Achieve High Mass Accuracy on the Agilent 5977B Series GC/MSD

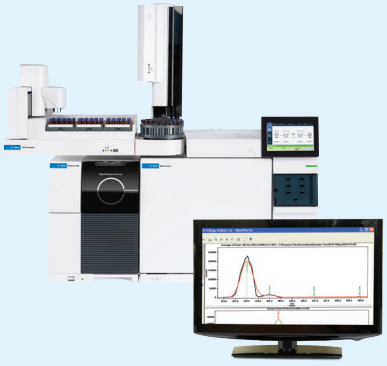
MassWorks software makes determining elemental composition more affordable

It is now possible to achieve high mass accuracy on an Agilent 5977B Series GC/MSD using Cerno Bioscience MassWorks' novel MS calibration technology. The software makes accurate mass elemental composition determination significantly more affordable for environmental, forensic, food safety and metabolomics laboratories. It has also proved to be a great tool to teach undergraduate and graduate science students the concept of isotopes, isotope distribution, accurate mass, and unknown ID.

Uniquely powerful, easy to use

MassWorks combines an innovative peak shape calibration and *m/z* assignment algorithm with the stability and robustness of the Agilent 5977B Series GC/MSD to deliver a uniquely powerful, easy-to-use data analysis tool.

- Easy calibration setup with PFTBA tune gas
- Easy push-button calibration using AutoCal
- Increases mass accuracy by up to 100x
- Up to 99% Spectral Accuracy for high-confidence compound ID
- Identify unknowns, with or without a compound library
- Orthogonal confirmation for raw scan or profile mode qualitative analysis
- A cost-effective and easy solution to elemental composition determination
- Fully integrated with NIST library search for compound ID



Application Note
Acquiring Calibration Data on Agilent GC/MSDs

Download now

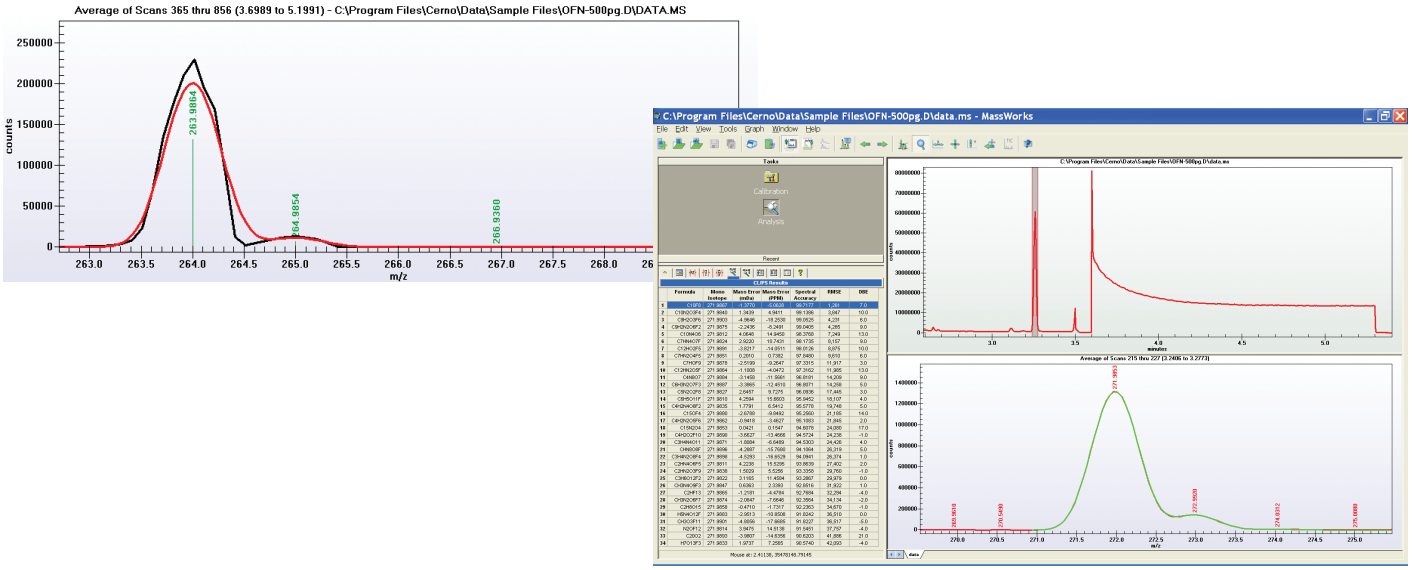
Agilent
Trusted Answers

Accurate mass analysis that works seamlessly with your Agilent GC/MSD

PFTBA tune gas availability on a GC/MSD system allows for easy acquisition of the raw scan or profile mode data required to build the MassWorks calibration. The calibration function is then used to assign appropriate accurate masses to any molecular or fragment ions.

Uniquely available on GC/MSD systems, the AutoCal feature makes the entire process even easier when a reference PFTBA spectrum is acquired within the same run.

- MassWorks can be launched from within MassHunter or Chemstation Data Analysis through a single added menu item
- MassWorks detects the presence of PFTBA peak in a TIC and automatically performs an AutoCal when opening an MS data file, once inside MassWorks software, with or without MassHunter or Chemstation Data Analysis software.



Applying the PFTBA calibration to OFN peak eluted at 3.25 minutes. The accurate monoisotope mass of OFN is found within 2 mDa of its exact mass. CLIPS elemental composition search correctly identifies its elemental composition with the highest spectral accuracy of 99.7% where its theoretical (green) and calibrated (red) mass spectrum is matched down to noise level.

Get the economic solution for accurate mass compound identification.

Learn more about Agilent 5977B Series GC/MSD with MassWorks at:
agilent.com/chem/MassWorks

For technical and application support, provided by Cerno Bioscience, visit:
cernobioscience.com

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