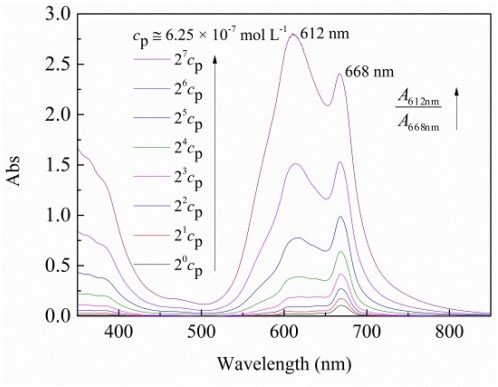
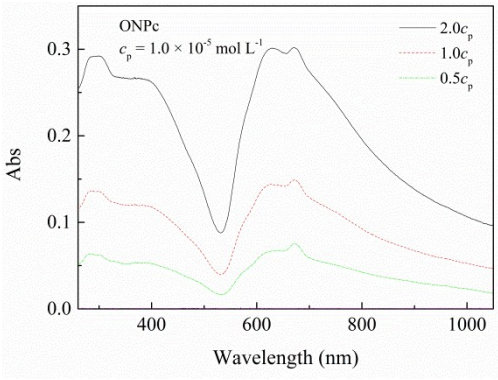
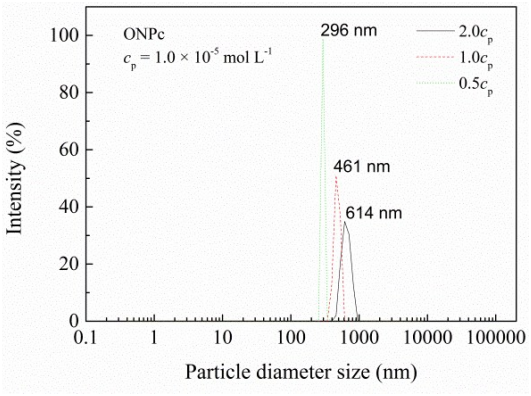
Supplementary material (S1-S14)



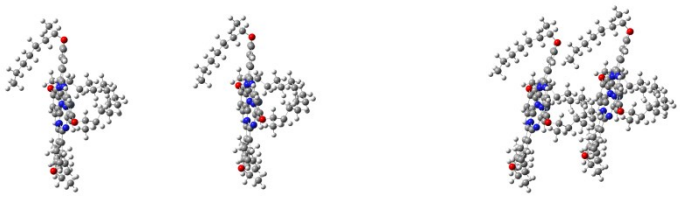
S1. UV-vis spectra of ONPc in petroleum at various concentrations.



S2. UV-vis spectra of ONPc in ethanol at three concentrations

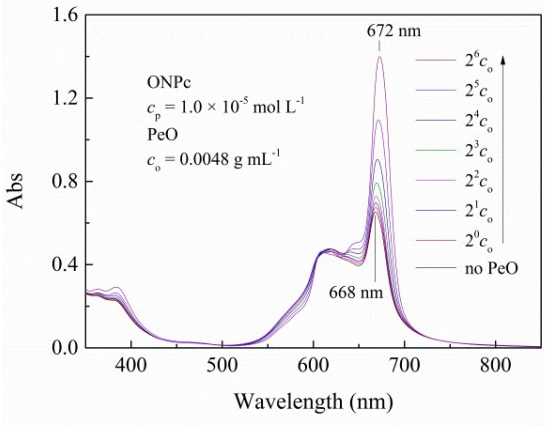


S3. Particle sizes of ONPc at three concentrations in ethanol, detected by NICOM P 380 ZLS Zeta Potential/Particle Sizer, PSS Nicomp, Santa Barbara, CA, USA.

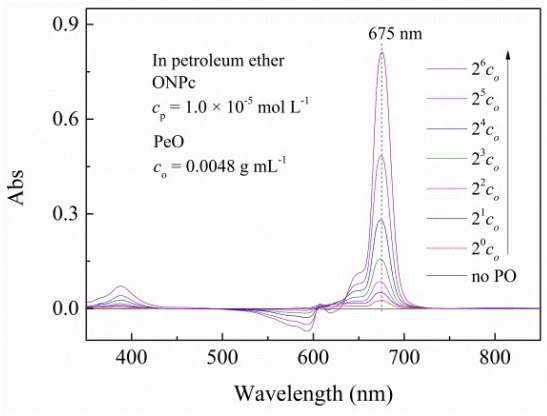


E = -9351.70220178 A.U. *E* = -9467.69242806 A.U.

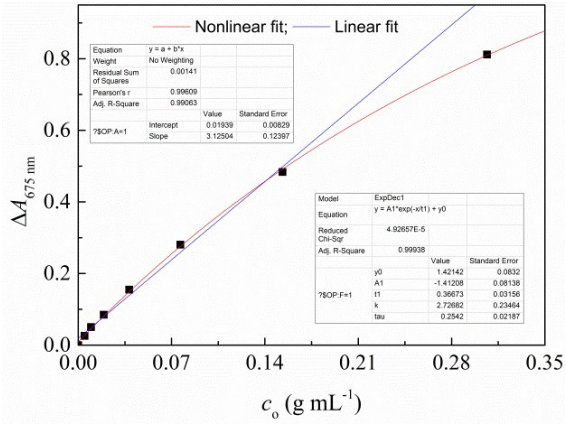
S4. ONPc molecule and dimer models, with the lowest energy, simulated by Gaussian09, DFT/6-31G (d, p) basis set.



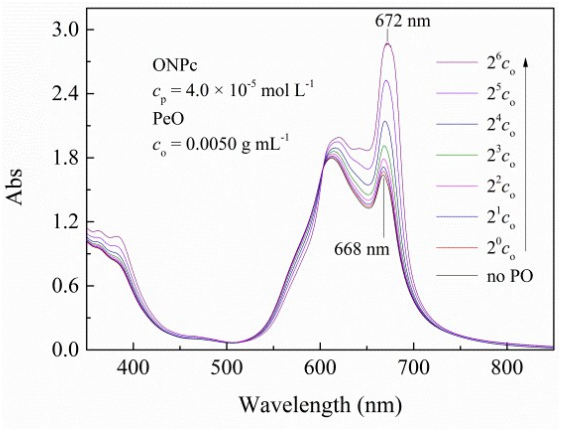
S5. UV-vis spectra of ONPc in petroleum ether (1.0×10^{-5} mol L^{-1}) with PeO at different concentration.



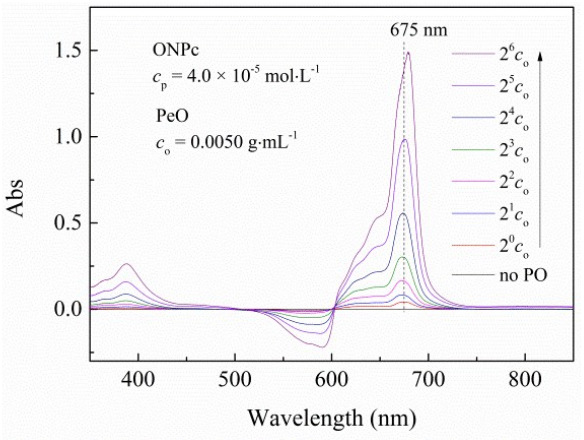
S6. UV-vis spectra of ONPc in petroleum ether (1.0×10^{-5} mol L^{-1}) with PeO at different concentration by subtracting the absorption of control sample ONPc solution without PeO.



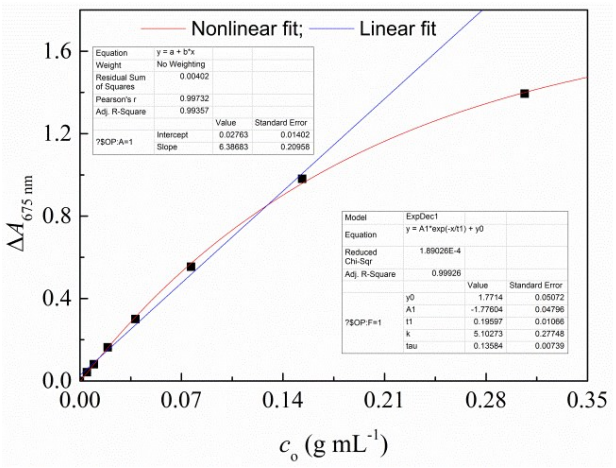
S7. Linearity between the changed absorbance of ONPc at 675 nm and the concentration of PeO in detected solutions based on the spectra S6.



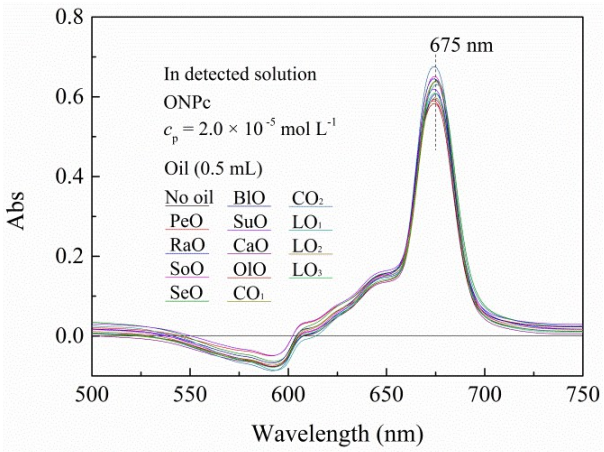
S8. UV-vis spectra of ONPc in petroleum ether (4.0×10^{-5} mol L^{-1}) with PeO at different concentration.



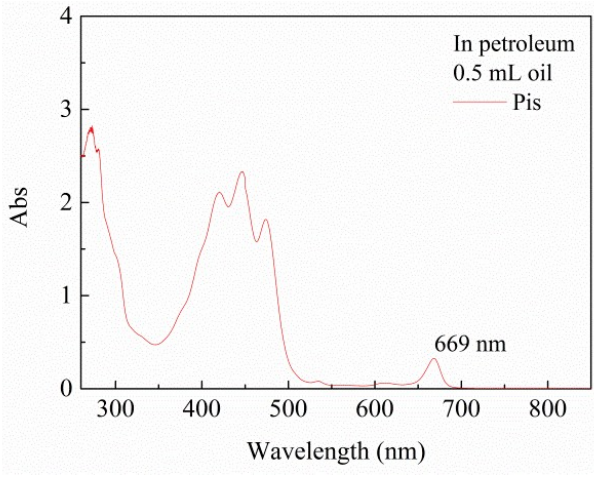
S9. UV-vis spectra of ONPc in petroleum ether (4.0×10^{-5} mol L^{-1}) with PeO at different concentration by subtracting the absorption of control sample ONPc solution without PeO.



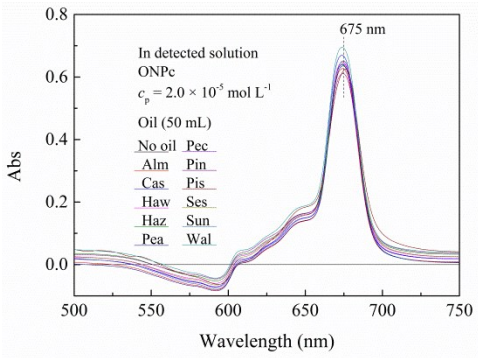
S10. Linearity between the absorbance of ONPc at 675 nm and the concentration of PeO in detected solutions based on the spectra S9.



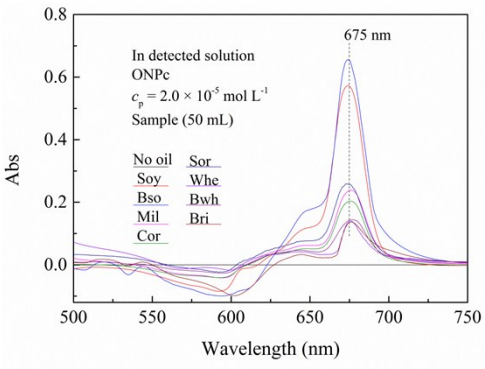
S11. UV-vis spectra of ONPc in detection solutions with recovery edible oils after subtracting the absorption of control system without oil and oil sample solution without ONPc.



S12. UV-vis spectrum of 0.5 mL extracted Pis oil in 2.5 mL petroleum ether.



S13. UV-vis spectra of ONPc in detection solutions with lipid samples from dry fruits after subtracting the absorption of control system without lipid and lipid sample solution without ONPc.



S14. UV-vis spectra of ONPc in detection solutions with lipid samples from cereal grains after subtracting the absorption of control system without lipid and lipid sample solution without ONPc.