Index

1. Introduction	1
1.1- Bio-based Packaging	3
1.2- Active Packaging: O2 scavengers	6
1.3- Nanometal based O2 scavenger	10
1.4- Fiber based Packaging	12
1.5- Coating of Fiber Based Packaging and Nanopapers	13
1.6- Electrospinning as an innovative processing tech	0.
2. General and specific objectives	35
3. Results	39
Chapter I: Post-processing optimization of electrospun submicron hydroxybutyrate) fibers to obtain continuous films of interest packaging applications	in food
Chapter II: Multilayer Structures Based on Annealed Elect Biopolymer Coatings of Interest in Water and Aroma Barrier Fibe Food Packaging Applications	r-Based
Chapter III: Improving the water resistance of nanocellulose-base with polyhydroxyalkanoates processed by the electrospinning	coating

Chapter IV: Electrospun Oxygen Scavenging Films of Po	oly(3-
hydroxybutyrate) Containing Palladium Nanoparticles for A	ctive
Packaging Applications	171
Chapter V: Oxygen-Scavenging Multilayered Biopapers Contar Palladium Nanoparticles Obtained by the Electrospinning Co Technique	ating
Chapter VI: Preparation and evaluation of oxygen scaver nanocomposite films incorporating poly(ethylene-co-vinyl alcohol nanoparticles, and cellulose nanocrystals), Pd
4. General discussion	_ 297
5. Conclusions	_ 309
6. Annexes	315
Annex A: List of publications	_ 317
Annex B: Additional work	_ 329