

Variations in Microstructural and Physicochemical Properties of Candelilla Wax/Rice Bran Oil-Derived Oleogels Using Sunflower Lecithin and Soya Lecithin

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Supplementary materials

1. Polarized light microscopy

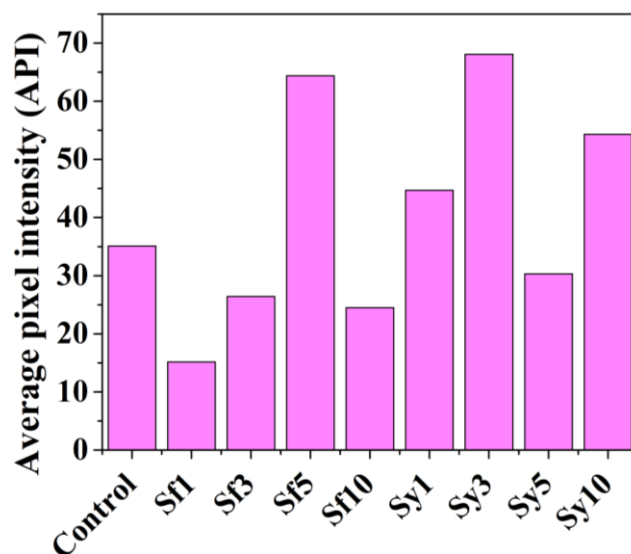


Figure S1. Average pixel intensity values obtained from polarized micrographs of the samples.

2. FTIR analysis

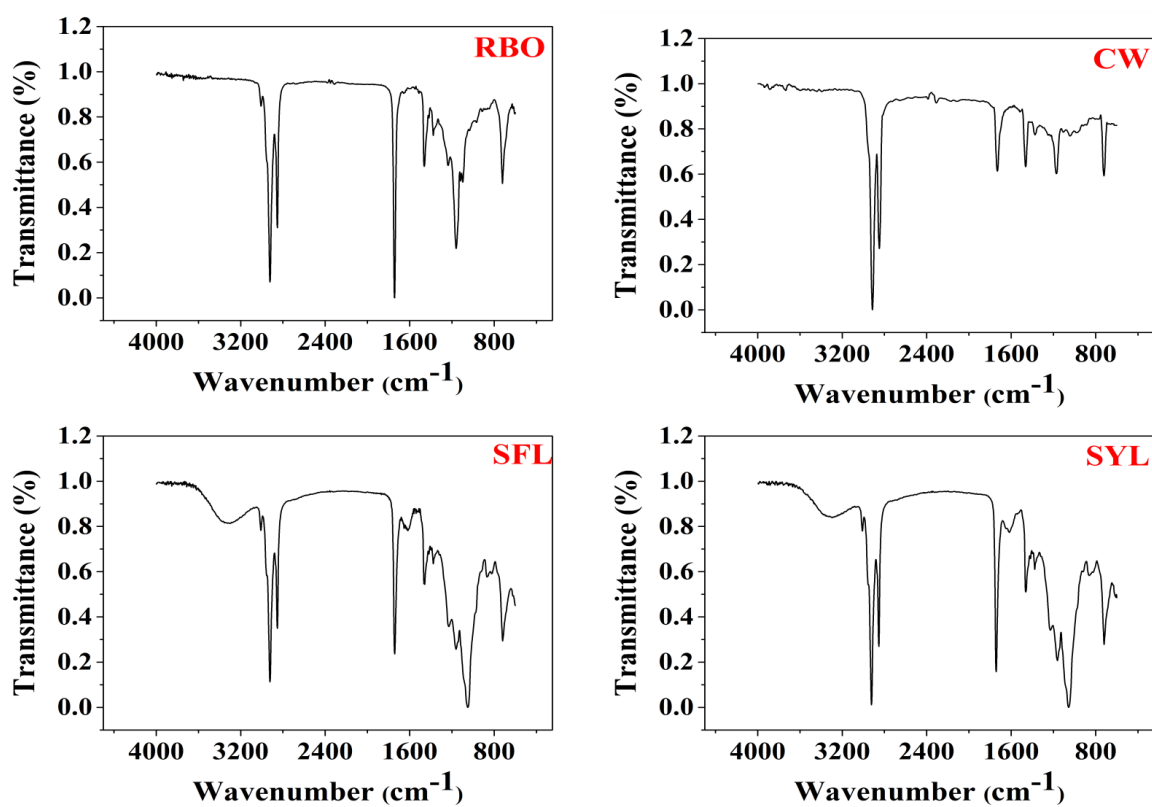


Figure S2. FTIR spectral profile of raw components.

3. Crystallization kinetics

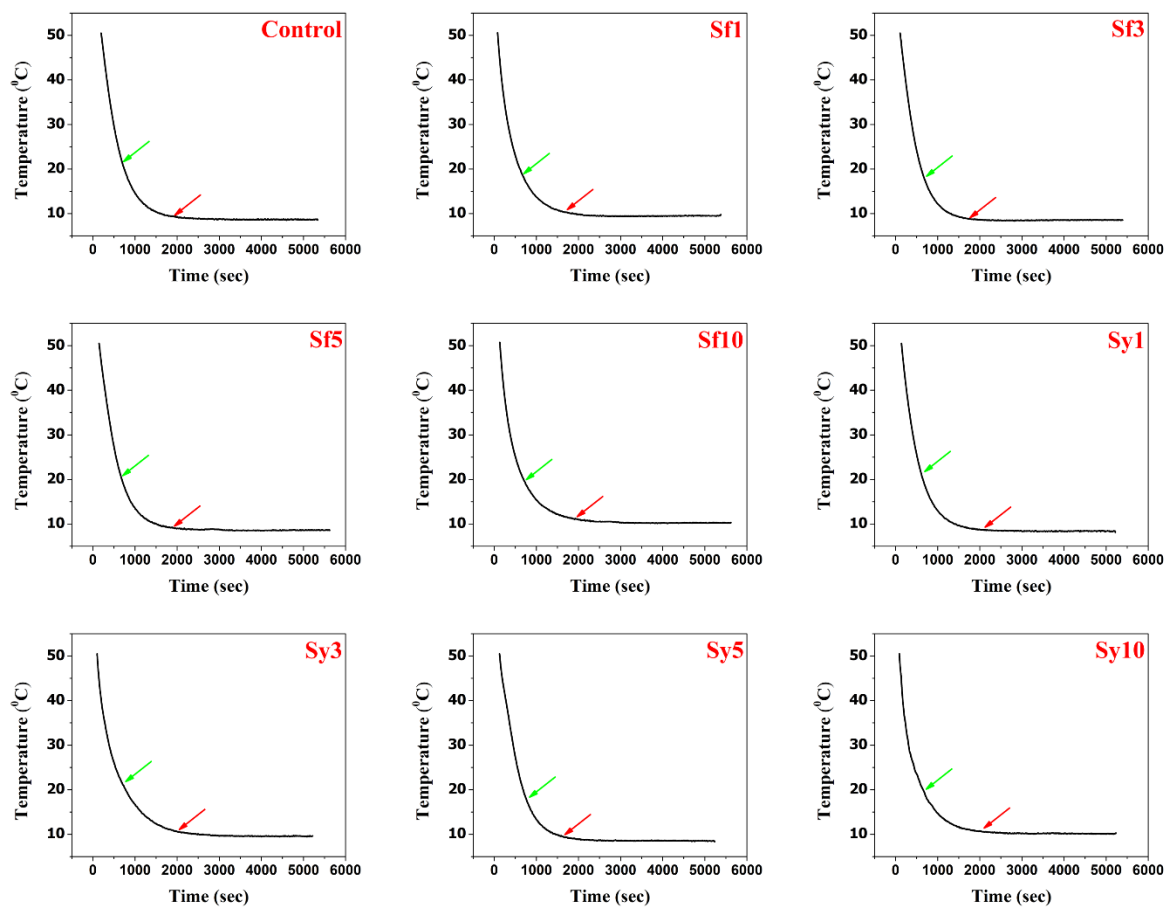


Figure S3. Gelation kinetics profiles of the prepared samples.

4. DSC analysis

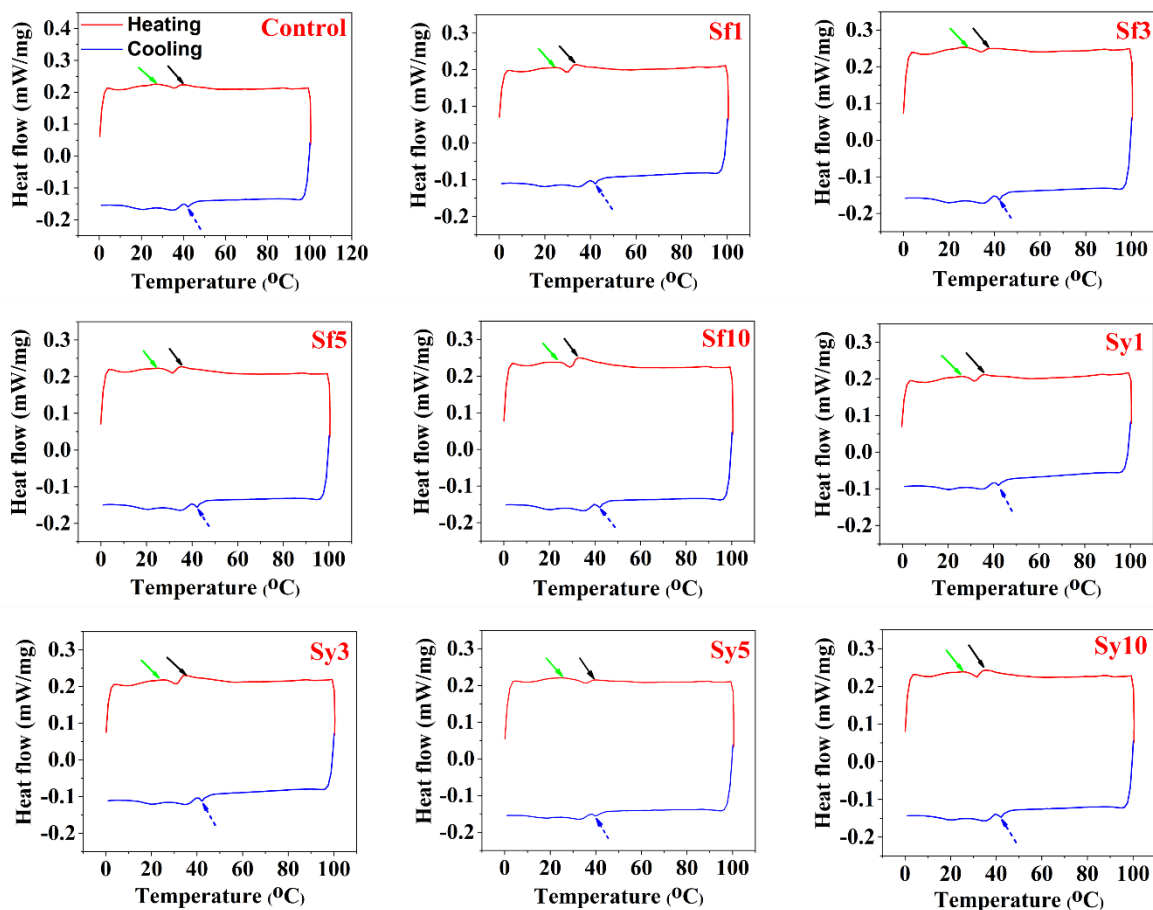


Figure S4. DSC melting and crystallization profiles of the prepared samples.

5. Determination of critical gelation concentration (CGC)

The minimum gelator concentration required to form oleogel is known as the CGC. The successful gel formation is confirmed through the non-occurrence of flow when the tubes are inverted. To predict the CGC, we started with the minimum, i.e., 1% (w/w) of CW for gelling RBO and moved till 5% (w/w) of CW. The required amount was allowed to melt in the oil at 90 °C for 25 min to dissolve the CW. The precise mixture was then cooled at room temperature for 5 minutes and kept under refrigeration for gelation. As seen in Figure S3(a-d), the amount of gelator used was insufficient to hold the oil, and therefore, the oil flows on tilting or

inverting. However, at 5% w/w of CW, the oleogel was formed successfully and did not flow on inverting the tube.

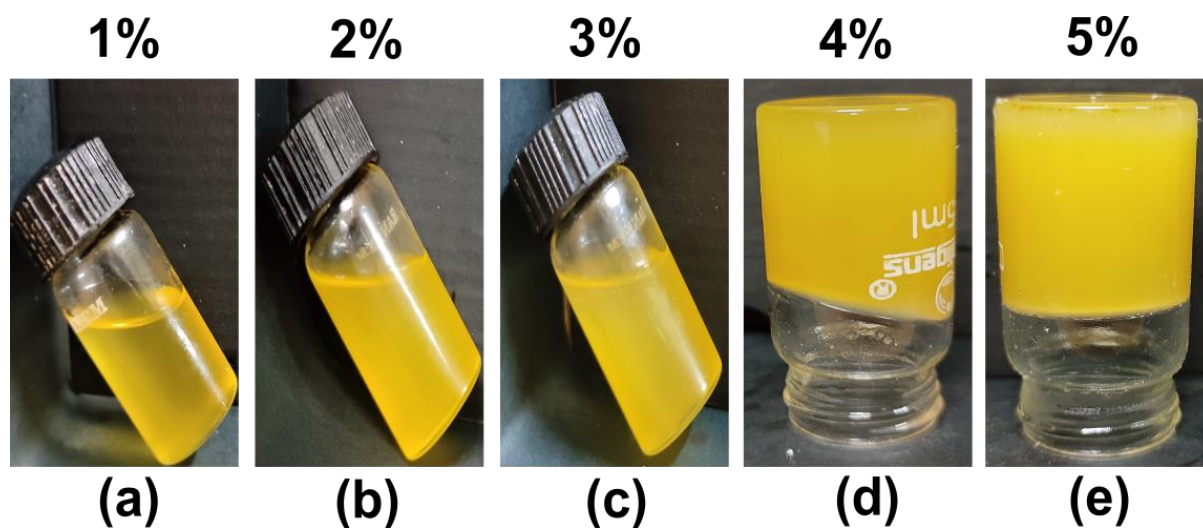


Figure S5. Confirmation of oleogel formation through inverted tube method.