

ASI TODAY

A newsletter for customers of Analytical Sensors & Instruments Ltd.

Winter 2010/11

ASI can help you customize an electrode for your company and/or application needs

ASI has an assortment of existing designs to choose from, or you can customize one to meet your needs. We can even also build to your specifications - send us a drawing package, sketch or sample. Some of the design inputs to consider are:

Electrode Type - Laboratory or Process?

A laboratory electrode is typically a 12-mm diameter, handheld electrode. A Process or "in-line" electrode usually has a threaded or other type of insertion mechanism for fixed, or "in-pipe" installations and continuous measurements.

Body Housing Material - Compatibility with your sample.

Choose from a host of body materials such as polycarbonate, Glass, epoxy, PVC, Kynar, Ryton or other options to meet your application needs.

Insertion Types - Length and fitting types.

Narrowed necks, or threaded fittings allow for best utility in your sample or process stream. Custom fittings are available to make sure your electrode is secure, yet easy to remove.

Sensor Details - Size, shape, & performance.

The sensor can be flat for surface measurements or easy cleaning, spear tipped for penetrating semisolids, or anything in between to balance durability and performance. ASI has various sensor formulations to meet your application needs

Reference System - Single or Double Junction, Sealed or Refillable, Ag/AgCl or Calomel?

The reference half cell is a critical element of the electrochemical system. Your sample matrix, interferences, and life expectancy of the electrode influence the reference system specifications. Choose from



Custom Electrodes continued on page 3...



ASI is pleased to announce the availability of it's newest tester - the pH/ORP Testrode. You won't find a better feature set for the price than ASI's pH/ORP Testrode. This pH/ORP Tester is perfect for general purpose, environmental, pool & spa, aquaculture, or other pH and temperature measurements.

With it's ±0.02 pH unit accuracy and the ability to calibrate it with 1, 2 or 3 pH Buffers that are automatically recognized, you get a very capable tester at a fraction of the cost of a portable or benchtop pH/ORP Meter.

With one of the largest, and easiest to read displays in the industry, you can see either pH (or ORP) simultaneously with the temperature (°F or °C) as well as the date, time and other measurement details. The display is even backlit so measurements in low-light conditions are feasible.

The pH/ORP Testrode adds a date and time stamp on each of its available 25 memory points for your data. Easily recall the data for your critical record keeping requirements.

Request the spec sheet and other information on this product at info@asi-sensors.com



ORP Anyone?

Oxidation-Reduction Potential is synonymous with "REDOX" or "ORP" and is a common measurement parameter in many industries such as swimming pools and spas, water disinfection processes, pulp & paper mills, and other commercial and industrial applications.

The ORP measurement is in mV units and simply put, is a measurement of the chemical oxidation or reduction state of a solution. For example, when chlorine is added to a swimming pool, it oxidizes the enzymes and other cellular chemistries of bacteria and other organisms that may be present in the water, thereby disinfecting the water. When the water is disinfected, the further addition of chlorine is not necessary - becoming wasteful and even unhealthy. Analysts use the ORP measurement to determine when the chlorine oxidation processes are complete.

Because the ORP measurement is in mV units - there is not a true calibration procedure for ORP electrodes. Instead the sensor performance can be checked using solutions of known mV values such as:

- Zobell's Solution: ~228mV
- Light's Solution: ~450mV
- pH 4 with Quinhydrone: ~260mV*
- pH 7 with Quinhydrone: ~90mV*

*these solutions are not very stable and should be used as quickly as possible after mixing.



Analytical Sensors & Instruments Ltd.

Measuring Your SuccessSM

*...Custom electrodes continued from page 1
fiber, ceramic, porous teflon or other
junction materials to ensure application
performance.*

Cable Length - How far does your cable
need to be to reach the sample?

*The cable type and length are important
to ensure noise-free signals. ASI only
uses premium cable materials to ensure
accurate measurements. We can provide
guidance on preamp requirements for
cable lengths in excess of 50 feet.*

Connector Type - Both standard and cus-
tom options available

*The meter/monitor requires a specific
connector and pin-out - let us know what
you need and most likely we will have
that connector in our inventory.*

ASI has been in business for over twenty
years, and every year we have helped
customers with their unique applica-
tion challenges. Contact your dedicated
account manager or anyone on the ASI
team. We look forward to talking to
you, and helping you meet your business
goals.

**ASI's B1-Series Field Rebuildable
Electrode is easily customized for your ap-
plication. With it's cartridge-style sensors,
the availability of various insertion types,
cable lengths
and other ad-
justable speci-
fications, the B1
is a convenient
and affordable
sensor for your
application.**



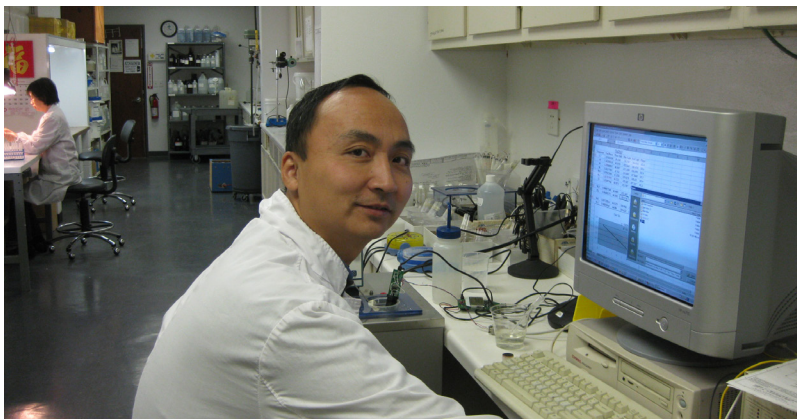
Thank you ...

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instead of printed and mailed. This new and
efficient process helps reduce waste and is better
for the environment! Invoices are e-mailed within
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Hua Mo, Ph.D - R&D Manager



Dr. Hua Mo joined ASI in August 2009 as the Manager
of our Research & Development team. His prior
experience in industrial measurement applications
has brought new development opportunities to ASI's
technology offering.

Dr. Mo received his Bachelor's degree in Chemical
Engineering from the Beijing Institute of Light
Industry, his Masters Degree in Analytical Chemistry
from Tsinghua University in Beijing - one of the most
prestigious institutions in China. He earned his Ph.D.
degree in Organic Chemistry from Rice University. His
doctoral work included both analytical and organic
chemistry.

In his spare time, Dr. Mo enjoys cooking and enjoying
Texas barbecue with his family.

In 2011, ASI has a number of exciting new products and
technologies that our R&D group has developed under
Dr. Mo's lead.



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RETURN SERVICE REQUESTED

From the President's Desk



Dear Customers and Friends:

As the year 2010 comes to a close, it is a good time to reflect on the successes of the past 12 months and start planning for the next few years. ASI is closing in on a record fiscal year and we appreciate each and every customer that helped us achieve this remarkable milestone in our company's history. Over the past year, we were able to make significant

changes to the way we operate our business and maintain our customer relationships. We were able to remodel our Sugar Land facility and expand our Shanghai branch facility to increase our production capability and efficiency. We were also able to add talented and skilled individuals to our organization in 2010 and introduced new technologies such as our new line of handheld testers called TesTrodes, to our product lines. We also partnered with new customers and continued to service existing customers worldwide. We truly appreciate our customer loyalty and the reputation we have achieved in this industry over the past 21+ years.

In 2011, we plan to continue the momentum of the past 12 months and achieve even more successes with some exciting new technology and product introductions. I was able to meet with many of our customers in 2010 and look forward to more opportunities to do so in the future.

I hope your company has had similar success in 2010, and I sincerely praise the Lord for this world and thank you for your ongoing support and confidence.

Peter Cai
President and CFO