

Waters Advanced Mass Spectrometry

Calibrant

Lockmass

Sample

The SELECT SERIES Cyclic IMS
Endless Possibilities. Limitless Research.



SELECT
SERIES



Waters

THE SCIENCE OF WHAT'S POSSIBLE.™

Revolutionize Your Research

Leading researchers are discovering the promise of the SELECT SERIES™ Cyclic™ IMS. This revolutionary new instrument combines novel cyclic ion mobility separation with state-of-the-art, high-performance, time-of-flight mass spectrometry (ToF), to help bring you to the forefront of scientific discovery.

Discover a New Path

The circular path of the SELECT SERIES Cyclic IMS combined with high-performance, ToF mass spectrometry allows you to reshape the possibilities of your research.

Cyclic IMS Ion Optics



Combines cyclic ion mobility (cIM) separation with ToF mass spectrometry

Separates more than ever before with ultimate ion mobility resolution for complete confidence

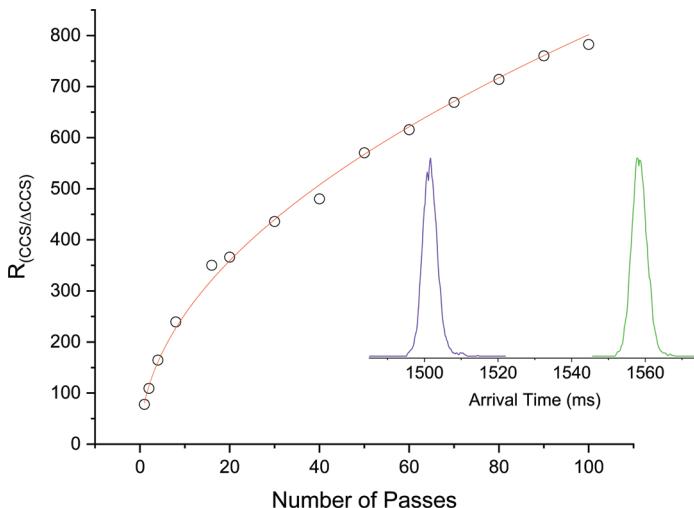
Performs unique IMSⁿ experiments for increased selectivity and advanced characterization

Enables pre-mobility mass selection and mobility selection of precursor and product ions

Provides three distinct fragmentation regions, enabling increased experimental flexibility for solving complex problems

Unlimited Experimental Possibilities

Now you can acquire a wide range of experiments, including single and multi-pass ion mobility, IMS/IMS, and IMS^n , all combined with high resolution ToF data acquisition.



ULTIMATE MOBILITY RESOLUTION

IMS resolution increases with the number of passes around the cIM device. Demonstrated here by the separation of reverse sequence peptides SDGRG and GRGDS. The Arrival Time Distributions (ATDs) obtained after 100 passes around the device are inset.

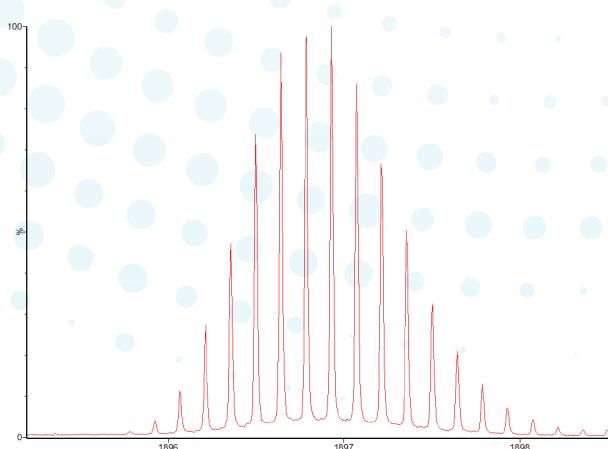
XS Transfer Device

NOVEL IMS^n EXPERIMENTS

The unique instrument geometry and software design enables you to perform a wide range of experiments such as: ion selection of specific mobility separated species, ion storage, activation, multiple rounds of IMS/IMS (IMS^n), and importantly, custom combinations. Experiments can be designed and implemented with varying storage and separation times to provide bespoke methods to investigate structural and positional isomers, gas phase interconversion of molecular structures, and ion conformations.

SUPERIOR ToF PERFORMANCE

Have complete confidence in your results with improved sensitivity, resolution $>100,000$ (FWHM), reliable exact mass measurements (low ppm), and improved dynamic range.

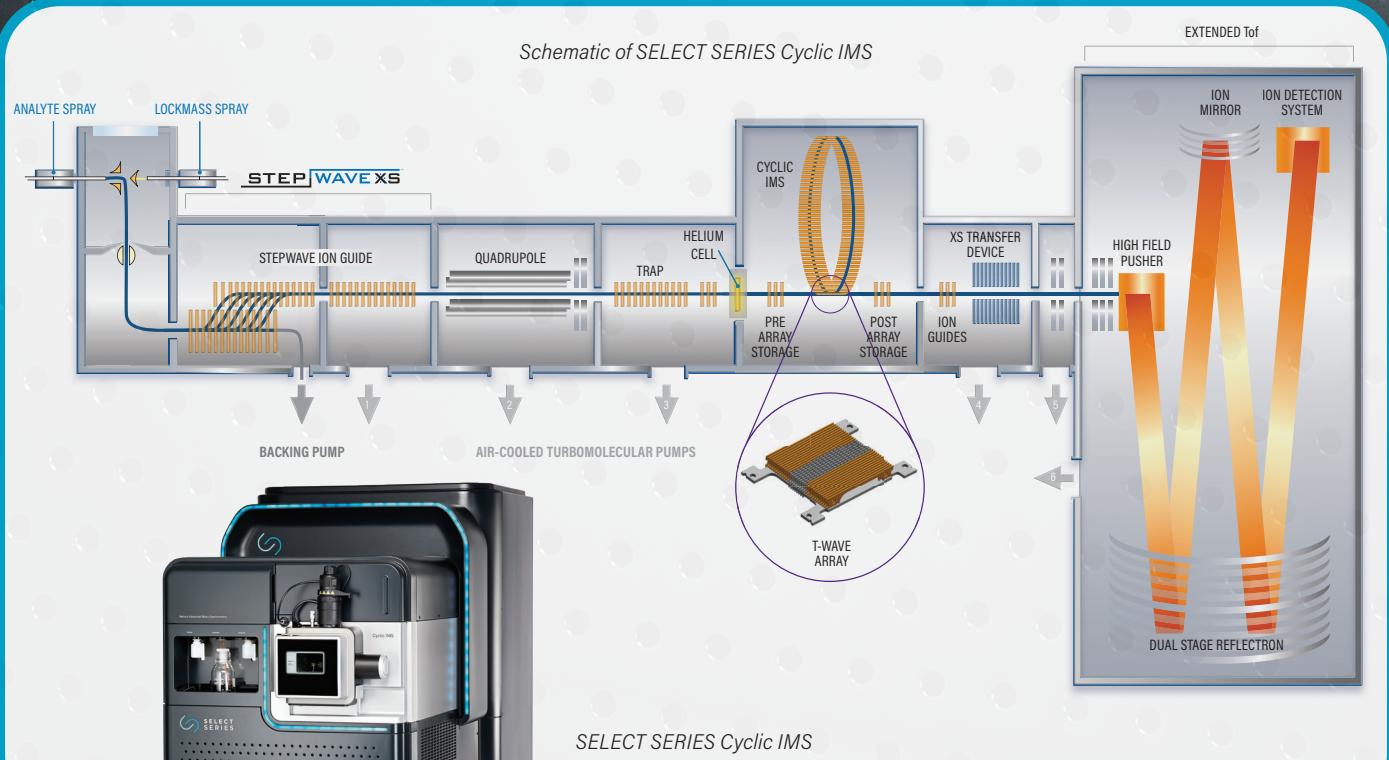


REMARKABLE ToF RESOLUTION

Mass spectrum highlighting resolution of $>100,000$ (FWHM) on the 7+ charge state of monomeric streptavidin.



Schematic of SELECT SERIES Cyclic IMS



Explore the possibilities of the
SELECT SERIES Cyclic IMS.

www.waters.com/CyclicIMS

For your local sales
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