

DIANA III Camera System Specifications

Camera

CCD Chip	Atmel (Thomson)
Number of Active Pixel	512 x 512
Pixel Size	19 µm x 19 µm with 100% aperture
Average Dark Current	0.5 e ⁻ /pixel/s
Max. Sensitivity	4.7 x 10 ⁶ e ⁻ /µJ/cm ²
Sensor Substrate Cooling Method	Double peltier plus forced air
Max. Cooling Temperature	-42 °C
Standard Cooling Temperature	-30 °C
Full Well Capacity of Sensor	450000 e ⁻
Dynamic Range	10 ^{3.5}
Digitalization	12 bit
Filter Wheel	Software-controlled
Number of Filter Positions	6
Number of Filters	Up to 5
Lens	Schneider Kreuznach, Xenon XN 0.95 / 25-0037
Max. Aperture of Lens	0.95

Multifunctional Darkroom

- Modular illumination system with up to 5 illumination sources
- Height-adjustable UV table unit (25 cm x 23 cm exciting area), also usable outside the darkroom
- White light table
- UV epillumination
- Dimable white light epillumination
- Variable epillumination with line light sources for blue, green, red and other excitation wavelenghts

Software

Exposure Time on Sensor from 0.25 s up to 16 h
Automated Transfer to AIDA Image Analyzer

Application Range

Chemiluminescence

- Luminol based assays (ECL, Super Signal etc.)
- Dioxethane based Assays (CDP-Star, CSPD)
- Acridinium based assays (ECL plus, Luciferase etc.)

Bioluminescence (single or multi labeling)

- UV excitable (Ethidium Bromide, Sybr Green, Sybr Gold, GFP etc.)
- Blue excitable (Sybr Green, Sypro Ruby, Attophos, Fluorescein, Alexa 488, Cy2, GFP etc.)
- Green excitable (Alexa 532, Cy3, Rhodamine etc.)
- Red excitable (DDAO, Cy5 etc.)

Colorimetry

- Commassie
- Silver etc.

User-defined

Contact Addresses

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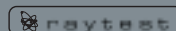
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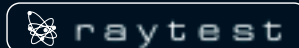
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DIANA

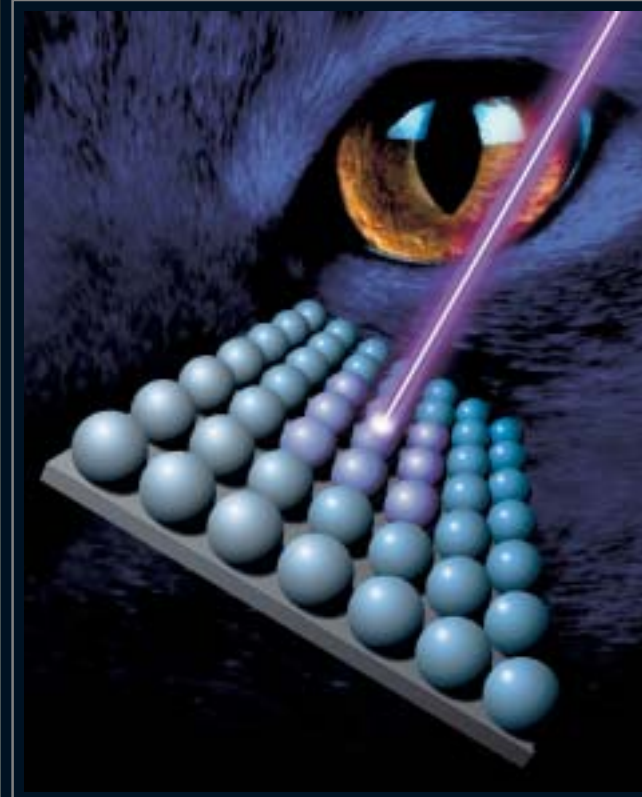
DIGITAL

IMAGE

ANALYZER

DIANA

Digital CCD
Imaging System



Just taking pictures is not enough ...

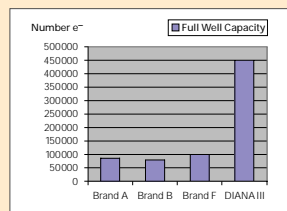
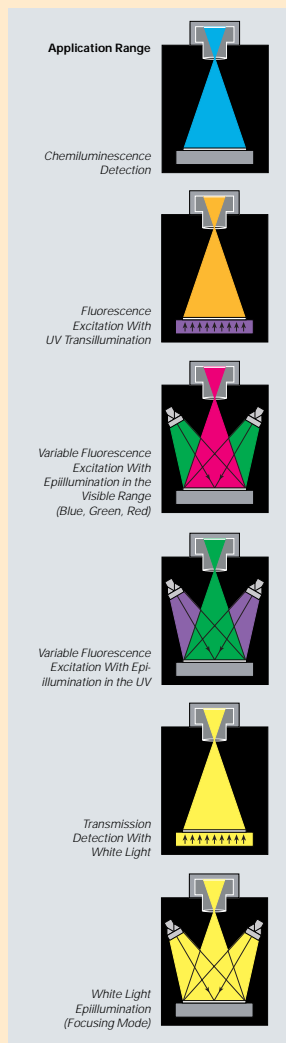
Enhance your vision of Chemiluminescence, Bioluminescence and Fluorescence with our re-engineered DIANA III camera utilizing state of the art technology!
The DIANA III system constitutes a full-fledged digital camera system, dedicated to faint-light applications. Its outstanding substrate-cooled slow scan CCD sensor with its enormous full well capacity of 450000 e⁻ guarantees:

- Highest sensitivity
- Prolonged exposure time
- Highest signal to noise ratios
- Perfect linear response
- Highest dynamic range

The DIANA III is a real scientific-grade measuring instrument, generating data you can rely on!



DIANA III Digital CCD Imaging System



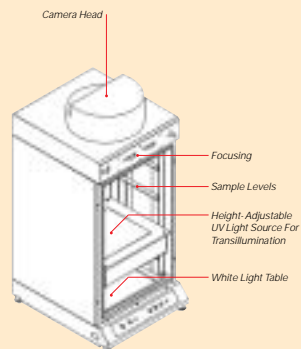
DIANA III CCD Sensor's Full Well Capacity

Maximize your analytical laboratory performance with DIANA III's universal dark box.

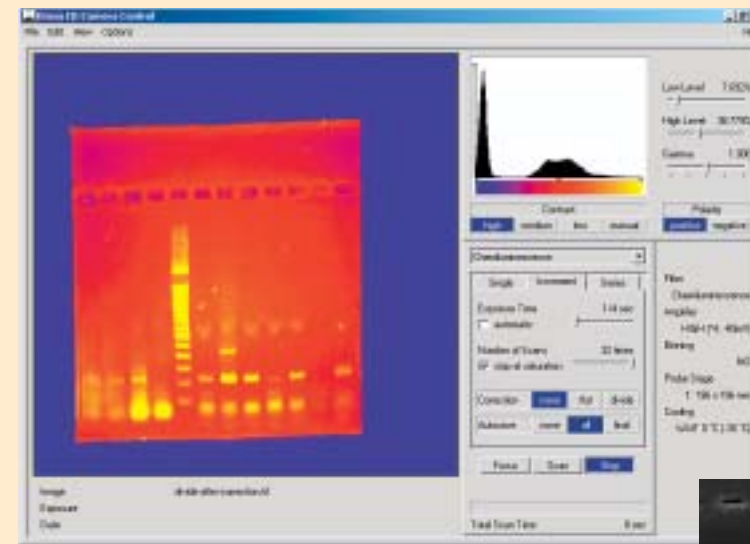
The redesigned dark box can be equipped with everything necessary for chemiluminescence, fluorescence or colorimetric detection:

- White light epillumination
- White light transilluminator
- UV Epillumination
- UV Transilluminator
- Variable Epillumination for specific excitation in the visible range (480–750 nm)

Multifunctional Darkroom For DIANA III



To get all what you need for research ...



Screenshot From DIANA III Control Software

Explore the world of unbound variability in application using DIANA III's control software!

The control software of the DIANA III camera is designed for highest flexibility and outstanding ease of use. Just click the mouse to:

- Select filters from one of six positions
- Define your own applications
- Accumulate and display image series
- Define your own image series
- Perform flat field correction
- Transfer images to the AIDA evaluation software

