

## CHEM106 PS6

1. McQuarrie 17-19
2. McQuarrie 17-49
3. McQuarrie 18-1
4. McQuarrie 18-3
5. McQuarrie 18-29
6. McQuarrie 18-33
7. For an enzyme-catalyzed reaction, calculate the fraction of enzyme sites filled with substrate when the substrate concentration is  $2/3$  of the Michaelis constant ( $K_M$ ).
8. Use the thermodynamic tables in your text to calculate the change in Gibbs Free Energy for conversion of the diamond form of carbon into the graphite form of carbon at a temperature of 298 K. Based upon your calculations, is this a spontaneous process? Based upon your experience, is this a spontaneous process? Fully explain why.