

ACTIVE PACKAGING MADE FROM AGRI-FOOD WASTE

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RESUM

The Carbonaceous Materials and Environment research group at the University of Alicante has developed an innovative active packaging that makes use of waste from the food industry. These containers are made from activated carbon obtained from waste and have an excellent capacity to adsorb ethylene. Therefore, it is an ideal solution to delay the ripening of fruit and vegetables, making use of agri-food waste.

This technology is very interesting for agri-food companies that want to reuse their waste and generate products with high added value.

Companies interested in acquiring this technology for commercial exploitation are sought.

AVANTATGES I ASPECTES INNOVADORS

MAIN ADVANTAGES OF THE TECHNOLOGY

This technology has multiple advantages:

- Possibility of reusing waste that has no value and that generates an economic and environmental cost.
- The active packaging can adsorb the ethylene gas generated by food and which causes the acceleration of the degradation process.
- Increases the shelf life of food.
- Contributes to the overall reduction of food waste.
- The new process has a series of technical advantages over its predecessors, such as:
 - o More efficient method in which moisture content is not a drawback.
 - o Higher yields
 - o Shorter processing times
 - o Lower temperatures required for processing.
 - o More stable material
 - o Lower packaging saturation speed
 - o System integrated into the packaging itself
 - o Use of more sustainable chemical reagents.
 - o Possibility of being reused in successive processes.
 - o Lower replacement frequency due to high porosity
- Around 40% of the waste can be transformed into activated carbon and incorporated into the active packaging

cost, and turning it into an element of high	ology is the possibility of taking advantage of a waste the added value that can be used by the food industry its encreased, thus providing a new competitive element t	self to produce food packaging. In addition, this
All this is achieved with a more efficient pr	rocess that is easier to implement in the company's own	facility.
Fig 2. Packaging generated with new technology		
APLICACIONS DE L'OFERTA		
This technology is particularly interesting to	for the agri-food sector and, in particular, for fruit and	vegetable companies.
COL·LABORACIÓ BUSCADA		
Companies interested in acquiring this tecl • Knowledge licensing agreements.	hnology for commercial exploitation are sought throug	gh:
• R+D (technical cooperation) project agreement to undertake technology-related projects.		