

For each of the following thermodynamic terms in the first list, choose the appropriate description chosen from the second list.

1. Control volume
 2. Property
 3. Intensive property
 4. State
 5. Equilibrium state
 6. Process
 7. Quasi-equilibrium process
 8. Path
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- A. Whatever is under study
 - B. A property whose value for an overall system is the sum of its values for the parts into which the system is divided
 - C. Everything external to the system
 - D. A property whose value is independent of the size or extent of a system
 - E. A fixed quantity of matter
 - F. Distinguishes the system from its surroundings
 - G. Series of states for a process
 - H. Slow process where the system is always infinitesimally close to equilibrium at each state along the path
 - I. A macroscopic characteristic of a system to which a numerical value can be assigned at a given time without knowledge of the previous behavior of the system
 - J. A region of space through which mass may flow
 - K. Change of system from one equilibrium state to another
 - L. Condition where when a system is isolated from its surroundings, there are no observable changes in properties over time
 - M. The condition of a system as described by its properties

SOLUTION:

1. Control volume: J. A region of space through which mass may flow
2. Property: I. A macroscopic characteristic of a system to which a numerical value can be assigned at a given time without knowledge of the previous behavior of the system
3. Intensive property: D. A property whose value is independent of the size or extent of a system
4. State: M. The condition of a system as described by its properties.
5. Equilibrium state: L. Condition where when a system is isolated from its surroundings, there are no observable changes in properties over time.
6. Process: K. Change of system from one equilibrium state to another
7. Quasi-equilibrium process: H. Slow process where the system is always infinitesimally close to equilibrium at each state along the path
8. Path: G. Series of states for a process.