

GLOSSARY

C

calorimetry an experimental procedure used to measure the energy transferred from one substance to another as heat (372)

H

heat the energy transferred between objects because of a difference in their temperatures (365)

heat of fusion the energy per unit mass transferred in order to change a substance from solid to liquid or from liquid to solid at constant temperature and pressure (378)

heat of vaporization the energy per unit mass transferred in order to change a substance from liquid to vapor or from vapor to liquid at constant temperature and pressure (378)

I

internal energy the energy of a substance due to the random motions of its component particles and equal to the total energy of those particles (359)

L

latent heat the energy per unit mass that is transferred during a phase change of a substance (379)

P

phase change the physical change of a substance from one state (solid, liquid, or gas) to another at constant temperature and pressure (377)

S

specific heat capacity the quantity of energy needed to raise the temperature of 1 kg of a substance by 1°C at constant pressure (371)

T

thermal conduction the process by which energy is transferred as heat through a material between two points at different temperatures (383)

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thermal equilibrium the state in which two bodies in physical contact with each other have identical temperatures (360)