

Go Green with DART-MS

Facts about Nitrogen Gas Ionization

The Ambient Ionization Source to Reduce Your Footprint

Green Possibilities

- You can reduce or eliminate solvent consumption and waste → DART does not require any solvent
- You can minimize plastic/glass vial disposal cost → Sample direct with any of our consumables for real time sample analysis
- You can quick analyze samples → Reduce instrument demand by avoiding time / solvent consuming chromatography for many samples
- **Ionization with Nitrogen for the majority of sample, use Helium for very low vapor pressure samples**

Benefits of Nitrogen Ionization

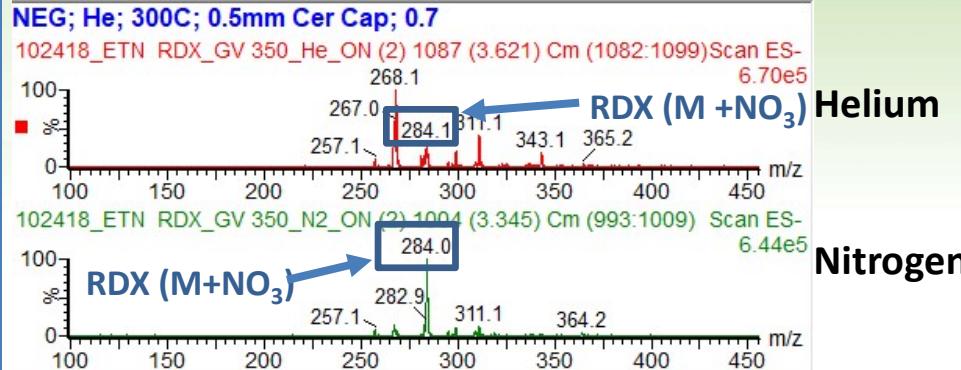
N_2 DART is a sustainable alternative to helium ionization methods

- The ionization efficiency of excited nitrogen is high enough that almost all but the very smallest organic compounds can be easily ionized.
- Reduced in-source fragmentation due to lower internal energy metastables.
- Nitrogen is literally the most abundant gas in the world



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Examples of DART Ionization with Nitrogen Gas



The above Spectra compares nitrogen and helium ionization of the explosive RDX. Ionization of RDX with Nitrogen gas shows cleaner spectra than with Helium gas

PEAK - NG3000A®

ULTRA HIGH PURITY NITROGEN GENERATOR

This nitrogen generator supplies ultra-high purity ionization at 99.9995% which provides sufficient purity to ionize compounds by DART



N_2 Tanks vs N_2 Generator

Equivalent signal response is observed when using nitrogen from either Grade 4.8 cylinder tanks or the Peak NG3000A Generator

Caution: Not all generators are adequate. Lower purity nitrogen generators may not prove capable for DART use

Generator



N2 tank

