

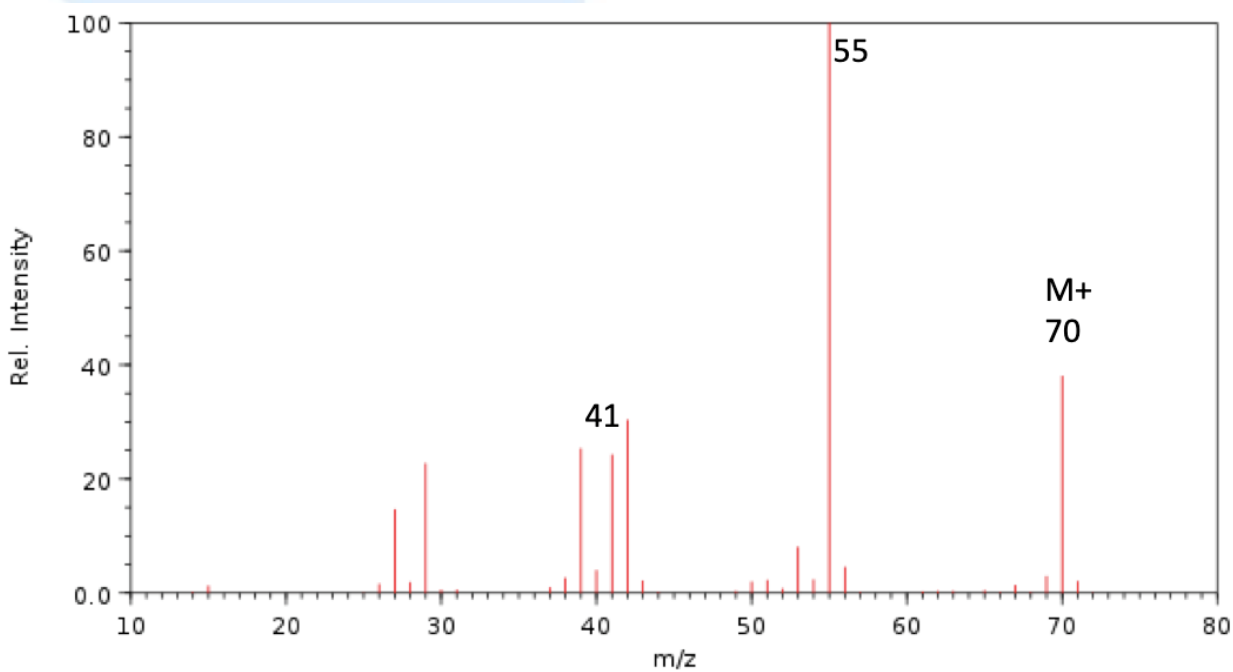
HL Spectroscopic identification of organic compounds: Question 20

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

(a) Elemental analysis of **Compound T**

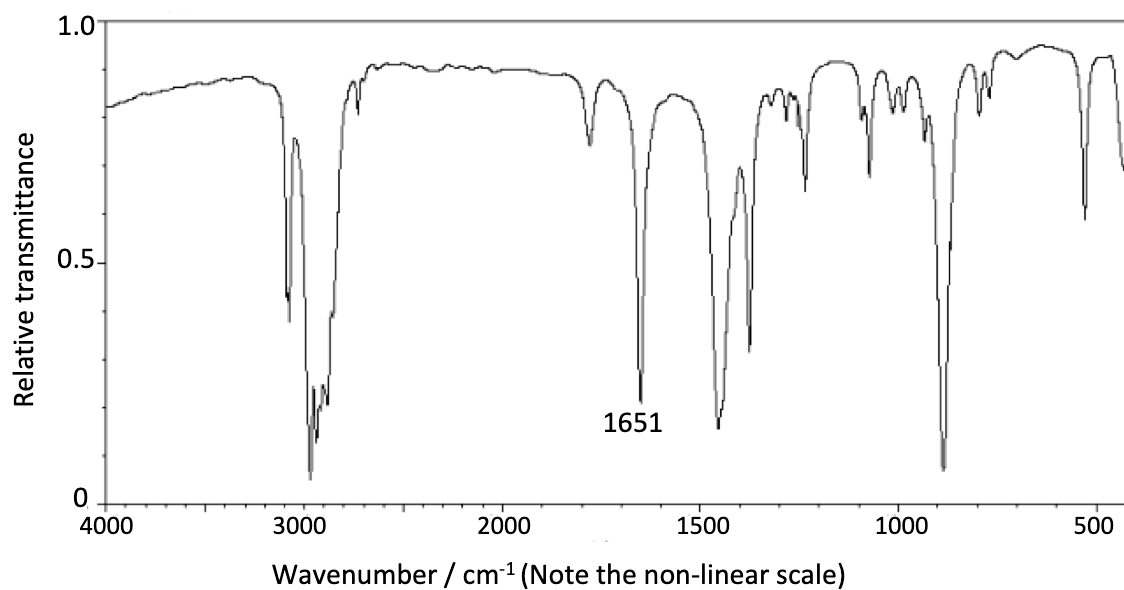
Element	Percentage by mass
Carbon	85.60
Hydrogen	14.40

(b) Mass spectrum of **Compound T**



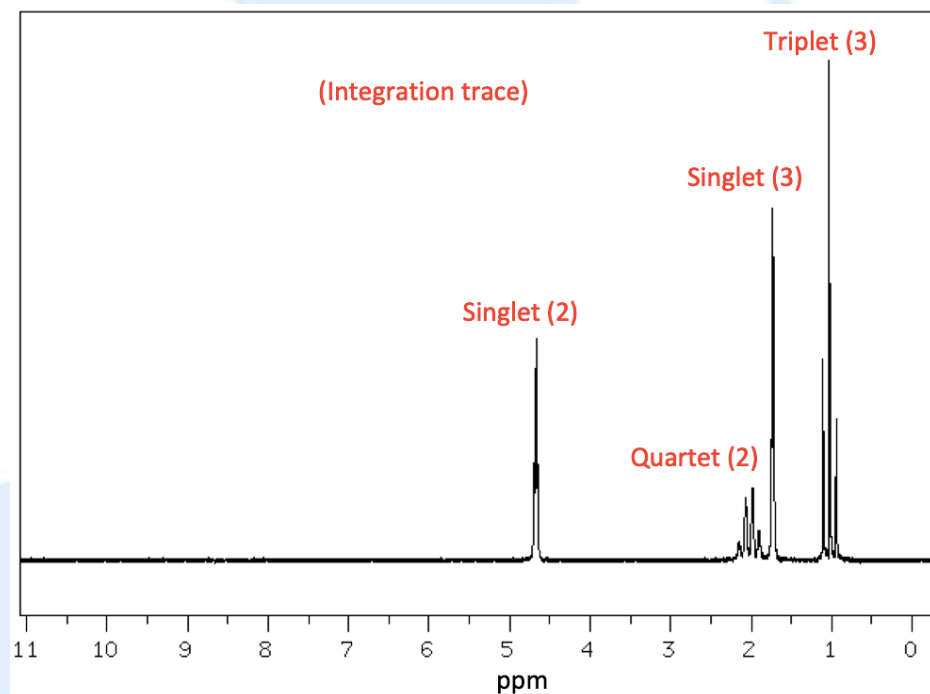
NIST Chemistry WebBook (<https://webbook.nist.gov/chemistry>)

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



Source: https://www.chemicalbook.com/SpectrumEN_563-46-2_IR1.htm

(d) ¹H NMR spectrum of **compound T**



Source: https://www.chemicalbook.com/SpectrumEN_563-46-2_1HNMR.htm