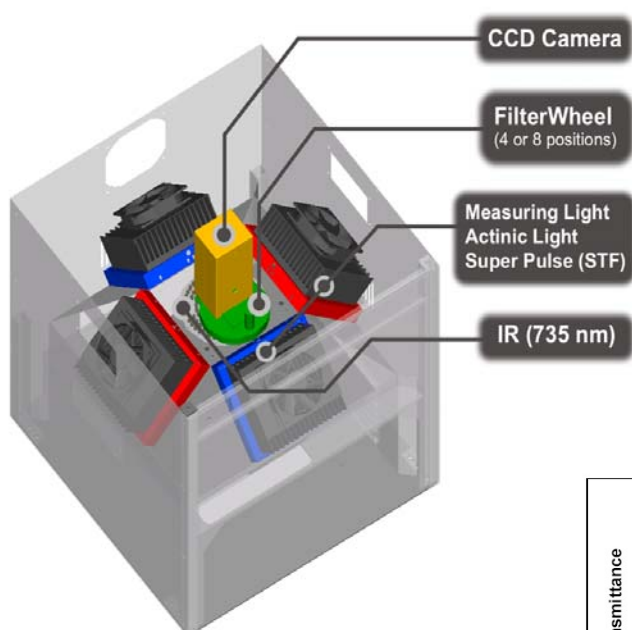


FluorCam FC 800-C

Multispectral Kinetic Fluorescence Imaging

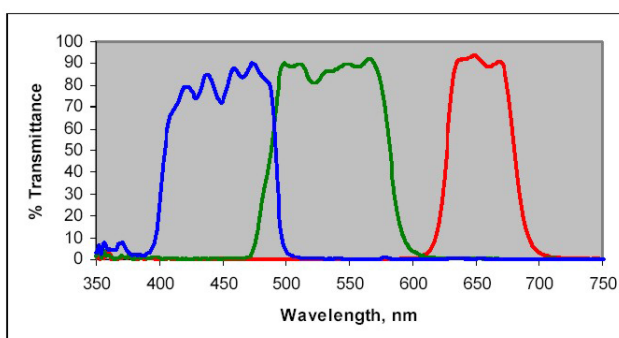
Various Light Sources:

- Super bright LED panels with different wavelengths;
For example, 390, 450, 470, 505, 570, 605, 630, 735 nm (other also available).
- **STF - Single Turnover Flash.**
- **IR 735 nm (FAR).**
- Ultra-high light intensity.
- **Actinic light up to 3,000 $\mu\text{mol}(\text{photons})/\text{m}^2.\text{s}$.**
- **Super pulse up to 7,500 $\mu\text{mol}(\text{photons})/\text{m}^2.\text{s}$.**
- Variable excitation color.



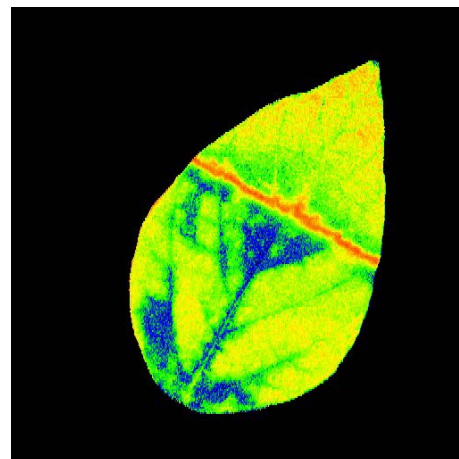
Different Emission Bands:

- 4 or 8 position filter wheel.
- Chlorophyll fluorescence, GFP, YFP, CY3, CY5, as well as other fluorescence colors.



Experiments and Measured Parameters:

- **QA reoxidation.**
- **Quenching.**
- **Kautsky induction and OJIP.**
- **Fast fluorescence induction with 1µs resolution.**
- **Light curve.**
- **Measured parameters (F_0 , F_M , F_V , F_0' , F_M' , F_V' , QY(II)), Abs PAR-value.**
- **Calculated parameters NPQ, F_V/F_M , F_V'/F_M' , R_{fd} , q_N , q_P , PAR-absorptivity, photosynthetic electron transport rate (PS), and others.**

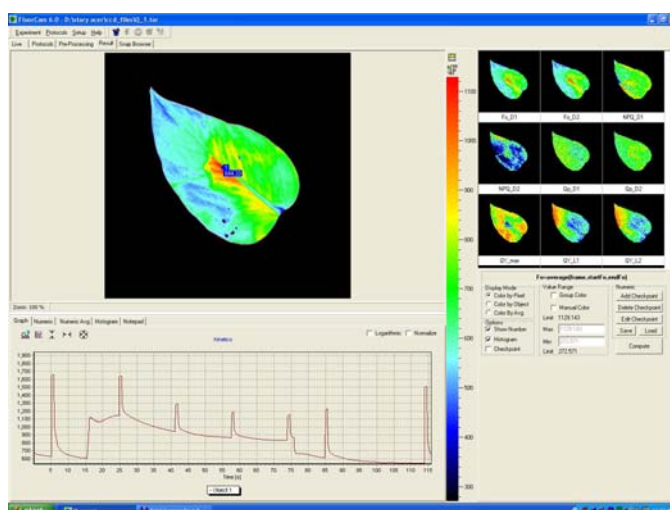


Samples:

- Sample size up to 13 cm x 13 cm.
- 384-well plate, 96-well plate, Petri dish, etc.
- Selectable shelf system for different plant sizes.
- Dark room for adaptation.
- Leaves, plants, fruits, vegetables.
- Cyanobacteria, green algae.

NEW FluorCam 7.0 Software

- User-friendly operation.
- Multiple experiments.
- Barcode reader support.
- Export to Excel.
- Windows 2002, XP, Vista.



standard configuration: blue or white actinic light, blue or white saturating light, red measuring light, high performance computer, and FluorCam 7.0 software.

Technical specification:

Fluorescence parameters	• (F_0 , F_M , F_V , F_0' , F_M' , F_V' , QY(II)), Abs PAR-value, or the parameters that are calculated from fluorescence emission (e.g., NPQ, F_V/F_M , F_V'/F_M' , R_{fd} , q_N , q_P), PAR-absorptivity, photosynthetic electron transport rate (PS), and others
Excitation light sources	390 nm, 450 nm, 470 nm, 505 nm, 570 nm 605 nm, 630 nm, 735 nm, and others
Saturating light intensity:	
Blue	Up to 6,000 $\mu\text{mol}(\text{photons})/\text{m}^2.\text{s}$
Red	Up to 7,500 $\mu\text{mol}(\text{photons})/\text{m}^2.\text{s}$
White	Up to 5,000 $\mu\text{mol}(\text{photons})/\text{m}^2.\text{s}$
Actinic light intensity	Up to 3,000 $\mu\text{mol}(\text{photons})/\text{m}^2.\text{s}$
Filter wheel	4 or 8 positions
Light regime	Static or dynamic (sinus form)
Custom defined protocols	Variable timing, special language and scripts
CCD detector wavelength range	400 – 1000 nm
A/D bit resolution	12 bit
Spectral response	QE max at 540 nm (~70 %), 50 % roll-off at 400 nm and 650 nm
Read-out noise	Less than 12 electrons RMS - typically only 10 electrons
Full-well capacity	Greater than 70,000 electrons (unbinned)
Imaging frequency	50 frames per second
Bios	Upgradeable firmware
Communication port	USB 2.0
Dimensions	471 (W) x 473 (D) x 512 (H) mm
Weight	40 kg
Electrical	90 – 240 V

* Windows 2000, Windows XP and Vista are trademarks of Microsoft Corporation.