

Identification of UV absorbing compounds in sea cucumber (*Holothuria atra*) and synthesis of synthetic analogues

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There are compounds in marine organisms to protect them from harmful UV A and UV B radiation. Specially Mycosporine-like Amino Acids are present in marine organisms to act as natural sunscreens and protect them from UV radiation.

This was carried out in order to identify natural sunscreens in sea cucumber (*Holothurian*) and synthesis of similar chromophore for that compound. Chemical and Physical properties of UV A and B absorbing compounds were also studied.

Pigments and MAA in sea cucumber were separated by column chromatography using different solvent mixtures by increasing the polarity.

It was found that UV absorbance of MAA in sea cucumber was around 320 nm. A chromophore could be synthesized around 370 nm using dimedone as the ketone and different aromatic amines.

A prilliminary account of the study of this reaction is described here.