



Compact and affordable Y(II)ETR & F_v/F_M meters

Measure both light adapted Quantum Yield of PSII or Y(II) and dark adapted Maximum Potential Quantum Efficiency of PS(II) or F_v/F_M with these two fluorometers in one kit. Also sold separately.



Also sold separately



Y(II)/ETR meter

- Y(II) and ETR corrected for absorbance
- Leaf absorbance using RGB sensors
- PAR and leaf temperature measured
- Fm' correction according to Loriaux 2013
- Long-term fluorescence monitoring mode

F_v/F_M meter

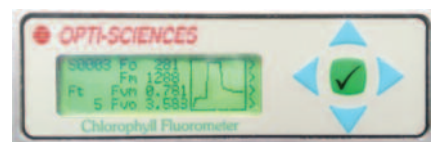
- Rapid measurement of large populations
- Lightweight dark adaption clips
- Graphic F_v/F_M trace display
- Compact, ergonomic design
- Measurements from the same known state

Compact, Lightweight and Portable



Supplied in a rigid clamshell case, the Plant Stress Kit comprises the Y(II) meter, F_v/F_M meter, 2 x Li-ion batteries, 2 x USB chargers, 2 x USB cables, 10 x dark adaption clips, 2 x absorbance calibration cards and manual on USB flask drive.

Based on established and proven scientific principles, these are the most advanced, compact and portable chlorophyll fluorometers available.



Yield(II) is measured from the top of the leaf along with PAR, while the leaf temperature is measured from the base of the chamber.

The F_v/F_M meter automatically adjusts modulated light intensity and detector gain for accuracy and reliability. USB lithium ion batteries allow continuous use for up to 8 hours in the field.

Selected references


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Online resources

For [product enquiries](#), device manuals, brochures and our official agents in your country: www.adc.co.uk

Follow us on our social media platforms:

Video tutorials:  YouTube: <https://www.youtube.com/@adcbioscientifictd2784>

News and updates:  X.com (formerly Twitter): [@ADC_Biosci](https://twitter.com/ADC_Biosci)

 Facebook: <https://www.facebook.com/adcbioscientific>

Technical Specification

Y(II)/ETR Meter

Measured parameters:

Y(II): Quantum Photosynthetic Yield of PS(II)

ETR: Electron transport rate

PAR: Photosynthetically active radiation

T: Leaf temperature

F_{MS} (or **F_M'**): Maximum fluorescence at steady state

F_S (or **F**): Fluorescence under steady state

Loriaux 2013 correction of ETR and **F_M'**

α: Leaf absorptance & transmittance

RH: Relative humidity 5% to 95% (+/-2% over the range)

F_V/F_M Meter

Measured parameters:

F_V/F_M: Maximum potential quantum efficiency of PSII

F_V/F_O: A normalised ratio used to improve stress detection

F_O: Fluorescence after dark adaption

F_M: Maximum fluorescence during a saturating pulse following a period of dark adaption

F_t: Instantaneous fluorescence



USB port provided on each meter.

Data is simply downloaded to a PC or laptop device.

.csv data file format compatible with spreadsheet software.

Y(II) and F_V/F_M meters

Saturation pulse: 7,000μmol white LED

6,000μmol red LED

Modulated light: Red 660nm LED with 690nm short pass filter

Actinic light source: Ambient light only

Dark adapted only

Detection method: Pulse amplitude modulation method

Detector & Filters: PIN photodiode with 700~750nm bandpass filter

Sampling Rate: Auto-switching from 1 to 10,000 points per second, depending on test type and phase

Automated routine to optimally set the modulated light intensity.

The modulated light may also be set manually

Multi-Flash F_M' correction for all light adapted protocols & quenching: May be turned off

Test Duration: About 3 seconds for fast tests and may be run for months in monitor mode

Special Algorithms: 8 point rolling 25 ms average to determine **F_M** and **F_M'** eliminating saturation pulse NPQ as an issue

Storage Capacity: 2Gb non-volatile flash memory, supporting almost unlimited data sets

Output: By USB. Comma delineated (.csv) files, all parameters labelled and organised into columns

User Interface: Menu driven with arrows

Display: Graphic black and white display 132 x 32 pixels

Power Supply: 8 hour USB lithium ion battery supplied as standard. Mains current may also be used. Mains plug and charger supplied as standard

Dimensions: 23cm long with a USB cable that is 160cm long
Hard shell case: 36 x 28 x 15mm

Weight: Meters with battery & USB cable: 0.45kg
Complete with case & accessories: 1.5kg

Operating temperature range: 0°C to 50°C

Absorptance measuring standard: 2 included