

Supplementary Information

Solid State Reaction of Serpentine $\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$ with NaOH to Produce a New Basic Catalytic Phase $\text{Na}_2\text{Mg}_2\text{Si}_2\text{O}_7$ for Biodiesel Production

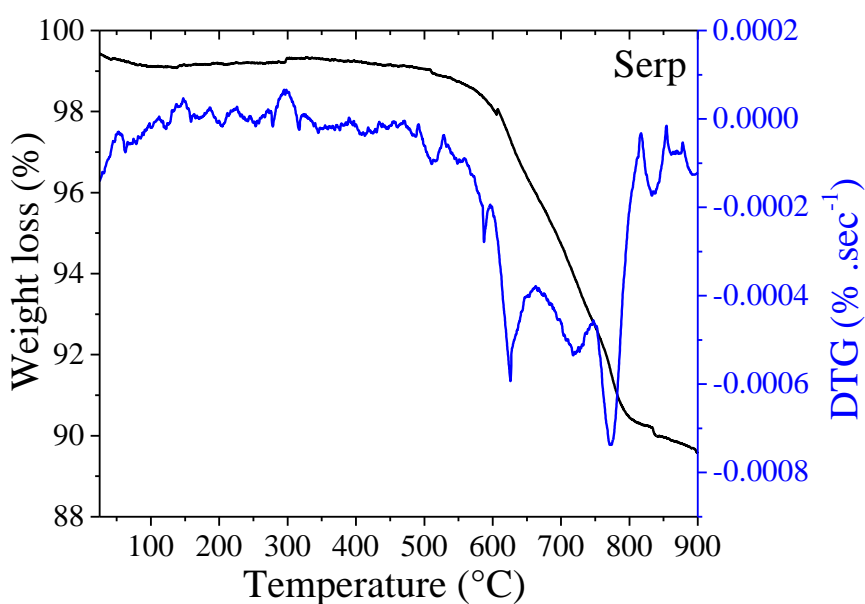
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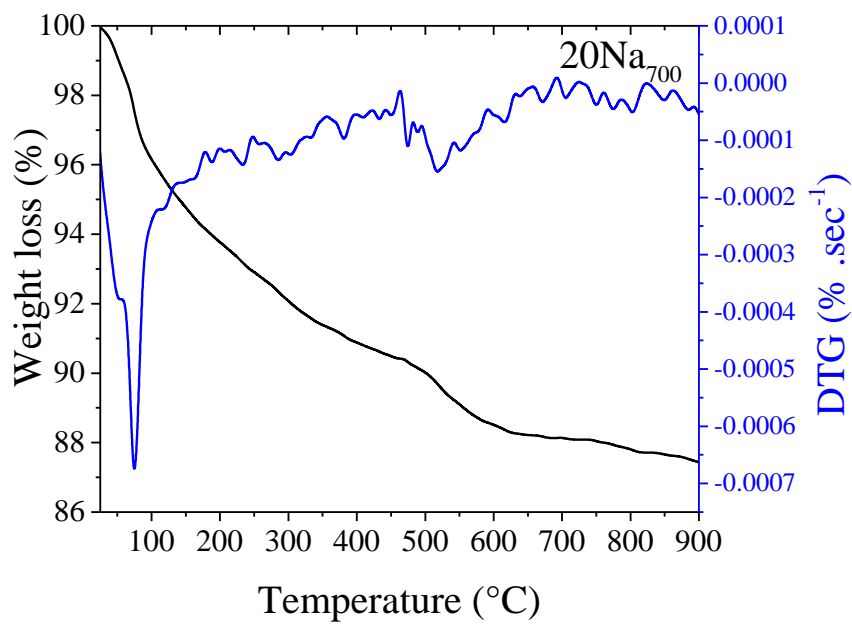
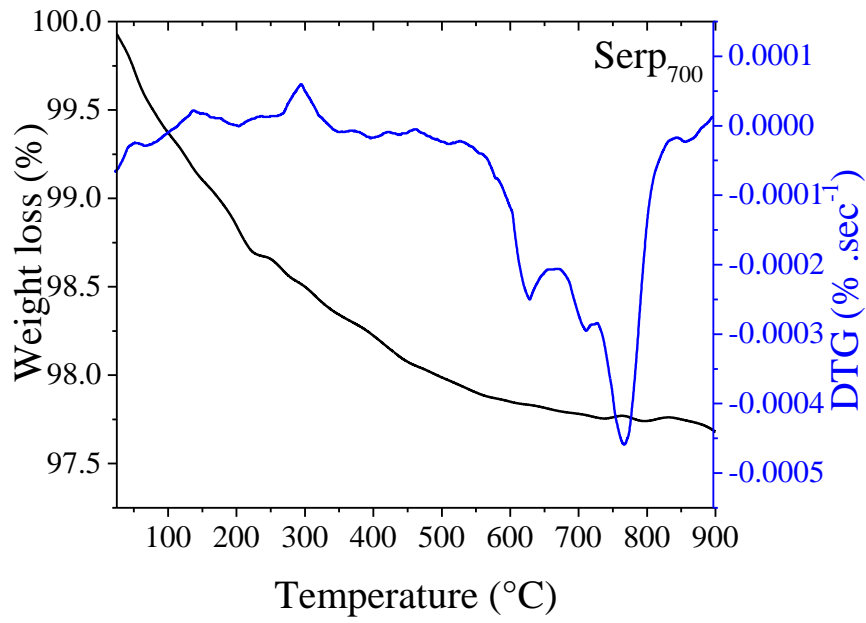


Figure S1. TG/DTG curves for serpentinite (SERP) and serpentinite samples impregnated.

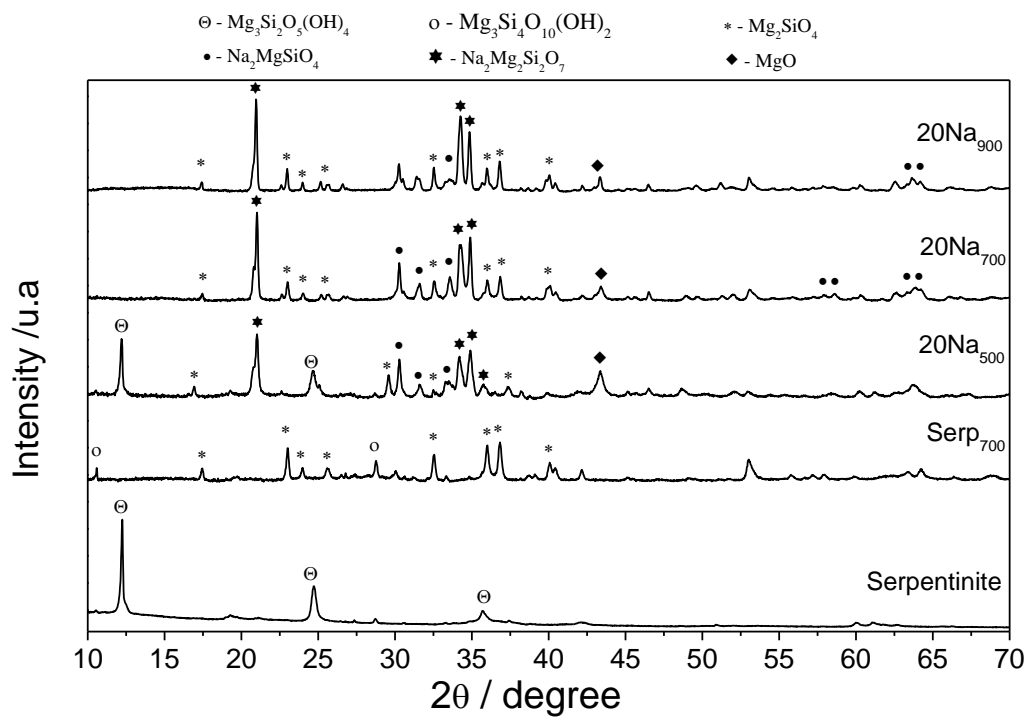


Figure S2. X-ray diffraction patterns of serpentinite samples, Serp₇₀₀ and 20Na₅₀₀, 20Na₇₀₀ and 20Na₉₀₀.

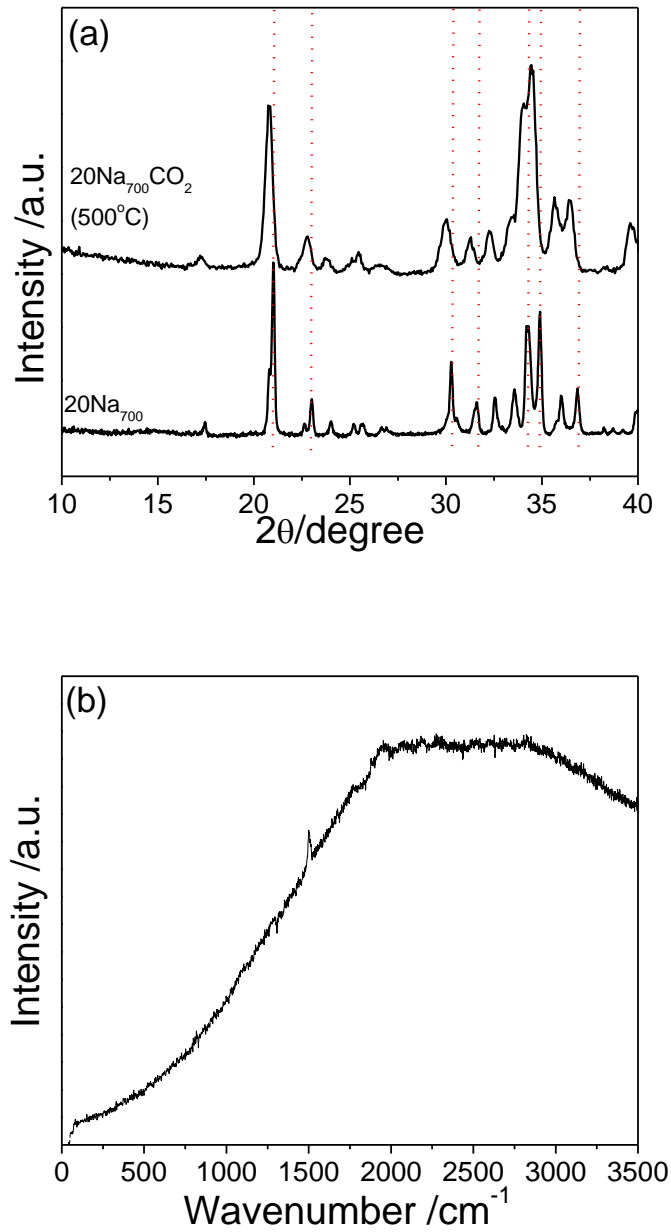


Figure S3. (a) X-ray diffraction patterns of 20Na₇₀₀ before and after absorption of CO₂; (b) Raman spectra of the 20Na₇₀₀ sample exposed to the CO₂ atmosphere.

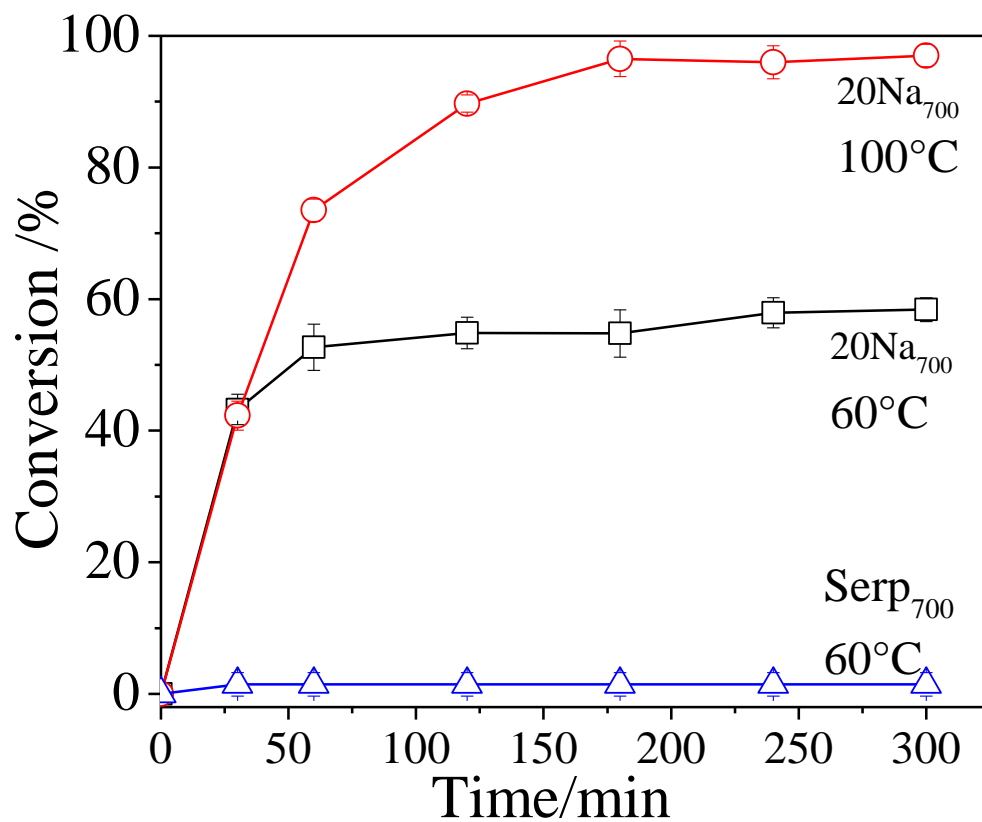


Figure S4. Kinetics for the transesterification in the presence of the catalysts 20Na₇₀₀ (60 and 100 °C) and Serp₇₀₀ (60 °C).