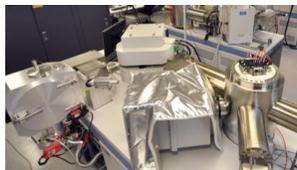
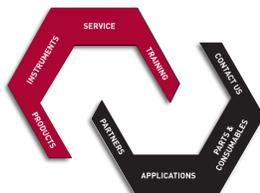




Top stories in this newsletter



Introduction



New Website



Delta Ray



New Products

INTRODUCTION - MESSAGE FROM PETER STOW



Dr. Graham Pearson

Hello, and welcome to the first issue of our 2014 newsletter. We hope that you find the articles interesting and informative. Please feel free to contact us for more information on any of the articles in the newsletter or the products we provide.

Before Christmas I was very privileged to be invited to the official opening of the Arctic Resources Geochemistry Laboratory at the University of Alberta in Edmonton. Professor Graham Pearson has built a state of the art research laboratory to study the formation of the earth's mantle. With mass spectrometers from Thermo Scientific the laboratory is equipped to measure trace elements down to the ppq (parts per quadrillion) concentration and isotopic ratios to better than 5 ppm (parts per million). Methods developed in Dr. Pearson's laboratory are used to predict the potential for platinum group minerals and diamonds. Please visit <http://www.eas.ualberta.ca/ccim/?page=arctic> for more information.

We're also very pleased to be able to share the developments to our new web site with you. Alyisha has an article with some of the changes that we expect will make our web site more useful to you.

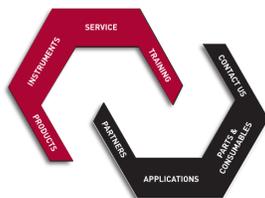
There are two different products showcased in this edition of the newsletter from two different manufactures: Spetec peristaltic pumps and a new, laser based, isotope ratio instrument from Thermo. The Delta Ray is a very exciting development in the world of atmospheric isotope monitoring. It's the first transportable instrument of it's kind to provide in-built referencing for the simultaneous measurement of both ¹³C and ¹⁸O.

Last year we were very sad to see Trudy Binder retire from Isomass. Trudy had been with us for six years in the role of packer/shipper/receiver. So, it's very likely that she had personally packed the consumables or spares shipped to your laboratory. As a memento of Isomass, we presented her with an original painting by a local artist. I'm sure that you would all like to join Isomass in wishing Trudy a very happy and enjoyable retirement.



Trudy Binder

NEW WEBSITE! WWW.ISOMASS.COM



It is with great excitement we share the news of the upcoming launch of our new website www.isomass.com! We've been working hard to build a website with the same high-quality support we offer our customers on a day-to-day basis. The new [Isomass.com](http://www.isomass.com) will have a simple, user-friendly theme making it easier for you to better understand our wide range of products such as pre-owned instruments, spare parts, consumables and accessories as well as our instrument services and training.

New website features will include easy to navigate search categories such as Service, Training, Instruments, Consumables and Applications. In addition, we've added a news section in order to keep you updated on new and exciting things happening at Isomass such as the opening of Dr. Pearson's unique lab at the University of Alberta. We'll also be able to share with you fun things we're up to as a company like conferences we're attending and different events in which we are participating.

Another new feature is our contact us form. Isomass encourages our customers to share feedback and ideas about their sales, service and training experiences so we can continue to provide you with the high quality customer support you deserve! Our new site will also offer visitors a chance to view current and archived newsletters and email news blasts.

Isomass is super excited and full of anticipation to share our new website with you. We think you'll like the new look and we're sure you'll like the improved navigation and fresh information. We hope you'll take a moment to check it out once it's launched at www.isomass.com. Stay tuned for the upcoming launch date!

Thermo Delta Ray



San Francisco air

The Thermo Delta Ray was introduced to the market at the 2013 AGU (American Geophysical Union) meeting in December. This meeting is held every year in San Francisco and was the perfect venue to launch the new analyzer. To advertise the Delta Ray, cans of San Francisco "air" were given away in the booth. Designed to look like a food nutrition label, the cans were printed with the CO₂ content and isotopic values.

Thermo Scientific is world renowned for its Gas Isotope Ratio Mass Spectrometers. From the Delta V Advantage through the Delta V Plus to the MAT253, the Thermo GIRMS instruments cover a range of prices and capabilities in the laboratory. To complement their mass spectrometers, Thermo has a complete line of peripherals for sample introduction. Now Thermo has introduced the transportable Delta Ray Isotope Ratio Infrared Spectrometer for atmospheric CO₂.

The Delta Ray utilizes state of the art mid-infrared spectroscopy. This region of the spectrum provides absorption lines that are roughly 8000 times stronger than the nearest infrared. A stronger response enables a simpler direct absorption approach, while at the same time allowing simultaneous measurement of both the ¹³C and ¹⁸O isotope species.

Building on their GIRMS experience Thermo has developed the Universal Reference Inlet for the Delta Ray. The URI provides the Delta Ray with fully automated referencing and calibration for verifiable measurements. Correct and consistent referencing is essential to the precision and accuracy of isotope ratio measurements. The Delta Ray can obtain precisions as low as 0.05‰ for both ¹³C and ¹⁸O. With this type of instrumentation the precision obtainable is directly related to the measurement period.

Applications investigated to date with the Delta Ray include greenhouse gas monitoring, plant research and ecology; carbon storage and sequestration and volcano monitoring. Further applications are anticipated shortly. By sampling continuously the sample inlet high precision time resolved analysis of CO₂ isotope systems is now possible; open your imagination to the possible research projects.

NEW PRODUCTS



Perimax 12



Perimax 16

When it comes to expanding our product lines, Isomass is always looking for reliable instruments and accessories that are cost effective for our customers. This year we are pleased to introduce a new member of the Isomass supplier family, Spetec GmbH. With precision as their standard, Spetec has established themselves in the field of ICP spectrometry with their peristaltic pumps.

Featured here are the Perimax 12 and Perimax 16 peristaltic pumps. Perimax pumps find their application in all areas of analytical and preparative chemistry, as well as in the production area. Easily operated pump heads consist of 12 or 16 rollers and can host from one up to six channels at once. Pump heads conveniently rotate up to 90° for multidirectional tubing feeds. The Perimax 12 pump head is characterized by pulse fluid transport and constant rotational speed by way of its optoelectronic controls that provide an adjustable continuous output from 0.004 ml/min to a maximum of 18ml/min. The Perimax 16 features a pump head with 16 rollers, phase-displaced for up to three channels of pulse free liquid, with a continuous output ranging from 0.004ml/min to a max of 36ml/min. Both pumps have individually adjustable channels to accommodate a wide variety of tubing materials and sizes at the same time. They feature a speed range of 1 to 80 rpm, controlled by a ten-turn potentiometer with digital readout. Lightweight and user-friendly, the Perimax pump design is now equipped with a 100% acid-resistant plastic coating for no risk of contaminating your samples, work spaces and clean rooms.

With this exciting new addition, Isomass welcomes your product enquiries and would be pleased to provide you with information on the wide range of other Spetec products available in North America.

Please send your enquiries to sales@isomass.com or give us a call toll free at 1-800-363-7823.

CONFERENCES - Come visit us at this year's annual Goldschmidt and ASITA conferences in sunny California!



This year's Goldschmidt conference will be held in Sacramento, California from June 8th to June 13th, 2014.

Isomass will be exhibiting with at booth #39

ASITA 2014

University of California, Davis - Stable Isotope Faculty

June 15th to June 18th.