

ARE YOU DOING ENOUGH TO REDUCE YOUR HELIUM DEPENDENCE?

The Measure of Confidence

Industry-wide helium shortages threaten lab workflow and productivity

Helium has long been the carrier gas of choice for GC and GC/MS analyses. However, the global helium shortage has reduced the availability – and increased the cost – of helium gas, jeopardizing the operations of labs that depend on gas chromatography.

As a result, many laboratories have considered transitioning their analytical systems to less expensive carrier gases – such as nitrogen or hydrogen – using method transition tools.

Switching carrier gas can be costly and disruptive

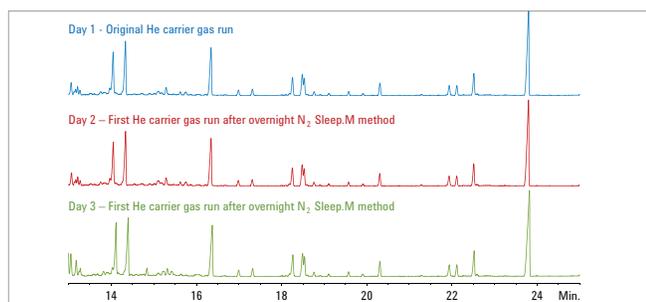
While converting to alternate carrier gases *can* help labs manage operating expenses and workflow, method translation is not always feasible.

For starters, concerns about laboratory safety or MS spectral fidelity may prohibit the use of hydrogen as a carrier. What's more, changing carrier gas requires method development and revalidation – particularly for labs operating in a controlled environment or facing the demands of regulatory compliance. These adjustments disrupt workflow, consuming time, money, and labor.

Instead of an alternate carrier... consider an alternate approach: helium conservation

Laboratories that modify their existing SOPs to use helium more wisely can avoid the costs and productivity drawbacks associated with translating methods to an alternate carrier.

Reducing helium consumption also extends helium tank life, lessening the dependence on helium deliveries, and allowing labs to ensure business continuity by planning for future deliveries.



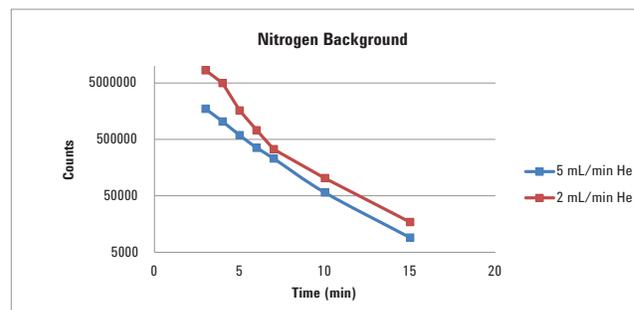
Conserve helium without sacrificing GC/FID performance. Here, a Helium Conservation Module maintained chromatographic integrity following stand-by with nitrogen carrier gas.

Advanced technologies make helium conservation achievable

Features built into the **7890B GC system with OpenLAB CDS** allow operators to deploy sleep-wake functions that reduce helium (and energy) consumption.

In addition, the new **Agilent Programmable Helium Conservation Module** works with the gas-saver functions of Agilent 7890-based GC, GC/MS, and GC/MS/MS systems to stretch the life of every helium tank. The practical benefits of helium conservation include:

- **Less workflow disruption:** The Helium Conservation Module can extend the life of helium tanks, reducing the frequency of replacement – and the risk from missed deliveries
- **Seamless integration:** Carrier gas ID and set points are part of the analytical method for easy compliance and transfer
- **Greater reliability:** Integrated intelligence sends an alert if the system does not reach method set points
- **Rapid transition:** Switch from nitrogen standby to helium carrier is 15-30 minutes, depending on the GC detector
- **Safer operation:** Hydrogen carrier users can switch to nitrogen during system standby
- **Better analytical precision:** The Helium Conservation Module acts as an intermediate pressure regulator from the tank to the inlet EPC



Rapid transition from sleep mode to operational mode. With emerging technologies, switching from N₂ standby to He carrier can take as little as 15 minutes.

Generate quality data and improve operational efficiency

Agilent innovations – including helium conservation – solve analytical problems. For more information on these advanced analytical systems, contact an Agilent Representative or visit agilent.com/chem/contactus. To learn more about practical ways to implement helium conservation, go to agilent.com/chem/heliummodule.

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© Agilent Technologies, Inc., 2013
Printed in the USA, June 17, 2013
5991-2441EN



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