

Article

(Hydroxypropyl)methyl Cellulose-Chitosan Film as a Matrix for Lipase Immobilization. Part II: Structural Studies

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Supplementary material

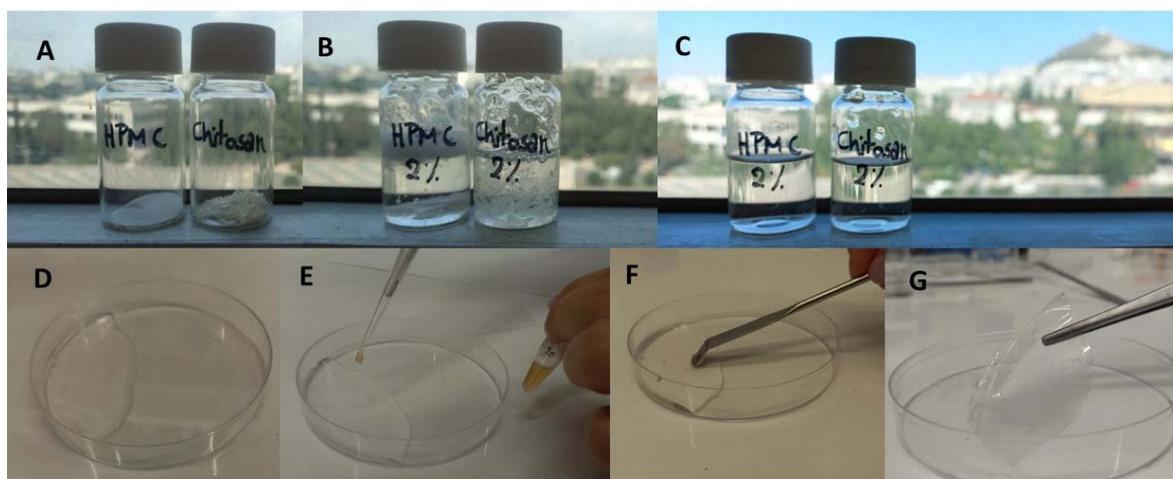


Figure S1. Step by step procedure for the production of the enzyme-loaded film. (A) The two polymers, HPMC and Chitosan; (B) Dilution of the two polymers in distilled water and acidic water (1%) for HPMC and Chitosan, respectively. They are then left overnight; (C) solutions of the two polymers, the next day; (D) Mix of the two polymer solutions on a petri dish, HPMC:Chitosan=2:1; (E) Addition of the enzyme-containing buffer; (F) Gentle stirring with spatula to homogenize the liquid; (G) After overnight drying, the film can be pilled off of the petri dish.

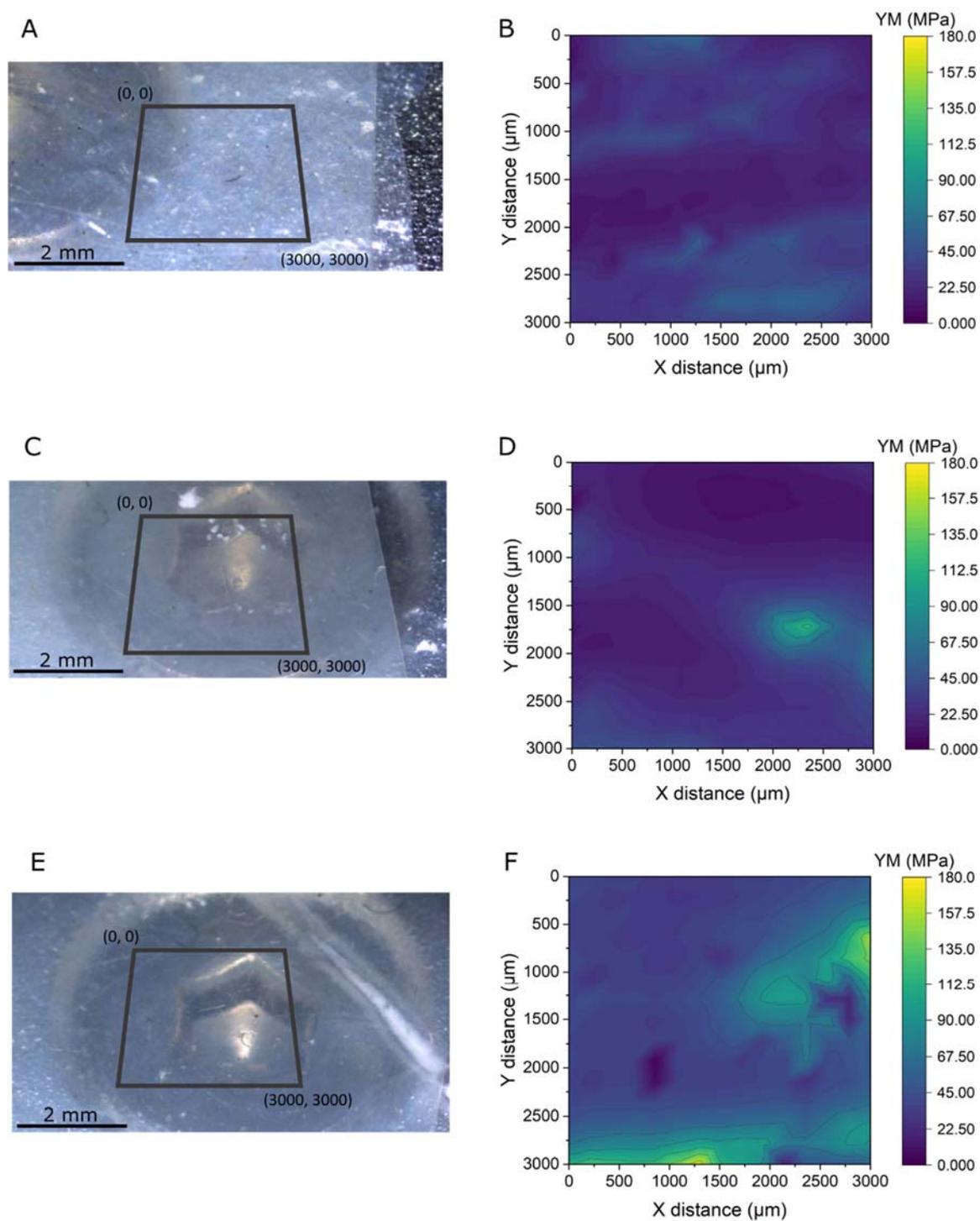


Figure S2. Mechanical characterization of HPMC-CS films: Optical micrographs of the films used for mechanical testing before usage (A), after 5 usage cycles (C), and after 10 usage cycles (E), with testing area and coordinates shown. Young's modulus maps from areas depicted in optical micrographs for films before usage (B), after 5 usage cycles (D), and after 10 usage cycles (F). Colormap maintained for comparison between samples.

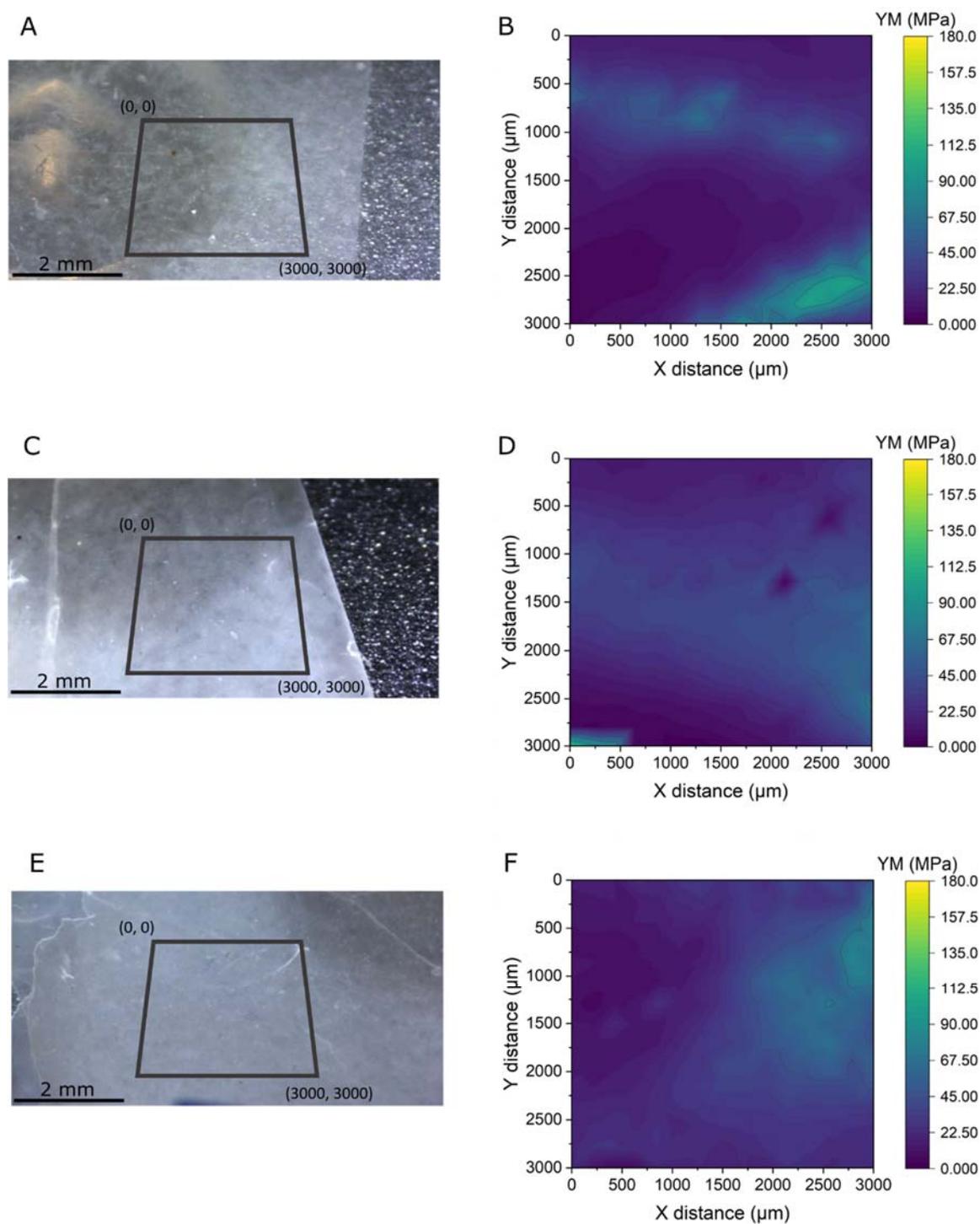


Figure S3. Mechanical characterization of enzyme-loaded HPMC-CS films: Optical micrographs of the films used for mechanical testing before usage (A), after 5 usage cycles (C), and after 10 usage cycles (E), with testing area and coordinates shown. Young's modulus maps from areas depicted in optical micrographs for films before usage (B), after 5 usage cycles (D), and after 10 usage cycles (F). Colormap maintained for comparison between samples.