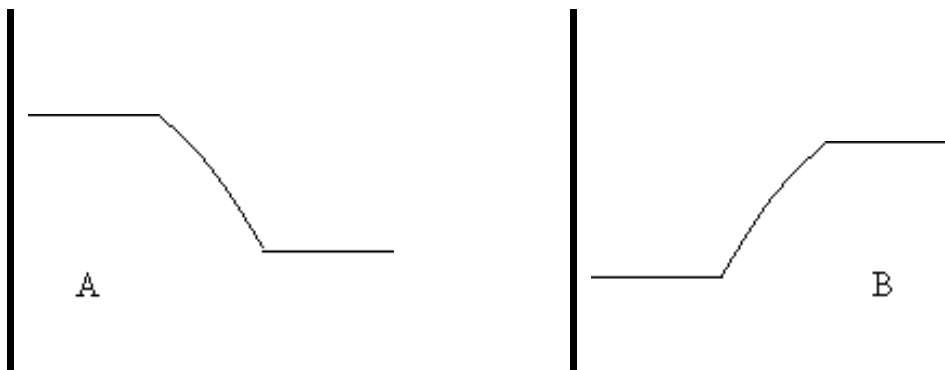


## Chemical Potential Energy and Phase Changes

- 1) Which of the following chemical potential energy diagrams best represents water freezing. Explain.



- 2) Draw a chemical potential energy diagram for liquid butane turning into butane gas.

- 3) Why is the process described and drawn in #2 useful in air conditioning and refrigeration.

- 4) Draw a chemical potential energy diagram for water vapor changing phase into liquid water. Why does this help explain the extreme danger of steam burns?