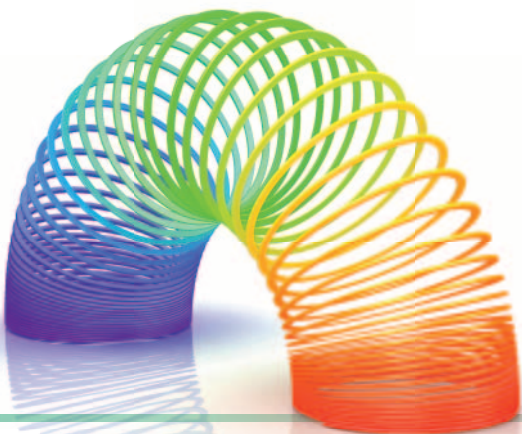




Product Overview

Microplate Readers · Luminometers ·
in vivo Imagers · Gamma Counters ·
HPLC Radio Detectors



Microplate Readers

Berthold Technologies plate readers are robust, versatile and highly sensitive instruments for life sciences applications like gene expression, receptor studies, DNA and protein quantification, enzyme activities, cell viability, second messengers, CALUX contamination monitoring and immunoassays to name a few.

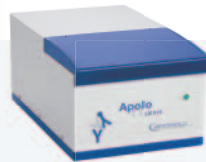
Characterized by selected detectors operated in true single photon counting technology and optimized optics the readers guarantee high sensitivity, accuracy and reliability. Ergonomic and intelligent design as well as flexible software contribute to ease-of-use of the instruments. Modularity of instrument configuration – especially with the multi-technology readers – tailor the instruments to the applications and the budget.



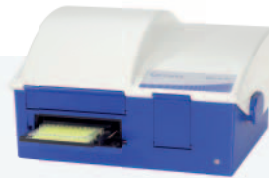
*Mithras²
monochromator multilabel reader*



*TriStar²
multilabel microplate reader*



*Apollo 11
ELISA reader*



*Twinkle
plate fluorometer*



*Mithras
multilabel microplate reader*

Radio Isotope Detectors

Monitoring of radio-labelled compounds separated by chromatographic techniques has been established as one of the most powerful tools in drug, pesticide, metabolism and pharmacokinetic studies as it provides very high sensitivity and specificity – the ideal field for the FlowStar. The HERM is a dedicated radio flow monitor for detecting gamma and PET isotopes present in high activities e.g. in nuclear medicine or PET laboratories. It comes with a NaI or a PET/luminescence detector.

The Multi Crystal LB 2111 gamma counter is a compact, robust and easy-to-use instrument for most applications using gamma-emitting isotopes, e.g. ¹²⁵I, ⁹⁹Tc or ⁵¹Cr.



*FlowStar
HPLC radio detector*



*HERM NaI
HPLC radio detector*



*HERM fLumo
HPLC radio detector*



*Multi Crystal
gamma counter*

Luminometers

Considered a worldwide leader in luminescence measuring technology Berthold Technologies has provided thousands of luminometers for research and diagnostics.

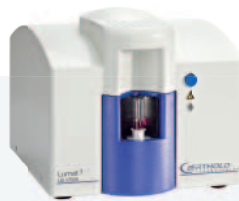
The Centro XS³ microplate luminometer has been developed with optimized optics for highest demands on sensitivity in pharmaceutical and academic research. With the Lumat³ the third generation tube luminometer has been introduced being the most modern instrument of its kind. The AutoLumat is the only instrument supporting multi-tube processing in a sample chain. With the TriStar² filters can be used for spectral resolution of luciferases and BRET.



*Centro & Centro XS³
plate luminometer*



*CentroPRO
plate luminometer*



*Lumat³
tube luminometer*



*AutoLumat
multi-tube luminometer*

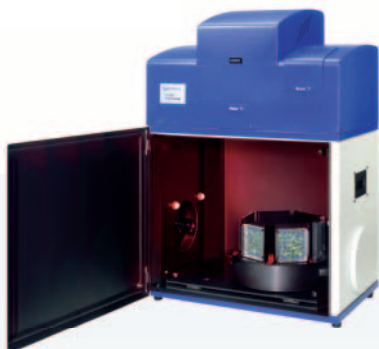


*Junior
portable luminometer*

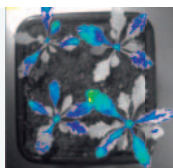
in vivo Imagers

Deeply cooled CCD cameras together with application tailored accessories like anaesthesia units for small animals and LED growth illumination for seedlings highlight the outstanding application-oriented design and versatile usability of the instruments.

Using the extremely sensitive CCD imaging systems NightOWL and NightSHADE spatial and temporal changes of gene expression can be monitored in vivo in animals and plants. Yet, the systems can be used far beyond, e.g. with organ specific fluorescent dyes and monitoring cellular reactions.



NightSHADE plant imager



NightOWL small animal imager

Product Finder

Berthold Technologies offers a wide range of measurement instruments for Life Sciences. Over decades the experience and expertise of Berthold engineers and scientists have led to renowned instruments for detecting radioactive tracers and non-radioactive labels in biomedical applications.

Microplate Readers

| | absorbance | fluorescence | luminescence | BRET | FP | TRF/HTRF® | Alpha® | injectors | monochromator |
|------------------------|------------|--------------|--------------|------|----|-----------|--------|-----------|---------------|
| Mithras ² | • | • | • | • | • | • | • | • | • |
| Mithras | • | • | • | • | • | • | • | • | |
| TriStar ² | • | • | • | • | | | | • | |
| Twinkle | | • | | | | | | | |
| Centro | | | • | | | | | • | |
| Centro XS ³ | | | • | | | | | • | |
| CentroPRO | | | • | | | | | | |
| Apollo | • | | | | | | | | |

Radio Isotope Detectors

| | flow through | tubes | Gamma | PET | Beta | Alpha | luminescence |
|---------------|--------------|-------|-------|-----|------|-------|--------------|
| FlowStar | • | | • | • | • | • | |
| HERM NaI | • | | • | • | | | |
| HERM fLumo | • | | | • | • | | • |
| Multi Crystal | | • | • | | | | |

Luminometers

| | plate | tube | Eppendorf | injectors | temperature control | portable | additional technologies | colour luminescence |
|--------------------------|-------|------|-----------|-----------|---------------------|----------|-------------------------|---------------------|
| Centro | • | | | • | • | | | |
| Centro XS ³ | • | | | • | | | | |
| TriStar ² (L) | • | | | • | • | | • | • |
| CentroPRO | • | | | | | | | |
| Lumat ³ | | • | • | • | | | | |
| AutoLumat | | • | | • | • | | | |
| Junior | | • | • | | | • | | |

in vivo Imagers

| | Δ-100° camera | -20° camera | motorized camera | anaesthesia unit | animal beds | LED growth illumination | turn table | side mounting of camera | sockets & ports |
|----------------|---------------|-------------|------------------|------------------|-------------|-------------------------|------------|-------------------------|-----------------|
| NightOWL | • | | • | • | • | | | | • |
| NightSHADE IK | • | | | • | | • | • | • | • |
| NightSHADE CLA | | • | | • | | • | • | • | • |

Some techniques for generating and/or detecting light in biological subjects are patented and may require licences from third parties. Users are advised to independently determine for themselves whether their activities infringe any valid patent. Certain configurations of the Mithras² are not available for sale in the U.S.A. NightOWL™ and indIGO™ are trademarks of Berthold Technologies. HTRF® is a registered trademark of Cisbio. AlphaScreen® is a registered trademark of PerkinElmer. CALUX® is a registered trademark of BioDetection Systems. To run certain applications on these products may require licenses from others. Some instruments may not be available in some countries! Berthold Technologies reserves the right to implement technical improvements and/or design changes without prior notice. For patents please see web page.

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