

Supporting Information

Patterning Surfaces through Photografting of Iodonium Salts

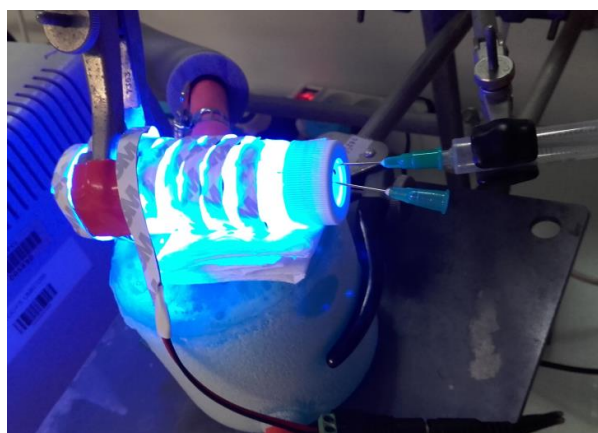
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Experimental setup



a



b

Figure S1. Experimental setup showing a) the cooling unit, the reactor wrapped in the LED strip and b) the reactor with the argon inlet and the needle for introduction of the solution.

Photoinduced electron transfer under continuous irradiation

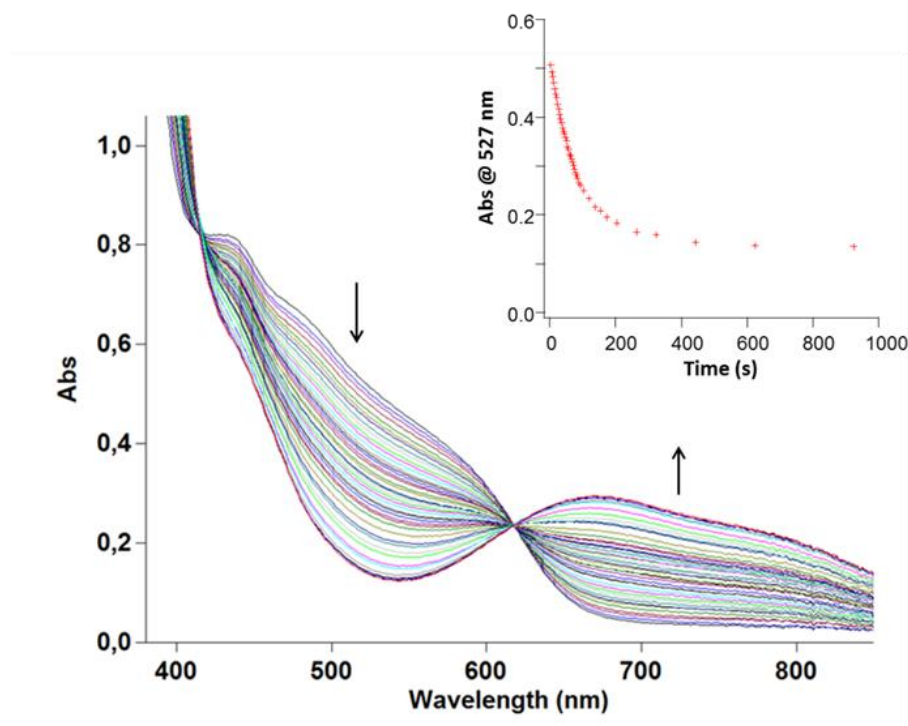


Figure S2 : Absorption spectra of a mixture of $[\text{Cu}(\text{dap})_2]^+$ (0.3 mM) and **I** (3 mM) in deoxygenated CH_3CN during continuous irradiation. Inset: evolution of the absorbance at 527 nm vs irradiation time.

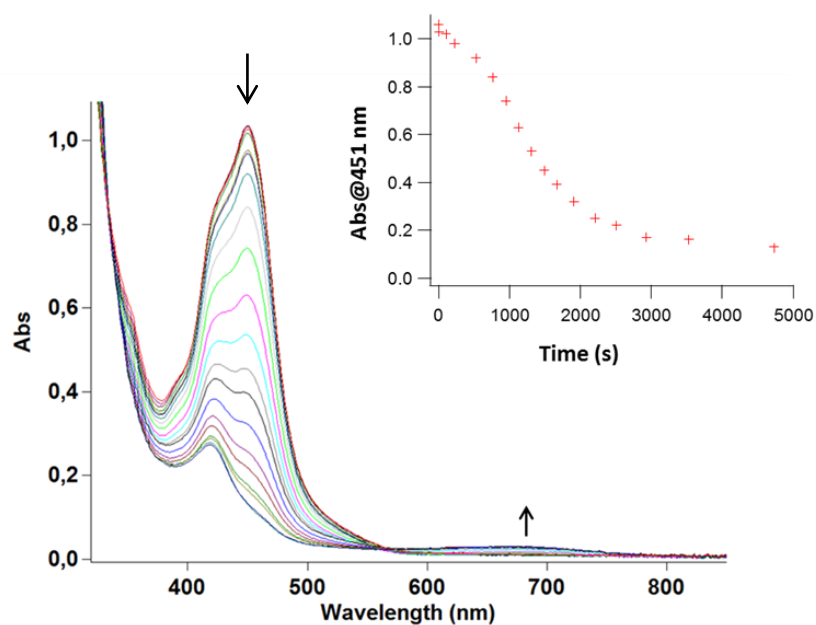


Figure S3 : Absorption spectra of a mixture of $[\text{Ru}(\text{bpy})_3]^{2+}$ (8×10^{-5} M) and **I** (8×10^{-4} M) in deoxygenated CH_3CN during continuous irradiation. Inset: evolution of the absorbance at 451 nm vs irradiation time.

XPS for Au-1

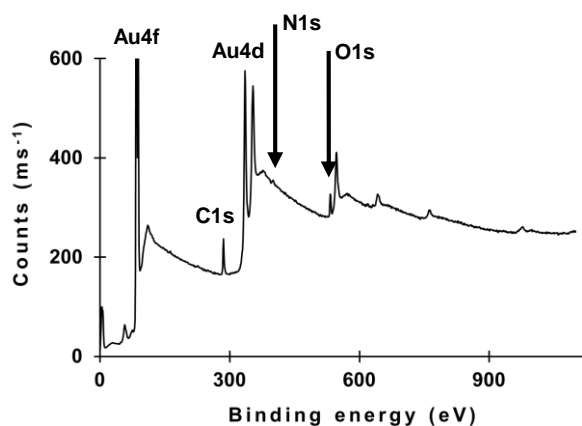


Figure S4. XPS survey spectrum of Au-1 obtained with $\text{Cu}(\text{dpp})_2(\text{BF}_4)$.

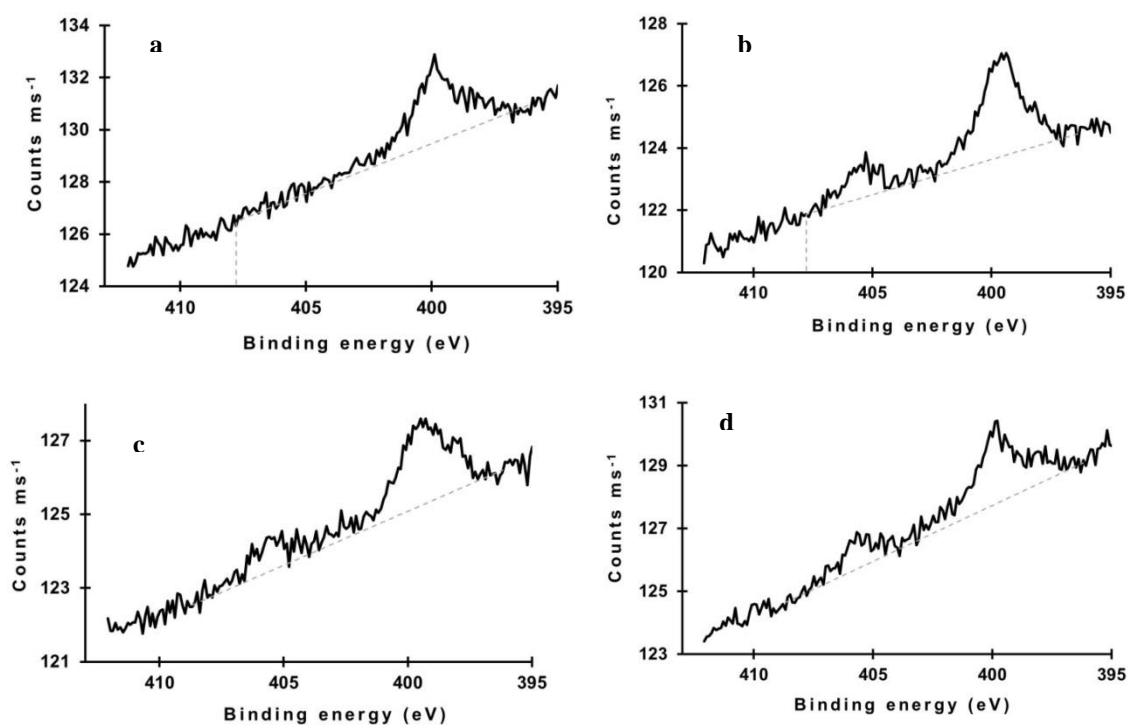


Figure S5. XPS N1s peaks for the photografting of a) Au without photosensitizer, b) Au-I obtained with $[\text{Cu}(\text{dpp})_2]^+$, c) $[\text{Cu}(\text{dap})_2]^+$, d) $[\text{Ru}(\text{bpy})_3]^{2+}$ as photosensitizers.

Table S1. Atomic % of the main XPS peaks for the photografting of Au with and without photosensitizer.

Photo-sensitizer	Au4f	C1s	O1s	N1s (400 eV)	N1s (406 eV)	N1s	I3d
$[\text{Cu}(\text{dpp})_2]^+$	28.4 %	48.5 %	19.8 %	2.3 %	0.6 %	2.9 %	0.5 %
$[\text{Cu}(\text{dap})_2]^+$	33.6 %	44.8 %	18.7 %	1.8 %	0.6 %	2.5 %	0.3 %
$[\text{Ru}(\text{bpy})_3]^{2+}$	46.2 %	41.6 %	8.2 %	1.9 %	0.7 %	2.6 %	1.4 %
-	48.4 %	40.0 %	8.6 %	2.7 %	0	2.7 %	0.4 %

Ruthenium cannot be detected but traces of copper are observed.