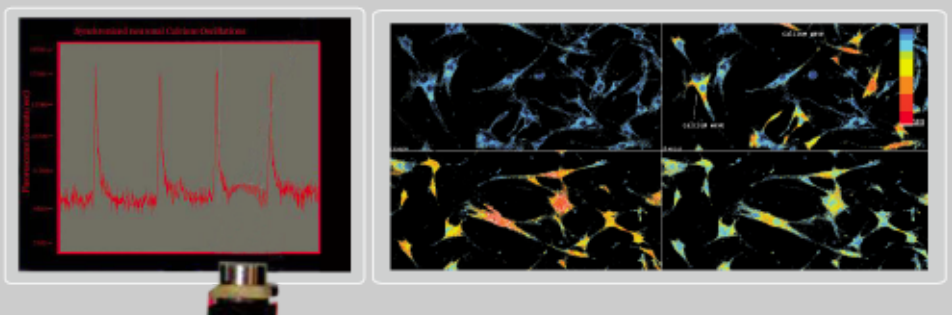
INTRACELLULAR IMAGING INC

PROVIDING RESEARCHERS THE BEST INSTRUMENTATION AT AN ECONOMICAL PRICE



InCyt Standard I/P Micro-Photometry System

- Ratiometric(Fura-2) imaging as fast as 4 ratio/sec. Single wavelength (Fluo-3) as fast as 140 pts/sec. Ratiometric photometry as fast as 6 ratio/sec. Single wavelength photometry as fast as 100 pts/sec.
- Ca++, pH, NO, Na.
- Other applications: FRET, GFP, vessel diameter, cell length, uncaging.
- Complete Turnkey systems.

Image Acquisition & Analysis Workstation

State of art PC with Windows based proprietary InCyt software. Intuitive user interface guides the investigator through the experiment.

Photometer

Exclusive design includes the following features:

-Photon counting for extraordinary sensitivity.
-Capture cell responses as fast as 10 milli-seconds.
Variable aperture to isolate any area of the field of view.
-Computer-controlled shutter for PMT overload protection(optional).

Camera

Integrating 12 bit CCD video camera for low light level and low noise imaging.

Microscope

Nikon TS100F Inverted microscope with proprietary Groony fluorescence module.

Illumination System

Computer-controlled Sutter Lambda 10-b filter wheel with 300 watt Xenon light source.

Complete Turnkey System

The **InCyt Standard I/P**™ Imaging and Photometry System includes everything needed for single excitation and ratiometric fluorophore, single emission fluorophore experiments. The system includes: an inverted epi-fluorescence/phase contrast microscope, microphotometer assembly, low-light level integrating CCD camera,175 Xenon arc lamp, image processing computer and data acquisition/analysis software.

Ease-of-use

The **InCyt Standard I/P**™ Imaging and Photometry System was designed in a biomedical research laboratory by scientists for scientists. Menu selection appears in the sequence in which experiments are performed. Esoteric options that add complexity and are rarely used have been eliminated from the menus. The software follows standard Windows graphical-user-interface-protocol. The hardware has been tested for reliability and ruggedness, as well as, simplicity of set up and operation. New users can learn to use the system and be doing their first experiment in a few hours.

Data Collection, Analysis & Presentation

Data can be measured continuously on as many as 50 pre-selected regions of interest. The results can displayed in real time or images can be saved

for *post hoc* analysis. Saved images can be played back as an animated sequence—ideal for analysis of sub-cellular responses, intercellular communication and heterogeneity among the individual cells in a population. Ion concentration within cells can be converted to color using standard or custom pseudo-color tables. Image sequences can be presented as a montage with user-defined annotation for presentation and publication. Data generated by **InCyt Standard I/P**™ are stored in a standard TIFF format and data files are stored as ASCII text.

Specifications

Camera Module	
Camera	**DVC 340M Monochrome Integrating 12-bit CCD with Binning Capabilities**
Excitation Light Source	**Sutter Instruments LB-LS17 light source with 175W Xenon arc lamp for both UV and visible light excitation.**
Filter Changer	**Sutter Wheel**
Image Resolution	**640 x 480 pixels**
Photometer Module	
PMT	**Hamamatsu HC135-11 photon counter**
Linearity (precision)	**+/-1% from 0 to 20,000,000 counts/second**
Maximum Dark Count (noise)	**150 counts/second**
Equivalent Noise Input (noise)	**3 x 10-17 watts per second (measured at 400nm)**
Spectral Sensitivity	**300-650nm**
Discriminator & Microprocessor	**Built into PMT**
Overload Protection	**Computer-controlled shutter (optional)**
Excitation	**Sutter Instruments LB-LS17 light source with 175W Xenon arc lamp for both UV and visible light excitation. Variable intensity**
Image/Data Acquisition and Data Analysis Workstation	
CPU	**Intel® 2nd generation Core™ i3 Dual Core Processor**
RAM	**4GB Non-ECC dual-channel 1000MHz DDR3 SDRAM**

Hard Drives	**250GB and 1TB 3.5" SATA 6Gb/s with 8MB DataBurst Cache**
DVD ROM	**16X DVD +/- R/W**
Operating System	**Windows 7**
Monitor	**20"**

Image/Data Capture and Display	
Maximum Speed	**4 ratiometric points per second** **140 single-wavelength points per second**
Object Definition	**Specify up to 50 user-defined regions for separate analysis**
Data Collection Options	**(1) Graph ion concentration in each cell during experiment.** **(2) Save images for later analysis and animated playback**
Image Forma	**TIFF**
Data Storage Format	**Tab-delimited ASCII**

PMT Data Capture and Display	
Maximum Speed	**6 ratiometric points per second** **100 single-wavelength points per second**
Time Lapse	**Up to 1 measurement every 10 minutes**
Field of View	**Rectangular area, user-definable**
Graphic Display	**Real-time during experiment**
Data Storage Format	**Tab-delimited ASCII**

Other	
Calibration	**From standard solutions or formula**
Ions	**Works with hundreds of single-excitation,**

	single-emission fluorescent dyes

Data Presentation

- Animated playback of images
- Montages of selected images with user-defined annotation
- Graphs of ion kinetics in user-defined regions
- Display images and data as raw fluorescence readings or as changes from initial state
- For More Information...

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