9th International Interdisciplinary Congress on Renewable Energies, Industrial Maintenance, Mechatronics and Informatics
Booklets

RENIECYT
Registro Nacional de Instituciones y Empresas Científicas y Tecnológicas
1702902 CONAHCYT

RENIECYT - LATINDEX - Research Gate - DULCINEA - CLASE - Sudoc - HISPANA - SHERPA UNIVERSIA - Google Scholar DOI - REDIB - Mendeley - DIALNET - ROAD - ORCID - V|LEX

Title: Biofilm of potato starch and silver nanoparticles

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Editorial label ECORFAN: 607-8695
BCIERMMI Control Number: 2024-01
BCIERMMI Classification (2024): 241024-0001
RNA: 03-2010-032610115700-14
Pages: 09

CONAHCYT classification:
Area: Engineering
Field: Engineering
Discipline: Chemical engineering
Subdiscipline: Bioengineering

PRESENTATION CONTENT

Introduction

Methodology

Results

Annexes

Conclusions

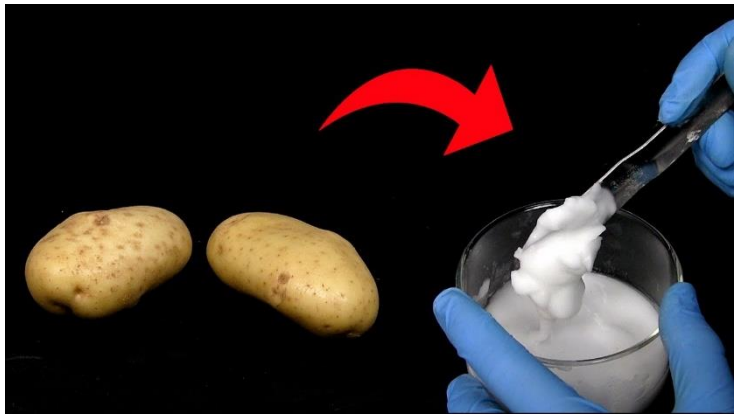
References

Introduction

Biopelículas

Frutas

The use of nanotechnology to prolong the lifetime of the fruits and reduce the loss during these are transported, is an innovative concept for the food industry.



Methodology

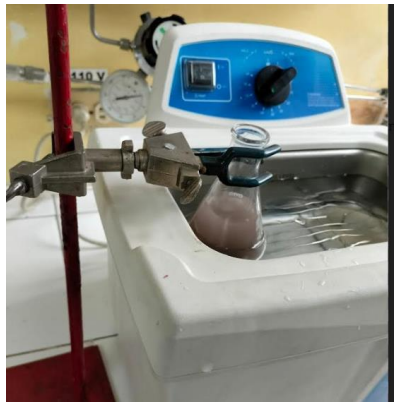
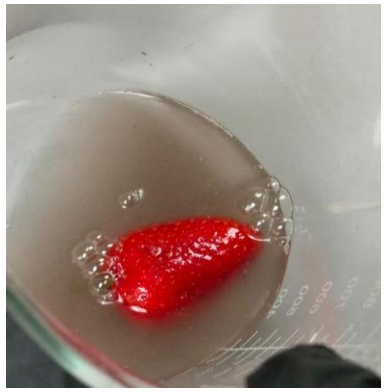
Síntesis de Nps Ag



Extracción de almidón de papa

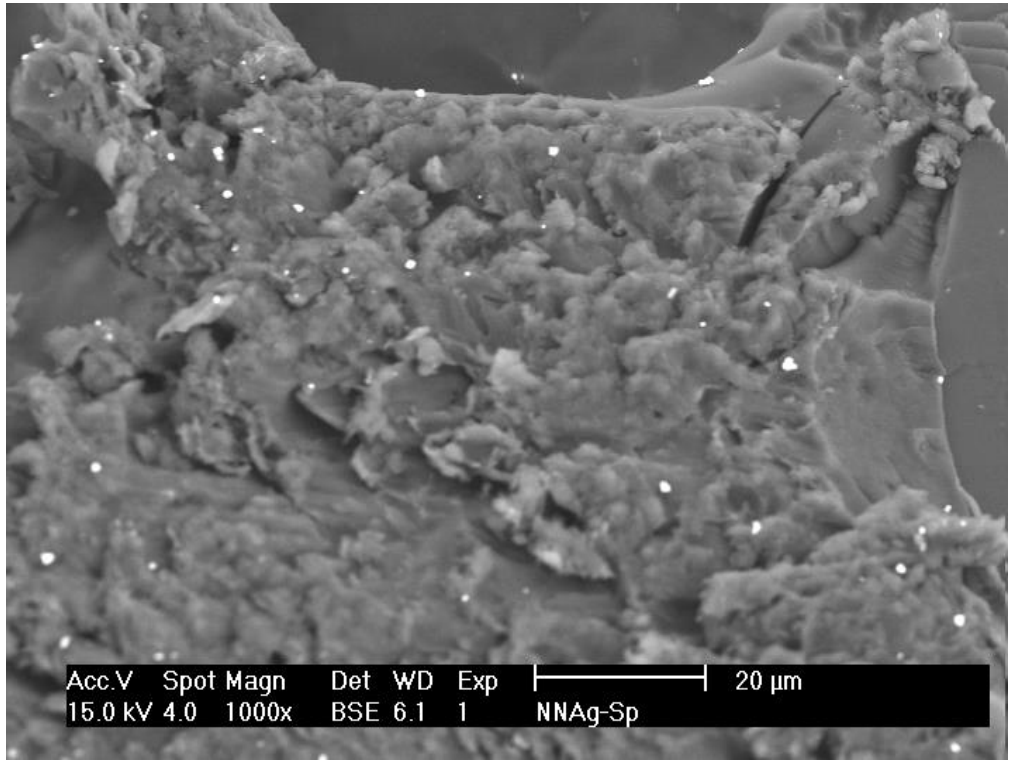


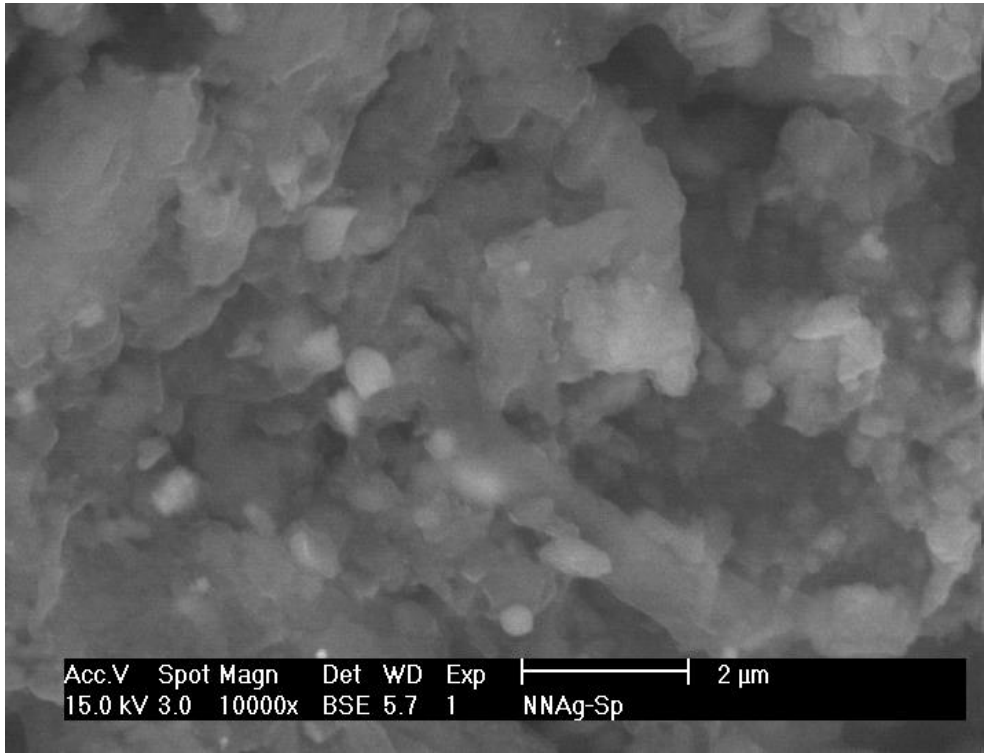
Elaboración de recubrimiento

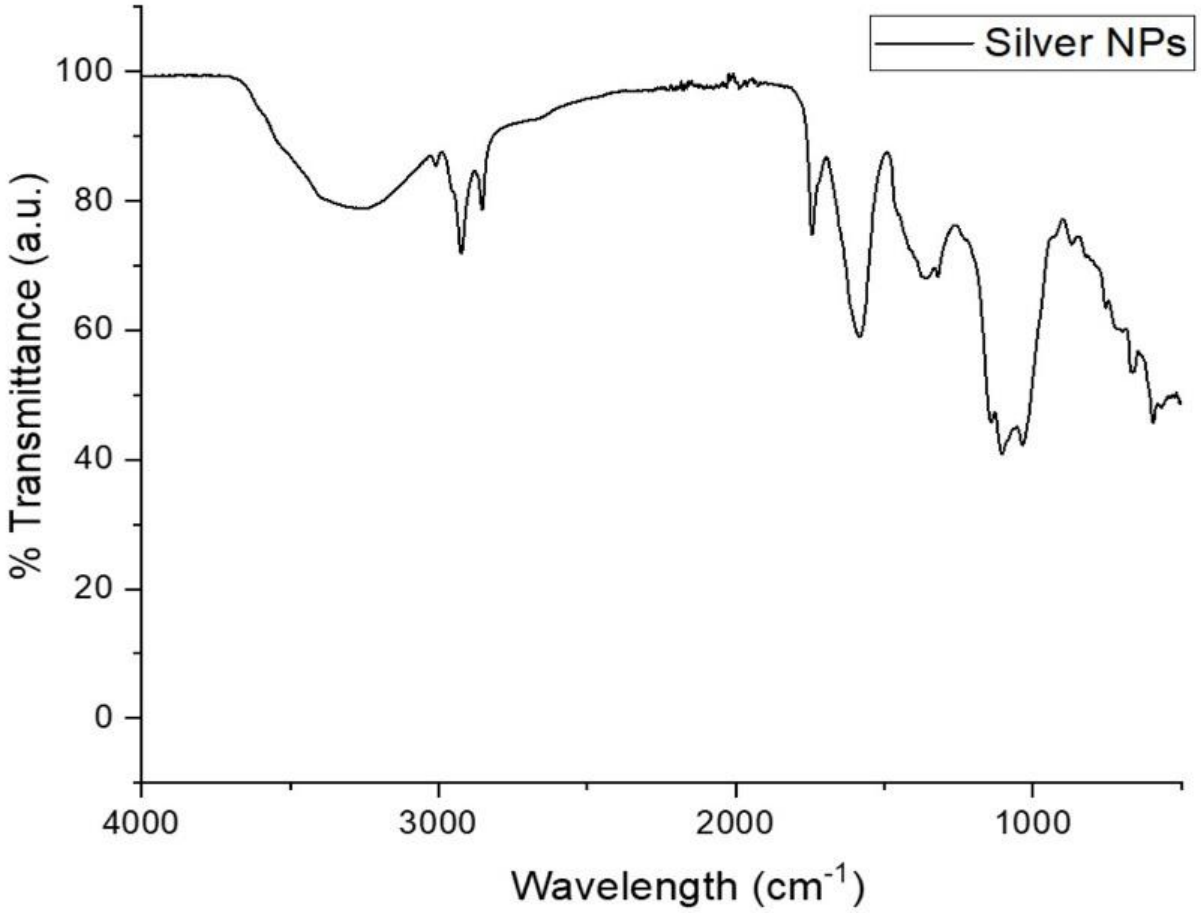

Results

Microscopia electrónica de barrido (MEB)



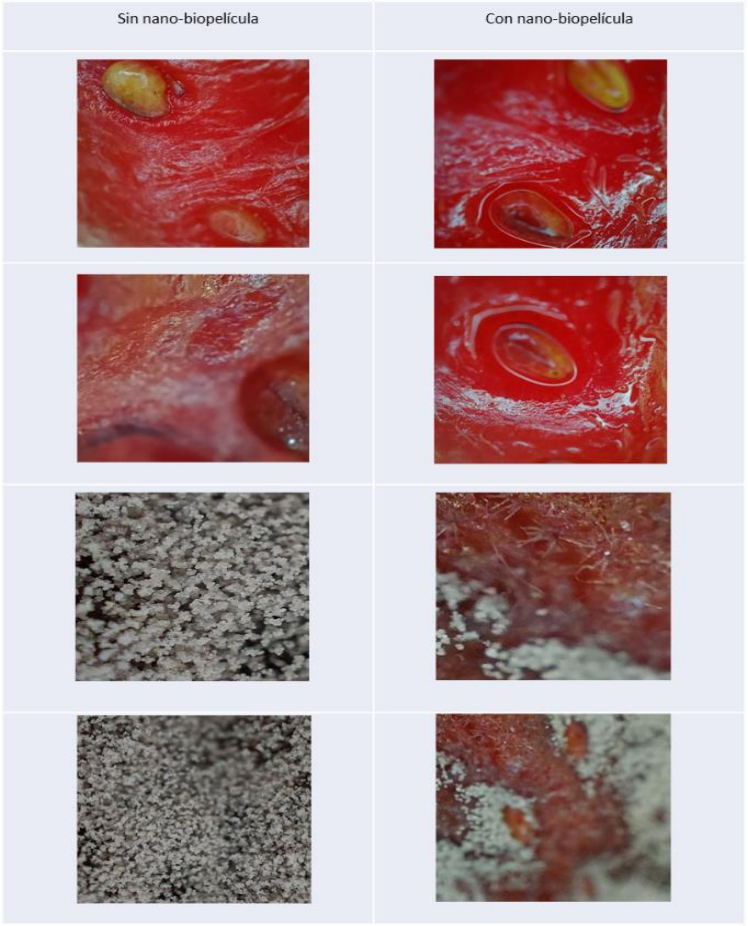


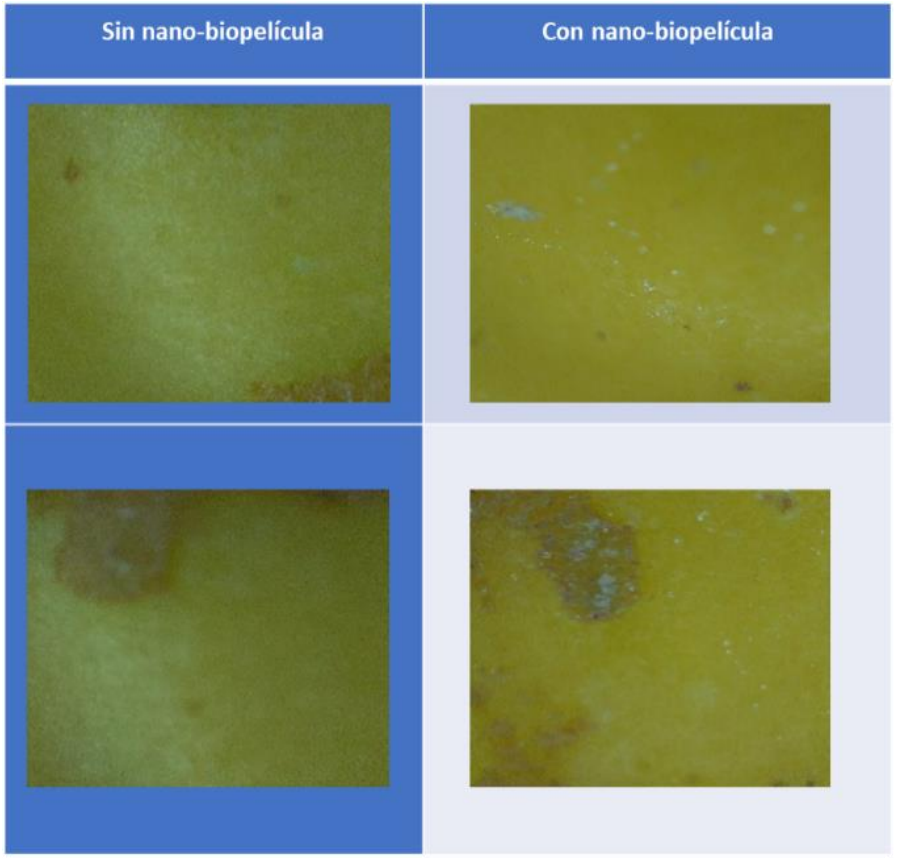
Espectroscopia de Infrarrojo (FT-IR)



Intensidad	Señal
3000-3900 cm^{-1}	Grupo O-H
2000 -2850 cm^{-1}	Tensión de C-H
1251-1255 cm^{-1}	estiramiento C-O

A nano-biofilm was elaborated using potato starch, with silver nanoparticles incorporated.





Conclusions

The development of the nano-biofilm based in the potato starch and silver has demonstrated to be a solution in the conservation of strawberries and apples. With the passing of the test and improvements, this product has a potential to change the food industry with the reduction of losses during the transport and storage, it would contribute to satisfy the increasing demand of food in a constant growth market.

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