Energy Quiz
Chemistry 112
Winter 2006

Give a brief answer to the following questions. Do not tell me all you know about everything, as I will deduct points for irrelevant information.

1. State the mechanical version of conservation of energy.

2. State the thermodynamic version of conservation of energy, i.e., the first law of thermodynamics.

3. Explain the difference between heat and work at the microscopic level. A diagram would be really helpful here.

4. Draw a graph of a standard intermolecular potential energy curve. Draw a horizontal line on your graph to indicate what level of average kinetic energy would result in a gas and another that would be a liquid or solid.

5. A liquid can evaporate under conditions where that liquid is stable. Explain this in few sentences using what you know about the kinetic energies of molecules.