



**LABIO MEDICAL**  
BREATH DIAGNOSTICS

# GC-UV

## Gas Chromatography – Ultraviolet Analysis

Not 2 separated systems  
but 1 system

### OUR SERVICES

Chromatography  
Breath Analysis  
Drug Development  
R&D Cooperation  
Clinical Trials

Read about our patented  
technology with endless  
potential in Life Science

### CONTACT US

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## **How is chromatography working?**

Numerous volatile chemical substances in a mixture of air in gas phase is collected into a gas chromatograph. The chromatograph then separates the compounds and thereafter the chemical substances go through our detector where UV light is absorbed by the chemical substances. The absorbance is made by our spectrometer that is unique for each individual substance resulting in comprehensive qualitative information about the identity and chemical class of unknowns (UV spectrometry). The GC-UV technology give reliable quantitative and qualitative results.

## **Gas Chromatography – Ultraviolet Analysis**

The chemical analysis gives a 100% identification of the unknowns and the automated report from the 3D software gives a final identification of each chemical substance. The GC-UV technology is based on the UV light absorption in the gas phase. Our system can reach down in the lowest of UV wavelengths resulting in new capabilities for chemical analysis.

Chemical analysis made with our systems shows the highest of sensitivities thanks to the abilities of our patented GC-UV technology.

With analytical systems based on the GC-UV technology, both quantitative and qualitative results can be obtained. Identification of individual components and classification of compounds can be determined.

## **Low instrumental cost**

Our systems are simple to use and compact made for industrial environments. It is a possibility to make chemical analysis in close connection to the sampling site. Our systems are reliable and does not

need laboratory infrastructure to work properly. The components are standardized, and the simplicity of the system makes a low instrumental cost with a minimum of the need of spare parts and consumables.

### **Sensitivity**

Our systems offer high sensitivity of detection limits, identification limits and classification limits thanks to the advantages of the GC-UV technology.

### **Chemical analysis**

Selective analysis can be performed for most of chemical classes as well as organic compounds and inorganic compounds thanks to the combination with gas chromatography and UV spectrometry. The GC-UV technology also have capabilities to identify structural isomers.

### **Patented technology**

The patented GC-UV technology is a well-known, peer-reviewed technology. The analytical method has the state-of-the-art ability to detect and identify small quantities and low concentrations of several chemical substances, either in complex mixtures or as individual components.

The technology could be used in laboratories for general chemical analysis as an independent system or as a compliment to existing analytical methods as GC-MS or LC-MS.

The GC-UV is based on UV-light absorption, and we can measure compounds down in the vacuum-UV without the need for additional systems for performing the analysis. The UV-wavelength range can show several compounds with high sensitivity, that cannot be measured using traditional analytical methods.



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