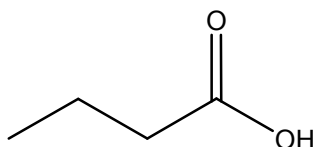


PROBLEM 13.3½

(a) Rank the following compounds from lowest to highest boiling point:

A = butanoic acid (MW ≈ 88g):



B = C₆H₁₄ (MW ≈ 86g)

C = pentanal (MW ≈ 86g)

D = 2-pentanol (MW ≈ 88g)

E = 2-pentanone (MW ≈ 86g)

(b) Rank the following compounds from least water-soluble to most water-soluble.

- Which of the following compound(s) would probably be miscible in water?
- Which of the following would probably be insoluble in water?

A = butanal

D = nonanal

B = ethanal

E = 3-pentanone

C = methanal

F = 2-propanone