

**Homework #4**

1. Calculate the contribution of each normal mode to the molar vibrational heat capacity of water at 600 K. Then use the NIST webbook to find  $\tilde{\nu}$  for H<sub>2</sub>O. Use this information to determine which normal mode is contributing the most to C<sub>v</sub> at 600 K.
2. Exercises 3, 5-11 in “A Summary of Statistical Thermodynamic Calculations” – stat\_thermo.mcd – found on the course (section 001) Moodle site. You’ll probably want to save it and then open it (rather than download it).