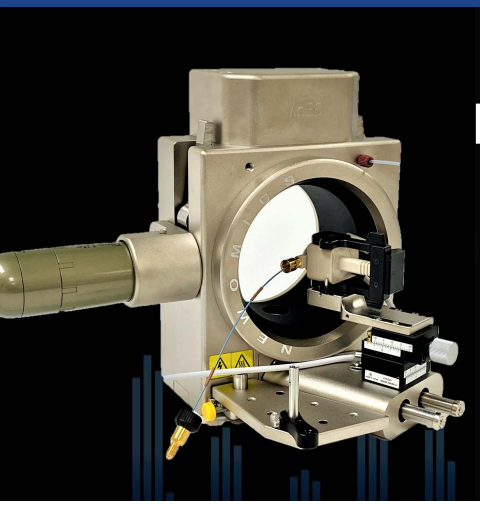
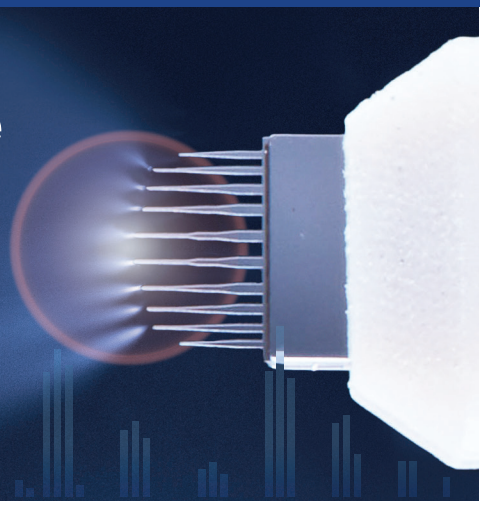
NEWOMICS
Enabling Precision Medicine

Multiply Your Mass Spectrometry Performance



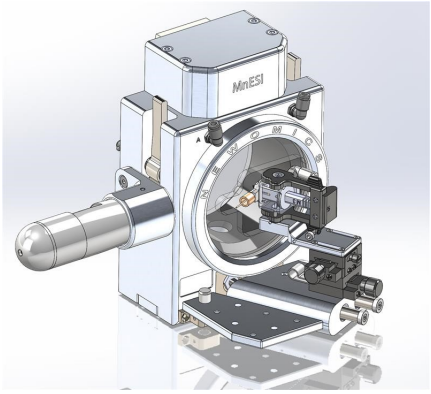
Newomics® MnESI Source

- High Throughput
- High Sensitivity
- Robustness
- Plug-and-Play



Microflow LC-Nanospray MS

Introducing MnESI-MS (Microflow nanospray ESI-MS) platform from Newomics. The plug-and-play system integrates MnESI source with award-winning M3 emitter. The M3 emitter has multiple nozzles working together to split a single microflow stream evenly into multiple nanoflows, thereby dramatically enhancing the ionization efficiency to achieve unprecedented sensitivity, robustness, and throughput. The applications have been successfully demonstrated for protein, peptide, lipid, and nucleic acid analysis by interfacing to mass spectrometers from multiple leading vendors.



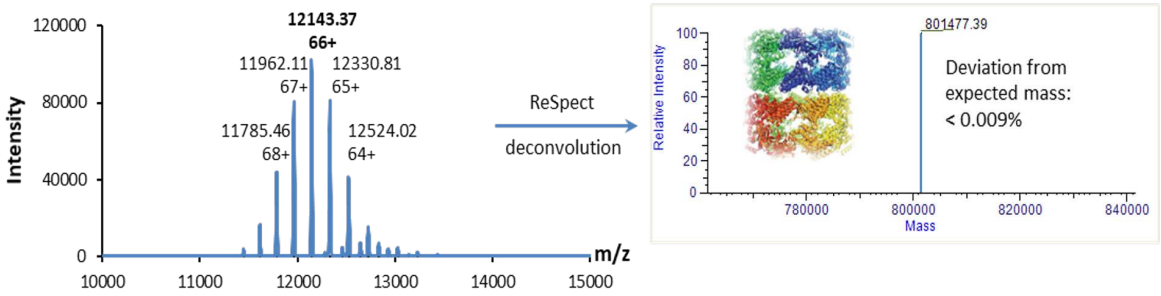
Catalog #	Product
IS-T01	MnESI Source for Thermo Scientific New Generation Mass Spectrometers
IS-T02	MnESI Source for Thermo Scientific Legacy Mass Spectrometers
IS-B01	MnESI Source for Bruker Mass Spectrometers
ESI Probe	Newomics M3 Emitter
Flow Rate	Nanoflow (20-1000 nL/min); Microflow (1-50 µL/min)
Spray Angle	Fixed Angle of 25°
Sheath Gas/Auxiliary Gas	Available
Translational Stage	Linear XY-axis Manual Stage, ±5 mm Travel Distance, 30 µm Travel Accuracy
Camera	1.3 M Pixels, 20-90x Magnification Rate, Color CMOS Sensor, Up To 30 fps Frame Rate
Connection Fittings	Face Seal, Finger-tight 10-32 Threaded Fittings Including Thermo NanoViper, IDEX MarvelX And MarvelXACT, Waters ZenFit, Phenomenex SecurityLink, VICI Cheminert C360IZR1, And NanoConnect

www.newomics.com
info@newomics.com
804 Heinz Avenue, Suite 150, Berkeley, CA 94710

Application: MnESI-MS Platform for LC-MS Analysis of Native Protein Complexes

M3 EMITTER AT MICROFLOW DELIVERS NANOFLOW SENSITIVITY WITH HIGHER THROUGHPUT VIA LC-MS

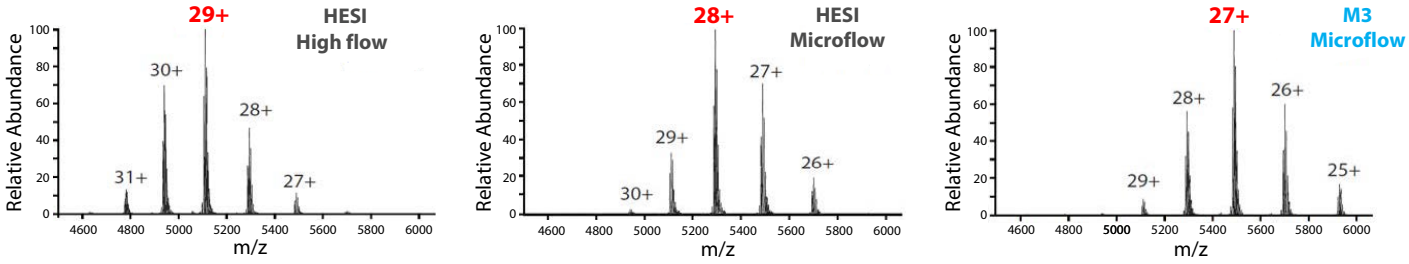
Newomics MnESI-MS platform streamlines analysis of native antibodies, antibody drug conjugates (ADCs), and large protein complexes. It achieves static nanoflow sensitivity and excellent data quality, allows for higher throughput via LC/MS, and provides better preservation of protein native state during the ESI process.



SEC-LC/MS analysis of GroEL tetradecamer protein complex using the MnESI-MS platform with M3 Emitter at the microflow of 5 µL/min.

PRESERVATION OF NATIVE STATE OF ANTIBODY USING MnESI-MS PLATFORM WITH M3 EMITTER

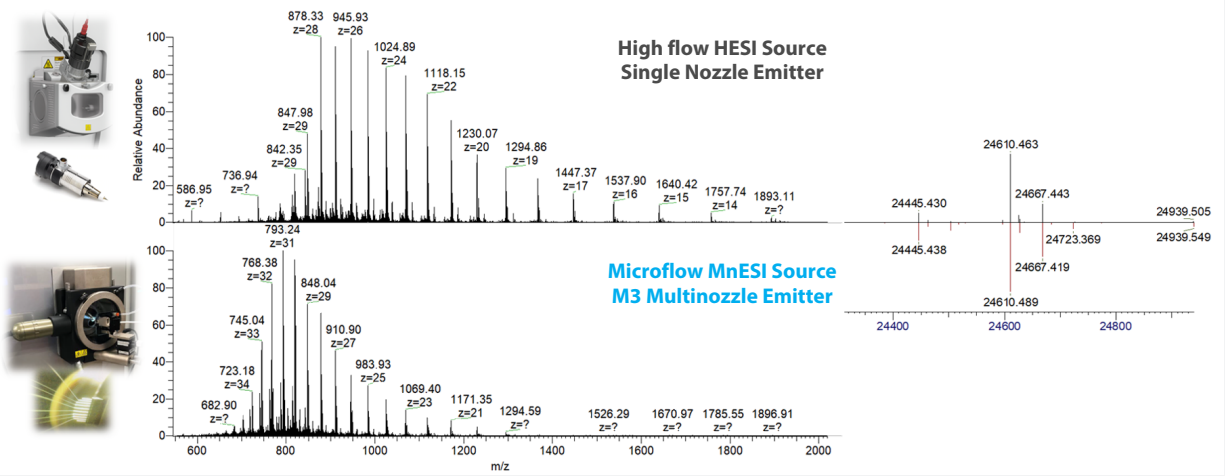
MnESI-MS achieves the charge envelope shifts towards the higher m/z (less charge, more native state) compared to HESI high flow and microflow method, with the most abundant charge state at 28+ and 27+, respectively.



Application: MnESI-MS Platform for Oligonucleotide Analysis

MnESI-MS PLATFORM ALLOWS FOR DETECTION OF LONGER OLIGONUCLEOTIDES

Newomics MnESI-MS platform facilitates nucleic acid analysis in a negative mode. It delivers increased sensitivity and higher charge state, which allows for detection of larger oligonucleotides with longer sequences, and better identification with more complete fragmentation (with a higher charge state).



Ion-Pairing RP-LC/MS Analysis of 75-mer tRNA using the MnESI-MS platform with M3 Emitter at microflow. MnESI platform attains improved sensitivity and higher charge state and comparable data quality vs. high-flow LC/MS method.