

APPENDIX 6

Summary of Common Fragment Ions Detected for Organic Compounds by Class*

<i>Compound class</i>	<i>Representative formula</i>	<i>m/z of fragment ions</i>
Aliphatic hydrocarbons	C_nH_{2n+2}	15, 29, 43, 57, 71, 85, 99, 113
Aliphatic alcohols or ethers	$C_nH_{2n+1}OH/R$	31, 45, 59, 73, 87, 101
Aliphatic amines	$C_nH_{2n+1}NH_2$	30, 44, 58, 72, 86, 100, 114
Aldehydes and ketones	$C_nH_{2n+1}COH/R$	29, 43, 57, 71, 85, 99
Carboxylic acids and esters	$C_nH_{2n-1}O_2H/R$	45 (acid only), 59, 73, 87, 101
Amides	$C_nH_{2n+1}CONH_2$	44, 58, 72, 86, 100
Alkyl halides	$C_nH_{2n+1}X$	33(F), 49/51(Cl), 93/95(Br), 143(I) 42, 56, 70, 84, 98, 112

* Fragment ions are to be used as a guide for the interpretation of EI mass spectra. Refer to Chapter 5 for more detail.