

Molecular treatment

Molecular treatment of properties of matter, elasticity; Hooke's law, Young's shear and bulk moduli. Hydrostatics; Pressure, buoyancy. Archimedes' Principles. Hydro dynamics; Stream-lines, Bernoulli and continuity equations, turbulence, Reynold's number; viscosity; laminar flow, poiseuille's equation. Surface tension, adhesion, cohesion, capillarity, drops and bubbles. Temperature; the zeroth law of thermodynamics; heat: gas laws; laws of thermodynamics; Kinetic theory of gases. Applications.