



**LEADER TECNOLOGICO IN SPETTROSCOPIA DAL 1952**  
...LE SUE ANALISI MERITANO LE NOSTRE "PERFORMANCE"

## 63 anni di novità in spettroscopia e medicina

**SAFAS : half a century of strong involvement in high level spectroscopy, with the introduction of a lot of breakthrough technologies.**

*Siamo spiacenti, questa pagina non è ancora disponibile in Italiano.*

### SAFAS, MORE THAN HALF A CENTURY OF MAJOR BREAKTHROUGHS IN SPECTROSCOPY AND MEDICINE

Since 1952, SAFAS has been exporting scientific instruments in many countries all around the world, and has always been investing in research and development of new products and technologies, to always get the best performance and reliability.

**SAFAS has gained a name in spectroscopy and medicine, thanks to the introduction of many breakthrough technologies which have become standards on the market.** And thanks to exceptional reliability and ruggedness, SAFAS has also a strong reputation of manufacturer of quality instruments, with low ownership costs and legendary evolutivity.

SAFAS® is highly specialized in high reliability instruments, for all demanding users and for severe conditions of use: nuclear, military, pharmaceutical and medical applications are some fields in which our reliability is very appreciated.

***Today, like yesterday, our instruments are featuring outstanding performances, regularly rising the bar and leading the way to the future... selecting a SAFAS instrument means choosing tomorrow's technologies, and this is not a simple commercial argument, but a reality which is proved by our history.***

**Here are some of the major breakthroughs introduced by SAFAS® :**



**1952** SAFAS® OXYMETER and OXYGRAPH® were the **world's first instruments allowing on-line blood monitoring during surgeries, moreover with noninvasive technology, and with a real-time display of data.**

**They saved a lot of lives**, enabling accurate follow-up of blood oxygenation during the most difficult surgeries, and became a standard in many hospitals.

They also enabled to achieve the world's first heart catheterism (Pr GIRAUD), the first "alive" measurement of residual lung volume (Pr BALMES), and the achievement of the first artificial kidney (Pr.J.HAMBURGER).

**1958** SAFAS® SPECTRALUX® 1800 was the first UV-Vis grating spectrophotometer in the world, double-beam, and which probably marked the end of prism era in spectroscopy.

SPECTRALUX® 1800 was introducing a lot of major breakthroughs, particularly:

- electronic central display of all parameters, including wavelength, bandwidth, ABS and T%
- user-selectable bandwidth from 0.1 to 20nm, constant among full wavelength range
- nitrogen inlets enabling measurements down to 170 nm
- very low straylight from 170nm to 1000nm thanks to the first straylight-filter turret
- automatic scan with user-selectable speeds, user-selectable response time and graphic pen recorder
- the first built-in validation system: a 3rd source, a spectral mercury lamp, for Wavelength control



*...now, excepted the computer, is your modern instrument better than 1950's SAFAS® SPECTRALUX® 1800 ? Not really? Then why don't you have a look at SAFAS® modern spectrophotometers? They really bring to modern spectroscopy as much as SPECTRALUX® 1800 brought in the 1950's... You will really discover the meaning of the word "performance".*

**1959** SAFAS introduces the world's first spectrofluorometer fitted with 2 GRATING MONOCHROMATORS.

This was another breakthrough which opened new ways in fluorescence, with unparalleled sensitivity. Fitted with a 450 Watts

Xenon lamp, variable slits on energisation and emission monochromators, variable scan speeds and recorder... 40 years later, the new SAFAS spectrofluorometers are again introducing new standards in fluorescence.

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**1968** The world's first automated dissolution testing spectrophotometer for pharmaceutical use was introduced, with automatic 10 cells holder, 8 flow cells, 8-channel peristaltic pump, 8-way recorder, and programmable cycling times.

**1984** The picture shows the second generation of dissolution testing analysers, which was also **the first computer-driven dissolution testing analyzer** in 1984.

This instrument, fitted with a powerful and evolutive software, was selected and used with great satisfaction by a lot of pharmaceutical groups, opening the way to the strong involvement of SAFAS in pharmaceutical and veterinary labs.

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**1988** the first generation of SAFAS® D.E.S.® spectrophotometers was introducing a new concept of spectroscopy: no more buttons or displays on the instrument, everything being fully and exclusively controlled by a PC compatible computer through RS232 I/O.



Considered as unrealistic at that time, that concept has rapidly widespread to most of high level instruments on the market. With very nice and innovative design, D.E.S.® spectrophotometer was already -and is always!- featuring the highest performances on the market: speed up to 10000nm/minute, kinetics up to 100points/second, high speed full-numeric signal processing (more than 100.000 measurements/second), capability to work compartment opened, unparallelled signal/noise ratio, nitrogen option to get down to 170nm, optional device for double-beam fiber optics measurements, optional full protection against radioactivity, etc...

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**1991** the first device enabling distant fiber optics double-beam measurements without loss of sensitivity, with all features for use in glove-boxes or in nuclear plants.

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**1995** UV mc2® spectrophotometer is the first high performance double-beam spectrophotometer at the price of a routine instrument.

With spectra scans at up to 7000 nm/minute, kinetics at 50 pts/sec, 10-samples cell holder with stirring, high speed numeric data processing (100.000 measurements/second), full automatic wavelength calibration and sources centering, fully PC controlled... and much more!!

The last generations of UVmc2 are now featuring much more, including conformity to Pharmacopoeia EP6.2 (2008), FDA 21CFR part 11, automatic validation on certified standards, and powerful software.

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**1997** SAFAS® new high performance flx SPECTROFLUOROMETER, with 2 high speed scanning monochromators, variable slits, high speed 10-cells linear automatic holder, stirring on all the cuvettes, continuously variable slits on both monochromators, instrumental correction and unparallelled sensitivity...

The SAFAS flx was already able to work open, thus bringing unparallelled ease of use to all the users wishing to inject reagents during measurements.

**The SAFAS flx was again a big revolution in the field of spectrofluorescence in cuvettes.**

Fitted with an amazing sensitivity, and particularly on the most difficult samples, the flx has become a reference.

Its technologies have been transferred and improved again on our next generation of high level spectrofluorometers: the SAFAS Xenius.

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**2000** SAFAS introduced the **world's first voice controlled spectrophotometers and spectrofluorometers.**

Especially designed for the persons working with gloves, or involved with contaminating or radioactive molecules, this voice control enables to drive everything in the instrument without touching the keyboard or the mouse, and even to receive voice comments and answers from the computer.





**2001** SAFAS introduces the **world's first grating monochromator multidetection system**.

The SAFAS flx Xenius was also the first multisample system: Absorbance, Fluorescence, Luminescence and Phosphorescence, on Microplates, Cuvettes, Powders, Solids, Integrating Sphere and Fiber Optics, with automatic polarizers for anisotropy, and based on high quality grating monochromators, and with all options available without any dismantling !

This was our first version of Xenius, which has meanwhile received a lot of developments, and become a very strong reference on the market of spectrofluorescence, particularly in cuvettes and in microplates.

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**TODAY** WE ARE PROUD TO CELEBRATE 1/2 CENTURY OF BREAKTHROUGHS IN SPECTROSCOPY AND MEDICINE...

In 2015 SAFAS wins the Trophy of Innovation in Paris, among the 76 best international scientific innovations which were competing. We are particularly proud of this success.



We are grateful to all the customers who regularly asked us to reach new levels of sensitivity, of speed and data processing, leading us on the way of the highest level in instrumentation.

*...This is also the best moment for you to purchase your first SAFAS® spectrophotometer or spectrofluorometer, if you don't already have one!*

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**2034** your 2014 SAFAS® spectrophotometer will probably always be working perfectly, SAFAS® engineers will probably always have spare parts available for your former millenium instrument, and agree to make maintenance, we will certainly have free software upgrades compatible with it, and you will probably be very happy of your choice... After all, your company saved a lot of money thanks to you!

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**SAFAS S.A.: a company never sold (and not for sale), always accumulating a 62 years experience in high technology...**

**... a unique stability, which can be compared to its instruments one!**

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**[CLICK HERE TO HAVE A LOOK AT SOME OF OUR MOST PRESTIGIOUS REFERENCES](#)**

**[CLICK HERE TO HAVE A LOOK AT SOME OF OUR PARTNERS](#)**

**[CONTATTO o RICHIESTA DI INFORMAZIONI](#)**

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**SAFAS** - FABBRICANTE DI SPETTROFOTOMETRI (UV, VISIBILE, INFRA-ROSSO, ASSORBIMENTO ATOMICO), SPETTROFLUORIMETRI, LUMINOMETRI, LETTORI DI MICROPIASTRE, ANALIZZATORI

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