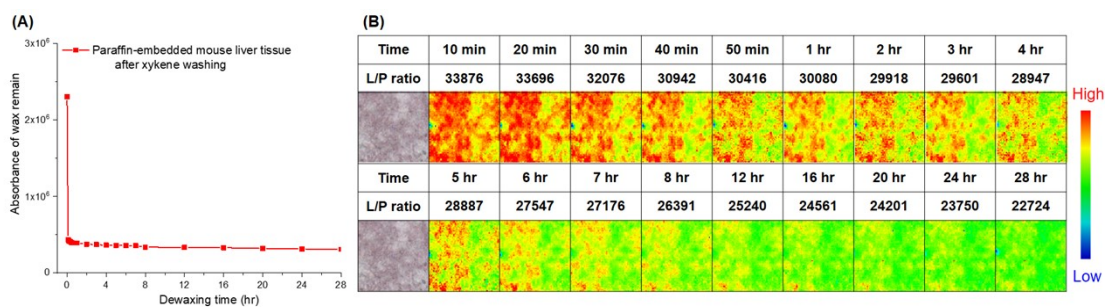
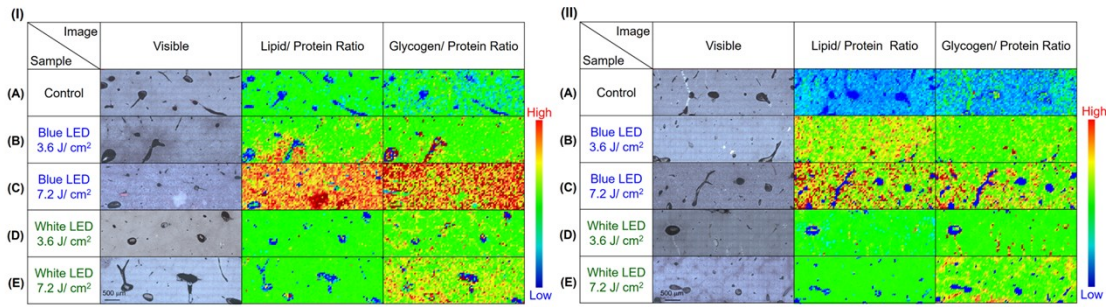


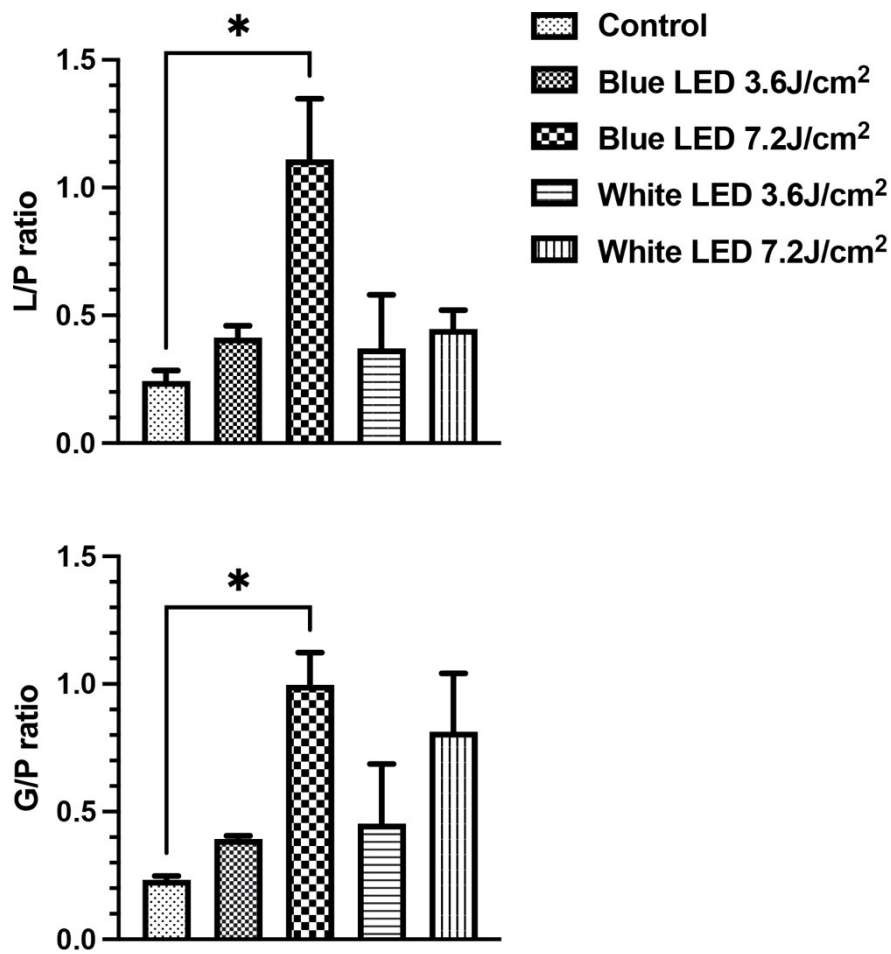
Supplementary materials



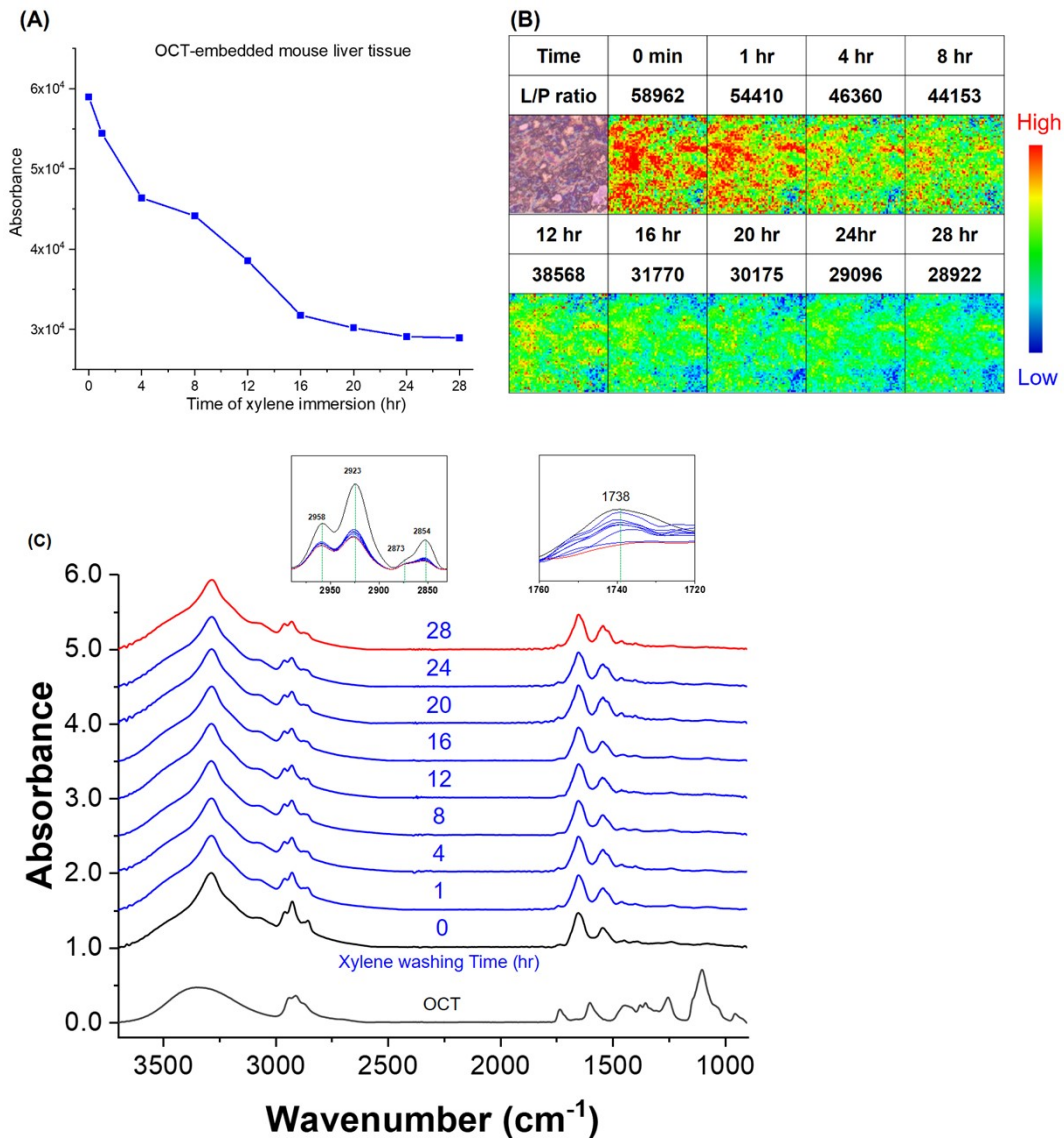
Supplementary Figure 1. The temporal change of L/P of Paraffin-embedded tissue section during the xylene immersion. (A) The Kinetic curve of lipid absorbance in the 3000-2800 cm^{-1} for tissue section during the paraffin desorbing process by using xylene immersion at 56 °C for 28 hrs. (B) The FTIRM spectral images of L/P ratio in a field of view $170 \times 170 \mu\text{m}^2$.



Supplementary Figure 2. The SR-FTIRM spectral images of L/P and G/P were presented for the other two groups, the group I and group II, which received different doses of LED illumination.



Supplementary Figure 3. The statistical result of SR-FTIRM L/P and G/P ratios were presented for the three groups in this study.



Supplementary Figure 4. The spectral change was presented for OCT-embedded tissue section samples during the xylene immersion for 28 hrs. (A) The kinetic curve of lipid absorbance in the 3000-2800 cm⁻¹ of OCT-embedded tissue section during xylene immersion at 56 °C for 28 hrs after the OCT removal process with ddH₂O immersion at 28°C for 30 min. (B) The FTIRM spectral images of L/P ratio in a field of view 170 × 170 μm². (C) The temporal spectra of the tissue section sample were presented during the xylene immersion at 56°C, and the FTIR spectrum of the tissue at 0 min was treated by ddH₂O immersion for 30 min. FTIR spectra were baseline-corrected and normalized at 1650 cm⁻¹ of Am I band.