

Scheme 1S: Synthesis of S-nitroso-N-acetyl-DL-penicillamine fumed silica (SNAP-FS).



Figure 1S: NO generation from SNAP-FS doped silicone rubber tri-layer films when PBS bathing solution contained nothing added (control), only copper ions, only ascorbate, copper ions and ascorbate and the film was soaked in fresh rabbit plasma measured via chemiluminescence.



B.



Figure 2S: (A.) The relative irradiance of light through the glass sample vessel used in these experiments and (B.) the UV-Visible absorbance spectrum of 1 mM free S-nitroso-N-acetyl-DL-penicillamine (SNAP) in aqueous solution.



Figure 3S: (A.) The relative irradiance of 100 W light through quartz cuvette with long and short wavelength filters and (B.) photoinitiated NO generation using 100 W light from 1 mM free S-nitroso-N-acetyl-DL-penicillamine (SNAP) in 0.5 M H_2SO_4 aqueous solution with and without light filters.