



Innovation in Environmental & Process Technology

We **Understand** Water & Waste Water Monitoring

BBE Algae Lab Analyser

Measurement of chlorophyll-a and photosynthetic activity in the laboratory

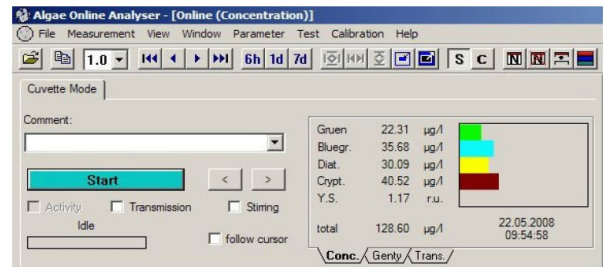


Features:

- Determination of Total Chlorophyll
- Determination of photosynthetically active chlorophyll (activity)
- Quantifies the % of green, blue green, brown & cryptophyceae spectral classes
- Automatic compensation for turbid samples
- Mains or battery operation
- Data saved and processed on PC

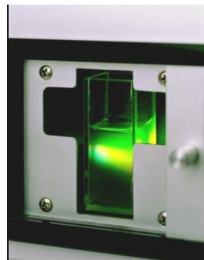
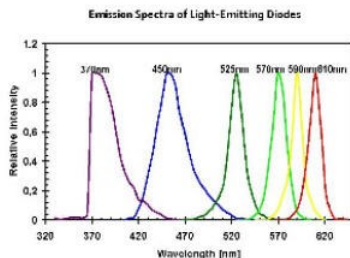
Applications:

- Watercourse analysis and assessment
- general environmental management
- intake monitoring
- toxicity testing
- dam monitoring
- leisure user protection



Benefits:

- Watercourse analysis and assessment
- No sample preparation required
- Rapid measurement < 3mins
- Good correlation with HPLC ($r^2 > 0.93$)
- Discrimination of algal classes including cyanobacteria
- Prediction of substance toxicity against algae
- Compensation for yellow substance
- Field or lab use



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The **Algae Lab Analyser**, is a laboratory spectrophotometer system for the determination of total chlorophyll and the % make up from different spectral classes. Spectral fingerprints for the different algal classes are stored in the instrument and a method of multiple linear regression is used on the sample spectra to give the best fit. This gives higher precision of determination than single wavelength methods, as well as yielding the % of chl-a in each class. It may be also used to determine the Genty parameter which is a measure of the biological activity of the algae. This capability permits the ALA to be used as an algal lab toxicity meter. The short time for each analysis, unskilled operation, lack of pre-treatment requirement and the precision of measurement make this instrument an ideal tool for large sample number screening as in the requirement for bathing water protection or abstraction protection work.

Analyser Performance	
Measurement Parameters	Total chlorophyll [$\mu\text{g ChlA/l}$], green algae [$\mu\text{g Chl/a/l}$], blue-green algae [$\mu\text{g Chl/a/l}$], diatoms [$\mu\text{g Chl/a/l}$], cryptophyceae [$\mu\text{g Chl/a/l}$], yellow substances correction, transmission (at 5 wavelengths), photosynthetic activity (Genty) - optional
Measurement Procedure	Spectral Fluorometer
Range	0-200 $\mu\text{g chl-a/l}$
Resolution	0.01 $\mu\text{g chl-a/l}$
Transmission	0 - 100 %
Sample	25ml cuvette : Temp 0 - 40 °C
Calibration method	Optional performance test cuvette
Measurement Time	Less than 1 minute

Transmitter Specification		
Construction	Dimensions (h x w x d)	220 x 370 x 400 mm
	Weight	7.5 kg
	Materials	Aluminium case
	Protection class	IP 54
Software	Supplied unit Windows Notebook - contact Envitech for details	
	bbe++ Windows software with database	
	Graphic display of all measurement values	
	Online display in LAN	
Power requirements	110/230V @50/60 Hz - 12V DC	
	10 W	

Optional
12V Cigarette Lighter Adapter + Cable
Transport case
Rechargeable battery pack
AlgaeLabAnalyser w. Algae differentiation and activity measurement

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