

Typical operating parameters for basic types of mass analyzers in HPLC/MS

Analyzer	Mass range [m/z, *10⁻³]	Resolution [Δm/z]	Resolving power, FWHM [*10⁻³]	Mass accuracy [ppm]	MS/MS	Scan rate [scans/s]	Vacuum [Pa]	Price [kEuro]
Q	3	0.1 - 0.7	-	low	-	0.5 - 4	10 ⁻³ -10 ⁻⁴	70 - 100
QqQ	3	0.1 - 0.7	-	low	MS/MS	0.5 - 4	10 ⁻³ -10 ⁻⁴	130 - 200
IT	4 - 20	0.1 - 0.7	-	low	MS _n	5 - 10	10 ⁻³ -10 ⁻⁴	100 - 150
LIT	4 - 20	0.1 - 0.7	-	low	MS _n	1 - 4	10 ⁻³ -10 ⁻⁴	200 - 250
Orbitrap	6	-	50 - 100	<5	MS _n	0.5 - 2	10 ⁻⁷ - 10 ⁻⁸	450 - 500
oa-TOF	20 - 40	-	15 - 20	<5	-	20	10 ⁻⁵	200 - 250
QqTOF	10 - 40	-	15 - 25	<5	MS/MS	20	10 ⁻⁵	300 - 400
Double focusing magnetic sector	5 - 15	-	30 - 80	<5	MS/MS	0.1 - 0.5	10 ⁻⁵ -10 ⁻⁶	400 - 600
FTICR	5 - 15	-	100 - 1500	<2	MS _n	0.3 - 1	10 ⁻⁹ -10 ⁻¹⁰	700 - 1500