

## Gas Chromatography Headspace (HS-GC) Training Course

### >1-day GC Headspace Training Course

This is a 1-day special topics course on GC headspace. GC headspace is an automated routine sampling and extraction technique commonly employed in the analysis of volatile organic compounds in solid, liquid and gas samples, and analysed using GC. GC Headspace refers to the gas space in a chromatography vial above the sample.

### >Why do I need to know about GC Headspace?

GC headspace is routinely used in the analysis of volatile organic compounds in flavours and fragrances, blood alcohol, residual solvents in pharmaceutical preparations, and monomers in polymers, as well as a series of other applications. Its ease of use and reproducibility with highly automated instrumentation has placed it as a reliable, favourite technique within quality control environments and in sample screening. Complex sample matrices that are difficult to analyse directly, or without separate sample extraction and preparation are easy and more cost effective to analyse with GC headspace since they are simply transferred to a vial.

### >Who is the 1-day GC Headspace Training Course for?

Analysts who are analyzing samples that contain light volatiles as target analytes. Target analytes must be efficiently partitioned into the headspace gas volume from the liquid or solid matrix sample to be detected. Therefore, semi-volatiles are more difficult to analyze using this technique, and heavy volatiles are non-detectable.

### >Who attends?

Academic based lab technicians, commercial lab analysts & R&D staff, post-doc, PhD and MSc Students, lab managers/supervisors, sales and marketing personnel and service engineers from across Europe, Middle East, Asia and Africa.

### >What's different about training with us?

Because we teach the practical application of techniques, our courses are well positioned to enable analysts to use different analytical instrument models. Since most laboratories have instruments from different manufacturers, this is a key benefit in attending our courses. Just like driving a car, analysts are able to quickly learn to navigate their own way around their own samples and instruments through application of techniques.

### >Overview of course:

- Dalton, Henry & Raoult Laws
- The nature of a mixture
- Definition of equilibrium constant (K) in Headspace (HS)
- Experimental factors that influence K
- Temperature & pressure
- Volume of sample used vs vial volume
- Injection time

- Solvents used
- Sample: preparation, incubation, transfer, injection
- Method optimization: solvent polarity, sample volume, incubation temperature, transfer loop pressure, injection time.

**>Key details:**

- Classroom based course
- Budget airline destinations
- Comfortable training facilities
- Certificate of attendance provided
- Training manual provided (English)
- Discounted hotel accommodation available
- Easy accessible venue with local transportation
- Courses presented in English by industry-served and PhD qualified experts

**>Enquiries** or to **book a course** please contact Caroline Green at [cgreen@amoebasciences.eu](mailto:cgreen@amoebasciences.eu)

**>Visit our website:** [www.chromatographytraining.org](http://www.chromatographytraining.org) for a list of frequently asked questions, how to prepare to put forward a case for training, how best to prepare to attend a course, and what you can expect to gain from a course at your level.

**>Price Includes:** Training presentation, training manual, lunches, free resources and all refreshments and snacks.

**>Course Fees / Advanced Booking Rates**

<b>Prices are exclusive of any applicable VAT and local taxes</b>	If booked up to 20 weeks in advance	If booked up to 12 weeks in advance	If booked up to 8 weeks in advance	If booked up to 4 weeks in advance	If booked less than 4 weeks in advance
1–Day GC Headspace (HS) Training Course	£279	£297	£314	£332	£349

**>Multiple Delegate Bookings:** 5% discount applicable per each additional analyst from the same institution (includes separate departments), if booked at the same time, per course. Terms and conditions apply to all our courses (see [www.chromatographytraining.org](http://www.chromatographytraining.org)).