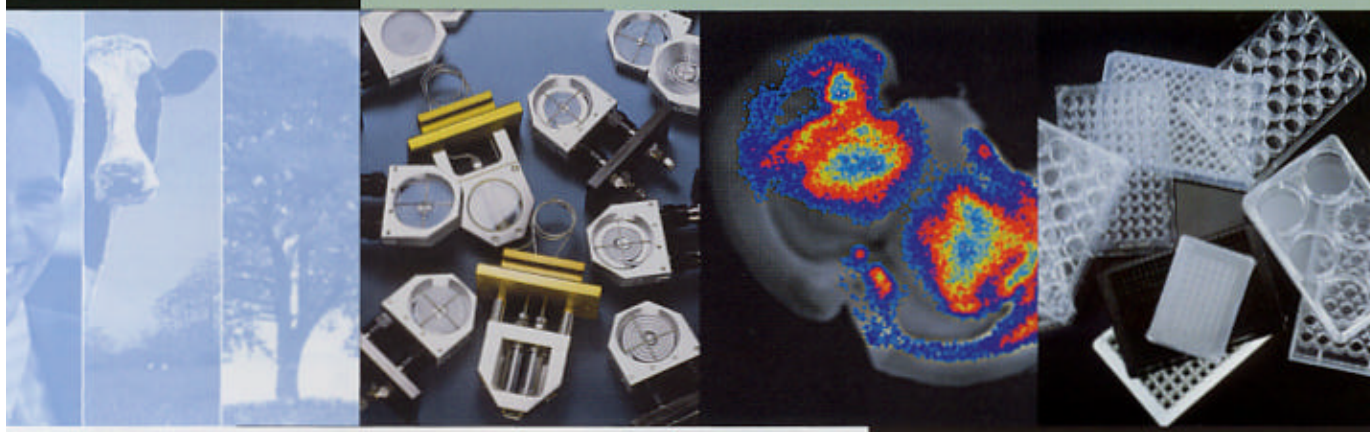


## detect and identify

- ▶ Microplate Readers
- ▶ Imaging Instruments
- ▶ Biochip Readers
- ▶ Tube Luminometers
- ▶ Radio HPLC Monitors
- ▶ Gamma Counters





# Microplate Readers

BERTHOLD TECHNOLOGIES provides a range of dedicated microplate fluorometers and luminometers for all common microplate formats, petri dishes and Teraski plates. Powerful software allows kinetics, scanning, repeated mode, dual ratio measurements etc. Robot access enables integration into robotic HTS systems.

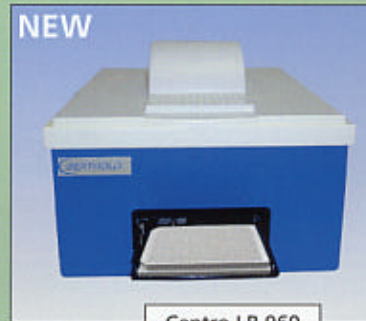
With the new multilabel reader BERTHOLD TECHNOLOGIES sets a new standard. The unit combines fluorescence and luminescence modes with the uncompromised performance of dedicated instruments. The sensitivity of the luminescence function exceeds even that of the best dedicated plate luminometers (less than 25 attomol ATP). Homogeneous assays like FRET and BRET and fluorescence polarisation can be run to determine receptor binding and protein-protein interaction.



MicroLumatPlus LB 96V



Twinkle LB 970



Centro LB 960

Mithras multilabel reader enables homogeneous BRET and FRET applications



Mithras LB 940

### Centro LB 960

The new versatile solution in luminescence for any budget: from standard lab application up to HTS-integration with automatic switch-over between 96 and 384 well format

### MicroLumatPlus LB 96 V

Setting the golden standards in luminescence analysis up to 384 well format

### Twinkle LB 970

The dedicated fluorometer for all major fluorescence applications up to 1536 well format

### Mithras LB 940

The new multilabel reader for measurements without any compromise up to 1536 well format and with outstanding sensitivity. Up to 4 injectors for reagent dispensing even into 384 well plates combined with fast filter change enable determination of Ca<sup>++</sup> flux and homogeneous BRET and FRET applications.



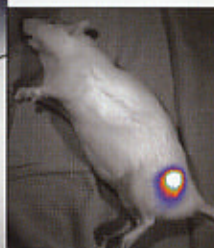
# Imaging Instruments

### NightOWL LB 981

The versatile imaging system for measurement of 2D and 3D samples available with two types of CCD-cameras. Both microscopic and macroscopic sized samples can be investigated. Whole animals or plants can be imaged as well as blots, gels, microplates, petri dishes and macro (dot) arrays. The NightOWL is designed to meet the needs of scientists measuring weak light signals as they are emitted from luminescent as well as fluorescent samples.



NightOWL LB 981



### Key applications

#### MACROSCOPIC IMAGING

■ *in vivo* visualization of reporter gene expression in procaryotic and eucaryotic cells, in trasgenic animals and plants

■ imaging of microplates: immunoassays, luciferase detection, gene probes and phagocytosis

■ gels and blots: imaging and measuring of chemilumines-cent stained Southern Northern and dot blots as well as Western blots

#### MICROSCOPIC IMAGING

■ *in vivo* imaging of reporter gene expression in single cells for studying gene expression, transfection efficiency, proteintargeting, protein localization and movement in living cells

■ ATP measurements

■ visualization of cellular luminescence

■ FISH imaging

■ imaging of immunofluorescence stained samples

■ monitoring of Ca<sup>2+</sup> fluctuations



## Biochip Readers

### SpotLight LB 990 Multilabel Biochip Reader

To address the diverse needs of an ever growing community of biochip users BERTHOLD TECHNOLOGIES has developed a CCD-based chip reader, that allows detection of chemiluminescence as well as fluorescence.

A halogen light source together with changeable filters gives maximum flexibility when it comes to label selection: it does not have to be selected according to laser excitation wavelengths. The software packages ChipLight and Array Pro provide powerful tools for data collection and evaluation.



Biochip Reader LB 990



## Tube Luminometers

BERTHOLD TECHNOLOGIES is well known for the long tradition in manufacturing luminometers suited for all bioluminescent and chemiluminescent applications. Advanced tube-based photon counting provides an extended dynamic range with linearity over more than six orders of magnitude.

DLReady™ certified, the BERTHOLD luminometers are ideal for reporter gene assays, ATP/NADPH measurements, enzyme assays and other luminescence research and diagnostic applications.

The great variety of instruments includes portable ones, single tube instruments and automated ones with up to 180 tubes in a sample changer.

### Applications

- Cellular chemiluminescence
- Reporter gene assay (including DLR™)
- ATP/NADPH measurements
- Enzyme measurements
- Luminescent immunoassays
- DNA probe assays



### Junior LB 9509

A portable luminometer with outstanding value

### Lumat LB 9507

A high sensitivity instrument with dynamic range of more than 6 decades

### AutoLumatPlus LB 953

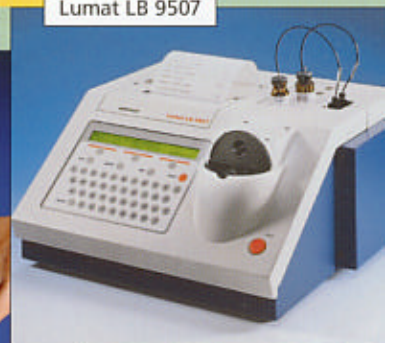
The Universal Tube Luminometer adding a Plus to your laboratory, since its automated, temperature controlled measuring chamber can take up to 180 samples in a chain

### Flash & Glow LB 955

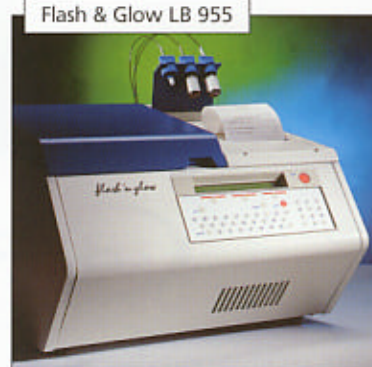
Speed and convenience in reporter gene assays and other luminescence applications with a 30 position sample changer to save you time and bring plate reader simplicity to your work



Junior LB 9509



Lumat LB 9507



Flash & Glow LB 955



AutoLumat Plus LB 953



## Radio-HPLC Monitors

Flow-through monitoring of radiolabelled compounds separated by chromatographic techniques has been established as one of the most powerful tools in many biochemistry-related research areas.

This is due to the need for highest sensitivity and specificity in drug metabolism, pesticide distribution and other pharmacokinetic applications that cannot be met by conventional detectors like UV, fluorescence or conductivity.

### Radioflow Detector LB 509

For all applications including Alpha, Beta, Gamma and PET isotopes.



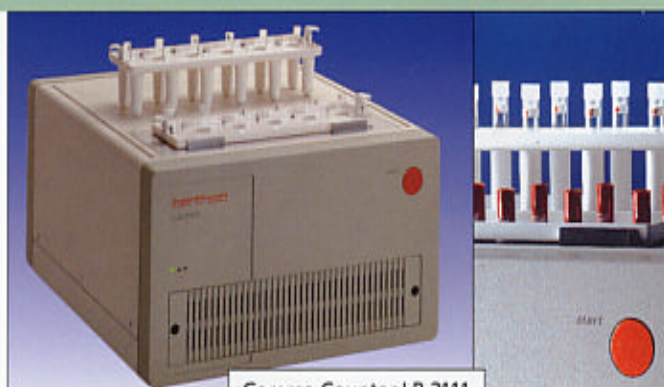
RadioFlow Detector LB 509



## Gamma Counters

### Multi-Crystal Gamma Counter LB 2111

Enables simultaneous measurements of 12 samples, dramatically accelerating the assay throughput. The instrument is either available with video monitor, keyboard and printer (LB 2111), or with Berthold evaluation software (LB 2111-LBIS) for use with a PC. Instrument self diagnostics and quality control assure optimum instrument performance. Daily instrument QC functions and chi-square test also provide QC documentation for regulatory agencies.



Gamma Counter LB 2111



## Software

BERTHOLD TECHNOLOGIES provides powerful software packages for all instruments allowing optimised data collection, reduction and evaluation. Communication with a PC is normally achieved via a standard RS 232 interface.

### MikroWin

dedicated software for kinetic evaluation and curve fitting

### WinGlow

software for kinetic data reduction

### WinLight

easy-to-use software for the NightOWL with extensive image processing options

### Tubemaster

easy-to-use data evaluation for the LB 953 and LB 955

### Radiostar

the next generation of chromatography software

### LBIS

RIA evaluation and data handling

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