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Structural and mechanical properties of PLA-hydroxyapatite composites studied by the scanning impulse acoustic microscopy

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Аннотация:

Ultrasound methods have been applied for investigation of poly-L-lactide with hydroxyapatite composites. It was shown that this method allows to visualize the filler distribution in the polymer matrix, the compatibility of the filler with the polymer matrix, defects and artifacts. Sound velocity of longitudinal and transverse wave and elastic characteristic of the composites PLA+HA were obtained by high frequency ultrasound focused beam.

Ключевые слова:

acoustic microscopy, biodegradable polymers, composite materials, hydroxyapatite, mechanical characteristics, polylactide, sound velocity, ultrasound