

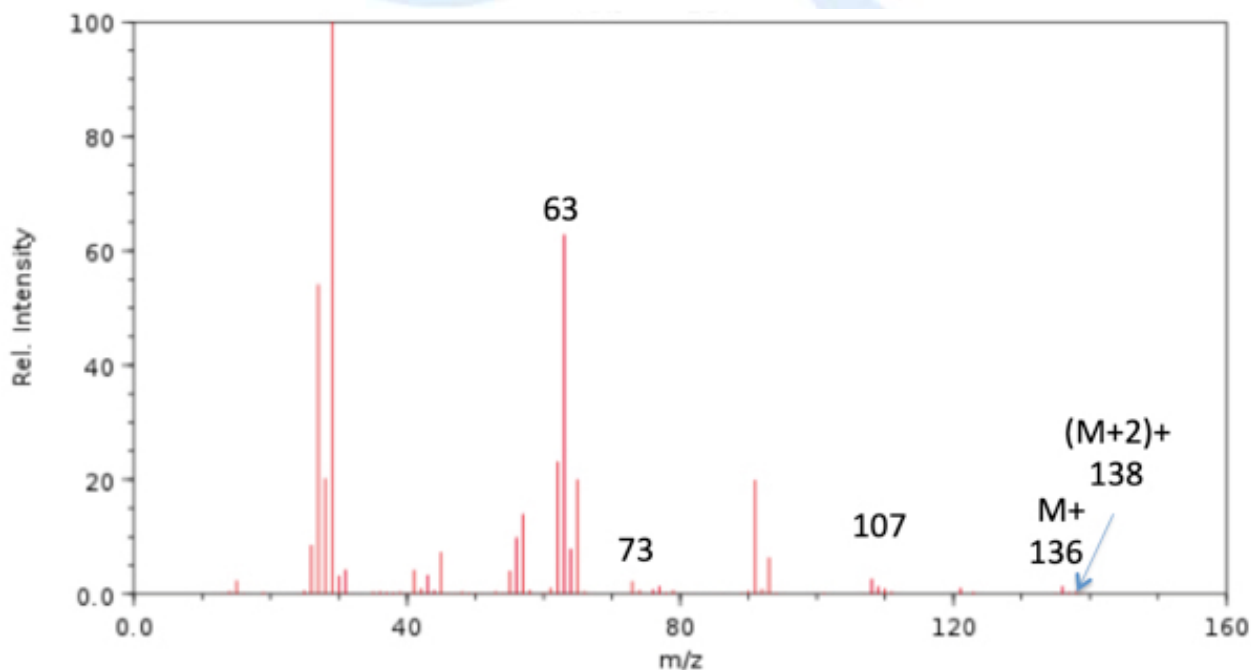
HL Spectroscopic identification of organic compounds: Question 16

Identify **Compound P** from the data (a – d) given and explain how you arrived at your answer

(a) Elemental analysis of Compound P

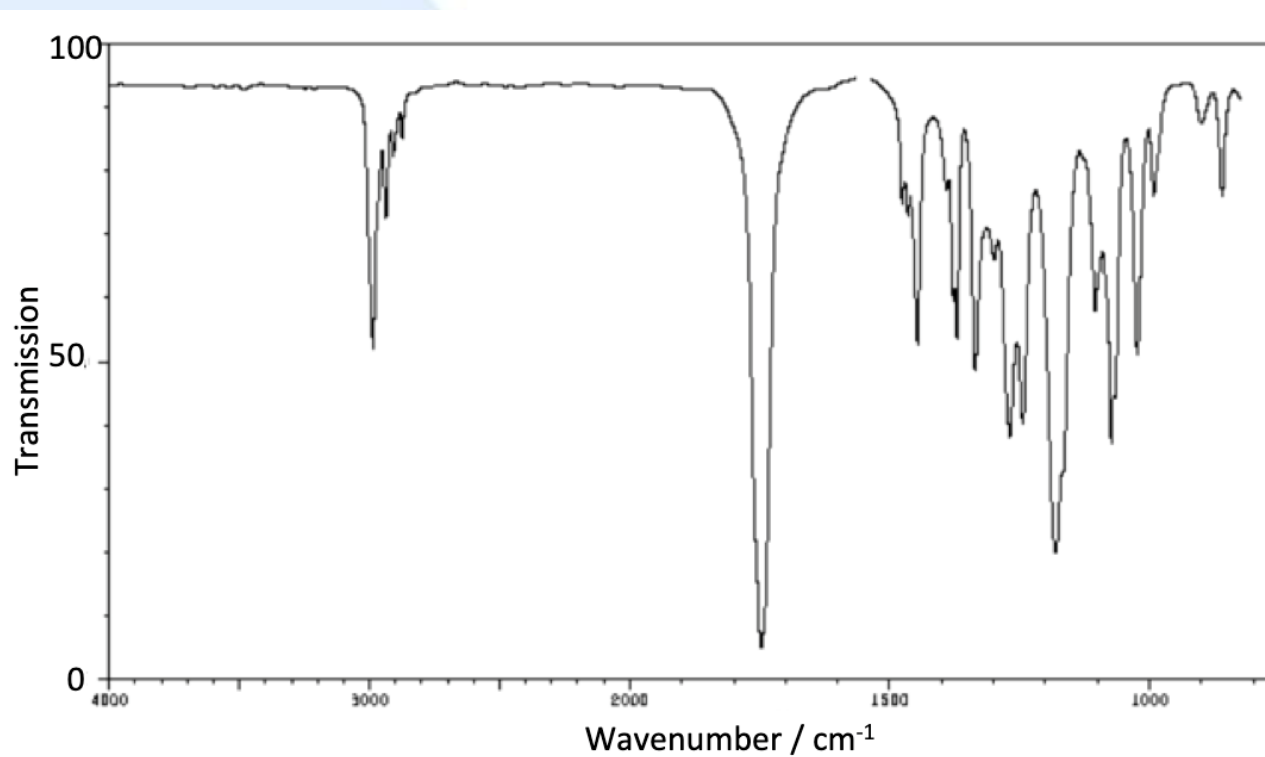
Element	Percentage by mass
Carbon	43.96
Hydrogen	6.66
Oxygen	23.43
Chlorine	25.95

(b) Mass spectrum of Compound P



NIST Chemistry WebBook (<https://webbook.nist.gov/chemistry>)

(c) Infrared spectrum of **Compound P**



https://www.ebiochemicals.com/Wiki/QcEB000011202_IR_1.html



(d) ^1H NMR spectrum of **Compound P** (expanded signals shown in blue and integration trace shown in black. Source: <https://orgspectroscopyint.blogspot.com>)

