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A high heat-resistance bioplastic foam with efficient electromagnetic interference shielding

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ABSTRACT: Owing to the growing awareness of sustainability, bioplastic based composites arouse considerable attention. However, the low use temperature (usually < 100 °C) limits their applications. To improve the heat resistance and simultaneously meet the lightweight requirement for microwave shielding, a high heat-resistance crystallite, stereocomplex crystallites (sc) formed by the stereocomplexation crystallization between enantiomeric poly(L-lactide) (PLLA) and poly(D-lactide) (PDLA), was introduced into the conductive carbon nanotube (CNT)/poly(lactic acid) (PLA) composite foam. The composite foam was fabricated by a nonsolvent induced

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