

BST Bio Sensor Technology GmbH

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BST Bio Sensor Technology GmbH



## ANALYTES

Glucose

Lactate

Superoxide

Hydrogen peroxide

Pyruvate

Uric acid

Lactose

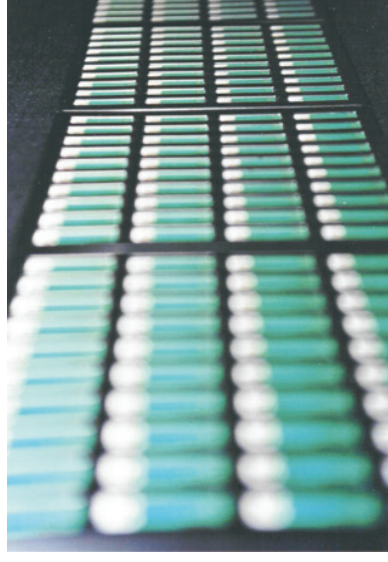
Sucrose

Oxalate

Tyrosine

Phenol

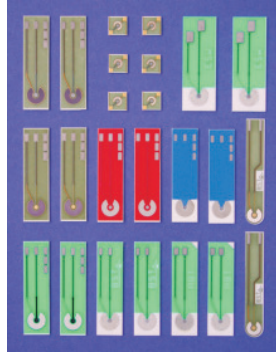
Glutamate



## History

The company's history dates back to 1975 when the biosensor research group started at the Berlin Academy of Sciences resulting in the first European biosensor based blood glucose analyzer (Glukometer GKM, 1982). After 1982 biosensors for more than 50 analytes have been developed and integrated into different families of instruments which have been sold worldwide. In 1991 BST Bio Sensor Technology GmbH was established by four members of the former Berlin Biosensor Group. Since 1991 new technologies and new products have been developed and marketed together with various partners.

Since May 2008 BST structure has been significantly improved by establishing a second Unit for own development and production of instruments. Thus, today BST GmbH is an international operating company selling instruments based on biosensors and all related consumables including the multi-way biosensors.



Thin film type biosensors – for application in glucose and lactate analyzer and POCT systems



Membrane type biosensors – for application in glucose and lactate analyzer

## Core technologies

BST biosensors, depending on the field of application are based on membrane technology, thick film technology and thin film technology. Based on patented know how our specialists are able to create an optimal combination of the respective biological material and a suitable transducer. The carefully designed biosensors are able to detect millimolar concentrations of substances (e.g. glucose in whole blood) and picomolar concentration (e.g., hormones) as well.

BST is also well known for its POCT instruments Glukometer 3000<sup>®</sup> and LactatProfi 3000<sup>®</sup>. Both are the only handheld instruments worldwide, working with a multi-way biosensor and able to measure lab quality in a bedside situation.

## Products

Main products are

- i) thick film type multi-way biosensors for glucose and lactate in whole blood and hemolysate
- ii) membrane type biosensors for glucose and lactate in hemolysate
- iii) POCT devices in the area of blood glucose measurement and lactate determination based on BST multi-way-biosensors

The blood glucose measurement device Glukometer 3000<sup>®</sup> and the LactatProfi 3000<sup>®</sup> for determination of lactate concentration in blood, are based on electrochemical multi-way biosensors. These products are the first own instruments produced by BST and marketed since 2005. Furthermore, we offer biosensors for the determination of pyruvate, hydrogen peroxide, phenol, lactose, sucrose, oxalate, uric acid, glutamate and superoxide. All biosensors are characterized by high reproducibility and defined quality, long lifetime, high storage stability, high specificity, high accuracy, and reliable handling.



Calibration and control solutions for POCT devices Glukometer 3000<sup>®</sup> / LactatProfi 3000<sup>®</sup>.

Beside biosensors we provide you with test systems and all the respective materials necessary for the application of BST biosensors, e.g., stabilized system solutions, calibration solutions, measuring cells and capillaries.

## Application

More than 30 years of top-level innovations



Glukometer 3000<sup>®</sup> BST GmbH  
Mobile glucose system for POCT application



EBO plus / EKF diagnostic GmbH  
Glucose analyzer



modular<sup>®</sup> / Eschweiler Blood gas analyzer



eco twenty / Care diagnostica  
Glucose analyzer based on thick film technology

Pioneering the fundamental development in Germany and Europe, BST has made a name for themselves. In close cooperation with various enterprises numerous devices were developed which made their way into various fields of research, medicine and food control.

BST products are used worldwide in auto analyzer and POCT products as well.

Since 2008 BST is producing own instruments for the POCT market.

### Examples:

- i) Glukometer 3000<sup>®</sup>, LactatProfi 3000<sup>®</sup>, BST GmbH / Germany
- ii) EBOplus, EBOcompact - EKF diagnostica GmbH / Germany
- iii) modularPRO - Eschweiler / Germany
- iv) ecoTwenty - Care diagnostica Laborreagenzien GmbH / Germany

## Landmarks

1975

The beginning of biosensor research in Germany a research group on biosensors is set up under Prof. Frieder W. Scheller at the Academy of Sciences in Berlin

1982

The first biosensor based blood glucose measuring device is launched on the European market

1986

The Enzyme-Chemical Analyzer ECA 20 is jointly developed with the Fruegerte-Werk Medingen, Dresden and launched in Europe by Eppendorf-Nethelher-Hinz GmbH Hamburg/D

1991

BST Bio Sensor Technology GmbH is founded in Berlin by four members of the former Berlin biosensor group

1995

Next generations of instruments EBOplus and EBOcompact are marketed by Eppendorf-Nethelher-Hinz GmbH Hamburg. Again, it is the BST glucose and lactate biosensor which forms the heart of these analyzers.

2000

Thick film type biosensors were placed on the market for glucose and lactate

2002

New generation of glucose analyzer is marketed by CARE diagnostica GmbH. Now thick film based biosensors are the basic detectors

2004

The first mobile measuring system based on BST multi-way biosensor technology is marketed by CARE diagnostica / D in Germany (EcoSolo II) and ABT Advanced Bioanalytical Technology GmbH worldwide (Glukometer 3000<sup>®</sup>).

The mobile multi-way biosensor technology is now available for lactate and launched by ABT worldwide (LactatProfi 3000<sup>®</sup>).

2008

BST established the new Unit Instruments near the Dutch border in Issum. This new organizational structure makes us independent and brings us closer and more efficient to our customers needs.