

GA2100 Electrospray Ionization High Performance Ion Mobility Spectrometer



- *Self-contained high performance ion mobility spectrometer*
- *Provides rapid, high resolution separation and detection in seconds*
- *Touchscreen interface and compact design for transport in a mobile lab or manufacturing facility*
- *Changeable ion sources for versatile analysis of solids, liquids, and gases*

Simultaneous separation & detection with GA2100 – **Rapid ion mobility analysis**

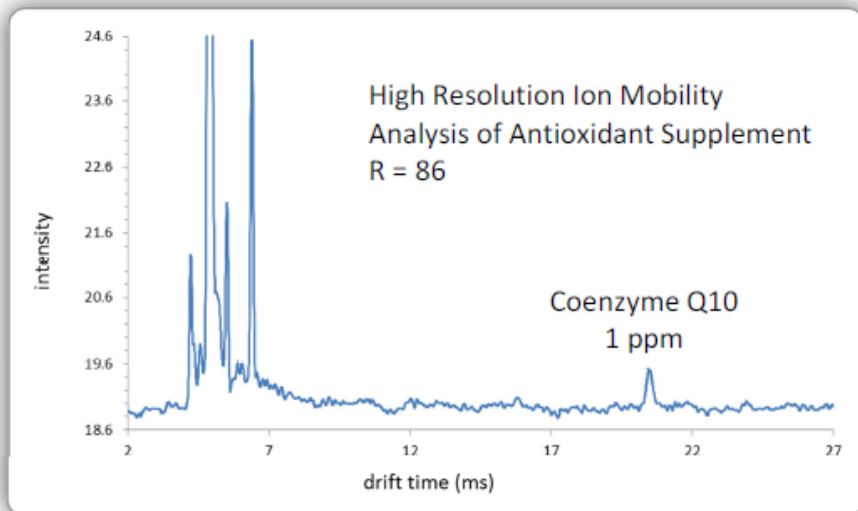
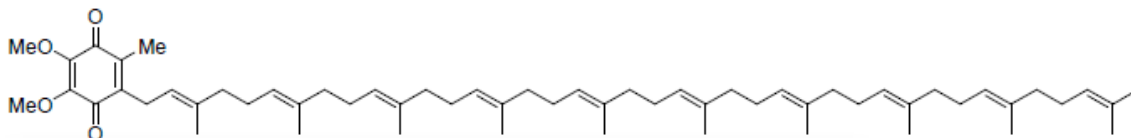
GA2100 is the world's first commercially available HPIMS system. Combining electrospray ionization (ESI) with our patented high resolution ion mobility spectrometer (HPIMS), the GA2100 can deliver HPLC-comparable performance with faster speed and lower operational cost. HPIMS eliminates the use of organic solvents, reducing the associated cost of disposal and making it a green technology. ESI-HPIMS is capable of analyzing a wide range of compounds including isomers and those that are chromatographically sensitive or lack a UV chromophore.

Changeable ion sources add versatility to HPIMS analysis. Liquid samples are ionized by electrospray, either as a single injection or in a continuous stream from an autosampler or flow cell. A thermal desorber introduces both solid and gaseous samples into the analyzer. The GA2100 is ideal for applications that require speed, specificity, and sensitivity.

Chemicals	Pharmaceuticals	Food & Drug Safety
Surfactants	Cleaning Verification	Contamination
Explosives	Dissolution	Pesticides
Isomeric Compounds	Reaction Monitoring	Dyes, Flavors, Fragrances

High resolution separation and detection

60+ resolution allows baseline separation of compounds with similar structures



GA2100 measurement of dissolved Coenzyme Q10 antioxidant supplement with molecular weight of 863 Da; the ion mobility spectrum illustrates an ion mobility resolving power of $R = t_d / t_{1/2} = 86$; the world's highest resolution standalone IMS.

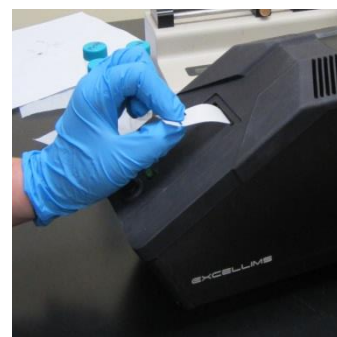
Changeable ion sources for versatile sample analysis

Solid, liquid, and gaseous samples can be easily introduced into the GA2100 HPIMS



Electrospray ion sources

Liquid samples are ionized either individually by the Directspray™ ESI source or continuously by the infusion ESI source. Directspray is ideal for quick walk-up analyses, while infusion connects to an autosampler or flow cell.



Thermal desorber ion source

A thermal desorber with corona discharge ion source allows for HPIMS analysis of solid samples collected from a solvent-soaked swab. The thermal desorber also includes a gas port for analysis of gaseous samples.