

# Polylactide, Processed by a Foaming Method Using Compressed Freon R134a, for Tissue Engineering

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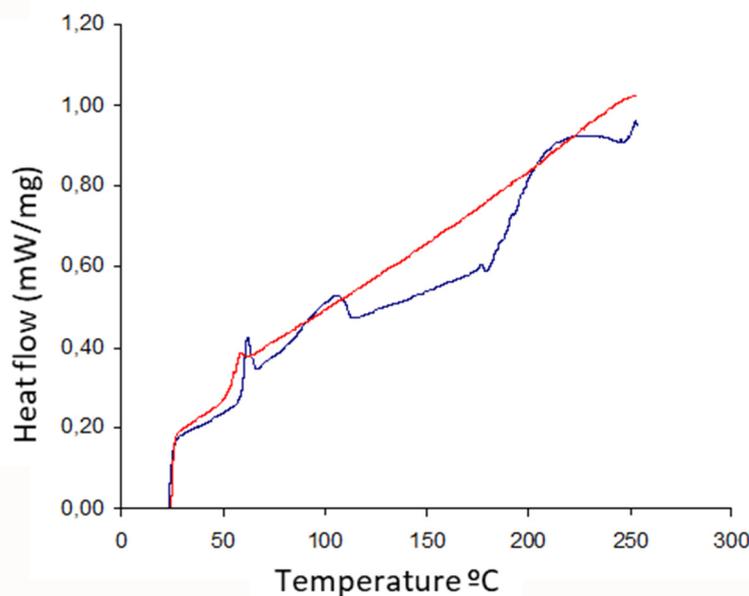
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The DSC thermograms below show how the melting peak observed around 110°C for the non-treated PLA sample (Figure S4) disappears after the thermal annealing of the disk at 150°C (Figure S5), indicating that the material is amorphysed.



**Figure S1.** DSC thermogram of raw PLA before annealing. Blue: first heating cycle; Red: second heating cycle.

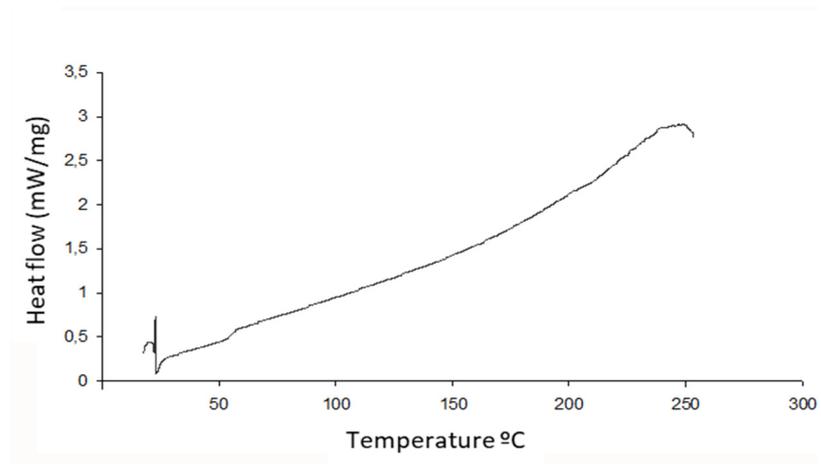


Figure S2. DSC thermogram of PLA after annealing at 150°C.



Figure S3. Non-complete foaming of PLA was visually observed at the center of the disk.

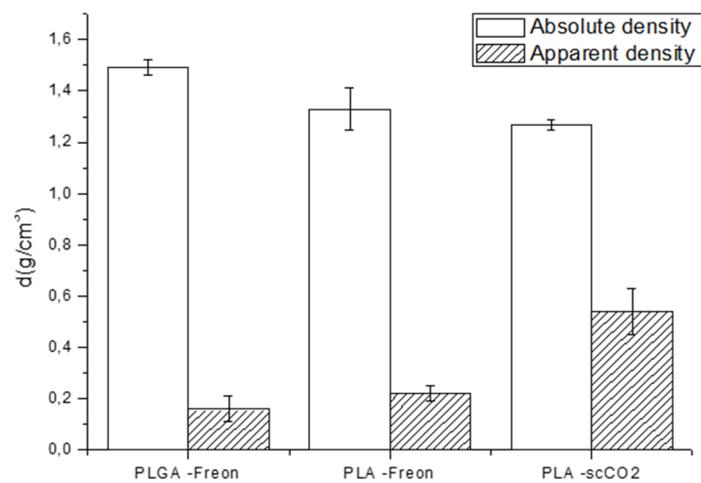
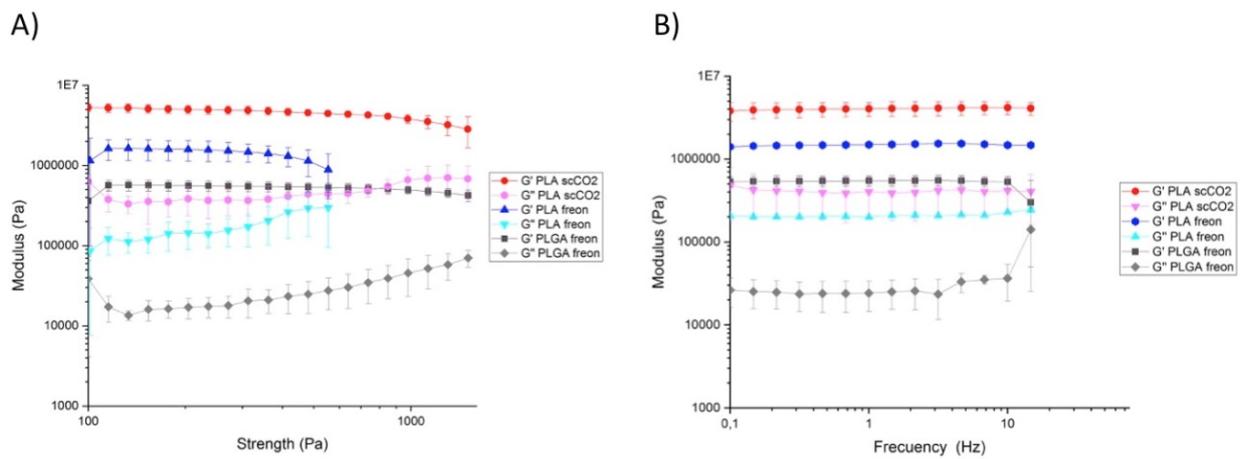
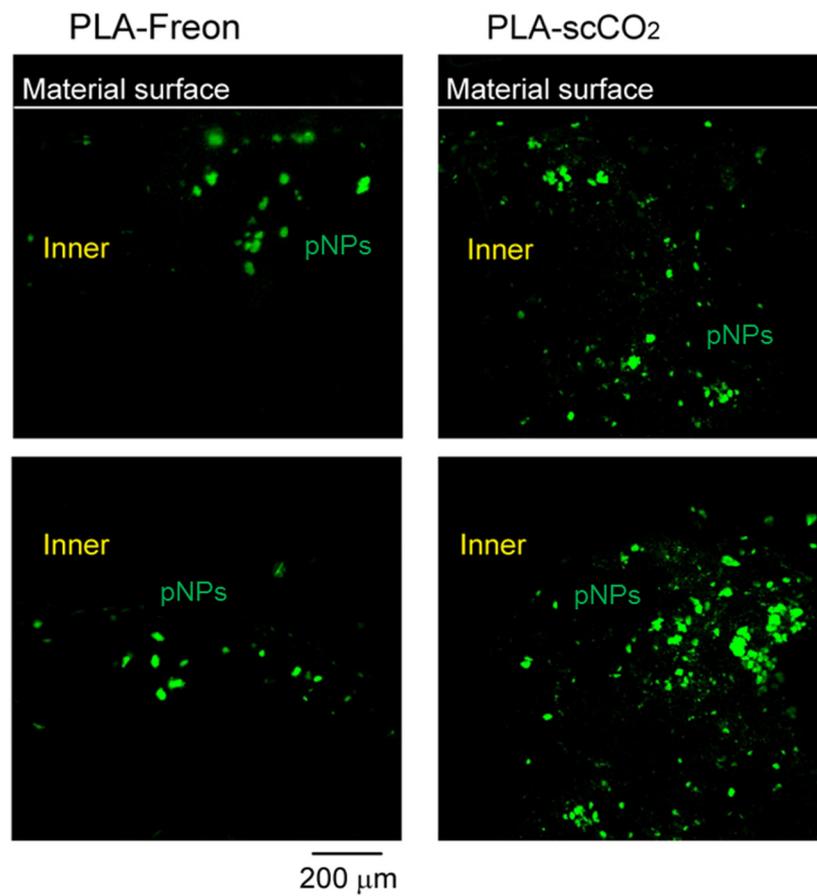


Figure S4. Absolute and apparent densities of the studied porous scaffolds. The values shown correspond to the mean values of three specimens ± standard error.



**Figure S5.** A) Strain and B) frequency sweeps of PLA processed with Freon R-134a (blue) and scCO<sub>2</sub> (red) as well as PLGA processed with Freon R-134a (grey squares).



**Figure S6.** pNPs penetrability in PLA-based scaffolds. Confocal microscopy images corresponding to cross section of PLA processed with Freon (PLA-Freon) and PLA processed with scCO<sub>2</sub> (PLA-scCO<sub>2</sub>) decorated with pNPs. The white line marks the border of the material surface and the inner part of scaffold.