

Continued 2:-

Electron movement

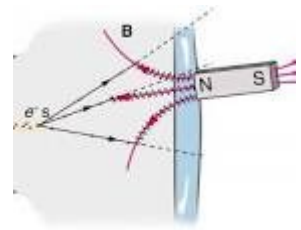
By controlling the flow of electrons in a circuit using electric fields and magnetic fields, energy can be transferred and used to perform work by applying a resistance across the differential voltage of the circuit.

In an electronic valve (tube), this control is the electric field applied to the grid, and is used to amplify sound amongst other things. In STEAP it is the magnetic field applied between the two capacitive halves of the unit. The magnetic field in STEAP is produced by the externally wound coils, **the routing coils**. The electric field in STEAP is between the capacitor plates.

From AI:-
Quote.

AI Overview

A magnetic field exerts a force on electrons, causing them to deflect from their original path and potentially move in a circular or helical trajectory. This interaction arises because electrons, being charged particles, experience the Lorentz force when moving through a magnetic field. The direction of deflection depends on the electron's velocity, the magnetic field's direction, and the electron's negative charge.



Here's a more detailed explanation:

- **Lorentz Force:**

Charged particles, like electrons, experience a force when moving through a magnetic field. This force is described by the Lorentz force law: $F = q(v \times B)$, where F is the force, q is the charge of the particle, v is the velocity of the particle, and B is the magnetic field.

- **Deflection:**

Because electrons have a negative charge, the force exerted on them is always **perpendicular to both their velocity and the magnetic field direction**. This perpendicular force causes the electron to deflect from its straight path.

- **Circular/Helical Motion:**

If the electron's velocity is not parallel to the magnetic field, the force will cause it to move in a circular or helical path. The radius and direction of this path depend on the **electron's velocity**, the **magnetic field strength**, and the **electron's charge**.

- **No Speed Change:**

While a magnetic field can change the direction of an electron's **velocity** (and thus its momentum), it does not change its **speed**. This is because the magnetic force acts perpendicular to the velocity, so it does no work on the electron.

As you can see, this is known science but not put together in the correct way so as to take advantage of higher energy electrons. Electrons are not created, just their energy value has been changed by a bi-product of charge displacement, collecting electrons on different capacitive plates with different voltages. Created is a situation where the plates are either more positive or less positive, as opposed to all positive and all negative as in DC. Arising from this is a differential output where both are positive leads. By placing a **resistive** load across the output, current is created which is only subject to that resistance, a dead short would give infinite current if there is no protection.

It is the output that ultimately creates the collision of the electrons from two separate capacitive charges within STEAP. Obtaining excess energy is all to do with the manipulation of unpaired electrons which are there to start with, circulating around the atom of certain metals as has been explained at the beginning. This is not transformation in this case, it is not ionisation, but converting between lower to higher and back to lower electron energy levels, extracting the difference in a clever way by using capacitance, and the design of multiple charge separation giving a differential output, two positive sources to one output. The individual voltages of the internal capacitances may change, but the differential voltage is ALWAYS the same, it is extremely stable.