

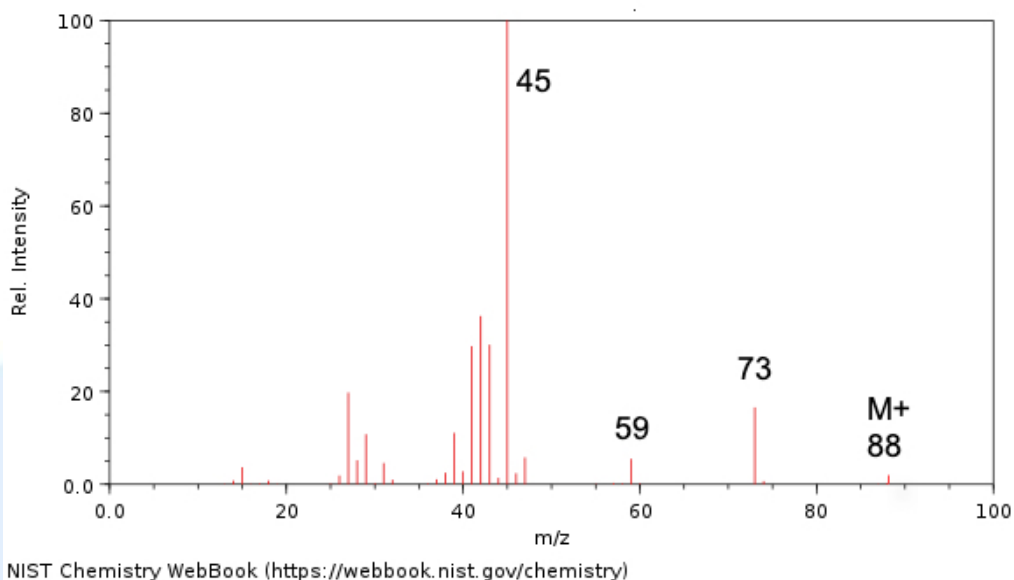
## SL & HL Spectroscopic identification of organic compounds: Question 8

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

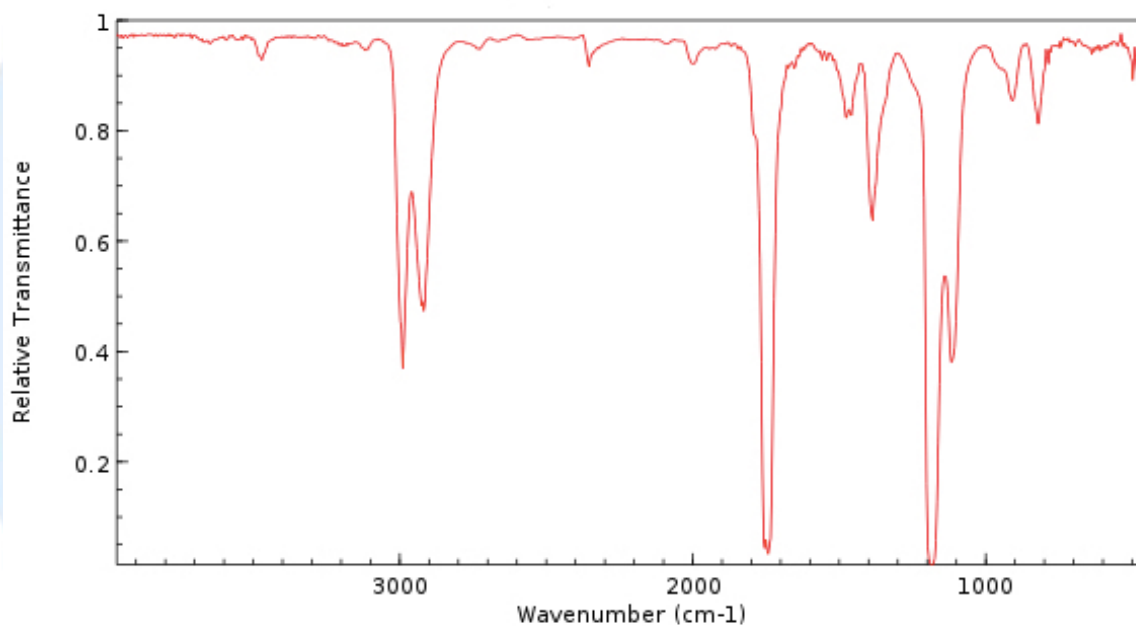
### (a) Elemental analysis of **compound H**

Element	Percentage by mass
Carbon	54.52
Hydrogen	9.17
Oxygen	36.31

### (b) Mass spectrum of **compound H**



(c) Infrared spectrum of **compound H**



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

(d) Information about **compound H** from  $^1\text{H}$  NMR spectrum

Position of signal / $\delta$ ppm	Integration trace
0.9	3
1.5	2
4.2	2
8.1	1