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Supplementary material

Experimental details

EPR analysis

Each reaction mixture contained 50 mM TEMP in DPBS (pH 7.4). At each time point, 100 μ L of the solution was removed and added to 10 L of 1.0M sodium azide to quench $^1\text{O}_2$ production before EPR analysis, which was performed on a Bruker X-band EMX spectrometer. TEMPO concentration in illuminated samples was determined using a standard curve generated from the signal amplitude difference in the highest field obtained from a dilution series of TEMPO.

Details of the synthesis of the Ru-Iphen and acquisition of LC/MS data were presented in a previous publication.¹

Results

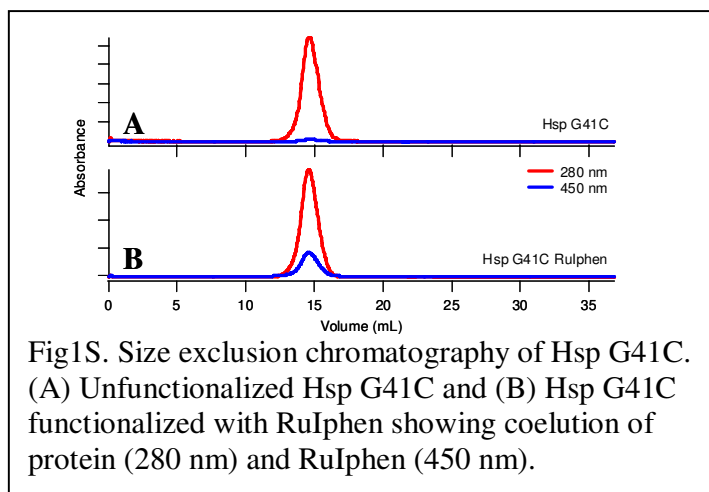


Fig1S. Size exclusion chromatography of Hsp G41C. (A) Unfunctionalized Hsp G41C and (B) Hsp G41C functionalized with RuIphen showing coelution of protein (280 nm) and RuIphen (450 nm).

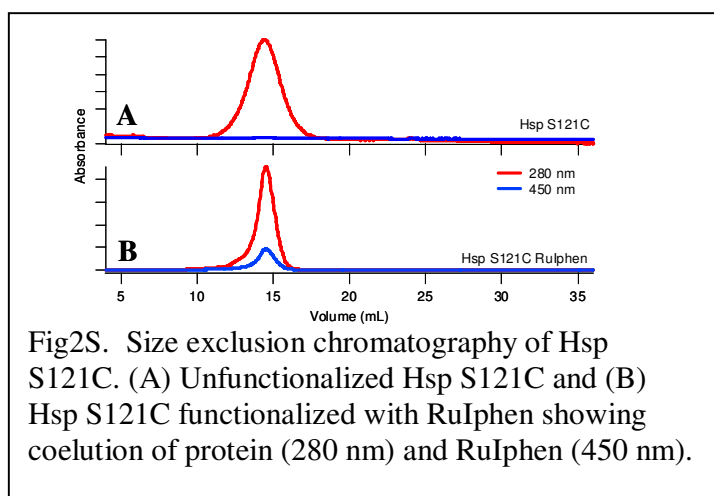
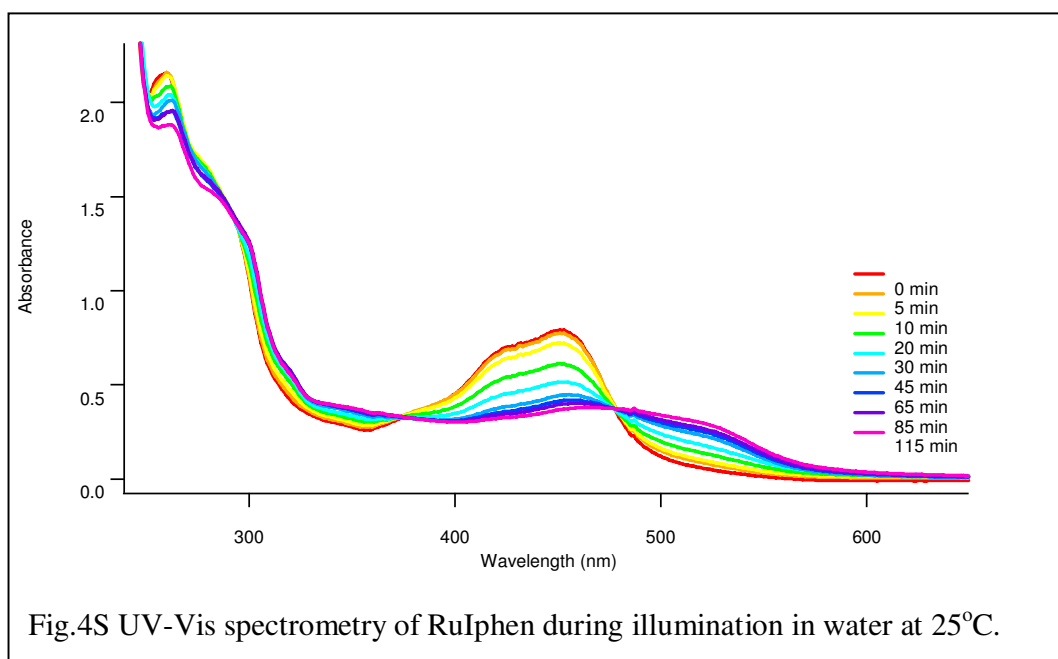
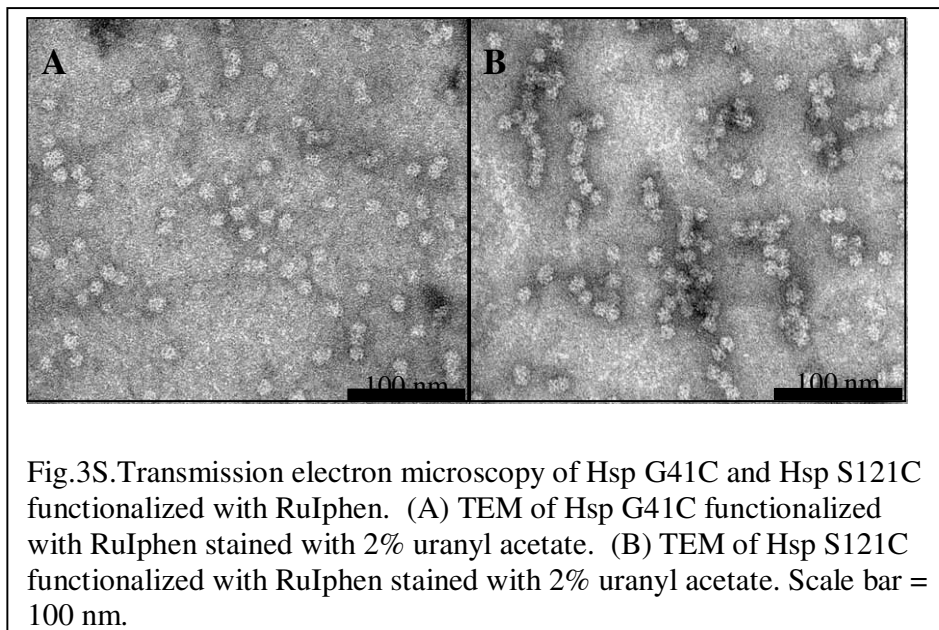


Fig2S. Size exclusion chromatography of Hsp S121C. (A) Unfunctionalized Hsp S121C and (B) Hsp S121C functionalized with RuIphen showing coelution of protein (280 nm) and RuIphen (450 nm).

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1. P. A. Suci, Z. Varpness, E. Gillitzer, T. Douglas and M. Young, *Langmuir*, 2007, **23**, 12280-12286.