

22 Analysis (spectroscopy) – Part 2 — Answers

Answers

Work through these after trying the questions yourself.

22.1 The relative molecular mass (M_r) of the whole molecule.

22.2 At the highest m/e value (the right-hand end).

22.3 A loss of $46 - 31 = 15$, which is a CH_3 (methyl) group.

22.4 Bromine (a 1:1 ratio).

22.5 A 3:1 ratio ($M^+ : [M+2]$).

22.6 Bromine. An $[M+2]$ peak about the *same* height as M^+ (a 1:1 ratio) is the fingerprint of bromine's two isotopes (^{79}Br and ^{81}Br), which occur in almost equal amounts.