Reference: Pistachos

METHOD FOR DRYING PISTACHIOS TO ACHIEVE PREFERRED ORGANOLEPTIC CHARACTERISTICS

Methods of the invention are directed toward specific management of three control parameters to produce pistachios with superior sun-dried flavors characteristics: internal pistachio kernel temperature, drying time and humity.

TYPE OF DEVELOPMENT

Method and apparatus for dying nuts.

DESCRIPTION

A new invention aims to increase the market value of closed pistachios by artificially opening them. Open pistachios are sold for culinary purposes, while closed ones are used for animal feed, energy generation, or grain production. The invention proposes a three-stage process that allows for the production of opened pistachios while maintaining their natural properties during the ripening process.

This process involves moistening the closed pistachio, drying it using bed-and-bowl technology, and cooling it to prevent deterioration of its nutritional and organoleptic properties. This innovative approach aims to maintain the natural properties of closed pistachios while reducing their price.

INDICATION

Spouted bed, a gas-solid contact technology, was initially developed for drying granular materials like closed pistachios, and has been successfully applied in pyrolysis, combustion, torrefaction, and gasification of polymers.

NOVELTY/ADVANTAGES

The invention takes advantage of the proven ability of spouted bed technology to handle large particles to propose a procedure for the artificial opening of closed pistachios consisting of wetting the pistachio, drying it in a spouted bed, and then cooling it to preserve its nutritional and organoleptic properties. pyrolysis, combustion, torrefaction, and gasification of polymers.

EHU
Euskal Herriko Unibertsitatea
Universidad del País Vasco

Research group: Mechanical Engineering

Main researcher: Martin Olazar Aurrecoechea &Xabier Sukunza Perez

Contact:
Knowledge/Technology Transfer Office, iproperty.otri@ehu.eus

IPR STATUS

Patent filing::

ES2966724 (Granted)

Priority date:

27/09/2022

Applicant: University of the Basque Country (EHU)

COOPERATION GOAL

License agreement .