Supporting Information

Efficient Water Oxidation with Organometallic Iridium Complexes as Precatalysts

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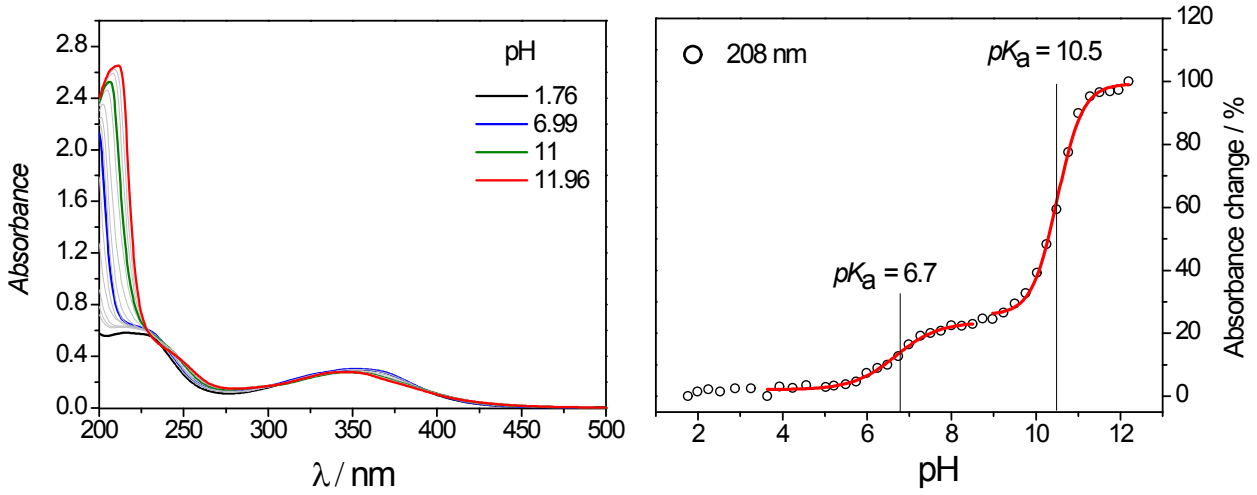

Fig S1. a) UV-vis absorption spectra of **2** in a pH titration; b) absorbance changes at single wavelength as a function of pH with Boltzmann fits (red lines).

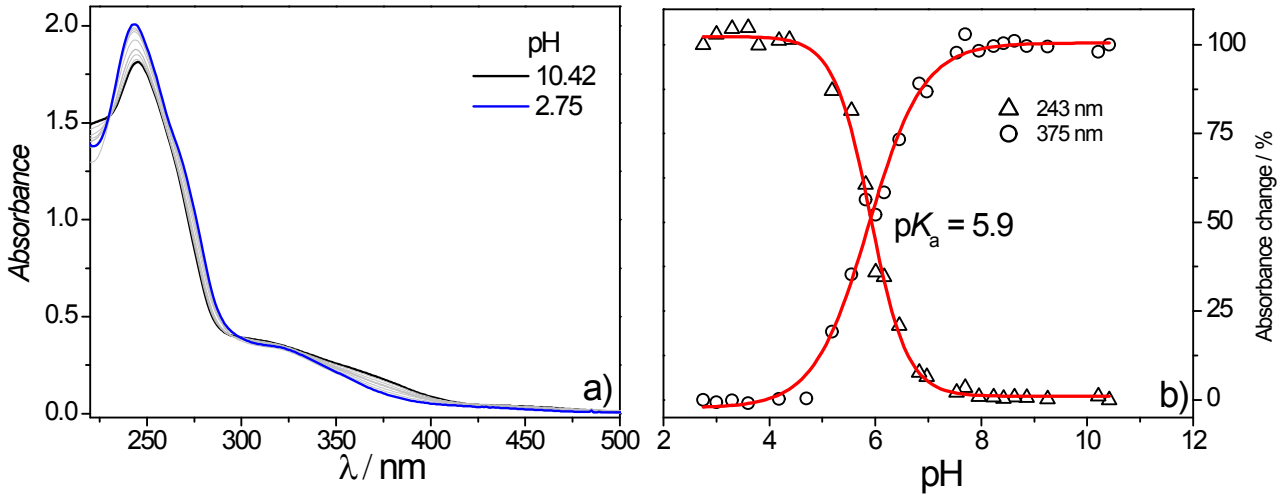

Fig S2. a) UV-vis absorption spectra of **4** in a pH titration; b) absorbance changes at single wavelength as a function of pH with Boltzmann fits (red lines).

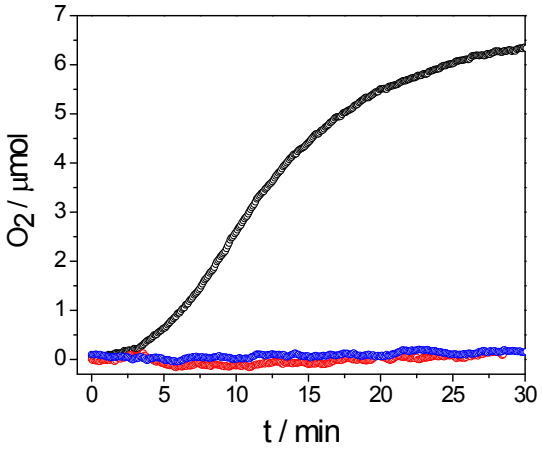

Fig. S3. O_2 evolution experiment for **1** (100 µM) performed with different equivalents of oxidant in acetate buffer (50 mM, pH 5.5), color code: red – 10 eq. of $NaIO_4$; blue – 20 eq $NaIO_4$; black – 40 eq. $NaIO_4$.

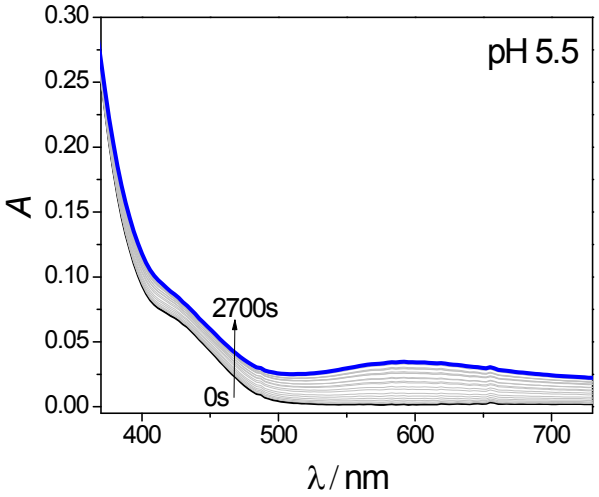

Fig S4. UV-vis changes for **4** (230 µM) after addition 25 eq. of $NaIO_4$ in acetate buffer (pH 5.5)

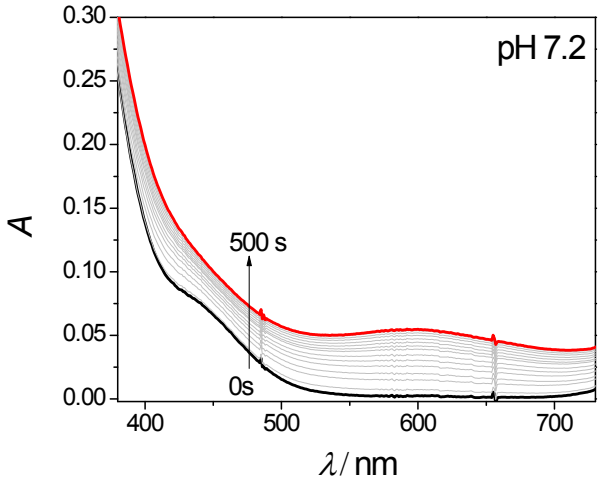

Fig S5. UV-vis changes for **4** (230 µM) after addition 25 eq. of $NaIO_4$ in phosphate buffer (pH 7.2)

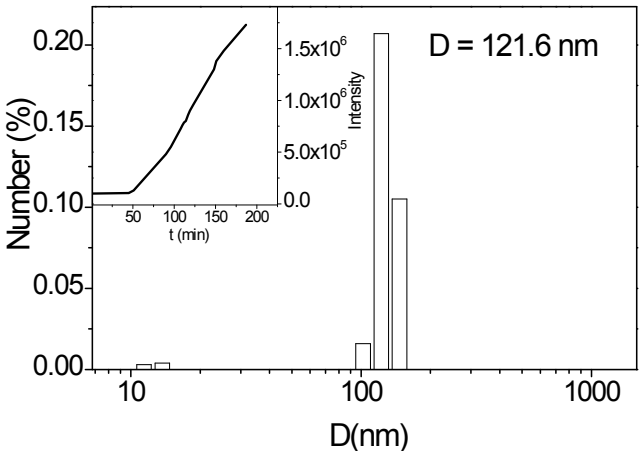

Fig S6. Size distribution by a number of nanoparticles for an solution of **1** (1 mM) with 200 eq. of periodate in acetate buffer (50 mM, pH 5.5) after the consumption of the sacrificial oxidant. Inset: light scattering intensity vs. time.

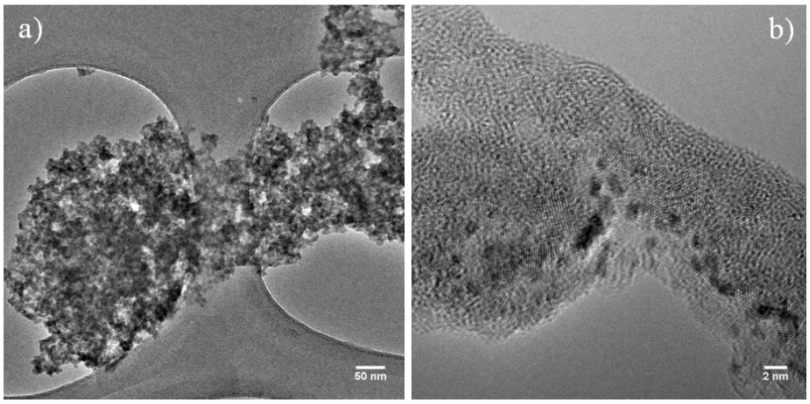

Fig S7. TEM images of nanoparticles formed by the reaction of **1** with a) 200 eq. of $NaIO_4$ in acetate buffer pH 5.5; b) 50 eq. of $NaIO_4$ in water.