Supplementary Information

for

Block Copolymers based on Poly(butylene adipate) and Poly(*L*-lactic acid) for Biomedical Applications:

Synthesis, Structure and Thermo-Dynamical Studies

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S1. Additional DSC data
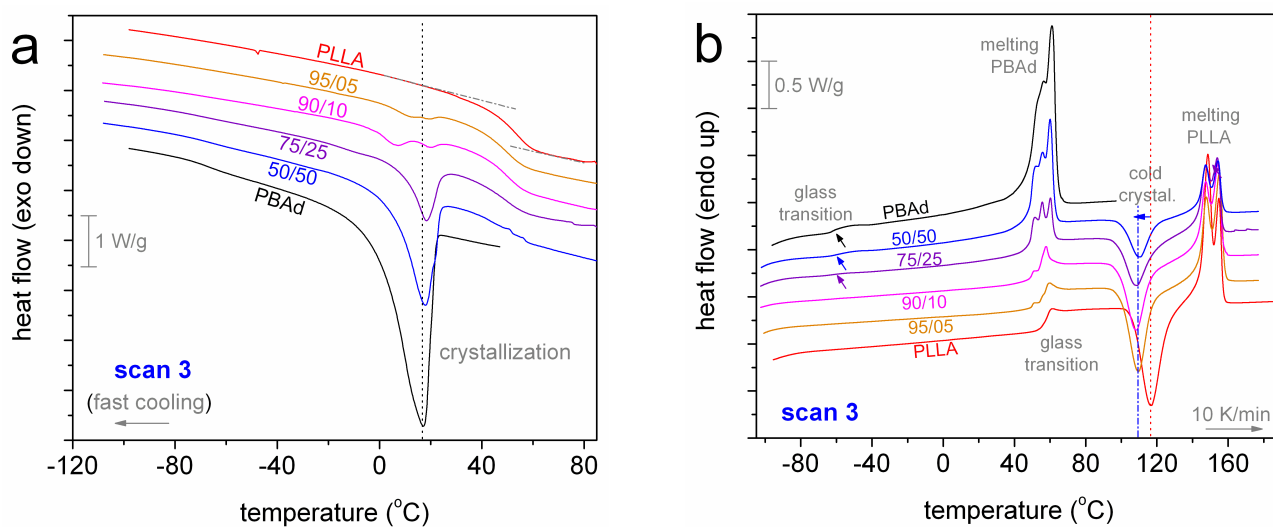
Figure S1. DSC thermograms of *scan 3* (fast cooling) for all samples studied during (a) cooling from the melt and (b) the subsequent heating. The heat flow values are normalized to the sample mass. The main thermal events are indicated on the thermograms.
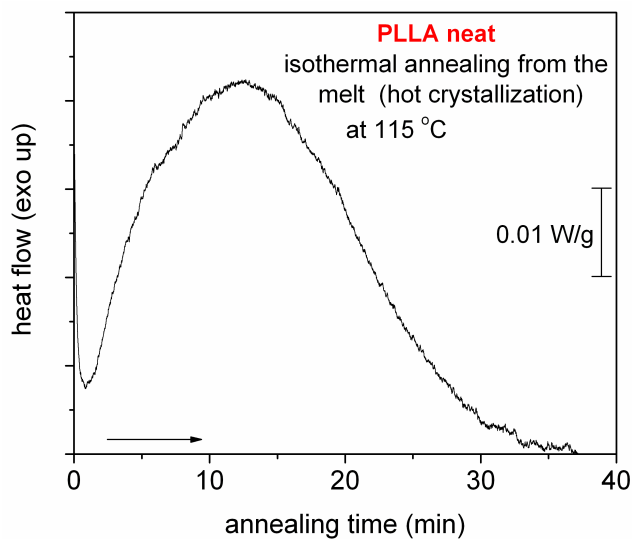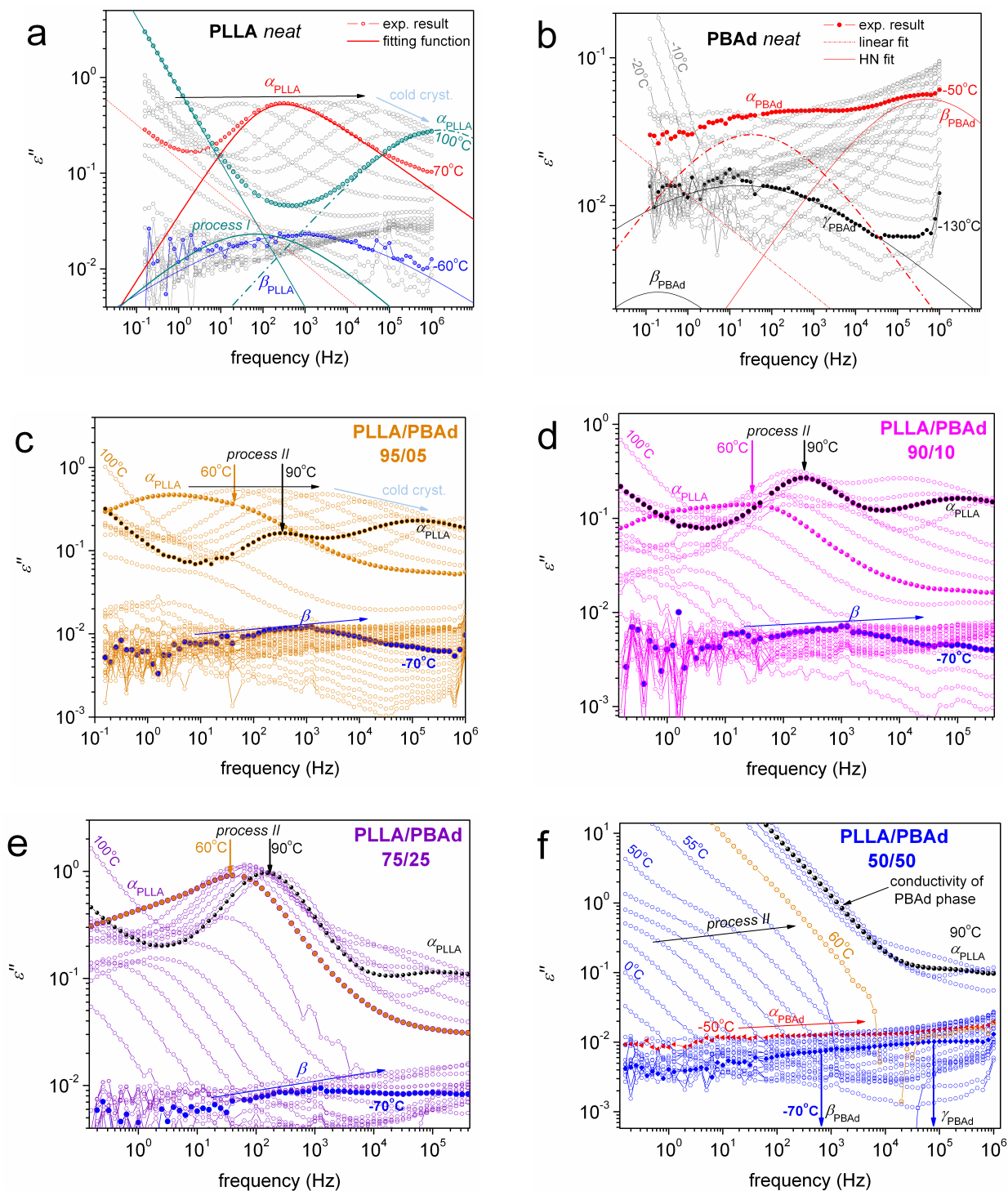

Figure S2. DSC thermogram during isothermal annealing at 115 °C of neat PLLA (initially melted). The heat flow has been normalized to the sample mass.

S2. Additional XRD data - analysis
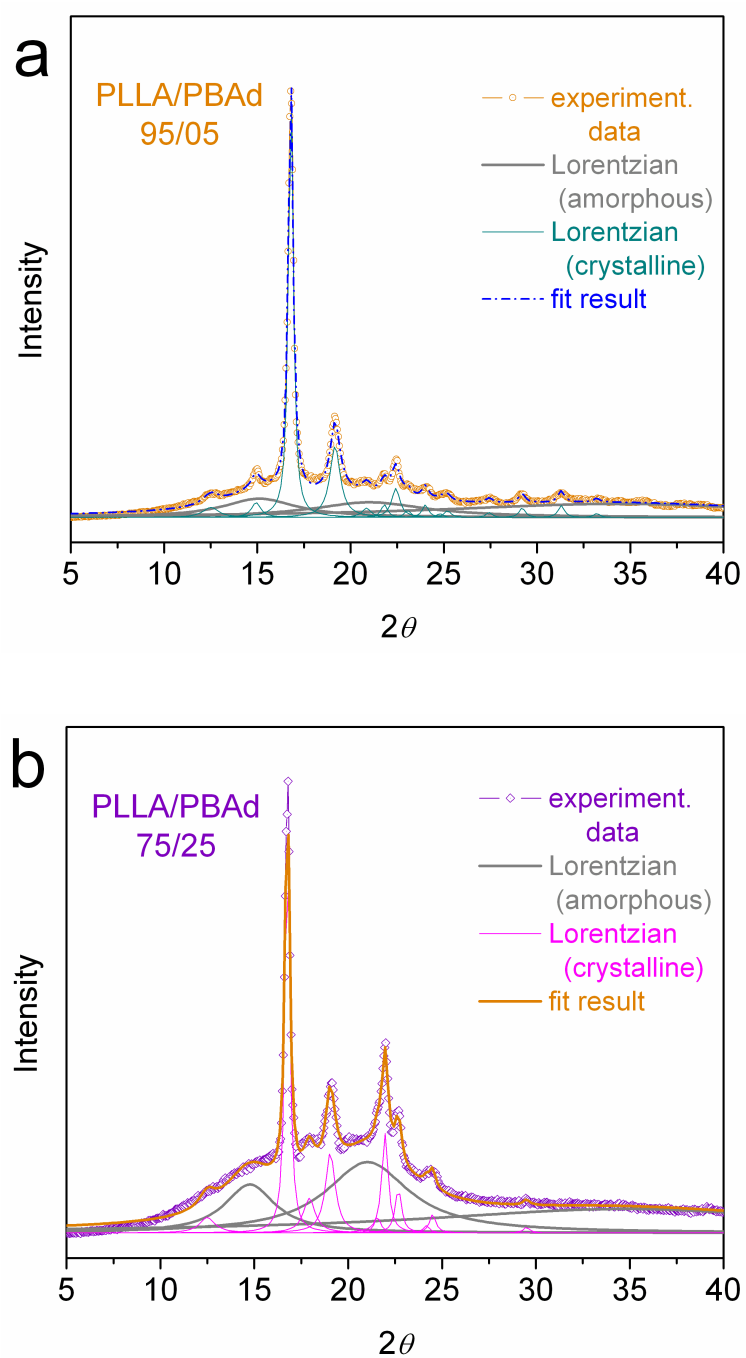
Figure S3. Analysis results of the XRD results for the PLLA/PBAd copolymers (a) 95/05 and (b) 75/25, in terms of Lorentzians.

S3. Additional BDS raw data and examples of analysis

Figure S4. Isothermal BDS plots of ε'' against frequency, for all samples indicated on the plots. In (a) and (b) along with the experimental data, examples of analysis employing individual Havriliak-Negami (HN, peaks) and linear (signal upcoming / conductivity) terms are shown at selected temperatures.
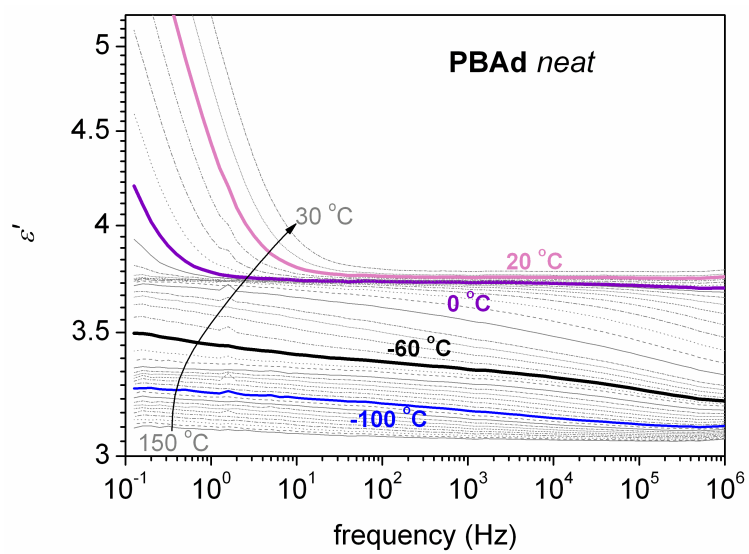
Figure S5. BDS raw results for neat PBAd in terms of the frequency dependence of the real, ε', part of dielectric permittivity.

Figure S6. Dielectric strength, $\Delta\varepsilon$, for all samples studied at (a) the lower and (b) higher temperatures. Indicated are the recoded relaxation processes, details being given in the main article.