

## Chemistry 416, Dr. Glaser

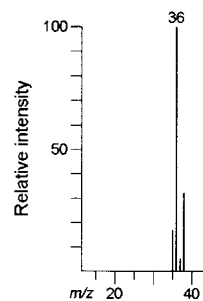
### Applications of Mass Spectroscopy: Isotope Pattern.

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The effects of isotopes are illustrated in Unknowns 2.1 to 2.3. The characteristic ratio of 3:1 for Unknown 2.1 makes the element easily recognizable. Note that the interpretation of  $m/z$  36 as a fragment ion would be totally misleading! It is important that you become familiar with the isotope ratios of the common elements.

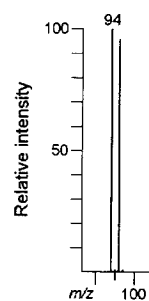
#### Unknown 2.1

$m/z$	Int.
35	12.
36	100.
37	4.1
38	33.



#### Unknown 2.2

$m/z$	Int.
94	100.
95	1.1
96	96.
97	1.1



#### Unknown 2.3

$m/z$	Int.
64	100.
65	0.9
66	5.0

