

APPENDIX 4

## Comparison of the Performance of Mass Analysers\*

<i>Analyser</i>	<i>Symbol</i>	<i>Dynamic mass range</i>	<i>Mass resolution</i>	<i>Advantages</i>
Time-of-flight	<b>TOF</b>	unlimited	500 (linear) 1000 (reflector) 5,000 (with time-lag focusing)	Relatively easy to construct, Inexpensive, non-scanning, high ion transmission
Magnetic sector	<b>B</b>	10,000	10,000	High resolution, high mass accuracy
Quadrupole	<b>Q</b>	up to 5000	2000	Inexpensive, tolerant of higher pressures, fast-scanning capability
Quadrupole ion trap	<b>QIT</b>	up to 5000	2000	Inexpensive, compact, fast-scanning capability
Ion cyclotron resonance	<b>ICR</b>	10,000	up to 500,000	Very high resolution and mass accuracy

\*Values are to be used as a guide only. Values vary among instruments. Mass resolutions quoted represent 10% valley definitions