

Electronic Supplementary Information (ESI) for:

Photochemical evolution of hydrogen peroxide on lignins

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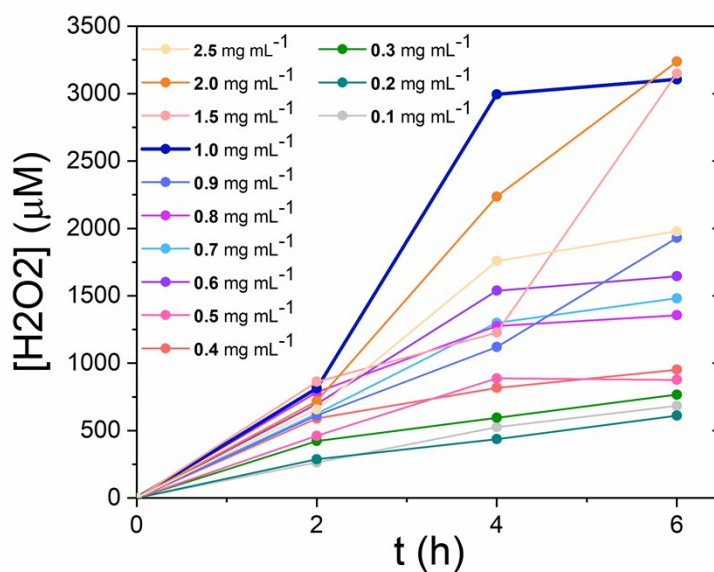


Fig. S1. Test for peroxide yields as a function of LS solution concentration, with different concentrations at pH 2 and 0.1 M oxalate, irradiation with a violet lamp source for 6h in total.

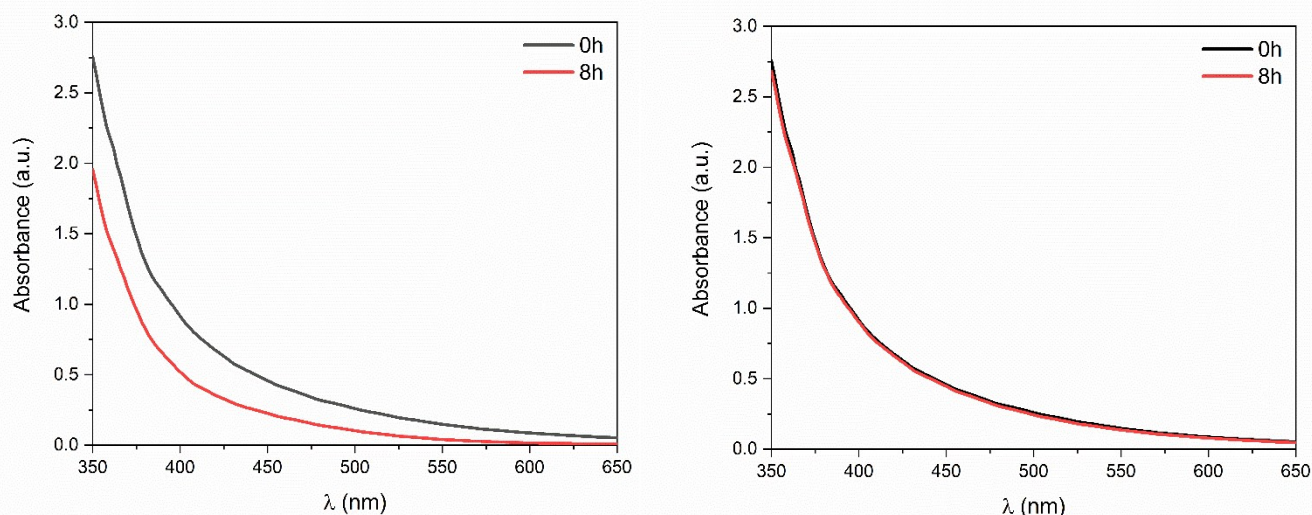


Fig. S1. UV-vis spectra of irradiated (left) and non-irradiated (right) LS samples over time; blank, pH 2

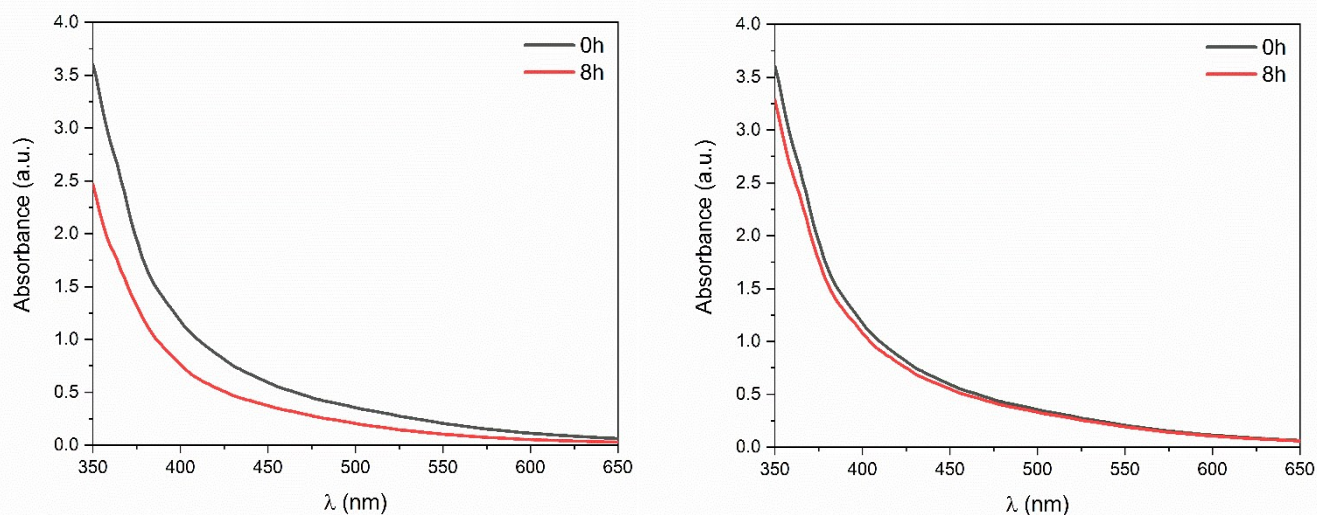


Fig. S2. UV-vis spectra of irradiated (left) and non-irradiated (right) LS samples over time; blank, pH 7. Note: the slight decrease in absorption in the unirradiated controls is due to some aggregation of the sample, as we have confirmed qualitatively with dynamic light scattering measurements.

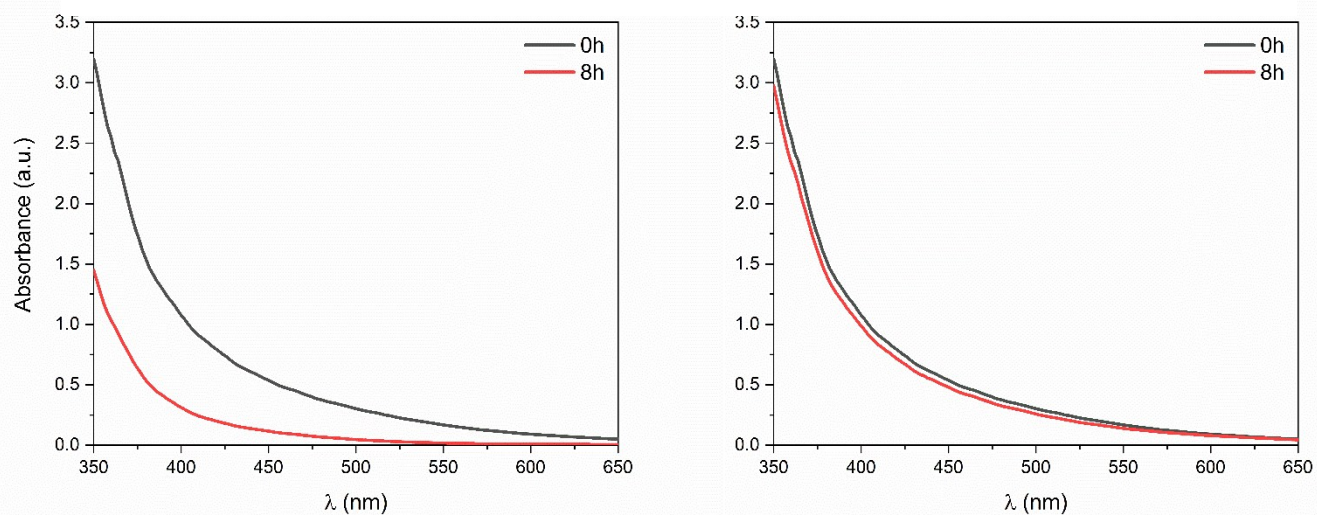


Fig. S3. UV-vis spectra of irradiated (left) and non-irradiated (right) LS samples over time; oxalate, pH 2

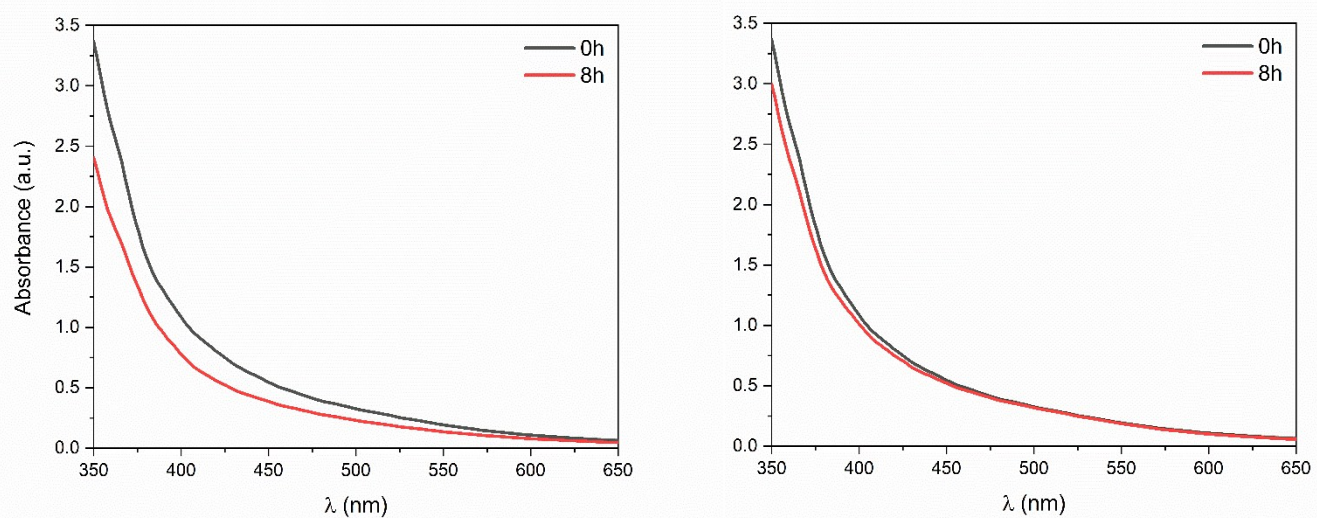


Fig. S4. UV-vis spectra of irradiated (left) and non-irradiated (right) LS samples over time, oxalate, pH 7

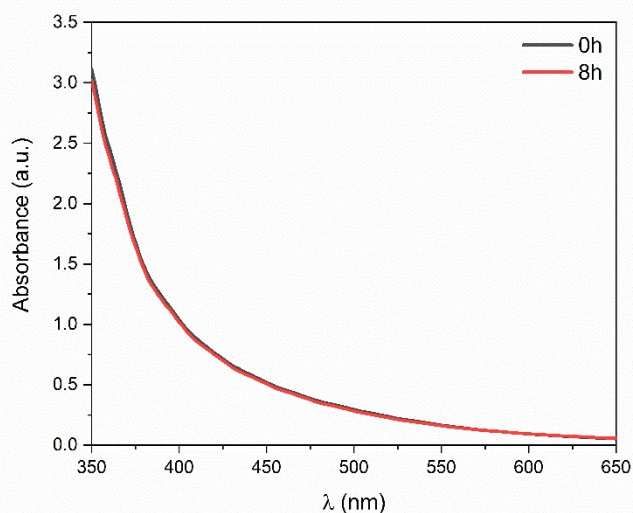
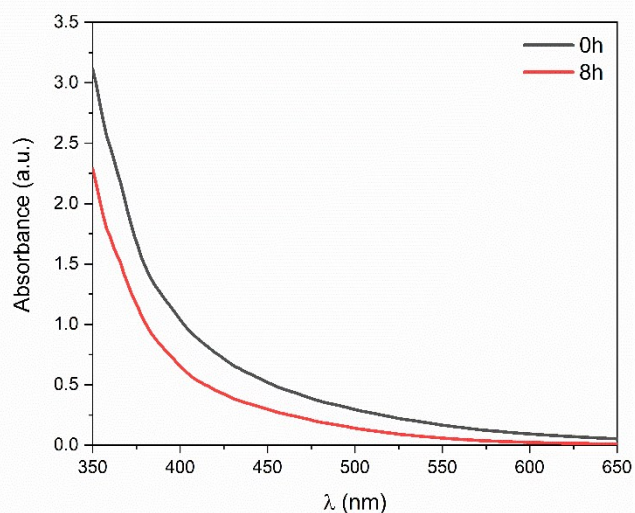


Fig. S5. UV-vis spectra of irradiated (left) and non-irradiated (right) LS samples over time; formate, pH 2

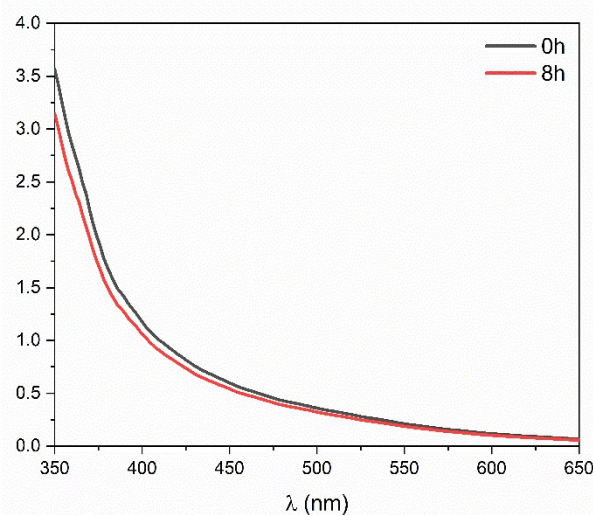
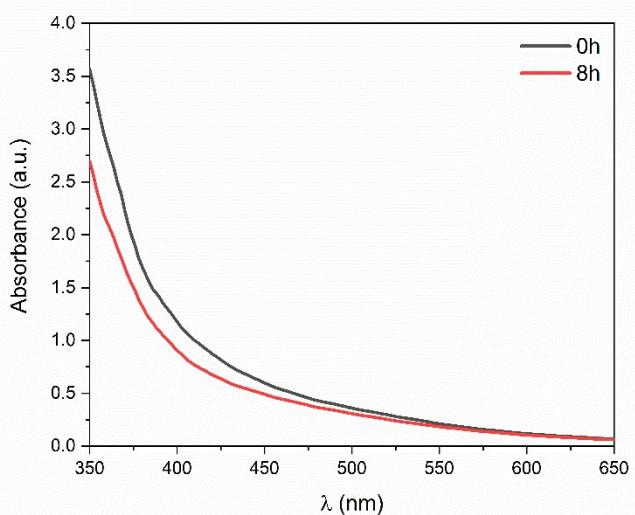


Fig. S6. UV-vis spectra of irradiated (left) and non-irradiated (right) LS samples over time; formate, pH 7

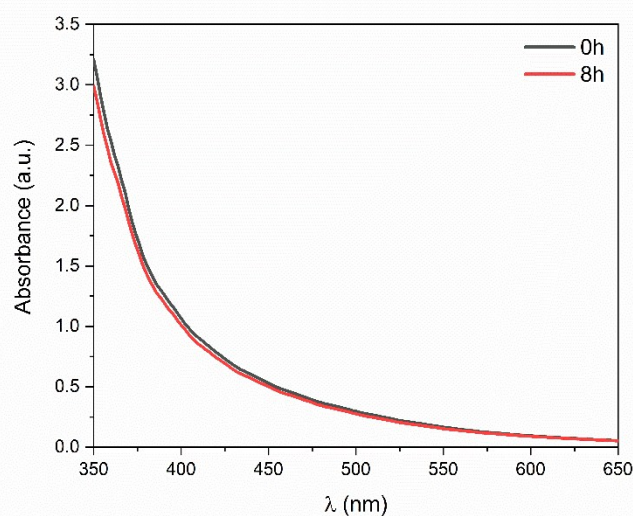
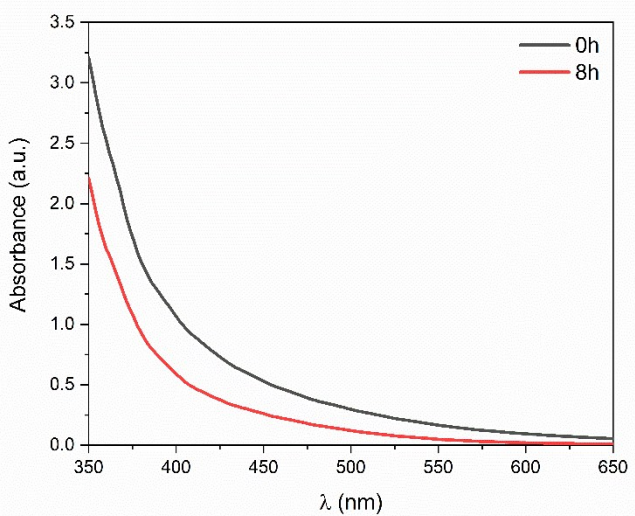


Fig. S8. UV-vis spectra of irradiated (left) and non-irradiated (right) LS samples over time; glucose, pH 2

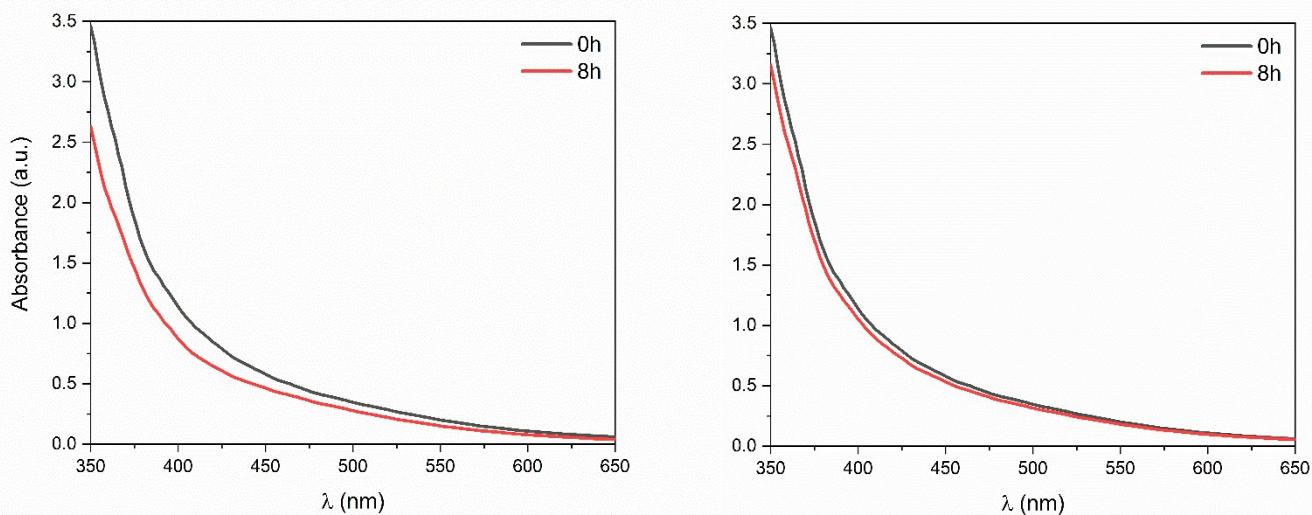


Fig. S9. UV-vis spectra of irradiated (left) and non-irradiated (right) LS samples over time; glucose, pH 7

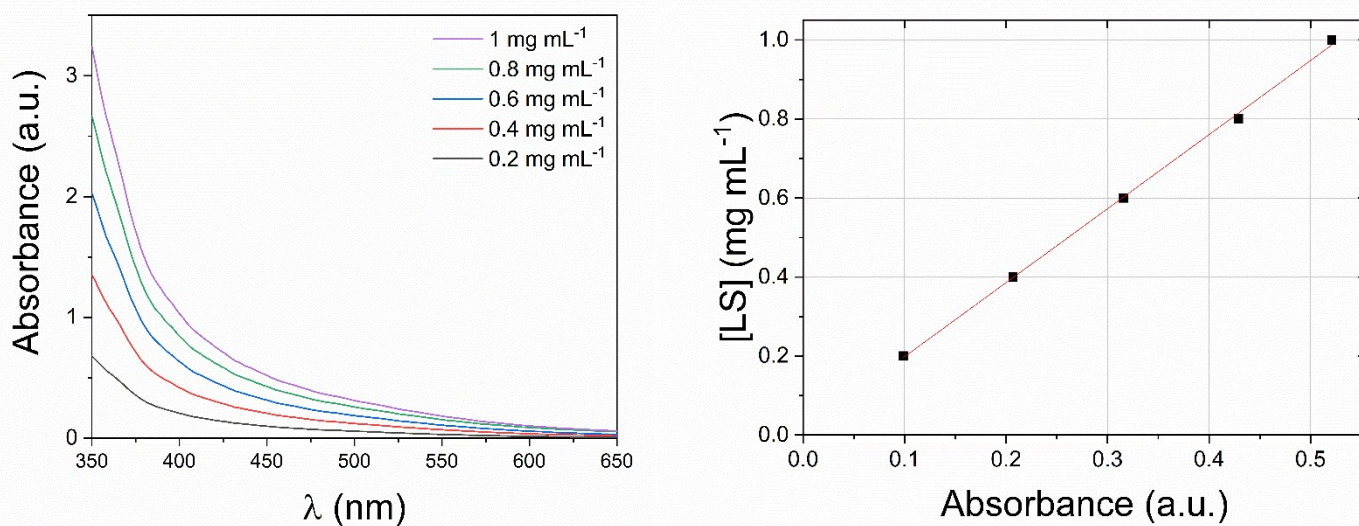


Fig. S10. UV-vis spectra of LS dissolved in water with different concentrations (left); and linear fit of absorbance at 450 nm vs. concentration of LS

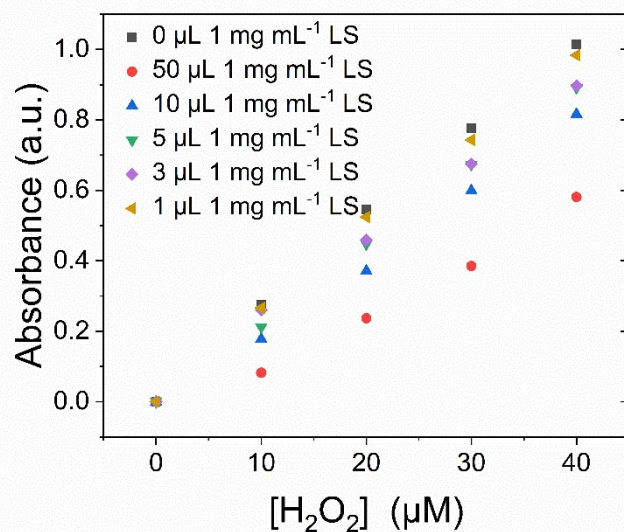


Fig. S11. LS-HRP calibration series with different concentrations of LS