



Vision Monitor

MonColor

ADVANCED STIMULATOR FOR VISION ELECTROPHYSIOLOGY

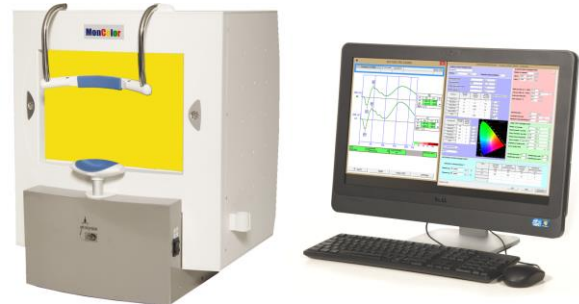
MonColor is a stimulator for advanced vision electrophysiology. It performs flash ERG and VEP exams as well as sensory EOG exams.

MonColor uses monochromatic LEDs of very high intensity

MonColor is compatible with existing international standards for visual electrophysiology.

MonColor by combining 5 different types of LED sources provides a great flexibility for the control of background and stimulus spectrum and luminance.

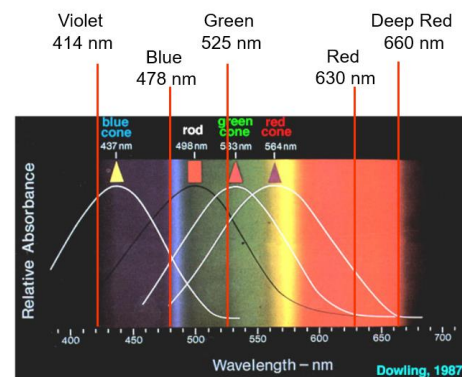
It is the ideal tool for examination protocols such as the study of a-wave saturation, of on and off responses, of specific cone responses (s-cones), etc.



Flash stimulations

MonColor is made of a hemispherical screen illuminated with LEDs of very high intensity.

Number of wavelengths	5 violet, blue, green, red, deep red
Maximum intensity (cd.s.m ⁻²)	30
Maximum background luminance (cd.m ⁻²)	4000
Dynamic range	6 log units



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The duration of flashes can be programmed from 2 ms up to 5000 ms, the time period between flashes from 2 ms to 30 000 ms.

A near infra-red illumination and a video camera are used to monitor the attachment and centering of electrodes in ERG exams and to monitor the eye movements and opening of the eyes in sensory EOG exams.

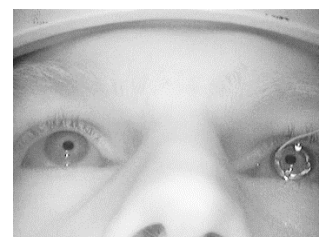
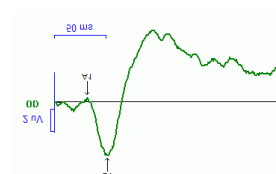


Image from the video camera

S-cone responses

S-cone responses are obtained with deep-blue flashes generated over an intense red-orange background which suppresses the responses from the other photoreceptors: rods, M-cones and L-cones.

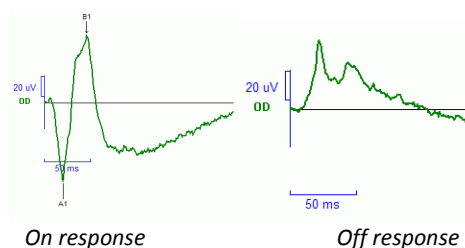


S-cone ERG response

On and off responses

MonColor can also generate flashes of long duration (up to 5000 ms) for the study of on and off responses.

These procedures allow the study of pathologies affecting specifically the depolarizing (ON) and hyperpolarizing (OFF) bipolar cells.



Pattern stimulations

MonPackOne stimulator

This stimulator has a patented design involving a luminance-controlled LED backlight that assures a constant luminance when generating pattern stimulations.

It can perform a large number of exams:

- pattern ERG and pattern VEP
- sweep VEP
- multifocal ERG and VEP



For additional information, refer to the documentation of the MonPackONE stimulator (reference HVM-MonPackONE).

External stimulator

An external monitor (OLED or CRT monitor) can also be connected to the MonColor for the generation of pattern stimulations (PERG and PVEP) as well as for tests of contrast sensitivity.

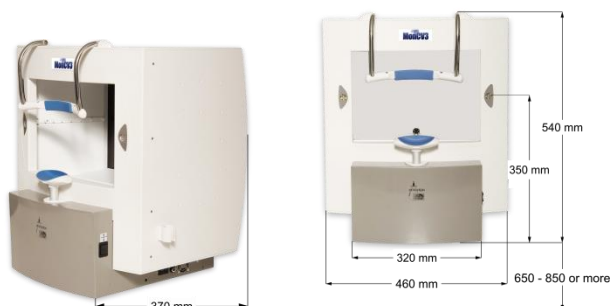
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Other exams

The **MonColor** stimulator can perform other tests and exams.

- Flashes with high intensity for the study of photoreceptors saturation.
- Red flash on blue background for the study of photopic negative responses
- Double flash for the study of photoreceptors recovery.
- Study of pupillometry responses to chromatic stimulations (ipRGC cells)
- Study of dark adaptation.

Dimensions



Specifications

Electrical specifications : classe I - type B

Power requirements : 230V, 0.7A or 110V, 1.4A, 50 or 60Hz.

To prevent electric shock, the instrument must be plugged into an earth grounded outlet.

Weight

25 kg (without PC, printer and electric table)

Interface

Connects to a standard PC via two USB2 cables.