

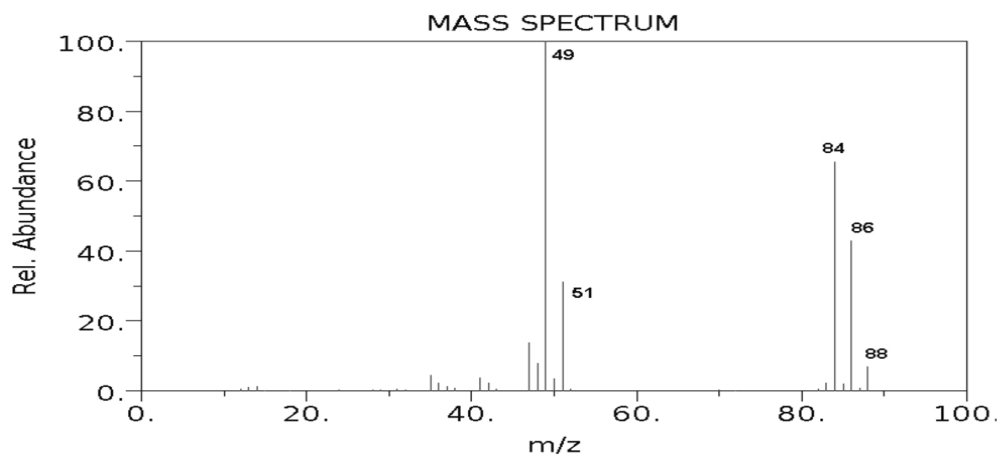
### Mass Spectroscopy Intensity Calculation Worksheet

**Objective:** To justify the experimental intensity for a given signal on a mass spectrum based on the values of % natural abundance for various isotopes.

**Example Molecule:** Methylene Chloride ( $\text{CH}_2\text{Cl}_2$ )

Use the following atomic masses when analyzing the mass spectrum of methylene chloride

$\text{H}=1.00\text{g/mol}$ ;  $^{12}\text{C}=12.00\text{g/mol}$ ;  $^{13}\text{C}=13.00\text{g/mol}$ ;  $^{35}\text{Cl}=35.00\text{g/mol}$ ;  $^{37}\text{Cl}=37.00\text{g/mol}$



Experimental Mass Spectrum Data for Methylene Chloride

m/z	% Rel. Abundance
49	100
51	32
84	65
86	43
88	7