INNOVATIVE NATURAL FORMULATIONS FOR SKIN PROTECTION

New compositions for sun creams, based on plant extracts, with numerous advantages over traditional sun creams. These new formulations are able to improve cell viability, reduce ROS concentrations, increase antioxidant defenses, improve glycolysis and mitochondrial respiration, promote wound healing, lower the main markers of oxidative stress and inflammation in the cells of human dermis stressed with UV radiation or with an oxidizing chemical agent such as APPH (2,2'- azo-bis-(2-amidinopropane) dihydrochloride).

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KEYWORDS:
Anti-inflammatory action, Antioxidant action, Mitochondrial respiration glycosis, Plant extracts, Sunscreen.

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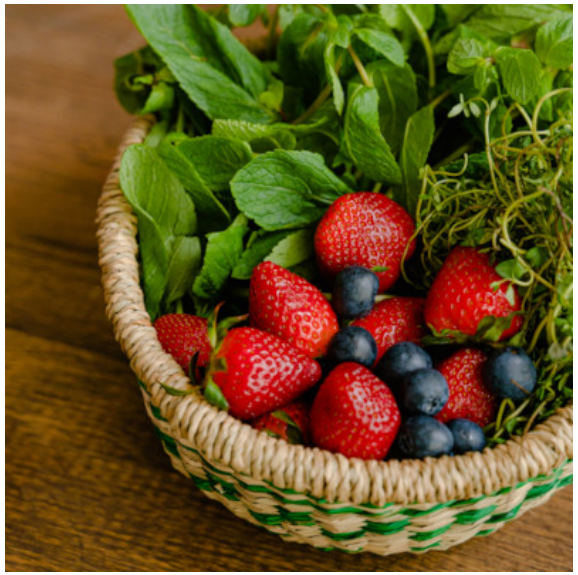
DESCRIPTION

The skin is our first line of defense against environmental insults and is constantly exposed to oxidative stress induced by oxygen free radicals (ROS) which are generally produced by external pro-oxidative stimuli, such as ultraviolet radiation, ozone or other pollutants present in the air. Among the processes attributed to being the most responsible for skin damage, great attention is paid to oxidative stress and exposure to sunlight. Therefore, the present invention relates to the development of: (i) a formulation based on polyethylene glycol, enriched with a concentrated extract of strawberry, blueberry and a mix of polyphenols and antioxidants (quercetin, vitamin E, Coenzyme Q10 and sun protection factor 10 (SPF10)) with high antioxidant and anti-inflammatory capacity for the protection of the skin against damage caused by ultraviolet radiation and (ii) a formulation composed of strawberries, blueberries, quercetin, vitamin E, Coenzyme Q10 with high antioxidant capacity and anti-inflammatory for the protection of the skin from damage caused by stressful environmental agents, such as oxidizing molecules.



APPLICATIONS

- Pharmaceutical industry;
- Cosmetic industry;
- Preparations for the care and protection of the skin.

ADVANTAGES

- Antioxidant action and reduction of ROS concentrations in human dermis cells stressed by UV radiation or oxidizing chemical agents;
- Anti-inflammatory action in human dermis cells stressed by UV radiation or oxidizing chemical agents;
- Improvement of glycolysis and mitochondrial respiration, and therefore of cell viability.