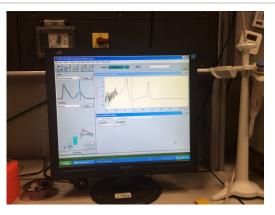
Name

UV-Visible spectophotometer Agilent 8453

Description



UV-Visible Spectophotometer Agilent 8453 acquire the full spectrum (190-1100nm) less of 1 second. Its radiation source is a combination of a deuterium- discharge lamp for the ultraviolet (UV) wavelength range and a tungsten lamp for the visible and short wave near-infrared (SWNIR) wavelength range.

In the spectrophotometer, light is dispersed onto the diode array by a holographic grating. This allows simultaneous access to all wavelength information. The result is a high rate at which spectra can be acquired.

Wavelength range: 190-1100 nm

Slit width: 1 nm

<u>Wavelength accuracy</u>: $< \pm 0.5$ nm (0.5-second scan); $< \pm 0.2$ nm (at 486.0 and 656.1 nm)

Wavelength reproducibility: < ± 0.02 nm (ten consecutive scans)

<u>Photometric stability</u>: < 0.001 A/h (at 0 A, 340 nm, after 1-hour warm up, measured over 1 hour, every 5 seconds, constant ambient temp.)

<u>Baseline flatness</u>: < 0.001 A (0.5-second blank, 0.5-second scan, rms)

<u>Typical scan time</u>: 1.5 second (full range)
<u>Shortest scan time</u>: 0.1 second (full range)

<u>Time until next scan</u>: 0.1 second (full range, 0.1-second scan, up to 150 consecutive scans)

Services

The spectrophotometer is used for the measurement of the light absorption of UV-visible mixture or standard to obtain the exact concentration of our compound of interest.

It is also used for the measurement of Margalef's index, a ratio between pigments, a good indicator of phytoplankton condition.