



GC-MS 8900

Gas chromatography mass spectrometry

INTRODUCTION

GC-MS 8900 Gas chromatography-mass spectrometry (GC-MS) is a new powerful intelligent combined mass spectrometry system developed by gas chromatography and mass spectrometry technologists with 15 years of experience in the field. Innovative GAS chromatography/mass spectrometry support intelligent control system, gas chromatography peak scan speed is the highest (20000 amu/s), wide mass range (1~1200 amu), instrument detection limit is the lowest (OFN less than 10FG), high sensitivity.

CHARACTERISTICS

1. High-performance ion source extends the service life of the double filament, through a powerful tuning protocol, improve the detection limit of trace compounds;
2. High stability vacuum zone with high capacity vacuum system, can analyze and run high throughput samples, powerful tuning function, improve the sensitivity, stability and reproducibility of mass spectrometry detection, with optimized full scan and selective ion mode, ultra-fast scan speed (20000 AMu /s);
3. Eliminate the deflection electrode of neutral particles in the detection system, improve the MSD sensitivity and signal-to-noise ratio. The chemical ionization and direct sample probe are controlled by special software, and NIST mass spectrometry library is supported and optimized for more accurate qualitative retrieval of substances.

APPEARANCE

1. Larger touch color LED screen, all parameters at a glance;
2. Classic design ability and laboratory perfect match;
3. Chromatographic analysis data system using intuitive friendly interface.

GC · FEATURE

1. Use network system control to ensure high-speed data processing;
2. Enhanced APC module is configured;
3. Improve the pressure and flow control precision, detection and analysis results more accurate and reliable;
4. With automatic temperature and pressure compensation function;
5. Pressure increment: 0.001psi, pressure stability: ± 0.001 psi (constant pressure);
6. 4 kinds of pressure flow control mode: constant pressure, constant current, program variable pressure (order 5), program variable flow (order 5);
7. The instrument adopts shockproof design and stable structure to protect the column box temperature from external influence;
8. Upgrade column box, thermal stability: ± 0.01 .



GC-MS · PERFORMANCE CHARACTERISTICS

1. High performance ion source can prolong the service life and operation function of double filament, enhance the performance of GC-MS.
2. The super optimization program in MS software can increase the system sensitivity, and the system can achieve lower detection amount when analyzing trace level compounds.
3. Large capacity vacuum system can provide a stable high vacuum area, can analyze a large number of samples. Vacuum system capacity is 240L/s and 300L/s (optional).
4. The ultra-strong tuning process enhances the sensitivity, stability and reproducibility of the MSD. Manual tuning can change the set value to obtain higher sensitivity in specific analysis.
5. Optimized full scan and selective ion mode can support simultaneous analysis of multiple samples.
6. Super fast scanning speed (20000 amu/s), supported by the most advanced firmware protocol, improve analysis performance, ensure fast ion analysis of narrow aperture capillary column.
7. Four level of mass filter super ion filtration function, can effectively remove the non-target ion, to ensure a more stable, more sensitive signal.
8. The deflector electrode can eliminate the neutral particles arriving at the detection system, thus improving the sensitivity of MSD and enhancing the signal-to-noise ratio.
9. Wide mass range (1 ~ 1200 AMU), which can be analyzed for compounds with wider mass number.
10. Professional tools make it easier to change the column. The distance from the end of the column to the MSD ion source box can be easily measured using patented tools.
11. Chemical ion sources and direct injection probes (DIP) are available in some models.
12. Innovative MSD hardware and software design is easy to operate using the system, and operators can spend less time on sample analysis to obtain satisfactory results.
13. Clarity makes it easier for operators to control GC/MS by optimizing and supporting the NIST mass spectrometry library for automatic compound retrieval.

TECHNICAL PARAMETERS

Ion source	EI (CI optional)
Mass range	1 ~ 1200amu
Sensitivity (EI)	SNR > 1500:1 (SIM, When the OFN is 1pg/μL, 1μL)
Resolution ratio	0.7amu
Electron energy	Adjustable from 0 to 240eV
Instrument Detection Limit (IDL)	< 10fg (8 sequences were injected inseparably, 100fg OFN. m/z 272)
Radiation energy	Maximum 500μA
Power supply	220V±10%, 50/60Hz
Maximum scan rate	20000amu/s
Power	Maximum 900W
Mass stability	±0.1amu/48h
Weight	48kg
Ion source temperature	Maximum 350°C
Size	350x650x500mm
Transmission line temperature	Maximum 400°C
Data transmission	LAN
Scanning mode	Full scan, selective ion scan, alternate scan
Applicable gas phase model	GC 8900 Gas chromatograph
Turbopump	240L/s (300L/s optional)