

Red Light Spectrometer



Article Overview

A red light spectrometer is a device that measures the wavelength, irradiance, and intensity of red and near-infrared light, essential for accurate testing of red light therapy devices.

What It Does

Red light spectrometers, such as the Hopoocolor OHSP-350-IRF, are designed to measure specific wavelengths of red (630–660nm) and near-infrared (810–850nm) light, which are commonly used in red light therapy for skin, muscle, and deep tissue applications. These devices provide precise readings of irradiance (power per unit area), dominant wavelength, and spectral distribution, ensuring that therapy devices deliver the intended energy for therapeutic benefits.

Key Features

- **Portability:** Many spectrometers are handheld and compact, slightly larger than a smartphone, making them easy to transport to clinics or events.
- **Measurement Range:** Advanced models can measure into the near-infrared range up to 1100nm, capturing newer devices that emit longer wavelengths.
- **Data Storage and Connectivity:** Devices often include built-in memory (e.g., 8GB microSD) and USB-C ports for data transfer and charging.
- **Accessories:** Typically come with spare sensors, cables, and protective cases for safe handling and accurate readings.

Applications...

Article Content

IR Spectrometers

IR Spectrometers Spectrometers that measure the interaction of infrared radiation with matter by absorption, emission, or reflection,

Visible spectrum

An example of this phenomenon is when clean air scatters blue light more than red light, and so the midday sky appears blue (apart

Small Red Light Therapy Device with 7 Wavelengths

Total Spectrum MINI A small, easy-to-use, safe, and sturdy red light therapy device with 72 LEDs, ideal for targeting smaller body

1.6: Spectrophotometry

Introduction Spectrophotometers are one of the most frequently used tools by scientists to determine both the presence and

Spectrometer Basics

What is Spectroscopy? Spectroscopy is a scientific measurement technique that investigates and quantifies the interaction of a light

Visible spectrum

Visible-light spectroscopy is an important tool in astronomy (as is spectroscopy at other wavelengths), where scientists use it to

Near-infrared spectroscopy

Near-infrared spectroscopy is based on molecular overtone and combination vibrations. Overtones and combinations exhibit

How Do Spectrometers Work? Spectrometer vs. Spectrophotometer

If the spectrometer has a large spectral range, it may also have filters to stop higher order light from reaching the sensor. Most

Electromagnetic spectrum

Longer-wavelength radiation such as visible light is non-ionizing; the photons do not have sufficient energy to ionize atoms.

UV-Visible Spectroscopy

Thus, absorption of 420-430 nm light renders a substance yellow, and absorption of 500-520 nm light makes it red. Green is unique

Optical spectrometer

Grating spectrometer schematic Internal structure of a grating spectrometer: Light comes from left side and diffracts on the upper

Amazon : Light Spectrum Meter

Discover full-spectrum light analyzers measuring 380-780nm. Essential tools for horticulture, design, and lighting professionals.

Spectrometer

Optical spectrometers (often simply called "spectrometers"), in particular, show the intensity of light as a function of wavelength or of

Infrared spectroscopy

Infrared spectroscopy (IR spectroscopy or vibrational spectroscopy) is the measurement of the interaction of infrared radiation with

Is there a way to test that a lamp/device actually produces ...

They use cheap solar panel meters that give inaccurate readings for LED panels. Realistically these panels only put out 25-35% of

Large Red Light Therapy Device with 7 Wavelengths

A robust, easy-to-use, safe, and sturdy red light therapy panel with 360 LEDs, designed for larger body areas. This stand-straight

Contact Us

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