Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary Information

Preparation of Platinum Nanoparticles using Iron(II) as Reductant and Photosensitized H_2 Generation on an Iron Storage Protein Scaffold

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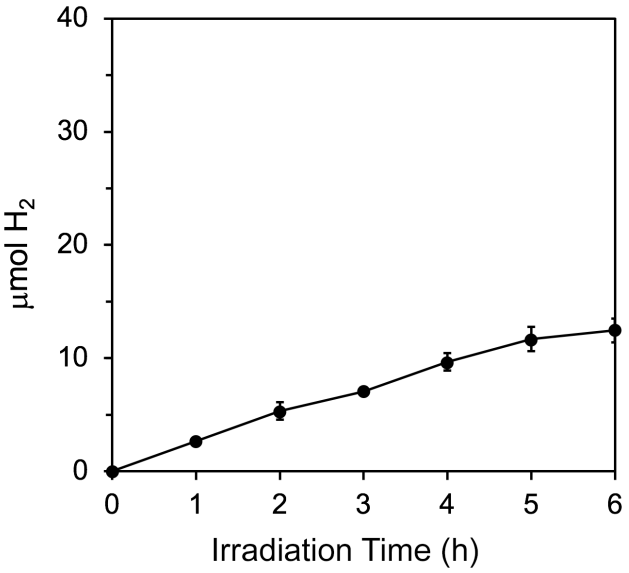

Fig. S1. Photosensitized H_2 production upon white light irradiation of an aqueous solution containing Pt/Fe-Hfn at 60 µM Pt, 72 µM fluorescein and 0.3 M TEOA pH 9. The plot is on the same µmol H_2 scale (0 – 40) as that in Fig. 6 for easier visual comparison. Error bars represent standard deviations from the average for three simultaneously irradiated reaction vials.

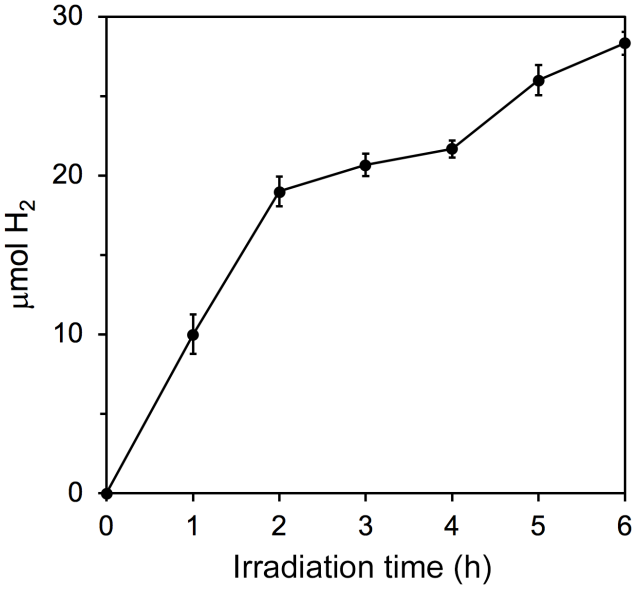

Fig. S2. Photosensitized H_2 production upon irradiation using a 550 ± 20 nm filter of an aqueous solution containing Pt/Fe-Hfn at 60 µM Pt, 72 µM EY and 0.3 M TEOA pH 9. Error bars represent standard deviations from the average for three simultaneously irradiated reaction vials.

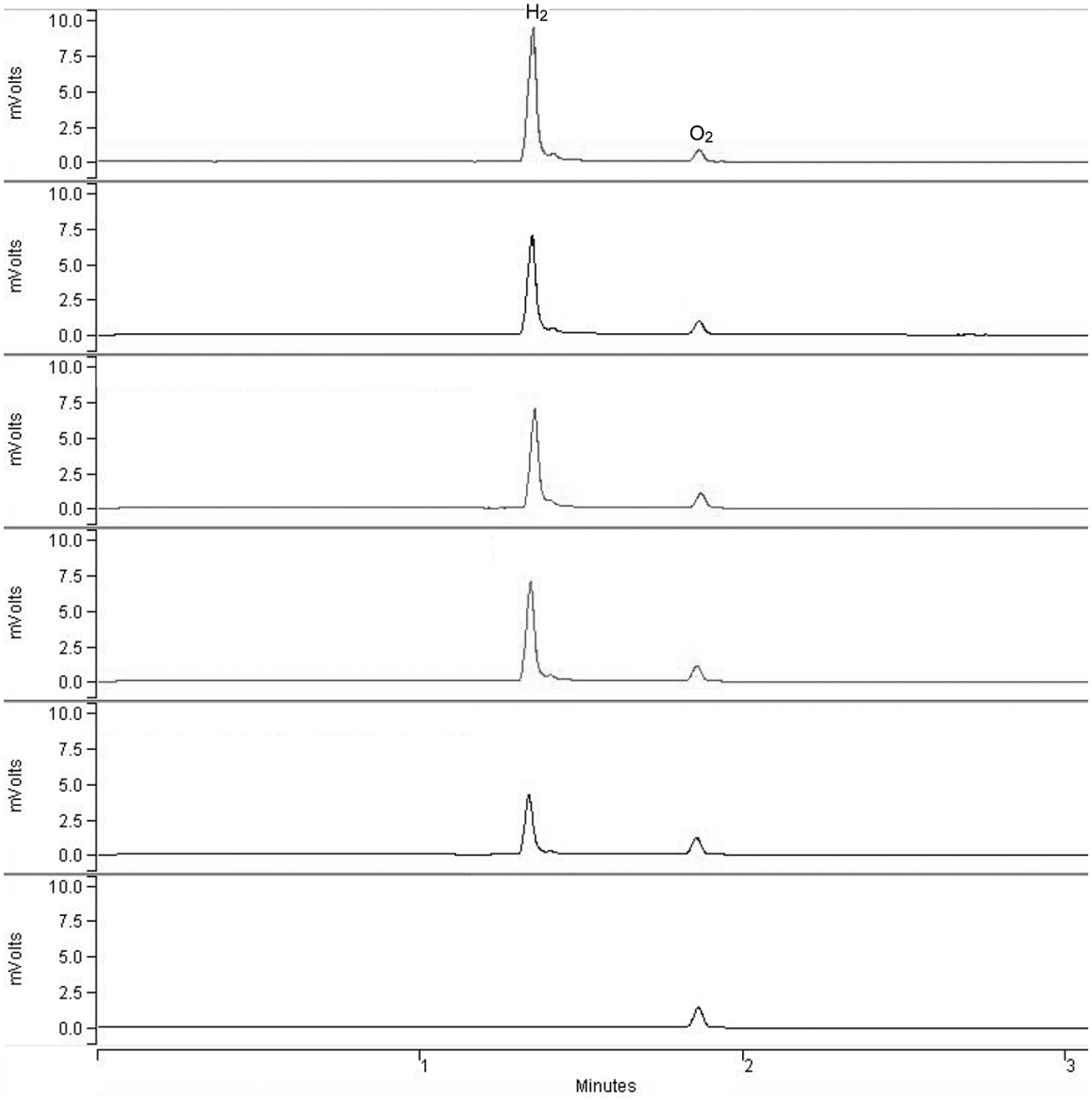

Fig. S3. Time-dependent GC traces for headspace sampling of a white light-irradiated aerobic aqueous solution containing Pt/Fe-Hfn (60 μM Pt), 72 μM EYand 0.3 M TEOA pH 9. Headspace sampling times are, bottom to top: prior to irradiation, and 1 h, 2 h, 3 h, 4 h, or 5 h irradiation.

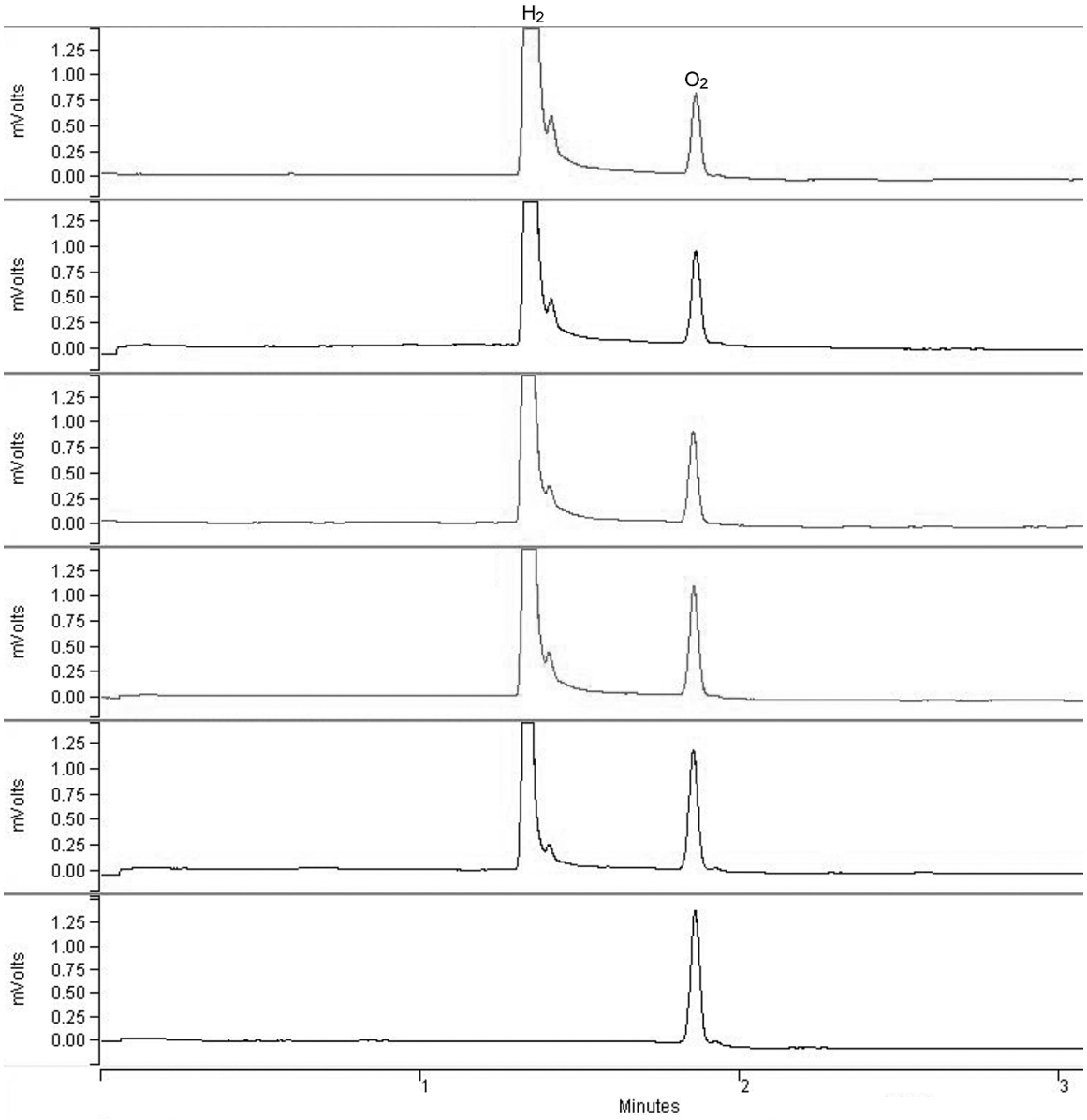

Fig. S4. Same time-dependent GC traces as shown in Fig. S3 but with scale expanded to better illustrate O_2 peak intensities.