

## **Vacuum UV Absorbance Spectroscopy for Simple, Orthogonal GC Detection**

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VUV Analytics will be presenting a general technical overview of the VGA-100, a new orthogonal GC detector that uses 3D absorption spectra from 120 – 240 nm, the so called Vacuum-ultraviolet range. The VGA-100 is analogous in many ways to the diode-array detector that is ubiquitous in liquid chromatography. However, for gas phase analysis, the VUV range is far superior to the standard UV range for selectivity and specificity and provides data that is competitive and in several ways superior to mass spectrometry. Previous attempts to utilize the VUV spectrum for gas phase analysis outside of synchrotron failed due to the challenges posed by oxygen diffusion because oxygen absorbs strongly in the VUV range. The VUV Analytics development team has overcome these material science problems that had hindered the development of a VUV detector. We will discuss the principles of the VUV absorbance detection methodology, the capabilities and characteristics of the detector itself, as well as current application data.