

LI-6800 Chambers and Light Sources



Multiphase Flash[™] Fluorometer

The Multiphase Flash Fluorometer (6800-01A) is a combined light source and chamber for simultaneous measurements of gas exchange and chlorophyll *a* fluorescence from the same leaf area. Choose a 6-cm² or 2-cm² leaf area by swapping interchangeable apertures.



Aquatic Chamber

The Aquatic Chamber (6800-18) is used to measure the photosynthetic response of saturated samples or samples in liquid suspension such as algae, providing a direct measurement of CO_2 assimilation by the sample. It uses the 6800-01A Multiphase Flash Fluorometer as a light source, which can function as a simple light source or fluorometer to measure chlorophyll *a* fluorescence from the sample.



Small Light Source (3x3 cm)

The Small Light Source (6800-02) mounts directly onto the Clear-top Chamber. It provides $0 - 2000 \ \mu mol \ m^{-2} \ s^{-1}$ total PAR, with individually controlled red ($0 - 2000 \ \mu mol \ m^{-2} \ s^{-1}$) and blue ($0 - 500 \ \mu mol \ m^{-2} \ s^{-1}$) light. Requires Clear-top Chamber; works with Light Source Extension Cable for dual light source measurements.



Large Light Source (6x6 cm)

The Large Light Source (6800-03) provides irradiance with independently controlled red, green, blue, and white light (up to 2400, 1000, 2000, and 1500 µmol m⁻² s⁻¹ respectively). Requires Large Leaf and Needle Chamber, Small Plant Chamber, or Bryophyte Chamber; works with Conifer Sprig Kit and Light Source Extension Cable for dual light source measurements.



Clear-top Chamber

The Clear-top Chamber (6800-12A) has a transparent top for gas exchange measurements using ambient light. Leaf area options include 3x3 cm, 2x3 cm, or 1x3 cm, using interchangeable apertures. Works with Small Light Source and Light Source Extension Cable for dual light source measurements.



Large Leaf and Needle Chamber

The Large Leaf and Needle Chamber (6800-13) is ideal for leaves and needles that are big enough to cover most or all of the 36-cm² area leaf aperture. Works with Large Light Source, Conifer Sprig Kit, and Light Source Extension Cable for dual light source measurements.



Small Plant Chamber

The Small Plant Chamber (6800-17) enables measurements of whole *Arabidopsis thaliana* plants, other small rosettes, or short canopies such as turf grass, in 65 mm (2.5 inch) pots or 38 mm (1.5 inch) Cone-Tainers[™].



Bryophyte Chamber

The Bryophyte Chamber (6800-24) is used to measure CO_2 and H_2O gas exchange from mosses, hornworts, liverworts, and lichens.



Custom Chamber Adapter

The Custom Chamber Adapter (6800-19) allows you to construct a chamber to meet your needs and mount it to the sensor head.



Insect Respiration Chamber

The Insect Respiration Chamber (6800-89) measures CO_2 respiration from insects, very small animals, or small fruits.



Soil CO₂ Flux Chamber

The Soil CO_2 Flux Chamber (6800-09) is used to measure the rate of diffusion of CO_2 from the soil surface. This 20 cm chamber uses technology from the patented LI-COR soil solution, which is the global standard in soil chamber technology.

Light Source Packages

6800-02P: Clear-top Chamber with Small Light Source

- **6800-13L:** Large Leaf and Needle Chamber and Conifer Sprig Adapters, with Large Light Source
- **6800-17L:** Small Plant Chamber with Large Light Source
- **6800-24L:** Bryophyte Chamber with Large Light Source

Accessories

9968-210: Sub-sample Kit Collect gas from sample, reference, and exhaust air streams.

- **9968-109: CO₂ Tank Adapter Kit** Attach a tank of compressed CO₂ to the CO₂ injector.
- **9968-242: Auxiliary Power Cable** Connect a deep cycle battery to the LI-6800.
- **9968-243: Light Source Ext. Cable** For dual light source measurements with Clear-top Chamber or Large Leaf and Needle Chamber.
- **9968-271: Conifer Sprig Kit** Mounts on the Large Leaf and Needle Chamber to accommodate

conifer sprigs; compatible with the Large Light Source and Light Source Extension Cable for dual light source measurements.

