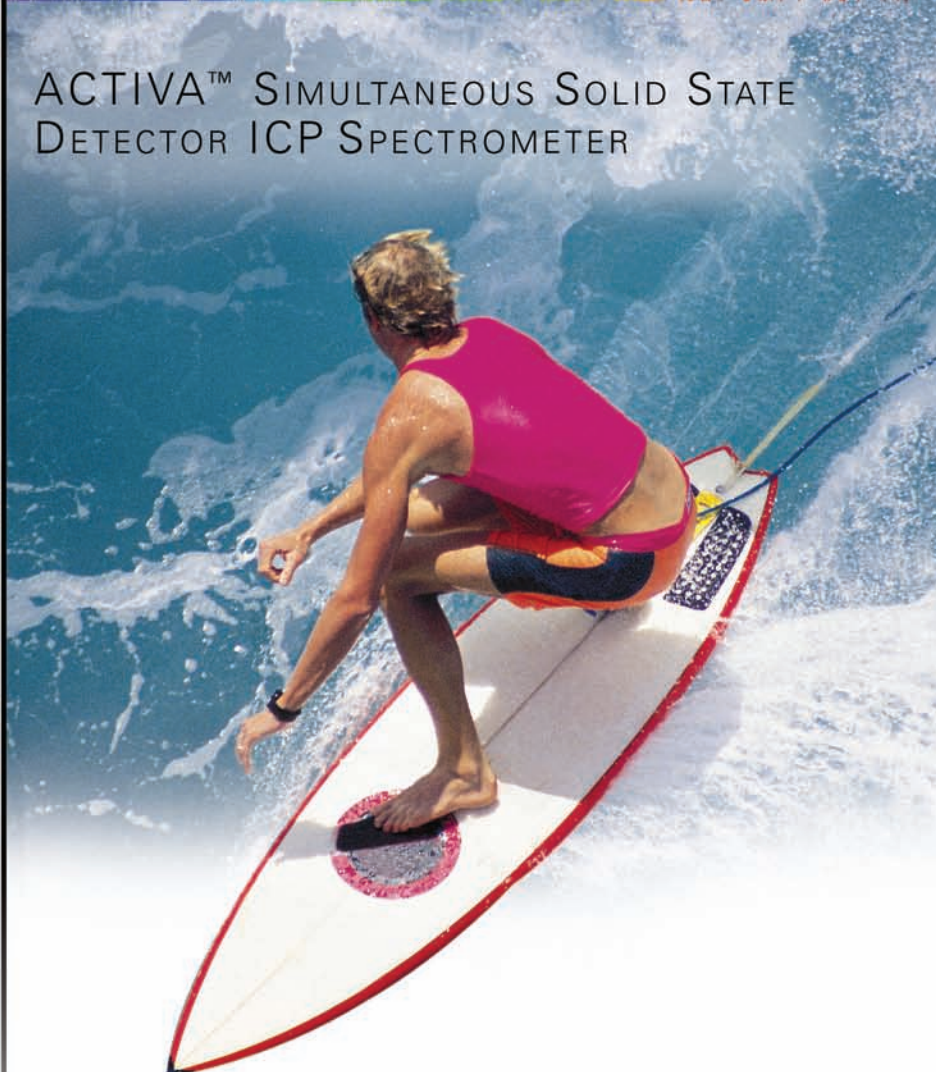


HORIBA JOBIN YVON



***This is the WAV*
you've been waiting for!***

ACTIVA™ SIMULTANEOUS SOLID STATE
DETECTOR ICP SPECTROMETER



**Maximize your productivity,
flexibility and quality**

ACTIVA

ACTIVA Simultaneous Solid State Detector ICP Spectrometer

Maximize your productivity, flexibility and quality...

ACTIVA™ is a simultaneous ICP spectrometer based upon **A Platform for the Future™** maintaining the strengths of HORIBA Jobin Yvon spectrometers while incorporating new Advanced CCD Technology to improve speed and analytical throughput. It is a new concept in simultaneous CCD ICP spectrometers in that it provides productivity without sacrificing quality or flexibility.

Productivity

SimShot provides simultaneous analysis of multiple elements at multiple wavelengths and background within a Wavelength Analytical View (WAV). Multi-WAV acquisition fingerprints your sample for 75 elements in less than 30 seconds.

Flexibility

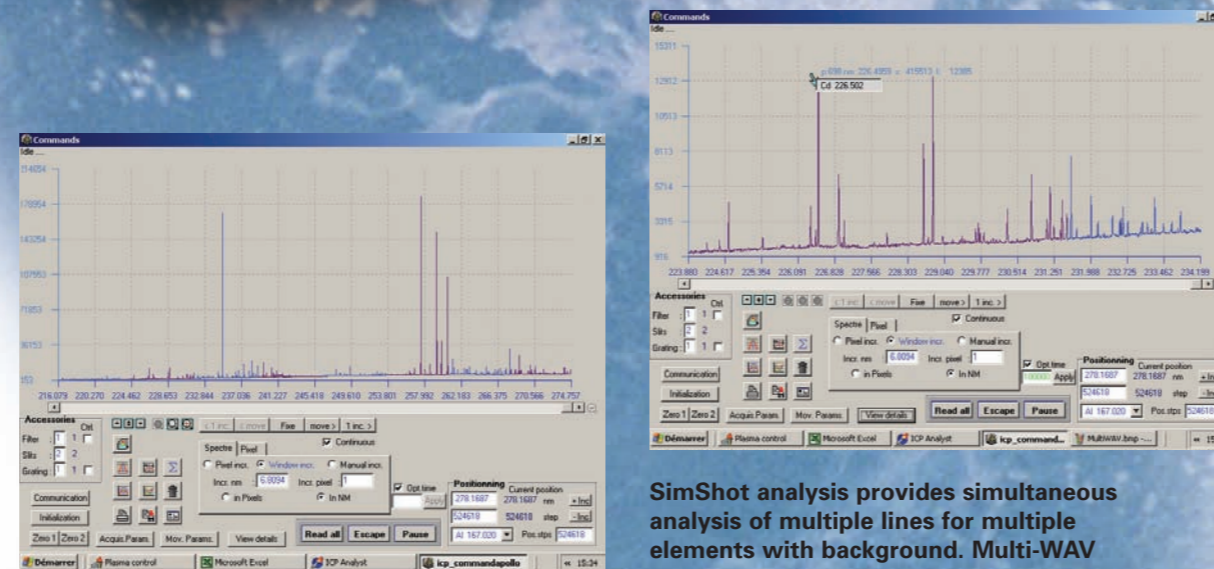
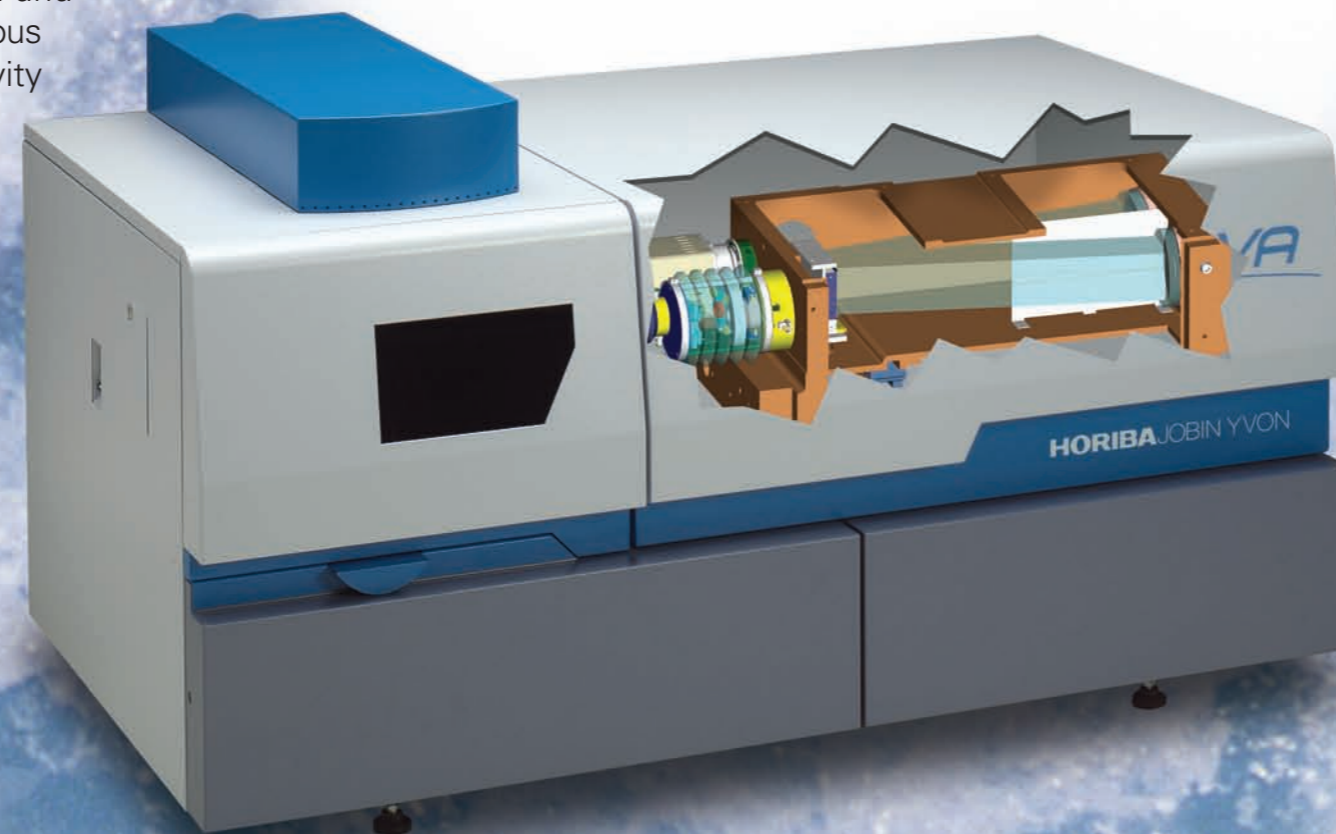
Full flexibility for both line selection and optimization of the operating parameters is offered through the user selection of any elemental wavelength from 165 to 800 nm.

Quality

HJY performance is maintained with a unique high quality optical design combined with a high performance spectroscopy CCD detector. ACTIVA offers exceptional optical resolution, the lowest readout noise of any CCD available today and the largest linear dynamic range to enable precise, sensitive, interference-free analysis.

Solid State Detection

ACTIVA uses a 2048 x 512 pixel, Back Illuminated (BI), Advanced Inverted Mode Operation (AIMO) CCD detector featuring a pixel size of 13.5 μm x 13.5 μm. High quantum efficiency, very low noise levels and high linear range are achieved with this high performance, spectroscopy CCD.



SimShot analysis provides simultaneous analysis of multiple lines for multiple elements with background. Multi-WAV acquisition uses multiple WAVs to construct the sample fingerprint.

Optical Excellence

The Achromatic Entrance Imager was designed to optimize photon collection, optical aberrations, resolution, stray light and slit height. In doing so, the 0.64 Czerny Turner optical system is able to view the entire 6 mm Normal Analytical Zone of the plasma. This view is imaged through the spectrometer onto the full height of the 2048 x 512 pixel detector. The optical system uses world renowned, aberration free HJY holographic gratings. Two gratings are used back-to-back to provide first order light from 165 to 800 nm.

Binning of the 512 pixel-high column results in a decrease in the readout time with no addition of the readout noise and an increased linear dynamic range. The column becomes equivalent to a single, rectangular pixel. Anti-blooming drains on the detector prevent horizontal blooming and allow the simultaneous analysis of large concentrations close to traces in the same WAV.

Simultaneous Analysis

ACTIVAnalyst software extends the instrument and analysis control of Analyst™ ICP software in a multi-tasking platform. This includes unique features which fully utilize the benefits of simultaneous CCD detection such as advanced analysis modes using WAV-Builder. A powerful preshot algorithm automatically optimizes exposure time, column binning and gain adjustment, if needed, resulting in the full benefit of the maximum available dynamic range.

Total Plasma View

ACTIVA utilizes radial viewing to minimize matrix effects without sacrificing detection limits. Only HJY has a design capable of providing the total 6 mm view of the plasma Normal Analytical Zone imaged on the 512-pixel high detector. Through the use of binning and the ultra-low readout noise of the megapixel detector, the signal is increased while the noise is maintained at a very low level, thus providing excellent signal-to-background ratios and low detection limits.

A Platform For The Future



The largest choice of ICP spectrometers available... only HJY offers such flexibility.

ACTIVA™

Maximize your productivity and performance with simultaneous analysis using an ultra-low noise solid state CCD detector.

ULTIMA 2 Family

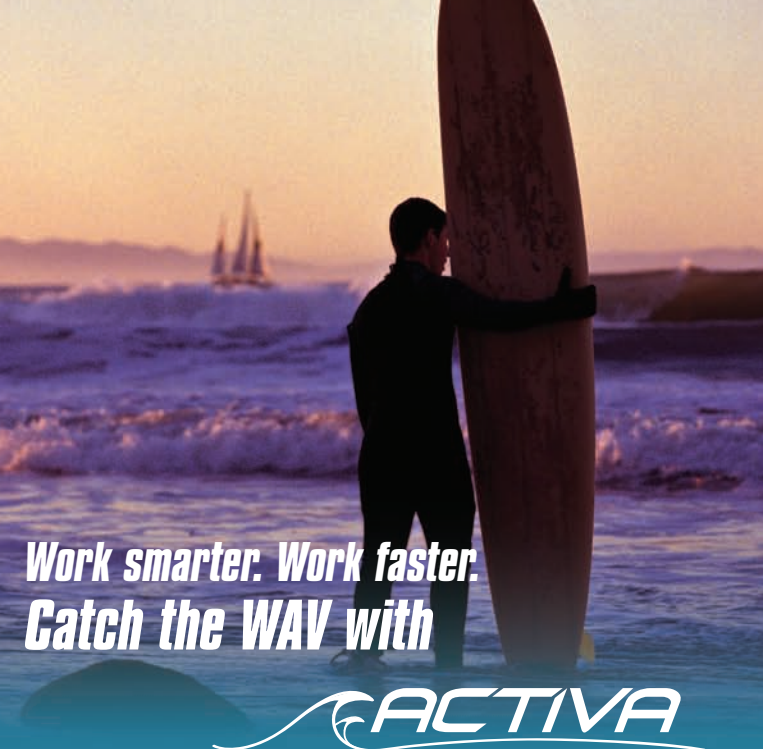
- ULTIMA 2: Ultimate performance in resolution and detection limits using a PMT and HDD® detector.
- ULTIMA 2C Series: Combination sequential and simultaneous systems using PMT detection and providing high sample throughput.
- JY 2000 2: Low cost workhorse for the routine laboratory. Excellent for AA replacement.
- Précis Inorganic Standards: Single and multi-element certified standards.

Made-to-Measure

Designed to order for your exact laboratory requirements – radioactive glove box and hot cell systems, mobile labs in vans or in other high vibration areas like ships, etc.

Analyst™ ICP Software

Instrument and analysis control in a multi-tasking Win XP or other NT platform environment. Audit Trail Analyst for 21 CFR Part 11 compliancy. ACTIVAnalyst offers unique features that fully utilize the benefits of CCD detection.



**Work smarter. Work faster.
Catch the WAV with**

ACTIVA

- High productivity without sacrificing flexibility.
- Advanced CCD Technology with Advanced Inverted Mode Operation (AIMO) providing low dark current and extended dynamic range.
- SimShot analysis provides simultaneous analysis of multiple lines for multiple elements with background. Multi-WAV acquisition uses multiple WAVs to construct the sample fingerprint for 75 elements in as little as 30 seconds.
- WAV-Builder provides tailored analysis for speed and resolution.
- Optical resolution of <math><10\text{ pm}</math> (pixel bandpass 1.6) in first order with high resolution mode.
- Original high density, blazed holographic gratings, patented and manufactured by HJY, provide more signal and less stray light resulting in better detection limits.
- Fast, easy to use sample introduction system featuring quick-release torch design.
- Rugged 40.68 MHz solid state generator provides robust and stable excitation conditions.
- ACTIVAnalyst software offers the instrument and analysis control of Analyst™ ICP software in a multi-tasking Win XP or other NT platform environment with unique features that fully utilize the benefits of CCD detection.

HJY optical expertise gives you exceptional results and productivity

Our experience told us to wait...for the right solid state detector. One that could be coupled with our optical expertise to provide not only productivity, but productivity with flexibility and quality performance. Available solid state detectors offered limited full well, high dark current and readout noise coupled with a poor dynamic.

Using the latest in advanced CCD technology, ACTIVA offers the benefits of high full well capacity, very low readout noise, very low dark current and high speed quality electronics resulting in an enhanced linear range. Built on A Platform for the Future™, ACTIVA benefits from a full range of accessories and options including the AS-500 autosampler, network-ready Remote Diagnostics and Biometric Signature for Analyst™ ICP Software.



HJY is committed to a full service philosophy. ALLIANCE offers a partnership with our customers providing a platform of support.

Specifications subject to change without notice.



HORIBAJOBIN YVON

(All HORIBA Jobin Yvon companies were formerly known as Jobin Yvon)

USA: HORIBA Jobin Yvon Inc., 3880 Park Avenue, Edison, NJ 08820-3012, Toll-Free: +1-866-jobinyvon
Tel: +1-732-494-8660, Fax: +1-732-549-5125, E-mail: info@jobinyvon.com, www.jobinyvon.com
France: HORIBA Jobin Yvon S.A.S., 16-18, rue du Canal, 91165 Longjumeau Cedex,
Tel: +33 (0) 1 64 54 13 00, Fax: +33 (0) 1 69 09 93 19, www.jobinyvon.fr
Japan: HORIBA Ltd., JY Optical Sales Dept, Higashi-Kanda, Daiji Building, 1-7-8 Higashi-Kanda
Chiyoda-ku, Tokyo 101-0031, Tel: +81 (0) 3 3861 8231, www.jyhoriba.jp
Germany: +49 (0) 89 462317-0 **Italy:** +39 0 2 57603050 **UK:** +44 (0) 20 8204 8142
China: +86 (0) 10 6849 2216

Explore the future

HORIBA