

# LabSTAF

## Single Turnover Active Fluorometer

The next generation of STAF-based primary productivity instrumentation



LabSTAF is a Single Turnover Active Fluorometry (STAF) system measuring Phytoplankton Primary Productivity (PhytoPP).

## Key Features

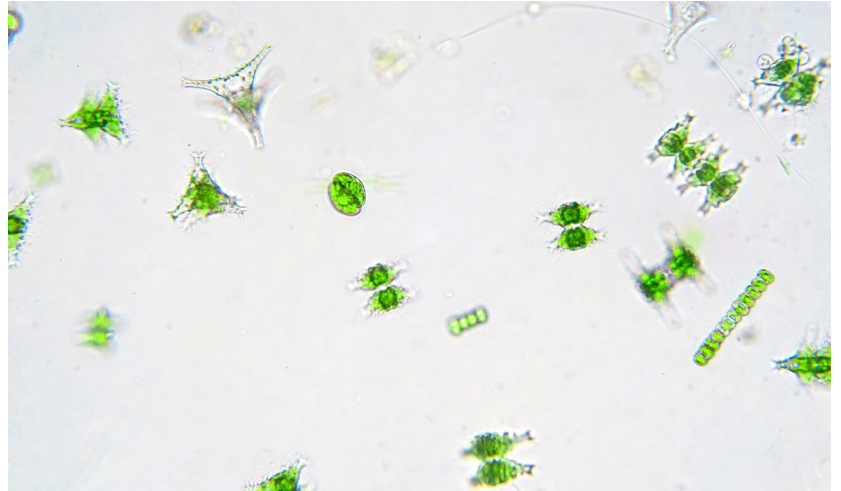
- **Monitoring phytoplankton primary productivity** using latest in STAF technology
- **Unparalleled sensitivity** allowing for measurements in extreme oligotrophic water
- **Fully automated acquisition** for continuous measurements
- **Wide dynamic range** providing reliable measurements in open oceans and lakes
- **Advanced corrections** as standard seven waveband excitation, baseline subtraction
- **Compact and robust** portable unit ideal for research vessels and outdoor locations

## Usability

- **Automated archiving**
- **Real time data processing and presentation**
- **Flexible experimental design**
- **Data extraction functions**

## Applications

- **Measurement of PSII photochemical flux per unit volume ( $JV_{PII}$ )**
- **Quantitative assessment of the fundamental systems driving the global carbon cycle**
- **Analysis of the biochemistry and ecology of aquatic systems**
- **Verification of satellite data**
- **Climate change research and modelling**
- **Ecological monitoring**



## Specifications

Power supply	140 - 400 mA, 24 V, 3.4 - 9.7 W
Dimensions (mm)	235 (H) x 320 (D) x 420 (W)
Mass (approx.)	8.1 kg
Sample Chamber	20 mL sample volume with fused silica vertical cylinder, BK7 base
Excitation wavebands (wavelength)	452, 472, 505, 417, 534, 594, 622 nm
Actinic light source	Collimated output from 10 - 2400 $\mu\text{mol photons m}^{-2} \text{s}^{-1}$ at 12 bit resolution
Detection limit	Can resolve $F_v$ with an amplitude equivalent to 0.001 $\text{mg m}^{-3}$ of chlorophyll $a$
IP Rating	IP65

\*In view of our continual improvements, the designs and specifications of our products may vary from those described.