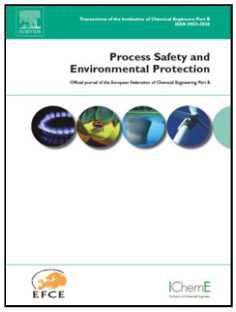

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Enhancing degradability of plastic waste by dispersing starch into low density polyethylene matrix

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Highlights

- A biodegradable polymer film by dispersing starch into LDPE matrix was produced
- Film homogeneity was studied by SEM and FTIR to justify starch dispersion in LDPE matrix
- Biodegradability was tested under soil burial condition varying starch content.
- Chemical resistance was assessed by immersing it in 10% NaOH and 10% HCl solution.
- Mechanical properties of the film was tested and compared with virgin LDPE.

Abstract

The present investigation emphasizes the synthesis and characterization of an extruded biodegradable film developed by dispersion of corn starch in LDPE matrix. Biodegradable