

Unknown A

(Figure 9.20 Solomons 7th ed.)

- Formula: C_3H_7I
- IHD = 0
- No IR data provided
- 1H NMR δ : 1.90 (d, 6H), 4.33 (sept., 1H)

Unknown B

(Figure 9.20 Solomons 7th ed.)

- Formula $C_2H_4Cl_2$
- IHD = 0
- No IR data given
- 1H NMR δ : 2.03 (d, 3H), 4.32 (quartet, 1H)

Unknown C

(Figure 9.20 Solomons 7th ed.)

- Formula: $C_3H_6Cl_2$
- IHD = 0
- No IR data given
- 1H NMR δ : 2.20 (pent., 2H), 3.62 (t, 4H)

Unknown A

(Figure 14.27 Solomons 7th ed.)

- Formula = C_9H_{12}
- IHD = 4
- No IR data given
- 1H NMR δ : 1.26 (d, 6H), 2.90 (sept., 1H),
7.1-7.5 (m, 5H)

Unknown B

(Figure 14.27 Solomons 7th ed.)

- Formula = $C_8H_{11}N$
- IHD = 4
- IR shows two medium peaks between 3300 and 3500 cm^{-1}
- 1H NMR δ : 1.4 (d, 3H), 1.7 (s, br, 2H),
4.1 (quart., 1H), 7.2-7.4 (m, 5H)

Unknown C

(Figure 14.27 Solomons 7th ed.)

- Formula = C₉ H₁₀
- IHD = 5
- No IR data given
- ¹H NMR δ: 2.05 (pent., 2H),
2.90 (trip., 4H), 7.1-7.3 (m, 4H)

Unknown H

(Figure 9.48 Solomons 7th ed.)

- Formula = $C_3H_4Br_2$
- IHD = 1
- No IR data given
- 1H NMR δ : 4.20 (2H), 5.63 (1H), 6.03 (1H)

Unknown Y

(Figure 14.34 Solomons 7th ed.)

- Formula = $C_9H_{12}O$
- IHD = 4
- IR shows a strong, broad, absorbance centered at 3400 cm^{-1}
- $^1\text{HNMR } \delta$: 0.85 (t, 3H), 1.75 (m, 2H),
4.38 (s, br, 1H), 4.52 (t, 1H),
7.2-7.4 (m, 5H)