

Characteristics of gases.

- (1) Gases or their mixtures are homogeneous in composition.
- (2) Gases have very low density due to negligible intermolecular forces.
- (3) Gases have infinite expansibility and high compressibility.
- (4) Gases exert pressure.
- (5) Gases possess high diffusibility.
- (6) Gases do not have definite shape and volume like liquids.
- (7) Gaseous molecules move very rapidly in all directions in a random manner i.e., gases have highest kinetic energy.
- (8) Gaseous molecules are loosely packed having large empty spaces between them.
- (9) Gaseous molecules collide with one another and also with the walls of container with perfectly elastic collisions.
- (10) Gases can be liquified, if subjected to low temperatures (below critical) or high pressures.
- (11) Thermal energy of gases \gg molecular attraction.
- (12) Gases undergo similar change with the change of temperature and pressure. In other words, gases obey certain laws known as **gas laws**.