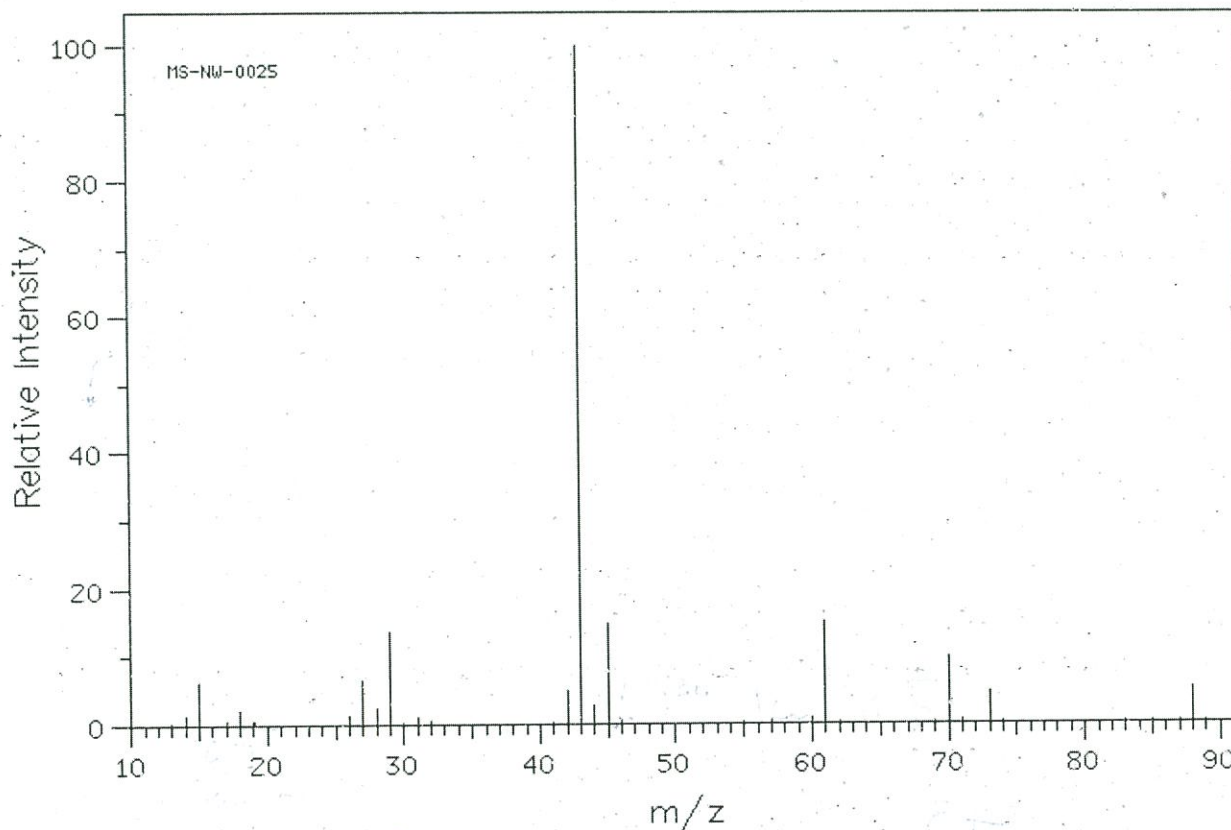


## Organic Chemistry II

CHM 224

Consider the mass spectrum, below, of an ester (contains only C, H and O).



molecular ion 88

base peak 43

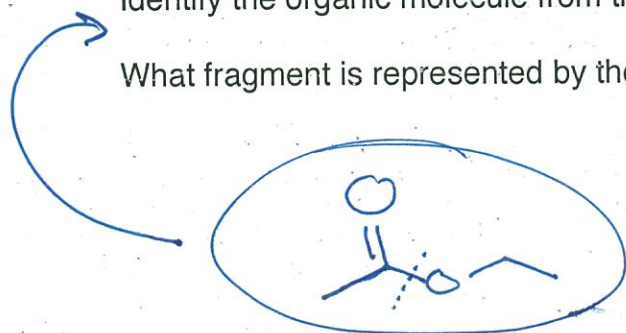
molecular formula  $C_4H_8O_2$ 

degree of unsaturation 1

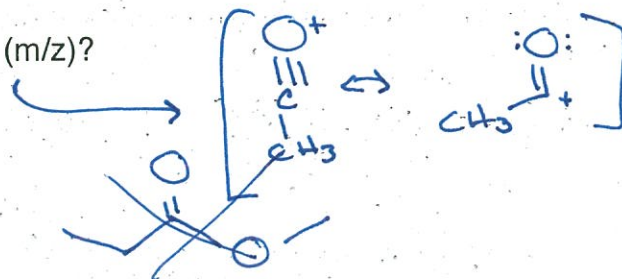
$$\begin{array}{r} 88 \\ -32 \\ \hline 56 \end{array}$$

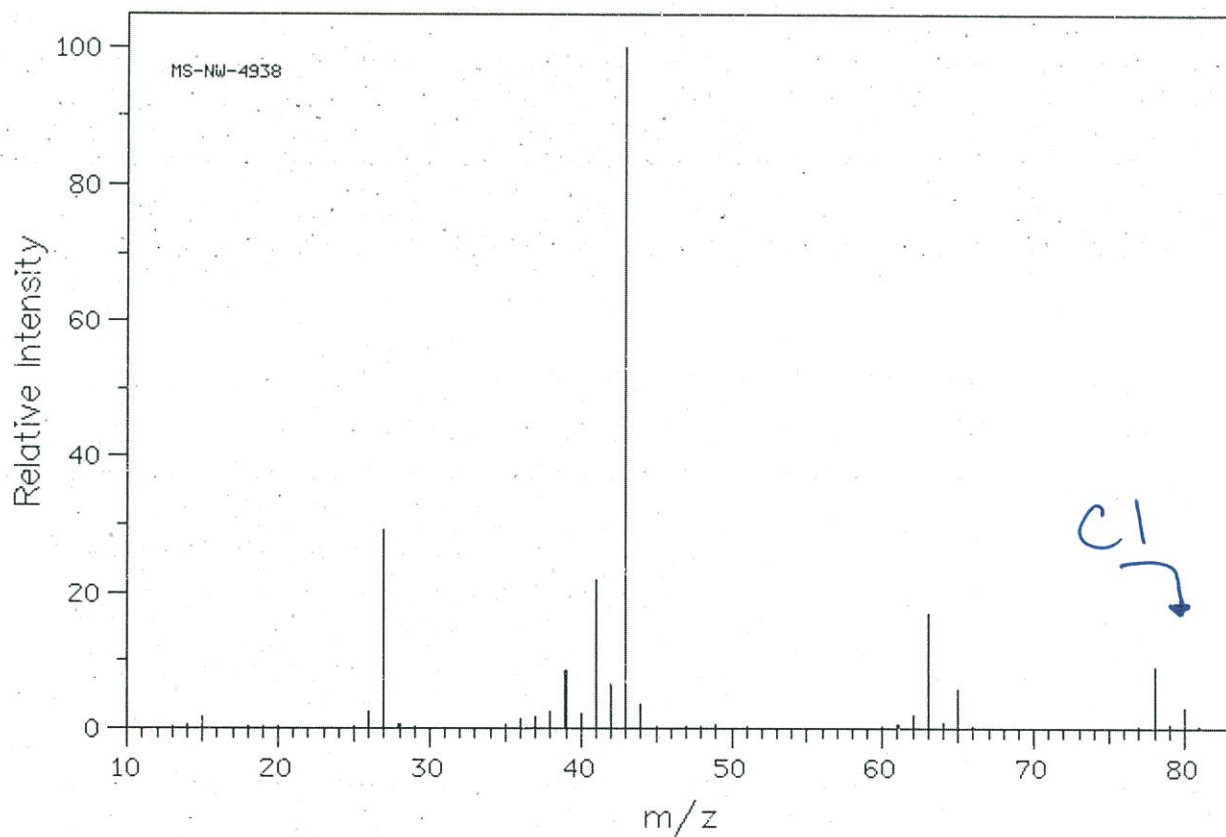
Identify the organic molecule from the information given in the spectrum

What fragment is represented by the peak at 43 (m/z)?



vs





molecular ion 78 w/  $^{35}\text{Cl}$

base peak 43

$$\begin{array}{r} 78 \\ - 35 \\ \hline 43 \end{array}$$

molecular formula  $\text{C}_3\text{H}_7\text{Cl}$

degree of unsaturation 0

Identify the organic molecule.



What fragment is represented by the peak at 43 (m/z)?

