



TECHNOLOGICAL LEADER IN SPECTROSCOPY SINCE 1952

... YOUR ANALYSIS DESERVE OUR PERFORMANCES

SAFAS UVmc1 spectrophotometer : the price and use of a single beam, with double-beam quality

The SAFAS UVmc1 is used like a single-beam, has the price of a single beam, but also the performance brought by its internal double-beam. As it is evolutive, in case you would require tomorrow a true double-beam, you may turn your UVmc1 into our highly-reputed UVmc2 when you will have a complementary budget.



Today, your needs and/or budget is limited; that's why you are currently looking for a single beam spectrophotometer. But you don't want to undergo the drawbacks of some cheap solutions used by some manufacturers to decrease their manufacturing costs. You also you wouldn't like to spend a lot in spare parts and repairs, just because you purchased a cheap unit.

You also wouldn't accept to have mistaken measurements... Maybe are you subject to **stringent rules, standards and Quality Requirements...**, and you wouldn't like to have non-conformities detected on your instrument.

Because you are also careful about ownership costs, you 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.



IF THESE ARE YOUR REQUIREMENTS, THEN YOU NEED OUR UVmc1 !

The UVmc1 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.

AN EVOLUTIVE INTERNAL DOUBLE-BEAM

UVmc1 is fitted with an internal double-beam; it means that you use it as simply as a single-beam, but it has the **optical quality and the measurement sensitivity of a double-beam** for most of applications. Moreover, **UVmc1 is evolutive** : if tomorrow your analysis require a true double-beam measurement, then you will be able to turn your UVmc1 to an UVmc2, for a very reduced amount. This is the SAFAS evolutivity!

UVmc1 CAN WORK COMPARTMENT OPENED, WITHOUT THE MAJOR DRAWBACKS OF A XENON LAMP!

Thanks to innovative technologies developed and used by SAFAS since more than 10 years, UVmc1 series are **able to work with sample compartment opened**, and enable to add reagents during measurements.

DAILY AUTO OPTIMISATION OF THE INSTRUMENT

UVmc1 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, UVmc1 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 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...

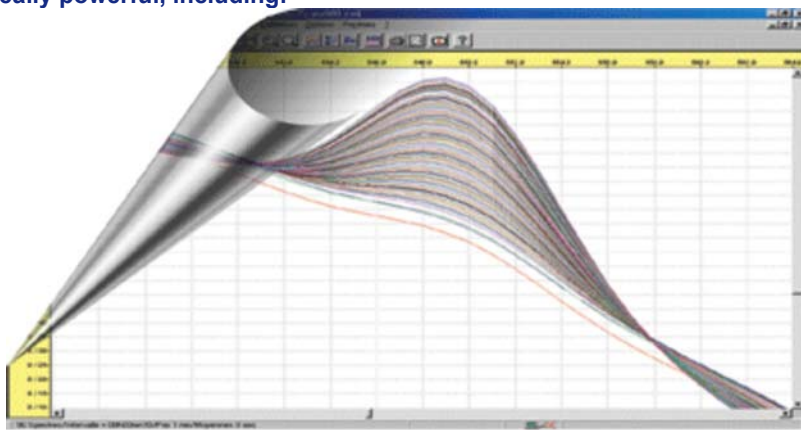
- unlimited calibration curves, linear or not

- 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 external samplers, protection by password, etc...

- complete utilities for hospital diagnosis (biochemistry, hematology, toxicology, etc...)



QUALITY AND VALIDATION:

UVmc1 series conform to all requirements of **European Pharmacopoeia EP5.2, EP5.8 and EP6.2** (entering in force on 1/1/2008), 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 EP5.2) can be easily achieved in minutes by the user.

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

Some technical features:

technology	price and ease-of-use of a single beam, quality of the internal double-beam
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 5.2 at 198nm
beams	microfocussed for maximum energy on microvolumes
sources	tungsten-halogen and deuterium, long life with automatic centering

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

SAFAS Monaco - Société Anonyme de Fabrication d'Appareillages Scientifiques

Head Offices : 10, quai Antoine 1er - MC 98000 Monaco

Deliveries and pick-up : 9, avenue de la Quarantaine - MC 98000 Monaco

Phone : **+377 99 99 52 52** - Fax : **+377 99 99 52 50**

Customer service : **+377 99 99 52 52** | eMail: safas@safas.com

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