[M+H]+ = 778.6
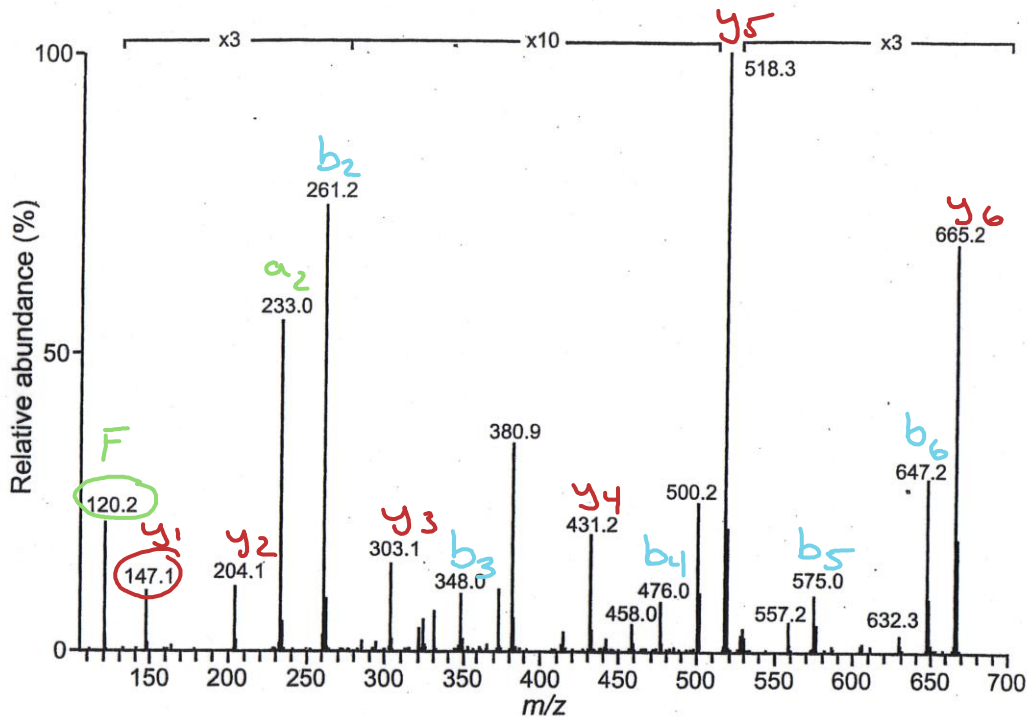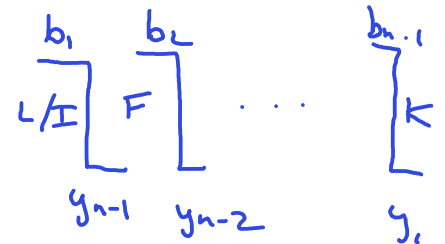
1) Phe immonium ion m/z 120

2) b_2 ion 261.2 a_2 ion 233.0 (L/I F)(YP)(EM)

3) C-terminal lysine (147) $y_1 \to b_{n-1} = 632.3$

4) $y_{n-2} = 778.6 - 261.2 + H = 518.4$

   $y_{n-1} = 778.6 - Leu/Ile = 665.6$

   $y_{n-1} - y_{n-2} = 147 = Phe$

5) $518.3 - 431.2 = 87.3 = Ser = y_4$

   $778.6 - 431.2 + H = 348.4 = b_3$

   $431.2 - 303.1 = 128.1 = Q/K = y_3$

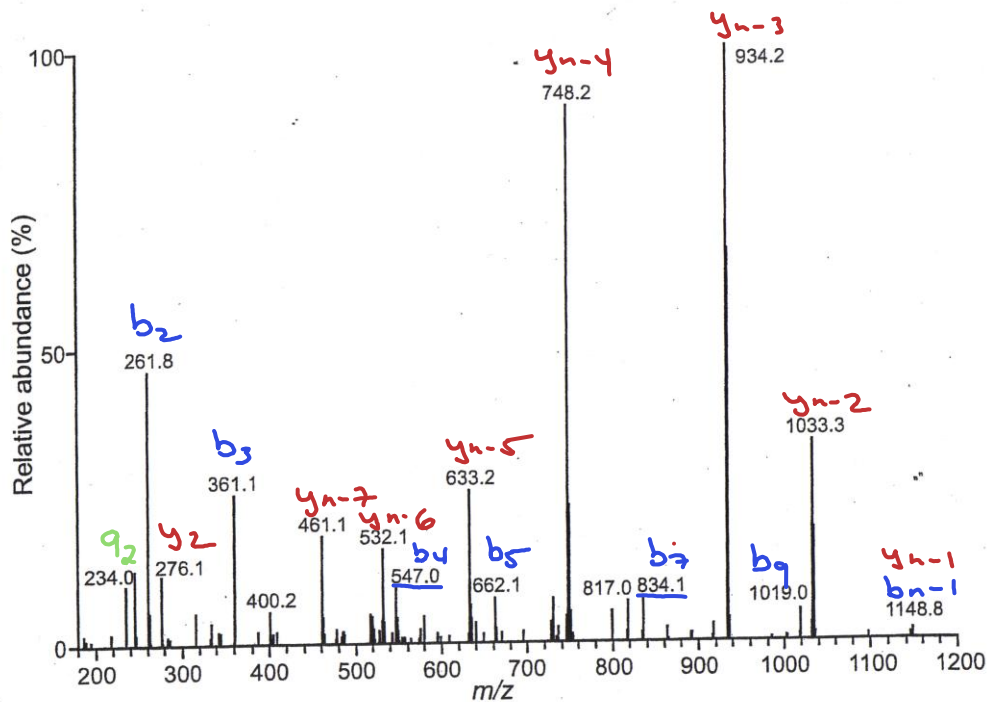 $778.6 - 303.1 + H = 476.5 = b_4$

   $303.1 - 204.1 = 99 = V$

   $778.6 - 204.1 + H = 575.5 = b_5$

6) $632.6 - 575.0 = 57.6 = G$

$[M+H]^+ = 1295.0$

100 — (Relative abundance (%))

y_{n-3} 934.2

y_{n-4} 748.2

b_2 261.8

50 —

y_{n-2} 1033.3

b_3 361.1

y_{n-5} 633.2

y_{n-7} 461.1 y_{n-6} 532.1

a_2 234.0 y_2 276.1

b_4 547.0 b_5 662.1

b_7 817.0 834.1

b_9 1019.0

y_{n-1} b_{n-1} 1148.8

400.2

0 —
200 300 400 500 600 700 800 900 1000 1100 1200
m/z

1) No immonium ions b/c of low mass cutoff

2) b_2 ion 262 a_2 ion 234 $(c^a s)(c^* T)(FN)$

   $y_{n-2} = 1295 - 261.8 + H = 1034.2$

3) not there although $1295 - 147 = 1148 = Lys$ $]K$

4) $y_{n-1} = 1295 - Phe = 1148$ $F|N$ $]K$

5) $1033.3 - 934.2 = 99.1 = V$ $F|N|V$ $]K$

   $1295 - 934.2 + H = 361.8 = b_3$

   $934.2 - 748.2 = 186 = W$ $F|N|V|W$ $]K$

   $1295 - 748.2 + H = 547.2 = b_4$

   $748.2 - 633.2 = 115 = D$ $F|N|V|W|D$ $]K$

   $1295 - 633.2 + H = 662.8 = b_5$

   $633.2 - 532.1 = 101.1 = T$ $F|N|V|W|D|T$ $]K$

   $1295 - 532.1 = 763.9$ (Not there)

$532.1 - 461.1 = 71 = Ala$

$1295 - 461.1 + H = 834.9 = b_7$

F⌐N⌐V⌐W⌐D⌐T⌐A ⌐K

$y_1 = 147$

$y_2 = 147 + 129.1 = 276.1$

Thus $y_2 = E$

$1295 - 276.1 + H = 1019.9 = b_8$

834   1619
F⌐N⌐V⌐W⌐D⌐T⌐A⌐185⌐E⌐K
            461   276

$185 = -G\ Q- = 57 + 128$