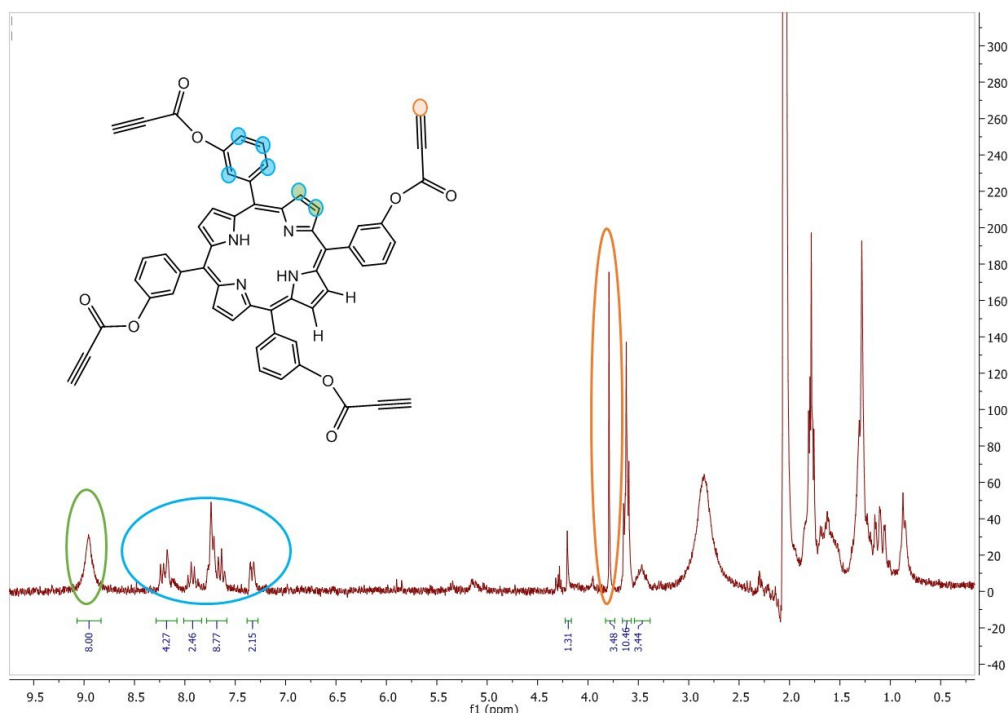
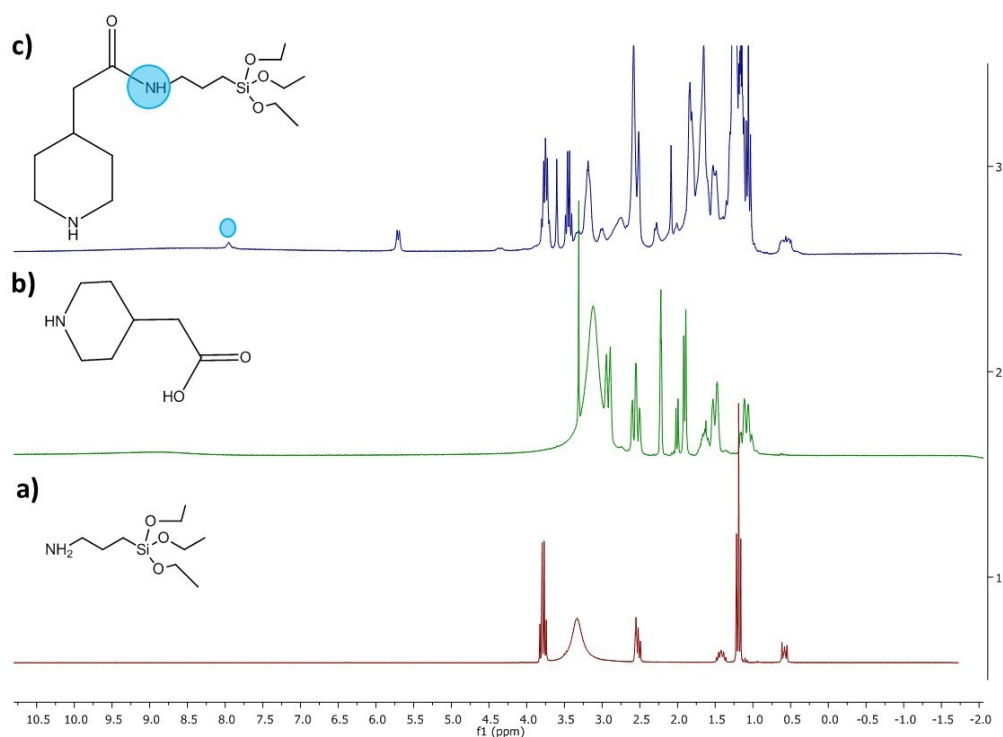


A novel visible light responsive nanosystem for cancer treatment

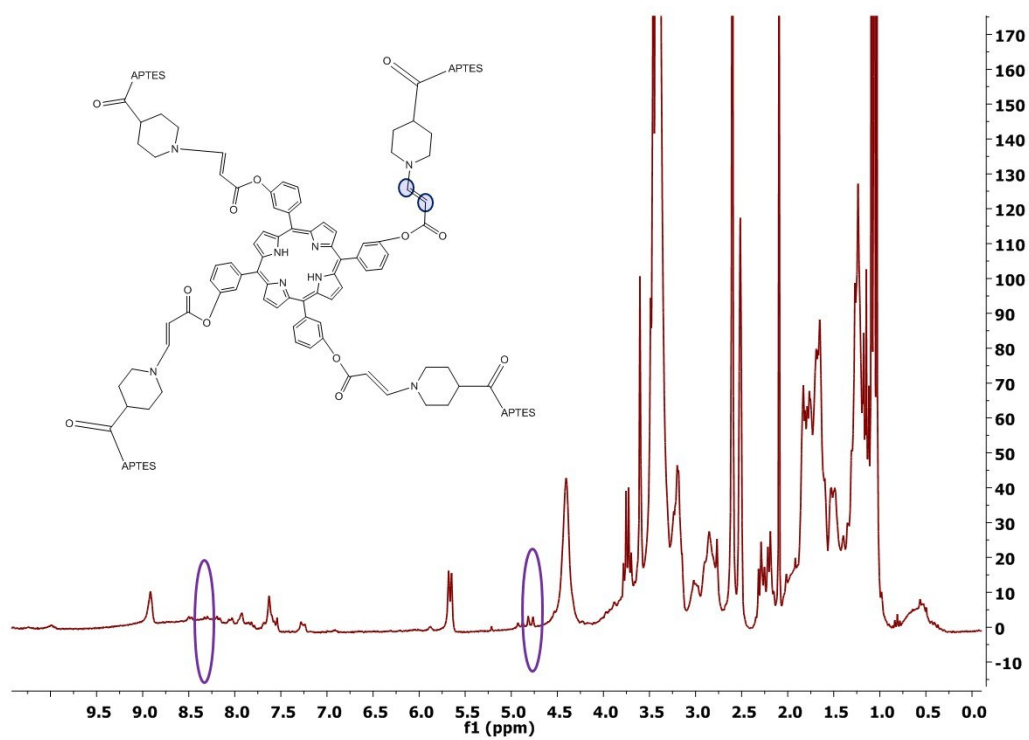
Supporting information



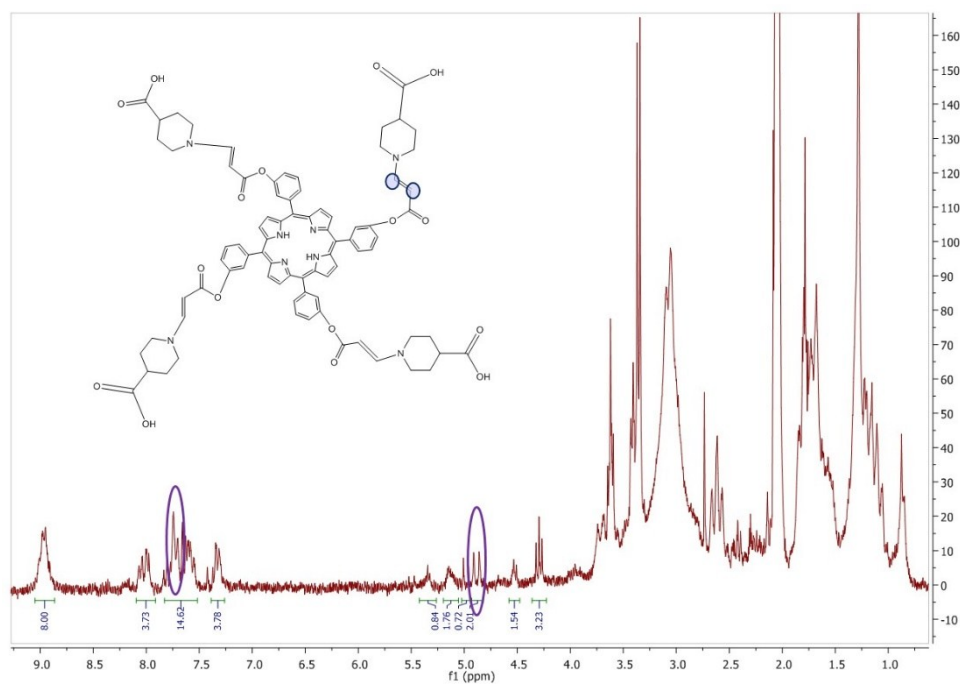
S1. ^1H -NMR spectrum of the reaction product between 5,10,15,20-(Tetra-3-hydroxyphenyl) porphyrin and propiolic acid, product "A".



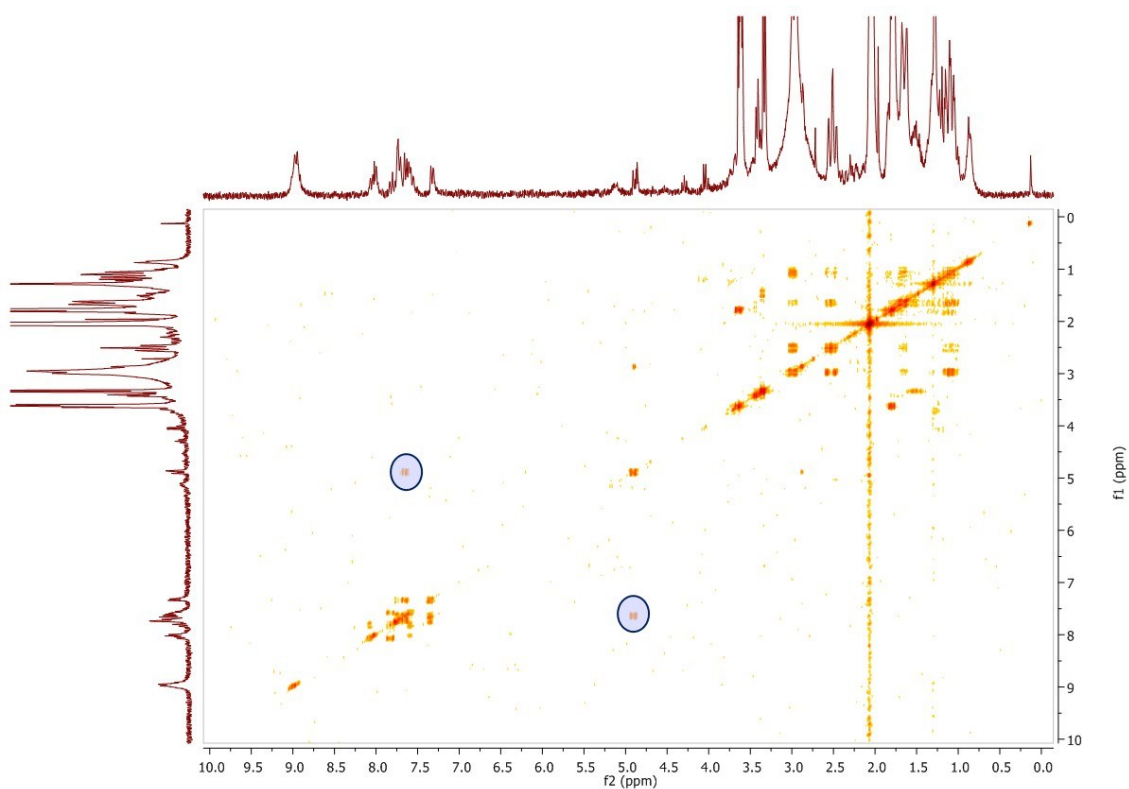
S2. Comparison of ^1H -NMR spectra of a) APTES, b) PAH and c) their reaction product "B".



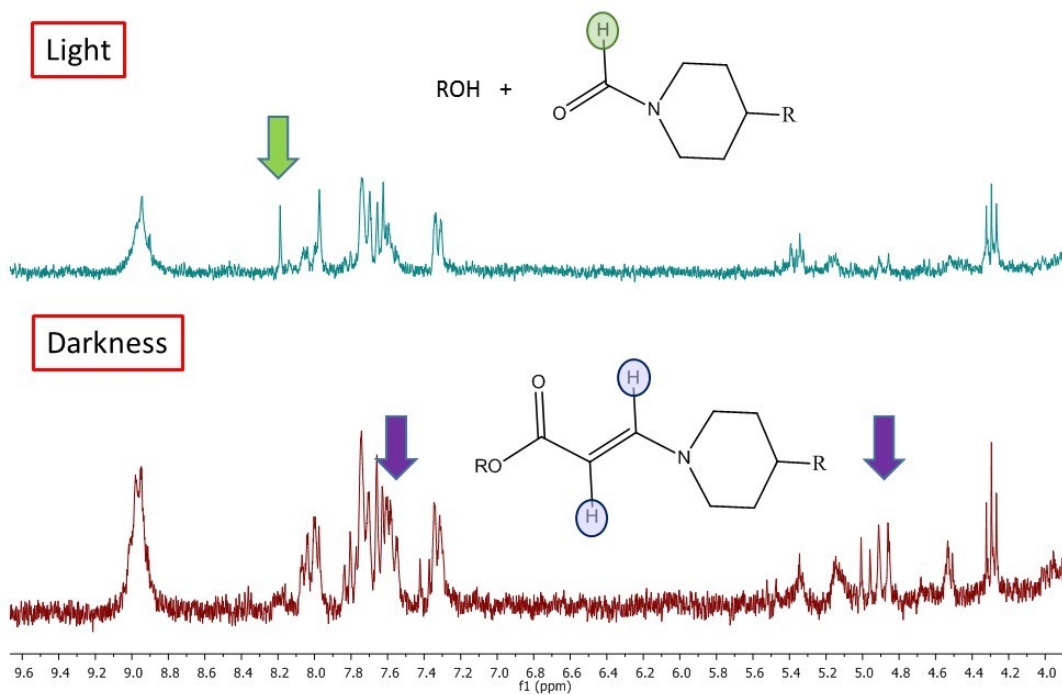
S3. ^1H -NMR spectrum of the reaction product between "A" and "B".



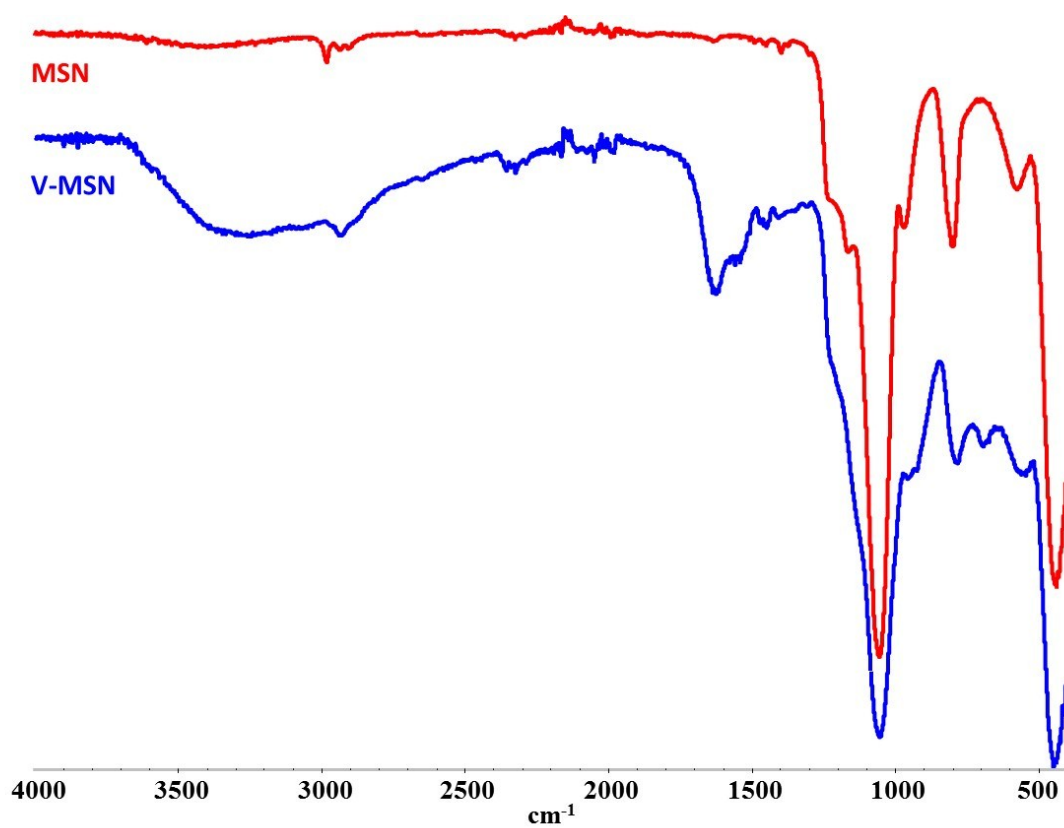
S4. ^1H -NMR spectrum of the reaction product "C", between "A" and PAH.



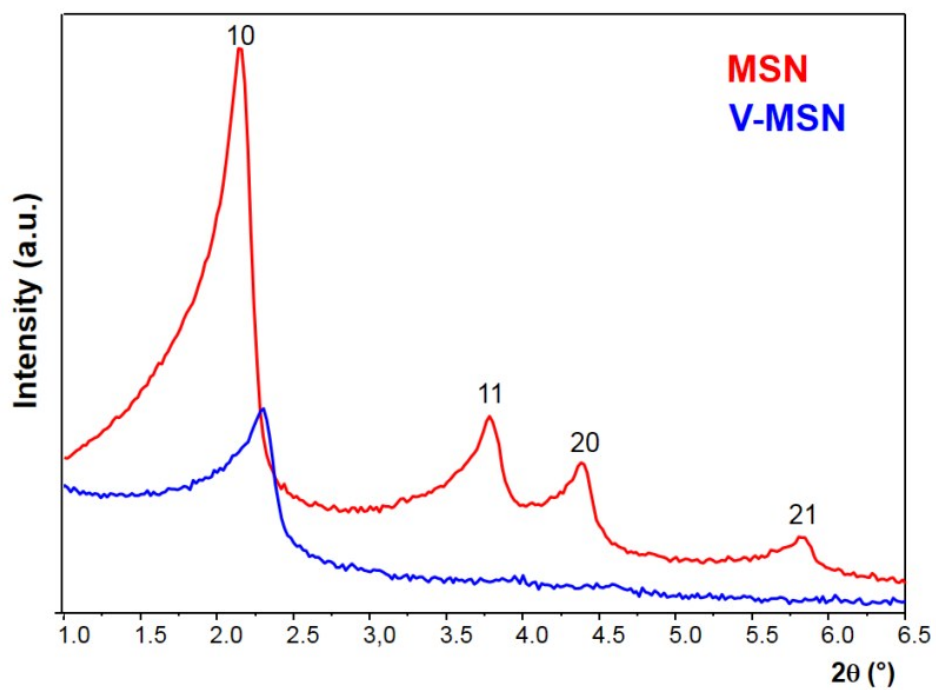
S5. COSY ¹H-NMR spectrum of the reaction product “C”, between “A” and PAH.



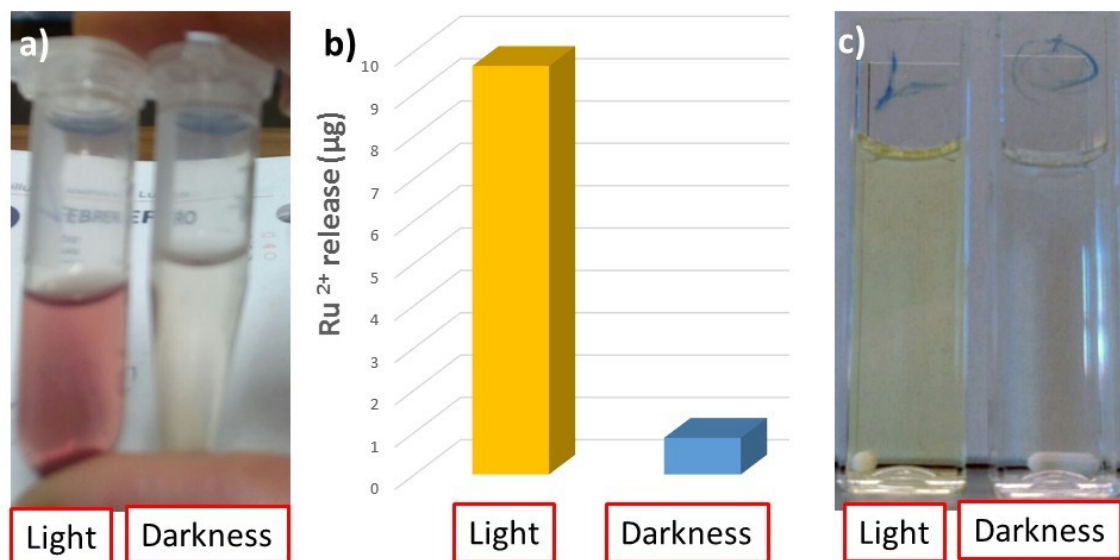
S6. ¹H-NMR spectra of the doubled bond photo-oxidation of the product “C”.



S7. FTIR spectrum of MSN and V-MSN



S8. Low-angle XRD patterns of MSN and V-MSN.



S9. a) Image of porphyrin release in DMSO with and without light irradiation; **b)** $[\text{Ru}(\text{bipy})_3]^{2+}$ release from V-MSN@RBPY in the absence of light and upon visible light irradiation and **c)** Image of $[\text{Ru}(\text{bipy})_3]^{2+}$ release in PBS with and without light irradiation.