

Supporting Information

Free-radical polymerization of 2-hydroxyethyl methacrylate (HEMA) supported by the high electric field

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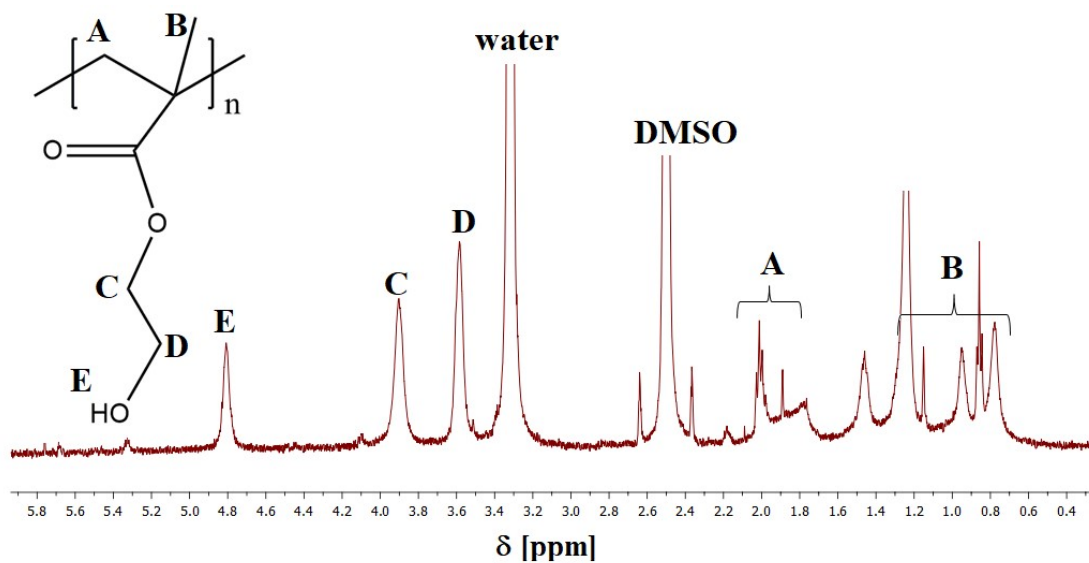


Figure S1 ¹H NMR spectrum of PHEMA produced in the presence of high electric field (E=140 kV/cm)

¹H-NMR (CDCl₃): δ=4.90 ppm (CH₂-CH₂-OH); δ=4.01 ppm (CO-CH₂-CH₂-OH) δ=3.85 ppm (CH₂-CH₂-OH); δ=1.80-2.00 ppm (-CH₂-C(-CH₃)-) δ=0.70-1.10 (CH₂-C(-CH₃)-C(=O))

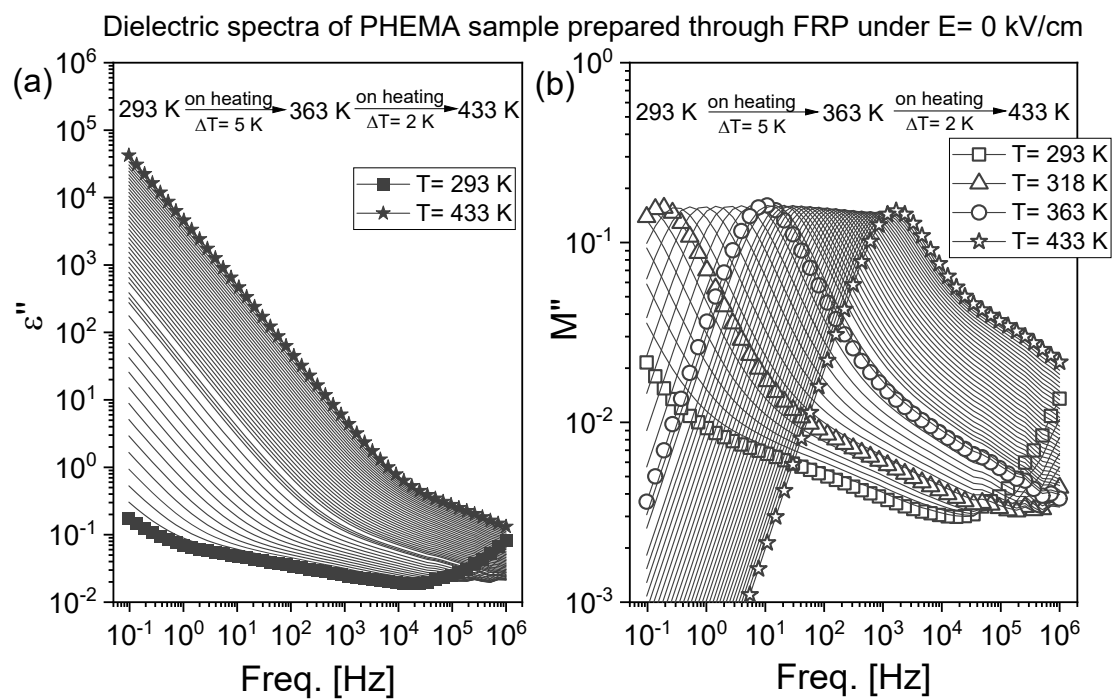


Figure S2 Dielectric loss ϵ'' (a) and electrical loss modulus M'' (b) spectra for a PHEMA sample in a temperature region between 293 K and 433 K. The tested sample is obtained through free radical polymerization of HEMA under an electric field of $E = 0$ kV/cm.

Dielectric spectra of PHEMA sample prepared through FRP under $E= 60 \text{ kV/cm}$

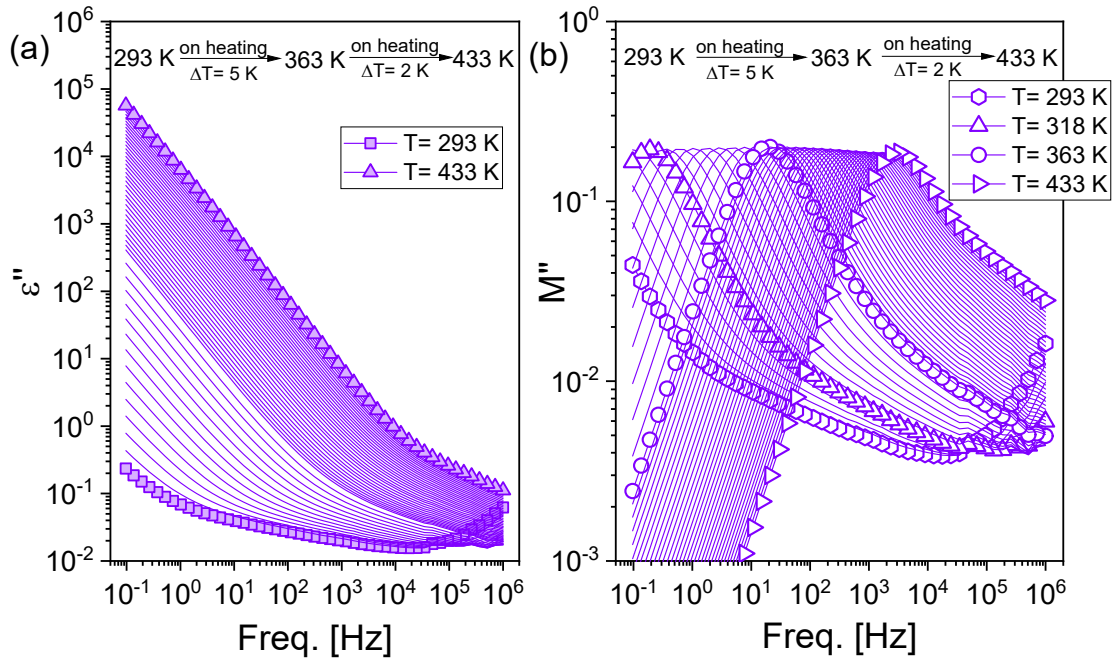


Figure S3 Dielectric loss ϵ'' (a) and electrical loss modulus M'' (b) spectra for a PHEMA sample in a temperature region between 293 K and 433 K. The tested sample is obtained through free radical polymerization of HEMA under an electric field of $E= 60 \text{ kV/cm}$.