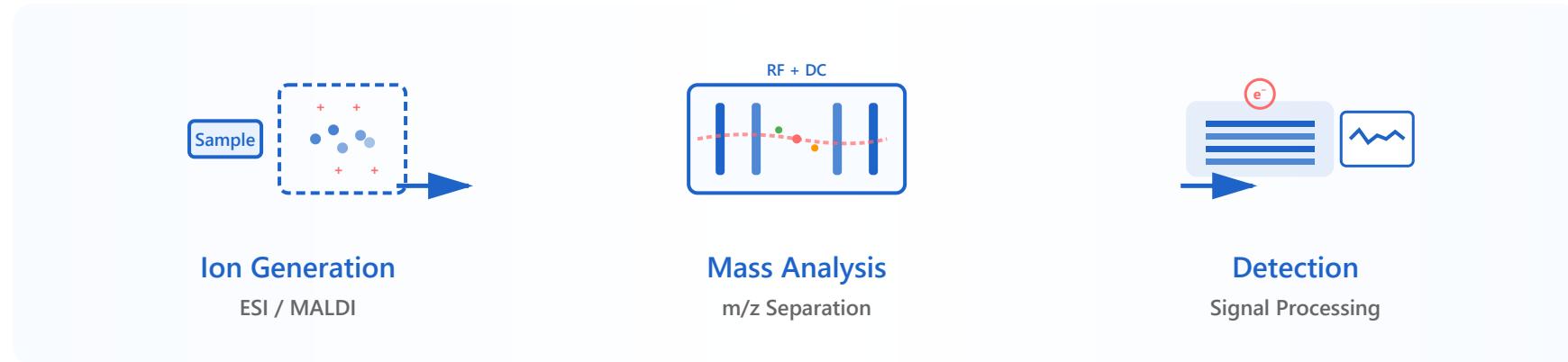


# Mass Spectrometry Basics



## Resolution & Accuracy

- High resolution: distinguish similar masses
- Mass accuracy: parts per million (ppm)
- Critical for peptide identification



## Scan Modes

- Full scan: entire mass range
- Selected ion monitoring (SIM)
- Data-dependent acquisition (DDA)



## Sensitivity

- Femtomole to attomole detection
- Dynamic range: 3-5 orders of magnitude
- Low abundance protein detection



## Applications

- Protein identification
- Quantification
- PTM analysis

