



polymers



Special Issue Reprint

Biobased Polymers for Environmental Applications

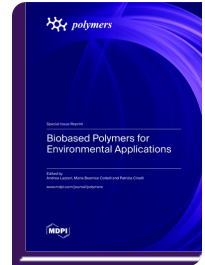
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The first three papers describe research activities about poly(lactic acid) (PLA)-based blends and their composites with wheat bran that were carried out under the framework of the BIONTOP project ("Novel Packaging Films and Textiles with Tailored End of Life and Performance Based on Bio-based Copolymers and Coatings", 837761) funded by the European Commission BBI-JU program. The melt fluidity, morphological, thermo-mechanical, creep and fracture properties of these promising biodegradable materials were considered and discussed. The reprint then includes two contributions (a review and a research article) written in the contest of ECOFUNCO project ("ECO Sustainable Multi FUNCTIONal Biobased COATings with Enhanced Performance and End of Life Options", 837863) funded by the European Commission BBI-JU program. The review explores possible innovations in the field of solid and liquid biobased coatings, whereas the research article examines the modification of paper tissues with biobased additives for sustainable personal care applications. A research paper on the production of PLA-based composites to valorize hazelnut shell powder, which represents an agro-food waste, is also included in the reprint. Moreover, the reprint presents research papers investigating different biobased materials for environmental depollution, including hydrogel-based, bacterial cellulose-based and biochar-based materials. Finally, a research paper on the behavior of natural rubber during aging is presented.



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