

FMS / LC



Dark-adaptation leafclips

- Additional dark adaptation leafclips for FMS modulated fluorimeters
- Allows samples to be dark adapted for measurements of F_v/F_m
- White plastic construction with stainless steel shutter plate
- 10 leafclips per pack.

Description



A leafclip system has been developed for situations where ambient light is to be excluded from the sample during measurement using the FMS 1+ or FMS 2+ chlorophyll fluorimeter. This is suitable for experiments requiring dark adapted measurements e.g. screening applications measuring or situations which require adaptation of tissue to standardised doses of actinic light.

The system consists of small, lightweight leafclips and 2 different types of fibre-optic cable adapter. The leafclip itself has a small shutter-plate which should be closed over the leaf when the clip is attached so that light is excluded and dark adaptation takes place. The body of the clips are constructed from white plastic to minimise the effects of heat build-up on the leaf during the period when the clip is in place.

The locating ring section of the clip which interfaces with the fibre-optic adapter is also constructed from white plastic.

The sample rests on a foam pad whilst in the clip in order to minimise damage to the structure of the sample. The shutter-plate should be closed to exclude light from the sample during dark adaptation.

During dark adaptation, all the reaction centers are fully oxidised and available for photochemistry and any chlorophyll fluorescence yield is quenched. This process takes a variable amount of time and depends upon plant species, light history prior to the dark transition and whether or not the plant is stressed. Typically, 15 – 20 minutes may be required to dark adapt effectively. In order to reduce waiting time before measurement, a number of leaves may be dark adapted simultaneously using several leafclips.



The fibre-optic cable is inserted into either one of the adapters which in turn, fits over the locating ring of the leafclip. The closed fibre-optic adapter is suitable for applications where ambient light must be excluded whilst the open adapter is suitable for studies under ambient conditions.