The measurement of photosynthesis has always been considered very important in studying the physiological features of plant. There are currently three ways measuring photosynthetic rate, "the method of measuring the variation of carbon dioxide", one of them is widely used because of its convenience in usage and its stability and accuracy in data gathered through it. The used instrument is Li-6400 portable photosynthesis system.

The LI-6400 is an open system that measures the differences of CO2 and H2O in air stream flowing through the leaf cuvette as the measurement of photosynthesis and transpiration rate. The LI-6400 improves upon traditional open systems by having the gas analysers in the sensor head. This eliminates plumbing-related time delays, and allows tight control for responding to leaf changes.

SPECIFICATIONS

- **Performance**: CO2 and H2O analyzers in the sensor head provide rapid response and eliminate time delays.
- **Integration**: CO2, light, temperature, and humidity are controlled manually or automatically.
- **Flexibility**: Hardware and software may be easily adapted for a broad range of applications.
- **AutoPrograms**: AutoPrograms control chamber conditions and logging parameters to automatically generate response curves and other data.