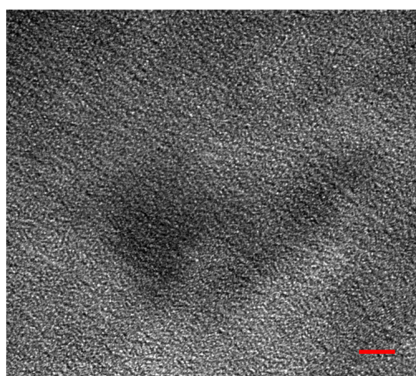


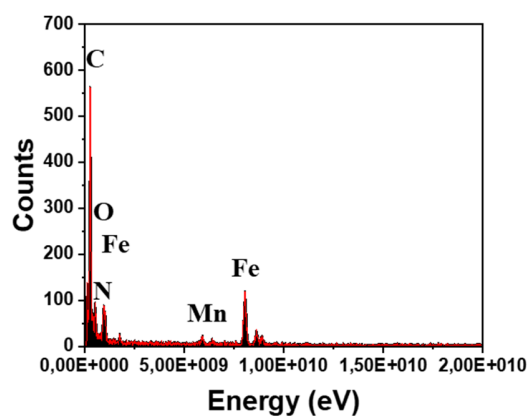
## Supporting Information

### Stimuli-Responsive Double Single-Atom Catalysts for Parallel Catalytic Therapy

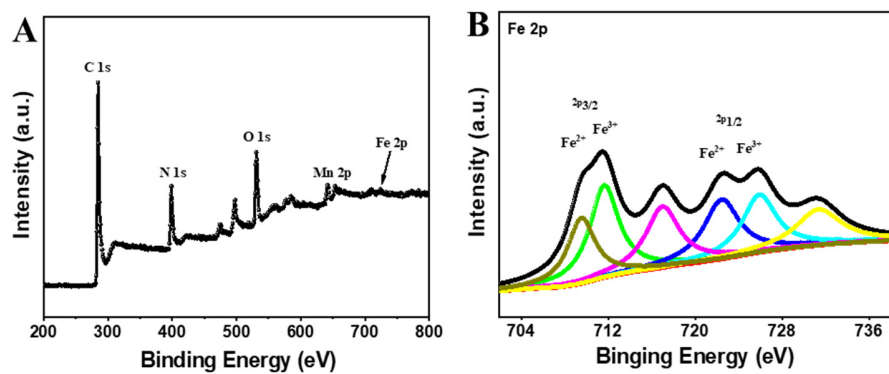
#### Supporting figures



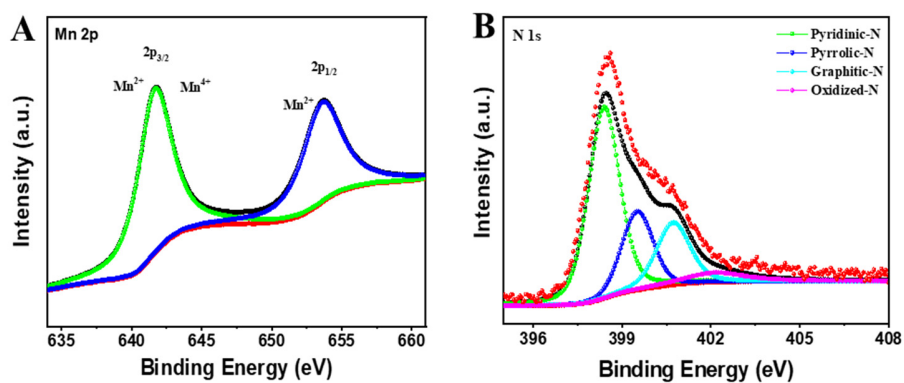
**Figure S1.** HR-TEM image of Mn/Fe SACs. Scale bar, 1 nm.



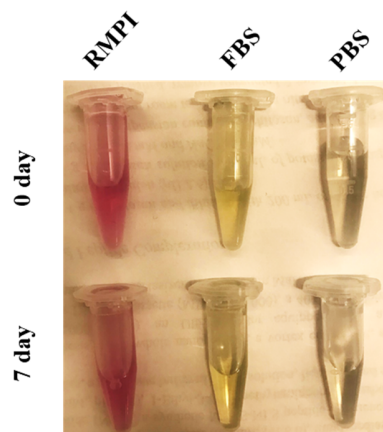
**Figure S2.** EDX spectrum of Mn/Fe SACs.



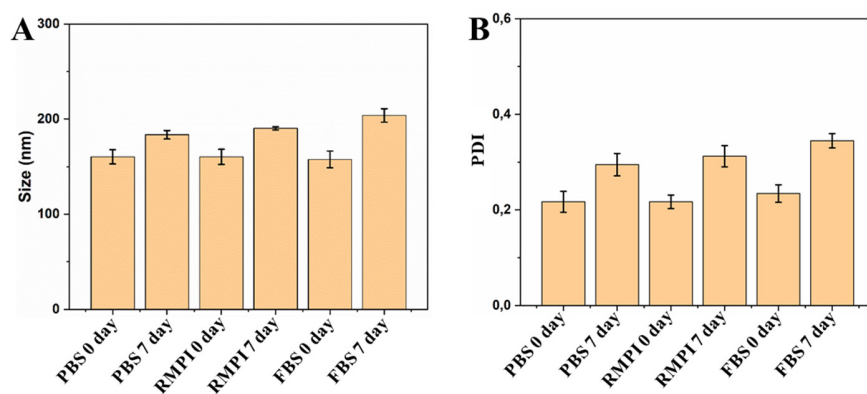
**Figure S3.** (A) XPS survey scan and (B) Fe 2p spectra of Mn/Fe SACs.



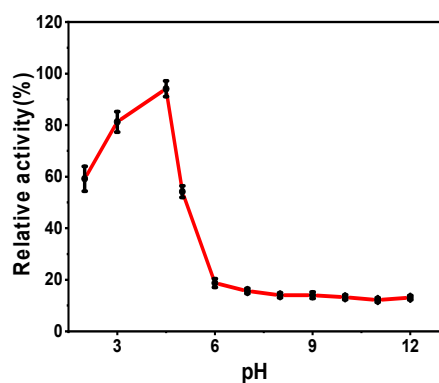
**Figure S4.** (A) Mn 2p and (B) N 1s spectra of Mn/Fe SACs.



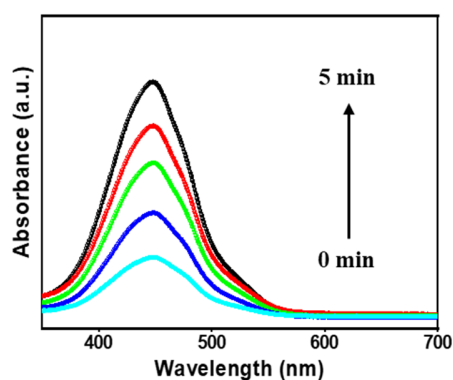
**Figure S5.** The distribution of Mn/Fe PSACs in a different medium for 7 days.



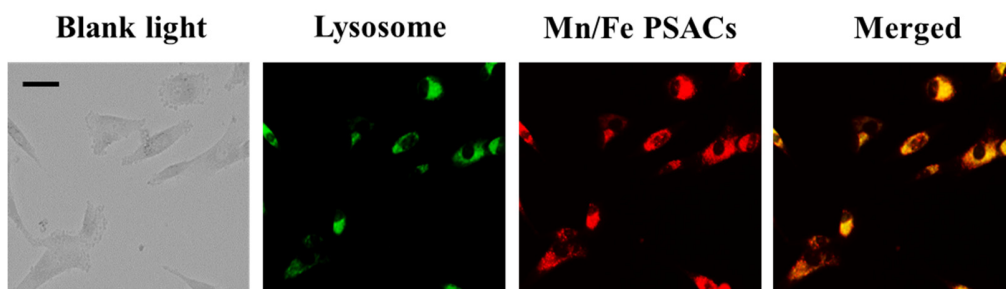
**Figure S6.** The (A) size and (B) PDI changes of Mn/Fe PSACs in a different medium.



**Figure S7.** TMB assay for measuring oxidase-like activity of the Mn/Fe PSACs at the different pH.



**Figure S8.** UV-vis-NIR spectra of OPDA oxidized by Mn/Fe PSACs in the presence of  $H_2O_2$  after different times.



**Figure S9.** Colocalization of lysosome with Mn/Fe PSACs after co-incubation for 2 h.

**Table S1.** ICP-MS results for Mn/Fe SACs.

Sample	Element	Content (%)
Mn/Fe PSACs	Mn	0.28
	Fe	0.72