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LUMINOUS ETHER →

The electromagnetic wave theory of light established the fact that light waves are transverse waves and can be polarized.

- * Since transverse waves require some medium for propagation, it was assumed that light propagates through a medium called ether.
- * Maxwell put forward the idea of ether with following properties
 - (1) The space in the entire universe is filled up with the medium called ether which is difficult to conceive.
 - (2) It possesses zero density and perfectly transparent.
 - (3) It possesses very high elasticity.
 - (4) Penetrates all the matter and fills the whole space.

EINSTEIN'S SPECIAL THEORY OF RELATIVITY

Einstein proposed the special theory of relativity in 1905. This theory deals with the problems of mechanics in which one frame moves with constant velocity relative to the other frame.

The two postulates of the special theory of relativity are:

(1) The laws of physics are the same in all inertial systems. No preferred inertial system exists.

(2) The speed of light (c) in free space has the same value in all the inertial systems.