

#### **TECHNOLOGICAL LEADER IN SPECTROSCOPY SINCE 1952**

...YOUR ANALYSIS DESERVE OUR PERFORMANCES

## SAFAS UVmc2: A TRUE SYMMETRICAL DOUBLE-BEAM UV-Vis SPECTROPHOTOMETER

SAFAS UVmc2: a true double-beam UV-Visible spectrophotometer, symmetrical and simultaneous, fully PC driven, with auto-centering of lamps... an affordable technological jewel.



You have decided to purchase a double-beam spectrophotometer; it means that you are looking for quality measurements, and probably are you subject to stringent rules, standards and Quality Requirements...

You want the latest technologies; but beware the drawbacks of some cheap technologies, sometimes presented as if they were innovations... while in reality, they just improve the manufacturing costs and the margins of the sellers.. You certainly also want a rugged and reliable instrument, with traditional optics and long term reliability, without undergoing the problems due to old-fashioned solutions.

Finally, you demand an user friendly software, fitted with all the possibilities of data processing and exports.



Spectrophotomètre SAFAS UVmc2

# IF THESE ARE YOUR REQUIREMENTS, THEN YOU NEED OUR UVmc2!

The UVmc2 series are fitted with the latest technologies, electronics and data-processing, and powerful software, but they also include traditional high quality optics and superb mechanics, for a long-lasting high performance at the lowest possible ownership costs. Designed by SAFAS, the inventor of the world's first UV-Vis spectrophotometers with grating monochromator (double beam, in 1958), these technological jewels are the fruits of a 62 years experience in high level spectroscopy.

## A TRUE DOUBLE-BEAM

SAFAS UVmc2 spectrophotometers are fitted with a **genuine double-beam**, which means that it is 100% symmetrical: the photometric range is consequently also symmetrical, from -4A to +4A.

The old choppers with rotating mirrors, which fitted the 1958's SAFAS first double-beam spectrophotometer, have been replaced by a new generation **static divider**, thus eliminating corresponding wearing part, and enabling the instrument to remain a true double-beam even during spectra scans.

Thanks to innovative technologies developed and used by SAFAS since more than 10 years, UVmc2 series are **able to work with sample compartment opened**, and enable to add reagents during measurements.

## **DAILY AUTO OPTIMISATION OF THE INSTRUMENT**

UVmc2 spectrophotometer is fitted with long life and low heat deuterium and tungsten lamps, with **full automatic centering for an optimized accuracy and energy, day after day**. They involve no thermal drift, and bring immediate stability after autocalibration, without any need to wait for pre-heating.

#### **OPTICAL EXCELLENCE**

Last but not least, UVmc2 are fitted with **superb optics**, exclusively mounted on **aluminium holders and basis (no plastic!)**, without any lense, and without any fiber optic. Its wide numeric aperture (f/3) provides a very high energy and excellent signal to noise ratio. Obviously the beams are microfocused, so as to avoid energy losses in microvolumes.

## YOU CAN WORK ON SAMPLES OF 1µl or 5µl

An option will enable you to work on samples of 1µl or 5µl (for example for **BIO applications, DNA, RNA**, proteins, oligonucleotids, and all the automatic processing methods are supplied) as well as 50µl (disposable UV cuvettes) and 10 classical cuvettes (macro or micro), without having to add any accessory, and without any dismantling.

The software for PC computer are easy to use and really powerful, including:

(depending on options)

- -spectra with many graphic functions and data processing: curve overlay, multizoom, automatic peak and valley search, curve combinations, calibration curves, derivatives up to 6th order, spectra kinetics with 3D display, etc...
- -kinetics on 10 cuvettes at up to 10 wavelengths with regressions (linear or not), automatic calculation of speed, derivatives, etc...
- -unlimited calibration curves, linear or not
- -easy export of methods and results to spreadsheets or external software
- -easy save of methods and curves, by name and/or numbers
- -complete software for following up important series of samples with identification, replicates, automatic blanks, synchronisation with extrenal samplers, protection by password, etc...
- -complete utilities for hospital diagnosis (biochemistry, hematology, toxicology, etc...)

Obviously, the software is compatible with XP, Vista, Windows 7 and Windows 8; and the updates and upgrades are free of charge for instrument's life, according to our Sustainable Spectroscopy (TM) exclusive concept.



UVmc2 series conform to all requirements of **European Pharmacopoeia**, and an optional software is available for our customers which need to conform to **FDA CFR 21 part 11**.

SAFAS has also developed a kit of standards and an automatic validation software, so as validations (NIST or EP) can be easily achieved in minutes by the user.

Last but not least, UVmc2 has a very small footprint: just 45cm.

### Some technical features:

spectral range 185 to 1100 nm, accuracy +/-0.1nm, repeatability +/-0.01nm

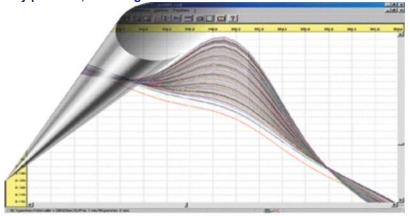
bandwidth 2nm, or 1nm, or 0.5nm

spectra scan up to 7000nm/minute, and up to 1 point every 0.1nm

multi-cuvette holder ultra fast, LINEAR (not rotative!), for 10 aligned cuvettes, with temperature control and stirring (options)

straylight <0.02% at 220nm and 340nm (ASTM), and conforming to European Pharmacopoeia at 198nm

beams microfocussed for maximum energy on microvolumes



sources

tungsten-halogen and deuterium, long life with automatic centering

communication port USB standard, RS232 (obsolete) upon request

SAFAS - MANUFACTURER OF SPECTROPHOTOMETERS (UV, VISIBLE, ATOMIC ABSORPTION, INFRA-RED, FLUORESCENCE), SPECTROFLUOROMETERS, LUMINOMETERS, MULTIDETECTION MICROPLATE READERS, ELISA, ANALYZERS

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