

Omnitrap™

Next generation technology
for comprehensive analysis of proteins

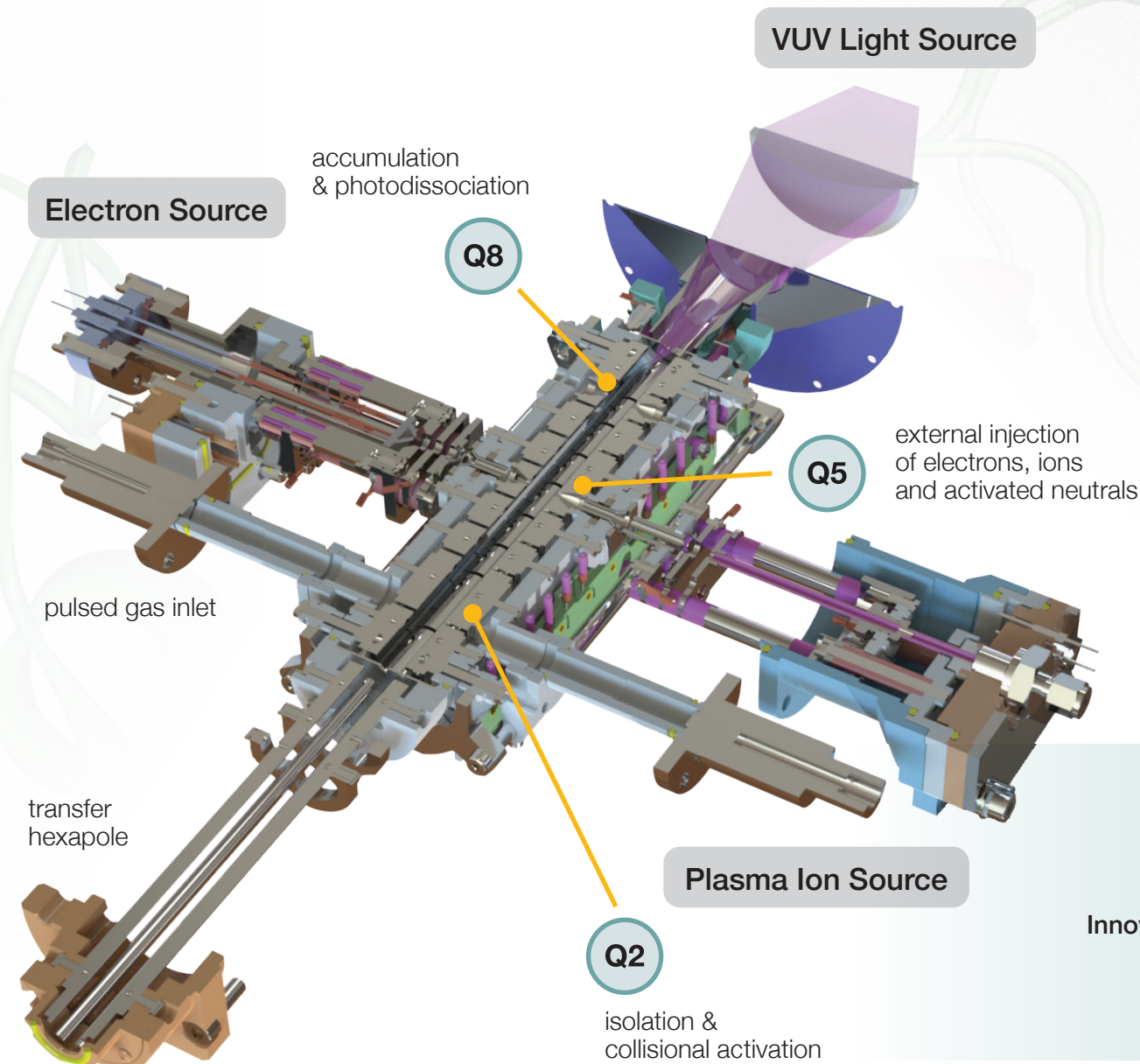
Fasmatech SA
Lefkippos Tech Park
NCSR Demokritos
15341 Athens, Greece
email info@fasmatech.com

www.fasmatech.com



Omnitrap Processing Platform

The Omnitrap™ platform is the most advanced fragmentation cell incorporating variations of the entire ion activation network, enabling multidimensional multiple-stage tandem mass spectrometry to be performed at unparalleled levels. Advanced RF technology allows for processing ions over an extended m/z range. The Omnitrap platform is currently available as a retrofit to the Q Exactive™ and Exploris™ Orbitrap™ mass spectrometers (Thermo Fisher Scientific) and also with Fasmatech's high performance TOF mass analyzer.



Performance Achievements

- Access to an extended mass range using variable frequency rectangular RF waveforms for trapping ions
- Highly efficient ExD reactions with fine-tuned energy electrons
- Enhanced CID efficiency in pulsed RF fields at elevated gas pressure
- Lossless transfer of ions between the HCD cell and the Omnitrap platform

Application Areas

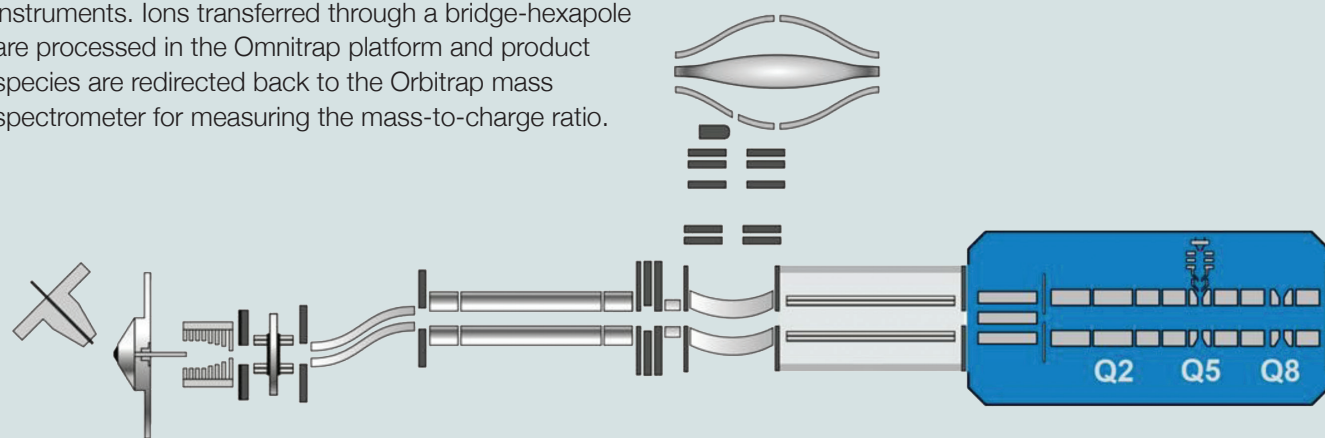
- Top-down & bottom-up proteomics, proteoform and post-translation modification analysis
- Structural biology
- Native mass spectrometry
- Glycans, lipids, metabolites
- Fundamental research

The omnitrap technology listed in the **2018 Top Ten Innovations in Life Sciences** of "The Scientist" magazine.



Upgrade your Orbitrap mass spectrometer to a protein analysis center

The Omnitrap platform is connected in series with the HCD cell of the Q Exactive and Exploris instruments. Ions transferred through a bridge-hexapole are processed in the Omnitrap platform and product species are redirected back to the Orbitrap mass spectrometer for measuring the mass-to-charge ratio.



Ion Activation-Dissociation Network

HECID: Higher-Energy Collision Induced Dissociation
SHCID: Slow-Heating Collision Induced Dissociation
ECD: Electron Capture Dissociation
EmI: Electron meta-Ionization
EID: Electron Induced Dissociation
IAD: Ion Activated Dissociation
HAA: Hydrogen Atom Attachment
PD: Photo-Dissociation

