

## *Portable Photosynthesis System (IRGA)*

**Make:** LI-COR

**Model:** LI-6400XT

**Condition:** Good

### *Type of analysis possible*

- CO<sub>2</sub> assimilation rates,
- Stomatal conductance,
- Intercellular CO<sub>2</sub> concentrations,
- Carboxylation and light use efficiencies
- CO<sub>2</sub> and light compensation points
- Photosynthesis
- Quantification of CO<sub>2</sub> and/or O<sub>2</sub> flux
- PAR (photosynthetically active radiation)



- A Photosynthesis system is design for the non-destructive measurement of photosynthetic rates in the field.
- The LI-6400XT Portable Photosynthesis System provides a stable platform for a variety of applications.
- Measuring photosynthesis is a short-term, fast response tool. The effect(s) of light, CO<sub>2</sub>, humidity, temperature, chemical, or biological factors on leaf gas exchange can be measured within few minutes.
- Measuring changes in plant growth responses is simple and very useful, also investigate short-term physiological responses.

<b>Specification</b>		<b>Contact Us</b>
CO <sub>2</sub> analyzer precision	Within 0.1 $\mu\text{mol mol}^{-1}$ RMS with 4-second averaging at 400 $\mu\text{mol mol}^{-1}$	Contact : Email Id : Ramesh.pal@icar.gov.in
H <sub>2</sub> O analyzer precision	Within 0.01 $\text{mmol mol}^{-1}$ RMS with 4-second averaging at 10 $\text{mmol mol}^{-1}$	
Bulk flow rate range	: 680 – 1700 $\mu\text{mol s}^{-1}$ at SATP <sup>1</sup>	
Light source uniformity:	< $\pm 10\%$ variation over 90% of aperture	
Chamber temperature control range:	10 °C above or below ambient	
Operating temperature range	0 – 50 °C	
Leaf temperature:	$\pm 10$ °C from ambient	
Accuracy	< $\pm 0.5$ °C total; $\pm 0.2$ °C cold junction reference; $\pm 0.3$ °C thermocouple when within $\pm 10$ °C of cold junction temperature	
<b>User Instructions</b>		
<ol style="list-style-type: none"> <li>1. Expected quantitative and qualitative data can be provided.</li> <li>2. The operating conditions should know before operations.</li> <li>3. Light source should be mentioned.</li> <li>4. Interpretation and application of the data will be carried out by the user</li> <li>5. Ensure that there are no toxic sample being given. Samples should not be toxic or hazardous.</li> </ol>		