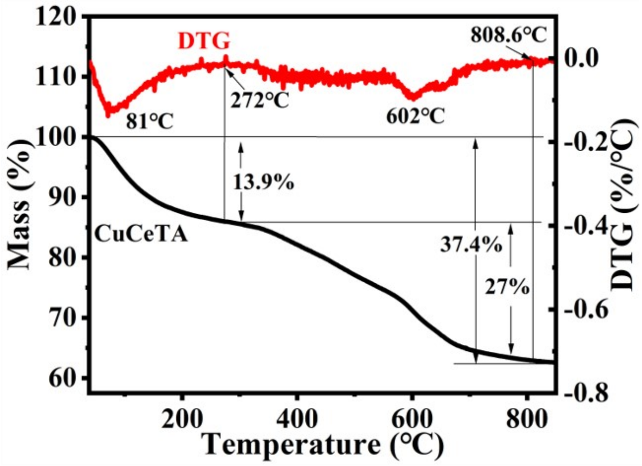

Figure S6. TGA and differential curve of CuCeTA.

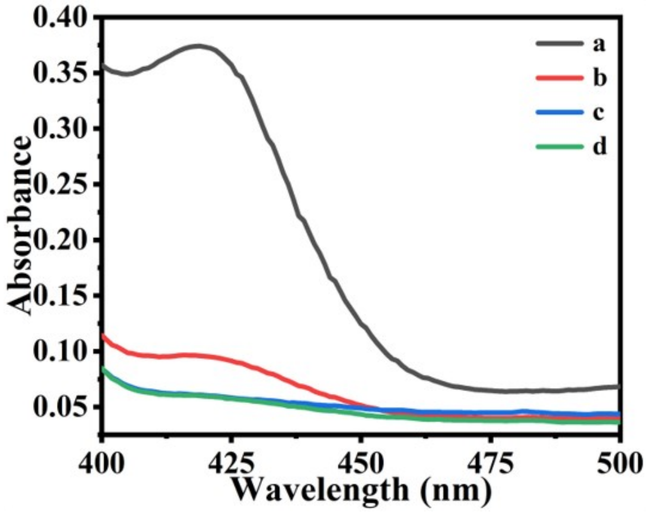

Figure S7. The POD-like activity of CuCeTA: a) ABTS + H_2O_2 + CuCeTA; b) ABTS + H_2O_2; c) ABTS + CuCeTA; d) ABTS.

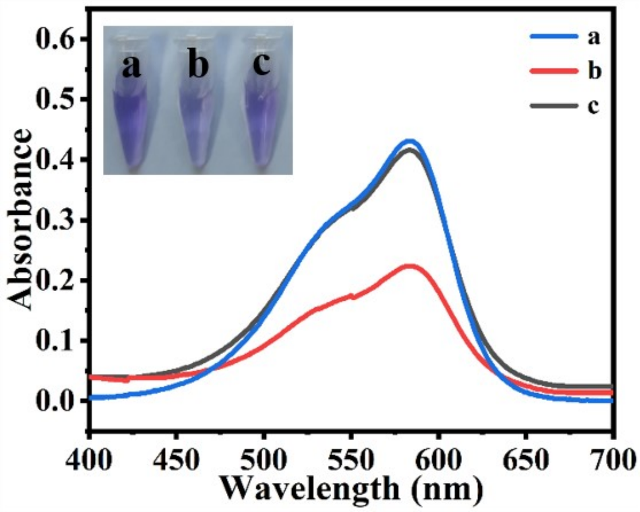

Figure S8. MV experiment to verify the production of ·OH: a) MV + CuCeTA; b) MV + CuCeTA + H_2O_2; c) MV + H_2O_2. Insert was corresponding photos.

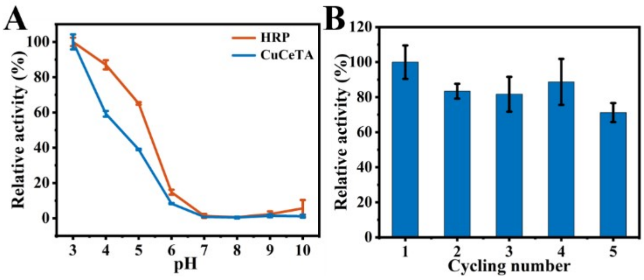

Figure S9. A) The catalytic activity of HRP and CuCeTA in different pH; B) The cycling experiment of CuCeTA.

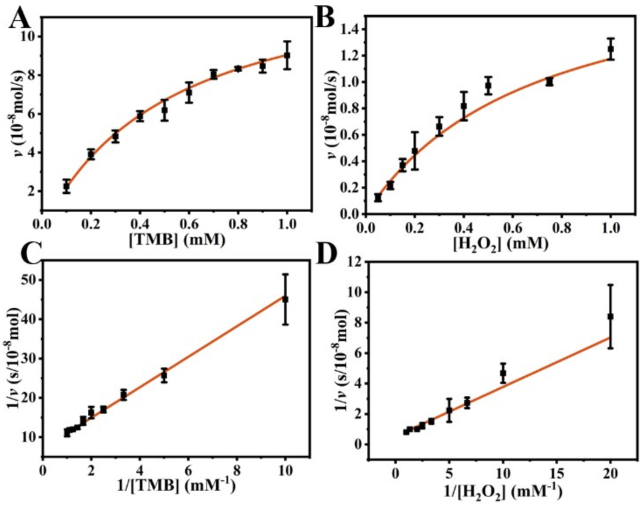

Figure S10. Steady-state kinetic assay for TMB (A and C) and H_2O_2 (B and D) of CuCeTA nanozyme.

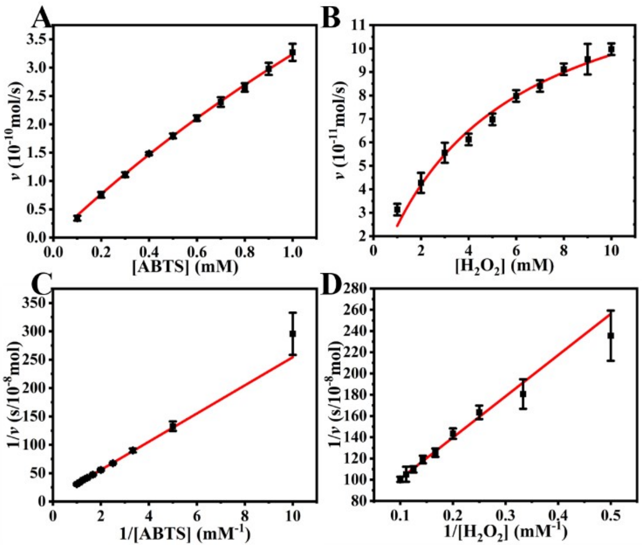

Figure S11. Steady-state kinetic assay for ABTS (A and C) and H_2O_2 (B and D) of CuCeTA nanozyme.

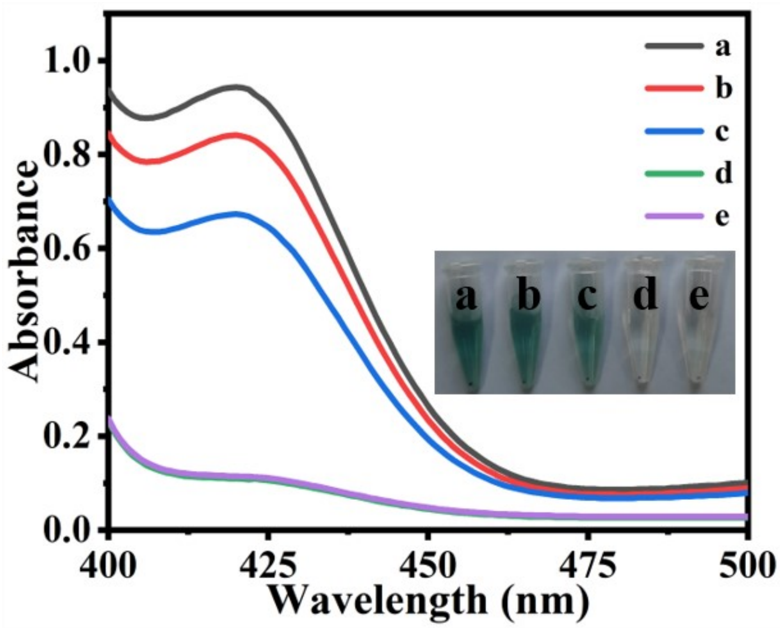

Figure S12. The influence of glyphosate on the catalytic activity of CuCeTA with ABTS as the chromogenic substrate: a: ABTS + H_2O_2 + CuCeTA; b: ABTS + H_2O_2 + glyphosate (50 ppm) + CuCeTA; c: ABTS + H_2O_2 + glyphosate (500 ppm) + CuCeTA; d: ABTS + glyphosate (50 ppm) + CuCeTA; e: ABTS + glyphosate (500 ppm) + CuCeTA. Insert was corresponding photos.

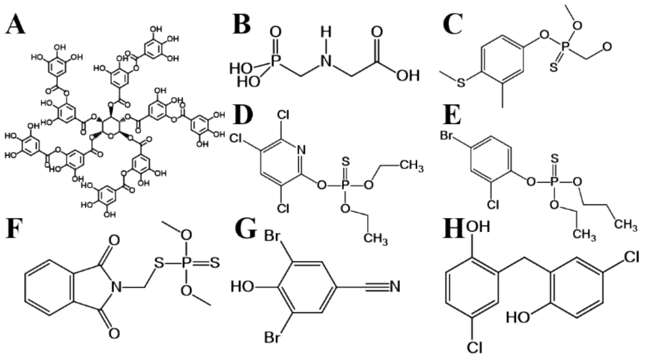

Figure S13. Structural formula of TA and several common pesticides, A) TA; B) glyphosate; C) fenthion; D) chlorpyrifos; E) profenofos; F) phosmet; G) bromoxynil; H) dichlorophene.

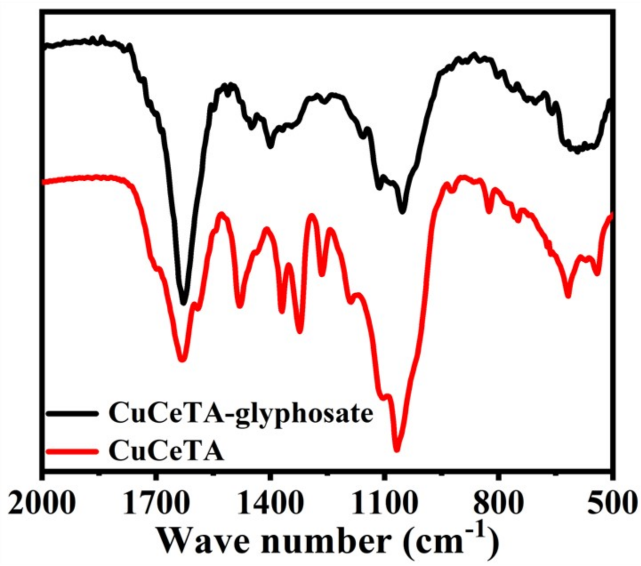

Figure S14. The partial enlarged FTIR of CuCeTA and CuCeTA-glyphosate.

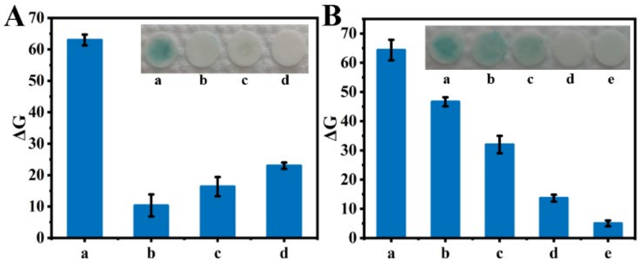

Figure S15. A) The validation experiment of CuCeTA catalytic activity on test paper (a: TMB + H_2O_2 + CuCeTA; b: TMB + H_2O_2; c: TMB + CuCeTA; d: only TMB); B) The catalytic activity inhibition of glyphosate to CuCeTA (a: TMB + H_2O_2 + CuCeTA; b: TMB + H_2O_2 + glyphosate (50 ppm) + CuCeTA; c: TMB + H_2O_2 + glyphosate (500 ppm) + CuCeTA; d: TMB + glyphosate (50 ppm) + CuCeTA; e: TMB + glyphosate (500 ppm) + CuCeTA).

Table S1. The content of element from XPS.

Element	Cu 2p	Ce 3d	O 1s	C 1s
Content (%)	2.55	11.06	29.11	7

Table S2. Comparison of K_m and V_{max} between CuCeTA and other catalysts with TMB as the chromogenic substrate.

Catalyst	**TMB**		**H_2O_2**		**Ref.**
	K_m [mM]	**V_{max} [10^{-8} M s^{-1}]**	**K_m [mM]**	**V_{max} [10^{-8} M s^{-1}]**	
CuCeTA	0.543	0.139	0.620	1.92	This work
HRP	0.434	10.0	3.7	8.71	[1]
H@M	0.068	6.07	10.9	8.98	[1]
GeO_2	0.420	23.297	1.75	23.4	[2]

Table S3. Comparison of K_m and V_{max} between CuCeTA and other catalysts with ABTS as the chromogenic substrate.

Catalyst	**ABTS**		**H_2O_2**		**Ref.**
	K_m [mM]	**V_{max} [10^{-8} M s^{-1}]**	**K_m [mM]**	**V_{max} [10^{-8} M s^{-1}]**	
CuCeTA	3.91	0.163	6.24	0.016	This work
HRP	0.16	29.88	0.29	32.93	[3]
PBNPs	1.08	31.4	17.1	29.3	[4]
Cys-MoS_2	0.15	16.1	8.06	99.2	[5]
GQDs	10.4	1.78	1.17	1.24	[6]

Notes and references

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