SOLAR RADIATION WAVELENGTH, VISIBILITY & TEMPERATURE

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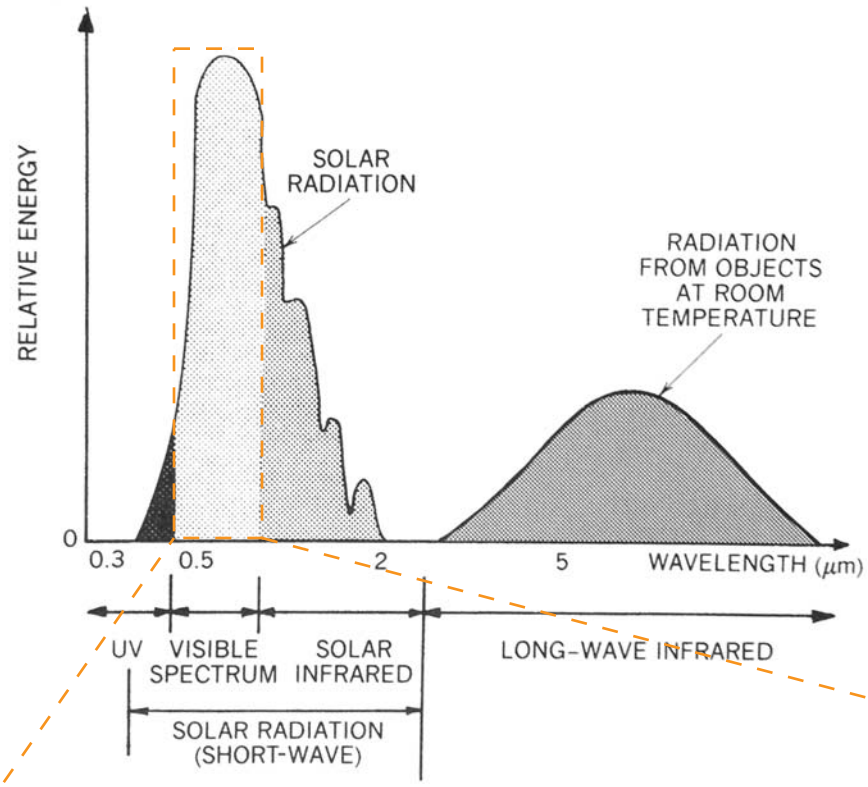
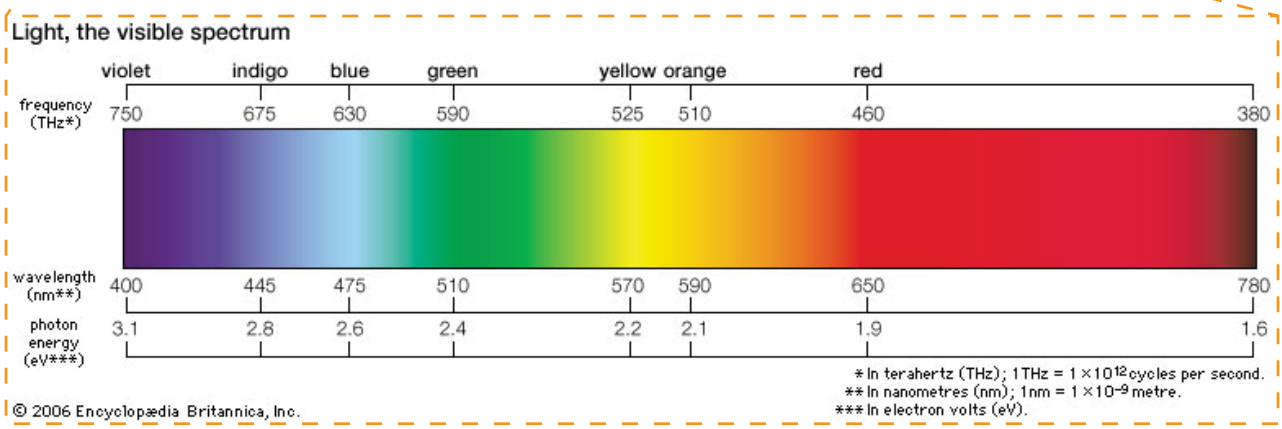


Sunlight can be broken down into three main components, about 5% ultraviolate (UV) radiation, 45% visible light and 50% solar infrared radiation. Typically, the shorter the wavelength the greater the frequency and energy it contains.

UV Radiation entering buildings is just as critical to manage as it is for human skin. Just as extended exposure to UV radiation can cause skin diseases and expediated aging in humans, it can also cause colors and fabrics to fade or deteriorate.

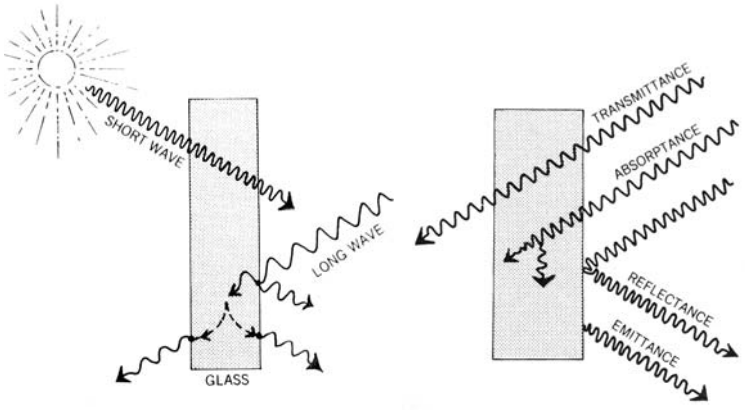
Visible Light as the term indicates is the solar element that is visible to the human eye. It constitutes abroad spectrum of colors based on the wavelength

Infrared Radiation is the heat producing quality of sunlight.



When the waves of solar radiation interacts with a mass, it will behave differently depending on the properties of the object.

For example, when sunlight interacts with a pane of glass, all elements of short-wave radiation will pass through the glass. However, when sunlight interacts with a solid mass, for example a concrete wall; ultraviolet radiation and visible light are unable to pass through. However heat from infrared radiation is absorbed by the material and reflected, transmitted, or emitted into the surrounding space.



Sources

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