Supplementary Information

for

Crystallization and Molecular Mobility in Renewable Semicrystalline Copolymers based on Polycaprolactone and Polyisosorbide

Chaima Bouyahya,[a,b] Nikolaos D. Bikiaris,[a] Alexandra Zamboulis,[a] Apostolos Kyritsis,[c] Mustapha Majdoub,[b,*] Panagiotis A. Klonos,[a,c,*]

[a] *Department of Chemistry, Laboratory of Polymer Chemistry and Technology, Aristotle University of Thessaloniki, GR-541 24, Thessaloniki, Greece*

[b] *Laboratoire des Interfaces et Matériaux Avancés, Université de Monastir, 5000 Monastir, Tunisia*

[c] *Department of Physics, National Technical University of Athens, Zografou Campus, 15780, Athens, Greece*

[*] *Corresponding authors: pklonos@central.ntua.gr (P.A.K.); mustapha.majdoub@fsm.rnu.tn (M.M.)*
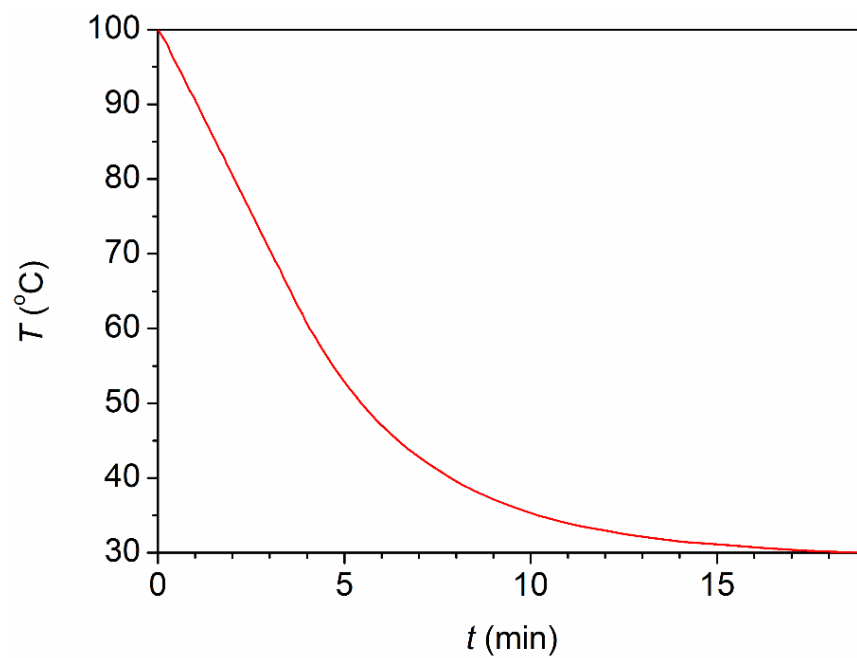
Figure S1. The time-temperature profile, $T(t)$, during cooling recorded for the POM measurements.
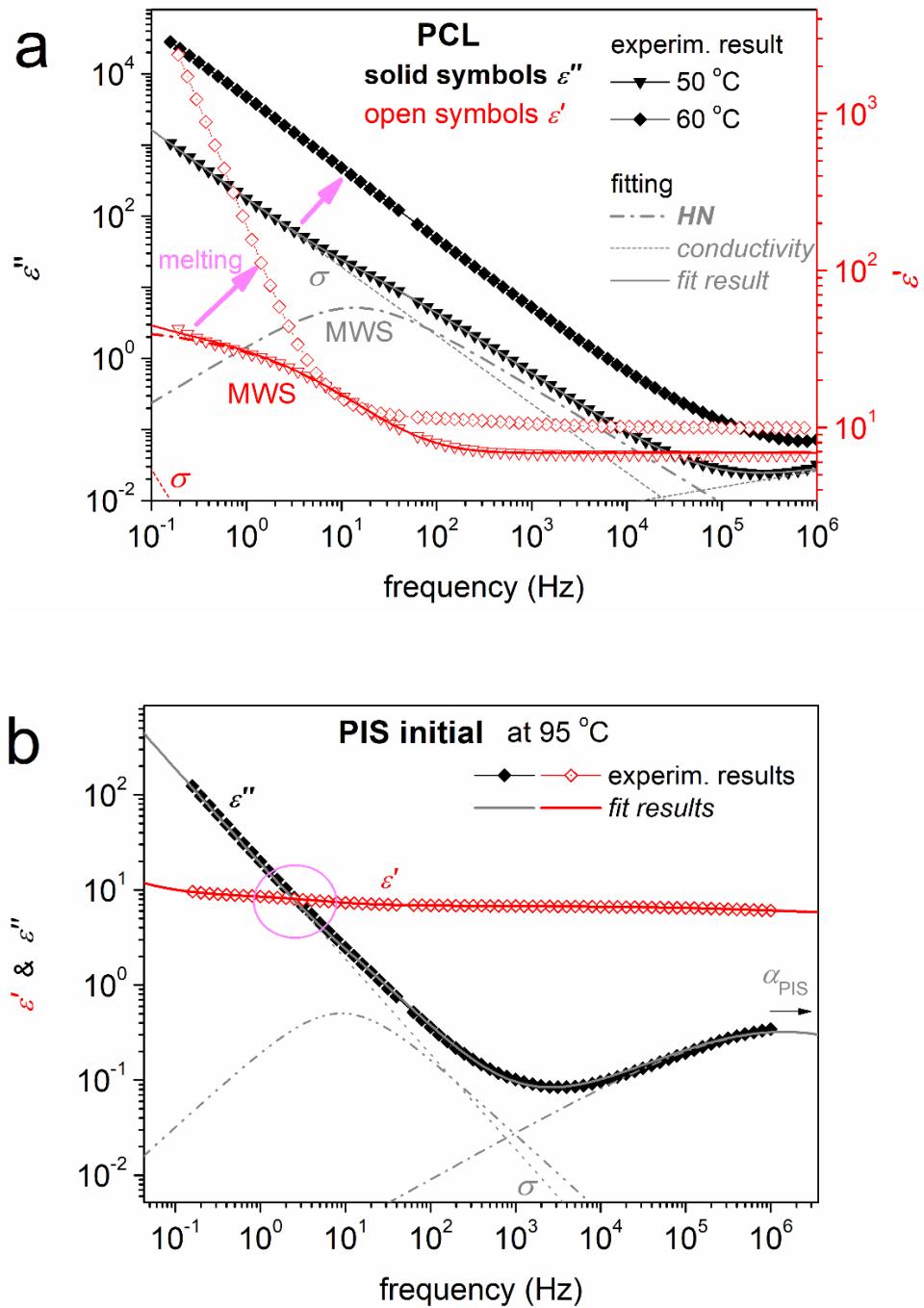
Figure S2. Examples of simultaneous fitting of ε'' and ε' at $T>T_g$ for (a) neat PCL at 50 ºC and (b) initial PIS at 95 ºC, to identify ionic conductivity and interfacial polarization phenomena. In (a), additional data at 60 ºC are added, to compare the situation prior and above the melting of crystals, the corresponding effects being marked by the added arrows.