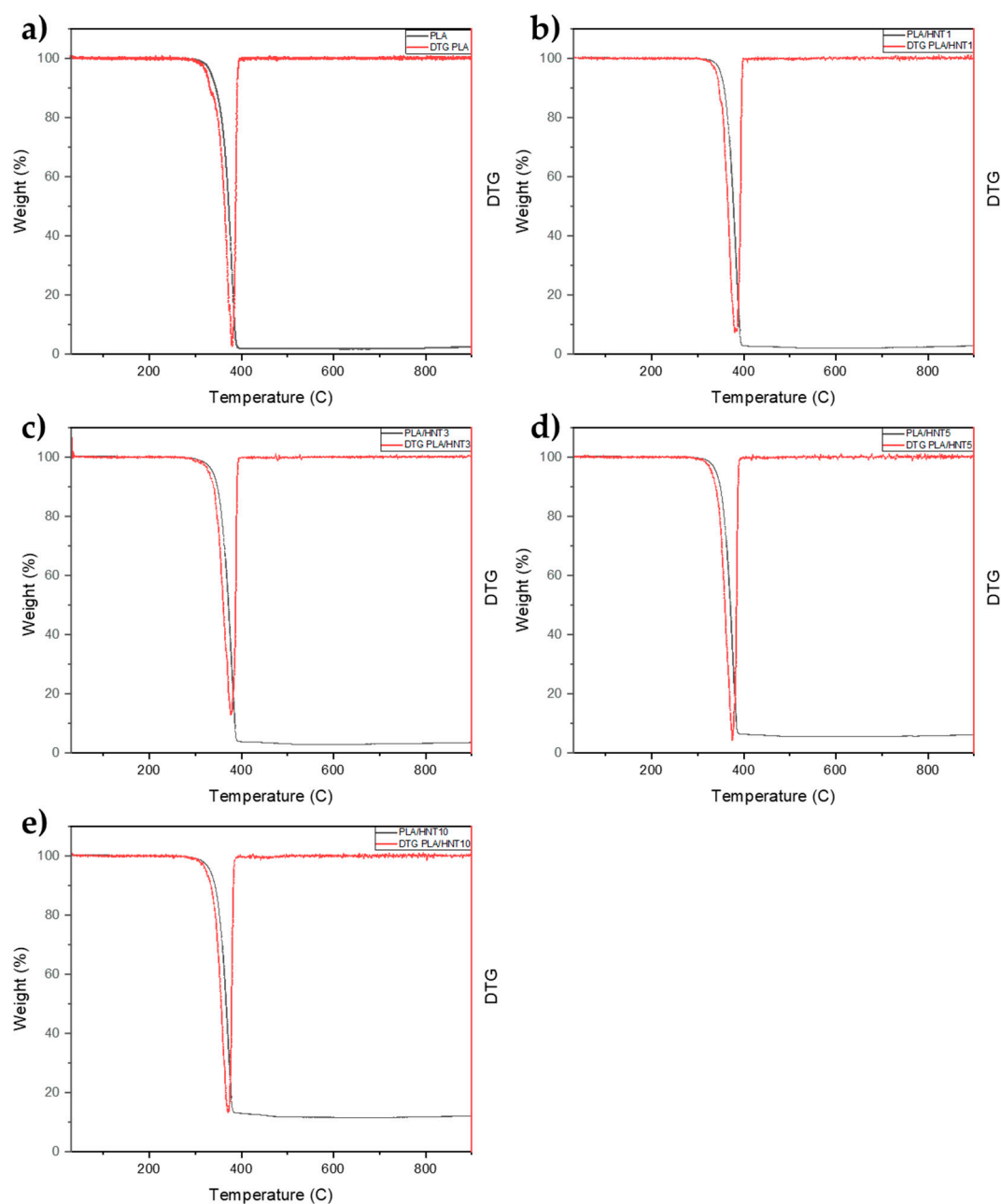


Supplementary material

## Process optimization for the 3D printing of PLA and HNT composites with the Arburg Plastic Freeforming

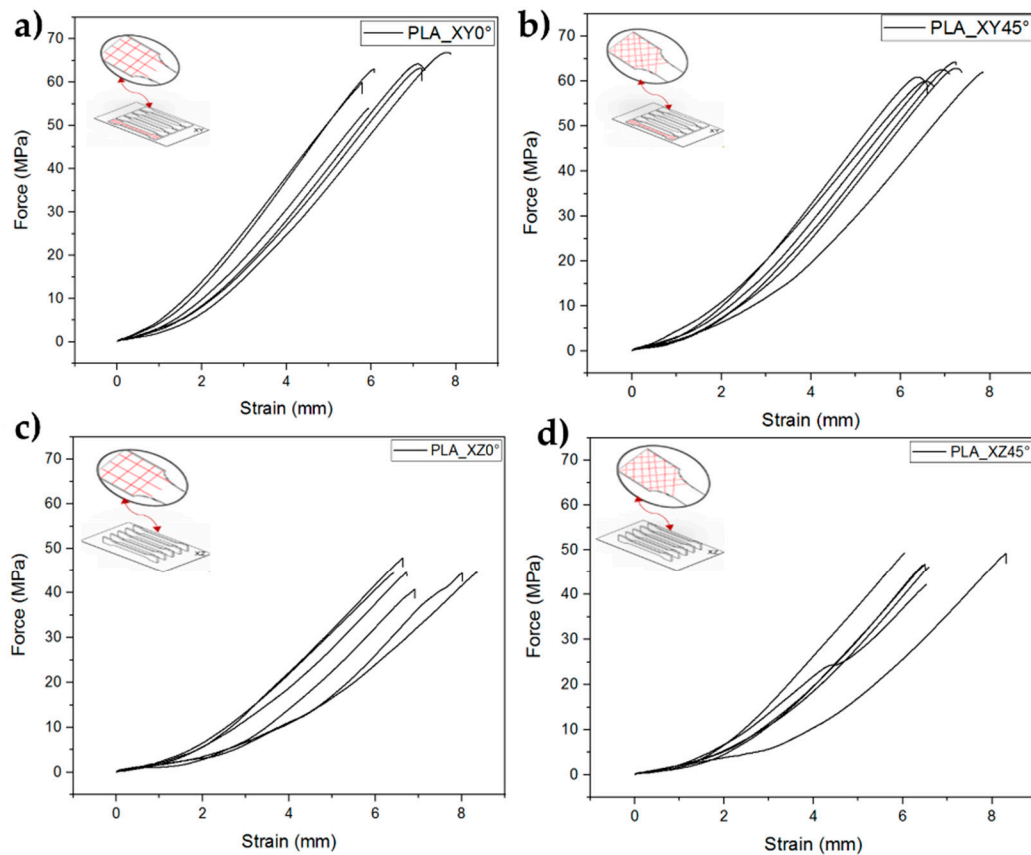
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TG and DTG curves of PLA and PLA/HNT composites are shown in Figure S1, all samples presented a single thermal degradation step.



**Figure S1.** TG/DTG curves of PLA and PLA/HNT composites. PLA in (a), PLA/HNT1 in (b), PLA/HNT3 in (c), PLA/HNT 5 in (d) and PLA/HNT10 in (e).

Force (MPa) versus Strain (mm) curves were assessed from 3D printed samples on different axis orientations (XY and XZ) and printing deposition angles (0 and 45°), as shown in Figure S2.



**Figure S2.** Force (MPa) vs Strain (mm) curves were assessed from 3D printed samples on different axis orientations (XY and XZ) and printing deposition angles. PLA\_XY0° in (a), PLA\_XY45° in (b), PLA\_XZ0° in (c) and PLA\_XZ45° in (d).