AMT Newsletter, Issue January 2005

Dear Customer,

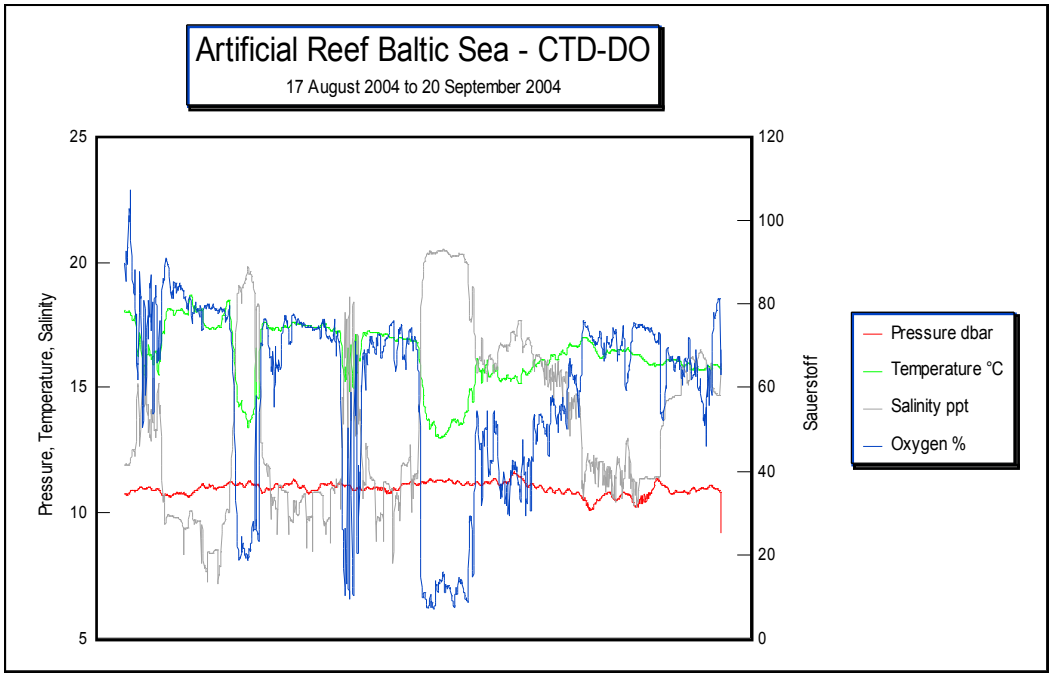
AMT GmbH welcomes you to a new issue of the AMT Newsletter. We would like to inform you about some new products and about improvements in our range of products. Further information and pricing you will receive on request when contacting us as listed below.

NEWS

1. Fast profiling CTD-DO probe for shallow water
2. H_2S/pH/T-Memory probe
3. New Oxygen Microsensor
4. Cooperation with TriOS (optical sensors)
5. Fuel Cell Development for underwater use

1. Fast Profiling CTD-DO probe

The fast profiling CTD-DO probe for shallow water use (maximum depth 100 m) was developed in cooperation with the well-known German probe manufacturer SST. This small high-precision and low cost probe system is used both in undulating towed vehicles and for profiling in coastal zones. It is equipped with fast response sensors for CTD and dissolved oxygen and is protected against corrosion in sea water but also in aggressive chemical media with a titanium housing. The probe is available as direct-reading probe and with memory function starting already with prices of less than 5.000 Euros.



2. H_2S/pH/T-Memory probe

After successful introduction of the online version of this probe system, the memory version is available now. Customers have used this probe system for months in seawater with great success. This probe system is very small (diameter less than 48 mm) and the low weight of approx. 1 kg on air allows an easy handling also from small boats.

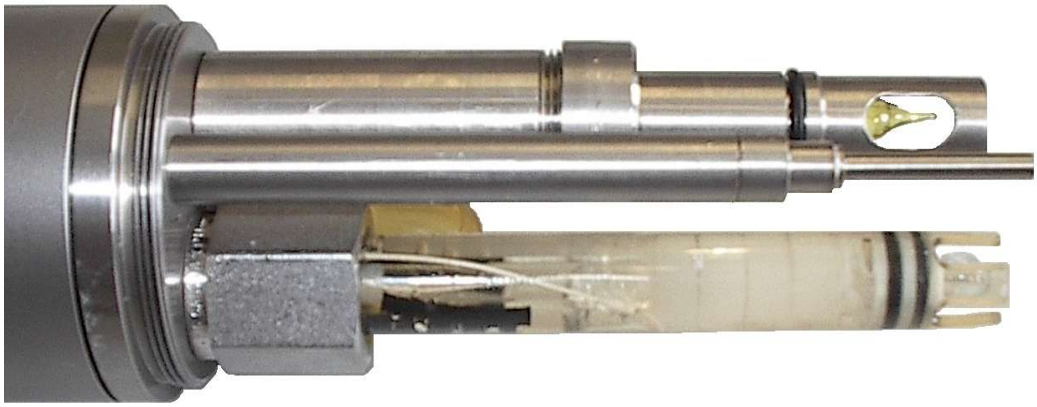


Fig.: Probe bottom of the H_2S/pH/T-Memory probe

3. New Oxygen Microsensor

AMT GmbH is well-known since several years as the manufacturer with one of the fastest oxygen sensors. These sensors are used successfully in all over the world for fast depth profiling and for the use in towed vehicles and towed chains. On customers request we have developed a new sensor electrolyte improving the life time and minimizing the drift of the slope during the sensor life. Several test sensors are working 18 months non-stop without any maintenance. The price has not changed and this leads to an essential reduction of the costs due to the longer life times of the sensor tips. For customers using the sensor in critical media or in towed vehicles we offer a new protection cap for the profiling in order to protect the sensor against mechanical damage.

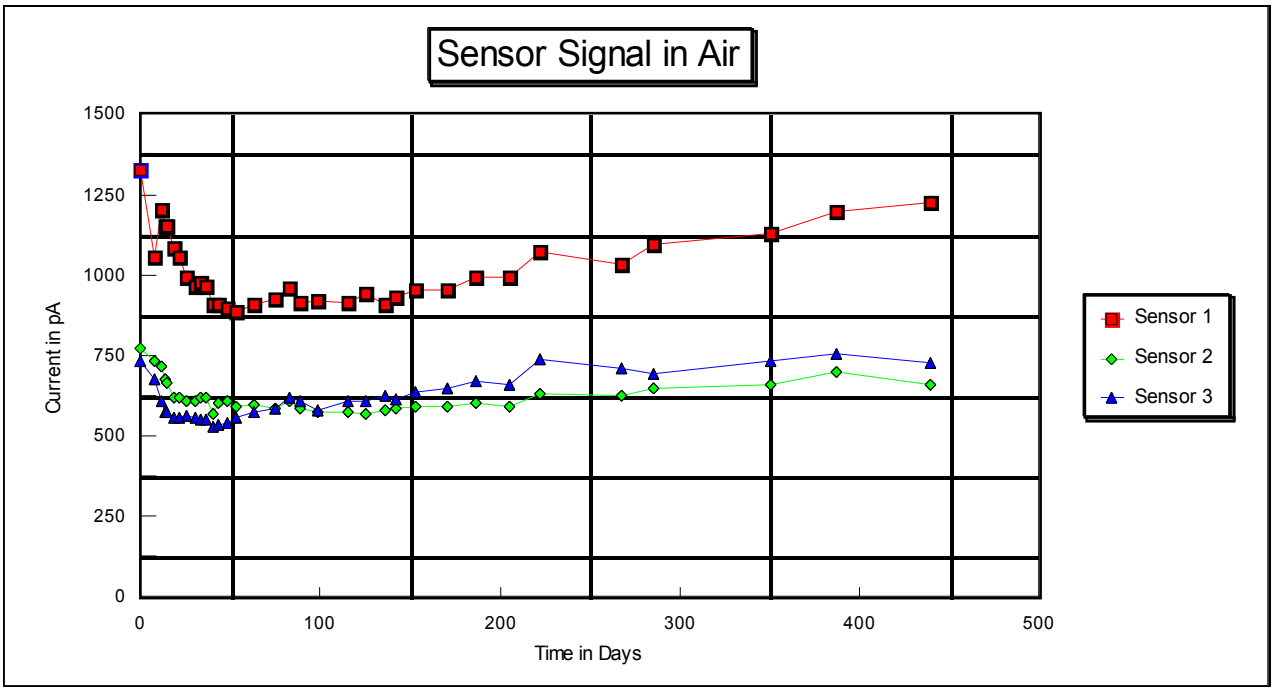


Fig.: Long-time test of AMT-DO-Shallow-Micro-sensor in air

3 sensors are stressed 24 hours per day on air (room temperature, air pressure) since August 2003 without any maintenance, membrane exchange or electrolyte refilling. The raw data are not temperature and pressure compensated. The test has not been finished yet, because the sensor are still alive.

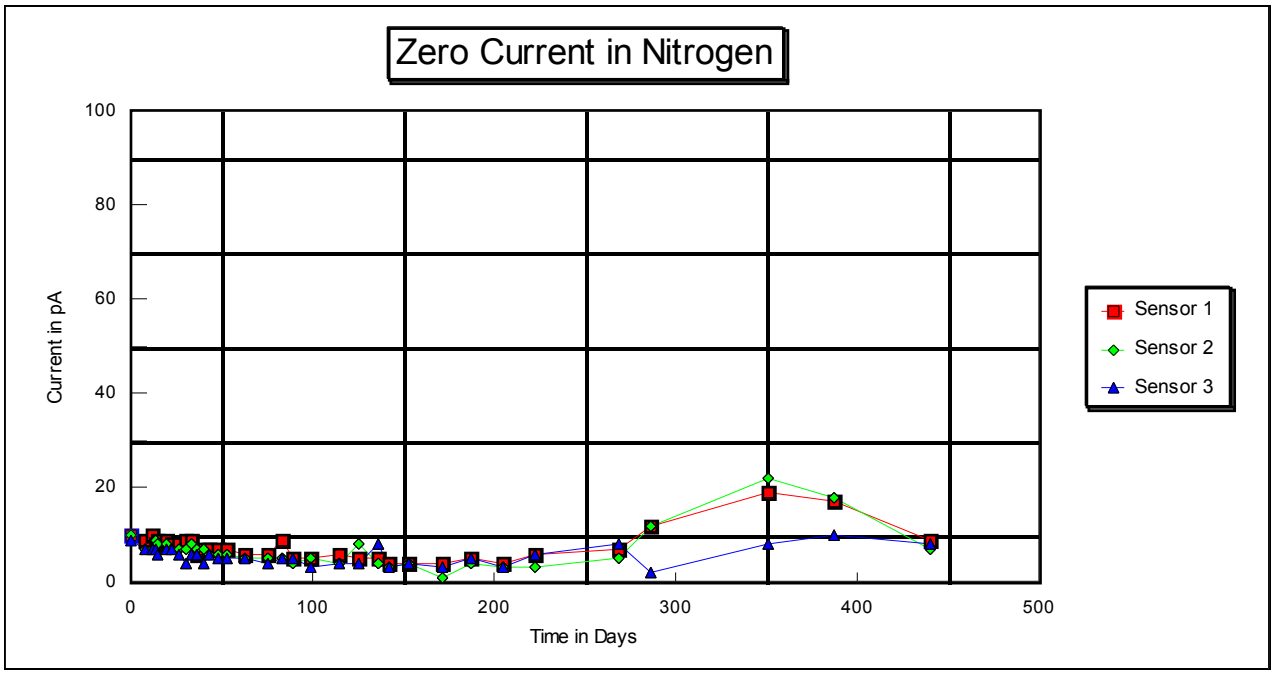


Fig.: Residual current of the AMT DO micro-sensor

4. Cooperation with TriOS

In cooperation with TriOS AMT has extended the TriOS-made optical sensor ProPS for the determination of Hydrogen Sulphide. This allows the determination of the total dissolved sulphide amount when combining the instrument with a pH/temperature measurement also in the deep sea.

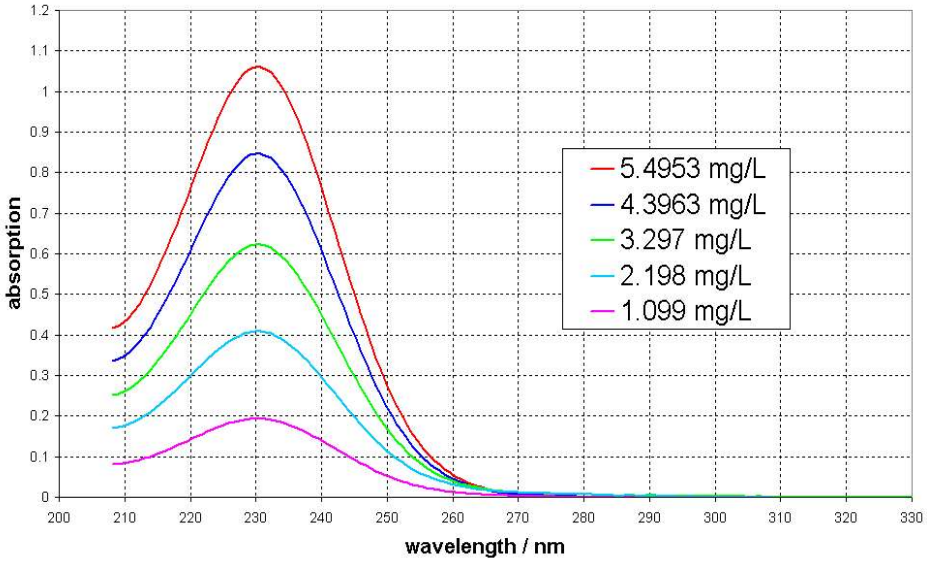


Fig.: Absorption spectra for different Hydrogen Sulphide concentrations at pH=7,55

5. Fuel Cell Development for underwater use

AMT GmbH has started a new project developing fuel cell systems for underwater use as power source for long-time measurements. In this project well-know German institutes and companies are working in a scientific pool under the leadership of AMT GmbH. The aim is to develop an independent power source for underwater probe systems, but also for other instruments and vehicles working underwater.

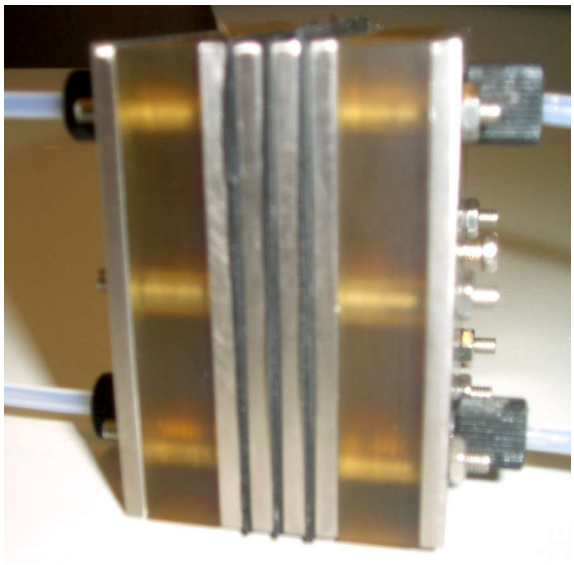


Fig.: Fuel cell test stack with 3 cells.

If you require any further information about the items described above, please contact us directly or download the information from our Website here.

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