# 9.2: Chapter 2

## 2.1

$$\Delta = 428 - \sqrt{432 \times 239}$$
$$= 106.6 \ kJ \ mol^{-1}$$
$$= 25.48 \ kcal \ mol^{-1}$$

$$\chi_{Cl} - \chi_H = 0.208 \times \sqrt{25.48},$$

$$\chi_{Cl} = 2.1 + 1.05 = 3.15$$

## 2.2

In a $\sigma$ bond, a bonding orbital is a centrosymmetric g orbital, whereas an antibonding orbital is a non-centrosymmetric u orbital.