

1. Indicate the intermolecular forces present in the following molecules. Which would you expect to have the higher boiling point? (4 pts)



vs

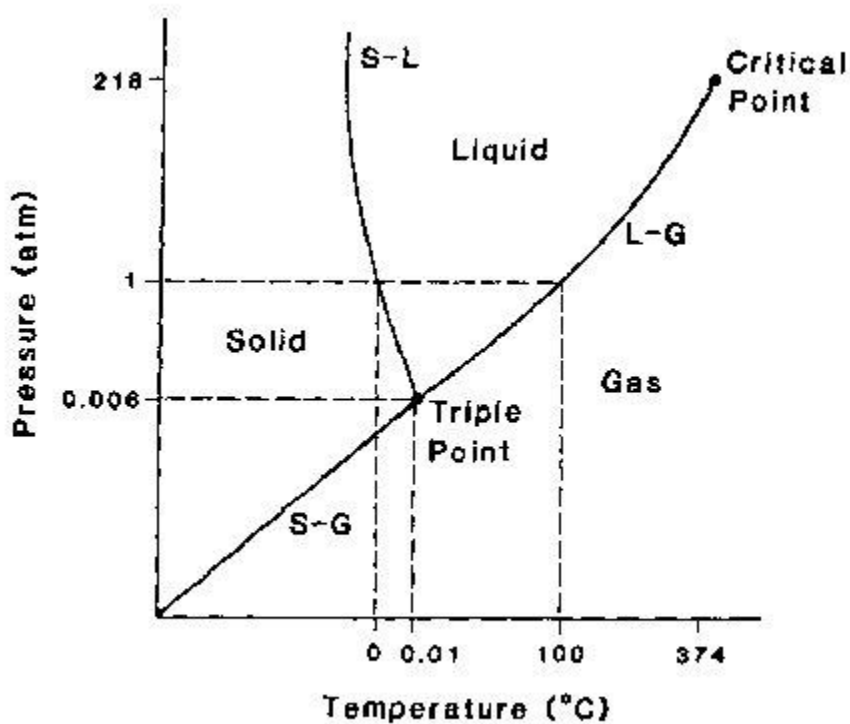


H-bonding

Dispersion Forces

NH_3 would have the higher boiling point.

2. Below is the phase diagram for water. (6 pts)



a. What phase is present at 2 atm and 20 °C?

Liquid

b. What is the highest pressure H_2O will condense?

218 atm

c. Is it possible to form liquid H_2O at 380 °C?

No, because the critical temperature (374 °C) is below 380 °C.