Model-free Dynamic Conversion between FLAVOIDE and MESMA USE

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Technology description

This article
Ultraviolet light emitted by the sun has the most diverse effects on human skin, which are positive, such as vitamin D3 negative, such as loss of fluid and elasticity, redness, spots and, in the most serious cases, skin cancer (25 per cent of cancers in Brazil, according to INC).

To this end, some experts and the World Health Organization have pointed out that the use of sunscreen is ongoing. However, prolonged exposure can lead to chemical degradation and/or sunscreen penetration into the deepest layers of the skin, reducing their protective effect and possibly inducing the production of toxic species.

The invention provides a formula for increasing the light stability and the light protection ability of rutin and sunscreen while increasing the light protection ability of the product by using the nano-encapsulation technology. The innovation is to promote RUV protection by producing solid lipid nanoparticles (NLS) of products added with antioxidant active substances and ROS scavengers. They greatly increase the retention time of substances that are locally applied to the skin.
Field: Health and Personal Care 0021/2015 FCFRP Arctic Black
Foundation for the Investigation and Protection of the State of S ã o Paulo (FAPESP). "The opinions, assumptions and conclusions or recommendations presented in this material are the responsibility of the author and do not necessarily reflect the views of FAPESP."

Advantages

It can be used in the fields of chemistry, pharmacy, medicine, biotechnology and so on. The target audience is pharmaceutical and cosmetic manufacturers.
Figure: The photoprotective effect of rutin-doped solid lipid nanoparticles in human skin biopsies was studied by measuring total RUV-induced metalloproteinase levels. The photoprotective activity of rutin-doped solid lipid nanoparticles in vitro reconstituted skin biopsies was evaluated on the right by evaluating RUV-induced CPDs formation.

Institution

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