**Supplementary Information**

Core-shell microspheres for the ultrafast degradation of estrogen hormone at neutral pH

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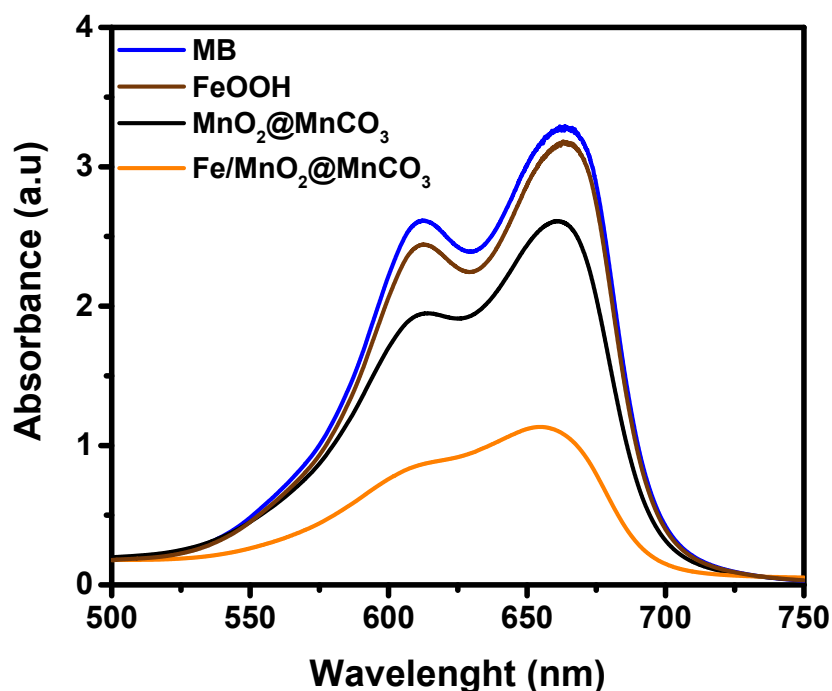
Figure S1. a) Degradation of MB (20 µg/ml) after 2 h of reaction. Reaction conditions: MB (20 µg/L), H_2O_2 concentration 0.1 M. Catalyst loading 0.25 g/L.

Measurement of 17α-ethynylestradiol by HPLC coupled to Mass spectrometry

A calibration curve for 17α-ethynylestradiol (EE2) hormone was carried out by HPLC/Mass spectrometry for the concentration range from 0-0.5 ppm (Figure S1). Based

on the data obtained, we calculated the limit of detection (LOD) and quantification (LOQ) of the equipment for EE2 as being 0.014 ppm and 0.045 ppm, respectively. Since the initial concentration of EE2 used in the degradation experiments was 0.5 ppm, further degradation values larger than 90% could not be determined by the equipment.
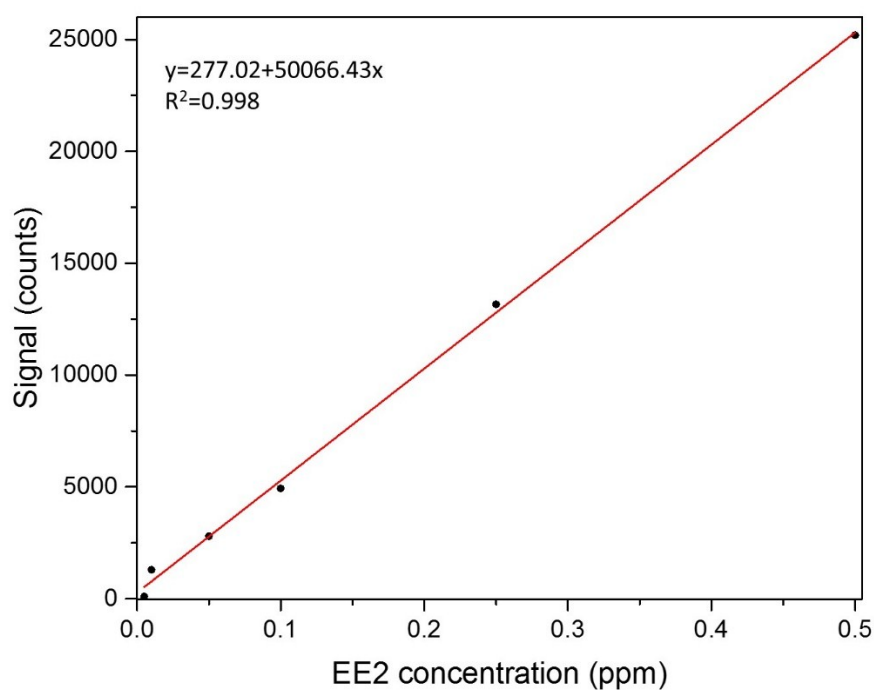
Figure S2. Calibration curve of EE2 hormone.