Active packaging: Incorporation of polyphenols in polyhydroxyalkanoate (PHA): Thermal stabilization and antioxidant properties
Chloë Bonnenfant, Nathalie Gontard, Chahinez Aouf

To cite this version:
Chloë Bonnenfant, Nathalie Gontard, Chahinez Aouf. Active packaging: Incorporation of polyphenols in polyhydroxyalkanoate (PHA): Thermal stabilization and antioxidant properties. Biopolymers and sustainable composites, Mar 2020, Valencia, Spain. hal-02943213

HAL Id: hal-02943213
https://hal.inrae.fr/hal-02943213
Submitted on 18 Sep 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L’archive ouverte pluridisciplinaire HAL, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d’enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.
Introduction: Pollution of environment by plastic is a worldwide issue. Today, packaging is mainly produced from conventional petroleum-based plastics especially in food industry. Plastic is everywhere, that is why ongoing research are attempting to develop biobased and biodegradable polymers. Polyhydroxyalkanoates (PHA) seem to be good candidates.

The aim of this study is to enhance their thermal properties and confer antioxidant properties to PHA by adding polyphenols.

Conclusion: We expect that this PhD research will lead to a new formulation of PHA derivatives with enhanced thermal stability. Polyphenols could be the answer to these issues and furthermore, they could confer interesting properties as antioxidant ones to polymers dedicated to food industry’s application.

References: