

Energy and Chemical Change

Reviewing Vocabulary

Match the definition in Column A with the term in Column B.

Column A

- _____ 1. The ability to do work or produce heat
- _____ 2. States that energy cannot be created or destroyed
- _____ 3. Energy flowing from a warmer to a cooler object
- _____ 4. The study of heat changes from chemical reactions and phase changes
- _____ 5. Energy stored in a substance because of its composition
- _____ 6. Heat required to raise the temperature of one gram of a substance by one degree Celsius
- _____ 7. An insulated device measuring the heat absorbed or released during a chemical or physical process
- _____ 8. The system plus the surroundings
- _____ 9. States that spontaneous processes always proceed in such a way that the entropy of the universe increases
- _____ 10. Everything in the universe other than the system
- _____ 11. The change in enthalpy in a chemical reaction
- _____ 12. A balanced chemical equation that includes the physical states of all reactants and products and the energy change that accompanies the reaction
- _____ 13. A system's heat content at constant pressure
- _____ 14. Energy required to vaporize one mole of a liquid
- _____ 15. Enthalpy change occurring when one mole of a compound in its standard state forms from its constituent elements in their standard states
- _____ 16. Energy required to melt one mole of a solid
- _____ 17. A physical or chemical change without outside intervention
- _____ 18. The enthalpy change for the complete burning of one mole of a substance
- _____ 19. Energy that is available to do work
- _____ 20. The SI unit of heat and energy

Column B

- a. calorimeter
- b. standard enthalpy (heat) of formation
- c. chemical potential energy
- d. heat
- e. law of conservation of energy
- f. specific heat
- g. free energy
- h. energy
- i. thermochemical equation
- j. enthalpy (heat) of reaction
- k. molar enthalpy (heat) of fusion
- l. molar enthalpy (heat) of vaporization
- m. second law of thermodynamics
- n. spontaneous process
- o. joule
- p. thermochemistry
- q. enthalpy (heat) of combustion
- r. universe
- s. enthalpy
- t. surroundings