Multi Headspace Extractions



Multiple Headspace Extractions Option (MHE)

Application Type

Standard Product

Application ID

Extend the headspace mode

Description

Accessory Showcase

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Multiple Headspace Extractions Option (MHE)

[edit]

The PAL Multiple Headspace Extraction (MHE) Option is an add-on module to extend the headspace mode of the LEAP CTC Analytics CombiPAL Robot. In classical headspace technique one sampling is done per vial. The quantitative determination can be inaccurate in the presence of interfering matrices or in cases where a calibration standard cannot be made with the exact same matrix composition. The MHE option consists of a venting tool combined with a Park station. The MHE technique requires a series of sampling cycles using the same vial. First, a sample is pressurized to a specific pressure. The vial is then sampled and vented. The vial is re-pressurized and sampled again. This process is repeated multiple times to obtain final results.

MHE is generally regarded as one of the methods of choice with analysis of difficult headspace samples. Matrix effects are practically eliminated with MHE and the difficulties of quantitative headspace analysis can be overcome.

Photos [edit] 9



MHE option on PAL



The sample is withdrawn from the vial



The venting tool is positioned above the sample vial



Activating the venting tool vents the vial content to ambient



Injecting headspace sample onto GC

Downloads [edit]

The MHE technique is demonstrated with the CombiPAL, a syringe based autosampler. The quality of the data compare well with those obtained from a loop-based sampling system. Please see Poster:



Poster on MHE by Tore Vulpius and Bruno Baltensperger

PRINT Function for Page

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Accessories for the PAL

