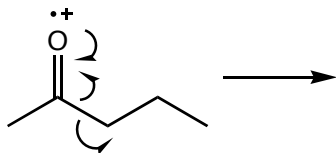
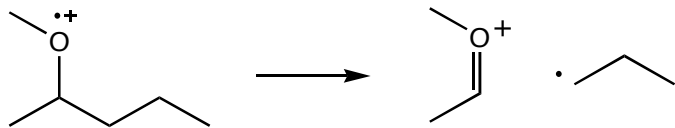


1. a. Determine the products of the following fragmentation reaction,  
b. Circle the fragment that would be observed in the mass spectrum,  
c. Determine its mass to charge ( $m/z$ ) ratio.

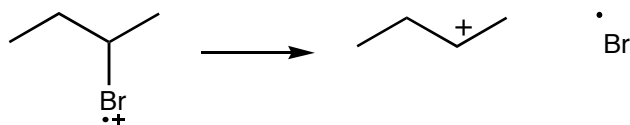


2. a. Label the following reactions as either a heterolytic or a homolytic cleavage reaction.  
b. Circle the fragmentation product that would be seen in the mass spectrum, and  
c. Calculate its mass to charge ( $m/z$ ) ratio.

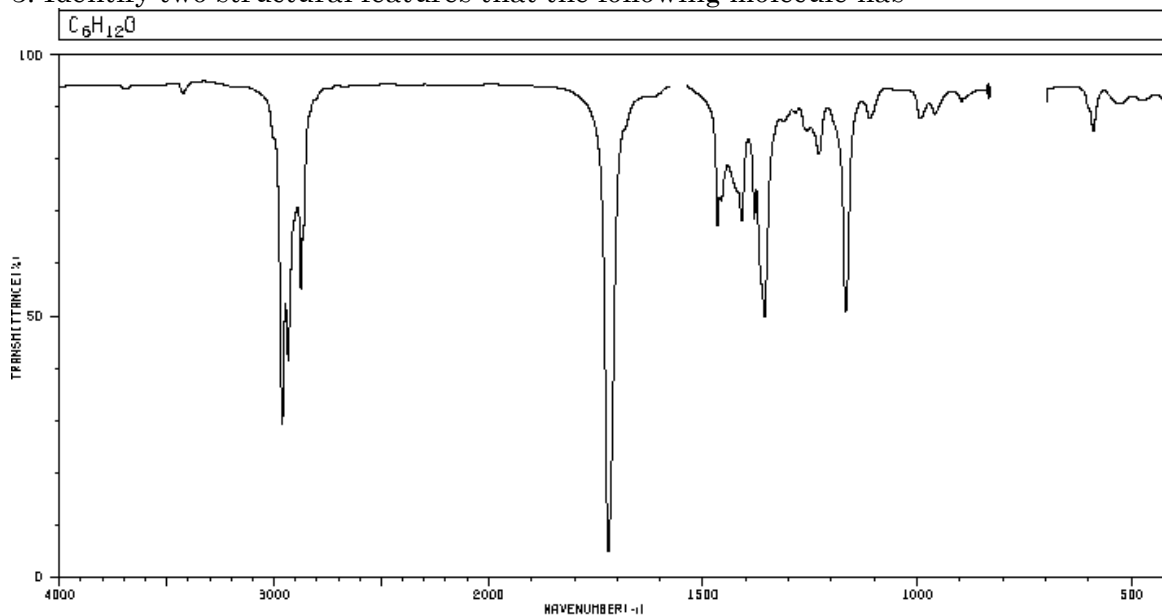
i.



ii.



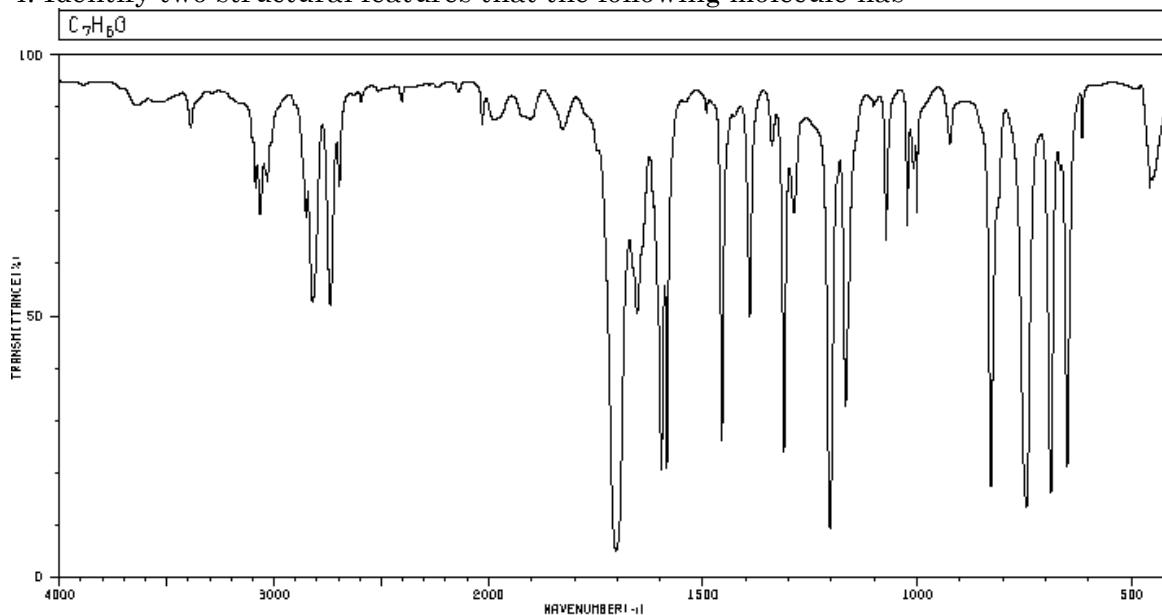
3. Identify two structural features that the following molecule has



2962	28	1466	64	1167	49
2934	39	1457	70	1111	84
2875	53	1420	70	994	84
2866	62	1410	66	959	84
1721	4	1380	66	602	86
1557	95	1358	47	595	84
1552	95	1230	77	589	81



4. Identify two structural features that the following molecule has



3086	72	1981	84	1597	20	1204	8	828	16
3065	65	1916	84	1584	20	1168	31	745	13
3031	72	1909	84	1456	25	1073	62	688	15
2850	66	1901	84	1391	47	1023	64	667	74
2820	50	1828	81	1339	79	1008	74	650	20
2738	50	1703	4	1311	23	1001	65	615	51
2696	72	1654	49	1288	88	924	79	457	72