polymers

MDPI

*Supporting Information*

# Decomposition of Glucose-Sensitive Layer-by-Layer Films Using Hemin, DNA, and Glucose Oxidase

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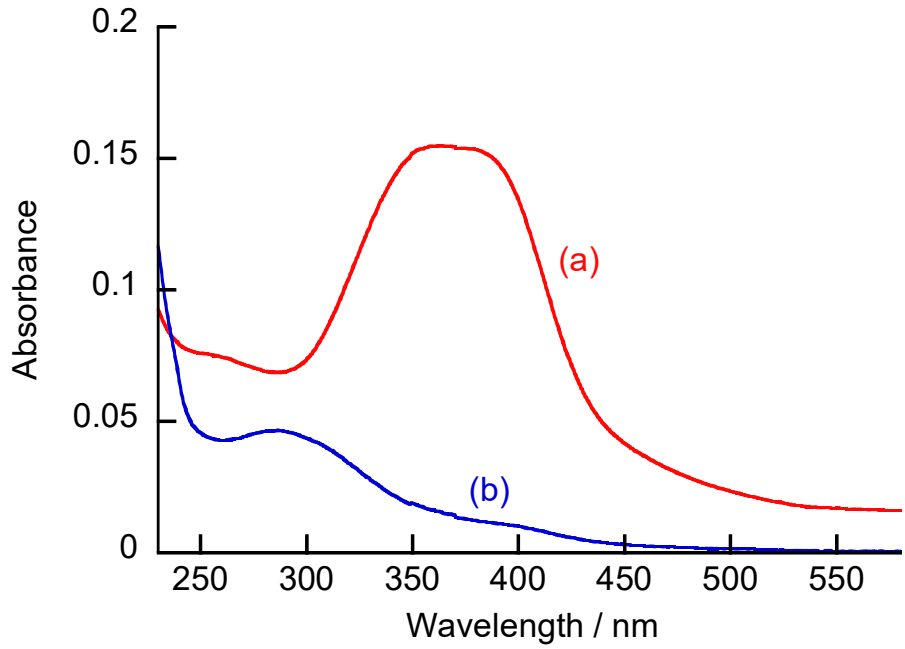


**Figure S1.** UV-vis absorption spectra for 30 μg/mL hemin solution (**a**) before and (**b**) after treated with 100 mM $H_2O_2$ (pH 7.4) for 1 h. The remaining $H_2O_2$ was consumed by dropping 10 μL of 0.1 mg/mL catalase into the test solution (2 mL) and letting it stand for 24 h.

**Table S1.** Absorbance difference in hydrogen peroxide treatment.

| | Δ Absorbance at 390 nm | Δ Absorbance at 260 nm |
|---|---|---|
| 30 μg/mL hemin solution | −0.143 ± 0.050 | −0.033 ± 0.022 |
| $(H\text{-}PEI/DNA+GOx)_5$ film | −0.127 ± 0.012 | −0.094 ± 0.022 |

Absorbance difference for 30 μg/mL hemin solution and $(H\text{-}PEI/DNA + GOx)_5$ film treated with 100 mM $H_2O_2$ (pH 7.4) for 1 h. The remaining $H_2O_2$ was consumed by dropping 10 μL of 0.1 mg/mL catalase into the test solution (2 mL) and letting it stand for 24 h. The $(H\text{-}PEI/DNA + GOx)_5$ films treated with $H_2O_2$ was immersed in buffer for 5 min.

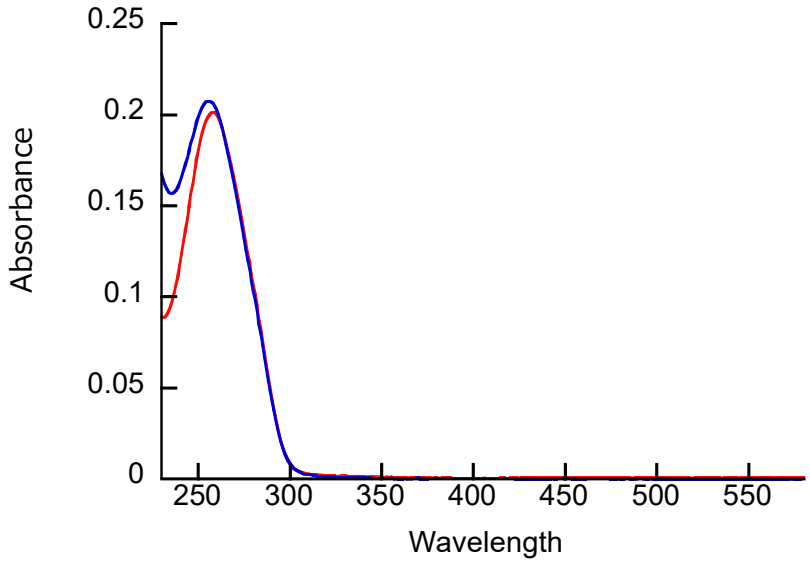


**Figure S2.** UV-vis absorption spectra for 13.6 μg/mL DNA solution (red) before and (blue) after treated with 100 mM $H_2O_2$ (pH 7.4) for 1 h. The remaining $H_2O_2$ was consumed by dropping 10 μL of 0.1 mg/mL catalase into the test solution (2 mL) and letting it stand for 24 h.

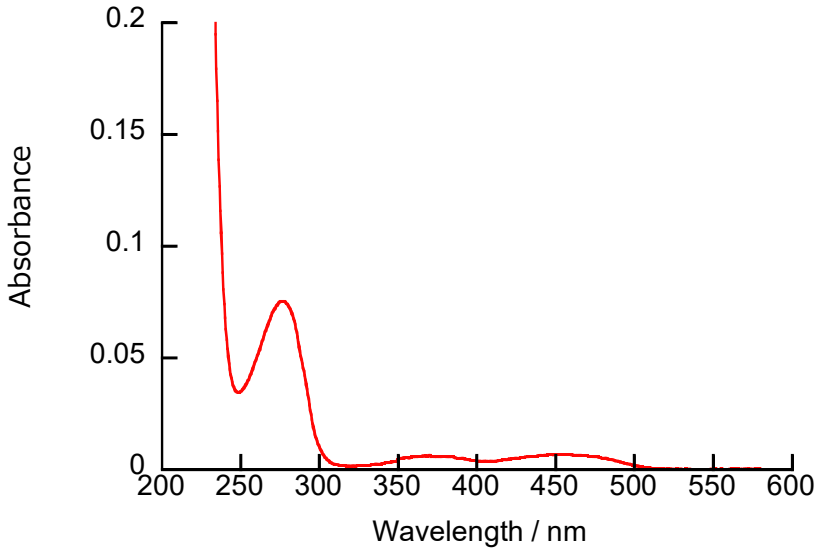


**Figure S3.** UV-vis absorption spectra for 110 μg/mL GOx solution (pH 7.4).