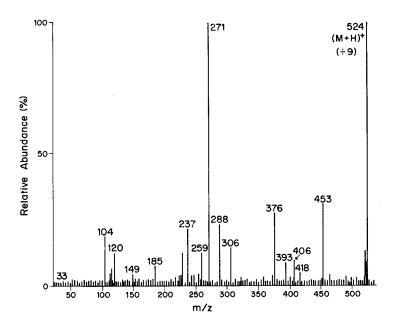
## **Sequence Analysis**

The daughter ion is shown of a protonated tetrapeptide ionized by FAB. What amino acids occur in what sequence in this peptide? Explain the fragmentation pattern.



|                | Internal<br>Residue Mass |               | Internal<br>Residue Mass |
|----------------|--------------------------|---------------|--------------------------|
| glycine        | 57                       | serine        | 87                       |
| alanine        | 71                       | threonine     | 101                      |
| phenylalanine  | 147                      | methionine    | 131                      |
| valine         | 99                       | tryptophane   | 186                      |
| leucine        | 113                      | aspartic acid | 115                      |
| isoleucine     | 113                      | glutamic acid | 129                      |
| proline        | 97                       | arginine      | 156                      |
| cystine        | 222                      | histidine     | 137                      |
| tyrosine       | 163                      | lysine        | 128                      |
| hydroxyproline | 113                      | asparagine    | 114                      |