

2022 - 18th Anniversary Newsletter

Introduction

ChromSolutions Ltd celebrated its 18th anniversary on 17th May 2022. As many companies have had to do, we have made significant changes that we had already planned before the Covid-19 outbreak. We took the opportunity and invested time and resources to provide cost effective bespoke knowledge and solutions to our existing and future customers. Thank you for your business to our existing customer base and look forward to supporting you and future customers with your analytical challenges and requirements.

New Company Website

The new website <https://www.chromsolutions.co.uk/index.html> Has seen increased traffic with our blogs, posts and articles section been visited the most by new and existing customers. We regularly update and we plan to revamp the website again this year with more relevant and interactive elements and video downloads.

LinkedIn Company Page



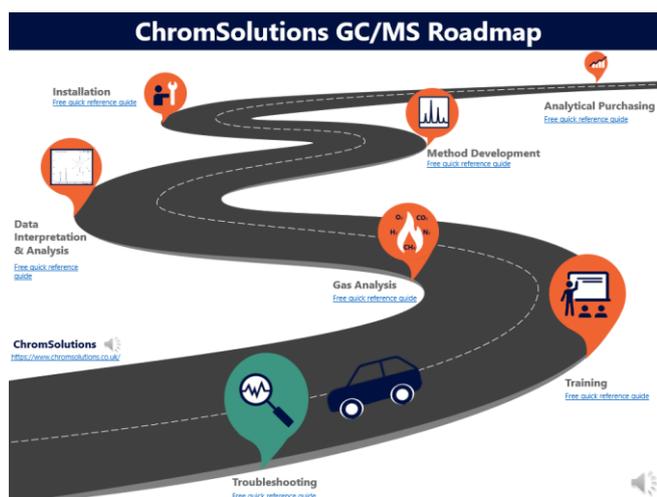
In last June 2021 we created a LinkedIn company page <https://www.linkedin.com/company/chromsolutions/?viewAsMember=true> where we have written several posts. In the past year doubled the number of followers from over three hundred to over six hundred followers.

GC & GC/MS Roadmap and Quick Reference Guides

In 2021 we released a series of Roadmaps. This is for anybody involved in GC & GC/MS analytical measurement and it will cover from considerations in instrument purchasing through to instrument/software redundancy. For each stage of the process, we have written a series of Quick Reference Guides (QRG's) available for free download from our [website](#) and listed below.

1. [Analytical Instrument Purchasing](#)
2. [GC & GC/MS Installation Evaluation](#)
3. [GC & GC/MS Training](#)
4. [GC & GC/MS Method Development](#)
5. [GC & GC/MS Troubleshooting](#)
6. [GC Gas Analysis](#)
7. [GC/MS \(EI\) Interpretation](#)

We have now incorporated the guides into a video covering the distinct stages of a customer's journey.



3D Printing

The price of 3D printers has fallen dramatically in the last few years. At the moment an entry level FDM, (Fused Deposition Modelling) printer can now be purchased, for as little as £150. We believe 3D printing is a technology that has a role to play in the laboratory. It is developing into a useful tool that allows you to go from an idea/design to a functional prototype in a quick and inexpensive manner.

Below are some examples of ChromSolutions 3D printing designed products. We are in the process of writing a series of Quick Reference Guides (QRG's) on the subject of 3D printing. These QRGs will form a beginner's guide to 3D printing. The first of these QRGs are available for free download from our [website](http://www.chromsolutions.co.uk) and are listed below.

1. [3D Printing in the laboratory](#)
2. [3D Printers](#)
3. [3D Printers, Purchasing Key considerations](#)
4. [3D Printing Materials](#)
5. [3D Printing Software](#)
6. [3D Printing Parameters](#)

3D Printing in the Laboratory	
<p>3D Printing - Functional Prototype to Finished Product</p> <p>The accessibility of 3D printing is revolutionising the production of functional prototypes which can be very quickly and easily turned into finished products and reproduced in great numbers, if required. This process used to cost thousands of pounds at each stage of development. Now, a designer and a 3D printer can complete the full process from start to finish at a fraction of the cost.</p> <p>There are a wide variety of materials to choose from when it comes to making these new products. All have their own set of properties so the designer can blend strength/durability/abrasion resistance/colour/chemical inertness etc into the design. Some laboratory 3D printed products can be fairly simple and obvious as shown below, test tube rack, tool holder, sample vial holder.</p>  <p>More complex devices are currently possible. We have recently made a flow cell to fit an CTC headspace sample to enable automatic sampling of gases for calibrations or samples.</p> <p>Future uses may not be so obvious, e.g. chromatography. Some ideas on the future of 3D printing are listed below.</p> <ul style="list-style-type: none"> • 3D printed HPLC Columns. • 3D printed stationary phases. • New column geometries, including highly complex column designs. 3D printed in metal. 	<p>Product Development 3D Printing.</p> <p>As a starting point a discussion is conducted to decide what is required and if it is possible via 3D printing. Also, what advantages can be gained by developing the product this way. From this, we get the following development work flow:</p> <ul style="list-style-type: none"> • Design: Develop from scratch via CAD. Can also recreate objects from measurements or scanning. • Prototype: Produce a working / functional copy of the product. • Test: Evaluate this functional prototype, modify design if required. <p>This is an iterative procedure and may be repeated a number of times. The prototype can be designed and built in any material. Once the design is completed a suitable material can be chosen to give the finished product the required properties.</p> <p style="text-align: center;">Conclusion</p> <p>3D printing gives access to a finished product that would be very difficult to produce by any other means. The ability to make a functional prototype that enables testing and development of the product without the use of expensive tooling or materials. This is a very cost effective rapid way to develop a wide range of finished products.</p> <p style="text-align: center;">ChromSolutions Ltd</p> <p>What we offer at ChromSolutions is our wealth of experience in analytical instrumentation, (over 110 years distributed through the members of our company). We use this experience and independent advice to provide clear concise guidance for 3D product design and printing. We can help you from defining your requirements through to producing your design as a single or multiple items.</p>
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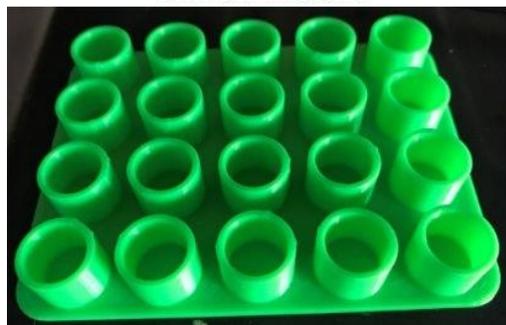
ChromSolutions 3D Products and Developments

ChromSolutions have numerous bespoke [3D printing projects](#) and have released several products. Our first products enable easy identification of gas lines in the laboratory. [Analytical Gas Installation: PIBCS2101](#)



In addition, we have a small gas flow indicator that can be attached to the side of a gas chromatograph. Also Vial holders and trays are available

3ml vial holder



Gas Flow Indicator Sample Tray 32 Position HS Tray



New Customers and Testimonials

A full list of customers (Dec 2020) and services and support offered are listed on the website, with a particular thank you to customers who have continued to give us their custom and providing testimonials.

<https://www.chromsolutions.co.uk/customers.html>

<https://www.chromsolutions.co.uk/testimonials.html>

IT'S Fresh!



Collaborations/Partnerships

A list of these is available on our website link <https://www.chromsolutions.co.uk/partnerships.html>

In addition, in 2021 we have website promotions and collaborations with the following organisations.



Alchrom Ltd

GC & GCMS Consultants

Our UK & Ireland partner supporting Agilent GC and GC/MS analyser, applications, and software.



Is an industrially led, strategically connected community, dedicated to supply world class analytical measurement science (AMS) training, research, and innovation.



Writing bespoke software and website support.



Providing a wealth of information on analytical chemistry. Based in the Czech Republic.



Provide a wide range of consumables and technical support for chromatographers.



Provides a directory of laboratory equipment suppliers and scientific laboratory suppliers from across the globe.



Providing Chromatography Solutions to all market sectors



Purchasing selling and servicing of analytical equipment, parts, and consumables

News, Blogs, and Articles

Any articles, news and blogs can be read or downloaded from

https://www.chromsolutions.co.uk/scripts/search_data.pl. It is a searchable database on our website.

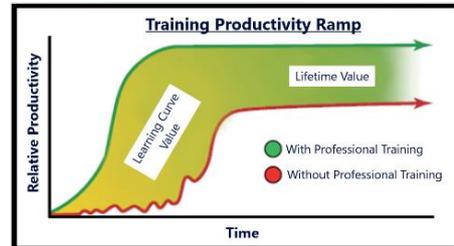
Remote Training and Support

In 2018 ChromSolutions had already moved away from the traditional classroom and on-site training model. In 2022 we can still offer this type of training; however, we are now seeing an increase in demand for more diverse remote support packages.

We offer a bespoke detailed program around your instrument, application /market segment and most importantly the individual(s). Also, there is a logical optimal scheduled timing and pathway to increase your relative productivity.

The advantages of remote learning are:

1. Training periods can be shorter and more effective.
2. Time to implement learning between training sessions.
3. No access arrangements to site are required.
4. No health & safety/Covid, issues to deal with
5. Bespoke to your instrument configuration and software version.
6. Lower cost.



There are disadvantages such as unfounded IT fears (typically in larger organizations) and the personal interaction is not quite the same however as the training is carried out remotely with a maximum of 4 people, the impact is minimal compared with the advantages. However, there are few companies supplying a cost-effective bespoke training solutions and services around your specific situation. Two of the most common situations at each end of the training spectrum are listed below:

1. Replacement staff - Basic software training.
2. Instrument installation with new staff - Specific theory around the instrument configuration, method development/translation, maintenance information, troubleshooting, data processing and reporting.