

Supplementary information

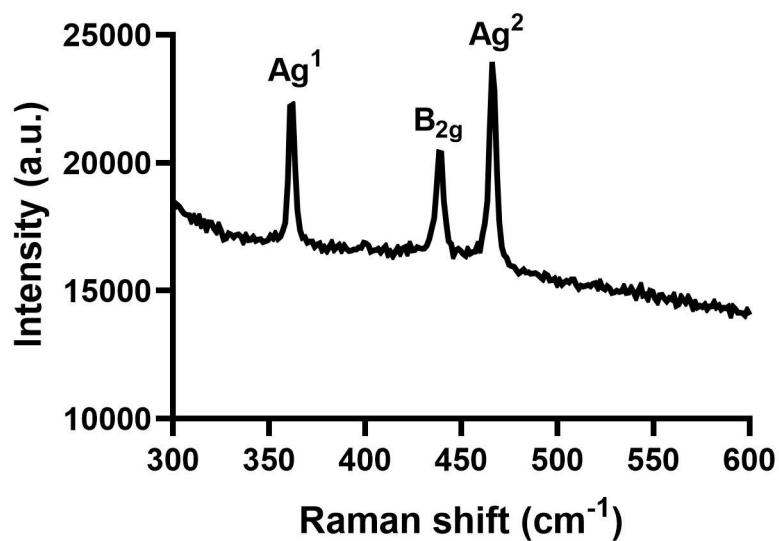


Figure S1. Raman spectroscopy measurements show three characteristic peaks of BPQDs.

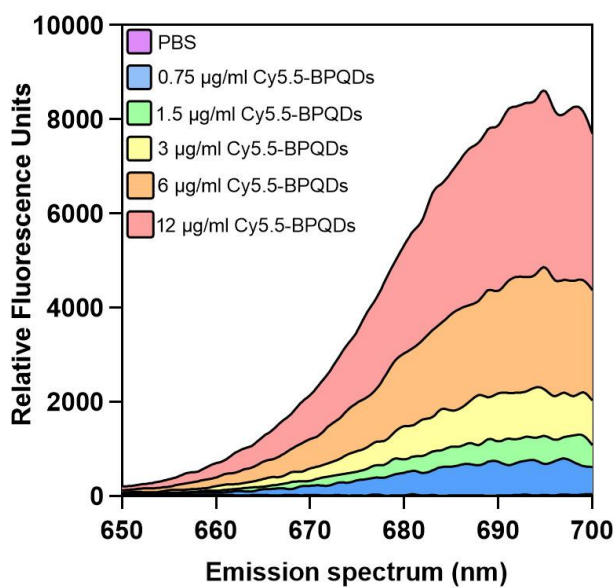


Figure S2. The fluorescence intensity of Cy5.5-BPQDs at different concentrations under 620 nm excitation conditions.

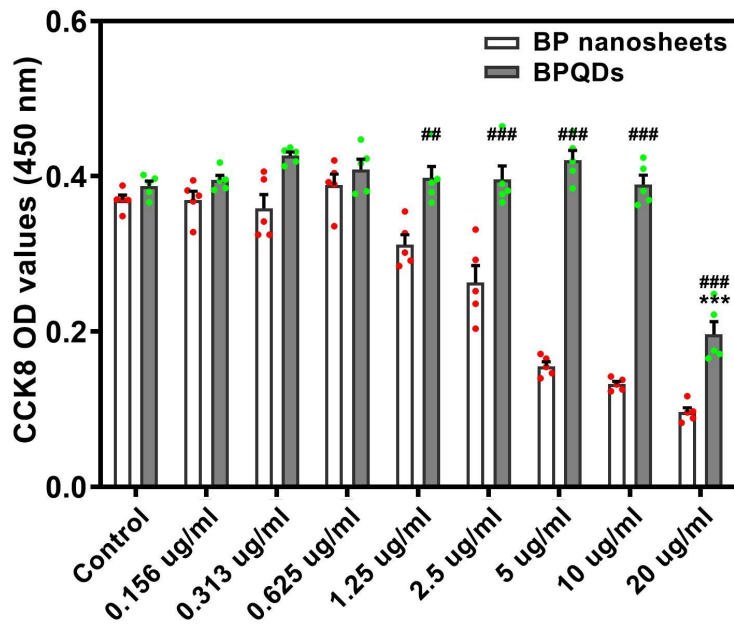


Figure S3. The impact of different culture concentrations of BP nanosheets and BPQDs on R28 cells' viability as measured by CCK8 assay. Data are shown as the mean $\pm$ SD; ***p < 0.001 (compared with the control group using one-way analysis of variance); ###p < 0.05 (compared with the BP nanosheets group using one-way analysis of variance).

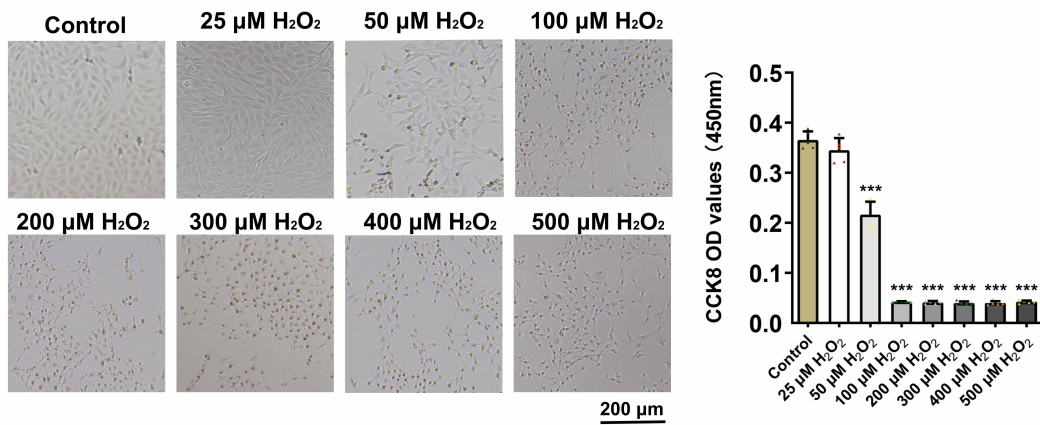


Figure S4. The impact of different culture concentrations of H₂O₂ on R28 cells' viability. Data are shown as the mean $\pm$ SD; ***p < 0.001 (compared with the control group using one-way analysis of variance). Bar = 200 μm.