

## 9.2: Chapter 2

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### 2.1

$$\begin{aligned}\Delta &= 428 - \sqrt{432 \times 239} \\ &= 106.6 \text{ kJ mol}^{-1} \\ &= 25.48 \text{ kcal mol}^{-1}\end{aligned}$$

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

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

### 2.2

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

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