

TERPENES PRODUCTION FOR PHARMACEUTICAL AND COSMETICS INDUSTRY

DISCLOSURE OF INVENTION

CSIC and IVIA have developed a new method for the production of terpenes useful for the pharmaceutical and cosmetic industry. Terpenes are used as insect repellents and are also used in fragrances in cosmetics and perfumery. They have succeeded in isolating the gene terpene synthase of *Citrus sinesensin*, to thereby be able to use it to transform bacterial cultures producing terpenes such that they are easily isolable and with high performance, substantially improved the available methods for production of terpenes.

INDUSTRIAL APPLICATION SECTORS

The invention is applicable in the pharmaceutical sector, but also within the cosmetics and perfumery industry. Mainly for any industry requiring the production of terpenes. More specifically it can be applied to:

- Production of insect repellents in the pharmaceutical industry.
- Production of fragrances for perfumes and cosmetics.
- Use as organoleptic additives for food and beverages.
- Any industry that needs to terpenes.

TECHNICAL ADVANTAGES AND BUSINESS PROFITS

This new method of obtaining terpenes allows better performance than the methods available. The use of biotechnological methods for the production of terpenes is more reliable and effective than other methods currently used, like chemical synthesis or distillation. It's more easily to obtain the compounds of interest. Using bacterial cultures to synthesize terpenes, the compounds of interest can be purified by simple methods, for later use by various types of industries.

Furthermore, the use of terpenes in mosquito repellent formulas main advantages compared to the other compound present in such products, which DEET. This compound has an unpleasant odor and can be irritating to the skin. You can also give adverse health effects, especially in children. Terpenes can eliminate these negative characteristics without affecting the effectiveness of these products, since they have a greater efficacy than synthetic repellents such as DEET.

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DEVELOPMENT STATUS OF TECHNOLOGY

The above-described technology is developed at experimental level. The above-described technology is developed experimentally. There are several studies on the reliability and reproducibility of the method for the production of terpenes

INDUSTRIAL PROPERTY RIGHTS

The technology for the production of terpenes is protected by patent. This patent is co-owned CSIC-IVIA.

TYPES OF COLLABORATION

Technology can be licensed to a company interested in producing terpenes for any industrial use. Potential stakeholders belong to the pharmaceutical industry, cosmetics and perfumery industry.

RELATED IMAGES



Image 1: The use of terpenes as insect repellents presents improved efficiency and avoids harmful effects against chemicals such as DEET.

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