SCION INSTRUMENTS

A Techcomp Company

SQ 8700

MASS SPECTROMETER

The SCION 8700 (SQ) GC-MS is designed for today's fast paced analytical laboratory. Innovative design features such as a Lens-Free ion path, heated ion optics and an Extended Dynamic Range (EDR) detector enable the SCION SQ to deliver accurate quantification and identification on a routine basis, even in complex matrices.

SCION 8700 SQMS

THE SCION 8700 SQMS HAS A SMALL FOOTPRINT BUT DOES NOT COMPROMISE ON QUALITY.

The SCION 8700 SQMS is the chromatographer's choice for quadrupole mass detection, designed to match your most stringent needs for analytical performance and productivity.

The SCION 8700 SQMS offers superior sensitivity and robustness based on innovative ion optics, and fast and easy methods development.

Coupled to our outstanding GC instruments, the SCION 8700 SQMS system defines a new standard of usability for routine analysis

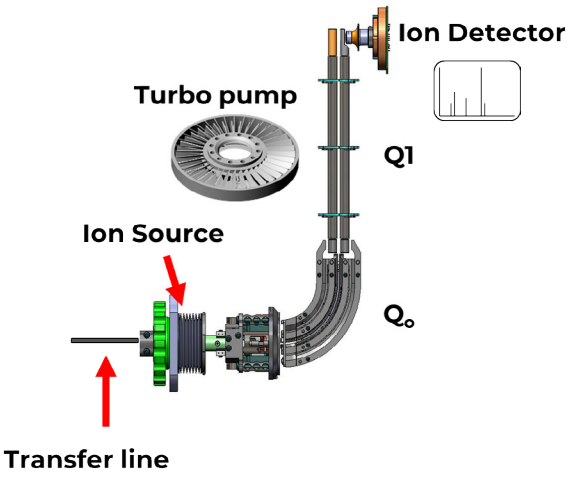
Available in three models, the SCION 8700 SQMS offers a flexible solution for any laboratory.

Software

SCION MS Workstation for data acquisition, data handling and reporting.

Optional Spectral Libraries: NIST, Wiley, and Pfleger/ Maurer/ Weber (PMW) libraries with user customisable libraries and automatically searching of multiple libraries.

Autotune in all ionisation modes, special tunes for EPA methods (DFTPP/BFB).



An Innovative Solution

- An innovative lens-free ion path delivers simplifies tuning
- The dual filament source increases uptime
- The high capacity (400L) turbopump allows the fastest pump down speed on the market
- Hydrogen carrier approved

Primed for Sensitivity

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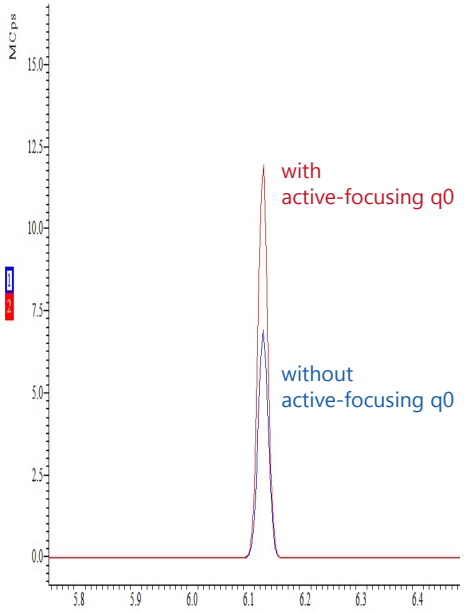
- He in q0 (active-focusing) for added sensitivity in routine applications
- Premium Focusing Curved Q0 Ion optics has a 90° angle that aids the elimination of neutrals
- Ability to handle fast GC analysis- up to 25 ml/min column flow rates
- The SCION 8700 includes the **best-in-class** high performance turbo pump for worry-free operation
- Ideal for routine environmental analysis, especially purge-and-trap applications (pumps away potential water interference)

Active-focusing q0

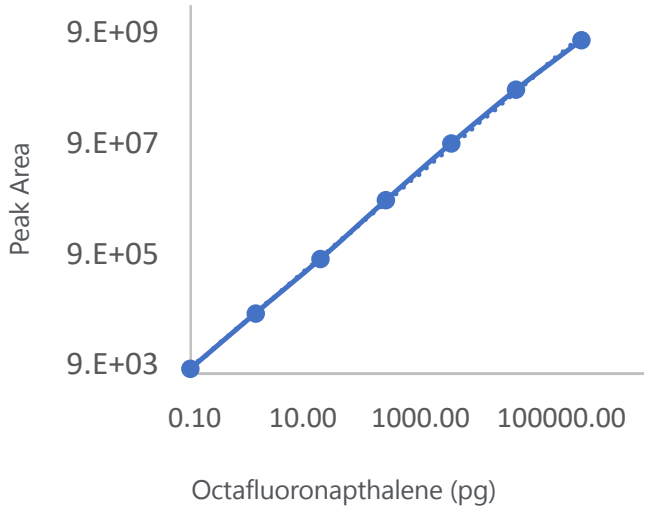


SIM of Hexachlorocyclopentadiene

Extended linear range

- **Extended Dynamic Range** mode ensures you have **optimal** detection in **every** scan for trace components within complex mixtures.
- When detector approaches saturation, the system **automatically lowers** the multiplier voltage, always ensuring optimal detection of components, even if they co-elute.
- Easily analyze complex mixtures that contain both **trace** residues as well as compounds **of high abundance** in the **same run**.

Up to six orders of magnitude



Premium Flexibility

8700 Premium is EI and CI Ready

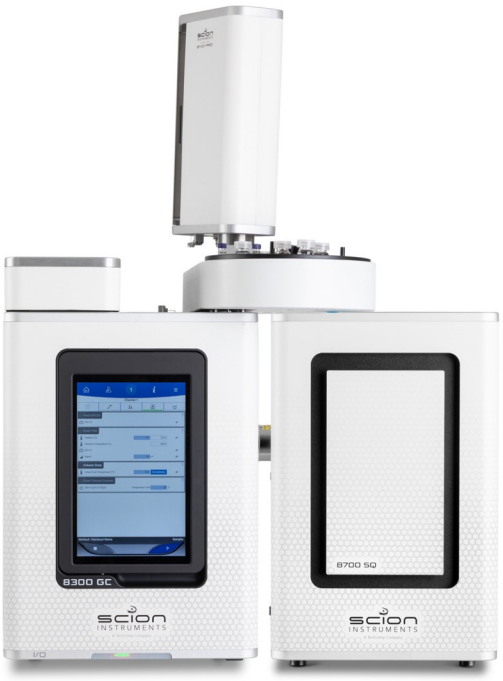
- Heated q0 for the ultimate in robust 24/7 operation
- Ultra-sensitive Negative Chemical Ionization (NCI) detection
- Ability to handle fast GC analysis- up to 25 ml/min column flow rates
- SCION Premium is CI ready and easily converts from the EI standard source.
- NCI applications such as pyrethroids are easily set up using Compound Based Scanning (CBS).

COMPOUND	RT	RT WINDOW	SCAN TYPE	SCAN TIME (MS)	POLARITY
Resmethrin	17.35	0.50	SIM	100	Neg
Resmethrin 2	17.58	0.50	SIM	100	Neg
Bifenthrin	18.56	0.50	SIM	100	Neg
Fenpropatjrin	18.74	0.50	SIM	100	Neg

GC Compatibility

The SCION SQMS series interface seamlessly with SCION Gas Chromatograph (SCION **8300** and **8500** Model GC)

- Injectors: Split/Splitless (SSL), Programmable Temperature Vaporisation (PTV) and PTV with back-flush (PTV/BF), Cold On-Column (COC)
- Autosamplers: 8400 Pro; 8410 Pro; CTC PAL COMBI-xt
- GC Oven Temperature: Ambient+4°C to 450°C, -100°C to 450°C (with Liquid N2); -60°C to 450°C (with Liquid CO2)
- Temperature Ramps/Holds: 24/25
- Pneumatic: Electronic Flow Control (EFC) or Manual
- ChromatoProbe: Direct introduction of solids, liquids or slurries (requires PTV injector)



SCION 8300 GC coupled to the 8700 SQMS

SCION 8700 SQMS Series

Model Range

SQ 8700 MODELS	FEATURES	BENEFITS/APPLICATIONS
SCION SQ Select	• EI only • Select q0 • (300/400 L/s) Turbo Pump	• Routine
SCION SQ Premium EI	• EI only • Active-Focusing q0 • Ultra-High Performance Split-flow (300/400 L/s) Turbo Pump	• High-Sensitivity • Fast pump-down
SCION SQ Premium EI/CI	• CI ready • Active-Focusing 'premium' q0 • Ultra-High Performance Split-flow (300/400 L/s) Turbo Pump	• Ultimate flexibility • CI • Pos/Neg detector

Performance specifications

MODE	TEST* (SSL INJECTOR IN HOT SPLITLESS MODE)	SPECIFICATION†
EI Full Scan	1pg Octafluoronapthalene (OFN) from m/z 50-300 for m/z 272	S/N ≥ 1,500:1
PCI Full ScanΔ	100pg Benzophenone (BZP) from m/z 80 to 230 for m/z 183	S/N ≥ 600:1
NCI Full ScanΔ	200fg OFN from m/z 200 to 300 for m/z 272	S/N ≥ 1000:1

* All tests performed with helium at carrier gas
† The Signal-to-Noise ratio S/N values are based on RMS
Δ CI tests use methane as reagent gas

Physical Specifications

Dimensions (H x W x D) and Weight

- 45cm (18in) x 28cm (11in) x 57cm (22.5in)
- 37kg/82lb

Additional space should be added for the data system, monitor and printer.

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