

Supplementary Materials

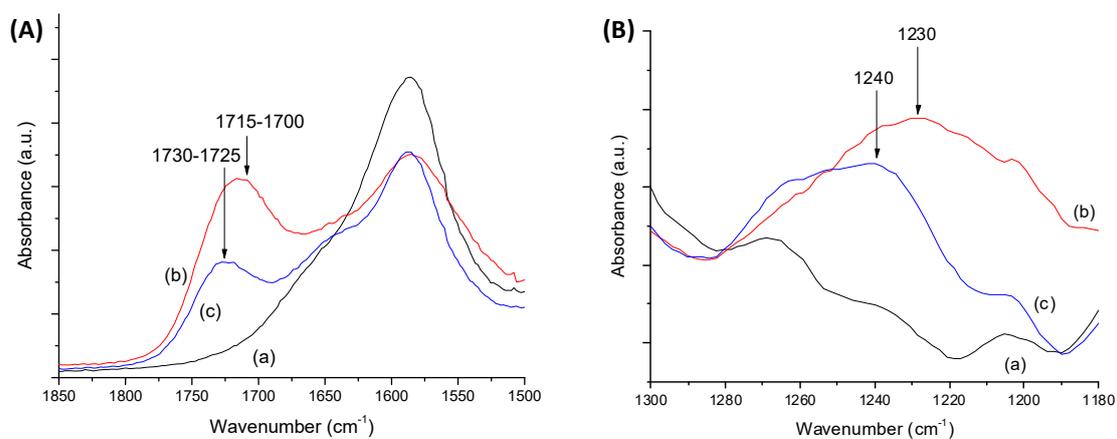


Figure S1. FTIR spectra in the range of (A) 1850–1500 cm⁻¹ and (B) 1300–1170 cm⁻¹ of (a) CMC-700_CA0, (b) CMC-700_CA25 as synthesized, and (c) CMC-700_CA25 at pH 5.5.

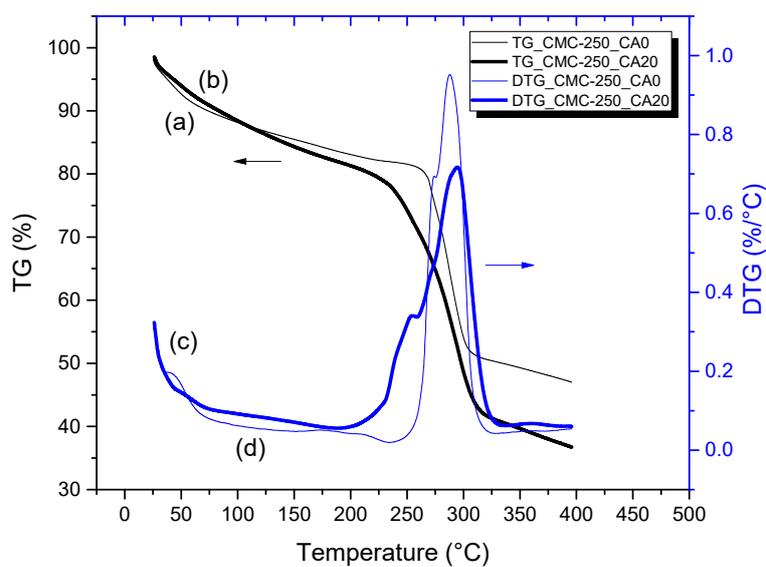


Figure S2. TG (a and b curves) and DTG (c and d curves) analysis of CMC-250_CA0 (—) and CMC-700_CA20 (—) hydrogels.

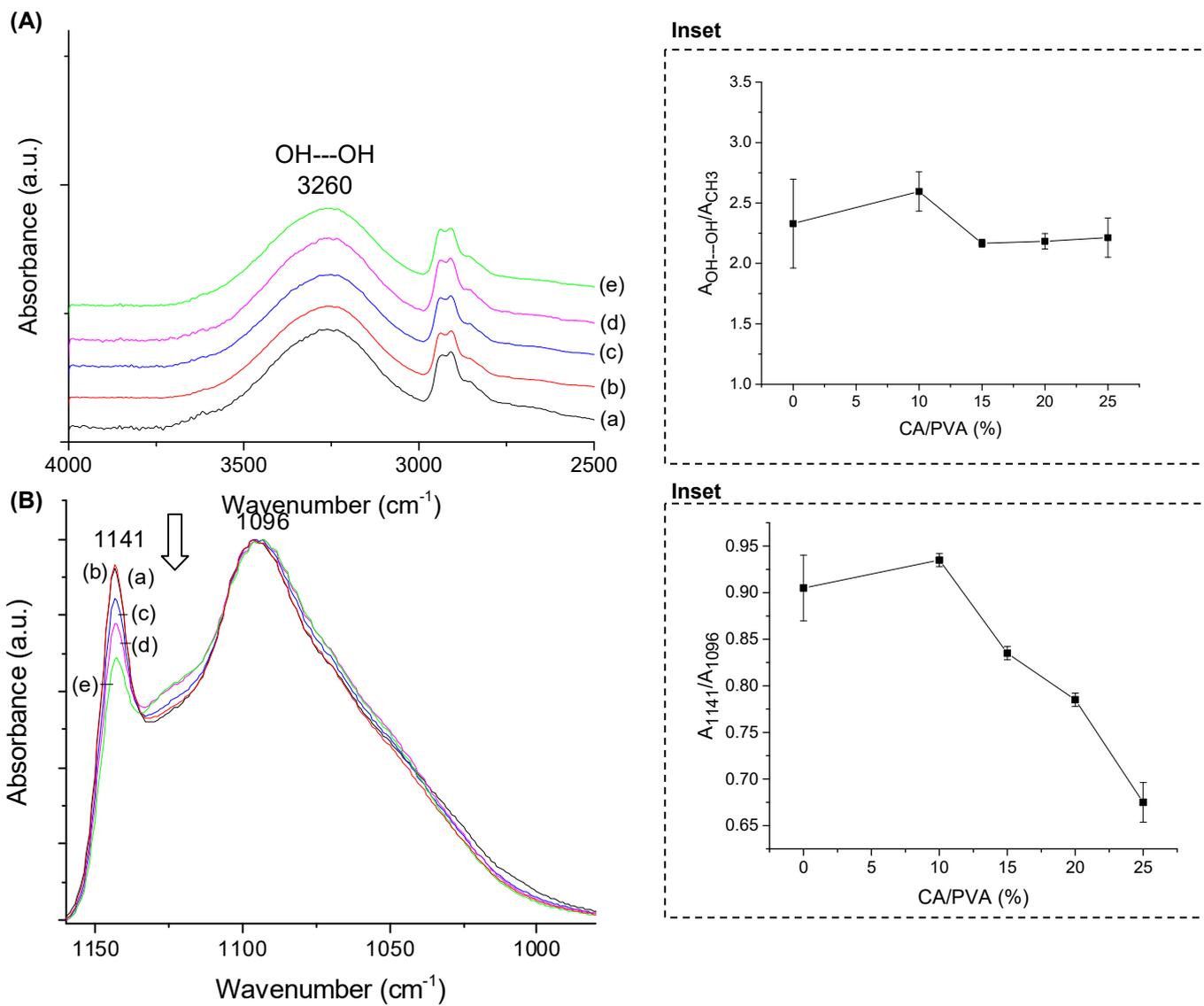


Figure S3. Evolution of (A) OH---OH (3260 cm⁻¹) with increasing CA content (inset: $A_{\text{OH---OH}}/A_{\text{CH}_3}$). (B) Evolution of crystallinity of PVA with increasing citric acid content (inset: A_{1141}/A_{1096}).