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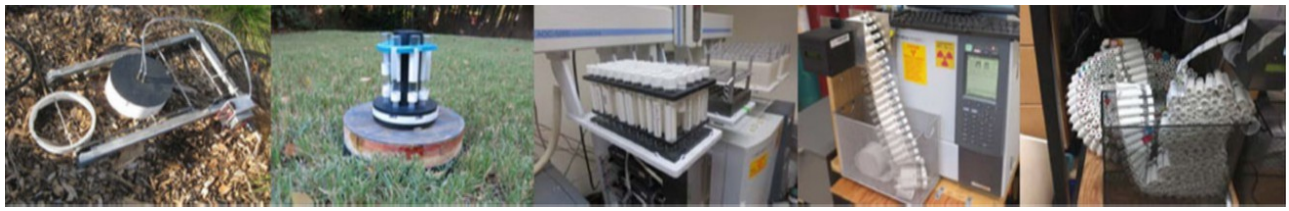
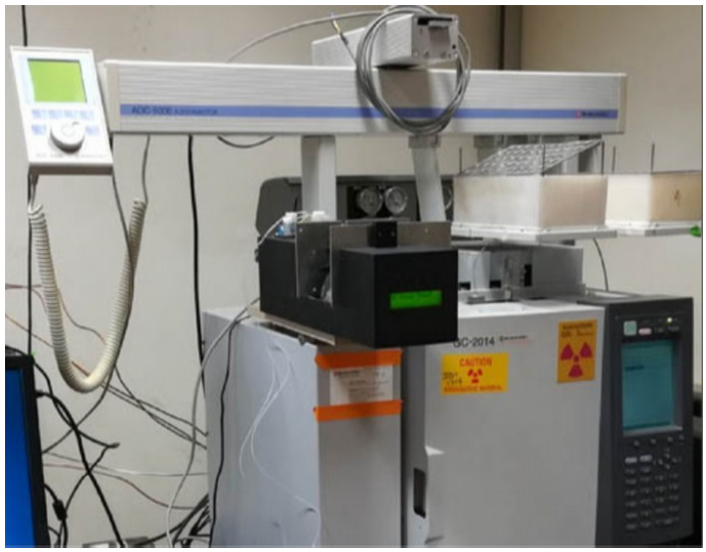


xyzTek makes tools for greenhouse gas research.

Improve Productivity and Precision with Automation.

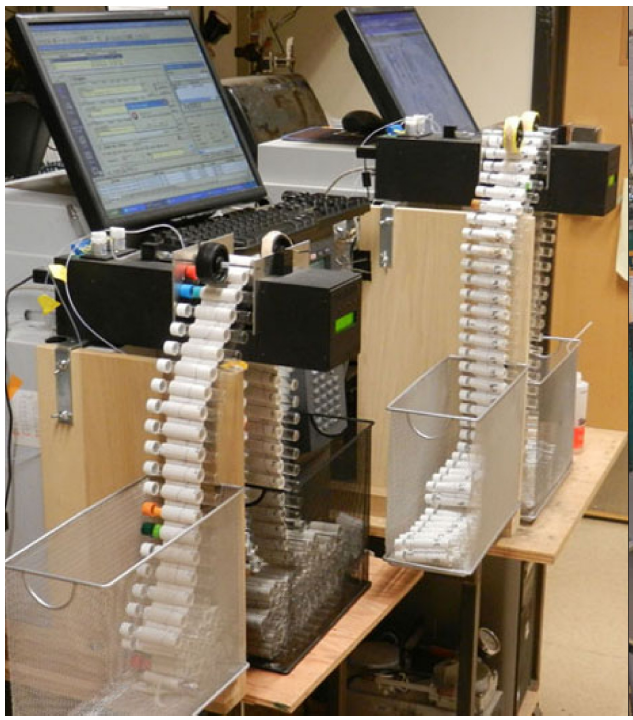
Increase Your Capacity to Collect and Analyze Samples.

As your CTC Autosampler falls into disrepair or becomes obsolete, it can be



Here are 2 examples of CTC Autosamplers (AOC5000) that were replaced by a

Bandolero" is an autosampler for use with gas chromatographs. It injects samples more efficiently than other systems: less sample is used and flushing is more thorough. It can handle samples that are below ambient pressure. It does not require a technician to set up and run. Automated sampling with large flasks and gas bags is possible with the Bandolero!



my current project: an environmental chamber glove box:

My latest: X6 Bandolero" Sampler , takes samples and logs time and temperature.

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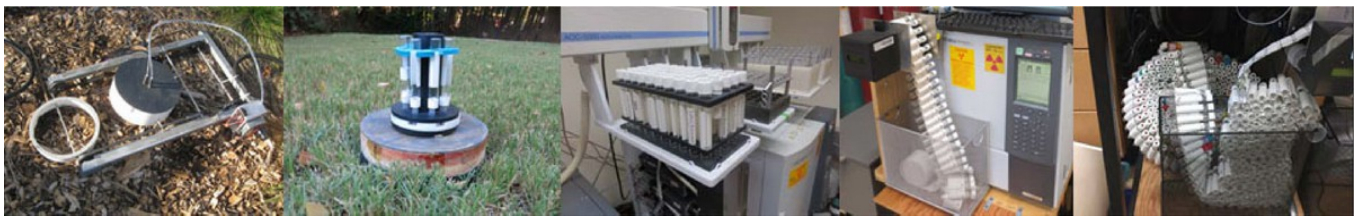

update 08/05/2022

Products

Autosamplers

CTC, PAL, PAL3 Autosampler Trays

Evacuation and Purge Chambers

"Air is everywhere and syringes suck". Enclosed path from needle tip through sample loop solves a lot of problems.

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Bandolero" X6 Flux Chamber Autosampler

This autosampler holds 6 vials (12ml Exetainers). It takes samples on a timed schedule (eg. at 0, 20, 40, 60 minutes) and logs the data.

X6 Bandolero™ Autosampler.....$1200 $940 each when purchasing a dozen.

extra trays.....$85

Bandolero'" compact high capacity autosampler

For the price of one PAL" auto%amp|er (or Shimadzu AOC 6000, GekSte| MPS) you can buy a dozen Bandolero autosamk|ers. Use one Bandolero in the lab on the GC and use the other 11 Bandolero autosamplers in the field for automated sample collection 24/7. Autosamplers are cheaper by the dozen.

The Injectorr" method eliminates the syringe in GC injections. Sample flows directly from the needle to the sample loop. Contamination is efficiently purged with minimal use of sample.

The Bandolero" X10 uses trays that can accommodate other size vials. It can be used in the lab on the GC and in the field to collect samples.

Bandolero" Autosampler	$4995
X6 Bandolero" Autosampler	$1200
belts for 100 tubes	$85
X6 trays	$85

The Injectorr" method provides perfect flushing between samples so there is absolutely no carryover. Minimal amount of sample is used leaving enough sample for do-overs and other analysis (e.g. stable isotope analysis). Belts can hold hundreds of samples. It is not just for Exetainers! Automated sampling of gas bags flasks and bottles is easy with the Bandolero! Large sample containers can be used with the Bandolero" to collect in the field and analyze in the lab.

In 10 minutes you can set it up a Bandolero" and start running samples. 'It does not require a trained technician to set up and run. There is no 'installation' to do. There is no programming to do. There is no routine maintenance required. You will never change another GC septum! It is configured to work with all major brands of Gas Chromatograph and can be customized for other tubes up to 50ml. It can also be used to automate sampling in the field. For 2017 I am introducing a dedicated field sampling model of the Bandolero" One Field Autosampler can connect to 6 sampling locations through a multiplex valve system. It is small and light so it is easy to ship anywhere in the world.

Compare Bandolero" with PAL" installation and

Bandolero" : just plug it in and start using it
Bandolero" : costs " $5000

PAL" : Have a technician assemble it, install software, program movements. (60 page User Guide)
PAL" : Routinely replace GC septa, replace syringes, replace bungee cords
PAL" : A trained technician is required to run and maintain it
PAL" : costs " $30,000

For the price of a PAL" you can buy a dozen Bandolero" autosamplers. Use the Lab Bandolero" on the GC and use the Field Bandoleros" for automated sample collection 24/7.

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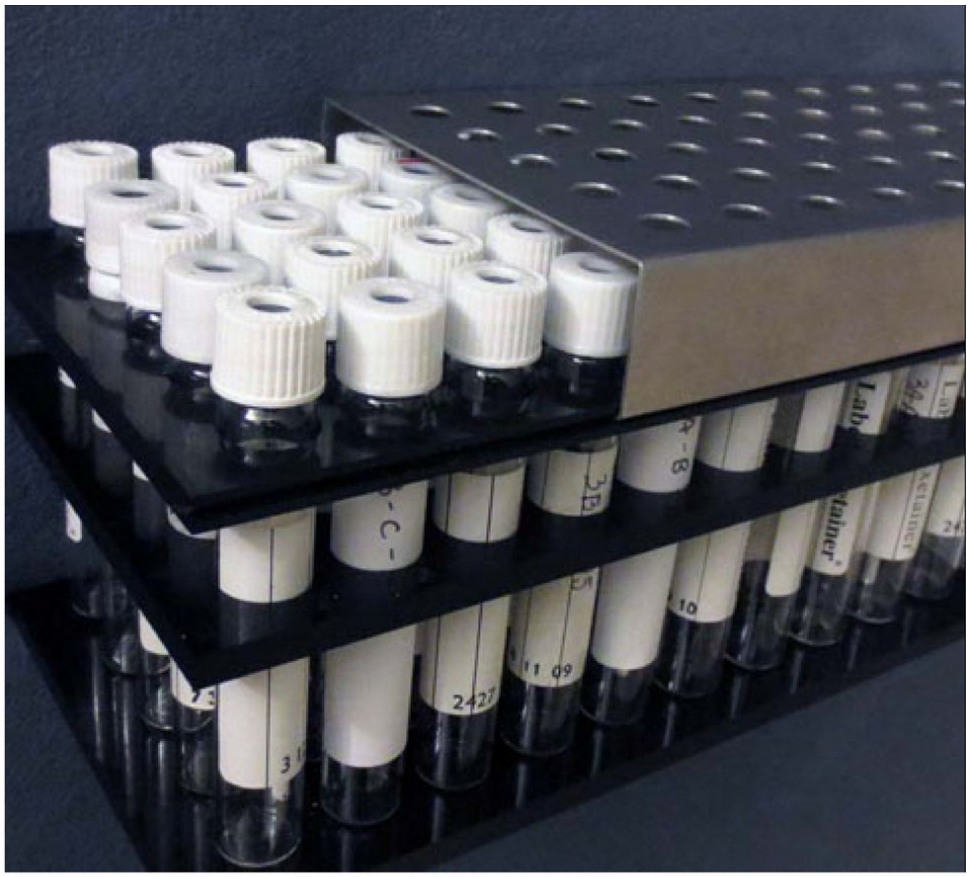
Trays for Exetainers (PAL, PAL3, CTC, Leap, AOC). PAL holds 50 tubes, PAL3 holds 72 tubes

All trays are designed for Type 3 Exetainers (12ml 101mm x 15.5mm, screw cap). Shorter screw cap Exetainers may work if they are 15.5mm diameter because they can hang by their screw cap. Crimp cap exetainers work if they are tall enough and 15.5mm diameter. Other odd sizes may or may not fit.



CTC/PAL Tray to hold 50 tubes: $264

Lockdown Lid: $40

Specify if it is to fit a PAL3 tray holder

Exevacuatorr" chamber for evacuating Exetainers"

Youtube Video (https://youtu.be/Pm-tAcz6KEE)

Also used for purging and filling Exetainers" with inert gas.

This is the only way to thoroughly evacuate screw cap Exetainers". Any other method that uses needles causes leaks. This will eliminate leaks and extend shelf life. This will achieve higher vacuum in less time. The Exetainer" is put in the vacuum chamber and evacuated with it's cap loose then the cap is sealed tight while still in vacuum. This is the only way you can evacuate screw cap Exetainers" without puncturing the septum with a needle. It works with 12ml and 6ml Exetainers" Buy a second top half for 100% efficient use of your time. While the first is being evacuated, the second one can be unloaded and reloaded with the next batch of Exetainers"

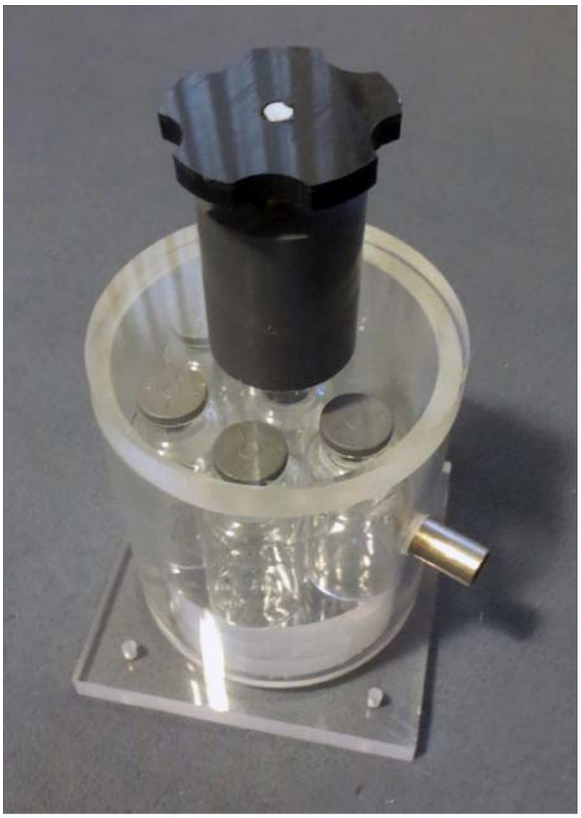
7 tube Exevacuatorr™ Chamber.....$695

a second top half $295

Evacuation Chamber for Crimp-Cap vials (up to 4" tall Exetainers)

Use split stoppers (e.g. Wheaton W224100-408 Bromobutyl septa). The legs hold the stopper in place without sealing it while it is evacuated. The stopper is pushed closed after evacuation is achieved. This type of stopper is commonly used for lyophylization.This chamber can be used for lyophilizing material in vials and then sealing the vial under vacuum. Fits 12ml and 5.9ml Exetainers

Look at the Labconco Mini Stoppering Chamber on Youtube to get an idea what stoppering does.



Stoppering Vacuum Chamber.....$395

Bandolero" can be used in the field

High capacity, compact, low power consumption. A small cooler can hold the Bandolero, data logger, battery, and a hundred or more vials.

Bandolero'' autosampler mounted in the passenger seat of a Long-EZ aircraft for landscape scale sampling and plume sampling.

Automated Soil Gas Flux Samplers, send an email (info@chromtech.net.au). Let Chromtech know your needs.

Old style manifold: Obsolete!
I hope you are not still using one of these!

Send questions, quote requests and purchase orders to: (info@chromtech.net.au)

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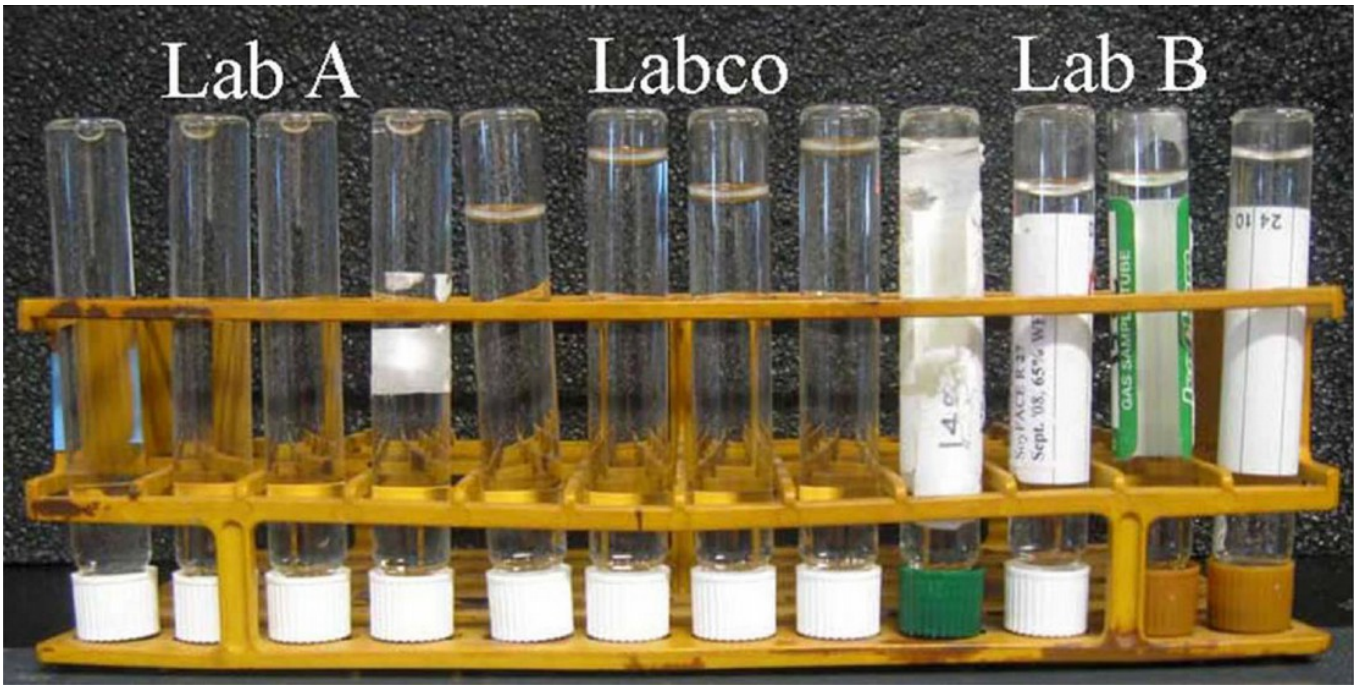
Problems Solved

"Air is everywhere and vacuum sucks"

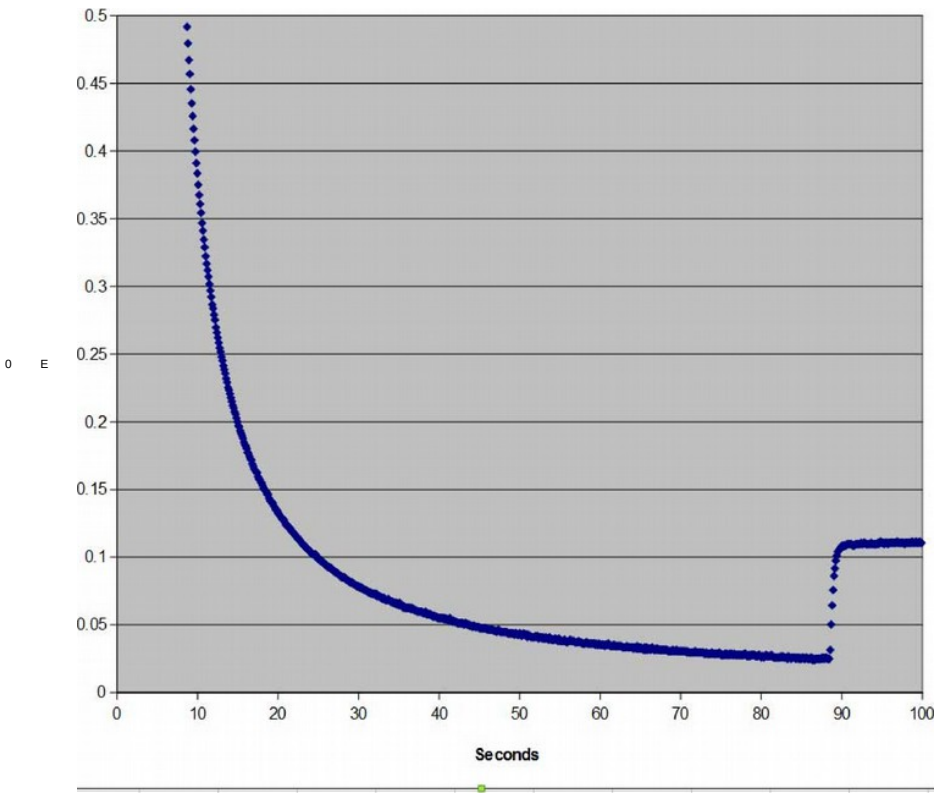
Incomplete vial evacuation is a problem in most labs.

If you think your Exetainers" are evacuated, then you better test some of your tubes: hold an "evacuated" vial upside down underwater and remove the cap. If it were evacuated it would fill completely with water. The bubble shows you how much air was in the "evacuated" vial. The photo below shows how much air was in these evacuated vials. The 4 vials in the middle were "pre-evacuated" vials purchased directly from Labco! "Lab B" results were from evacuating through a needle. The Exevacuatorr Chamber (/products#Manifold) solves this problem and gives results like "Lab A" on the left.

small bubble: good Large Bubble: Bad



Air will leak into the evacuated vial as you pull the needle out. This graph shows the pressure in a vial as it is evacuated. the jump up in pressure is the moment after the needle is withdrawn. That is air leaking back in through the needle hole in the septum. The needle hole does not seal instantly.



Published Protocols ...

resources-data-%stems/Eraceneugracenet-protoco|s/) have not yet addressed the issue of incomplete vial evacuation.

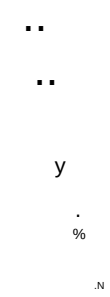
Automated flux sampling in the field with the Bandolero X6

Sampling from flux chambers can be a marathon and the number of chambers is limited byyour ability to run around and around to all chambers to draw samples. The Bandolero X6 sampler takes a set of 6 timed samples and logs the time and chamber temperature.

Old style manifold: Obsolete!

Causes leaks in vial septum and is awkward to use. Swagelock fittings are good for some things but only if you follow the correct procedures for assembly. Conventional valves are prone to vacuum leaks.

Here is a helpful 'tip': make your disposable needles "non coring" : bend thetip like this:



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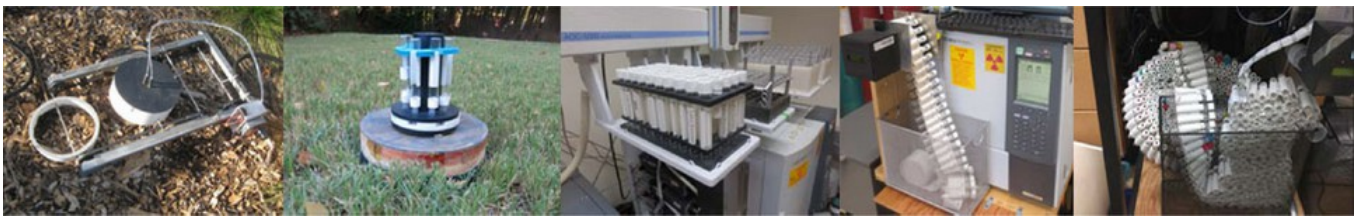

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Order

Email Purchase Orders or Request a Quote to:
(sales@chromtech.net.au)

we accept major credit cards

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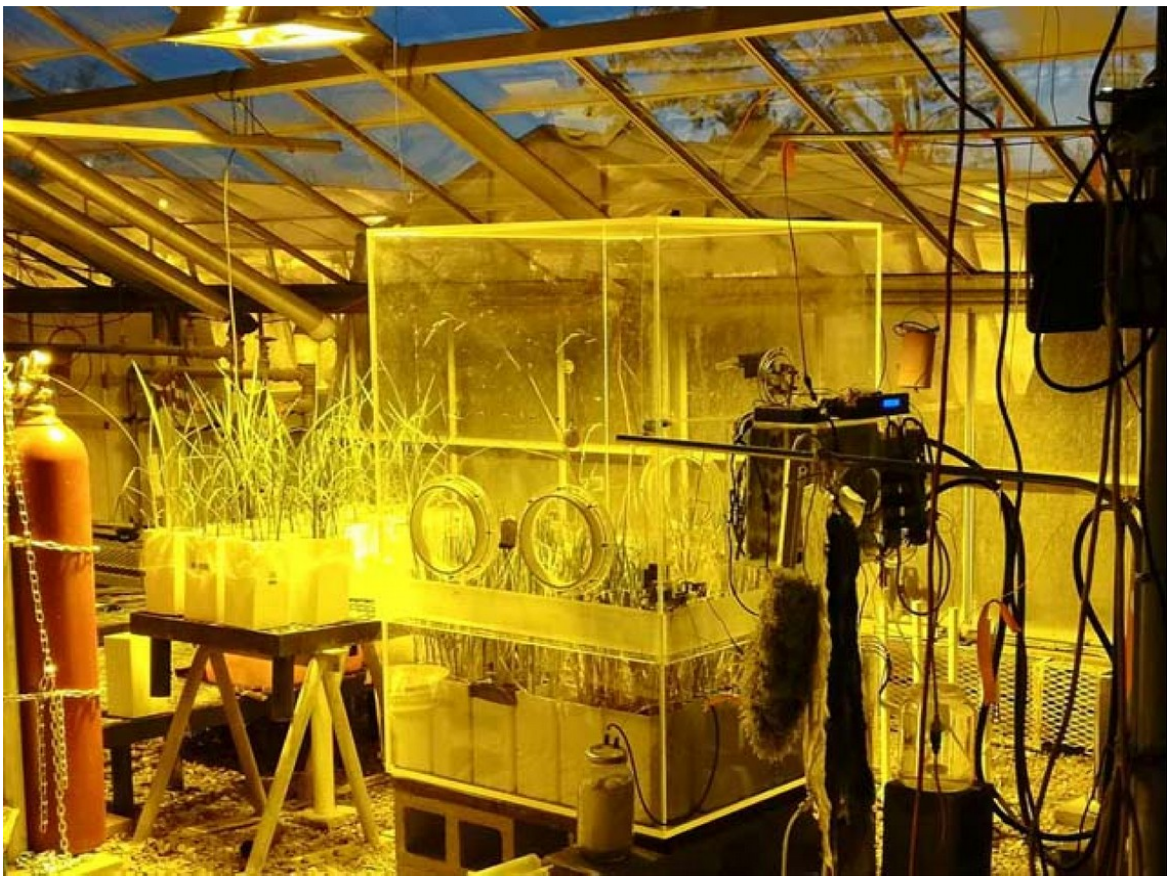
R&D

Latest: Environmental Chamber Glove Box

for 15N2 experiment with rice plants starting this spring.



New Products in development:

Field Sampler "X6": collects up to 6 samples from flux chambers and logs data.

Evacuation System for Exetainers that does not puncture the septa. No needles! Achieves high vacuum and eliminate leaks. Extends the shelf life of evacuated vials. This method is Faster because you don't have to wait for the air to drain out of the Exetainer through a needle.

Sampling with well evacuated vials eliminates a lot of problems, produces pure samples.

Email questions to: (info@chromtech.net.au)