

**Monodisperse-porous Mn<sub>5</sub>O<sub>8</sub> microspheres as an efficient catalyst for fast degradation of organic pollutants via peroxymonosulfate activation**

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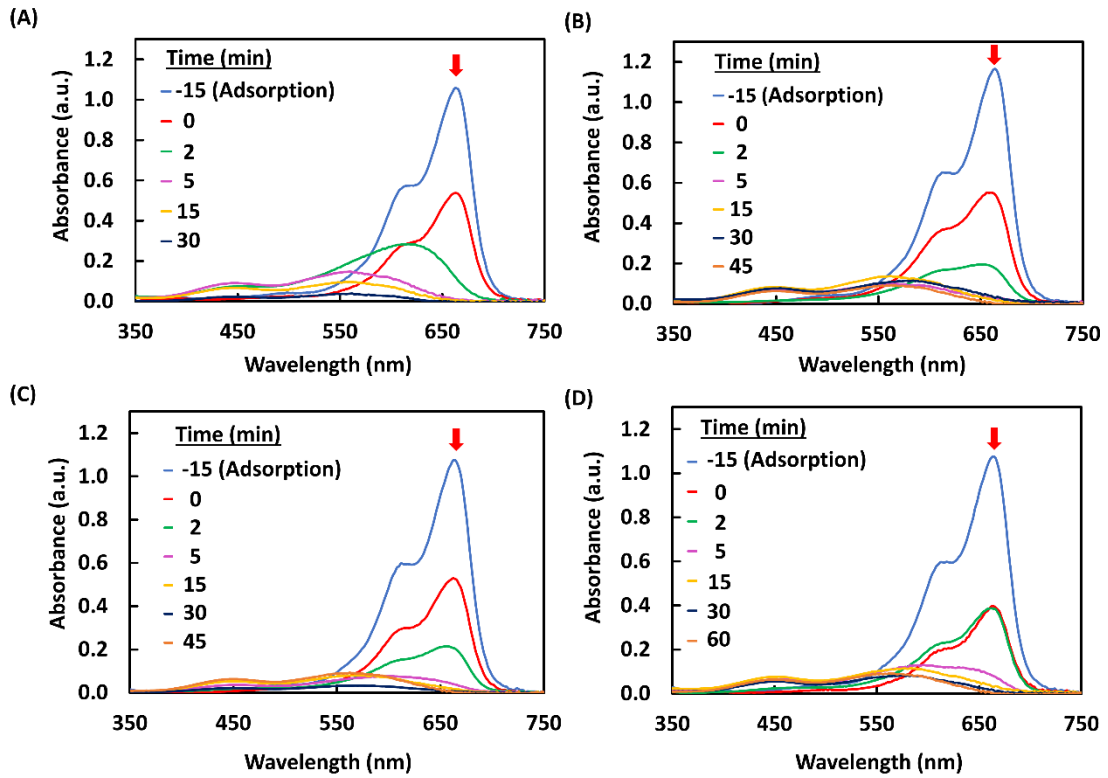
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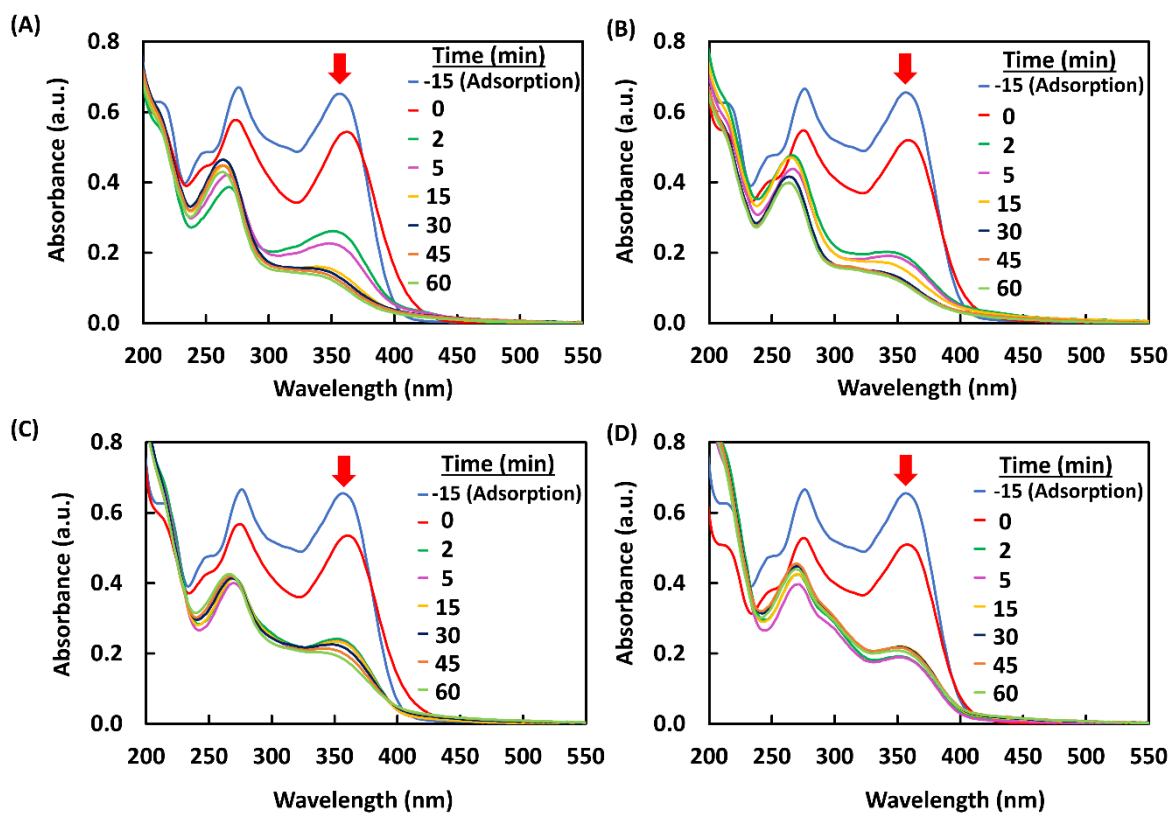
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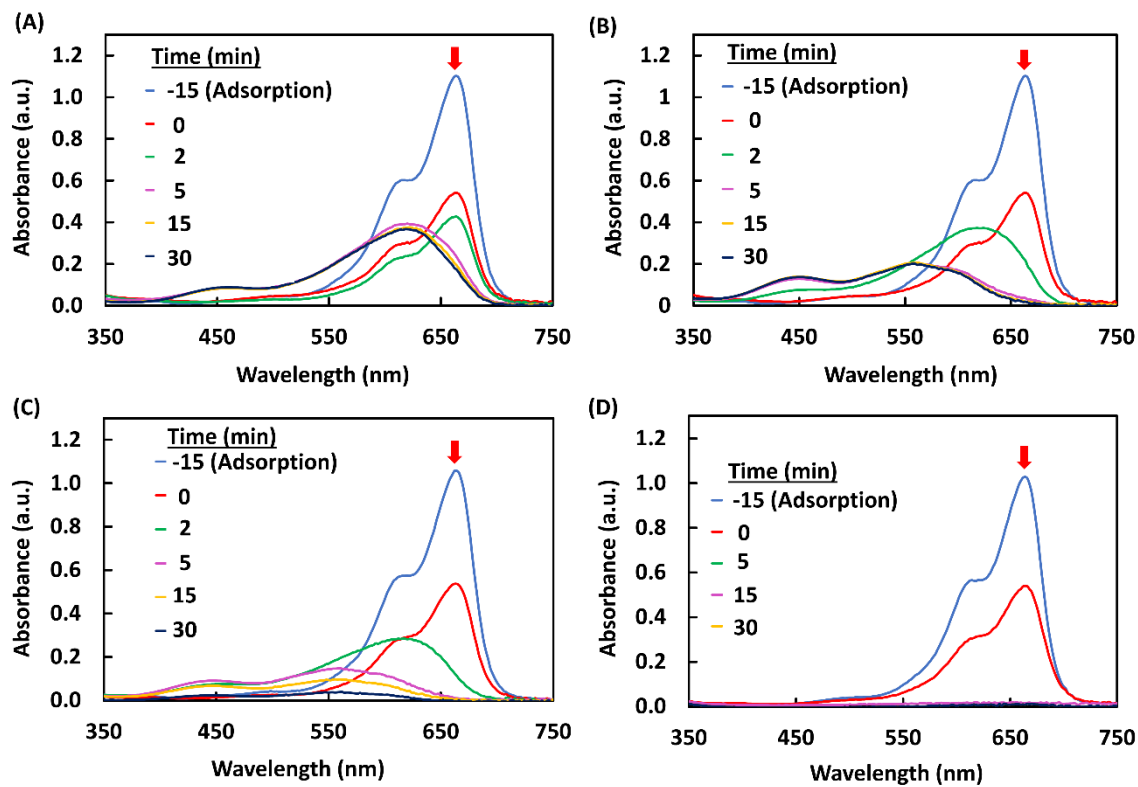
**Supporting Information**



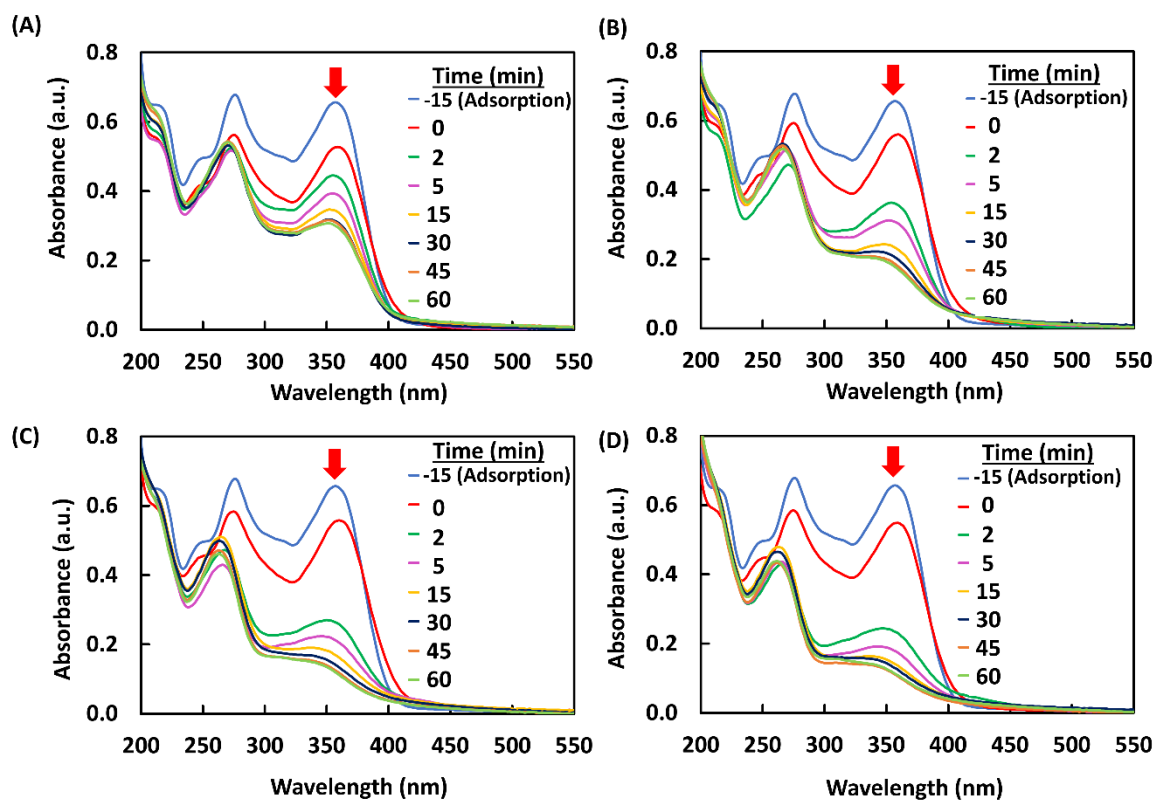
**Figure S1.** The UV-Vis spectra obtained at different times for the removal of MB at different pH. pH: (A) 3.3, (B) 5.0, (C) 7.0, (D) 9.0. PMS concentration: 0.4 mM, Initial concentration of MB: 10 ppm.



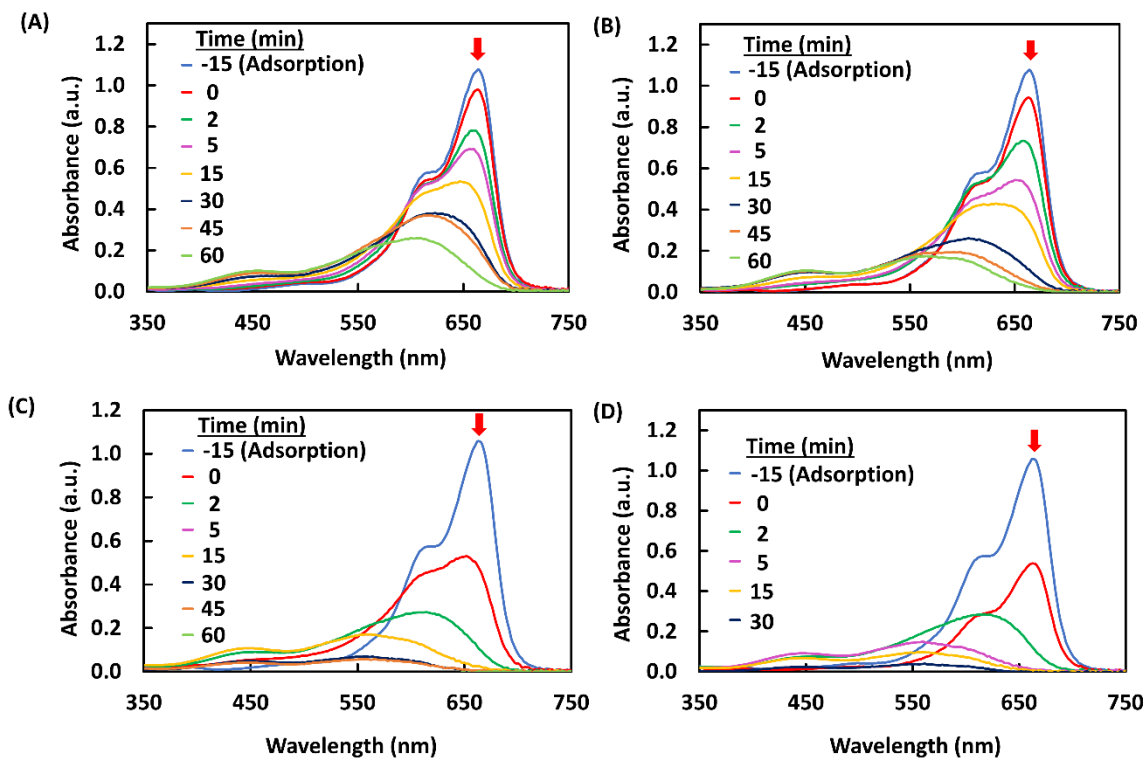
**Figure S2.** The UV-Vis spectra obtained at different times for the removal of TC at different pH. pH: (A) 3.3, (B) 5.0, (C) 7.0, (D) 9.0. PMS concentration: 0.4 mM, Initial concentration of TC: 20 ppm.



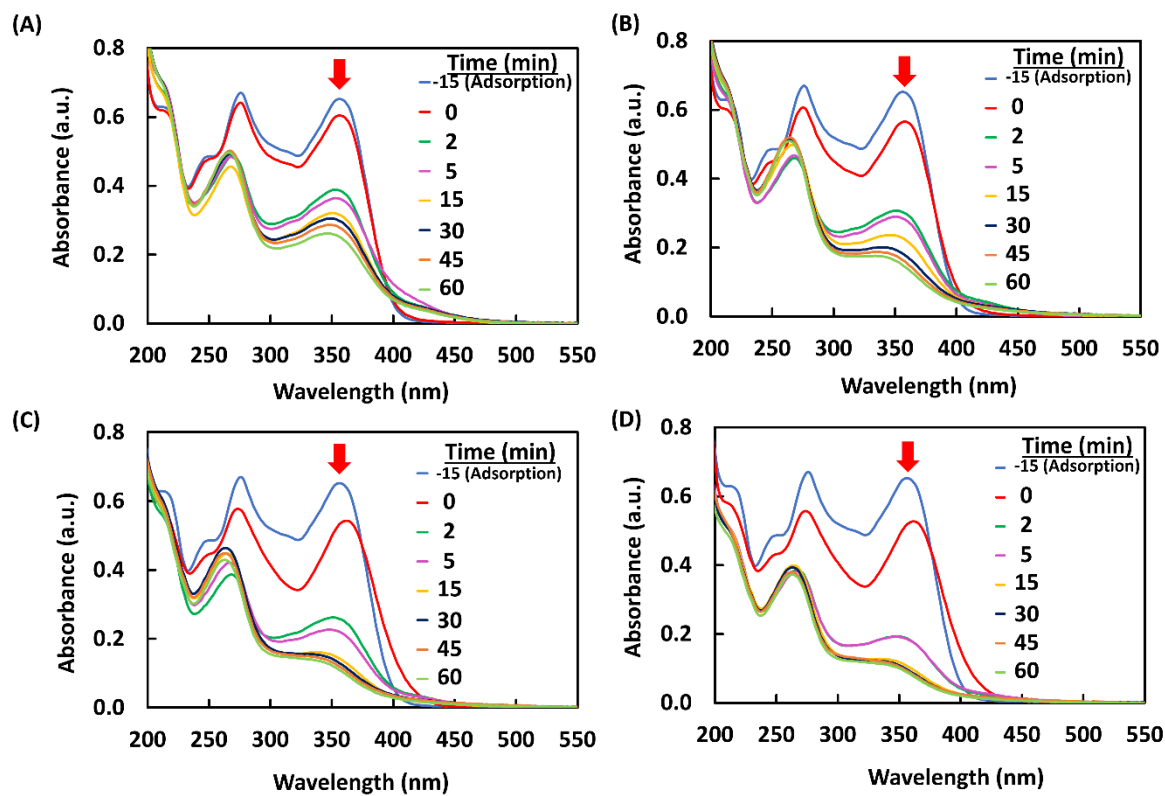
**Figure S3.** The UV-Vis spectra obtained at different times for the removal of MB with different PMS concentrations. PMS concentration (mM): (A) 0.1, (B) 0.2, (C) 0.4, (D) 0.8. pH 3.3,  $\text{Mn}_5\text{O}_8$  concentration: 0.5 mg/mL, Initial concentration of MB: 10 ppm.



**Figure S4.** The UV-Vis spectra obtained at different times for the removal of TC with different PMS concentrations. PMS concentration (mM): (A) 0.1, (B) 0.2, (C) 0.4, (D) 0.8. pH 3.3,  $\text{Mn}_5\text{O}_8$  concentration: 0.5 mg/mL, Initial concentration of TC: 20 ppm.



**Figure S5.** The UV-Vis spectra obtained at different times for the removal of MB with different  $Mn_5O_8$  concentrations.  $Mn_5O_8$  concentration (mg/mL): (A) 0.03, (B) 0.06, (C) 0.12, (D) 0.5. PMS concentration: 0.4 mM, Initial concentration of MB: 10 ppm.



**Figure S6.** The UV-Vis spectra obtained at different times for the removal of TC with different  $\text{Mn}_5\text{O}_8$  concentrations.  $\text{Mn}_5\text{O}_8$  concentration (mg/mL): (A) 0.12, (B) 0.25, (C) 0.50, (D) 1.0. PMS concentration: 0.4 mM, Initial concentration of TC: 20 ppm.