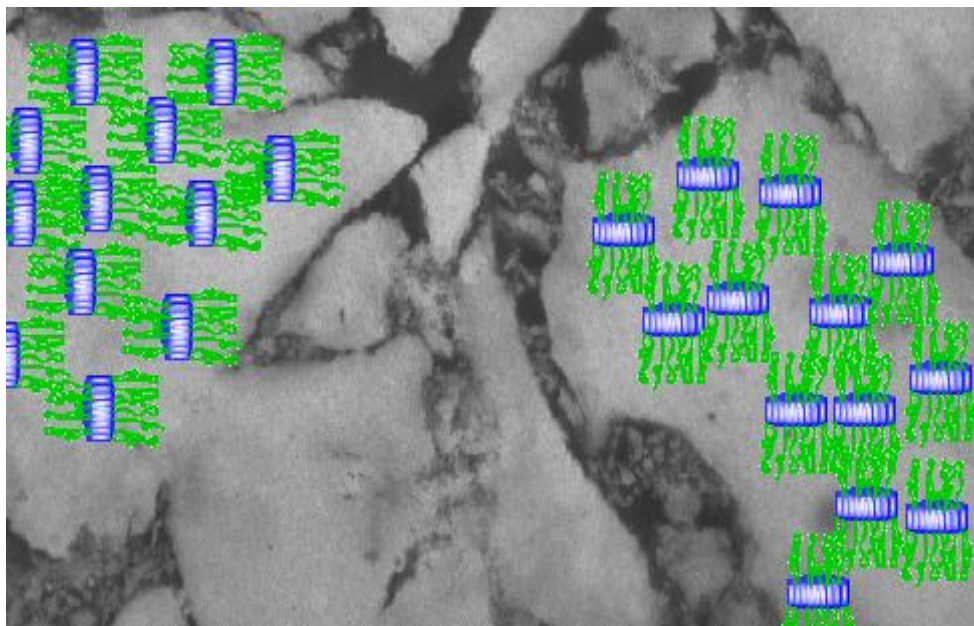


Annealing Effects in PLA-PEO-PLA Hydrogels

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Bright areas are semi-crystalline PLA domains. Lamellar structures (blue and green cartoons) form here, and it is proposed that the annealing effect aligns the lamellae.

Triblock PLA-PEO-PLA (polylactic acid – polyethylene oxide – polylactic acid) associative polymer hydrogels are a promising biomaterial. Control over the nanoscale and microscale structures of these gels is essential for tuning the properties required for proper cell delivery, drug release, tissue engineering, or whatever application the biomaterial is intended. Temperature induces gelation in these systems, and varying that temperature controls an annealing effect, which in part determines the nanoscale and microscale particle and domain sizes.