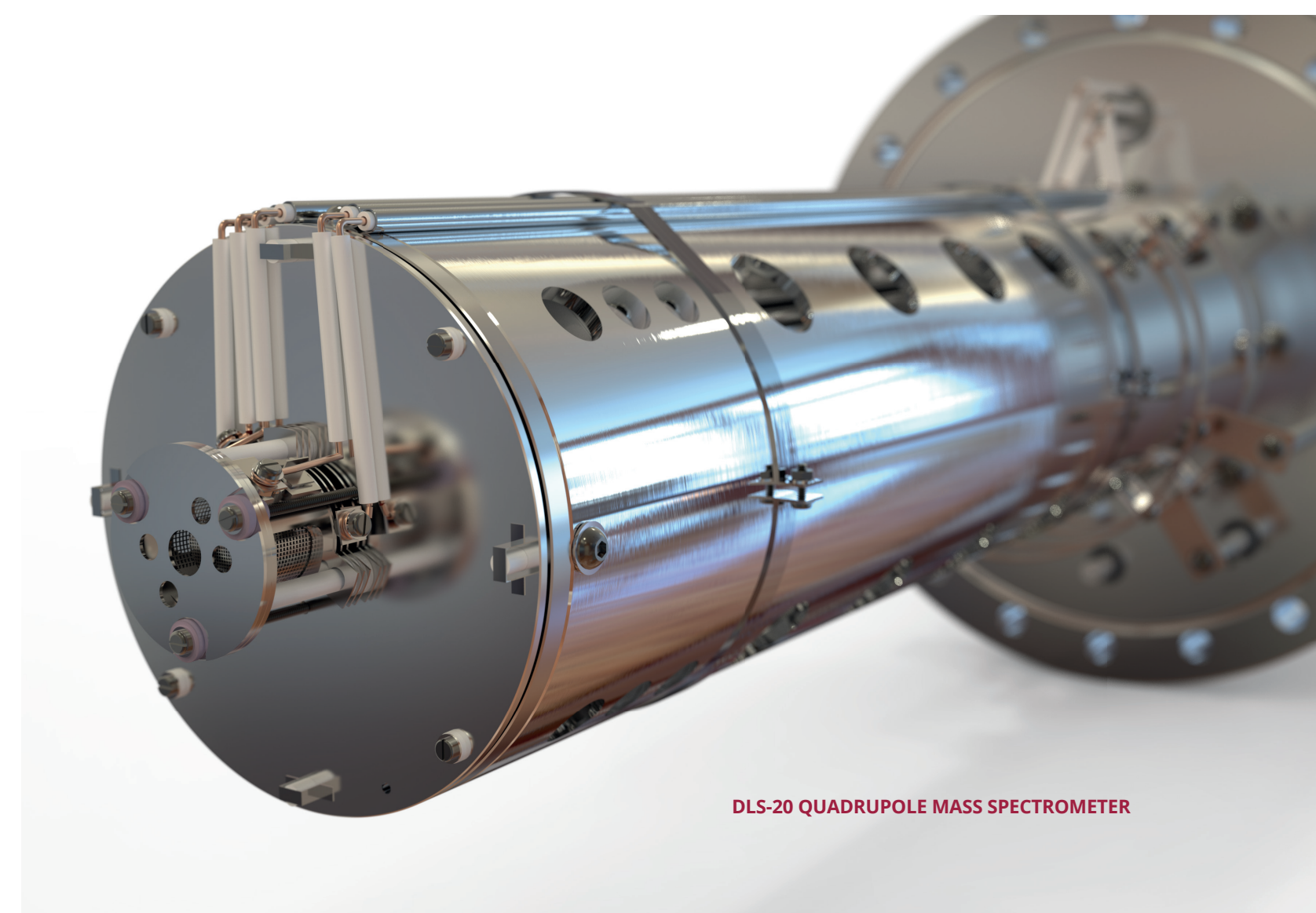




DLS-20

Ultra High Resolution Quadrupole Mass Spectrometer



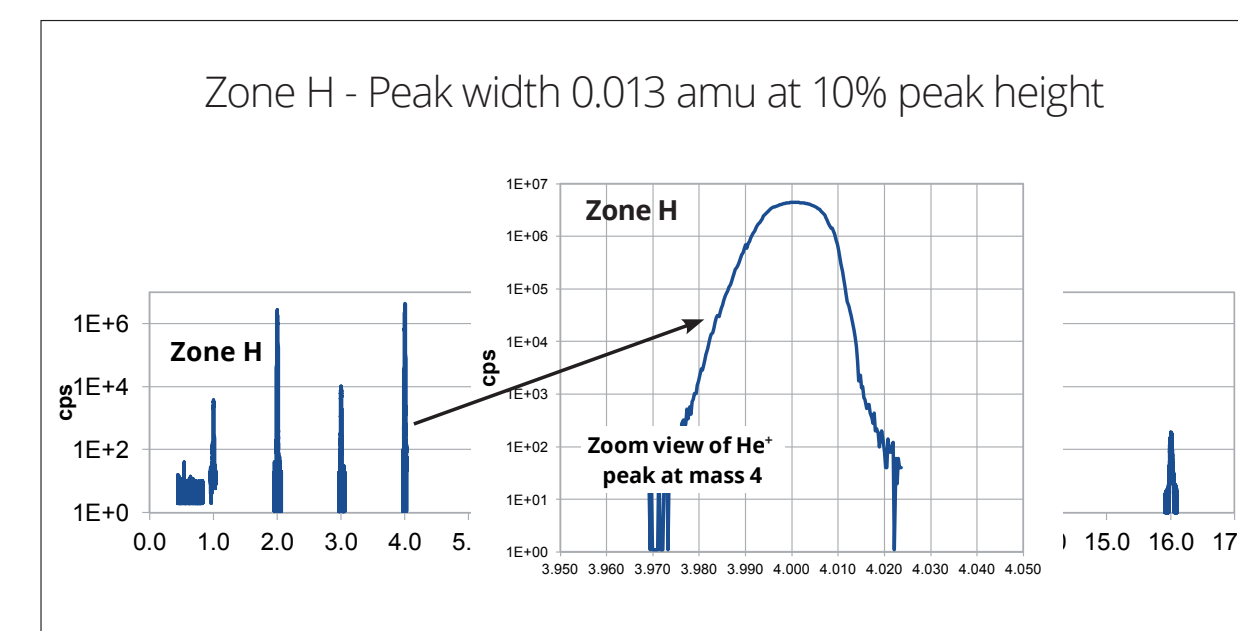
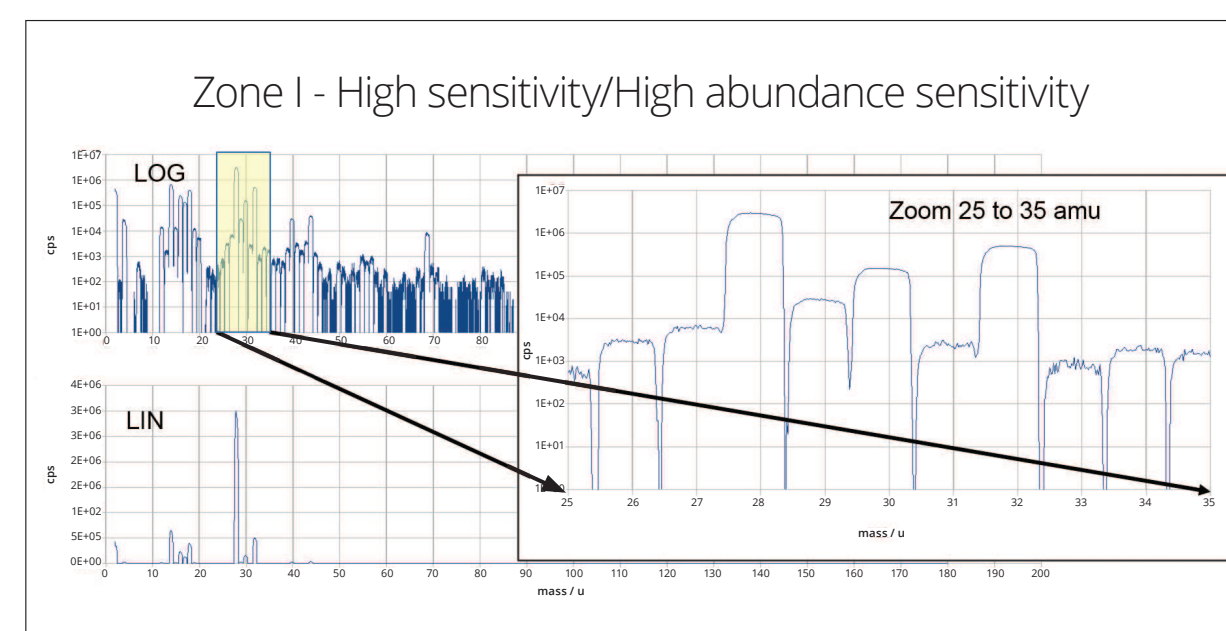
20 mm Pole Diameter Quadrupole Mass Spectrometer

The new DLS-20 system includes the world first quadrupole mass spectrometer with **user switchable dual zone operation**.

- ▶ **Zone I** – for high performance over 200 amu mass range.
- ▶ **Zone H** – for ultimate resolution at low mass, with mass range to 20 amu.



HIDEN QUADRUPOLE MASS SPECTROMETER PROBES



Why Zone H?

Only the resolving power of Zone H gives ultimate detection limit for He in D₂

- ▶ Quadrupoles operate with RF and DC Voltages applied to their rods which then carry ions to the detector.
- ▶ Certain voltage combinations can create 'stability regions' that transmit only ions of a particular m/z.
- ▶ Scanning the quad's voltages across the tips of these regions will carry only that ion to the detector.
- ▶ The Zone I region is most often used. However, a second region, Zone H, offers much greater resolving power – which helps separate adjacent masses.
- ▶ But only quadrupole electronics with both high power and stability can operate in this zone.
- ▶ Hiden's high power electronics is now offered with selectable Zone H capability for masses up to 20 amu and Zone I for masses up to 200 amu – in a single package.

The resolving power of Zone H compared to Zone I for He ions

