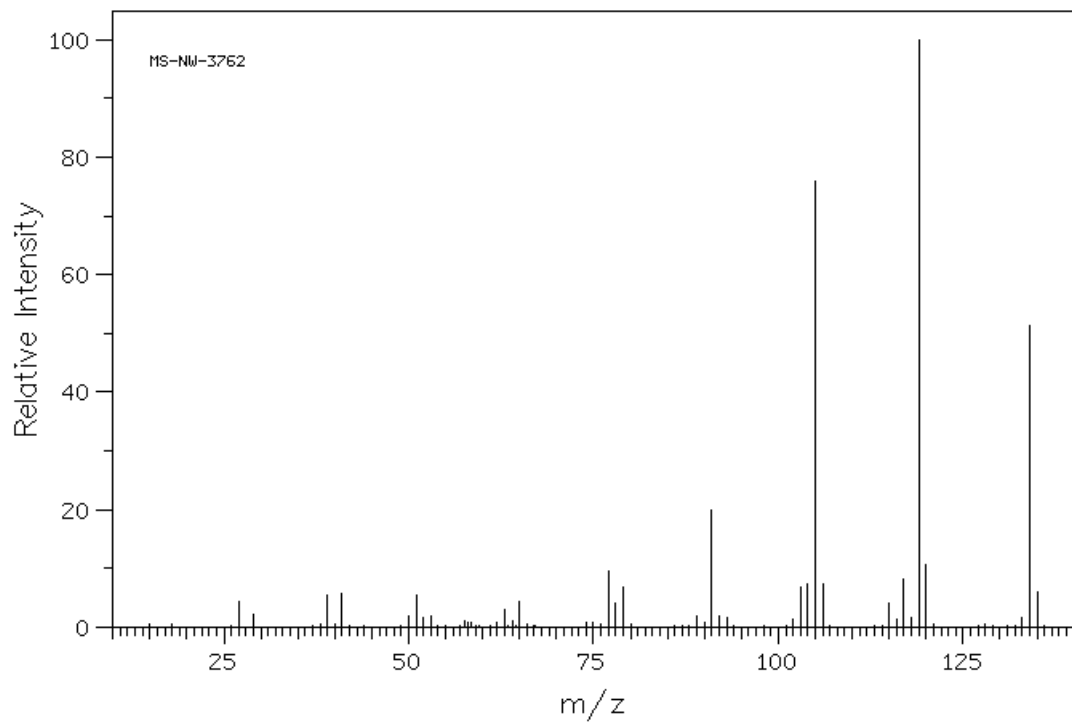
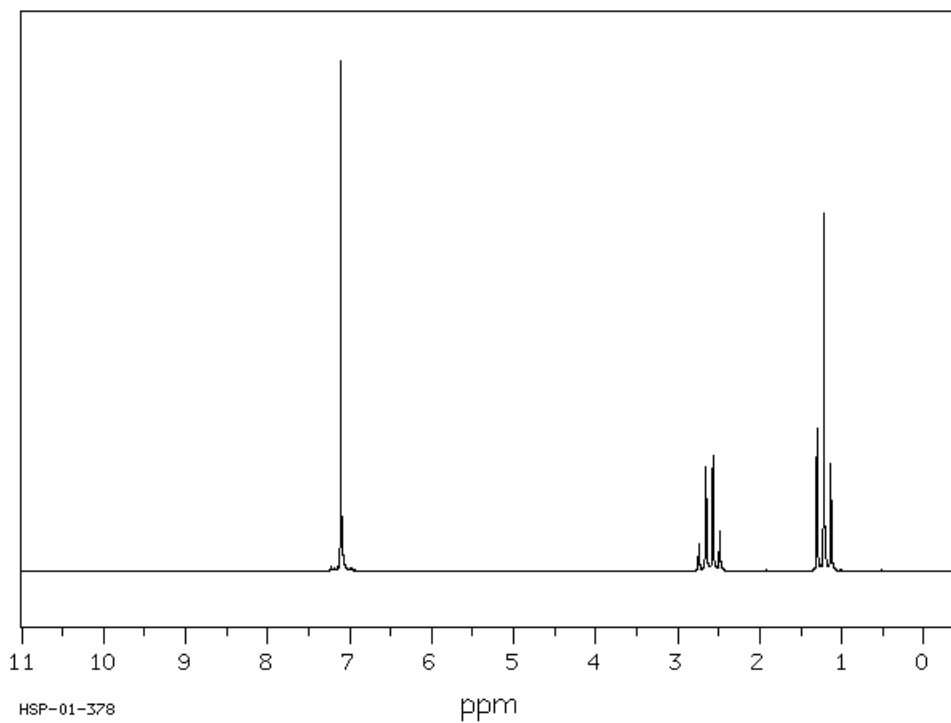


1.

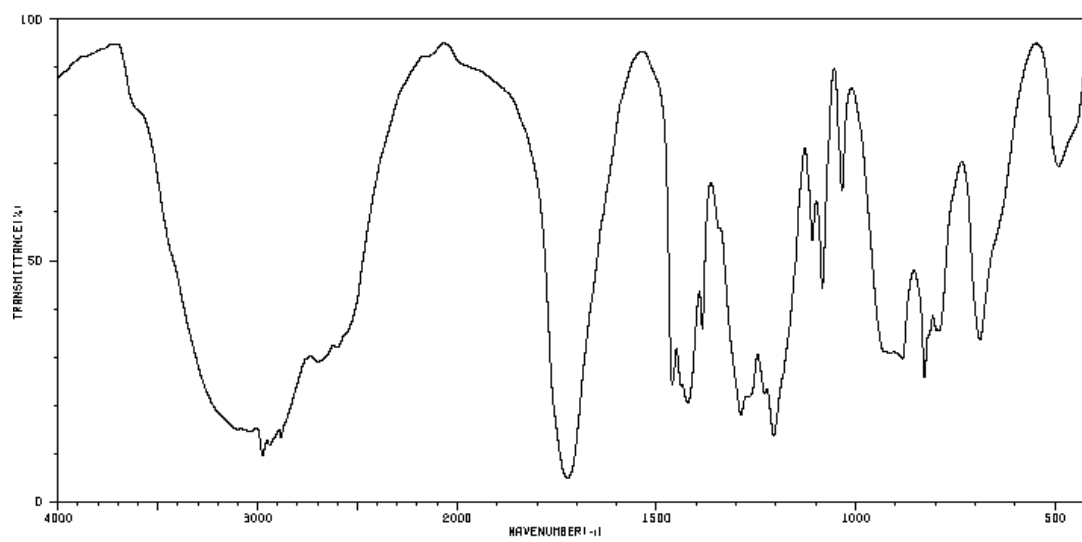


134, 119, 105

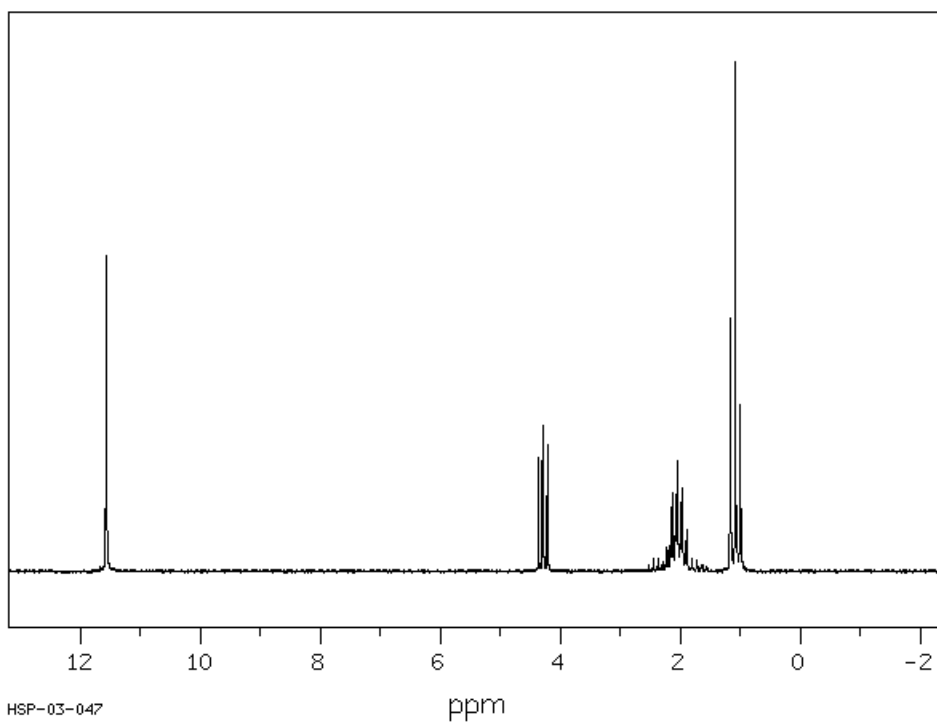


7.1 singlet (1.00), 2.6 quartet (1.00), 1.2 triplet (1.50)

2. $\text{ClC}_4\text{H}_7\text{O}_2$

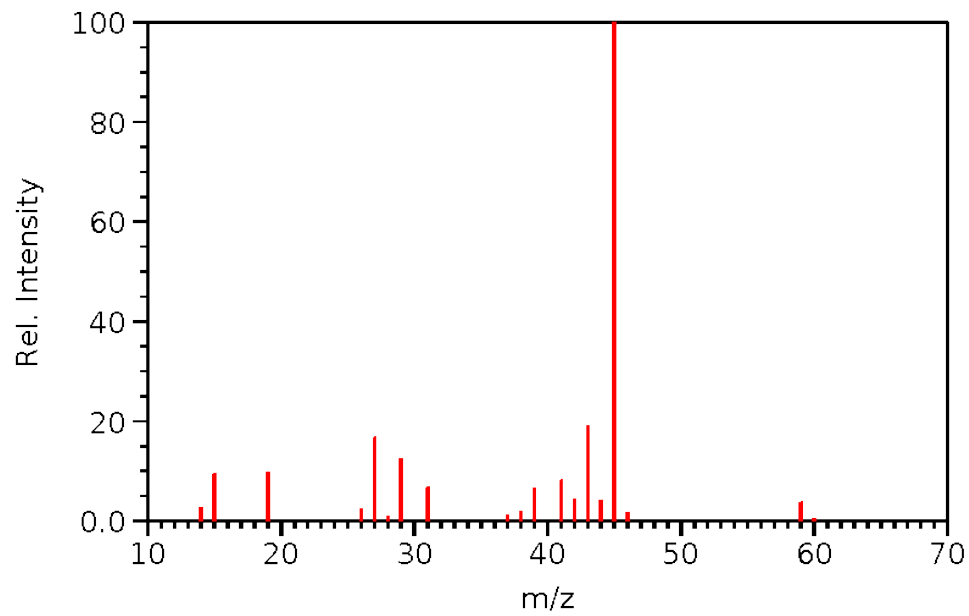


3500 – 2500, 2940, 1720

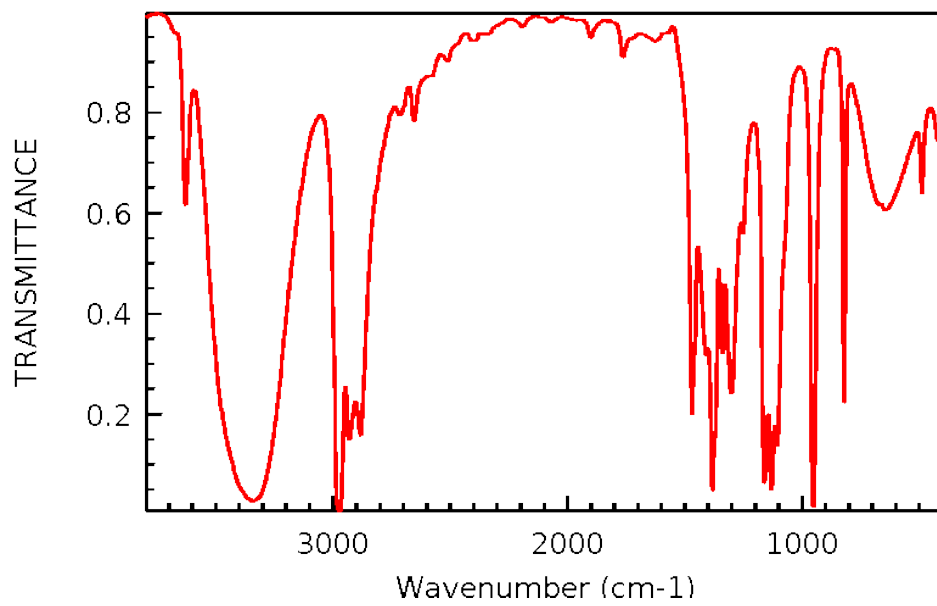


11.6 singlet (1.00), 4.288 triplet (1.00), 2.1 complex (2.00),
1.089 triplet (3.00)

3. ¹³C NMR 25 and 64

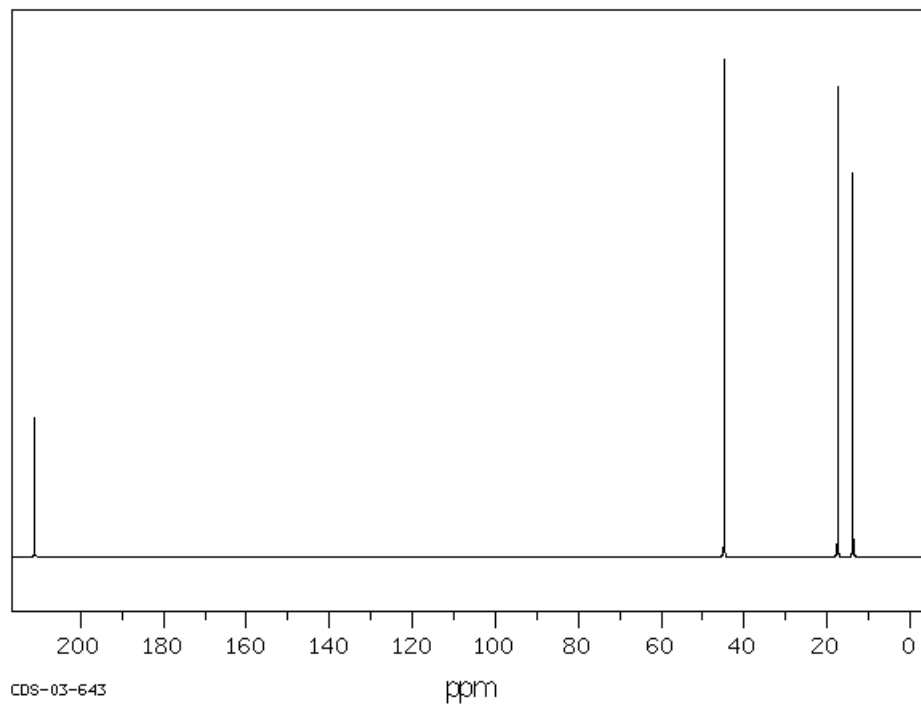


60, 45

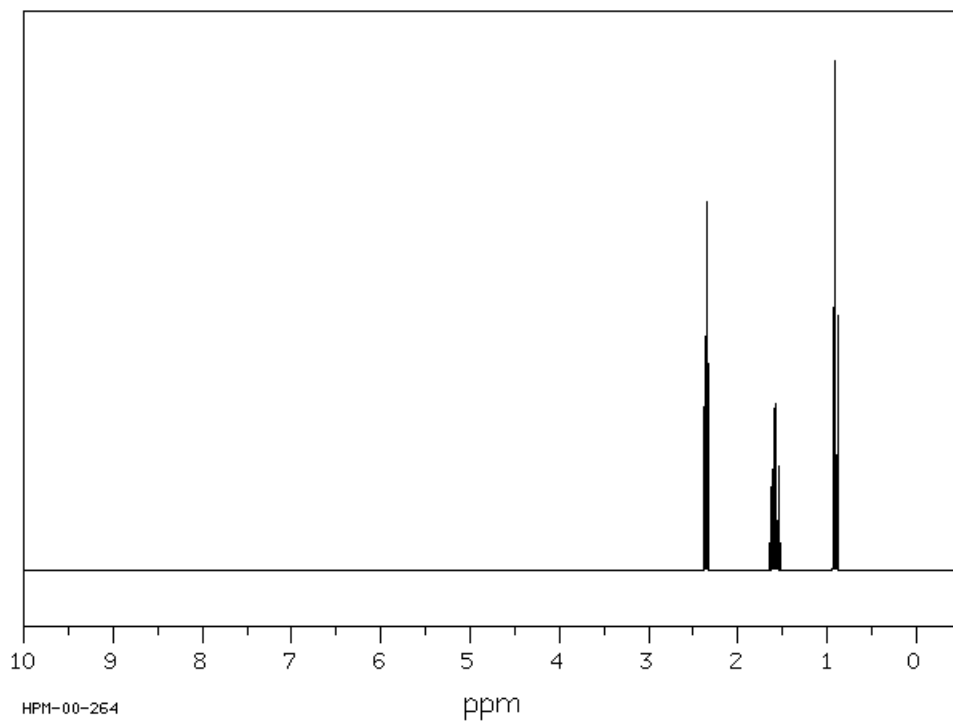


3350, 2970, 1140

4. MW 114.2

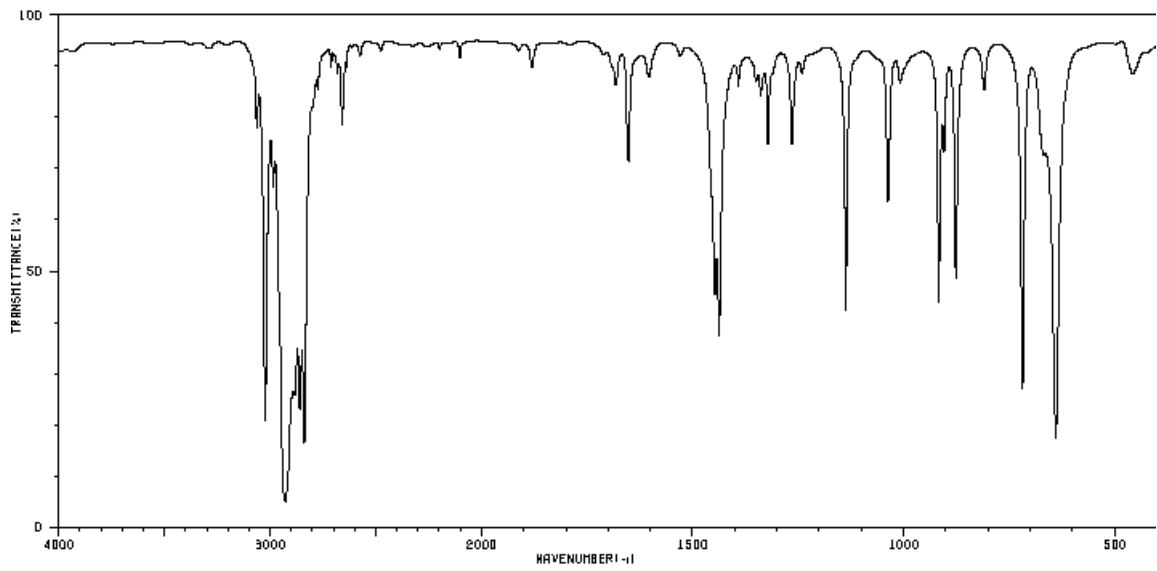


14, 17, 45, 211

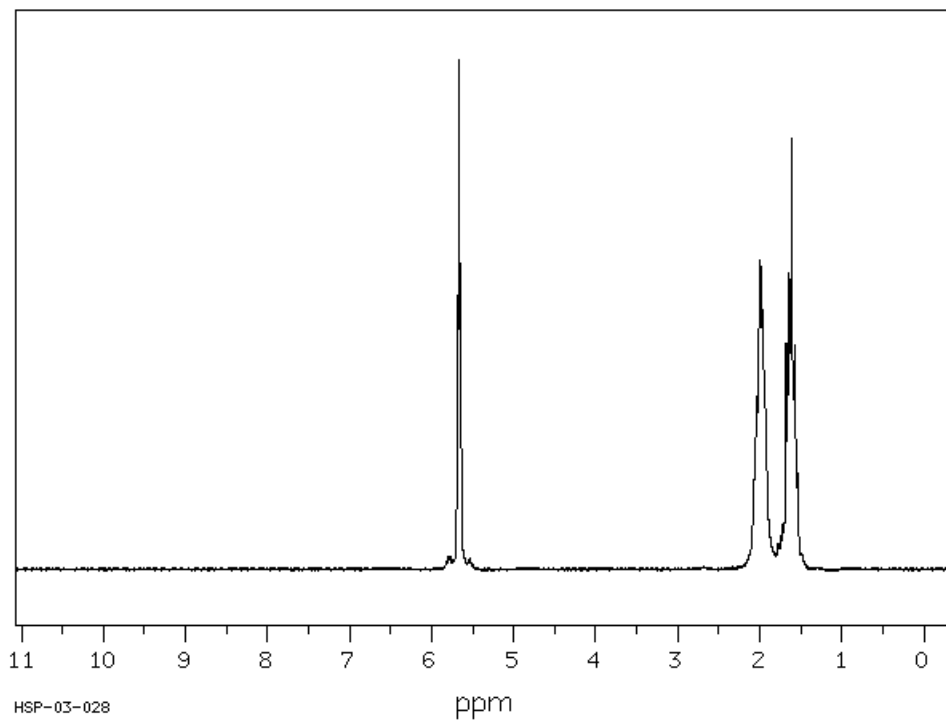


2.4 triplet (1.00), 1.6 complex (1.00), 0.9 triplet (1.50)

5. MW 82.1



3020, 2930, 1650



5.7 triplet (1.00), 2.0 complex (2.00), 1.6 triplet (2.00)