

APPLICATIONS OF LENZ'S LAW :

i) Electric Generators :

* Lenz's law determines the direction of the induced EMF in a generator, which converts mechanical energy into electrical energy.

ii) Electric Motors :

* Lenz's law explains how the interaction between the magnetic fields and the induced EMF creates a torque that drives the motor.

iii) Induction cooktops :

* Lenz's law is used in induction cooktops, which are electric stoves used for cooking.

iv) Braking system in trains :

Lenz's law is used in the braking system of trains

v) Transformers :

Lenz's law is an essential concept in the design of transformers, which are used to transfer electrical energy between circuits.

vi) Inductors :

Inductors are electronic components that store energy in their magnetic field when a current flows through them.

vii) Card readers, microphones and metal detectors :

Lenz's law is used in card readers, microphones and metal detectors.

viii) Eddy current dynamometers :

Lenz's law is used in eddy current dynamometers.