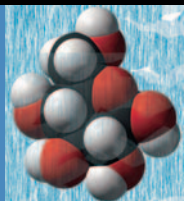
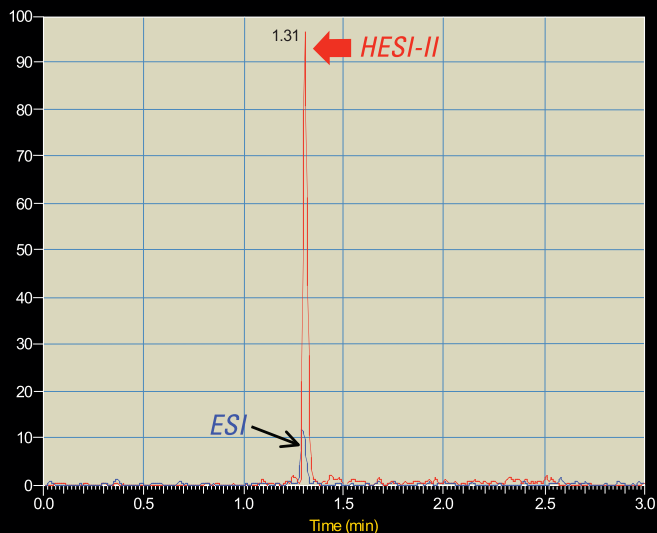


Thermo Scientific HESI-II: Improves Ionization Efficiency



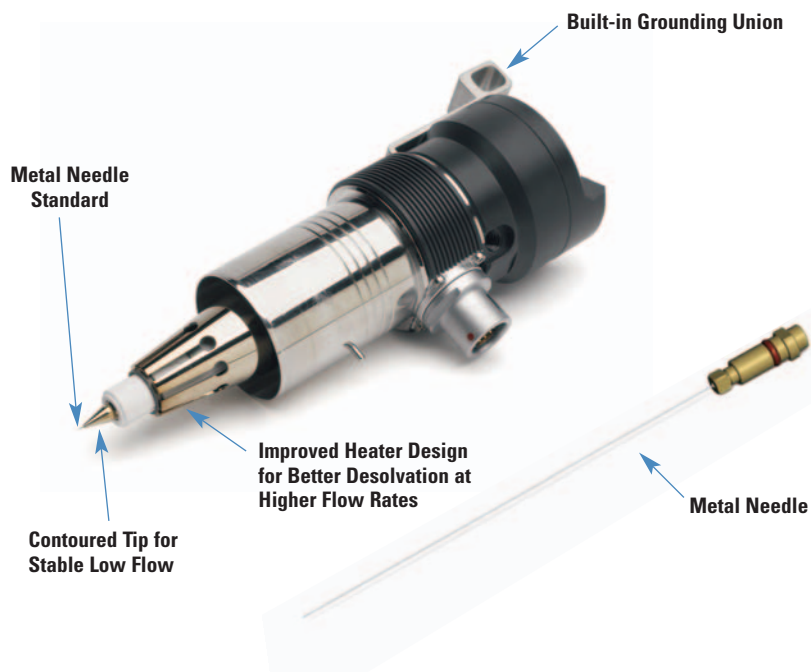
Comparison of Paroxetine (10 pg/mL) in rat plasma by HESI-II and ESI at a flow rate of 1.5 mL/min



New Heated Electro spray Ionization Source (HESI-II) Enhances Ionization Efficiency at High Flow Rates

The basic function of the electrospray probe is to convert ions from a liquid phase to a gaseous phase for sampling into the vacuum chamber of the mass spectrometer. The HESI-II ion source is designed to perform this conversion in the most efficient manner. Enhancements were made to accommodate higher LC flow-rates (> 1 mL/min) while simultaneously improving low flow (< 200 µL/min) ambient temperature operation performance. The HESI-II probe contains a metal needle which is easily replaceable, enhancing ease-of-use.

To handle flow rates higher than 1 mL/min, the heater design was made more efficient, while low flow performance was improved by contouring the spray tip. The new shape of the spray tip enhanced the electrostatic fields leading to significantly improved spray stability at low rates. As a result, HESI-II delivers optimal ionization efficiency across a wide range of LC flow rates for small molecules or biomolecules, ensuring analysis at high sensitivity at all times.



Thermo Scientific TSQ Series of Triple Stage Quadrupole Mass Spectrometers

TSQ Series mass spectrometers are the most advanced and powerful triple stage quadrupole mass spectrometers available. All TSQ Series mass spectrometers feature the patented Thermo Scientific HyperQuad quadrupole mass analyzer system, making them the only commercial triple quads available today capable of performing highly selective reaction monitoring (H-SRM), which provides greater analytical selectivity.

Thermo Scientific TSQ Quantum Access

Unsurpassed Price to Performance

The TSQ Quantum Access™ offers versatility with its best-in-class mass range (m/z 10-3000), QED-MS/MS structural quantitation scan mode, and H-SRM capability. With the ability to scan for more than 300 analytes in a single experiment and with fast positive/negative mode switching, the TSQ Quantum Access enables routine multi-residue screening. The common ion path and ion source shared by the TSQ Quantum product line allows for easy method transfer between the different platforms, a significant advantage in today's business environment. HESI-II is available as an option on the TSQ Quantum Access.

Thermo Scientific TSQ Quantum Ultra

Ultimate Productivity for Bioanalysis

The TSQ Quantum Ultra™ mass spectrometer assures the best available technology for a variety of quantitative applications. Breakthrough innovations such as H-SRM, Quantitation-Enhanced Data-Dependent MS/MS (QED-MS/MS), and options such as Thermo Scientific Transcend system powered by patented TurboFlow™ technology, and high-Field Asymmetric waveform Ion Mobility Spectrometry (FAIMS) facilitate the development of robust quantitative methods and provide a significant reduction in matrix interferences. Faster method development at the highest possible specificity is routinely achievable with the TSQ Quantum Ultra mass spectrometer.

Thermo Scientific TSQ Vantage Highest Sensitivity, Lowest Noise

The TSQ Vantage™ is crafted with Generation Two (G2) ion optics, which include the innovative S-Lens and zero cross-talk collision cell, making it the most sensitive, high-precision triple quad available on the market today. Equipped with HESI-II, a new Ion Sweep design and HyperQuad™ quadrupoles, the TSQ Vantage delivers highly reproducible, high-sensitivity quantitation despite continuous exposure to thousands of matrix-rich samples. Whether you are analyzing small molecules or biomolecules, the TSQ Vantage gives you precise, consistent, and reproducible results at amazingly low levels of quantitation.



Autosampler, Thermo Scientific Accela high-speed liquid chromatography pump, and TSQ Vantage mass spectrometer with HESI-II probe

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