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A scenic photograph of the Alhambra in Granada, Spain, with the city's orange-tinted buildings and the Giralda tower. In the background, the Sierra Nevada mountains are visible, with a red color gradient overlaying the sky and the mountain peaks.

ABSTRACTS BOOK

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SYNTHESIS AND PROPERTIES OF NEW UV FILTERS

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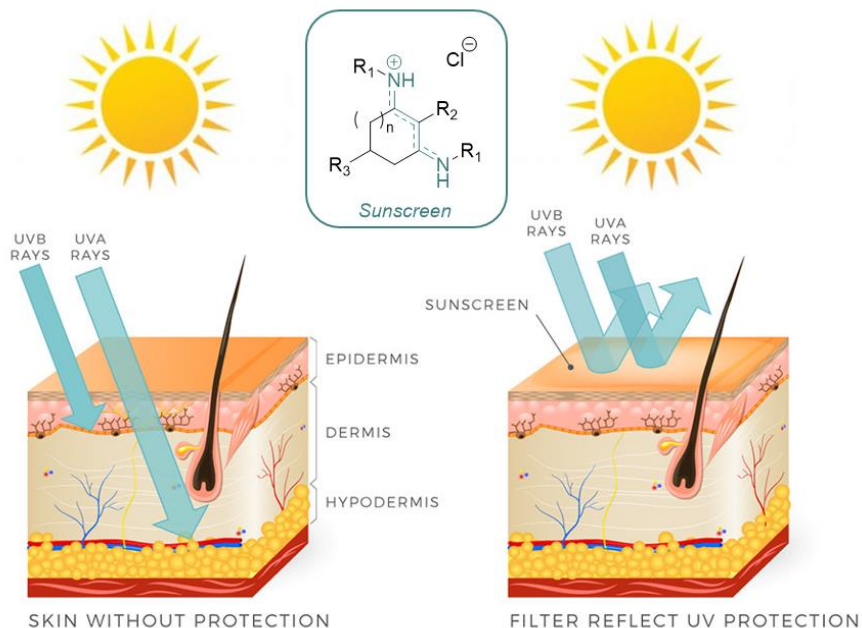
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Different types of sunscreens and UV filters are used to protect the organisms from the potentially damaging effects of UV light irradiation. [1] The atmosphere is not able to filter the UV-A wavelength (320-400 nm) which can cause photochemical reactions eventually causing skin aging, cancer or even death of the lifeforms. [2] In nature, evolution has provided living organisms with different techniques to cope with these effects. The design of artificial sunscreens should follow some requirements such as having a photo-, chemical and thermo stability, and efficient mechanisms for energy dissipation and, in recent times, to be ecofriendly.

In this study, we have analyzed the properties of different UV filters that we have synthesized based on the structure of natural protective molecules. The UV-Vis absorption properties, the photoprotection mechanism, the photostability of the molecules, and the ability to protect different surfaces were studied. Combinations with commercially available sunscreens with the aim of obtaining the best result of photoprotection were also considered.



References

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