

Newsletter March 2019

Dear Readers!

Welcome to our 1st newsletter of the new year 2019.
In this quarter's newsletter, we present news on ...

- *Measuring unbound phycocyanin with bbe Phyco-devices*
- *bbe at Ocean business*
- *New scientific article by Christian Moldaenke has been published*
- *Revision of the bbe Toximeters*

With our best regards,
bbe Moldaenke

Algae class differentiation and early warning system by measuring unbound phycocyanin with PhycoProbe, PhycoSens and PhycoLabAnalyser

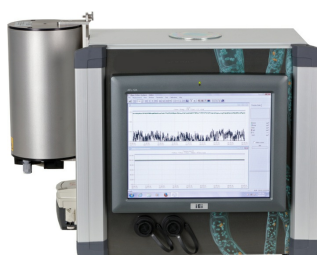
The free colour pigments of the cyanobacteria are an important indicator for cyanotoxins as well as flavours and odorous substances in raw water. The chlorophyll and phycocyanin content is excited by coloured LEDs and allocated to the different algal classes.

The **bbe PhycoProbe** is a highly sensitive measuring instrument for the in vivo analysis of chlorophyll-a in real microalgae and blue-green algae (cyanobacteria). Individual profiles for the different algal classes are created during the real time measurement.

The **bbe PhycoSens** is deployed in measuring stations and laboratories in which online measurement of water quality is required for rivers, reservoirs, dams and lakes as well as in drinking water production. The instrument impresses due to its rapid online analysis of chlorophyll and unbound phycocyanin concentrations.

The **bbe PhycoLabAnalyser** enables direct measurement without sample preparation by filtration or solvent. The fluorescence signals f_0 , f , and f_m are used to calculate the photosynthetic activity using the Genty parameter method.

A yellow substances (CDOM) correction is used to correctly calculate the total chlorophyll content with all the bbe devices.



bbe at OCEAN Business

Ocean Business 2019, taking place at the National Oceanography Centre in Southampton from 9-11 April 2019

Ocean Business promises to be an incredible global show offering the very latest technologies, water-based demonstrations and learning opportunities, as well as Offshore Survey, Ocean Careers, key international associated industry events and an amazing line-up of social opportunities for networking.

bbe is going to present the new version of the 10cells. Next to this bbe also introduces the FluoroProbe as titanium version. This submersible fluorometer can stay in salt water for longer time without the risk of corrosion.

If you would like to meet our bbe staff and discuss the new features find us at the **booth no N3**. You may contact us previously to make an appointment: bbe@bbe-moldaenke.de

ocean
BUSINESS 19 9 - 11 April 2019
Southampton UK



New scientific article by Christian Moldaenke has been published

The BBE Phyco Instruments described above were used in a scientific project at Yangcheng Lake, China.

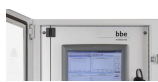
The primary focus was the establishment of an early warning system for cyanobacterial toxins at a drinking water reservoir in order to optimize the water treatment process in the event of cyanobacterial blooms. Some treatment processes destroy cyanobacterial cells, and the resulting cell lysis can release toxin, taste, and odor compounds into the water. To detect cell lysis, the excitation and emission wavelengths in the BBE Phyco Instruments have been optimized to the fluorescence characteristics of the cyanobacterial pigment phycocyanin. The detection of unbound phycocyanin can then be used as an indicator of cell lysis, providing an early warning of the release of toxin, taste, and odor compounds. It can then be shown that some treatment processes destroy the cells, leading to increased concentrations of toxin, taste, and odor compounds.

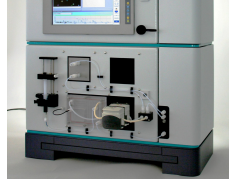
The results of this study and further investigation into cyanobacteria are published in the article "Early warning method for cyanobacteria toxin, taste and odor problems by the evaluation of fluorescence signals" in the journal Science of The Total Environment.

[✓ Read full version of the article ...](#)

Revision of the bbe Toximeters

As you may know from older newsletters or information on our website we are in process of revising our bbe Toximeters. Some changes are due to supplier changes, some will enhance operation. During this process the delivery times of ordered Toximeters can unfortunately be extended for a few weeks. We are sorry for any inconveniences but are sure that you will also cherish the improvements.





More Information at bbe-moldaenke.de ..

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