

Figure S1. Scanning electron microscopy (SEM) image of Cu dNP-KL.

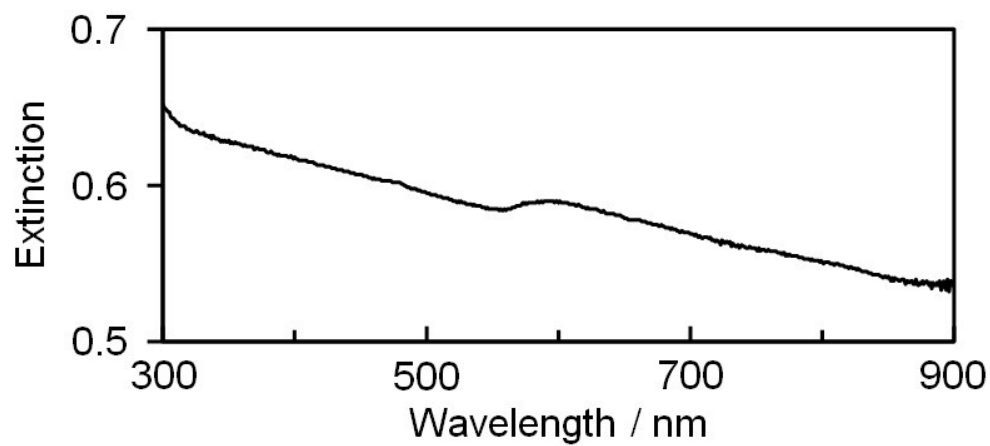


Figure S2. An UV-vis-NIR extinction spectrum of Cu dNP-KL suspension diluted 5 times.

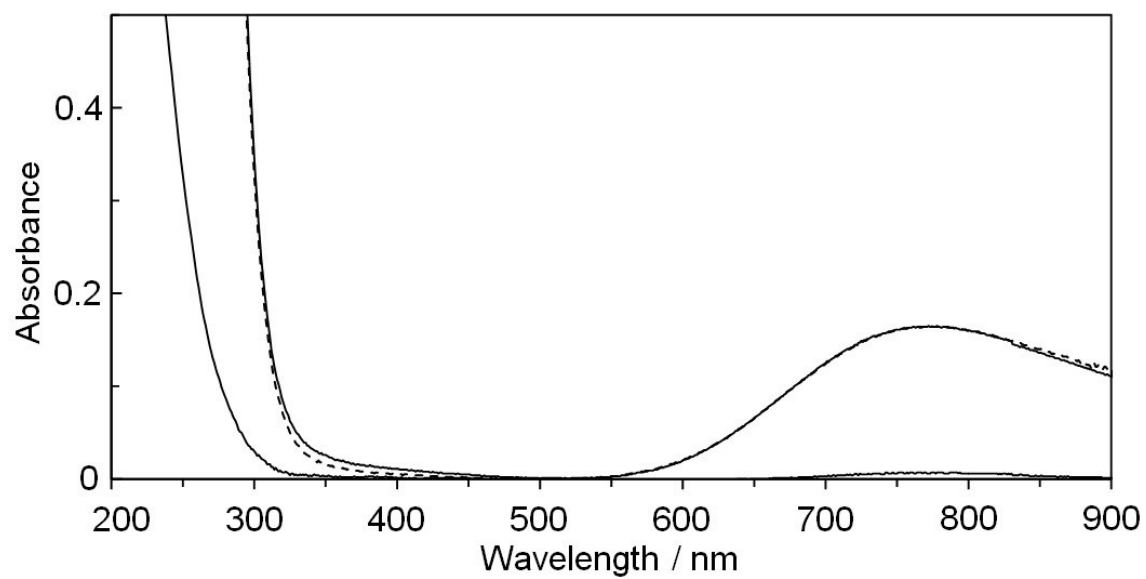


Figure S3. UV-vis-NIR absorption spectra of the supernatant before and after UV irradiation for 24 h. The dotted line represents a sample stirred for 24 h in dark.

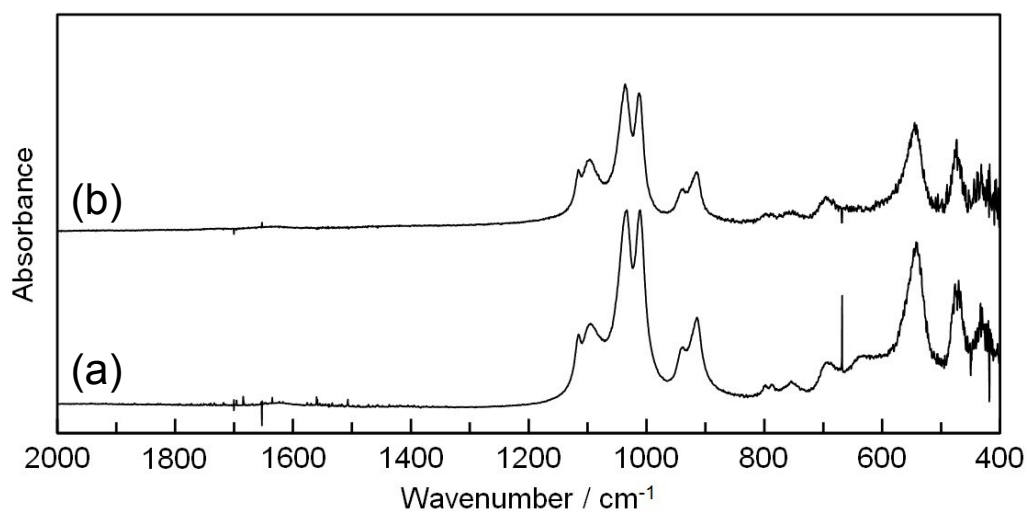


Figure S4. IR spectra of (a) Cu dNP-KL and (b) KL.

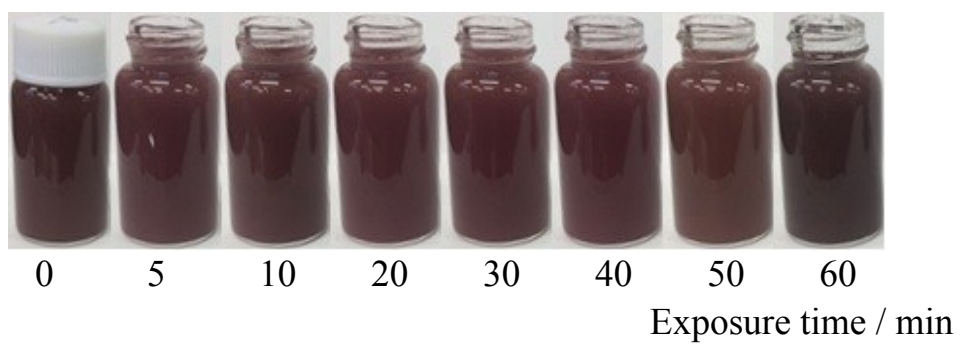


Figure S5. Photographs of Cu dNP-KL suspension on exposure to fresh air.

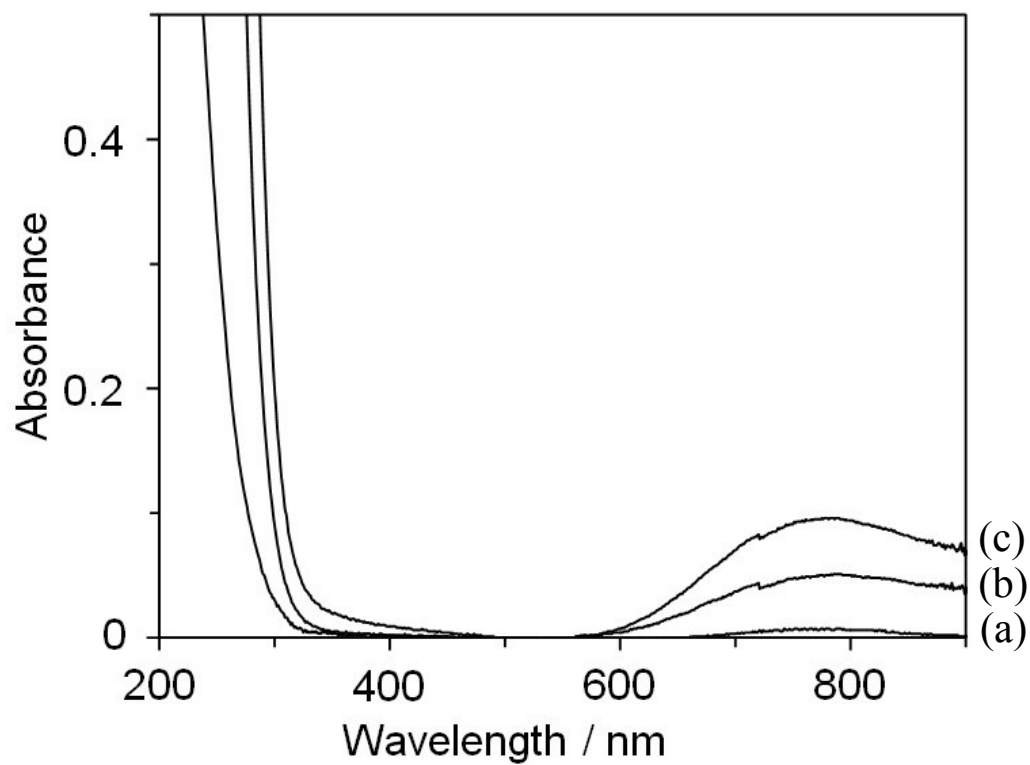
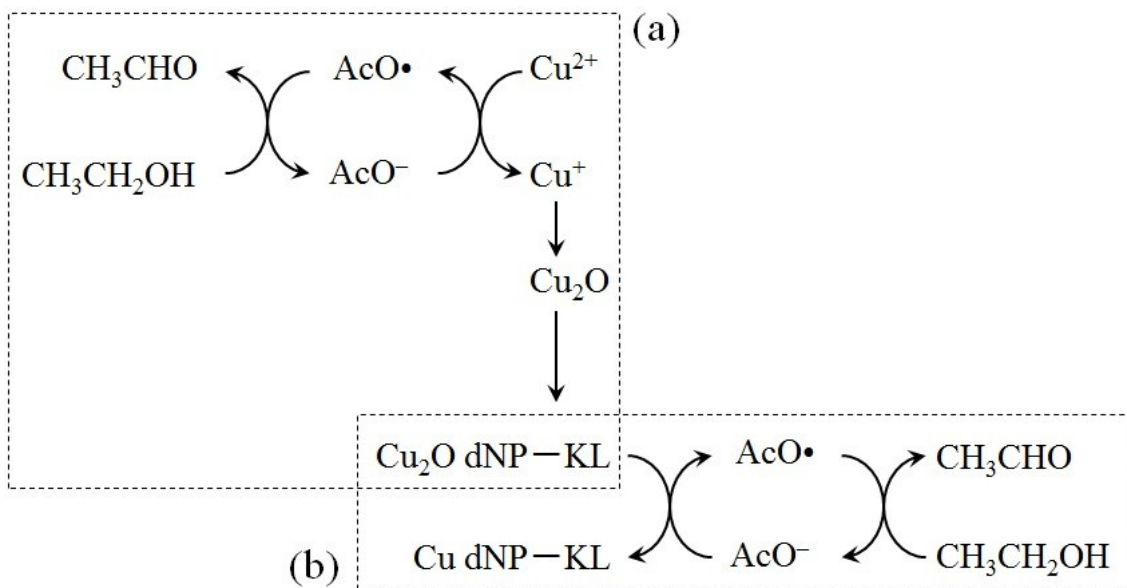


Figure S6. UV-vis-NIR absorption spectra of the supernatant of Cu dNP-KL suspension on exposure to fresh air for (a) 0 h, (b) 4 h and (c) 8 h.



Scheme S1 Proposed production mechanism of Cu dNP-KL.

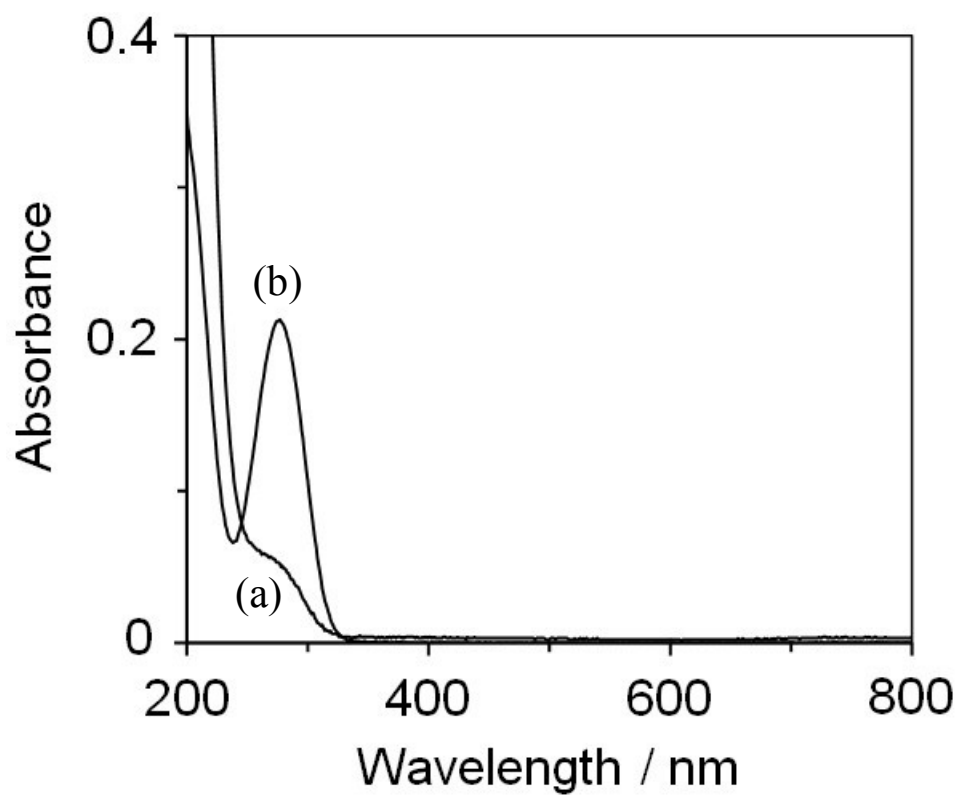


Figure S7. UV-vis-NIR spectra of (a) the supernatant of Cu dNP-KL, and (b) acetaldehyde in aqueous solution.