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Title: Biodegradability and mechanical properties of reinforced starch nanocomposites using cellulose nanofibers

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Hughlights

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- Biodegradability and mechanical properties of reinforced thermoplastic starch nanocomposite was studied

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- Compared with the neat TPS, the addition of nanofibers improved the degradation rate of the specimens

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- Addition of CNFs and ACNFs significantly enhanced the mechanical properties of the nanocomposites

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- Regardless of the type, the addition of nanofibers increased the thermal stability of the nanocomposites

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- The moisture absorption of the TPS nanocomposite was reduced by addition of the ACNFs

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