

Pre Task on Padlet- Chemistry



Anonymous 4d
ETHAN
Pressure, reduces the potential energy by pushing particles closer together. Increases KE as the particles need to move faster to withstand increased pressure. This increases internal energy.
Temperature - temperature increase causes higher KE in the substance because temperature by definition is the kinetic energy of the particles. It does not affect the Potential energy. Thus increasing temperature increases internal energy.
Velocity- no effect
GPE- no effect
State of matter
Solids - lowest KE , potential energy and internal energy
Liquids - second highest KE, potential energy and internal energy
Gas - highest KE , potential energy and internal energy.
The values for kinetic energy have been compared by looking at the different levels of vibrational movement in the different states.
The potential energy is calculated based on the distance between particles in the states.

Anonymous 5d
Trudie
Temperature is directly proportional to kinetic energy so as temperature increases kinetic energy increases hence affecting the internal energy of the substance.
Change in state will affect the internal energies as the intermolecular bonds are weakened/ broken so will increase the distance between the particles. Therefore increasing potential energy. The velocity of an object will not affect the kinetic energy of the particles but will only affect the kinetic energy of the object. Therefore internal energy is constant.
Change in gravitational field will not affect either potential or kinetic energies so the internal energy is constant.

Anonymous 5d
Frank
 $dU = Q + W$
Therefore the factors that affect the internal energy (U) will be heat energy and work done energy, both by the molecules in the gas. A change in heat will give the molecules more kinetic energy. Work done is caused by an decrease in pressure as the molecules are overcoming the attraction between themselves, therefore work is being done when the system expands.

Anonymous 5d
Andres
-Pressure applied to the substance will not change the internal energy
-Temperature of the substance will change the internal energies as it will either increase or decrease the amount of kinetic energy that the particles in the object have.
-Velocity of the object will not affect the internal energy since it affects the object as a whole so there is no change in the individual particles
- State of matter will change the potential energy as the substance will have to either gain or lose potential energy to change state
-Change in position in a gravitational field will not affect the internal energy

Anonymous 5d
Freddy
Pressure does not change internal energy
Temperature affects internal energy because as the temperature increases so does KE therefore the particles have more internal energy
Velocity of an object does not affect the internal energy
The state of matter of an object will affect internal energy because each state of matter has different amounts of potential energy which affects internal energy
Change in position in a gravitational field has no affect

Science 6d
Which of the following are factors that affect the internal energy of a substance and which are factors that do not affect the internal energy of a substance? For those that affect the internal energy explain how.
Pressure applied to the substance
Temperature of the substance
Velocity of the object
State of matter
Change in position in a gravitational field

Anonymous 5d
Phillippa
Pressure: increasing pressure will push the particles closer together, this will increase the strength of the intermolecular forces between whilst decreasing the potential energy

Anonymous 5d
Dylan
• A change in pressure will result in a change of PE as higher pressure causes the particles to be closer

Anonymous 5d
Yousuf
Pressure affects the internal energy if the pressure applied affects the temperature or it is at a high pressure as work is being done on the particles