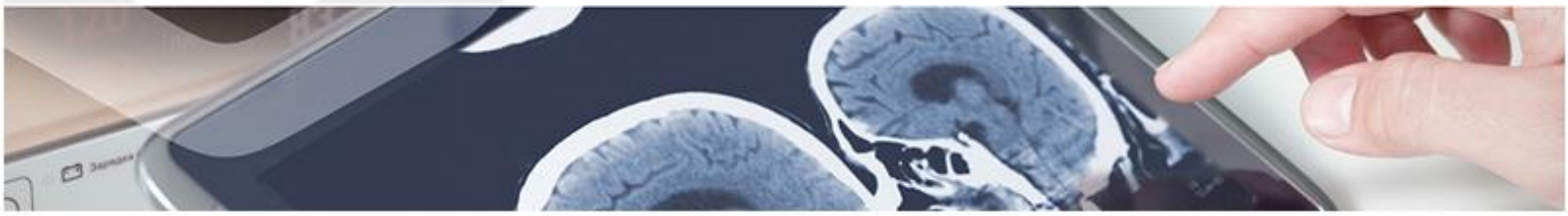
Device

Procedure and device for solar light intensity measurement based on shadow cast by an object.

A research group from the Andalusian Public Health System and University of Málaga (UMA) has developed an innovative device very useful for solar UV radiation measurement.

Oficina de TRANSFERENCIA DE TECNOLOGÍA
Sistema Sanitario Público de Andalucía



Description

Solar UV radiation produces skin diseases as erythema, skin photoaging or cancer. For this reason, UV radiation measurement has a strong interest in health.

Citizens must be aware of UV radiation risk. To make it easier, OMS has established UV index as a tool to inform about solar radiation with erythematic effect.

The research group has developed a new device to be used as solar intensity sensor. This device measures the incident solar irradiation using the shadow cast by an object (**Fig. 1**). The device mechanism is similar to a sundial mechanism. However, it is not necessary to make correction according to seasons or latitude.

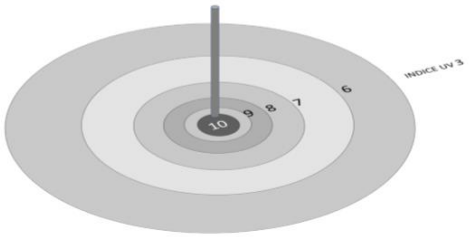


Fig.1 Device mechanism. Circular target with UV index. Distance between indexes has been calculated using a model equation. To stablish the scale, cast shadow is correlated with the potential global radiation value. The scale can be calculated for every region.

Advantanges

- It is a very easy and visual tool. It can be used to educate population about UV radiation damage.
- Solar intensity can be measured all year without any correction.
- It is an easy alternative to obtain accurate intensity data in every location where it is installed.

Intellectual Property

This technology is protected by national patent application.

Aims

The research group is looking for partnership and/or license agreement.

Classification

Area: Device / Prevention.

Pathology: Dermatology.

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