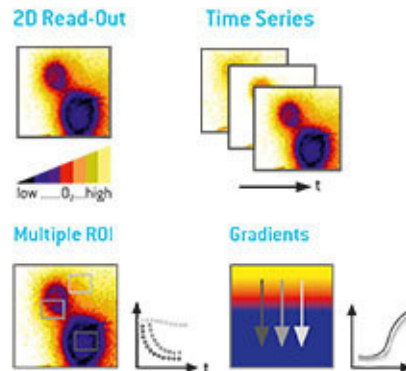




New Quick Guides

Easy 2D-Imaging of Oxygen, pH & CO₂



Dear Max Mustermann

Are you interested in getting 2D read-outs of your measurements? You want to see spatio-temporal gradients, detect hotspots, record time series and get the full picture of what is inside your sample? And all this in a very easy, quick and simple way! Have a look at our [promotional offer](#)?

With our new [Quick Guides](#) you can start to work with our VisiSens Detector Units right away as you find all relevant information for your application on just two pages. For pH mapping, the new accessory [CaliPlate](#) will save you a lot of time during calibration.

Our most current [application examples](#) should give you food for thoughts how VisiSens could assist you with your special application.

Enjoy reading and we are keen on your feedback!

Your PreSens-Team

- [>> Product News](#)
- [>> Promotional Offer](#)
- [>> Application Examples](#)
- [>> PreSens Events](#)

Product News

[>> Back](#)



VisiSens Quick Guides

The new VisiSens Quick Guides offer you on just 2 pages all relevant information you need for starting to work with the system - with a special focus on your application! They take care of the "Do's and Don'ts" for handling the equipment, give useful recommendations for calibration, offer links to webinars, short "How to - Videos" or related application notes. Quick Guides are available for:

- [General Usage Notes](#)
- [Notes on O₂ & pH in Cell Culture](#)
- [Notes on O₂ Measurement in Microfluidics](#)
- [Notes on pH Measurement in Rhizotrons](#)
- [Notes on O₂, pH & CO₂ in Sediments](#)

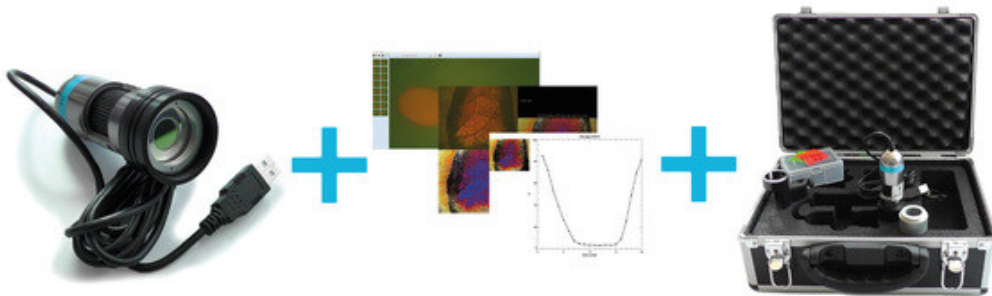


CaliPlates - the Calibration Helper for pH Sensor Foils

The CaliPlate is a small 10-well plate which eases pH sensor foil calibration, as no calibration vessel or pieces of sensor foil have to be prepared. It has the sensor foil SF-LV1R (low pH range) or SF-HP5R (regular pH range) at the bottom of each well. The sensor foil is from the same batch since the foil used for experiments as the CaliPlate is produced together with the SF ordered. It allows taking calibration images of several wells with the VisiSens Detector Unit DU02.

Nice Price for VisiSens Setups

[>> Back](#)



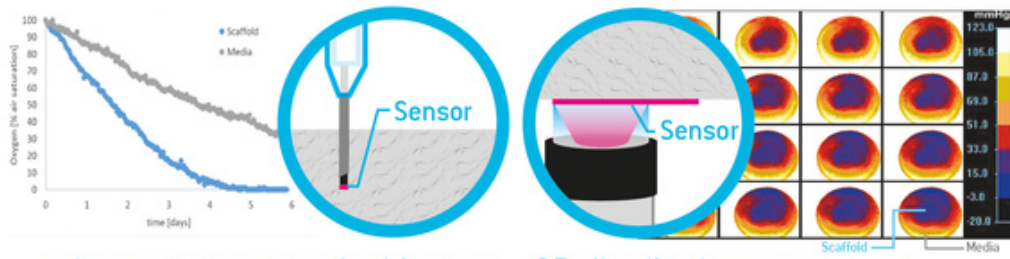
PreSens offers you your VisiSens Setup at some very nice price:

Pick your analyte - oxygen, pH or CO₂ - and pay only € 1,990.00 for the Detection Unit including AnalytiCal Software and Equipment Case. We will be happy to send you your [personalized quote](#).

Application Examples

[>> Back](#)

Oxygen Mapping:
[Probing a Novel Seeding Strategy for Bone Tissue Engineering](#)



point measurements inside your sample with **microsensors**

2D-distributions over cross sections & surfaces with **VisiSens**

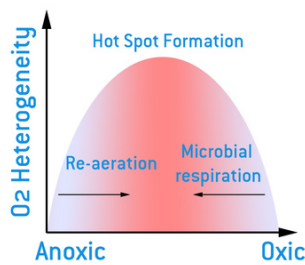
Bone tissue engineering (BTE) utilizing biomaterial scaffolds and human mesenchymal stem cells is a promising approach for the treatment of bone defects. The quality of engineered tissue is crucially affected e.g. by cell density and their oxygen supply. In this new article by researchers of LMU from Munich **VisiSens** oxygen imaging and oxygen **microsensors** were used simultaneously to monitor the temporal oxygen distribution and gradients *in vitro* in 3D-scaffolds in order to analyze a new cell-seeding strategy. Recorded oxygen maps revealed that hMSCs seeded scaffolds, harvested at lower densities, exhibited a rapid exponential oxygen consumption profile. In contrast, harvesting cells at higher densities resulted in a very slow, almost linear, oxygen decrease due to gradually achieving the stationary growth phase. The VisiSens system enables continuous, two-dimensional, quick and convenient to handle oxygen mapping for the development and optimization of tissue engineering scaffolds.

[>> Read more ...](#)



Metabolism in Soils: O₂ Imaging Captures the spatio-temporal heterogeneity

Fine-scale processes in soils affect large-scale phenomena by controlling mixing and reaction rates. Yet, limited information is available on fine-scale biogeochemical rates and their temporal and spatial patterns. Researchers from the US and Italy investigated the spatio-temporal dynamics in oxidative microbial activity and the development of anoxic micro zones (i.e., anoxic hot-spots) at the microscopic level ($\mu\text{m} - \text{cm}$) via non-invasive & non-destructive 2D imaging with the **VisiSens** system.



Results showed quick formation of anoxic hot-spots with differences up to one order of magnitude in metabolic rate values. Oxidic and anoxic micro-zones coexisted closely. The relationship between oxygen concentrations and heterogeneity of oxidative metabolism resulted in an initial increase in metabolic heterogeneity over time, followed by a decrease when anoxic conditions dominated. These results demonstrate that the microbial activity and hot-spot development can be monitored quantitatively by using the VisiSens system. It is concluded that local dynamics of heterogeneity in space and time at the fine scale present the same functional behavior encountered in most ecosystems at the landscape-scale.

[>> Read more ...](#)

PreSens Events

[>> Back](#)

Meet Us at One of Our Upcoming Exhibitions:

February 26 - March 3, 2017

ASLO 2017 Ocean Sciences Meeting

[ASLO 2017](#)

Honolulu, HI, USA, Hawaii Convention Center, Booth E14/E15

February 27 - March 2, 2017

IFPAC Annual Meeting 2017

[IFPAC 2017](#)

North Bethesda, MD, USA, Bethesda North Marriott

You would like to learn even more about PreSens Precision Sensing? Please visit our homepage www.presens.de and don't hesitate to contact us. Any feedback will be appreciated.

With kind regards

Christina Schlauderer

Communications



PreSens Precision Sensing GmbH

Am BioPark 11 - 93053 Regensburg - Germany

Phone +49 941 942 72 109, Fax +49 941 942 72 111

christina.schlauderer@presens.de, www.PreSens.de

Trade Register Ingolstadt HRB 101505, CEO: Achim Stangelmayer

[Click here to unsubscribe.](#)